IEEE

ISBI 2026

2026 IEEE International Symposium on Biomedical Imaging

April 8-11, 2026 | London, UK

THE INTERNATIONAL SYMPOSIUM ON BIOMEDICAL IMAGING

SYMPOSIUM PROGRAM

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Welcome Message

Welcome to ISBI 2026 – London, UK!

On behalf of the Organising Committee, it is our great pleasure to welcome you to the **23rd International Symposium on Biomedical Imaging (ISBI 2026)**, jointly organised by the IEEE Signal Processing Society (SPS) and the IEEE Engineering in Medicine and Biology Society (EMBS). We are delighted to gather at **ExCeL London** in the dynamic city of London, UK, from **April 8 to April 11, 2026.**

LONDON, UK. As a global centre of culture, history, science, and innovation, London offers an exceptional setting for ISBI 2026. The United Kingdom has a long tradition of major contributions to science, engineering, and medicine, making it a fitting host for a symposium devoted to advancing biomedical imaging research and its clinical impact. We hope that, alongside the scientific program, you will also enjoy the city's distinctive combination of historic heritage and international outlook.

PROGRAM AND COMMUNITY. ISBI is a leading forum for the mathematical, algorithmic, and computational aspects of biological and biomedical imaging across all scales of observation. This year, ISBI attracted **2,069 submissions** across all categories. Of the **1,750 non-withdrawn contributions** entering the review and decision process, **893 were accepted**, corresponding to an overall **acceptance ratio of 51.0%.** The final program includes **425 oral presentations, 289 poster presentations, 116 accepted 1-page abstracts**, and **63 additional accepted challenge and workshop contributions**. These numbers reflect the scale, vitality, and international reach of the ISBI community, which this year brings together **over 900 registered participants** from **57 countries** and **635 institutions** worldwide.

The scientific breadth of the conference is reflected in the distribution of topics. The largest submission areas include **Artificial Intelligence for Image Analysis (944 submissions), Computer-Aided Detection, Diagnosis, Treatment Selection, and Prognosis (529), Computational and Statistical Image Processing and Analysis (395), Image Segmentation (386), and Image Formation and Reconstruction (279).** These numbers illustrate both the continued growth of AI-driven biomedical imaging and the strong representation of core imaging science.

ISBI 2026 also reflects a highly international research community. The submission pool involved **7,513 authors from more than 75 countries and territories**, while accepted papers included **3,929 authors from more than 50 countries and territories.** Among accepted papers, the largest author contributions came from the **USA, China, the United Kingdom, France, India, Germany, Australia, Korea, Italy, Spain, and Japan.** At the regional level, accepted papers show a broadly balanced international distribution, with authors from **Europe (33.4%), Asia/Pacific (33.5%), the United States (27.1%), the Middle East and Africa (2.8%), Canada (1.6%),** and **Latin America (1.6%).**

REVIEW PROCESS. The quality of the program is the result of a major collective effort by our community. The review process engaged **995 unique reviewers**, who completed **4,209 reviews** overall, corresponding to an average of **2.4 reviews per active paper**. Most active papers received multiple expert evaluations, with **1,066 papers receiving three completed reviews.** We are deeply grateful to all reviewers, Area Chairs, and Track Chairs for their time, rigour, and commitment.

Welcome Message (Cont.)

KEYNOTES. Every day will feature plenary talks from distinguished leaders in the field. We are honoured to welcome this year's keynote speakers:

- **Dr. Faisal Mahmood** (Harvard Medical School; Brigham and Women's Hospital; Massachusetts General Hospital, USA)
- **Dr. Greg Slabaugh** (Queen Mary University, London, UK)
- **Dr. Mauricio Reyes** (University of Bern, Switzerland)
- **Dr. Polina Golland** (Massachusetts Institute of Technology, USA)
- **Dr. Bram van Ginneken** (Radboud University Nijmegen, The Netherlands)

TUTORIALS, CHALLENGES & DEMOS. To complement the main technical program, ISBI 2026 features tutorials, challenges, and live demonstrations that provide opportunities for hands-on engagement with emerging methods, benchmark problems, and translational technologies. These activities are designed to stimulate discussion, encourage reproducibility, and support interaction across methodological and application domains.

CLINICAL DAY & SPECIAL SESSIONS. Bridging engineering innovation and clinical practice remains central to ISBI. Our **Clinical Day** highlights how AI and new imaging technologies can address unmet needs in patient care and support the path from research to deployment. Special Sessions further extend the program with focused discussions on timely and emerging topics, including foundation models, safety and reliability, personalised biomedical modelling, and privacy-aware, data-efficient AI in healthcare.

NETWORKING AND INCLUSION. Faithful to the values of the ISBI community, the conference offers many opportunities for scientific exchange and professional connections. Through social events, informal interactions, and **Lunch With Leaders** sessions, attendees will be able to meet peers, share ideas, and build new collaborations across disciplines, institutions, and countries.

OUR THANKS. We extend our sincere appreciation to the Organizing Committee, Steering Committee, reviewers, session chairs, authors, speakers, volunteers, and IEEE staff for their dedication and support. Above all, we thank all participants for contributing to ISBI 2026. We hope this symposium will be intellectually stimulating, welcoming, and productive, and that it will foster new ideas, new collaborations, and lasting connections for the future of biomedical imaging.

Sincerely,
The ISBI 2026 Organising Committee

Guang Yang General Co-Chair Imperial College London, UK	Angelica Aviles-Rivero General Co-Chair Tsinghua University, China	Carola-Bibiane Schönlieb TPC Co-Chair Cambridge University, UK	Alex Frangi TPC Co-Chair The University of Manchester, UK

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Carola-Bibiane Schönlieb, Cambridge University, UK

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Caroline Johnson, SPS
Samantha Esposito, SPS
Tara Wysocki, EMBS
Tingyang Chen, EMBS

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Pingkun Yan, Rensselaer Polytechnic Institute, USA
Karim Lekadir, Universitat de Barcelona, ES
Tao Tan, Macao Polytechnic University, MO

Tutorial Chairs

Xiaoyi Jiang, University of Münster, Germany
Juan Eugenio Iglesias, Harvard Medical School, USA
Mingxia Liu, University of North Carolina at Chapel Hill, USA

Special Session and Workshop Chairs

Amir Amini, University of Louisville, USA
Archana Venkataraman, Boston University, USA
Scott Wagers, BioSci Consulting, Belgium

Clinical Event Chairs

Evandro Fei Fang, Akershus University Hospital, Norway
Konstantinos Palikaras, University of Athens, Greece
Zunlei Feng, Zhejiang University, China

Student and Young Professional (YP) Activity Chairs

Harini Veeraraghavan, Memorial Sloan Kettering Cancer Center, USA
Zongyuan Ge, Monash University, Australia

Organizing Committee (cont.)

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Mingxia Liu, University of North Carolina at Chapel Hill, USA
Maria A. Zuluaga, EURECOM, France

Social and Cultural Chair

Georgios Papanastasiou, Archimedes Unit, Athena Research Centre, Greece

International Relation Chairs

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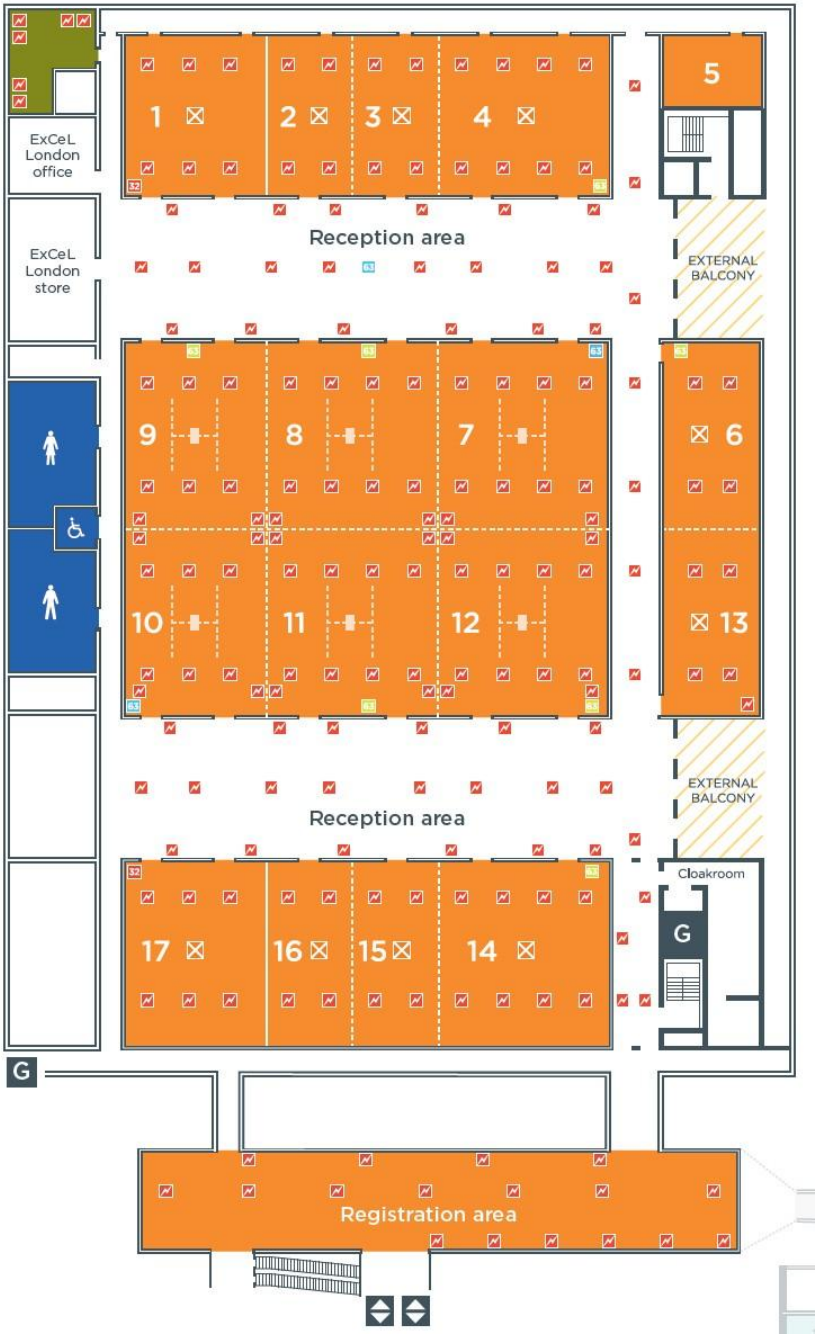
Conference Venue

The ICC Capital Suite at ExCeL London

The Capital Suite is a dedicated conference center within ExCeL London, offering panoramic views of the River Thames and London skyline, private access, and a range of flexible, modern meeting spaces designed to accommodate an international audience. Attendees will enjoy state-of-the-art facilities, high-speed connectivity, and seamless logistics in an elegant, self-contained setting.

Royal Victoria Dock
1 Western Gateway
London E16 1XL, United Kingdom
+44 20 7069 5000

Venue Map


ExCeL London office
ExCeL London store
1
2
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Reception area
EXTERNAL BALCONY
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EXTERNAL BALCONY
Reception area
Cloakroom
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Registration area

Keynote Speakers

Why medical image analysis should be open. Really open, not open as OpenAI

Thursday | April 9, 2026 | 9:00 – 10:00

Bram van Ginneken, Radboud University, The Netherlands

Abstract: We have passed a tipping point in medical image analysis. Interpreting medical images for the direct benefit of patients, once the exclusive domain of human specialists, can now be done by computers, thanks to the breakthrough of deep learning.

This should affect our choice of research topics. This new agenda is the topic of this talk. I will identify topics that we should focus less on, such as developing yet another segmentation method that is shown to be superior to a poorly implemented baseline, and topics that should receive more attention, such as developing methods for efficient data annotation and benchmarking.

Above all, I will argue that science should be much more open to have more impact. I will show the devastating effect of keeping results closed, leading to excessive research waste. Our publications nowadays contain sections on 'Code availability' and 'Data availability' and this is where authors write down creative excuses why they do not share their code and data. This should change.

Multimodal, Generative, and Agentic AI for Healthcare

Thursday | April 9, 2026 | 14:00 – 15:00

Faisal Mahmood, Harvard Medical School; Brigham and Women's Hospital; Massachusetts General Hospital, USA

Abstract: Advances in digital pathology and artificial intelligence have presented the potential to build models for objective diagnosis, prognosis and therapeutic-response and resistance prediction. In this talk we will discuss our work on: (1) Data-efficient methods for weakly-supervised whole slide classification with examples in cancer diagnosis and subtyping (Nature BME, 2021), identifying origins for cancers of unknown primary (Nature, 2021) (2) Discovering integrative histology-genomic prognostic markers via interpretable multimodal deep learning (Cancer Cell, 2022; IEEE TMI, 2020; ICCV, 2021; CVPR, 2024; ICML, 2024). (3) Building unimodal and multimodal foundation models for pathology, contrasting with language and genomics (Nature Medicine, 2024a, Nature Medicine 2024b, CVPR 2024). (4) Developing a universal multimodal generative co-pilot and chatbot for pathology (Nature, 2024). (5) 3D Computational Pathology (Cell, 2024)

Keynote Speakers (cont.)

Robustness by Design: Clinical Metrics for Imaging AI

Friday | April 10, 2026 | 9:00 – 10:00

Mauricio Reyes, University of Bern, Switzerland

Abstract: Progress in medical imaging AI is often measured by improvements in benchmark performance. However, in clinical practice, average or peak accuracy is rarely what determines real-world impact. What matters instead is how systems fail, how they behave over time, and how effectively humans can detect, understand, and correct these failures.

In this keynote, I argue that clinical value in AI should be designed and evaluated around three principles: robustness, reliability, and resilience. Together, these dimensions shift the focus from static performance metrics to the dynamics of failure, adaptation, and long-term system behavior.

Using examples from medical imaging research and deployed AI systems, I will illustrate how clinically meaningful metrics emerge from analyzing failure patterns, temporal drift, and human-in-the-loop interactions. I will further show how interpretability can act as a learning signal, enabling actionable model improvement rather than post-hoc explanation, and discuss the implications of this perspective for the next generation of multimodal and foundation models in healthcare.

AI for Image-Guided Navigation

Friday | April 10, 2026 | 14:00 – 15:00

Polina Golland, MIT, USA

Abstract: Machine learning has brought major improvements in image registration and segmentation accuracy in the context of large medical image datasets. In this talk, I will discuss our recent work that aims to similarly advance real-time image intervention guidance. We have developed a novel approach to rapid 2D/3D registration that is specifically designed to support image-guided interventions where a 3D volume (CT or MRI) is acquired preoperatively and 2D images (such as X-ray) are used to support navigation during the procedure. XVR is a fully automated framework for training patient-specific neural networks for 2D/3D registration. XVR uses physics-based simulation to generate virtually infinite training data from a patient's own preoperative volumetric imaging, avoiding the algorithmic bias inherent to supervised models. Furthermore, XVR requires about 5 min of training per patient, making it suitable for emergency interventions as well as planned procedures. We demonstrate the benefits of our approach on a wide range of 2D/3D registration tasks, demonstrating dramatic improvements in accuracy and speed of image alignment. XVR is an open-source software, freely released with the goal of eliminating 2D/3D registration as a bottleneck in the advancement of intraoperative image guidance [Read More].

Keynote Speakers (cont.)

From Interpretable Multimodal Models to Foundation Models in Biomedical Imaging

Saturday | April 11, 2026 | 9:00 – 10:00

Greg Slabaugh, Queen Mary University, London

Abstract: Biomedical imaging exists within a high-dimensional space of modalities, tasks, and anatomies — a challenge that can be conceptually framed as a tensor. Addressing this space requires models that are not only accurate, but also interpretable and capable of generalization.

In this keynote, I will explore the challenges and opportunities of multi-modal, multi-anatomy, and multi-task biomedical imaging, tracing a trajectory from specialized, interpretable models toward generalist, modality-aware foundation models. I will begin with examples of domain-specific architectures, including graph-based models for multistain pathology and multimodal fusion networks that integrate histology with molecular data. I will then describe recent work on a foundation model for ultrasound imaging, designed to learn transferable representations across anatomy and diagnostic tasks.

The talk will culminate with a vision for healthcare digital twins — computational representations of individual patients that integrate imaging, physiology, and molecular data over time. Drawing on recent work in cardiology, including aortic stenosis, I will illustrate how digital twins represent the clinical realization of scalable, interpretable AI. Together, these developments point toward a future in which data-driven models enable robust, personalized, and biologically grounded healthcare.

Introduction to Generative Modelling with Flows and Diffusions: From Theory to Application in Unsupervised Anomaly Detection in Neuroimaging

Wednesday | April 8, 2026 | 8:30 – 17:00

Abstract: This tutorial introduces generative modelling with flows and diffusions, two key frameworks for learning data distributions in high-dimensional spaces. Flows, defined by deterministic ordinary differential equations (ODEs), and diffusions, defined by stochastic differential equations (SDEs), describe data generation as probability transport from random noise to realistic images through a time-dependent vector field. The first part builds a rigorous yet intuitive understanding of these models, explaining how they relate and how their training objectives are derived. The second part is a hands-on session. Participants will run a diffusion model in PyTorch, explore its main components (U-Net, time embeddings, variance schedule), and apply it to unsupervised tumor detection in brain MRI using the AnoDDPM framework for pseudo-healthy image reconstruction. The tutorial combines mathematical insight with practical implementation, giving biomedical imaging researchers both the theoretical background and coding experience needed to apply modern generative models in neuroimaging.

Attendees will leave with a principled workflow for auditing, triaging, and remediation of data issues, a map of tools with trade-offs in accuracy, compute, and scalability, as well as reproducible materials to apply immediately in their projects.

Francesca Galassi
Univ Rennes, CNRS, Inria, Inserm, IRISA UMR 6074, EMPENN – ERL U 1228, F-35000 Rennes, France

Hugues Roy
Sorbonne Université, Institut du Cerveau – Paris Brain Institute – ICM, CNRS, Inria, Inserm, AP-HP, Hôpital de la Pitié Salpêtrière, F-75013, Paris, France, 187 rue du Chevaleret

Maëlys Solal
Sorbonne Université, Institut du Cerveau – Paris Brain Institute – ICM, CNRS, Inria, Inserm, AP-HP, Hôpital de la Pitié Salpêtrière, F-75013, Paris, France, 187 rue du Chevaleret

Tutorials (cont.)

Customized Multiresolution Analysis and Learning Algorithms in Biomedical Imaging

Wednesday | April 8, 2026 | 8:30 – 17:00

Alireza BAGHAI-WADJI, University of Cape Town

Abstract: The tutorial aims to provide a comprehensive experience of different aspects of image formation in magnetic resonance imaging. This tutorial dissects the structural complexity of multiresolution analysis (MRA), delves into the foundations of feedback loops embedded in learning algorithms (LAs), and discusses current challenges in cutting-edge biomedical imaging (BMI). It pursues an amalgamation of classical computational signal and data processing and quantum algorithms (QAs). It proposes a collaborative approach to customizing algorithm design for software development in clinical applications within the ISBI community. The foundations of wavelets, frames, curvelets, edgelets, and related topics in BMI are clearly presented and illustrated graphically. To incorporate biology-inspired LAs into the design of MRA, feedback loops in standard and advanced LAs are scrutinized and presented diagrammatically. The anatomies of error-correction, memory-based, Hebbian, competitive, Boltzmann, credit assignment, and stochastic LAs are analyzed. Applications in BMI, image codification and compression, and the growing role of AI are discussed. The tutorial is self-contained and packed with clear arguments. [Read More]

From Sequence Diagrams to Medical Images – A Comprehensive and Interactive Tutorial on Image Formation in Magnetic Resonance Imaging

Wednesday | April 8, 2026 | 8:30 – 12:00

Abstract: The tutorial aims to provide a comprehensive experience of different aspects of image formation in magnetic resonance imaging. Participants learn about different types of MR sequences and their respective adjustments using the interactive gammaSTAR framework. Through a built-in MR simulator and image reconstruction framework, the effects of changing various protocol parameters on generated images are directly experienced and potential sources of image artefacts are revealed. The interactive session is accompanied by in-depth slides describing the process of image reconstruction from the simulated raw data. Participants are encouraged to follow the instructions as listed under https://github.com/FraunhoferMEVIS/gammaSTAR/tree/main/sequenceServer upfront to install the necessary simulation environment

Jörn Huber
Fraunhofer MEVIS

Arne Neisser
Fraunhofer MEVIS

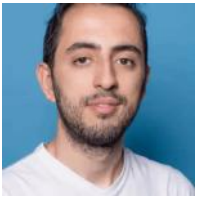
Learning with Covariance Matrices: Foundations and Applications to Network Neuroscience

Wednesday | April 8, 2026 | 8:30 – 12:00

Abstract: Covariance matrices are ubiquitous in biomedical signal processing, particularly in modalities involving spatially distributed data, such as magnetic resonance imaging (MRI). In network neuroscience, anatomical covariance matrices and functional connectomes model structural and functional interdependencies across brain regions. Principal component analysis (PCA), which relies on the covariance spectrum, has been a mainstay in biomedical data analysis. However, PCA-based methods face challenges including limited reproducibility and constrained applicability to a fixed set of features, which restrict their generalizability. In contrast, modern deep learning (DL) models—especially those specialized for graph-based data—offer viable tools to overcome these limitations. This tutorial will introduce a novel family of DL models called coVariance Neural Networks (VNNs), which operate directly on covariance matrices. By treating covariance matrices as weighted graphs, VNNs integrate insights from PCA, graph signal processing and graph neural networks to provide principled learning architectures. The attendees will be introduced to the foundational theory behind VNNs drawn from fundamental notions in signal processing and appreciate their practical benefits in neuroimaging and biomedical signal processing, focused on enhanced reproducibility, generalizability, and explainability. The tutorial will be of broader interest to researchers seeking principled integration of statistical and deep learning methods in biomedical signal processing.

Saurabh Sihag
University at Albany

Gonzalo Mateos
University of Rochester



Elvin Isufi
Delft University of Technology

Alejandro Ribeiro
University of Pennsylvania

Tutorials (cont.)

Modern Data Cleaning

Wednesday | April 8, 2026 | 13:30 – 17:00

Fabian Gröger, University of Basel

Abstract: This tutorial presents modern, hands-on strategies for cleaning and curating biomedical image datasets. We review the phenomenology of data quality issues (e.g., near duplicates, off-topic/outlier samples, label errors), connect them to their impact on evaluation validity and clinical translation, and position data cleaning as complementary to robust learning with noise. We then cover practical detection methods and open-source libraries, with guided notebooks and a bring-your-own-data session.

Attendees will leave with a principled workflow for auditing, triaging, and remediation of data issues, a map of tools with trade-offs in accuracy, compute, and scalability, as well as reproducible materials to apply immediately in their projects.

BioMedPINNs: Successfully using Physics-Informed Neural Networks in Biomedical Applications

Wednesday | April 8, 2026 | 13:30 – 17:00

Marta Varela, City St George's University of London & Imperial College London

Abstract: Physics-Informed Neural Networks (PINNs) combine the strengths of machine learning with the interpretability of mathematical models, offering powerful new ways to model complex biological systems. In biomedical imaging, where data are often scarce and governed by well-understood physics, PINNs can bridge the gap between data-driven AI and mathematical models of physics and physiology.

This tutorial will provide a practical and accessible introduction to PINNs, tailored to imaging researchers. Through a mix of lectures and hands-on coding sessions, participants will learn how PINNs can be used to solve imaging challenges such as MRI perfusion quantification and myocardial fibre orientation mapping. The session will also cover advanced extensions to improve PINN performance and situate PINNs alongside other emerging methods, such as Implicit Neural Representations.

By the end of the tutorial, attendees will not only understand the principles behind PINNs but will also leave with ready-to-use code, practical skills, and a clear roadmap to apply these methods to their own biomedical imaging problems.

Workshops

Medical Video AI Assessment and Uncertainty Quantification: Bridging Research and Practice

Thursday | April 9, 2026 | 8:00 – 17:30

Abstract: Artificial Intelligence and Machine Learning (AI/ML)-enabled medical devices are advancing rapidly to address the evolving needs of patients, clinicians, and manufacturers in the MedTech industry. However, the pace of technological innovation has outstripped the development of evaluation methods in some instances, creating uncertainty for the evaluation of innovative technology. [Read More]

Feng Yang
U.S. Food and Drug Administration (FDA), USA

Nhan Ngo Din
Cosmo Intelligent Medical Devices, Ireland

Eyke Hüllermeier
LMU Munich, Germany

Pediatric Brain Data Analysis

Thursday | April 9, 2026 | 8:00 – 17:30

Abstract: Pediatric brain health is critically important for lifelong development and overall well-being. Early childhood represents a unique window of rapid neurodevelopment, during which structural and functional alterations serve as key biomarkers for long-term cognitive and motor outcomes. Yet, despite its significance, the pediatric brain remains challenging to study due to limited data availability, dynamic morphology, and a lack of specialized analytical tools. [Read More]

Ellen Grant
Harvard Medical School; Boston Children's Hospital

Yangming Ou
Harvard Medical School; Boston Children's Hospital

Rina Bao
Harvard Medical School; Boston Children's Hospital

Large Models Meet Surgical Data Science

Friday | April 10, 2026 | 8:00 – 11:30

Abstract: Large models have revolutionized computer vision and natural language processing, yet their application to surgery and interventional science is still in its infancy. With the unique potential to enhance surgical precision, efficiency, and patient safety, this emerging field offers exciting opportunities for innovation. Our workshop, Large Models Meet Surgical Data Science, will explore how large models can advance the analysis of surgical and interventional data, encompassing pre-operative imaging, intraoperative signals, robotic kinematics, tool presence cues, and electronic health records. [Read More]

Sharib Ali
University of Leeds

Patrick Godau
German Cancer Research Center (DKFZ)

Kyle Lam
Imperial College London

Miaojing Shi
Tongji University

Binod Bhattarai
University of Aberdeen

Exploring Foundation Models in Medical Image Analysis: Applications, Challenges, and Uncertainties

Friday | April 10, 2026 | 15:00 – 17:30

Abstract: The rapid emergence of foundation AI models, large-scale pre-trained architectures such as vision transformers, diffusion models, and multimodal encoders, has ushered in a transformative era in medical image analysis. Leveraging massive natural and/or medical datasets, these models exhibit strong zero-shot and few-shot learning capabilities, cross-modality generalization, and the potential to unify diverse imaging tasks under a common representation framework. This session will critically examine the evolving role of foundation models in medical imaging, with applications spanning classification, segmentation, registration, and automated report generation. [Read More]

Lin GU
Tohoku University, Japan

Chen Chen
University of Sheffield, UK

Xiaofeng Yang
Emory School of Medicine and Georgia Institute of Technology, USA

Yalin Zheng
The University of Liverpool, UK

Yukun Zhou
University College London, UK

Dinggang Shen
ShanghaiTech University, China

POCUS–AI: Point-of-care Ultrasound Powered by AI

Saturday | April 11, 2026 | 8:00 – 11:30

Abstract: The POCUS–AI Workshop highlights recent advances in artificial intelligence (AI) for point-of-care ultrasound (POCUS). Pocket-sized POCUS devices are increasingly used across diverse clinical settings due to their portability, safety, and ability to provide real-time imaging. However, widespread adoption remains limited by operator dependence and variability in interpretation. AI offers promising solutions by enabling more reliable, automated analysis through techniques such as segmentation, classification, and video summarization, as well as emerging clinical applications. This workshop will showcase cutting-edge research, foster cross-disciplinary collaboration, and bring together experts from academia, industry, and clinical practice to advance the future of POCUS–AI.

Laura Brattain
Associate Professor, University of Central Florida, USA

Mahesh R Panicker
Associate Professor, Nanyang Technological University (NTU), Singapore

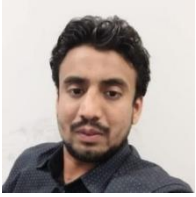
Abhilash Hareendranathan
Assistant Professor, University of Alberta, Canada

The 2nd Workshop on Foundation AI models in Biomedical Imaging (FAIBI)

Saturday | April 11, 2026 | 14:00 – 17:30

Abstract: Foundation AI models are generalistic AI models that have recently garnered huge attention in the AI research community. Foundation AI models bring scalability and broad applicability and, thus, possess transformative potential in medical imaging applications, including (but not limited to) synthesis of medical image data, automatic report generation from radiology images, cross-lingual report generation, and image analysis. This workshop aims to explore new applications of foundations AI models in biomedical imaging with a focus on multimodal foundation models for multimodality medical data comprising medical images (radiology, pathology, fundus, etc), electronic health records, medical reports, radiomics, etc. [Read More]

Hazrat Ali
University of Stirling, UK



Rizwan Qureshi
Salim Habib
University Karachi

Islem Rekik
Imperial College London, UK

Jia Wu
MD Anderson Cancer Center, USA

Muhammad Bilal
Birmingham City University, UK

Special Sessions

NIH Session: "Funding Opportunities and Grant Writing Tips"

Thursday | April 9, 2026 | 10:30 – 11:30

Abstract: This session will highlight funding opportunities at the National Institute of Biomedical Imaging and Bioengineering (NIBIB) and provide valuable insights for both new and established investigators aiming to apply to funding. Experts from NIBIB will share strategies for navigating the NIH grant system, preparing competitive applications, and introduce their programs and funding opportunities. Join this interactive session to enhance your grant-writing skills and discover resources to support your pursuit of research funding. The session will also highlight the new Precision Medicine with AI: Integrating Imaging with Multimodal Data (PRIMED-AI) initiative, as well as other trans-NIH funding opportunities. The session will include a Q&A segment where you can ask questions and interact with the panel members.

Preparing Large-Scale Medical Imaging Data for Foundation Model Development

Thursday | April 9, 2026 | 15:00 – 16:00

Abstract: Foundation models have gained substantial interest in the medical imaging field. While the potential opportunities are substantial, foundation models require large amounts of data which is a challenge that needs to be addressed for proper development. This special session explores the technical, methodological, and ethical challenges of preparing large-scale medical imaging datasets for the development and validation of foundation models. Topics of interest include strategies for multi-institutional data integration, privacy-preserving de-identification, and scalable data search and curation pipelines. The session also seeks to address how dataset design influences model generalizability, fairness, and reproducibility, as well as the governance frameworks needed to ensure responsible use of imaging data. The goal is that participants will gain practical insights and understand how to shape emerging best practices for large-scale medical AI development.

Safety and Reliability in Medical Imaging

Thursday | April 9, 2026 | 16:30 – 17:30

Abstract: The ISBI 2026 special session `Safety and Reliability of Medical Imaging Technology' will explore challenges and solutions to building trustworthy AI systems for biomedical imaging. Ensuring the fairness, safety, and robustness of clinic-facing AI has become critical. We invite novel research contributions on topics such as bias and fairness, out-of-distribution and failure detection, uncertainty quantification, or the use of explainability in biomedical applications.

Special Sessions (cont.)

Digital Twins and Multi-Omics Integration: Methodological Advances for Personalized Biomedical Modeling

Friday | April 10, 2026 | 8:00 – 9:00

Abstract: This session will explore emerging methodologies for integrating multi-omics, imaging, and clinical data to build digital twins that can simulate individual disease trajectories and therapeutic responses. By convening experts in bioinformatics, radiomics, systems biology, and AI, the session aims to promote cross-disciplinary dialogue and identify key computational and translational challenges. Discussions will focus on strategies for data harmonization, model interpretability, and validation pipelines to ensure robustness, reproducibility, and clinical applicability of digital twin frameworks.

Privacy-Aware, Data-Efficient AI via Personalized Incremental and Federated Learning in Healthcare

Friday | April 10, 2026 | 10:30 – 11:30

Abstract: This special session brings together recent advances in personalized incremental (continual) learning and federated learning to address two persistent barriers in biomedical imaging: strict data privacy constraints and chronic data scarcity across institutions. We will showcase methods that enable AI models to adapt over time to longitudinal, non-IID, multi-center data without centralizing patient information, while remaining robust to scanner/protocol shifts. The session will feature contributions spanning algorithms, evaluation protocols, and real clinical use cases (CT/MRI, interventional imaging, oncology), highlighting pathways toward deployable, regulation-aware medical AI. Overall, the goal is to articulate a practical blueprint for privacy-preserving, data-efficient imaging AI in real-world healthcare settings.

Data Crimes in Medical Imaging: Pitfalls, Biases, and Mitigation Strategies

Friday | April 10, 2026 | 15:00 – 16:00

Abstract: This special session focuses on the growing problem of “data crimes” – scenarios where developers of artificial intelligence (AI) models naively use public datasets for tasks they were never designed to support, leading to biased outcomes and misleading algorithmic performance. Focusing on image reconstruction from MRI measurements, we will demonstrate that such workflows, along with hidden data preprocessing steps, can artificially inflate results by up to 40% and jeopardize clinical applicability. Next, we will provide hands-on demonstrations with open-access Python tools, where participants will learn to detect, quantify, and mitigate these sources of bias. The session equips the ISBI community with practical frameworks and guidelines for conducting transparent, reproducible, and trustworthy medical AI research.

Challenges

Challenge: Foundation Model Challenge for Ultrasound Image Analysis

Saturday | April 11, 2026 | 16:30 – 17:30

Abstract: The Foundation Model Challenge for Ultrasound Image Analysis aims to advance the state of biomedical image analysis by fostering the development of robust, generalizable AI models for ultrasound segmentation. From a biomedical perspective, ultrasound is an indispensable diagnostic tool due to its real-time imaging, cost-effectiveness, safety, and portability—especially crucial for fetal monitoring and maternal health in low-resource settings. However, its clinical interpretation is often hindered by high inter-observer variability, low image quality, and operator dependence. [Read More]

Challenge: CXR-LT 2026: Long-Tailed Multi-Label Chest X-ray Benchmark for Clinical AI

Saturday | April 11, 2026 | 16:30 – 17:30

Abstract: Chest X-rays are one of the most widely used medical imaging modalities, yet existing AI benchmarks often overlook the challenges posed by real-world data: imbalanced disease prevalence, label noise from automated extraction, and distributional shifts across institutions.

CXR-LT 2026 is the third edition of a multi-institutional challenge designed to benchmark scalable and generalizable methods for long-tailed multi-label chest X-ray classification. It features two tasks: (1) robust prediction on a small, expert-annotated and multi-center test set and (2) open-world generalization to disease findings unseen during training. [Read More]

Challenge: Low Concentration Reconstruction Challenge in Magnetic Particle Imaging

Saturday | April 11, 2026 | 16:30 – 17:30

Abstract: The proposed challenge seeks to propel the development of robust and high-quality reconstruction algorithms for magnetic particle imaging (MPI), a cutting-edge non-invasive imaging technique that visualizes superparamagnetic iron oxide nanoparticles in real time. From a biomedical perspective, MPI holds transformative potential for oncology, cardiovascular imaging, and stem cell tracking, offering detailed insights into disease processes and therapeutic monitoring. Technologically, MPI reconstruction is highly challenging due to its ill-conditioned nature, especially under low tracer concentrations, where diminished signal-to-noise ratios result in artifacts, reduced resolution, and inaccurate quantification. This challenge specifically targets field free line MPI (FFL-MPI) setups, which are gaining traction for human-scale applications and clinical translation owing to their potential for high sensitivity. The envisioned impact includes advancing technical innovations in algorithm design to enhance image quality and reliability, thereby facilitating broader biomedical adoption and improving diagnostic and therapeutic outcomes in clinical settings.

Challenges (cont.)

Challenge: CSV 2026: Carotid Plaque Segmentation and Vulnerability Assessment in Ultrasound

Saturday | April 11, 2026 | 16:30 – 17:30

Abstract: Stroke is the second leading cause of death and the leading cause of long-term disability worldwide, imposing a tremendous burden on healthcare systems and families. As the predominant subtype, ischemic stroke accounts for nearly 71% of all stroke cases globally. Cervical artery atherosclerosis is a major etiological factor for ischemic stroke, and accurate plaque assessment has become a cornerstone of stroke prevention. Ultrasound as a real-time, low-cost, and widely accessible imaging modality, plays a key role in evaluating carotid plaques. Early detection of high-risk plaques allows for timely, targeted treatment strategies and has the potential to significantly reduce stroke incidence. [Read More]

Challenge: Multi-modal Ulcerative Colitis Grading in Endoscopy

Saturday | April 11, 2026 | 16:30 – 17:30

Abstract: This challenge aims to advance automated grading of ulcerative colitis (UC) from colonoscopy videos using deep learning, focusing on the Mayo Endoscopic Score (MES). It addresses the critical need for objective, reproducible, and accurate UC assessment and informative image-based description, which is currently limited by clinician subjectivity and lack of diverse datasets. [Read More]

Challenge: FETUS 2026: Fetal HearT UltraSound Segmentation and Sizing Challenge

Saturday | April 11, 2026 | 16:30 – 18:00

Abstract: The primary purpose of this Challenge is to address critical bottlenecks in prenatal Congenital Heart Disease (CHD) screening via fetal echocardiography (FE). These bottlenecks include heavy reliance on highly specialized clinicians, inefficient manual annotation, diagnostic variability, data scarcity, and domain shift—all of which hinder AI-driven automation. The Challenge focuses on two core tasks: fetal cardiac ultrasound view segmentation and biometric measurement. Its goal is to drive the development of robust, clinically translatable AI algorithms. To achieve this, it prioritizes evaluating three key algorithm capabilities: segmentation/measurement accuracy, few-shot learning adaptability, and cross-clinical-setting generalization.

Challenge: RIVA Cervical Cytology Challenge: Multi-Expert Pap Smear Dataset for Precancer and Cancer Detection

Saturday | April 11, 2026 | 16:30 – 17:30

Abstract: Cervical cancer remains a major cause of mortality worldwide, particularly in low- and middle-resource regions where conventional Pap smears are the primary screening tool. Manual interpretation is labor-intensive and variable across experts, underscoring the need for robust, automated solutions. While AI has shown promise in cytology, progress has been limited by the absence of large, publicly available datasets of conventional smears. [Read More]

Challenge: WBCBench2026: Robust White Blood Cell Classification

Saturday | April 11, 2026 | 16:30 – 17:30

Abstract: Leukaemia is a serious global health challenge, and its diagnosis traditionally relies on resource-intensive methods. Automating white blood cell (WBC) classification presents a promising alternative, although current models still require further validation and optimisation. This challenge benchmarks automated WBC classification on single-site microscopic blood smear images under severe class imbalance and fine-grained morphological. Acquisition and staining are standardized on one scanner; therefore, we introduce artificial noise and blur to replicate domain shift issues that may occur when different scanners or settings are used. To prevent information leakage, the held-out test set enforces patient-level separation, and train/validation use group-stratified splits to preserve minority-class coverage. The primary metric is macro-averaged F1, complemented by per-class F1, accuracy, precision, and recall. An open evaluator with a fixed submission schema ensures reproducibility. The objectives are to (i) establish a comparable benchmark, (ii) surface methods that improve rare-class reliability, and (iii) consolidate best practices via baselines and a public leader board.

Live Demos

Demo 1: fSTG Toolkit – an Open-Source Software for Longitudinal Brain Connectivity Analysis with Spatio-Temporal Graphs

Thursday – Saturday | April 9 - 11, 2026 | 13:00 – 14:00

Julien Pontabry, ICube – University of Strasbourg

Abstract: The fSTG Toolkit is a comprehensive pipeline designed for processing and analyzing longitudinal dynamics in sequences of brain connectivity matrices. It focuses on the analysis of longitudinal reorganization dynamics between brain regions, providing an effective set of tools for neuroscience research. Although primarily designed for fMRI data, the toolkit is extensible by construction to other types of connectivity data, making it a versatile tool for researchers in the field. [Read More]

Demo 2: B-Guide – Breast Cancer Surgical Planning Tool

Thursday – Saturday | April 9 - 11, 2026 | 13:00 – 14:00

Felicia Alfano, Biomedical Image Technologies, Universidad Politécnica de Madrid; CIBER-BBN, ISCIII

Abstract: Breast-conserving surgery is performed with the patient in supine position, while preoperative MRI is typically acquired in prone position. This discrepancy leads to significant tissue deformations, complicating tumor localization during surgery. B-Guide addresses this challenge by integrating prone MRI with intraoperative surface scans, predicting tumor displacement with a deep learning–based framework. Our demo will showcase the B-Guide system implemented in 3D Slicer, enabling interactive surgical planning and visualization of tumor position in real time.

Demo 3: Spatio-Temporal AI for Lung Cancer Screening Nodule Assessment

Thursday – Saturday | April 9 - 11, 2026 | 13:00 – 14:00

Benito Farina, Centro de Investigación Biomédica en la Red (CIBER) – Universidad Politécnica de Madrid – BIT

Abstract: This demo presents an interactive software tool for predicting the malignancy probability of lung nodules in a lung cancer screening setting. The tool is open-source, freely available, and designed for hands-on exploration by attendees.

Early and accurate identification of malignant nodules is critical, as it can reduce unnecessary follow-up exams, lower patient anxiety, and accelerate treatment for high-risk cases. Our system analyzes up to three 3D CT scans acquired at different timepoints, capturing the temporal evolution of nodules — a key clinical factor often overlooked in routine screening assessments. [Read More]

Demo 4: Hope4kids – AI-Powered Brain Tumor Segmenter

Thursday – Saturday | April 9 - 11, 2026 | 13:00 – 14:00

Abstract: This demo presents our three-time-winning brain tumor segmentation AI algorithm. It processes four MRI modalities to generate masks for a wide range of tumor types and structures, including gliomas, meningiomas, metastases, sub-Saharan gliomas, and pediatric tumors. Key features include a user-friendly interface for non-deep learning experts, automatic segmentation with high accuracy, and versatile output in NIfTI format. The tool significantly reduces manual annotation workload and has potential applications in surgical planning, treatment optimization, and clinical research. Link: https://segmenter.hope4kids.io/.

Daniel Capellán-Martín
Universidad Politécnica de Madrid

Abhijeet Parida
Children's National Hospital

Demo 5: Deep Learning for Pediatric TB Detection in Chest Radiographs

Thursday – Saturday | April 9 - 11, 2026 | 13:00 – 14:00

Daniel Capellán-Martín, Universidad Politécnica de Madrid

Abstract: This demo highlights our AI algorithm for detecting pediatric tuberculosis (TB) from chest X-rays (CXR). It analyzes CXRs to identify potential TB-related abnormalities. Features include an intuitive interface for healthcare providers, high-accuracy detection (AUC 0.903), and standardized outputs. The tool supports diagnosis with a prediction score and Grad-CAMs highlighting compatible findings, aiding early detection and improving outcomes.

Live Demos (cont.)

Demo 6: Visualizing Intelligence with ASCRIBE-VR for Granular, Data-Agnostic 3D Analysis of AI Results

Thursday – Saturday | April 9 - 11, 2026 | 13:00 – 14:00

Daniela Ushizima, Berkeley Lab, University of California San Francisco, University of California Berkeley

Abstract: The topic centers on ASCRIBE VR, a novel, data-agnostic virtual reality (VR) platform designed for the immersive visualization and interactive manipulation of virtual structures, primarily those derived from brain data. Built using Unreal Engine 5 and operating on the Meta Quest 3X, it provides features like joystick-controlled manipulation (pushing, pulling, scaling), object selection/instantiation, texture modification, and multiple locomotion modes. Key capabilities include the direct import of common 3D file formats (FBX, STL, OBJ), granular interaction with complex multi-structured meshes, and visualization of 2D neuroimaging slices. A significant feature is its multiplayer connectivity, which supports collaborative research, remote consultations, and team-based educational sessions in a shared virtual environment.

Demo 7: A Reconfigurable High-Resolution Handheld Ultrasound Imaging System with Non-Linear Beamforming Capabilities

Thursday – Saturday | April 9 - 11, 2026 | 13:00 – 14:00

Banhimitra Kundu, Indian Institute of Science, Bangalore, INDIA

Abstract: The growing demand for affordable, portable, and accurate diagnostic tools has positioned handheld ultrasound systems as a transformative solution for healthcare delivery. Conventional handheld ultrasound devices, while compact and accessible, are often limited in resolution and depth performance compared to high-end cart-based systems. To bridge this gap, a reconfigurable high-resolution handheld ultrasound imaging system with non-linear beamforming capabilities is proposed. [Read More]

Tools and techniques to make sense of complex healthcare data

Wednesday | April 8, 2026 | 8:30 – 9:15

Jonny Hancox, NVIDIA

Abstract: Clinical datasets increasingly contain diverse modalities, including medical imaging, genomics, spatial transcriptomics, clinical notes, and electronic health records (EHR). Integrating these heterogeneous data sources has the potential to improve clinical diagnosis and optimize healthcare workflows. In this talk, I will present recent research and foundation models developed at NVIDIA to integrate biomedical data across molecular, cellular, and patient levels. The approach leverages vision–language models and intermediate modality fusion strategies to align imaging, text, and structured clinical information within a shared representation space. By enabling cross-modal reasoning across imaging, molecular data, and clinical records, the framework aims to build more transparent and interpretable AI systems that help clinicians understand complex patient information. Such capabilities may support clinical decision-making, facilitate biomarker discovery, and advance data-driven clinical development.

From Research to Deployment: Translating AI Innovation into Industry Practice

Wednesday | April 8, 2026 | 9:16 – 10:00

Hongxu Yang, GE Healthcare

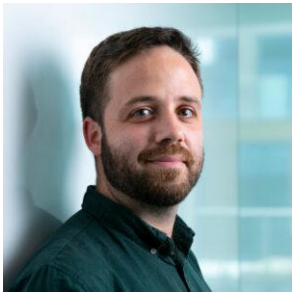
Abstract: The rapid expansion of AI in medical imaging requires close collaboration among research institutions, industry teams, and healthcare providers to ensure the safe and effective translation of algorithms into clinical practice. In this talk, Dr. Hongxu Yang will provide an overview of the GE HealthCare AI team and its role within the broader European ecosystem, highlighting cross-sector collaborations and contributions to EU-level innovation initiatives. Building on research-driven proof-of-concept studies, the second part of the talk will present several synthetic data–based methodologies developed within ongoing projects. These examples will serve as a foundation for discussing practical considerations related to the use of synthetic medical data in industrial applications. Through these case studies, the talk will outline key challenges and emerging opportunities for accelerating AI model development in industry, with particular emphasis on improving model robustness, enhancing development efficiency, and reducing overall cost.

Designing Robust Real-World Evidence Frameworks for Deployed Clinical AI Systems

Wednesday | April 8, 2026 | 10:30 – 11:15

Haris Shuaib, Newton's Tree

Abstract: The evidentiary paradigm for clinical artificial intelligence (AI) remains heavily weighted toward retrospective performance validation, often using single-site datasets and accuracy-based endpoints. However, once deployed into live clinical pathways, AI systems operate within complex sociotechnical environments where distributional shift, workflow interaction, automation bias, and data quality variability can materially affect safety and effectiveness. [Read More]



Multimodal AI for acquisition and interpretation of medical images

Wednesday | April 8, 2026 | 11:15 – 12:00

Fernando Pérez-García, Microsoft Research

Abstract: Foundation models have shown strong potential for medical image understanding, yet most systems remain specialised interpretation. In this talk, I will present recent advances in AI for image processing that allow inexpensive MRI acquisition, as well as multimodal foundation models that integrate images and text for accurate clinical interpretation.

Algorithms to Impact: Translating Imaging AI from Research to Routine Clinical Practice, an industry perspective

Wednesday | April 8, 2026 | 13:30 – 14:15

Craig Buckley, Siemens Healthineers

Abstract: Artificial intelligence in medical imaging continues to advance rapidly, with impressive technical performance demonstrated across a wide range of research studies. However, translating these innovations into routine clinical practice remains challenging. This talk will explore the journey from imaging AI research to real-world deployment, drawing on industry experience across scientific collaboration, validation, regulatory readiness, and clinical adoption. Key themes will include aligning technical development with clinical workflows, navigating evidence generation and trust, and understanding where industry, academia, and healthcare systems must collaborate more effectively to deliver meaningful patient impact. The session will highlight lessons learned from current imaging AI implementations and outline practical considerations for researchers aiming to see their work adopted at scale.

Vision Foundation Models for Cellular Biology: Modeling, Evaluation and Deployment

Wednesday | April 8, 2026 | 14:16 – 15:00

Navid Alemi, Novo Nordisk

Abstract: Recent progress in vision foundation models is creating new opportunities for cellular imaging, with the potential to move beyond narrowly trained models toward reusable systems that support a broad range of research and drug discovery tasks.

Toward Real-World Ophthalmic Intelligence: From Expert Foundation Models to General-Purpose Systems

Wednesday | April 8, 2026 | 15:30 – 16:15

Lie Ju, University College London, UK

Abstract: Medical foundation models have achieved substantial progress in ophthalmic image analysis. However, most existing models remain task-specific and typically demonstrate optimal performance only under idealized and controlled conditions. In real clinical environments, heterogeneous data sources, diverse imaging devices, and complex multimodal information pose significant challenges, and the generalization capability and reliability of current systems remain limited. [Read More]

DARPA and the Future of Autonomous Medicine

Wednesday | April 8, 2026 | 8:30 – 9:15

Roozbeh Jafari, Biological Technologies Office, DARPA

Abstract: This talk provides an overview of the Defense Advanced Research Projects Agency (DARPA), highlighting its history, mission, and role in advancing high-risk, high-reward research for national security. The presentation will introduce areas of interest within the Biological Technologies Office (BTO), with an emphasis on emerging directions at the intersection of biology, engineering, and computation. A central focus will be the concept of autonomy in medicine—how predictive models, advanced sensing, and decision-support systems may enable earlier, more precise, and more resilient medical intervention in complex environments. The talk will conclude with an overview of pathways for engaging with DARPA, including opportunities for collaboration across academia, industry, and government.

From Foundation models to Generative modeling in Medical Imaging: For Early Detection and Decision Support

Wednesday | April 8, 2026 | 9:15 – 10:00

Hayit Greenspan, University of Tel-Aviv

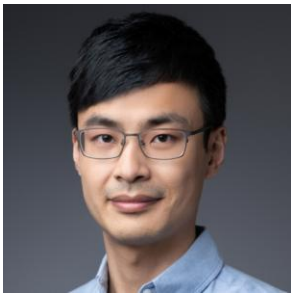
Abstract: The rapid evolution of artificial intelligence is fundamentally reshaping the landscape of medical imaging and diagnostic workflows. In this talk, I will discuss the integration of advanced AI to transform healthcare support and clinical decision-making. I will focus on three key themes: First, I will explore how Foundation models pre-trained on general-purpose imagery can be adapted to enhance medical image detection and segmentation. Second, I will demonstrate how Generative modeling facilitates earlier disease detection, enabling more proactive screening and personalized patient care. These methods are applied across X-ray, CT, and MRI modalities, with a specific focus on liver tumor and Pulmonary Embolism detection. I will conclude by presenting our latest Multimodal fusion and Prediction models, which integrate imaging with clinical data. This holistic approach provides a comprehensive view of the patient, ultimately driving the next generation of clinical decision support tools.

Evaluating AI for real-world clinical use

Wednesday | April 8, 2026 | 10:15 – 11:00

Kanwal Bhatia, Aival

Abstract: Recent years have seen a massive increase in the number of clinical AI products for image interpretation available on-the-market. The usefulness of these products in a clinical setting depends on criteria that are far wider than the benchmarks often used in academia, and that require knowledge of how the products will be used in the clinical workflow. With the growing capabilities of AI and the availability of data, there is an ever clearer path for algorithms developed in academic research to impact real-world clinical practice. In this talk I will highlight some of the important considerations when evaluating AI products that may help to inform algorithmic development for practical use.



Multimodal AI for Knowledge-Enhanced Computational Pathology

Wednesday | April 8, 2026 | 11:00 – 11:45

Lequan Yu, The University of Hong Kong

Abstract: Computational pathology is transforming diagnostic practice by leveraging artificial intelligence to extract clinically relevant insights from Whole Slide Images (WSIs). The integration of multimodal AI offers new opportunities for building interpretable, accurate, and scalable diagnostic tools. In this talk, I will present our recent advances that demonstrate how incorporating domain knowledge and biological context can significantly enhance histopathological analysis. We will first introduce a knowledge-guided framework that integrates expert-derived knowledge into AI models, enabling more generalizable and clinically meaningful predictions across diverse cancer tasks. We then showcase a strategy for inferring cellular-level phenotypes directly from histology images, providing a cost-effective alternative to spatial transcriptomics for characterizing the tumor microenvironment and predicting patient outcomes. Together, these works reflect a shift toward more human-aligned, knowledge grounded AI systems for computational pathology.

AI Contrast Agents – AI to Eliminate Chemical Contrast Agents in Imaging

Wednesday | April 8, 2026 | 14:00 – 14:55

Shuo Li, Case Western Reserve University (USA)

Abstract: Chemical contrast agents have long been integral to clinical diagnostic imaging. However, growing concerns about their safety, cost, and environmental impact have prompted the need for alternative solutions. In this talk, Dr. Shuo Li will present his pioneering work on AI contrast-enhanced imaging. This transformative approach leverages cutting-edge machine learning techniques to synthesize contrast-enhanced images without chemical agents. This innovative technology reduces patient risk and healthcare costs and opens new frontiers for precision imaging. Dr. Li will showcase recent breakthroughs from his lab, highlight clinical applications across cardiology, oncology, and neurology, and discuss the future potential of AI-driven imaging in reshaping medical diagnostics.

The Push and Pull: Clinicians, AI Scientists, and the Future of Medicine

Wednesday | April 8, 2026 | 15:25 – 16:20

KC Santosh, The University of South Dakota (USA)

Abstract: AI and clinical medicine are often portrayed as natural partners, yet their collaboration remains challenging. Drawing on NIH experience and extensive AI research, this talk explores why technically sophisticated models frequently fail in real clinical settings. It highlights mismatches in data assumptions, explainability, accountability, and workflow integration that fuel distrust between clinicians and AI scientists. While much effort focuses on building robust models, clinical relevance is often overlooked. Models trained on narrow or homogeneous datasets struggle to generalize, emphasizing the need for cross-population training and testing to ensure applicability across diverse patient populations. Using examples from medical imaging and precision medicine, the talk shows how algorithmic success alone does not guarantee clinical impact. True progress requires reframing AI as a collaborative tool that augments human expertise — human-in-the-loop machine learning (active learning). The session concludes with pathways toward human-centered, interpretable, and population-aware AI systems. Take-home message: learning, not just limited to training, drives meaningful clinical impact.

Lunch Events

Lunch With Leaders

Thursday | April 9, 2026 | 11:30 – 13:00

AI has the potential to transform not only clinical care but also medical research, and with it the career paths of those working in medical image analysis. Lunch with Leaders is an informal networking event designed to connect participants with leaders in the community and explore how AI may reshape healthcare, research, and professional opportunities in the coming years. Panelists will share perspectives on skills that may be valuable in a rapidly evolving field, areas where the community may be over-indexing on AI, and emerging directions for growth and impact.

Join us for an open and informal conversation about diverse career pathways in the age of AI.

Panelists

Roozbeh Jafari
DARPA

Mehmet Akcakaya
University of Minnesota, USA

Abhirup Banerjee
University of Oxford, UK

Marius Staring
Leiden University Medical Center, The Netherlands

Polina Golland
MIT, USA

Samuel Kadoury
Polytechnique Montreal, Canada

Lunch Events (cont.)

Diversity Lunch | Shaping Careers in the Age of AI: Voices, Paths, and Perspectives

Friday | April 10, 2026 | 11:30 – 13:00

As large language models (LLMs) continue to reshape research and innovation, the ISBI community is reflecting on how these technologies may influence the field. Across biomedical imaging, machine learning, and clinical applications, AI is transforming not only what we study, but also how we work and grow professionally.

This Diversity Lunch panel brings together leaders from diverse backgrounds and career paths to share their journeys, key decisions, and lessons learned. Panelists will offer insightful reflections on opportunities, uncertainties, and how they envision the future of our field in a rapidly evolving AI landscape.

Join us for an open and informal conversation about careers, change, and the diverse paths that shape our community.

Panelists

Chen Chen
University of Sheffield

Shikha Dubey
J&J Innovative Medicine

J. Eugenio Iglesias
MGH & Harvard Medical School

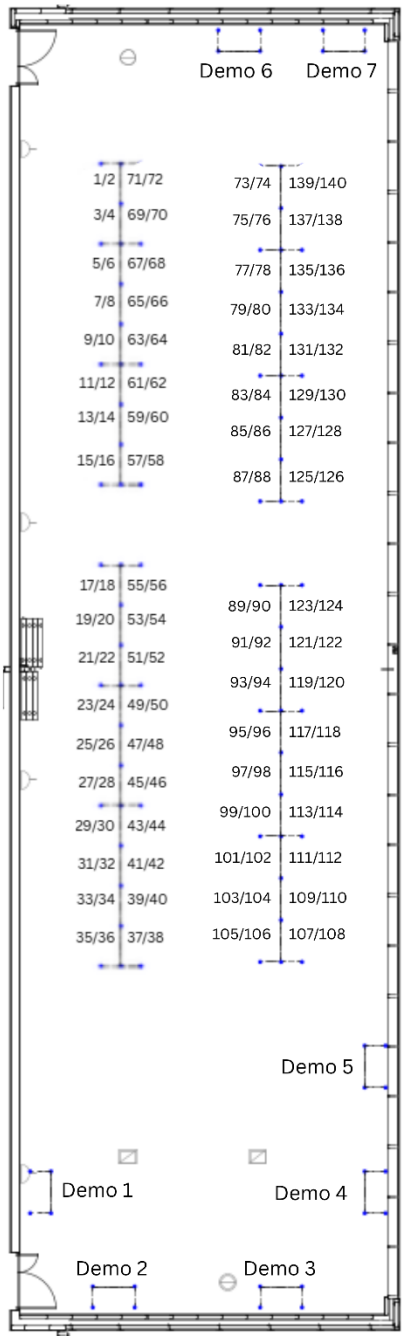
Christian Ledig
University of Bamberg

Diana Mateus
École Centrale Nantes

Sparkle Russell-Puleri
Gilead Sciences

Hongxu Yang
GE Healthcare

Poster Hall Layout



Poster Hall Assignments

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Poster Hall Assignments (cont.)

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Poster Hall Assignments (cont.)

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73	1571226135	1571220471	1571244530
74	1571226141	1571220485	1571244533
75	1571226144	1571220544	1571244581
76	1571226151	1571220589	1571244591
77	1571226168	1571220591	1571244603
78	1571226201	1571220623	1571244606
79	1571226206	1571220651	1571244625
80	1571226210	1571220672	1571244668
81	1571226211	1571220677	1571244700
82	1571226217	1571220687	1571244741
83	1571226232	1571220692	1571244771
84	1571226240	1571220693	1571244777
85	1571226245	1571220695	1571244784
86	1571226246	1571220721	1571244786
87	1571226247	1571220743	1571244798
88	1571226261	1571220760	1571244800
89	1571226266	1571220773	1571244807
90	1571226268	1571220841	1571244816
91	1571226270	1571220845	1571244831
92	1571226291	1571220854	1571244850
93	1571226293	1571220858	1571244861
94	1571226337	1571220865	1571244863
95	1571226347	1571220886	1571244865
96	1571226350	1571220902	1571244869

Poster Hall Assignments (cont.)

Board ID	Poster Session 1	Poster Session 2	Poster Session 3
97	1571226355	1571220904	1571244885
98	1571226356	1571220951	1571244891
99	1571226357	1571220952	1571244900
100	1571226368	1571220993	1571244905
101	1571226369	1571220994	1571244912
102	1571226374	1571221015	1571244913
103	1571226377	1571221034	1571244925
104	1571226386	1571221122	1571244946
105	1571226390	1571221218	1571244950
106	1571226393	1571221230	1571244959
107	1571226408	1571221231	1571244993
108	1571226416	1571221234	1571244997
109	1571226422	1571221262	1571245006
110	1571226432	1571221337	1571245012
111	1571226433	1571221352	1571245021
112	1571226445	1571221389	1571245024
113	1571226448	1571221451	1571245026
114	1571226456	1571221476	1571245033
115	1571226474	1571221481	1571245038
116	1571226485	1571221586	1571245044
117	1571226487	1571221640	1571245045
118	1571226491	1571221709	1571245048
119	1571226496	1571221740	1571245052
120	1571226499	1571221784	1571245059
121	1571226509	1571221838	1571245074
122	1571226511	1571221863	1571245075
123	1571226514	1571221885	1571245078
124	1571226526	1571221888	1571245081
125	1571226531	1571221956	1571245084
126	1571226545	1571221987	1571245090
127	1571226553	1571221999	1571245102
128	1571226578	1571222116	1571245104

Poster Hall Assignments (cont.)

Board ID	Poster Session 1	Poster Session 2	Poster Session 3
129	1571226590	1571222117	
130	1571226596	1571222132	
131	1571226619	1571222189	
132	1571226623	1571222289	
133	1571226626	1571222291	
134	1571226628	1571222341	
135	1571234826	1571222371	
136	1571235784	1571222384	
137	1571260460	1571244915	
138	1571260919		

WEDNESDAY, APRIL 8

	ROOM 1	ROOM 2	THEATER 8	ROOM 4	ROOM 14	ROOM 15
7:30	Registration Room: ICC Registration Area					
8:00						
8:30	Industry Session: Tools and techniques to make sense of complex health-care data	Tutorial: Introduction to Generative Modeling with Flows and Diffusions	Tutorial: Customized Multiresolution Analysis and Learning Algorithms in Biomedical Imaging Room 3	Clinical Session: DARPA and the Future of Autonomous Medicine	Tutorial: From Sequence Diagrams to Medical Images – A Comprehensive and Interactive Tutorial on Image Formation in Magnetic Resonance Imaging	Tutorial: Learning with Covariance Matrices: Foundations and Applications to Network Neuroscience
9:00	Industry Session: From Research to Deployment: Translating AI Innovation into Industry Practice					
9:30				Clinical Session: From Foundation models to Generative modeling in Medical Imaging: For Early Detection and Decision Support		
10:00	Coffee Break Room: Receptiaon Area					
10:30	Industry Session: Designing Robust Real-World Evidence Frameworks for Deployed Clinical AI Systems	Tutorial: Introduction to Generative Modeling with Flows and Diffusions	Tutorial: Customized Multiresolution Analysis and Learning Algorithms in Biomedical Imaging Room 3	Clinical Session: Evaluating AI for real-world clinical use	Tutorial: From Sequence Diagrams to Medical Images – A Comprehensive and Interactive Tutorial on Image Formation in Magnetic Resonance Imaging	Tutorial: Learning with Covariance Matrices: Foundations and Applications to Network Neuroscience
11:00						
11:30	Industry Session: Multimodal AI for acquisition and interpretation of medical images			Clinical Session: Multimodal AI for Knowledge-Enhanced Computational Pathology		

WEDNESDAY, APRIL 8 (CONT.)

	ROOM 1	ROOM 2	THEATER 8	ROOM 4	ROOM 14	ROOM 15
12:00	Lunch - on own					
13:00						
13:30	Industry Session: Algorithms to Impact: Translating Imaging AI from Research to Routine Clinical Practice, an industry perspective	Tutorial: Introduction to Generative Modeling with Flows and Diffusions	Tutorial: Customized Multiresolution Analysis and Learning Algorithms in Biomedical Imaging Room 3	Clinical Session: AI Contrast Agents – AI to Eliminate Chemical Contrast Agents in Imaging	Tutorial: Modern Data Cleaning	Tutorial: BioMedPINNs: Successfully using Physics-Informed Neural Networks in Biomedical Applications
14:00	Industry Session: Vision Foundation Models for Cellular Biology: Modeling, Evaluation and Deployments					
14:30						
15:00	Coffee Break Room: Receptiaon Area					
15:30	Industry Session: Toward Real-World Ophthalmic Intelligence: From Expert Foundation Models to General-Purpose Systems	Tutorial: Introduction to Generative Modeling with Flows and Diffusions Room 2	Tutorial: Customized Multiresolution Analysis and Learning Algorithms in Biomedical Imaging Room 3	Clinical Session: The Push and Pull: Clinicians, AI Scientists, and the Future of Medicine	Tutorial: Modern Data Cleaning	Tutorial: BioMedPINNs: Successfully using Physics-Informed Neural Networks in Biomedical Applications
16:00						
16:30						
17:00						
17:30	Opening Ceremony Rooms 7-12 || Theater 1394					
18:00	Welcome Reception Room: Reception Area					
18:30						

THURSDAY, APRIL 9

	ROOM 1	ROOM 2	ROOM 3	ROOM 4	ROOM 14	ROOM 15	ROOM 16	ROOM 17
7:00	Registration Room: ICC Registration Area							
7:30								
8:00	Reading Alzheimer's Through MRI and Beyond	What Cells Are Telling Us	Looking Through the Retina in Finer Detail	What the Whole Slide Knows	Teaching Medical VLMs to Actually Reason	When Biomedical AI Gets Fragile	Workshop: Medical Video AI Assessment and Uncertainty Quantification: Bridging Research and Practice	Workshop: Pediatric Brain Data Analysis
8:30								
9:00	Keynote: Bram Rooms 7-12 || Theater 1394							
9:30								
10:00	Coffee Break Room: Reception Area							
10:30	Special Session: NIH Session: Funding Opportunities and Grant Writing Tips	Inside the Prostate: Images, Risk, and Guidance	Diagnosis Across Modalities, with a Generative Twist	Cleaning Up Noisy Images the Smart Way	Finding Tiny Things in Hard Places	The Retina as a Window	Workshop: Medical Video AI Assessment and Uncertainty Quantification: Bridging Research and Practice	Workshop: Pediatric Brain Data Analysis
11:00								
11:30	Lunch with Leaders Rooms 7-12							
12:00								
12:30								

THURSDAY, APRIL 9 (CONT.)

	ROOM 1	ROOM 2	ROOM 3	ROOM 4	ROOM 14	ROOM 15	ROOM 16	ROOM 17
13:00	Poster/Live Demo Session One Room: 3/16							
13:30								
14:00	Keynote: Faisal Mahmood Rooms 7-12 || Theater 1394							
14:30								
15:00	Special Session: Preparing Large-Scale Medical Imaging Data for Foundation Model Development	What Video Reveals in the Clinic and OR	EEG, Uncertainty, and Trust	Matching Across Domains and Over Time	Diagnosis That Travels Better	Predicting What Comes Next	Workshop: Medical Video AI Assessment and Uncertainty Quantification: Bridging Research and Practice	Workshop: Pediatric Brain Data Analysis
15:30								
16:00	Coffee Break Room: Reception Area							
16:30	Special Session: Safety and Reliability in Medical Imaging Room 1	Making MRI Agree Across Scanners and Sites Room 2	What Pathology Can Tell Us About Outcome Room 3	Faster Cardiac MRI, Better Reconstruction Room 4	CT from Less: Sparse, Fast, and Corrected Room 14	Pushing MRI Beyond Native Resolution Room 15	Workshop: Medical Video AI Assessment and Uncertainty Quantification: Bridging Research and Practice Room 16	Workshop: Pediatric Brain Data Analysis Room 17
17:00								
17:30								

FRIDAY, APRIL 10

	ROOM 1	ROOM 2	ROOM 3	ROOM 4	ROOM 14	ROOM 15	ROOM 16	ROOM 17
7:30	Registration Room: ICC Registration Area							
8:00 8:30	Special Session: Digital Twins and Multi-Omics Integration: Methodological Advances for Personalized Bio-medical Modeling	Ultrasound and Photoacoustics, Rebuilt	New Modalities, New Measure-ments	Smarter Reconstruction Pipelines	Fast Recovery from Imperfect Data	Reconstruction with Implicit Priors	Fingerprinting MRI, with Physics in the Loop	Workshop: Large Models Meet Surgical Data Science
9:00 9:30	Keynote: Mauricio Rooms 7-12 || Theater 1394							
10:00	Coffee Break Room: Reception Area							
10:30 11:00	Special Session: Privacy-Aware, Data-Efficient AI via Personalized Incremental and Federated Learn-ing in Healthcare	Getting MRI Modalities into Register	Weak Labels, Domain Shifts, and Real Robots	Learning Time Without Labels	Segmenting the Brain with Miss-ing Pieces	Echo Guidance, Right at the Probe	Synthetic Data That Actually Helps	Workshop: Large Models Meet Surgical Data Science
11:30 12:00 12:30	Diversity Lunch Rooms 7-12							

FRIDAY, APRIL 10 (CONT.)

	ROOM 1	ROOM 2	ROOM 3	ROOM 4	ROOM 14	ROOM 15	ROOM 16	ROOM 17
13:00	Poster/Live Demo Session One Room: 3/16							
13:30								
14:00	Keynote: Polina Golland Rooms 7-12 || Theater 1394							
14:30								
15:00	Special Session: Data Crimes in Medical Imaging: Pitfalls, Biases, and Mitigation Strategies	Segmenting the Body at Scale in CT	Vessels, Lungs, and Weak Supervision	PET, Sharpened and Reimagined	When Foundation Models Meet Sparse Labels	Segmentation Guided by More Than the Image	Microscopy, Mitochondria, and Neural Structure	Workshop: Exploring Foundation Models in Medical Image Analysis: Applications, Challenges, and Uncertainties
15:30								
16:00	Coffee Break Room: Reception Area							
16:30	Segmentation That Adapts to the Expert	Prompts, Ambiguity, and Robust Masks	Parsing Tissue, Nuclei, and Detail	Better Labels, Better Segmentation	Catching Small Lesions and Bad Labels	X-Rays with Fewer Blind Spots	From MRI or CBCT to a Usable CT	Workshop: Exploring Foundation Models in Medical Image Analysis: Applications, Challenges, and Uncertainties
17:00								
17:30							Meet the Journal Editors	
18:00								

SATURDAY, APRIL 11

	ROOM 1	ROOM 2	ROOM 3	ROOM 4	ROOM 14	ROOM 15	ROOM 16	ROOM 17
7:30	Registration Room: ICC Registration Area							
8:00 8:30	Fusing and Rewriting Brain MRI Signals Room 1	How Brain Dynamics Relate to Behavior Room 2	Connectivity as a Psychiatric Signal Room 3	How the Brain Changes, Folds, and Drifts Room 4	Biomarkers, Shapes, and Quantitative Clues Room 14	Sharper MRI from Less, Lower, and Other Modalities Room 15	Reports, Retrieval, and Medical Reasoning in One Loop Room 16	Workshop: POCUS–AI: Point-of-care Ultrasound Powered by AI Room 17
9:00 9:30	Keynote: Greg Rooms 7-12 || Theater 1394							
10:00	Coffee Break Room: Reception Area							
10:30 11:00	Decoding the Brain Through Networks and Signals Room 1	Registering, Translating, and Aligning Brain MRI Room 2	Tumors, Organs, and What the Masks Reveal Room 3	Tracking Brain Disease Across Time and Disorders Room 4	Restoring Images and Modeling Motion Room 14	When Segmentation Design Meets Explainability Room 15	Few Shots, Better Masks, Better Landmarks Room 16	Workshop: POCUS–AI: Point-of-care Ultrasound Powered by AI Room 17
11:30 12:00 12:30	Lunch on own							
13:00 13:30	Poster/Live Demo Session three Room: 3/16							

SATURDAY, APRIL 11 (CONT.)

	ROOM 1	ROOM 2	ROOM 3	ROOM 4	ROOM 14	ROOM 15	ROOM 16	ROOM 17	ROOM 5
14:00	Foundation Models Under Stress and Shift	Explaining Brain Decisions Across Development	Reasoning Across Organs, Not Just Labels	When Clinical Imaging Needs Better Metrics and Models	Alignment, Localization, and Matching-Precisely	Breast Imaging Beyond a Single Modality	Technical Workflows Behind the Images	Workshop: The 2nd Workshop on Foundation AI models in Biomedical Imaging (FAIBI)	
14:30									
15:00	Closing & Award Ceremony Rooms 7-12								
15:30									
16:00	Coffee Break Room: Reception Area								
16:30	Challenge: Foundation Model Challenge for Ultrasound Image Analysis	Challenge: CXR-LT 2026: Long-Tailed Multi-Label Chest X-ray Benchmark for Clinical AI	Challenge: Low Concentration Reconstruction Challenge in Magnetic Particle Imaging	Challenge: CSV 2026: Carotid Plaque Segmentation and Vulnerability Assessment in Ultrasound	Challenge: Multi-modal Ulcerative Colitis Grading in Endoscopy	Challenge: FETUS 2026: Fetal HearT UltraSound Segmentation and Sizing Challenge	Challenge: RIVA Cervical Cytology Challenge: Multi-Expert Pap Smear Dataset for Precancer and Cancer Detection	Workshop: The 2nd Workshop on Foundation AI models in Biomedical Imaging (FAIBI)	Challenge: WBCBench2026: Robust White Blood Cell Classification
17:00									
17:30									
18:00									

Technical Program – 8 April 2026

7:30 – 8:30
Registration
ICC Registration Area

8:30 – 16:15
Industry Day
Room 1

8:30
Tools and techniques to make sense of complex healthcare data
Jonny Hancox (NVIDIA)

9:16
From Research to Deployment: Translating AI Innovation into Industry Practice
Hongxu Yang (GE Healthcare)

10:30
Designing Robust Real-World Evidence Frameworks for Deployed Clinical AI Systems
Haris Shuaib (Newton's Tree)

11:15
Multimodal AI for acquisition and interpretation of medical images
Fernando Pérez-García (Microsoft Research)

13:30
Algorithms to Impact: Translating Imaging AI from Research to Routine Clinical Practice, an industry perspective
Craig Buckley (Siemens Healthineers)

14:16
Vision Foundation Models for Cellular Biology: Modeling, Evaluation and Deployment
Navid Alemi (Novo Nordisk)

15:30
Toward Real-World Ophthalmic Intelligence: From Expert Foundation Models to General-Purpose Systems
Lie Ju (University College London, UK)

8:30 – 17:00
Tutorial: Introduction to Generative Modeling with Flows and Diffusions
Room 2

Technical Program – 8 April 2026

8:30 – 17:00
Tutorial: Customized Multiresolution Analysis and Learning Algorithms in Biomedical Imaging
Room 3

8:30 – 17:00
Clinical Day
Room 4

8:30
DARPA and the Future of Autonomous Medicine
Roozbeh Jafari (Biological Technologies Office, DARPA)

9:15
From Foundation models to Generative modeling in Medical Imaging: For Early Detection and Decision Support
Hayit Greenspan (University of Tel-Aviv)

10:15
Evaluating AI for real-world clinical use
Kanwal Bhatia (Aival)

11:00
Multimodal AI for Knowledge-Enhanced Computational Pathology
Lequan Yu (School of Computing and Data Science, The University of Hong Kong)

14:00
AI Contrast Agents – AI to Eliminate Chemical Contrast Agents in Imaging
Shuo Li (Case Western Reserve University,USA)

15:25
The Push and Pull: Clinicians, AI Scientists, and the Future of Medicine
KC Santosh (USD AI Research, The University of South Dakota)

16:20
Roundtable Discussion & Topic

8:30 – 12:00
Tutorial: From Sequence Diagrams to Medical Images – A Comprehensive and Interactive Tutorial on Image Formation in Magnetic Resonance Imaging
Room 14

Technical Program – 8 April 2026

8:30 – 12:00
Tutorial: Learning with Covariance Matrices: Foundations and Applications to Network Neuroscience
Room 15

10:00 – 10:30
Coffee Break
Reception Area

12:00 – 13:30
Lunch – *on own*

13:30 – 17:00
Tutorial: Modern Data Cleaning
Room 14

13:30 – 17:00
Tutorial: BioMedPINNs: Successfully using Physics-Informed Neural Networks in Biomedical Applications
Room 15

17:30 – 18:00
Opening Ceremony
Rooms 7-12

18:00 – 19:00
Welcome Reception
Reception Area

7:00 – 8:00
Registration
Room ICC Registration Area

8:00 – 9:00
Looking Through the Retina in Finer Detail
Room 3
Chairs: Boah Kim (Sungkyunkwan University, Korea (South)); Toni Lassila (University of Leeds, United Kingdom (Great Britain))

08:00
1571220896: Visualization Guided Retinal Fluid Segmentation of Optical Coherence Tomography B-Scans
Saptarshi Mandal, Oindrila Haldar and Chandra Sekhar Seelamantula (Indian Institute of Science, Bengaluru, India); Raghu Prasad (Carl Zeiss India (Bangalore) Pvt Ltd., India)

08:10
1571217833: TAPE: A Two-Stage Parameter-Efficient Adaptation Framework for Foundation Models in OCT-OCTA Analysis
Xiaofei Su, Zengshuo Wang, Minghe Sun, Xin Zhao and Mingzhu Sun (Nankai University, China)

08:20
1571225834: Deep Learning-Based DR Screening from OCT Using Layer-Aware Thickness and Texture Maps
Sadman Sakib (University of Louisville, USA); Mohamed Elsharkawy (University of Louisville, USA & Mansoura University, Egypt); Moumen El-Melegy and Asem Ali (University of Louisville, USA); Mohammed A. Ghazal (Abu Dhabi University, United Arab Emirates); Fatma Taher (Dubai, UAE, United Arab Emirates & Zayed University, United Arab Emirates); Ayman El-Baz (University of Louisville, USA)

08:30
1571219353: LUMOS: Universal Semi-Supervised Oct Retinal Layer Segmentation with Hierarchical Reliable Mutual Learning
Y. Fang and Jian Zhong (Southern University of Science and Technology, China); Li Lin (The University of Hong Kong, Hong Kong); Xiaoying Tang (Sustech, China)

08:40
1571218222: Modeling Structure--Function Discordance in Glaucoma Visual Field Analysis
Roee Shalom Kattaby (Tel-Aviv University, Israel); Ari Leshno and Nir Avisar (Sheba Medical Center, Israel); Gal Yaakov Cohen (Chaim Sheba Medical Center & New York Eye and Ear Infirmary of Mount SInai, Israel); Ye Tian and Kaveri Thakoor (Columbia University, USA); Lior Wolf (Tel-Aviv University, Israel)

08:50
1571220976: ProtoStage-Net: A Clinically Guided Foundation Model with Prototypical Learning for Automated AMD Grading from OCT Images
Mohamed Elsharkawy (University of Louisville, USA & Mansoura University, Egypt); Moumen El-Melegy, Asem Ali and Ali Mahmoud (University of Louisville, USA); Mohammed Ghazal (University of Abu Dhabi, United Arab Emirates); Ashraf Khalil (Zayed University, United Arab Emirates); Wei Wang and Ayman El-Baz (University of Louisville, USA)

8:00 – 9:00
Reading Alzheimer's Through MRI and Beyond
Room 1
Chairs: Xiaoyi Jiang (University of Muenster, Germany); Zhifan Jiang (Children's National Hospital, USA)

08:00
1571221156: Cross-Attention Fusion of Structural and Deformation-Based MRI Features for Alzheimer's Disease Classification
Shijia Zhang, Xiyu Ding, Brian Caffo, Junyu Chen, Xinyi Zhang, Hadi Kharrazi and Zheyu Wang (Johns Hopkins University, USA)

08:10
1571218735: DySC-CCA: Dynamic Similarity-Constrained Canonical Correlation Analysis for Multimodal Alzheimer's Diagnosis
Sewook Oh, Junmo Kwon and Jonghun Kim (Sungkyunkwan University, Korea (South)); Sunghun Kim (Korea University, Korea (South)); Sinyoung Ra and Hyunjin Park (Sungkyunkwan University, Korea (South))

08:20
1571219056: Task-Aware Functional Hypergraph Learning for Brain State Classification via Information Bottleneck
Mingyang Xia and Yonggang Shi (University of Southern California, USA)

08:30
1571225957: CALM-VLM: Calibration and Selective Prediction in Vision-Language Models for Reliable Brain MRI Classification
Nikhil Joshua Dhinagar, Chirag Jagad, Pavithra Senthilkumar, Sophia I. Thomopoulos, Mahir H. Khan, Sook-Lei Liew and Paul M. Thompson (University of Southern California, USA)

08:40
1571221845: PaT-Diff: Pathology-Aware Residual Diffusion Framework for MRI-to-PET Translation in Alzheimer's Disease
Ha-Eun Kim and Kwanseok Oh (Korea University, Korea (South)); Heung-Il Suk (Koera University, Korea (South))

08:50
1571225192: Assessing the Influence of Tractography Methods on White Matter Microstructure and Tractometry Analysis in Alzheimer's Disease
Yuhan Shuai, Yixue Feng, Julio E Villalon-Reina, Talia M. Nir, Sophia I. Thomopoulos and Paul M. Thompson (University of Southern California, USA); Bramsh Q Chandio (West Virginia University, USA)

8:00 - 9:00
Teaching Medical VLMs to Actually Reason
Room 14
Chairs: Yuxing Li (The University of Hong Kong, Hong Kong)

08:00
1571222329: MEDQUA: A NISQ-Aware Quantum Adapter for Medical Vision--Language Models
Yiwei Li, Yi Pan, Junhao Chen, Yifan Zhou, Hanqi Jiang and Huaqin Zhao (University of Georgia, USA); Yanjun Lyu (University of Texas at Arlington, USA); Zhengliang Liu (University of Georgia, USA); Lin Zhao (New Jersey Institute of Technology, USA); Dajiang Zhu (University of Texas at Arlington, USA); Xiang Li (Mass General Research Institute, USA); Tianming Liu (University of Georgia, USA)

08:10
1571220787: Measuring and Aligning Abstraction in Vision-Language Models with Medical Taxonomies
Ben Schaper (Technische Universität München, Germany); Maxime di Folco (Helmholtz Munich, Germany); Bernhard Kainz (Imperial College London, United Kingdom (Great Britain)); Julia A. Schnabel (Helmholtz and Technical University of Munich, Germany); Cosmin Bercea (Technical University Munich, Germany)

08:20
1571225568: A Pair-Weighing Strategy for Enhancing CLIP Zero-Shot Classification for Chest X-Rays
Ibrahim Altufayli and Massimiliano Ciranni (University of Genoa, Italy); Carlo Alberto Barbano (University of Turin, Italy); Vittorio Murino (University of Verona, Italy); Vito Paolo Pastore (University of Genova, Italy)

08:30
1571217836: A Multimodal Slice Discovery Framework for Systematic Failure Detection and Explanation in Medical Image Classification
Yixuan Liu (Imperial College London, United Kingdom (Great Britain)); Kanwal K Bhatia (Aival, United Kingdom (Great Britain)); Ahmed Fetit (Imperial College London, United Kingdom (Great Britain))

08:40
1571226020: Hyper-DSCNet: Integrating Radiographic Details and Syndromic Context with Hypergraph Learning for Chest X-Ray Detection
Lin Jin, Yu Wang and Peiyin Chen (Hohai University, China); Chenglin Liu (Henan Academy of Sciences, China)

08:50
1571219729: Weakly Supervised Concept Learning with Class-Level Priors for Interpretable Medical Diagnosis
Md Nahiduzzaman and Steven Korevaar (Royal Melbourne Institute of Technology, Australia); Alireza Bab-Hadiashar (RMIT, Australia); Ruwan Tennakoon (RMIT University, Australia)

8:00 - 9:00
What Cells Are Telling Us
Room 2
Chairs: Samuel Kadoury (Ecole Polytechnique de Montreal, Canada); Turkay Kart (University of Oxford, United Kingdom (Great Britain))

08:00
1571219942: Dihedral-Invariant LBP Co-Occurrence for Cellular Texture Analysis
Jiří Hladůvka and Viktória Hodorová (Comenius University in Bratislava, Slovakia)

08:10
1571219950: Self-Learned Representation-Guided Latent Diffusion Model for Breast Cancer Classification in Deep Ultraviolet Whole Surface Images
Pouya Afshin (Georgia State University, USA); David Helminiak and Tianling Liu (Marquette University, USA); Julie M. Jorns and Tina Yen (Medical College of Wisconsin, USA); Bing Yu (Marquette University, USA); Dong Hye Ye (Georgia State University, USA)

08:20
1571220956: CurvFuse: Field-Curvature-Aware Multi-Focus Fusion for Bioluminescence Imaging
Yu Liu (Technische Universität München, Germany); Ruyu Ma (Helmholtz Munich, Germany); Nassir Navab (Technische Universität München, Germany); Jian Cui (Helmholtz Munich, Germany); Tingying Peng (Helmholtz Zentrum München, Germany)

08:30
1571221379: Bridging the Density Gap: Diffusion Model for Stepwise Generation of Dense Cell Images from Sparse Data
Masashi Tahara (Kyushu University, Japan); Kazuya Nishimura (D3 Center, the University of Osaka, Japan); Shumpei Takezaki and Ryoma Bise (Kyushu University, Japan)

08:40
1571226574: hSNMF: Hybrid Spatially Regularized NMF for Image-Derived Spatial Transcriptomics
Md Ishtyaq Mahmud (University of Houston, USA); Veena Kochat and Suresh Satpati (MD Anderson Cancer Center, USA); Jagan Mohan Reddy Dwarampudi (University of Houston, USA); Humaira Anzum (Ahsanullah University of Science and Technology, Bangladesh); Kunal Rai (MD Anderson Cancer Center, USA); Tania Banerjee (University of Houston, USA)

08:50
1571219914: Mamba-Based Ensemble Learning for White Blood Cell Classification
Lewis Clifton (University of Bristol, United Kingdom (Great Britain)); Xin Tian (University of Oxford, United Kingdom (Great Britain)); Duangdao Palasuwan and Phandee Watanaboonyongcharoen (Chulalongkorn University, Thailand); Polapat Rojnuckarin (Faculty of Medicine, Chulalongkorn University, Thailand); Nantheera Anantrasirichai (University of Bristol, United Kingdom (Great Britain))

8:00 - 9:00
What the Whole Slide Knows
Room 4
Chairs: Leo Lebrat (Queensland University of Technology, Australia); Maria J. Ledesma-Carbayo (Universidad Politécnica de Madrid, Spain)

08:00
1571205102: Expert Clustering and Knowledge Transfer for Whole Slide Image Classification
Kleanthis Marios Papadopoulos, Nikolaos Giakoumoglou, Andreas Floros, Pier Luigi Dragotti and Tania Stathaki (Imperial College London, United Kingdom (Great Britain))

08:10
1571226541: A Multi-Scale Linear-Time Encoder for Whole-Slide Image Analysis
Jagan Mohan Reddy Dwarampudi (University of Houston, USA); Joshua Wong (University of Florida, USA); Hien Nguyen Van and Tania Banerjee (University of Houston, USA)

08:20
1571219285: Leveraging Whole Slide Difficulty in Multiple Instance Learning to Improve Prostate Cancer Grading
Marie Arrivat (Télécom Paris & Primaa, France); Rémy Peyret (Primaa, France); Elsa D. Angelini (Telecom Paris LTCI, Institut Polytechnique, France); Pietro Gori (Télécom Paris, France)

08:30
1571219057: Exploring Multi-Scale Local and Global Features in Whole Slide Images Using State Space Models
Chongcong Jiang (University of Louisiana at Lafayette, USA); Zhuo Zhao (UT Southwestern Medical Center, USA); Peixian Liang (University of Pennsylvania, USA); Min Shi (University of Louisiana at Lafayette, USA); Jun Han (The Hong Kong University of Science and Technology, Hong Kong); Nian-Feng Tzeng (University of Louisiana at Lafayette, USA); Guanghua Xiao (UT Southwestern Medical Center, USA); Danny Z. Chen (University of Notre Dame, USA); Hao Zheng (University of Louisiana at Lafayette, USA)

08:40
1571225663: CP-MIL: Class Prototype-Based Multiple Instance Learning for Lung Cancer Subtype Classification and Interpretability in Whole Slide Images
Ibrahim Abdelhalim (University of Louisville, USA); Walid Mohamed (Assiut University, Egypt & University of Louisville, USA); Asem Ali (University of Louisville, USA); Mohammed Ghazal (University of Abu Dhabi, United Arab Emirates); Ali Mahmoud, Moumen El-Melegy and Ayman El-Baz (University of Louisville, USA)

08:50
1571225556: Multimodal Distillation-Driven Ensemble Learning for Long-Tailed Histopathology Whole Slide Images Analysis
Xitong Ling, Xiaoxiao Li and Jiawen Li (Tsinghua University, China); Mingxi Fu (Tsinghua, China); Yuxuan Chen, Jing Peng, Minxi Ouyang, Yizhi Wang and Yonghong He (Tsinghua University, China); Xiaoping Liu (Wuhan University, China); Lianghui Zhu and Tian Guan (Tsinghua University, China)

8:00 - 9:00
When Biomedical AI Gets Fragile
Room 15
Chairs: Jingxin Liu (Xi'an Jiaotong-Liverpool University, China); Xiaofeng Liu (Yale University, USA)

08:00
1571222191: Useful Nonrobust Features are Ubiquitous in Biomedical Images
Coenraad Mouton (Christian-Albrechts-Universität Kiel, Germany); Randle Rabe (North-West University, South Africa); Niklas C Koser, Nicolai Krekiehn, Christopher Hansen, Jan-Bernd Hövener and Claus-C. Glüer (Christian-Albrechts-Universität, Kiel, Germany)

08:10
1571218886: Covariance Descriptors Meet General Vision Encoders:\\Riemannian Deep Learning for Medical Image Classification
Josef Mayr (Technical University of Munich, Germany); Anna Reithmeir (Technische Universität München, Germany); Maxime di Folco (Helmholtz Munich, Germany); Julia A. Schnabel (Helmholtz and Technical University of Munich, Germany)

08:20
1571222911: Multimodal Optical Imaging Platform for Quantitative Burn Assessment
Nathaniel Hanson (Massachusetts Institute of Technology, USA); Mateusz Wolak and Jonathan Richardson (MIT Lincoln Laboratory, USA); Patrick Walker and David M. Burmeister (Uniformed Services University, USA); Chakameh Zahed Jafari (Massachusetts Institute of Technology, USA)

08:30
1571226401: DermAI: Clinical Dermatology Acquisition Through Quality-Driven Image Collection for AI Classification in Mobile
Thales de Oliveira Bezerra, Emanoel Thyago Cordeiro dos Santos, Kelvin Cunha, Rodrigo Abreu Alves de Freitas Mota, Fábio de Lima Ferreira Papais, Francisco Mauro Falcão Matias Filho, Natália Araujo Lopes, Erico Moutinho Medeiros and Jéssica Guido Araujo (Universidade Federal de Pernambuco, Brazil); Shirley Cruz (Ebserh Hospitais Universitários Federais, Brazil); Paulo Borba (Universidade Federal de Pernambuco, Brazil); Ing Ren Tsang (Universidade Federal de Pernambuco - UFPE & Centro de Informática - CIn, Brazil)

08:40
1571220272: Detecting Rare Cortical Connectivity Around the Human Central Sulcus: A Deep Learning Analysis of 37,000+ Tractographies
Cristóbal Mendoza, Nabil Vindas, Joël Chavas, Julien Laval and Antoine Joachim Dufournet (Université Paris-Saclay, CEA, NeuroSpin, France); Pamela Guevara (Universidad de Concepción, Chile); Vincent Frouin, Denis Rivière and Jean-François Mangin (Université Paris-Saclay, CEA, NeuroSpin, France)

08:50
1571226434: Image Quality Assessment of Imputation-Induced Biomarker Distortions in Multiplex Immunofluorescence
Priyanka Rana and Xingnan Li (Macquarie University, Australia); Tuba Nur Gide, Nurudeen Adegoke, Yizhe Mao and James Wilmott (Melanoma Institute Australia, Australia); Sidong Liu (Macquarie University, Australia)

8:00 - 17:30
Workshop: Medical Video AI Assessment and Uncertainty Quantification: Bridging Research and Practice
Room 16

1571265434: Assessing Polyp Detection Delay Using Tracklets
Samuel Gussman-Toh (Georgia Institute of Technology, USA); Nicholas Petrick (US Food and Drug Administration, USA); Wei-Chung Cheng (Food and Drug Administration (FDA), USA); Feng Yang (US Food and Drug Administration, USA)

1571265435: Uncertainty-Quantified and Explainable Age- and Sex-Aware Contrastive Learning for Knee Osteoarthritis Classification
Fengyi Gao (University of Pittsburgh, USA); Farnaz Rezvani (IEEE Member, United Kingdom (Great Britain)); Yushui Han, Michael Kann and Nickolas Littlefield (University of Pittsburgh, USA); Hilal Maradit Kremers (Mayo Clinic, USA); Adolph J. Yates (University of Pittsburgh Medical Center, USA); Johannes F Plate and Ahmad P. Tafti (University of Pittsburgh, USA)

1571265437: Mind the Gap: An Analytical Framework for Evaluation-Regulation Alignment in Medical Video AI
Sachin Panicker (Fulcrum Digital Inc, USA)

1571265440: Beyond Auroc: Evaluating Temporal Stability, False-Positive Load, and Uncertainty Calibration in Capsule Endoscopy Video AI
Krispian Lawrence (Equitable Technologies, USA); Usha Goparaju (Equitables, Malaysia); Luis Lamb (Catholic Institute of Technology, USA)

8:00 – 17:30
Workshop: Pediatric Brain Data Analysis
Room 17
Chairs:

9:00 – 10:00
Keynote: Why medical image analysis should be open. Really open, not open as OpenAI
Bram van Ginneken, Radboud University, The Netherlands
Rooms 7-12
Chairs

10:00 – 10:30
Coffee Break
Reception Area

10:30 - 11:30
Cleaning Up Noisy Images the Smart Way
Room 4
Chairs: Golrokh Mirzaei (Ohio State University, USA); Arrate Muñoz-Barrutia (Universidad Carlos III de Madrid, Spain)

10:30
1571226177: Self-Supervised Bayesian Denoising Using a Poisson Noise Model
Tijmen Hendrik de Wolf (Erasmus University Medical Center, The Netherlands); Julie Nonnekens (Erasmus MC Medical Center, The Netherlands); Ihor Smal (University Utrecht, The Netherlands)

10:40
1571208944: CoDe: A Self-Supervised Consistency Model Framework for MRI Denoising
Junying Li, Qingyang Hou and Kaifeng Pang (University of California, Los Angeles, USA); Qi Miao and Alex Ling Yu Hung (UCLA, USA); Elif Aygun, Shu-Fu Shih, Qing Dai, Holden Wu and Kyung Hyun Sung (University of California, Los Angeles, USA)

10:50
1571215268: NAFNet-GAN: An Adversarial Framework for Supervised Fluorescence Microscopy Denoising
Guillermo Rey-Paniagua and Dariusz Lachowski (Universidad Carlos III de Madrid, Spain); Arrate Muñoz-Barrutia (Universidad Carlos III de Madrid & Instituto de Investigación Sanitaria Gregorio Marañon, Spain)

11:00
1571220077: Scanner-Adaptive Coil-Level Denoising for Diffusion MRI Using Explicit Noise Priors
Linbo Tang (Harvard University, USA); Qiang Liu, Lipeng Ning and Yogesh Rathi (Harvard Medical School, USA)

11:10
1571219091: Tri-Modality Transformer for Denoising: An Application to Rodent SORDINO fMRI
Weiran Xia, Dan Hu, Sheng Song, Yen-Yu Ian Shih, Li-Ming Hsu and Gang Li (University of North Carolina at Chapel Hill, USA)

11:20
1571216344: Imaging-Formation-Guided Implicit Neural Representation for Multi-View Fusion in Light-Sheet Microscopy
Jun Zhu, Mingzhe Wei, Yue Li, Min Guo and Huafeng Liu (Zhejiang University, China)

10:30 - 11:30
Diagnosis Across Modalities, with a Generative Twist
Room 3
Chairs: Norberto Malpica (Universidad Rey Juan Carlos, Spain); Gloria Menegaz (University of Verona, Italy)

10:30
1571218330: Cross-Modal Fine-Tuning of 3D Convolutional Foundation Models for ADHD Classification with Low-Rank Adaptation
Jyun-Ping Kao (Massachusetts General Brigham and Harvard Medical School, Boston, MA, USA); Shinyeong Rho (Washington University in St. Louis, USA); Shahar Lazarev (Tel Aviv University, Israel); Hyun-Hae Cho (Ewha Womans University, Korea (South)); Fangxu Xing (Massachusetts General Hospital and Harvard Medical School, USA); Taehoon Shin (Ewha Womans University, Korea (South)); Jay Kuo (University of Southern California, USA); Jonghye Woo (Massachusetts General Brigham and Harvard Medical School, Boston, MA, USA)

10:40
1571224688: Decomposing Pathological Features into Patho-Spatial Graphs for Skin Lesion Diagnosis
Guowei Dai (Sichuan University, China); Caixia Dong (Xi'an Jiaotong University, China); Jiangbo Zhang (Xinyang Aviation Vocational College, China); Yu Wang (The Second Affiliated Hospital of Xi'an Jiaotong University, China); Duwei Dai (The Second Affiliated Hospital of Xian Jiaotong University, China)

10:50
1571221367: LesionTABE: Equitable AI for Skin Lesion Detection
Rocio Mexia Diaz (University College London, University of London, United Kingdom (Great Britain)); Yasmin Greenway (Dermie.AI, United Kingdom (Great Britain)); Petru Manescu (University College London, United Kingdom (Great Britain))

11:00
1571226181: Hybrid Diffusion Model for Breast Ultrasound Image Augmentation
Farhan Fuad Abir, Sanjeda Sara Jennifer, Niloofar Yousefi and Laura Brattain (University of Central Florida, USA)

11:10
1571219030: MiTRes-UNet: A Hybrid Encoder Framework with Evolutionary Feature Selection for Intracranial Aneurysm Detection
An Hoang Nguyen (Monash University Malaysia, Australia & International University, HCMC, Vietnam); Ting Fung Fung (Monash University Malaysia, Australia); Quoc Bao Vuong (International University, VNUHCMC, Vietnam); Chee-Ming Ting (Monash University, Malaysia)

11:20
1571226165: Unpaired Semantic-Preserving Virtual Perls Generation via Conditional Generative Models
Ignacio Hernández Abad (Universidad Politécnica de Madrid, Spain); Juan E. Ortuño (CIBER de Bioingeniería, Biomateriales y Nanomedicina, Instituto de Salud Carlos III, Spain & Biomedical Image Technologies, Universidad Politécnica de Madrid, Spain); Ana Mendoza (Hospital Universitario 12 de Octubre de Madrid, Spain); Miguel Gómez Álvarez (Hospital Clínico San Carlos, Spain); Álvaro Basterra García (Universidad Politécnica de Madrid, Spain); Alejandra Ortiz Ruiz (Universidad Complutense de Madrid, Spain); David Bermejo Peláez and David Brau Queralt (SpotLab, Spain); Alba Rodríguez García (Universidad Complutense de Madrid, Spain); Nuria Díez (SpotLab, Spain); María Hernández (Universidad Complutense de Madrid, Spain); Andrés Santos (Universidad Politécnica de Madrid, Spain); Celina María Benavente (Hospital Clínico San Carlos, Spain); Joaquín Martínez López (Hospital Universitario 12 de Octubre, Spain); María Linares (Universidad Complutense de Madrid, Spain); Miguel Luengo Oroz (SpotLab, Spain); Maria J. Ledesma-Carbayo (Universidad Politécnica de Madrid, Spain)

10:30 - 11:30
Finding Tiny Things in Hard Places
Room 14
Chairs: Leandro Nascimento (Sorbonne Université, France); Jean-Christophe Olivo-Marin (Institut Pasteur, France)

10:30
1571226287: Anisotropy-Aware Strategy for Robust Deep Learning-Based Particle Picking in 3D Cellular Cryo-Electron Tomogram
Mounir Messaoudi and Charles Kervrann (INRIA, France)

10:40
1571221606: Detection over Segmentation: A New Approach for Multi-Particle Picking in 3D Real-World CryoET
Ziqian Guan, Yuting Wang, Danyang Chen, Jiarui Zhu and Haowen Xiao (Guangzhou Institutes of Biomedicine and Health, Chinese Academy of Sciences, China); Fukang Ge (Guangzhou Institutes of Biomedicine and Health Chinese Academy of Sciences, China); Yanrui Lu (South China University of Technology, China); Lin Gu (RIKEN, Japan); Yingying Zhu (Guangzhou Institute of Biomedicine and Health, China)

10:50
1571202337: SemiETPicker: Fast and Label-Efficient Particle Picking for CryoET Tomography Using Semi-Supervised Learning
Linhan Wang and Jianwen Dou (Virginia Tech, USA); Wang Li (University of Memphis, USA); Shengkun Wang (Virginia Tech, USA); Zhiwu Xie (Wenzhou-Kean University, China); Chang-Tien Lu and Yinlin Chen (Virginia Tech, USA)

11:00
1571220501: Medical Small Object Detection Algorithm Based on Multi-Scale Frequency Domain Enhancement and Cross-Attention Fusion
Qi Wang and Ge Yang (Institute of Automation, Chinese Academy of Sciences, China)

11:10
1571219840: Weakly Supervised Segmentation and Classification of Alpha-Synuclein Aggregates in Brightfield Midbrain Images
Erwan Dereure (IBENS); Robin Louiset (AP-HP, ENS, France); Laura Parkkinen and David Menassa (University of Oxford, United Kingdom (Great Britain)); David Holcman (IBENS)

11:20
1571223421: Comprehensive Attention Networks for Cell Segmentation Using Numerical Integration
Nikomidisz Jorgosz Eftimiu and Michal Kozubek (Masaryk University, Czech Republic)

10:30 - 11:30
Inside the Prostate: Images, Risk, and Guidance
Room 2
Chairs: Wei Lou (Zhejiang Normal University, China); Baoqiang Ma (University Medical Center Utrecht, The Netherlands)

10:30
1571225932: A Geometric Multimodal Foundation Model Integrating Bp-MRI and Clinical Reports in Prostate Cancer Classification
Juan Olmos (Universidad Industrial de Santander, Colombia); Antoine Manzanera (ENSTA, Institut Polytechnique de Paris, France); Fabio Martinez (Universidad Industrial de Santander, Colombia)

10:40
1571225909: A Multimodal Deep Learning Framework for Prostate Cancer Risk Prediction Integrating Biparametric MRI, Radiology Reports, and Clinical Biomarkers
Walid Mohamed (Assiut University, Egypt & University of Louisville, USA); Ibrahim Abdelhalim (University of Louisville, USA); Tayseer Hassan (Ain shams, Egypt); Amr AbdelAziz (Beni-Suef University, Egypt); Mohammed Badawy (Mansoura University, Egypt); Moumen El-Melegy, Asem Ali and Ali Mahmoud (University of Louisville, USA); Fatma Taher (Dubai, UAE, United Arab Emirates & Zayed University, United Arab Emirates); Mohammed A. Ghazal (Abu Dhabi University, United Arab Emirates); Sohail Contractor and Ayman El-Baz (University of Louisville, USA)

10:50
1571224055: Segmentation from Partial Views via Patient-Specific Shape Priors
Jared Vicory and Dženan Zukić (Kitware, Inc., USA); Balazs Vagvolgyi (John's Hopkins University, USA); Peter Kazanzides (Johns Hopkins University, USA); Andinet Enquobahrie (Kitware, Inc., USA); Emad Boctor (Johns Hopkins University, USA)

11:00
1571214134: Attention-Based Tracking of Ultrasound Frames for Prostate Biopsy Navigation Using a Zonal Representation
Chloé Soormally (Grenoble Alpes University, France); Clement Beitone, Jocelyne Troccaz and Sandrine Voros (University Grenoble Alpes, France)

11:10
1571226610: ProZoneSAM2: Region-Constrained Fine-Tuning of SAM2 for Anatomically Consistent Prostate Zonal Segmentation
Chunna Yang (Shandong University); Mengting Yang (Shandong University, China); Zhongwei Zhao, Yan Li and Nengwang Yu (Qilu Hospital of Shandong University, China); Yipeng Hu (University College London, United Kingdom (Great Britain)); Zhe Min (Shandong University, China)

11:20
1571221453: Optimized High b-Value DWI Synthesis for Prostate Cancer Detection Using ADC Fusion
Fahym Bounazou (INRIA, France & Epione Team, France); Florencia Boccarato and Hye Lim Lee (INRIA, France); Raphaele Renard Penna (Assistance Publique Des Hôpitaux de Paris, France); Hervé Delingette (INRIA, France)

10:30 - 11:30
The Retina as a Window
Room 15
Chairs: Vito Paolo Pastore (University of Genova, Italy); Jean-Christophe Pesquet (CentraleSupelec, University Paris-Saclay, France)

10:30
1571220652: Integrating Multi-Modal Fundus Photography for Precision Diagnosis in Ophthalmology
Fan Xiao (Fudan University, China); Junlin Hou (The Hong Kong University of Science and Technology, Hong Kong); Yiqian Xu and Rui-Wei Zhao (Fudan University, China); Haidong Zou, Lina Lu and Yi Xu (Shanghai Eye Diseases Prevention & Treatment Center, China); Juzhao Zhang (Shanghai Jiao Tong University School of Medicine, China); Rui Feng (Fudan University, China)

10:40
1571226148: Diffusion Autoencoder for Unsupervised Artifact Restoration in Handheld Fundus Images
Mathumetha Palani (Nuvo AI Pvt.Ltd); Kavya Puthumana (Nuvo AI, India); Ayantika Das (Indian Institute of Technology Madras Chennai, India); Ganapathy Krishnamurthi (Indian Institute of Technology, Madras, India)

10:50
1571221952: Evaluating Transferability of Fundus-Trained Deep Models to Mobile Retinal Imaging for Diabetic Retinopathy Detection
Md Rashik Shahriar Akash, Ramazan Aygun and Mahmut Karakaya (Kennesaw State University, USA)

11:00
1571220322: DINO-MambaSeg: A Foundation-Guided Network for Patchy Atrophy Segmentation
Siqi Wang (Tsinghua University, China); Juexue Wang (Beijing Tongren Eye Center, China); Zhuo Deng (Tsinghua Shenzhen International Graduate School, China); Wenbin Wei (Beijing Tongren Eye Center, China); Lan Ma (Tsinghua University, China)

11:10
1571217275: SA-UNetv2: Rethinking Spatial Attention U-Net for Retinal Vessel Segmentation
Changlu Guo, Anders Nymark Christensen and Anders Bjorholm Dahl (Technical University of Denmark, Denmark); Yugen Yi (Jiangxi Normal University, China); Morten Rieger Hannemose (Technical University of Denmark, Denmark)

10:30 – 11:30
Special Session: NIH Session: "Funding Opportunities and Grant Writing Tips"
Room 1
Chairs: Rui Carlos Pereira de Sá, NIH

11:20
1571220417: Oculomix: Hierarchical Sampling for Retinal-Based Systemic Disease Prediction
Hyunmin Kim and Yukun Zhou (Institute of Ophthalmology, University College London, United Kingdom); Rahul Arvo Jonas (University of Cologne, Faculty of Medicine, Department of Ophthalmology, Germany); Lie Ju (Institute of Ophthalmology, University College London, United Kingdom); Sunjin Hwang (Hanyang University Guri Hospital, Guri City, South Korea); Pearse Andrew Keane and Siegfried Wagner (Institute of Ophthalmology, University College London, United Kingdom)

11:30 – 13:00
Lunch with Leaders
Rooms 7-12

13:00 – 14:00
Poster/Live Demo Session One
Rooms 6/13
Chairs: Guohua Cao (ShanghaiTech University, China); Lina Chato (University of South Dakota, USA)

1571222427: Expert Model Guided Visual Programming for Radiology Report Generation
Zizhe Liu (Institute of Automation, Chinese Academy of Sciences, China); Moshu Xu (Tsinghua University, China)

1571222442: Semi-Wavelet Attention Transformer-Based MPI Reconstruction Algorithm
Hongbo Guo (Northwest University, China)

1571222491: Quantitative Evaluation of Explanation Quality in Fetal Ultrasound Biomarker Detection Using Saliency Maps
Anirudh S Varrier (Amrita Vishwa Vidyapeetham, India); Santiago Alférez (Technical University of Catalonia, Spain); Jithin Velayudhan (Amrita Vishwa Vidyapeetham, India); Joan Sabria (Center for Maternal and Fetal Medicine, India); Sikha Okkath Krishnanunni (Universitat Pompeu Fabra, Spain)

1571222510: Bayesian PET Reconstruction with Learned Normalizing Flow Priors
Hengjia Ran (Zhejiang University, China); Yuxuan Lin (Columbia University, USA); Huafeng Liu and Bo Zhao (Zhejiang University, China)

1571222518: Structural Self-Supervision for Label-Free Aortic Abnormality Triage on Non-Contrast CT
Jiani Lin (GuangZhou University of Chinese Medicine, China); Zhiquan Situ and Guoxi Xie (Guangzhou Medical University, China); Zhou Wu (Guangzhou University of Chinese Medicine, China)

1571222986: ST-Mamba: Dual-Branch State-Space Modeling for EEG Motor Imagery Decoding
JiaKai Deng, Peiliang Gong, Qi Zhu, Yang Shao, Xuhao Cao, Kun Wang, Liying Zhang and Daoqiang Zhang (Nanjing University of Aeronautics and Astronautics, China)

1571223156: LEARNER: Contrastive Pretraining for Learning Fine-Grained Patient Progression from Coarse Inter-Patient Labels
Jana Al Armouti, Nikhil Madaan and Rohan Panda (Carnegie Mellon University, USA); Tom Fox and Laura Hutchins (LSUHSC Internal Medicine New Orleans, USA); Amita Krishnan (LSUHSC Pulmonary Critical Care Medicine, USA); Ricardo Rodriguez (Cosmeticsurg, Montenegro); Bennett DeBoisblanc (LSUHSC, USA); Deva Ramanan (Carnegie Mellon University, USA); John M Galeotti (Carnegie Mellon Univ, USA); Gautam Rajendrakumar R Gare (Carnegie Mellon University, USA)

1571223477: Unsupervised Fixed Point Networks for Improved MRF Reconstruction
Peng Li and Yinghao Zhang (Harbin Institute of Technology, China); Xin Lu (De Montfort University Leicester, United Kingdom (Great Britain)); Yue Hu (Harbin Institute of Technology, China)

1571223539: SLAM-AGS: Slide-Label Aware Multi-Task Pretraining Using Adaptive Gradient Surgery in Computational Cytology
Marco Acerbis, Swarnadip Chatterjee, Christophe Avenel and Joakim Lindblad (Uppsala University, Sweden)

1571223609: A Data-Driven Framework for Automated Analysis of Volumetric Microscopy: Detection, Segmentation, and 3D Reconstruction
Ebenezer Afrifa (South Dakota Mines, USA); Yoseph M. Loyd and Brandon L. Scott (South Dakota Mines and Technology, USA); Mohammadreza Mehrabian (South Dakota School of Mines and Technology, USA)

1571223941: SQET-MoE: Two-Stage Brain Age Estimation Using Squeeze-and-Excitation Transformer and Mixture-of-Experts
Rizuki Oura, Koichi Ito and Takafumi Aoki (Tohoku University, Japan)

1571224168: MALSIV: Multi-Agent Multi-Landmark Searching with Implicit Voting for Fast and Robust Anatomical Landmark Localization in MR Scans
Xueqi Guo, Halid Yerebakan, Kritika Iyer, Yoshihisa Shinagawa and Gerardo Hermosillo Valadez (Siemens Healthineers, USA)

1571224172: CephRes-MHNet: A Multi-Head Residual Network for Accurate and Robust Cephalometric Landmark Detection
Ahmed Jaheen (The American University in Cairo, Egypt & New York University, USA); Islam Hassan (The American University in Cairo, Egypt); Mohanad Abouserie (American University in Cairo, Egypt); Abdelaty Rehab, Adham Elasfar and Knzy Elmasry (The American University in Cairo, Egypt); Mostafa El-Dawlatly (Cairo University, Egypt); Seif Eldawlatly (Ain Shams University, Egypt & The American University in Cairo, Egypt)

1571224269: The Impact of Local Perturbations on Large-Scale Neural Activity: An Empirical and Simulation Study
Peilun Song (The Chinese University of Hong, Hong Kong); Yaping Wang (Zheng Zhou University, China); Patrick CM Wong (Chinese University of Hong Kong, Hong Kong); Qihong Zou (Peking University, China); Yating Lv (The Affiliated Hospital of Hangzhou Normal University, China); Xiujuan Geng (Chinese University of Hong Kong, Hong Kong)

1571224274: HISTO-UNet: Histopathology Image Segmentation Using Topology-Aware UNet with Dual Uncertainty Quantification
Ashim Dhor (Indian Institute of Science Education and Research Bhopal, India); Emily Das (Maulana Azad Medical College, India); Rasel Mondal (Indian Institute of Science Education and Research Bhopal, India); Shweta Azad (Jawaharlal Nehru Cancer Hospital and Research Center, Bhopal, India); Vaishali Walke and Shakti Kumar Yadav (All India Institute of Medical Sciences, Bhopal, India); Abhirup Banerjee (University of Oxford, United Kingdom (Great Britain)); Tanmay Basu (Indian Institute of Science Education and Research Bhopal, India)

1571224365: Region-Aware Loss Modulation for Accurate and Efficient 3D ULM
Mohammad Sabih (The Pennsylvania State University, USA); Afnan Alqarni (Pennsylvania State University, USA); Mohamed Almekkawy (Penn State University, USA)

1571224452: Latent Diffusion-Based Visual-Textual Fusion for Survival and Recurrence Prediction of Colorectal Liver Metastases
Mohamed El Amine Elforaici (École Polytechnique de Montréal, Université de Montréal, Canada); Feryel Azzi (Centre de Recherche Du CHUM (CRCHUM), Canada); Dominique Trudel, Bich Ngoc Nguyen, An Tang and Simon Turcotte (Université de Montréal, Canada); Samuel Kadoury (Ecole Polytechnique de Montreal, Canada)

1571224523: Synthesizing Functional Insights from Structural MRI for Alzheimer's Detection Using Deep Correlation Multimodal Image Learning
Soham Lahiri (Jadavpur University, India); Priyanka Srivastava (IIT Jodhpur, India); Narinder Singh Punn (ABV-IIITM Gwalior, India); Bikash Santra (IIT Jodhpur, India)

1571224582: LAPVT: Local Attention-Guided Pyramid Vision Transformers for Retinal Disease Classification
Assam Albaqami, Mohammed Alnemari, Kaled Alotaibi and Abdullatef Alboalawi (University of Tabuk, KSA, Saudi Arabia); Ibrahim Abdelhalim (University of Louisville, USA); Mohamed Elsharkawy (University of Louisville, USA & Mansoura University, Egypt)

1571224596: SFNet: Spatial-Frequency Collaborative Network for Fast System Matrix Calibration in Magnetic Particle Imaging
Penghua Zhai, Weixin Xu, Ao Xiao, Xinran Jiang, Jie Tian and Wei Mu (Beihang University, China)

1571224667: Intelligent Diagnosis of Chronic Obstructive Pulmonary Disease by Integrating CT Segmentation and Multi-Dimensional Representations
Long Hao and Na Deng (Shanghai University of Engineering Science, China); Dongni Hou (Zhongshan Hospital, Fudan University, China); Wenyu Xing (University of Health and Rehabilitation Sciences, China)

1571224767: Meta-Guided Sampling for Improved Few-Shot Learning in Skin Cancer Classification
Ranjana Roy Roy Chowdhury and Deepti Bathula (IIT Ropar, India)

1571224779: Unsupervised Confidence Calibration for Active Learning
Naoya Fukui, Hideaki Hayashi and Hajime Nagahara (Osaka University, Japan)

1571225224: Accelerated MR Fingerprinting with Low-Rank Modeling and Implicit Neural Representation
Shizhuo Li (Zhejiang University, China); Huihui Ye (Hangzhou Dianzi University, China); Huafeng Liu and Bo Zhao (Zhejiang University, China)

1571225289: Fast Gradient Methods for Data-Consistent Local Super-Resolution of Medical Images
Junqi Tang, Guixian Xu and Jinglai Li (University of Birmingham, United Kingdom (Great Britain))

1571225347: DBS-ElecNet: Automated Localization and Segmentation of DBS Electrodes in Clinical MRI
Vanessa Huiting Yu, Edward Chen, Jurgen Germann, Alexandre Boutet, Andres M. Lozano and Kamil Uludag (University Health Network, Canada); Sriranga Kashyap (University Health Network & Sunnybrook Research Institute, Canada)

1571225352: Evaluating Sample-Size Efficiency and Sensitivity of Tractometry in Alzheimer's Disease
Yixue Feng, Julio E Villalon-Reina, Iyad Ba Gari, Jonathan Davis Alibrando, Talia M. Nir and Neda Jahanshad (University of Southern California, USA); Bramsh Q Chandio (West Virginia University, USA); Paul M. Thompson (University of Southern California, USA)

1571225374: Hybrid-Projection with Subspace Recycling for Sequential and Limited-Angle CT: A Training-Free Baseline for Biomedical Imaging
Honghui Li (University of Birmingham, United Kingdom (Great Britain))

1571225463: Attention-Based Multiple Instance Learning for Predominant Growth Pattern Prediction in Lung Adenocarcinoma WSI Using Foundation Models
Laura Valeria Perez Herrera, Maria Jesus Garcia-Gonzalez and Karen López-Linares Román (Vicomtech Foundation, Spain)

1571225510: Robust Landmark Detection in TPUS: Can AI Overcome Clinical Image Quality Variability?
Keke Shi (K.U. Leuven, Belgium); Adéla Samešova (Institute for the Care of the Mother and Child, Czech Republic); Susanne Housmans and Ann Pastijn (UZ Leuven, Belgium); Hans Peter Dietz (Sydney Urodynamic Centres, Australia); Ka Lai Shek (Western Sydney University, Australia); Jan Deprest (UZ Leuven, Belgium); Helena Williams (KU Leuven, Belgium)

1571225530: Hierarchical Frequency Regularization for Out-of-Distribution Detection in Generative Models for Medical Images
Daniela Herrera, Alexia Briassouli and Maurice Van Keulen (University of Twente, The Netherlands)

1571225554: Heart Sounds Spectrogram: An Efficient Detection Tool for Depression
Hamza Khan (UET Taxila, Pakistan); Muhammad Majid (University of Engineering and Technology Taxila, Pakistan); Aamir Arsalan (Fatima Jinnah Woman University, Pakistan); Syed Muhammad Anwar (Children's National Hospital & Signal, Image, Multimedia Processing and Learning, USA)

1571225570: FocusSDF: Boundary-Aware Learning for Medical Image Segmentation via Signed Distance Supervision
Muzammal Shafique (University of Michigan, USA); Nasir Rahim (University of Michigan-Flint, USA); Jamil Ahmad (United Arab Emirates University, United Arab Emirates); Mohammad-Reza Siadat (Oakland University, USA); Khalid Mahmood Malik (University of Michigan-Flint, USA); Ghous Malik (Henry Ford Hospital, USA)

1571225587: Classifying Breast Composition by Applying Deep Learning to Microwave Images: A Feasibility Study
Anhela Francees, Peter Shmerko, Pedram Mojabi, Roberto Souza, Svetlana Yanushkevich and Elise Fear (University of Calgary, Canada)

1571225593: Vessel-Aware Deep Learning for OCTA-Based Detection of AMD
Margalit Gita Mitzner, Moinak Bhattacharya, Zhilin Zou, Chao Chen and Prateek Prasanna (Stony Brook University, USA)

1571225594: Efficient Statistical Shape Analysis of 3D Cell Surface with Deep Functional Map and Elastic Shape Flow
Rubin Li (Dalian Maritime University, China); Lin Li (Chinese Academy of Sciences, China); Xuechen Zhang (The Hong Kong University of Science and Technology, China)

1571225658: Real-Time Camera-Based Heart Rate Estimation System Using Deep Learning on Edge Device
Chiquita Ahsanunnisa and Nur Ahmadi (Bandung Institute of Technology, Indonesia); Robithoh Annur (Institute Technology Bandung, Indonesia); Rinaldi Munir (Institut Teknologi Bandung, Indonesia)

1571225687: Phase-Correction Strategies for Physics-Driven Deep Learning Reconstruction of Accelerated Non-Cartesian Multi-Echo fMRI
Mahdi Saberi (University of Minnesota - Twin Cities, USA); Zidan Yu, Christoph Rettenmeier and Andrew Stenger (University of Hawaii, USA); Mehmet Akcakaya (University of Minnesota, USA)

1571225690: Data-Efficient Medical Segmentation Through Active Knowledge Distillation from a SAM Teacher
Yuchen Mao (University of Cambrid, United Kingdom (Great Britain)); Hongwei Bran Li (National University of Singapore, Singapore); Yuchen Pan (Heriot-Watt University, United Kingdom (Great Britain)); Giorgos Papanastasiou (Athena Research Centre, Greece); Peng Qi (Tongji University, China); Yunjie Yang (University of Edinburgh, United Kingdom (Great Britain)); Wei Pang and Chengjia Wang (Heriot-Watt University, United Kingdom (Great Britain))

1571225709: From Intensity to Anatomy: Optimizing nnU-Net for MR-to-CT Translation on SynthRAD2025
Arthur Longuefosse (RIKEN Center for Integrative Medical Sciences, Tokyo, Japan); Javier Sequeiro Gonzalez (Universidad Autónoma de Madrid, Spain); Fabien Baldacci (University of Bordeaux, France); Jun Seita (RIKEN Center for Integrative Medical Sciences, Tokyo Japan, Japan)

1571225721: All-Subtype Cataract Classification and Grading in AS-OCT via a Unified Multi-Task Framework
Bingyan Hao (Zhejiang University of Technology, China); Yuanyuan Gu (Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences, China); Yitian Zhao (University of Chinese Academy of Sciences, China)

1571225734: Reconstructing Patched or Partial Holograms to Allow for Whole Slide Imaging with a Self-Referencing Holographic Microscope
Philip Groult, Julia D Sistermanns, Ellen Emken and Oliver Hayden (Technical University of Munich, Germany); Wolfgang Utschick (Technical University of Munich & School of Computation, Information and Technology, Germany)

1571225788: HyLLM: A RAG-Based Large Language Model Framework for Phenotype-Guided Reasoning in Hypertensive Management
Mohanad Alkhodari, Prenali Sattwika and Nick Wilmes (University of Oxford, United Kingdom (Great Britain)); Vadir Baktash (NHS, United Kingdom (Great Britain)); Winok Lapidaire, Paul Leeson and Turkay Kart (University of Oxford, United Kingdom (Great Britain))

1571225805: High-Resolution Label-Free Imaging of Neuro-Cancer Cell Interaction in a 3D Microfluidic Device Using Optical Coherence Tomography
Soyini Alexander (New York University, United Arab Emirates); Pauline John and Azhar Zam (New York University Abu Dhabi, United Arab Emirates)

1571225828: Utility of Pancreas Surface Lobularity as a CT Biomarker for Opportunistic Screening of Type 2 Diabetes
Tejas Sudharshan Mathai, Anisa V Prasad, Xinya Wang and Praveen T.s. Balamuralikrishna (National Institutes of Health Clinical Center, USA); Yan Zhuang (Icahn School of Medicine at Mount Sinai, USA); Abhinav Suri and Jianfei Liu (National Institutes of Health Clinical Center, USA); Perry J Pickhardt (University of Wisconsin School of Medicine & Public Health, USA); Ronald Summers (National Institutes of Health, USA)

1571225840: Hybrid Inception-ViT Networks for Fine-Grained Single-Cell Image Classification
Saqib Nazir and Ardhendu Behera (Edge Hill University, United Kingdom (Great Britain))

1571225843: Ranking XAI Methods for Head and Neck Cancer Outcome Prediction
Baoqiang Ma (University Medical Center Utrecht, The Netherlands); Djennifer K. Madzia Madzou and Roos C.J. Kraaijveld (UMC Utrecht, The Netherlands); Jin Ouyang (China)

1571225852: Learnable Total Variation with Lambda Mapping for Low-Dose CT Denoising
Yusuf Talha Basak and Mehmet Ozan Unal (Istanbul Technical University, Turkey); Metin Ertas (Turkish Airlines, Turkey); Isa Yildirim (Istanbul Technical University & University of Illinois at Chicago, Turkey)

1571225853: F2FD-TTT: Test-Time Training with Self-Supervised Fourier-to-Fourier Denoising for Membrane Segmentation in Cryo-ET Tomograms
Diyor Khayrutdinov, Simon Wiedemann and Reinhard Heckel (TU München, Germany)

1571225859: SplineSplat: 3D Ray Tracing for Higher-Quality Tomography
Youssef Haouchat (EPFL - EPF Lausanne, Switzerland); Sepand Kashani (EPFL, Switzerland); Aleix Boquet-Pujadas (Paul Scherrer Institute, Switzerland); Philippe Thévenaz (École polytechnique fédérale de Lausanne (EPFL), Switzerland); Michael Unser (Ecole Polytechnique Fédérale de Lausanne, Switzerland)

1571225867: Effectiveness of SAM for Conjunctiva Segmentation
Sunil Kumar (IIIT, India); K. Mohith Goud (International Institute of Information Technology, India); Kamalaker Dadi (International Institute of Information Technology Hyderabad, India); Raju Surampudi Bapi (International Institute of Information Technology, India)

1571225874: Joint Multiscale Image Learning for Segmentation in Macroscopic and Microscopic Pathology Images
Yijie Zhu (University of Warwick, United Kingdom (Great Britain)); Ayesha Azam (University Hospitals Coventry and Warwickshire NHS Trust, United Kingdom (Great Britain)); Ibrahim Alsanie (King Saud University, Saudi Arabia); Ricardo Marques (University Hospitals Coventry and Warwickshire NHS Trust, United Kingdom (Great Britain)); Syed Ali Khurram (University of Sheffield, United Kingdom (Great Britain)); Shan E Ahmed Raza (University of Warwick, United Kingdom (Great Britain))

1571225901: Integration of Cardiac Histopathological and Imaging Data to Improve Understanding of Stereotactic Arrhythmia Radioablation
Juan Andres Cisneros Jacome and Louis Rigal (Université de Rennes, France); Raphaël Martins (University of Rennes 1, France); Solène-Florence Kammerer-Jacquet (Univserity of Rennes 1, France); Annegret Elisabeth Werner (University of Rostock, Germany); Melvyn Dezecot (University of Rennes 1, France); Loig Duverge (CLCC Eugène Marquis, France); Renaud De Crevoisier (University of Rennes 1, France); Julien Bellec (CLCC Eugène Marquis, France); Antoine Simon (University of Rennes 1, France)

1571225905: MPD-CXR: Diffusion Model with Multi-Perspective Semantic Conditioning for Chest X-Ray Synthesis from Report
Avadhut Eknath Kabadi (Indian Institute of Technology, Jodhpur, India); Angshuman Paul (Indian Institute of Technology Jodhpur, India)

1571225906: Fast, Unsupervised Framework for Registration Quality Assessment of Multi-Stain Histological Whole Slide Pairs
Shikha Dubey (Johnson & Johnson, USA); Patricia Raciti (Johnson & Johnson, USA); Kristopher Standish (Johnson & Johnson Innovative Medicine, USA); Albert Juan Ramon and Erik Ames Burlingame (Johnson & Johnson, USA)

1571225975: Image Imputation for Real-World Defective Microscopy Images of Mouse Brains
Tao Wen, Ziquan Wei, Tingting Dan, Felix Akwasi Kyere, Ian Curtin and Jason Louis Stein (The University of North Carolina at Chapel Hill, USA); Guorong Wu (University of North Carolina, USA)

1571225979: Large-Scale Modality-Invariant Foundation Models for Brain MRI Analysis: Application to Lesion Segmentation
Petros Koutsouvelis (Maastricht University, The Netherlands); Matej Gazda (Technical Uviversity of Kosice, Slovakia); Leroy Volmer and Sina Amirrajab (Maastricht University, The Netherlands); Kamil Barbierik (SWAI, Czech Republic); Branislav Setlak (Technical Uviversity of Kosice, Slovakia); Jakub Gazda (Louis Pasteur University Hospital, Slovakia); Peter Drotar (Technical University of Kosice, Slovakia)

1571226000: RESMSCAM-FFT NET: Residual Multi-Scale Channel Attention Module with Fast Fourier Transform Network for Cardiac Segmentation
Wenqing Jiang, Yoichi Kato and Hiroyasu Iwata (Waseda University, Japan)

1571226009: Brain-MGF: Multimodal Graph Fusion Network for EEG-fMRI Brain Connectivity Analysis Under Psilocybin
Sin-Yee Yap, Fuad Noman and Junn Yong Loo (Monash University Malaysia, Malaysia); Devon Stoliker and Moein Khajehnejad (Turner Institute for Brain and Mental Health, Australia); Raphael C.W. Phan (Monash University Malaysia, Malaysia); David L. Dowe and Adeel Razi (Monash University, Australia); Chee-Ming Ting (Monash University Malaysia, Malaysia)

1571226012: ProtoMSNet: A Prototypical Network for Interpretable Detection of Mitral Stenosis in Echocardiography
Jamie Alexis Goco, Hooman Vaseli and Purang Abolmaesumi (University of British Columbia, Canada); Christina Luong (Vancouver General Hospital, Canada); Teresa Sm Tsang (Vancouver Coastal Health, Canada)

1571226024: Wavelet-Domain Multi-Representation and Ensemble Learning for Automated ECG Analysis
Lina Chato and Alex Muchiri Kagozi (University of South Dakota, USA)

1571226046: ADAPT: Multibeamformer with Tunable Weight Fusion and Patch-Wise Learning for Ultrasound Imaging
Gopika Gopikrishnan and Mahesh Raveendranatha Panicker (Singapore Institute of Technology, Singapore); Timothy Liu, Aik Beng Ng and See Chong-Wee (NVIDIA, Singapore)

1571226060: US-XAI: A RAG-Grounded Vision Language Model for Explainable Urinary Sediment Classification
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1571226096: Eosinophil Counting with Green Learning
Qixin Hu and Yixing Wu (University of Southern California, USA); Mate Levente Nagy and Hwan Dong (Fulgent Genetics, USA); Jay Kuo (University of Southern California, USA)

1571226098: A Hybrid Diversity-Aware Active Learning Framework for Efficient Histopathology Image Segmentation
Gunjan Deotale, Dev Kumar Das and Lavish Ramchandani (Aira Matrix Private Limited, India); Tijo Thomas (AIRA MATRIX Pvt. Ltd., India)

1571226120: Synergy vs. Noise: Performance-Guided Multimodal Fusion for Biochemical Recurrence-Free Survival in Prostate Cancer
Seth Alain Chang, Muhammad Mueez Amjad and Noorul Wahab (University of Warwick, United Kingdom (Great Britain)); Ethar Alzaid (Predictive Systems in Biomedicine (PRISM) Lab, University of Warwick, United Kingdom (Great Britain) & Tissue Image Analytics Centre, University of Warwick, United Kingdom (Great Britain)); Nasir M Rajpoot and Adam Shephard (University of Warwick, United Kingdom (Great Britain))

1571226122: Wavelet-Based Scale-Wise Functional Connectivity Revealed Modulations Due to Aβ-Tau Proteins in Alzheimer's Disease
Giorgio Dolci, Enrico Zorzi, Virginia Filippi, Silvia Saglia, Lorenza Brusini, Ilaria Boscolo Galazzo and Gloria Menegaz (University of Verona, Italy)

1571226127: A Unified Transformer Architecture for 3D MSI-H&E Fusion
Hassan Imani (The Queen's University Belfast, United Kingdom (Great Britain)); Niladri Das and Iain B Styles (Queens University Belfast, United Kingdom (Great Britain))

1571226135: Learning EEG Representations for Neural Abnormality Detection from Graph Encoded Sequences
Shreyasi Datta (TCS Research, India); J Gubbi (TCS Research and Innovation, India); Arpan Pal (Tata Consultancy Services, India)

1571226141: 3D Modeling of Prostate Cancer Using Histological Radical Prostatectomy Specimens
Abhishek Ambast, Santosh Dudhabhate, Saikiran Bonthu and Nitin Singhal (AIRA Matrix Pvt. Ltd., India)

1571226144: A Dirichlet Distribution-Based Trust-Adaptive Ensemble Approach for Pneumonia Classification from Chest X-Ray Images
Wissam Harib and Shereen Fouad (Aston University, United Kingdom (Great Britain)); Taha F. Mahmoud (University Hospital of Sharjah, United Arab Emirates)

1571226151: QwenCLIP: Boosting Medical Vision-Language Model Pretraining via LLM Embeddings and Prompt Tuning
Xiaoyang Wei (Université de Paris, France); Camille Kurtz (Université Paris Cité, LIPADE, France); Florence Cloppet (Université Paris Cité, France)

1571226168: Confidence Matters: Uncertainty Quantification and Precision Assessment of Deep Learning-Based CMR Biomarker Estimates Using Scan-Rescan Data
Dewmini Hasara Wickremasinghe, Michelle Gibogwe, Andrew Bell, Esther Puyol-Antón, Muhummad Sohaib Nazir and Reza Razavi (King's College London, United Kingdom (Great Britain)); Bruno Paun and Paul Aljabar (Perspectum Ltd, United Kingdom (Great Britain)); Andrew P King (Kings College London, United Kingdom (Great Britain))

1571226201: Dynamic Group Joint ICA (Dyna-gjICA) Uncovers Neural Mechanism Underlying Depression with and Without Anxiety
Souvik Phadikar (TReNDS Center, Georgia State University, USA); M.P. Paulus (Postgraduete Universitas Muhammadiyah, Yogyakarta, Indonesia, Indonesia); Rayus Kuplicki (Data Analytics Lead, Laureate Institute for Brain Research, USA); Masaya Misaki (Associate Investigator, LIBR, USA); Vince Calhoun (Tri-Institutional Research Center in Neuroimaging and Data Science, USA)

1571226206: ARMARecon: An ARMA Convolutional Filter Based Graph Neural Network for Neurodegenerative Dementias Classification
Venkata Sesha Satya Tejaswi Abburi (Shiv Nadar University, India); Ananya Singhal (GE Heathcare, India); Saurabh Janardan Shigwan (Shiv Nadar Institute of Eminence, India); Nitin Kumar (Shiv Nadar University, India)

1571226210: Deep Multimodal Integration of Whole Slide Images and Pathology Reports for Precise Estrogen Receptor Classification in Breast Cancer
Mohamed T. Azam (University of Louisville, USA); Walid Mohamed (Assiut University, Egypt & University of Louisville, USA); Khadiga Ali (Mansoura University, Egypt); Ahmed Aboudessouki (University of Louisville, USA); Hossam Magdy Balaha (University of Louisville, USA & Mansoura University, Egypt); Moumen El-Melegy, Asem Ali and Ali Mahmoud (University of Louisville, USA); Fatma Taher (Dubai, UAE, United Arab Emirates & Zayed University, United Arab Emirates); Mohammed A. Ghazal (Abu Dhabi University, United Arab Emirates); Dibson Gondim and Ayman El-Baz (University of Louisville, USA)

1571226211: Dual Cross-Attention Siamese Transformer for Rectal Tumor Regrowth Assessment in Watch-and-Wait Endoscopy
Jorge Tapias Gomez (Cornell University, USA); Georgia Despoina Kanata, Aneesh Rangnekar, Christina Lee, Jesse Joshua Smith, Julio Garcia-Aguilar and Harini Veeraraghavan (Memorial Sloan Kettering Cancer Center, USA)

1571226217: Abdominal Cone-Beam CT Visual Quality Enhancement Using 2.5D Conditional Diffusion Model
DongGyu Hwang and San Lee (Hankuk University of Foreign Studies, South Korea); Boah Kim (Sungkyunkwan University, Republic of Korea)

1571226232: BrainSegNet: A Novel Framework for Whole-Brain MRI Parcellation Enhanced by Large Models
Li Yucheng, Xiaofan Wang, Junyi Wang, Yijie Li, Xi Zhu, Mubai Du, Dian Sheng, Wei Zhang and Fan Zhang (University of Electronic Science and Technology of China, China)

1571226240: Parallel Route Coherent Mixup Deep Learning for Single Source to Multi-Domain Generalized Prostate Cancer Segmentation for MR Guided Adaptive Radiotherapy
Josiah J Simeth and Sudharsan Madhavan (Memorial Sloan Kettering Cancer Center, USA); Andreas Wibmer (Memorial Sloan Kettering Cencer Center, USA); Daniel Gorovets, Sean Mcbride, Himanshu Nagar, Victoria Brennan, Neelam Tyagi and Harini Veeraraghavan (Memorial Sloan Kettering Cancer Center, USA)

1571226245: Shape-Aware Multi-Task Instance Segmentation for Tubules in Renal Histology
Meryem Sikouky (University of Cote D'azur, France); Giorgio Toni (CHU Nice, France); Francesco Ponzio (Italy); Damien Ambrosetti (CHU NICE, France); Xavier Descombes (INRIA, France)

1571226246: Benchmark of H&E-to-mIF Virtual Staining in Digital Pathology
Guillaume Balezo (Mines Paris - PSL University, France & Sanofi, France); Etienne Decencière (Mines Paris - PSL University, Centre for Mathematical Morphology, France); Albert Pla Planas (Sanofi, Spain); Thomas Walter (Mines ParisTech, France)

1571226247: Adaptive Probe Geometry Estimation for High Frame Rate Imaging Using Flexible Ultrasound Arrays
Rudra Sainatha and Mahesh Raveendranatha Panicker (Singapore Institute of Technology, Singapore)

1571226261: Multimodal MRI and 18F-FPIA PET for Non Invasive IDH Mutation Prediction Using MRI-Foundation Model Embeddings
Marianna Inglese (Tor Vergata University of Rome, Italy); Shah Islam, Laura McLeavy, Francesco Mauri, Tara Barwick, Adam D Waldman, Kevin O'Neill, Matthew Williams and Eric O Aboagye (Imperial College London, United Kingdom (Great Britain)); Nicola Toschi (Universita' degli Studi di Roma "Tor Vergata", Italy)

1571226266: Role of Sex in Structural MRI Prediction of Cognition Severity in Autism
Mostafa Abdelrahim (University of Louisville, USA); Mohamed Khudri (Bioengineering Departement, University of Louisville, KY, USA); Ali Mahmoud (University of Louisville, USA); Ahmed Shalaby (UTSW Medical Center, Dallas, TX, USA); Moumen El-Melegy and Asem Ali (University of Louisville, USA); Mohammed A. Ghazal (Abu Dhabi University, United Arab Emirates); Fatma Taher (Dubai, UAE, United Arab Emirates & Zayed University, United Arab Emirates); Ashraf Khalil (Zayed University, United Arab Emirates); Sohail Contractor (University of Louisville, USA); Gregory N.Barnes (University of Louisville Autism Center, USA); Ayman El-Baz (University of Louisville, USA)

1571226268: AutoATQ: Automating Along-Tract Quantification Without Tractography
Chengzhe Zhang, Yu Xie, Zhonghua Wan, Tenglong Wang and Ye Wu (Nanjing University of Science and Technology, China)

1571226270: Time-Aware Neural Operator for Liver Radiofrequency Ablation Planning
Alexander Joseph Fezovich (University of Nottingham, United Kingdom (Great Britain)); Iman Yi Liao (The University of Notthingham, Malaysia); Ean Hin Ooi (Monash University Malaysia, Malaysia)

1571226291: Explaining Digital Pathology Models via Clustering Activations
Adam Bajger, Jan Obdržálek and Vojtěch Kůr (Masaryk University, Czech Republic); Rudolf Nenutil (Masaryk Memorial Cancer Institute, Czech Republic); Petr Holub (Masaryk University in Brno, Czech Republic); Vít Musil and Tomáš Brázdil (Masaryk University, Czech Republic)

1571226293: Personalized Stress Detection Through Reinforcement Learning Based Domain Adaptation
Swati Kochhar and Nishchala Thakur (Indian Institute of Technology Ropar, India); Katja Heilmann, Lejla Colic and Laith Hamid (Jena University Hospital, Germany); Tara Chand (Jena University Hospital Jena Germany, Germany); Martin Walter and Veronika Engert (Jena University Hospital, Germany); Deepti Bathula (IIT Ropar, India)

1571226337: Clinically Grounded Radiology Report Generation via Explanation-Guided Policy Optimization
MD Tousin Akhter (IIT Bombay); Harsh Chaurasia (IIT Bombay, India); Sachindra Joshi (IBM, India); Kshitij Jadhav (IIT Bombay, India)

1571226347: BEFNet: Boundary-Enhanced Fusion Network for Early Esophageal Cancer Segmentation
Lei Zhang (Sun Yat-sen University, China); Zihuang Wu (Jiangxi Normal University, China); Xinyu Xiong (Sun-Yat Sen University, China); Ming Li (Shandong Inspur Database Technology, China); Guanbin Li (Sun Yat-sen University, China)

1571226350: BOOST: A B0 Optimization Shimming Technique for Halbach-Based MRI Scanners
Jose Rojas-Cancino and Belén Bravo-Kunz (Pontificia Universidad Catolica de Chile, Chile); Clemente Soza, Jacinta Blanco, Benjamin Landeta, Alberto B Osorio and Nicolás E Seguel (Pontificia Universidad Católica de Chile, Chile); Carlos Milovic (Pontificia Universidad Catolica de Chile, Chile); Pablo Irarrazaval (Pontificia Universidad Catlica de Chile, Chile); Cristian Tejos (Pontificia Universidad Catolica de Chile, Chile)

1571226355: Medley: Orchestrating Imperfect Segmentation Through Physics-Aware Multi-Tool Curation for Infant Brain MRI
Isabelle Le (Georgia State University, USA); Jocelyne Bachevalier and Sarah Shultz (Emory University, USA); Vince Calhoun (Tri-Institutional Research Center in Neuroimaging and Data Science, USA); Sergey Plis (TReNDS Center & Georgia State University, USA)

1571226356: From Binary to Continuous: Learning to Continuously Quantify Histopathological Patterns from Binary Labeled Images
Ruben Acosta and Fabian Cano (Universidad Nacional de Colombia, Colombia); Eduardo Romero (Computer Imaging and Medical Applications Laboratory - CIM@LAB, Universidad Nacional de Colombia, Colombia); Fabio Gonzalez (Universidad Nacional de Colombia, Colombia)

1571226357: DeltaSegment: Multifidelity Medical Image Segmentation via Change Detection
Yushuo Niu, Hailey Reed and Qian Yang (University of Connecticut, USA)

1571226368: Beyond the Monitor: Mixed Reality Visualization and Multimodal AI for Enhanced Digital Pathology Workflow
Jai Prakash Veerla and Partha Sai Guttikonda (The University of Texas at Arlington, USA); Helen H. Shang (University of California at Los Angeles, USA); Mohammad Sadegh Nasr, Cesar Torres and Jacob M Luber (The University of Texas at Arlington, USA)

1571226369: Enhancing Mammogram-Based Breast Cancer Prediction from Pretrained Vision-Language Models: The Role of Soft Prompts and Bidirectional Fusion
Fareeha Sarwar and Nuno Miguel De Figueiredo Garrido (ISCTE - Instituto Universitário de Lisboa, Portugal); Margarida Silveira (Universidade de Lisboa, Instituto Superior Técnico, Portugal & ISR, Portugal)

1571226374: A Pipeline for DTI Indices and Connectivity Analysis Applied to a Longitudinal Multiple Sclerosis Cohort
Liwei Zhou, Zhangxing Bian and Jinwei Zhang (Johns Hopkins University, USA); Blake Dewey (Johns Hopkins School of Medicine, USA); Shiv Saidha (Johns Hopkins University, USA); Peter Calabresi (University of Vermont, USA); Aaron Carass and Jerry Prince (Johns Hopkins University, USA)

1571226377: Improving Segmentation of Retinal Arteries and Veins Using Cardiac Signal in Doppler Holograms
Marius Dubosc (EPITA, France & Sorbonne University, France)

1571226386: TractRLFusion: A GPT-Based Multi-Critic Policy Fusion Framework for Fiber Tractography
Ankita Joshi (Indian Institute of Technology Mandi, India); Ashutosh Sharma (Indian Institute of Technology, Mandi, India & SarvamAI, India); Anoushkrit Goel (Indian Institute of Technology Mandi, India); Ranjeet Ranjan Jha (Indian Institute of Technology Patna, India); Chirag Kamal Ahuja (Postgraduate Institute of Medical Education and Research, India); Arnav Bhavsar and Aditya Nigam (IIT Mandi, India)

1571226390: Evaluation of neuroCombat and Deep Learning Harmonization for Multi-Site MR Neuroimaging in a Pediatric Population with Prenatal Alcohol Exposure
Chloe Scholten (University of Calgary, Canada); Elyssa M McMaster, Adam Saunders, Michael Kim, Gaurav Rudravaram and Elias Levy (Vanderbilt University, USA); Bryce Geeraert (University of Calgary, Canada); Lianrui Zuo (Vanderbilt University, USA); Simon Vandekar (Vanderbilt University Medical Center, USA); Catherine Lebel (University of Calgary, Canada); Bennett Landman (Vanderbilt University, USA)

1571226393: DerMAE: Improving Skin Lesion Classification Through Conditioned Latent Diffusion and MAE Distillation
Francisco Mauro Falcão Matias Filho, Kelvin Cunha, Fábio de Lima Ferreira Papais, Emanoel Thyago Cordeiro dos Santos, Rodrigo Abreu Alves de Freitas Mota, Thales de Oliveira Bezerra, Erico Moutinho Medeiros and Paulo Borba (Universidade Federal de Pernambuco, Brazil); Ing Ren Tsang (Universidade Federal de Pernambuco - UFPE & Centro de Informática - CIn, Brazil)

1571226408: Magnetic Resonance Elastography: Predicting Brain Stiffness in Parkinson's Disease Patients from Multidimensional Diffusion MRI
Edoardo Paccagnella, Felix Nieto-del-Amor and Christoffer Olsson (KTH Royal Institute of Technology, Sweden); Jingru Fu (Harvard Medical School, USA); Sarah Vandenbulcke, Sanna Persson and Rodrigo Moreno (KTH Royal Institute of Technology, Sweden)

1571226416: Contrastive Meta-Domain Adaptation for Robust Skin Lesion Classification Across Clinical and Acquisition Conditions
Rodrigo Abreu Alves de Freitas Mota, Kelvin Cunha, Emanoel Thyago Cordeiro dos Santos, Fábio de Lima Ferreira Papais, Francisco Mauro Falcão Matias Filho, Thales de Oliveira Bezerra, Erico Moutinho Medeiros and Paulo Borba (Universidade Federal de Pernambuco, Brazil); Ing Ren Tsang (Universidade Federal de Pernambuco - UFPE & Centro de Informática - CIn, Brazil)

1571226422: Two-Stage Physics-Guided Self-Supervised Quantitative MRI with Diffusion-Based Refinement for Synthetic DIR Imaging in Multiple Sclerosis
Bin Zhang (Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences, China); Xingyang Wu (Shenzhen Institutes of Advanced Technology, China); Dong Liang (Shenzhen Institute of Advanced Technology, China); Yihang Zhou and Haifeng Wang (Shenzhen Institutes of Advanced Technology, China)

1571226432: RAA-MIL: A Novel Framework for Classification of Oral Cytology
Rupam Mukherjee (Indian Institute of Technology, Kharagpur, India); Soujanya Hazra, Rajkumar Daniel, Shirin Dasgupta and Subhamoy Mandal (Indian Institute of Technology Kharagpur, India)

1571226433: Rotation Equivariant Convolutions in Deformable Registration of Brain MRI
Arghavan Rezvani, Kun Han, Anthony T Wu, Pooya Khosravi and Xiaohui Xie (University of California, Irvine, USA)

1571226445: Defining and Characterizing Membrane Domains from Fluorescence Images: Persistent Homology to the Rescue
Gregory Paul (University of Zurich, Switzerland); Stephen M. Huisman and Denise Goly (University of Zürich, Switzerland); Maximilian von Büdingen (University of Zurich, Switzerland); Damian Brunner (University of Zürich, Switzerland)

1571226448: Segmentation Confidence for Arbitrary CNNs
Baris Oguz (University of Pennsylvania, USA); Xing Yao (Vanderbilt University, USA); Claudia Tawil (University of Pennsylvania, USA); Alison M Pouch (Penn Medicine, USA); Brett Byram (Vanderbilt University, USA); Gabriel Arenas and Nadav Schwartz (University of Pennsylvania, USA); Ipek Oguz (Vanderbilt University, USA)

1571226456: Curriculum-Guided Myocardial Scar Segmentation for Ischemic and Non-Ischemic Cardiomyopathy
Nivetha Jayakumar (University of Virginia, Charlottesville, USA); Jonathan Pan (UVA Health, USA); Shuo Wang and Bishow Paudel (University of Virginia, USA); Nisha Hosadurg (UVA Health, USA); Cristiane C. Singulane, Sivam Bhatt, Amit Patel and Miaomiao Zhang (University of Virginia, USA)

1571226474: AI-Driven Spatial Analysis of Breast Cancer Images for Recurrence Stratification
Juan Martínez-Aedo Castro (Universidad Politécnica de Madrid, Spain); Ana D. Ramos-Guerra (Universidad Politécnica de Madrid&Centro de Investigación Biomédica En Red BBN, Spain); Juan E. Ortuño (CIBER de Bioingeniería, Biomateriales y Nanomedicina, Instituto de Salud Carlos III, Spain & Biomedical Image Technologies, Universidad Politécnica de Madrid, Spain); Irene Carretero-Barrios (Hospital Universitario Ramón y Cajal, Spain); Carmen Ariño Palao (Severo Ochoa University Hospital, Leganés, Spain); Jose Palacios (Hospital Universitario Ramón y Cajal, Spain); Belén Pérez Mies (Hospital Universitario Ramón y Cajal, Madrid, Spain); Maria J. Ledesma-Carbayo (Universidad Politécnica de Madrid, Spain)

1571226485: Multi-View EEG-to-Image Generation via Wasserstein Distance-Guided Adversarial Feature Alignment
Abhishek Rathore (Indian Institute of Technology Mandi, India); Arnav Bhavsar (IIT Mandi, India)

1571226487: Learning Time-Varying Co-Fluctuation Patterns from fMRI for Neurological Disease Diagnosis
Stacy Chen (Wellesley College, USA); Allen Xu (Georgia Institute of Technology, USA); Minjeong Kim (University of North Carolina at Greensboro, USA)

1571226491: Interactive Surgical Visualization with Real-Time Endoscopic Scene Reconstruction and Functional Imaging Overlay
Zili Wang, Xiwei Xuan and Kwan-Liu Ma (University of California, Davis, USA)

1571226496: The Retinal-Glycemic Link: Using Retinal Imaging to Explore Glycemic Variability
Wai Tak Lau and Aruzhan Abil (Columbia University, USA); Bill Chen (Duke University, USA); Jedrzej Golebka (Columbia University, USA); Jessilyn Dunn (Duke University, USA); Ahmed A. Metwally (Stanford University, USA); Kaveri Thakoor (Columbia University, USA)

1571226499: Single Tensor Cell Segmentation Using Scalar Field Representations
Kevin Ian R. Vargas (Universidade Federal de Pernambuco - UFPE, Brazil); Gabriel G Galdino (Universidade Federal de Pernambuco, Brazil); Ing Ren Tsang (Universidade Federal de Pernambuco - UFPE & Centro de Informática - CIn, Brazil); Alexandre Cunha (Caltech, USA)

1571226509: Deep Learning-Based Accelerated Adaptive Beamforming for Enhanced Musculoskeletal Ultrasound Imaging
Midhila Madhusoodanan (University of Alberta, Canada); Mahesh Raveendranatha Panicker (Singapore Institute of Technology, Singapore); Abhilash Hareendranathan (University of Alberta, Canada)

1571226511: Automated Crypt Architecture Categorization Using Advanced Endoscopy
Ujwala Bhangale (South Bank University London, United Kingdom (Great Britain)); Bisi Bode Kolawole (London South Bank University, United Kingdom (Great Britain)); Cecilia Pugliano, Irene Zammarchi and Giovanni Santacroce (University College of Cork, Ireland); Rocio del Amor and Pablo Meseguer (Universitat Politècnica de València, Spain); Valery Naranjo (Polytechnic University of Valencia, Spain); Subrata Ghosh and Marietta Iacucci (University College of Cork, Ireland); Enrico Grisan (London South Bank University, United Kingdom (Great Britain))

1571226514: Rethinking Model Complexity: Contrastive Frame Embedding in Transformer-Based Echocardiogram Ejection Fraction Estimation
Shaunna Wang and Yishan Zhong (Georgia Institute of Technology, USA); Benoit Marteau (Georgia Institution of Technology, USA); Shaun Qien Yeau Tan, Yining Yuan and Yifei Wang (Georgia Institute of Technology, USA); May Dongmei Wang (Georgia Institute of Technology and Emory University, USA)

1571226526: PhysHVS-LDCT: Dose-Controllable Physics-Based Low-Dose CT Synthesis for Benchmarking and Data Augmentation
Yousra Taifour (Universite Sorbonne Paris Nord, France); Marouane Tliba (University of Orléans, France); Nour Aburaed (University of Dubai, UAE); Azeddine Beghdadi (L2TI, Universite Paris 13, France); Faouzi Alaya Cheikh (Norwegian University of Science and Technology (NTNU), Norway); Aladine Chetouani (Institut Galilée - Université Sorbonne Paris Nord, France & L2TI, France); Zuheng Ming (Université Sorbonne Paris Nord, France); Rachid Jennane (University of Orleans & I3MTO Laboratory, France)

1571226531: Spooky Vascular Skeletons: A Study of Skeletonization Algorithms and Their Evaluation on 2D Vascular Datasets
Jules-Victor Lepinay, Oscar Morand and Elodie Puybareau (LRE EPITA Research Laboratory, France)

1571226545: DPANet: Dual-Path Prior-Guided Attention Network for Few-Shot Intravascular Ultrasound Segmentation
Junqin Luo and Yuxing Wei (Shenzhen University, China); Lei Du and Ming Wu (Shenzhen University General Hospital, China); Jiaqiang Li and Cheng Zhao (Shenzhen University, China); Xinhua Yin (Shenzhen University General Hospital, China); Tianfu Wang (ShenZhen University, China); Baiying Lei (Shenzhen University, China)

1571226553: IMACT-CXR: An Interactive Multi-Agent Conversational Tutoring System for Chest X-Ray Interpretation
Tuan Anh Le and Anh Mai Vu (University of Houston, USA); David Yang (Emory University, USA); Akash Awasthi and Hien Nguyen Van (University of Houston, USA)

1571226578: Rwkvfuse: Parallel Encoders Network for Medical Image Segmentation
Ahmed AL-Qurri (Penn State University, USA); Mohammad Sabih (The Pennsylvania State University, USA); Mohamed Almekkawy (Penn State University, USA)

1571226590: Analyzing Model Misspecification in Quantitative MRI: Application to Perfusion ASL
Jiachen Wang (University of Texas at Austin, USA); Jonathan I Tamir (The University of Texas at Austin, USA); Adam Bush (University of Texas at Austin, USA)

1571226596: Domain-Expert-Guided Hybrid Mixture-of-Experts for Medical AI: Integrating Data-Driven Learning with Clinical Priors
Jinchen Gu, Nan Zhao, Lei Qiu and Lu Zhang (Indiana University Indianapolis, USA)

1571226619: Upstream Probabilistic Meta-Imputation for Multimodal Pediatric Pancreatitis Classification
Max Nelson, Elif Keles and Eminenur Sen Tasci (Northwestern University, USA); Merve Yazol (Gazi University, Turkey); Halil Ertugrul Aktas, Ziliang Hong, Andrea Mia Bejar and Gorkem Durak (Northwestern University, USA); Oznur Leman Boyunaga (Gazi University, Turkey); Ulas Bagci (Northwestern University, USA)

1571226623: Neural Dynamics of Time Perception Under Acute Pain: An Auditory Temporal Bisection Study
Ashwini Subramanian, Siwei Mai, Jiazhen Hong and Laleh Najafizadeh (Rutgers University, USA)

1571226626: X-PLAIN: Vision-Language Knowledge Distillation for Interpretable Chest X-Ray Diagnosis
Supriyo Sadhya and Xiaojun Qi (Utah State University, USA)

1571226628: Efficient 3D Attention for 3T to 7T Modality Conversion
Inam Ul Haq Gulzar, Peeyush Kumar Singh and Sneha Singh (Indian Institute of Technology Mandi, India); Aditya Nigam (IIT Mandi, India); Pankaj Gupta (PGIMER Chandigarh, India)

1571260460: Detection and Classification of (Pre)Cancerous Cells in Pap Smears: An Ensemble Strategy for the RIVA Cervical Cytology Challenge
Lautaro Kogan and María Victoria Rios (Universidad de San Andres, Argentina)

1571260919: RIVA Cytology Classification and Detection: A Lesson on How "None of Us is as Smart as All of Us"
Chris Kang, Vibujithan Vigneshwaran and Nils Forkert (University of Calgary, Canada)

1571215956: Bias Mitigation for Brain Age Prediction via Age Delta Correlation Loss
Tianyi Ren, Juampablo E. Heras Rivera, Agamdeep Chopra and Mehmet Kurt (University of Washington, USA)

1571215998: When Vision-Language Models Look but Don't See: Anatomical Bias in Endoscopic Spatial Reasoning
Diego Bravo (Universidad Nacional de Colombia, Colombia); Daniel Wolf (Ulm University, Germany); JC Hurtado-Tobar (Universidad Nacional de Colombia, Colombia); Martín Gómez (Hospital Universitario Nacional de Colombia, Colombia); Eduardo Romero (Computer Imaging and Medical Applications Laboratory - CIM@LAB, Universidad Nacional de Colombia, Colombia)

1571218338: Personalized Federated Learning with Residual Fisher Information for Medical Image Segmentation
Meilu Zhu and Yuxing Li (The University of Hong Kong, Hong Kong); Zhiwei Wang (The University of Hong Kong, Hong Kong & Zhejiang University of Technology, China); Edmund Y. Lam (University of Hong Kong, Hong Kong)

1571218986: A Multimodal Cross-Attention Pathotranscriptome Integration for Enhanced Survival Prediction of Oral Squamous Cell Carcinoma
Kountay Dwivedi (Center for Clinical Research, University Clinic of Dentistry, Medical University of Vienna, Austria); Amirreza Mahbod (Research Center for Medical Image Analysis and Artificial Intelligence, Danube Private University, Austria); Rupert C. Ecker (TissueGnostics GmbH, Austria); Klara Janjić (Center for Clinical Research, University Clinic of Dentistry, Medical University of Vienna, Austria)

1571235784: Multimodal Early Lung Cancer Diagnosis with Imaging and Proteomics
Miriam Cobo (Institute of Physics of Cantabria, Spain & Utrecht University, The Netherlands); Diego Serrano (Schools of Medicine and Sciences, University of Navarra, Spain); Luis Seijo (Program in Solid Tumors, Cima Universidad de Navarra, Cancer Center Clínica Univ, Spain); Wilson Silva (Utrecht University, The Netherlands); Gorka Bastarrika (Program in Solid Tumors, Cima Universidad de Navarra, Cancer Center Clínica Univ, Spain); Lara Lloret (Institute of Physics of Cantabria, CSIC - UC, Spain); Luis Montuenga (Program in Solid Tumors, Cima Universidad de Navarra, Cancer Center Clínica Univ, Spain)

1571234826: Prior Knowledge to Enhance Machine Learning in Biomedical Imaging
Miriam Cobo (Institute of Physics of Cantabria, Spain & Utrecht University, The Netherlands); David Corral Fontecha (León University Health Care Complex, Spain); Wilson Silva (Utrecht University, The Netherlands); Lara Lloret (Institute of Physics of Cantabria, CSIC - UC, Spain)

Demo: fSTG Toolkit – an Open-Source Software for Longitudinal Brain Connectivity Analysis with Spatio-Temporal Graphs
Julien Pontabry (ICube, University of Strasbourg)

Demo: B-Guide – Breast Cancer Surgical Planning Tool
Felicia Alfano (Biomedical Image Technologies, Universidad Politécnica de Madrid; CIBER-BBN, ISCIII)

Demo: Spatio-Temporal AI for Lung Cancer Screening Nodule Assessment
Benito Farina (Centro de Investigación Biomédica en la Red (CIBER) – Universidad Politécnica de Madrid – BIT)

Demo: Hope4kids – AI-Powered Brain Tumor Segmenter
Daniel Capellán-Martín (Universidad Politécnica de Madrid); Abhijeet Parida (Children's National Hospital)

Demo: Deep Learning for Pediatric TB Detection in Chest Radiographs
Daniel Capellán-Martín (Universidad Politécnica de Madrid)

Demo: Visualizing Intelligence with ASCRIBE-VR for Granular, Data-Agnostic 3D Analysis of AI Results
Daniela Ushizima (Berkeley Lab, University of California San Francisco, University of California Berkeley)

Demo: A Reconfigurable High-Resolution Handheld Ultrasound Imaging System with Non-Linear Beamforming Capabilities
Banhimitra Kundu (Indian Institute of Science, Bangalore , INDIA)

14:00 – 15:00
Keynote: Multimodal, Generative, and Agentic AI for Healthcare
Faisal Mahmood, Harvard Medical School; Brigham and Women's Hospital; Massachusetts General Hospital, USA
Room 7-12
Chairs: Angelica Aviles-Rivero, Tsinghua University, China

15:00 - 16:00
Diagnosis That Travels Better
Room 14
Chairs: Tanmay Basu (Indian Institute of Science Education and Research Bhopal, India)

15:00
1571206511: Exploring Intrinsic Hierarchical Organization for Medical Diagnosis
Chengzhi Cao (Mohamed Bin Zayed University of Artificial Intelligence, United Arab Emirates); Min Xu (Carnegie Mellon University, USA)

15:10
1571221206: Improving Fairness in Vision Language Models for Medical Applications via Max Deviation Penalty
Kavindya Imbulgoda and Ruwan Tennakoon (RMIT University, Australia); Steven Korevaar (Royal Melbourne Institute of Technology, Australia); Wei Qin Chuah (RMIT University, Australia); Alireza Bab-Hadiashar (RMIT, Australia)

15:20
1571219605: Robust and Efficient 3D Gaussian Splatting for Diagnostic Imaging
Mrinal Tyagi (Indian Institute of Technology (IIT) Delhi, India); Ashish Suri (All India Institute of Medical Sciences, India); Chetan Arora (Indian Institute of Technology Delhi, India)

15:30
1571219637: Rethinking Glaucoma Calibration: Voting-Based Binocular and Metadata Integration
Taejin Jeong (Yonsei University & Mediwhale Company, Korea (South)); Joohyeok Kim (Yonsei University, Korea (South)); Jaehoon Joo (LG Electronics, Korea (South)); Seong Jae Hwang (Yonsei University, Korea (South))

15:40
1571225613: Monocular Depth Estimation with Guided Edge-Aware Attention for Endoscopic Images
Bashayer Abdallah and Shan E Ahmed Raza (University of Warwick, United Kingdom (Great Britain))

15:50
1571213415: PnP-SAF: A Plug-and-Play Semantic-Attribute Fusion Framework for Data-Efficient Medical Image Diagnosis
Shengqi Chen (Southwest Jiaotong University, China); Yi Huang (University of Sydney, Australia); Haoran Liu, Wenbo Liu and Tao Deng (Southwest Jiaotong University, China)

15:00 - 16:00
EEG, Uncertainty, and Trust
Room 3
Chairs: Nantheera Anantrasirichai (University of Bristol, United Kingdom (Great Britain)); Youssef Arafat (Queen Mary University, United Kingdom (Great Britain))

15:00
1571220311: OpenEEG: Uncertainty-Aware Open Set Learning for EEG-Based Brain Disorders Diagnosis
Li Xue, Weikang Gu, Jiaming Yu, Xuemei Qiu, Tao Wu and Lifang Wei (Fujian Agriculture and Forestry University, China)

15:10
1571226428: Uncertainty-Aware Image Classification in Biomedical Imaging Using Spectral-Normalized Neural Gaussian Processes
Uma Meleti and Jeffrey J Nirschl (University of Wisconsin-Madison, USA)

15:20
1571221246: Uncertainty-Guided Generation of Dark-Field Radiographs
Lina Felsner (Technische Universität München, Germany); Henriette Bast, Tina Dorosti and Florain Schaff (Technical University of Munich, Germany); Franz Pfeiffer (Technical University Munich, Germany); Daniela Pfeiffer (Klinikum Rechts der Isar, Germany); Julia A. Schnabel (Helmholtz and Technical University of Munich, Germany)

15:30
1571221667: Dirichlet-Based Evidential Loss for Uncertainty-Aware Medical Image Segmentation
Blanca Rodriguez-Gonzalez, Javier Hernandez-Rubia, Borja Rodriguez-Vila, Angel Torrado-Carvajal and Norberto Malpica (Universidad Rey Juan Carlos, Spain)

15:40
1571226039: CGM-EEG: Cross-Gated Mamba for Spatio-Temporal EEG Representation Learning
Emil Kim and Jin Kyu Gahm (Pusan National University, Korea (South))

15:50
1571222607: AI Generalisation Gap in Comorbid Sleep Disorder Staging
Saswata Bose (International Institute of Information Technology, Hyderabad, India); Suvadeep Maiti (University College London, United Kingdom (Great Britain)); Shivam Kumar Sharma (IIIT Hyderabad, India); Mythirayee S (NIMHANS, India); Tapabrata Chakraborti (University College London, United Kingdom (Great Britain)); Srijithesh Rajendran (National Institute of Mental Health and Neuro Sciences, India); Raju Surampudi Bapi (International Institute of Information Technology, India)

15:00 - 16:00
Matching Across Domains and Over Time
Room 4
Chairs: Abhirup Banerjee (University of Oxford, United Kingdom (Great Britain)); Arezoo Zakeri (University of Manchester, United Kingdom (Great Britain))

15:00
1571226301: Unbalanced Optimal Transport for Robust Longitudinal Lesion Evolution with Registration-Aware and Appearance-Guided Priors
Melika Qahqaie (Friedrich-Alexander-University Erlangen-Nuremberg, Germany & Siemens Healthineers, Germany); Dominik Neumann and Tobias Heimann (Siemens Healthineers, Germany); Andreas K Maier (Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany); Veronika A Zimmer (Siemens Healthineers, Germany)

15:10
1571226297: Optimal Transport with Foundation Models for Multi-Stain CBIR in Digital Pathology
Maxime Amodei (University of Liege, Belgium); Raphaël Marée (University of Liège, Belgium); Pierre Geurts (University of Liege, Belgium)

15:20
1571221639: Context Guided Mitosis Classification in Histopathology Images
Anabia Sohail, Ahmed Shaker Obaid, Sajid Javed, Youssef Ibrahim, Naoufel Werghi and Hasan AlMarzouqi (Khalifa University, United Arab Emirates)

15:30
1571226271: Unsupervised X-Ray-to-DRR Translation with Structural Enhancement for Efficient X-Ray-to-CT Registration
Peijie Jiang (Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, China); Long Lei (The Chinese University of Hong Kong, Hong Kong); Shaolin Lu (Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, China); Yuanyuan Yang (Shenzhen Institutes of Advanced Technology, CAS, China); Lihai Zhang (Chinese PLA General Hospital, China); Zheng Li (The Chinese University of Hong Kong, China); Pheng Ann Heng (The Chinese University of Hong, Hong Kong); Ying Hu (Shenzhen Institutes of Advanced Technology Chinese Academy of Sciences, China)

15:40
1571220172: GLMS-PAD: Domain-Generalized Multi-Scale PAD for Fingerprint Presentation Attack Detection
Sung-Che Cheng and Ching-Te Chiu (National Tsing Hua University, Taiwan); Ned Lin, Ang Yu, Paul Lai and Daniel Chen (FocalTech Electronics Co., Ltd., Taiwan); Po-Hsuan Hung (National Tsing Hua University, Taiwan)

15:50
1571222170: TopoGate: Quality-Aware Topology-Stabilized Gated Fusion for Longitudinal Low-Dose CT New-Lesion Prediction
Seungik Cho (Rice University, USA)

15:00 - 16:00
Predicting What Comes Next
Room 15
Chairs: Ujwala Bhangale (South Bank University London, United Kingdom (Great Britain)); Binod Bhattarai (University of Aberdeen, United Kingdom (Great Britain))

15:00
1571220761: LUMEN: Longitudinal Multi-Modal Radiology Model for Prognosis and Diagnosis
Zhifan Jiang (Children's National Hospital, USA); Dong Yang and Vishwesh Nath (Nvidia Corporation, USA); Abhijeet Parida and Nishad Prakash Kulkarni (Children's National Hospital, USA); Ziyue Xu (Nvidia, USA); Daguang Xu (Nvidia Corporation, USA); Syed Muhammad Anwar (Children's National Hospital & Signal, Image, Multimedia Processing and Learning, USA); Holger R Roth (NVIDIA, USA); Marius Linguraru (Children's National Medical Center, USA)

15:10
1571217671: How to Optimize Concordance in Medical Imaging for Deep Survival Analysis? Concordance Pairwise Logistic Loss
Justin N Kim, Hao Wu, Tao Hu, Ammar Hoori, Juhwan Lee and David Wilson (Case Western Reserve University, USA)

15:20
1571221332: Uncertainty Quantification for Multimodal Generation in Cancer AI
Samiran Dey (Indian Association for the Cultivation of Science, India); Ruby Wood (Francis Crick Institute, United Kingdom (Great Britain)); Partha Basuchowdhuri (Assistant Professor, India); Sanjoy Kumar Saha (Jadavpur University, India); Tapabrata Chakraborti (University College London, United Kingdom (Great Britain))

15:30
1571225951: Comparing Baseline and Day-1 Diffusion MRI Using Multimodal Deep Embeddings for Stroke Outcome Prediction
Sina Raeisadigh (University of Geneva, Switzerland & University of Applied Sciences Western Switzerland, Switzerland); Myles Joshua Toledo Tan (University of Florida, USA); Henning Müller (Service of Medical Informatics, University Hospital of Geneva, Switzerland); Abderrahmane Hedjoudje (Department of Imaging and Medical Informatics, University of Geneva, Switzerland)

15:40
1571220996: MMA-Former: Multi-Window Mixture-of-Head Attention Transformer for Adaptive PNI Prediction in 3D MRI
Youngung Han (Seoul National University, Korea (South) & OUTTA, Korea (South)); Induk Um (Chung-Ang University, Korea (South)); Kyeonghun Kim (OUTTA, Korea (South)); Junga Kim, Hyunsu Go, Jaewon Jung and Nam-Joon Kim (Seoul National University, Korea (South)); Woo Kyoung Jeong (Samsung Medical Center, Korea (South)); Won Jae Lee (Samsung Medical Center, Sungkyunkwan University School of Medicine, Korea (South)); Pa Hong (Samsung Changwon Hospital, Korea (South)); Ken Ying-Kai Liao (NVIDIA, Taiwan); Hyuk-Jae Lee (Seoul National University, Korea (South))

15:50
1571216574: NeRFscopy: Neural Radiance Fields for in-Vivo Time-Varying Tissues from Endoscopy
Laura Salort-Benejam (Institut de Robòtica i Informàtica Industrial, CSIC-UPC, Spain); Antonio Agudo (Institut de Robotica i Informatica Industrial, CSIC-UPC, Spain)

15:00 - 16:00
Special Session: Preparing Large-Scale Medical Imaging Data for Foundation Model Development
Room 1
Chairs: Martin J. Willemink, Stanford University

15:00
Introduction
Martin J. Willemink (Stanford University)

15:10
1571219244: When Specialization Helps (and Hurts): Cross-Modality Transfer in Ophthalmic Imaging with Foundation Models
Roberto Pulvirenti and Oscar Jimenez-del-Toro (Idiap Research Institute, Switzerland); Mattia Tomasoni and Florence Hoogewoud (Department of Ophthalmology, University of Lausanne, Fondation Asile des Aveugles, Jules Gonin Eye Hospital, Lausanne, S); André Anjos (Idiap Research Institute, Switzerland)

15:20
1571220596: SAFM-CTA: Segmentation-Augmented Foundation Model for CT-to-CTA Translation
Xiaoyu Jin (Beijing University of Aeronautics and Astronautics, China); Luyao Luo (Beijing Ande Yizhi Technology Co., Ltd., China); Liyuan Zhang (Beijing Ande Yizhi Technology Co., Ltd. China); He Fu and Yu Liu (Beijing Ande Yizhi Technology Co., Ltd., China); Tao Liu (Beihang University, China); Pan Liu (Beijing Ande Yizhi Technology Co., Ltd., China)

15:30
1571220007: Synthetic Volumetric Data Generation Enables Zero-Shot Generalization of Foundation Models in 3D Medical Image Segmentation
Satrajit Chakrabarty (GE HealthCare, USA); Sourya Sengupta (UIUC, USA); Gopal Avinash and Ravi Soni (GE HealthCare, USA)

15:40
1571222527: Hospital-Specific Bias in Patch-Based Pathology Models
Mengliang Zhang (University of Texas at Arlington, USA

15:50
1571222234: Lost in Distortion: Uncovering the Domain Gap Between Computer Vision and Brain Imaging - a Study on Pretraining for Age Prediction
Yanteng Zhang (Georgia State University, USA); Songheng Li (Chengdu University of Information Technology, China); Zeyu Shen (Johns Hopkins University, USA); Qizhen Lan (University of Texas Health Center at Houson, USA); Lipei Zhang (University of Cambridge, United Kingdom (Great Britain)); Yang Liu (King's College London, United Kingdom (Great Britain)); Vince Calhoun (Tri-Institutional Research Center in Neuroimaging and Data Science, USA)

15:00 - 16:00
What Video Reveals in the Clinic and OR
Room 2
Chairs: Sharib Ali (University of Leeds, United Kingdom (Great Britain)); Tingying Peng (Helmholtz Zentrum München, Germany)

15:00
1571220171: Depression Detection Using Face Videos from Clinical Interviews
Ka Pik Lee (NEC Corporation, Japan); Terumi Umematsu (NEC Corporation, USA & Massachusetts Institute of Technology, Japan); Yousuke Takemura (Tokyo Women's Medical University, Japan)

15:10
1571220437: Spatiotemporal Mapping of Facial Thermography and Electrodermal Activity via Thermal-Aware YOLO-Pose Landmark Detection
Tizian Dege (Technische Universität Darmstadt, Germany); Tobias Reinhardt, Christian Laufs and Christoph Hoog Antink (TU Darmstadt, Germany)

15:20
1571212828: Weakly Supervised Counterfactual Spatio-Temporal Multiple Instance Learning for Inflammation Detection in Endoscopic Inflammatory Bowel Disease Assessment
Bisi Bode Kolawole and Ujwala Chaudhari (London South Bank University, United Kingdom (Great Britain)); Irene Zammarchi and Giovanni Santacroce (University College of Cork, Ireland); Rocio del Amor and Pablo Meseguer (Universitat Politècnica de València, Spain); Cecilia Pugliano (University College of Cork, Ireland); Valery Naranjo (Polytechnic University of Valencia, Spain); Subrata Ghosh and Marietta Iacucci (University College of Cork, Ireland); Enrico Grisan (London South Bank University, United Kingdom (Great Britain))

15:30
1571221022: Biomechanically Accurate Gait Analysis: A 3D Human Reconstruction Framework for Markerless Estimation of Gait Parameters
Akila Pemasiri, Ethan Goan and Glen Lichtwark (Queensland University of Technology, Australia); Luke Kelly (Griffith University, Australia); Clinton Fookes (Queensland University of Technology, Australia)

15:40
1571225924: Synthetic Dataset Generation and Validation for Robotic Surgery Instrument Segmentation
Giorgio Chiesa, Rossella Borra, Vittorio Lauro, Sabrina De Cillis, Daniele Amparore, Cristian Fiori and Riccardo Renzulli (University of Turin, Italy); Marco Grangetto (Università di Torino, Italy)

15:50
1571220174: ATRI-Net: A Multimodal and Multifocal Fusion Network for Embryo Euploidy Prediction
Shuangyi Tan (The Chinese University of Hongkong, Shenzhen, China); Zhijia Liang (Sun Yat-sen University, China); Ming Li (Shandong Inspur Database Technology, China); Sibei Yang (Sun Yat-sen University, China); Zhen Li (The Chinese University of Hong Kong, Shenzhen, China); Qingyun Mai (The First Affiliated Hospital, Sun Yat-Sen University, China); Guanbin Li (Sun Yat-sen University, China)

16:00 – 16:30
Coffee Break
Reception Area

16:30 - 17:30
CT from Less: Sparse, Fast, and Corrected
Room 14
Chairs: Sharib Ali (University of Leeds, United Kingdom (Great Britain)); Guang Yang (Imperial College London, United Kingdom (Great Britain))

16:30
1571222022: CBCT-Pose: Few-Shot Viewpoint-Conditioned Diffusion for Sparse-View CBCT Reconstruction
Li Zhou, Changsheng Fang, Bahareh Morovati, Shuo Han, Shuyi Fan and Yu Shi (University of Massachusetts Lowell, USA); Hengyong Yu (UMass Lowell, USA)

16:40
1571226126: Accelerated Reconstruction for Sparse-View CT with Angular Sinogram Blurring Arising in Fast Continuous Rotation CT Scanners Using Dykstra-like Splitting
Donghui Li and Hiroyuki Kudo (University of Tsukuba, Japan); Wataru Yashiro (Tohoku University, Japan)

16:50
1571220402: PCDS-GAN: Physics-Constrained Dual-Stage Generative Model with Adaptive Gating for Ultra Sparse-View Ct Reconstruction
Haytham Ali and Hiroyuki Kudo (University of Tsukuba, Japan)

17:00
1571218862: Mamba-Based Conical UNet for Metal Artifact Reduction of CT Images in Visceral Artery Aneurysms
Junfeng Liu (Shanghai University, China); Ziyu Yang (Shanghai Jiao Tong University, China); Qian Wang (ShanghaiTech University, China); Zhongmin Wang and Wei Huang (Affiliated Ruijin Hospital, School of Medicine, Shanghai Jiao Tong University, China); Jun Shi (Shanghai University, China)

17:10
1571218925: A Bi-Objective Budgeted Set-Cover Formulation for Optimising Inverse-Geometry X-Ray CT
Gabriel Suc (CEA Leti, France & University of Grenoble Alpes, France); Clarisse Fournier (CEA Leti, France); Joachim Tabary (CEA, France); Andrea Brambilla (CEA Leti, France)

17:20
1571221480: Unsupervised Domain Adaptation with Target-Only Margin Disparity Discrepancy
Gauthier Miralles and Loic Le Folgoc (Telecom Paris, France); Vincent Jugnon (GE HealthCare, France); Pietro Gori (Télécom Paris, France)

16:30 - 17:30
Faster Cardiac MRI, Better Reconstruction
Room 4
Chairs: Angelica Aviles-Rivero (YMSC, Tsinghua University, China); Yanqi Cheng (University of Cambridge, United Kingdom (Great Britain))

16:30
1571225685: Revisiting MRI Reconstruction Using a Combination of Complex and Magnitude Measurements with Learned Priors
Mahdi Saberi (University of Minnesota - Twin Cities, USA); Mehmet Akcakaya (University of Minnesota, USA)

16:40
1571219050: Making 3D Diffusion Easier: Autocalibration-Signal-Conditioned Diffusion Model for Dynamic MRI Reconstruction
Zi Wang and Liutao Yang (Imperial College London, United Kingdom (Great Britain)); Fanwen Wang (Imperial College London & Royal Brompton Hospital, United Kingdom (Great Britain)); Yinzhe Wu, Zhenxuan Zhang and Ling Huang (Imperial College London, United Kingdom (Great Britain)); Guang Yang (Imperial College London, United Kingdom (Great Britain) & Royal Brompton Hospital, United Kingdom (Great Britain))

16:50
1571226513: Multi-Class TransCompletion: Geometric Deep Learning for Four-Chamber Cardiac Reconstruction from Cine MRI
Zhengda Ma and Abhirup Banerjee (University of Oxford, United Kingdom (Great Britain))

17:00
1571225877: Synthetic Artifact Generation for Training of MRI Denoising Networks
Juan Andres Cisneros Jacome, Louis Rigal, Renaud De Crevoisier, Raphaël Martins, Mathieu Lederlin and Melvyn Dezecot (University of Rennes 1, France); Loig Duverge and Julien Bellec (CLCC Eugène Marquis, France); Antoine Simon (University of Rennes 1, France)

17:10
1571226470: Deep Learning for Cardiac TMP Imaging: A Physics-Informed Data Augmentation Approach
Guojun Du (Zhejiang, China); Huafeng Liu (Zhejiang University, China)

17:20
1571219387: 3T MRI 4D Flow Sequence Acquisition Time Reduction on a Vascular Phantom
Esther Fontaine, Nicolas Passat and Stéphanie Salmon (Université de Reims Champagne-Ardenne, France); Antoine Mendes-Carreira and Christophe Portefaix (CHU Reims, Service de Neuroradiologie Maison Blanche, France)

16:30 - 17:30
Making MRI Agree Across Scanners and Sites
Room 2
Chairs: Laura Brattain (University of Central Florida, USA); Esther Bron (Erasmus MC, The Netherlands)

16:30
1571226512: Frugal-ComBat: An Ultra-Low-Sample Diffusion MRI Harmonization Method
Baptiste Pierrard (Université de Sherbrooke, Canada); Michaël Sdika (CREATIS, France); Pierre-Marc Jodoin (University of Sherbrooke, Canada)

16:40
1571226468: Harmonization Mitigates Diffusion MRI Scanner Effects in Infancy: Insights from the HEALthy Brain and Childhood Development (HBCD) Study
Elyssa M McMaster, Gaurav Rudravaram, Michael Kim and Trent Schwartz (Vanderbilt University, USA); Chloe Scholten (University of Calgary, Canada); Jongyeon Yoon, Adam Saunders, Andre Teixeira da Silva Hucke, Karthik Ramadass and Emily M. Harriott (Vanderbilt University, USA); Steven L. Meisler (University of Pennsylvania, USA); Simon Vandekar, Allen T Newton, Seth A Smith and Saikat Sengupta (Vanderbilt University Medical Center, USA); Kathryn L. Humphreys (Vanderbilt University, USA); Sarah Osmundson (Vanderbilt University Medical Center, USA); Daniel Moyer, Laurie E Cutting and Bennett Landman (Vanderbilt University, USA)

16:50
1571215044: Metadata-Aligned 3D MRI Representations for Contrast Understanding and Quality Control
Mehmet Yigit Avci, Pedro Borges, Virginia Fernandez and Paul Wright (King's College London, United Kingdom (Great Britain)); Mehmet Yigitsoy (Deepc GMBH, Germany); Sebastien Ourselin and M. Jorge Cardoso (King's College London, United Kingdom (Great Britain))

17:00
1571226380: DICOM-CLIP: Zero-Shot Acquisition Parameter Retrieval from Unprocessed DICOM Files
Prahlad Anand and Aaron Carass (Johns Hopkins University, USA); Ellen M. Mowry and Scott D. Newsome (Johns Hopkins School of Medicine, USA); Jerry Prince (Johns Hopkins University, USA); Blake Dewey (Johns Hopkins School of Medicine, USA)

17:10
1571219309: U-Harmony: Enhancing Joint Training for Segmentation Models with Universal Harmonization
Weiwei Ma (Washington University in St. Louis, USA); Xiaobing Yu (Washington University, Saint Louis, USA); Peijie Qiu (Washington University in St. Louis, USA); Jin Yang (Washington University Schoole of Medicine in St. Louis, USA); Pan Xiao (Washington University in Saint Louis, USA); Xiaoqi Zhao (Yale University, USA); Xiaofeng Liu (Yale University, USA & Broad Institute of MIT and Harvard, USA); Tomo Miyazaki, Shinichiro Omachi and Yongsong Huang (Tohoku University, Japan)

17:20
1571219256: Adaptive Gradient Domain Normalization for One-Sided Unsupervised Medical Image Synthesis
Kevin Giraldo Giraldo (Telecom Paris, France); Pierre-Henri Conze and Vincent Jaouen (IMT Atlantique, France); Elsa D. Angelini (Telecom Paris LTCI, Institut Polytechnique, France)

16:30 - 17:30
Pushing MRI Beyond Native Resolution
Room 14
Chairs: Kimberly Amador (University of Calgary, Canada); Guang Yang (Imperial College London, United Kingdom (Great Britain))

16:30
1571225797: Super-Resolution MRI Using Latent Fusion and Flow Matching
Yunzhi Xu and Li Zhao (Zhejiang University, China)

16:40
1571225912: Variational Reference-Free Multicontrast Super Resolution for MRI
Luis Amador (CREATIS, Université de Lyon, France); Eric Van Reeth (CREATIS, France & CPE Lyon, France); Marylène Delcey (SIEMENS Healthineers, France); Marion Foare (LIP ENS Lyon & CPE Lyon, France); Hélène Ratiney (CREATIS, Université de Lyon 1, France)

16:50
1571226276: Faster 4D Flow MRI Scan with 3D Arbitrary-Scale Super-Resolution
Simon Perrin (Nantes Université & LS2N, France); Sébastien Levilly (Nantes Université, France); Harold Mouchere (Nantes Université & LS2N, France); Jean-Michel Serfaty (Nantes Université, France)

17:00
1571225012: Scale-Cascaded Diffusion Models for Super-Resolution in Medical Imaging
Darshan Thaker (University of Pennsylvania, USA); Mahmoud Mostapha (Siemens Healthineers, USA); Radu Miron (Siemens Industry Software, Romania (Advanta), Romania); Shihan Qiu and Mariappan Nadar (Siemens Healthineers, USA)

17:10
1571226106: Two-Stage Cortical Surface Reconstruction from MRI with Arbitrary Slice Thickness
Zhongliang Liu (South China University of Technology, China); Wenxuan Wu (Kings College London, United Kingdom (Great Britain)); Sijin Yu, Zhuoyan Dai and Xin Zhang (South China University of Technology, China)

17:20
1571222144: Leveraging SimulScan to Understand Central Control of Speech and Swallowing
Bradley P Sutton (University of Illinois at Urbana, USA); Lade Adetula, Anthony Bosshardt and Charles Marchini (University of Illinois Urbana Champaign, USA); Jiyoon Kim (University of Illinois at Urbana-Champaign, USA); Ching-Hsuan Peng and Yibo Zhao (University of Illinois Urbana Champaign, USA); Zhongming Liu (University of Michigan, USA); Georgia Malandraki (University of Illinois Urbana Champaign, USA)

16:30 – 17:30
Special Session: Safety and reliability in medical imaging
Room 1
Vito Paolo Pastore (University of Genova, Italy); Irina Voiculescu (University of Oxford, United Kingdom (Great Britain))

1571226517: Penalty-Based Multi-Objective Optimization for Robust Data Splitting to Improve Consistency in Deep Learning Models
Kay Chioma Igwe, Soroush Arabshahi and Sree Kuntamukkala (Columbia University, USA); Carmine Palermo, William J Drew, Stephen Sastra, Michael A Badgley, Yanping Sun and Kenneth P Olive (Columbia University Irving Medical Center, USA); Andrew F. Laine (Columbia University, USA)

1571221618: Investigating Label Bias and Representational Sources of Age-Related Disparities in Medical Segmentation
Aditya Parikh (Technical University Denmark, Denmark); Sneha Das and Aasa Feragen (Technical University of Denmark, Denmark)

16:30 - 17:30
What Pathology Can Tell Us About Outcome
Room 3
Chairs: Francesco Brun (University of Trieste, Italy); Ninon Burgos (Sorbonne Université, ICM, CNRS, France)

16:30
1571225528: Hierarchical Multi-Scale Graph Learning with Knowledge-Guided Attention for Whole-Slide Image Survival Analysis
Bin Xu (Nanjing University of Information Science and Technology, China); Yufei Zhou (Case Western Reserve University, USA); Bolin Song (Georgia Institute of Technology and Emory University, USA); Jingwen Sun (Nanjing Women and Children's Healthcare Hospital, China); Yang Bian and Yikai Chen (Nanjing University of Information Science and Technology, China); Cheng Lu (Guangdong Provincial People's Hospital, China); Ye Wu (Nanjing University of Science and Technology, China); Jianfei Tu (Lishui Hospital of Zhejiang University, China); Xiangxue Wang (Nanjing University of Information Science and Technology, China)

16:40
1571210330: Adaptive Multi-Scale Graph Transformer Framework for Histopathological Images
Chun-i Wu (King's College London, United Kingdom (Great Britain)); Kalyan Banda and Elizabeth Swisher (University of Washington, USA); Heba Sailem (King's College London, United Kingdom (Great Britain))

16:50
1571226462: Uncertainty-Aware Multimodal Fusion for Prognostic Prediction in Myelodysplastic Syndromes
Álvaro Basterra García and Ignacio Hernández Abad (Universidad Politécnica de Madrid, Spain); David Bermejo Peláez (SpotLab, Spain); Benito Farina (Universidad Politécnica de Madrid, Spain); Marta Hidalgo (Hospital Universitario Vall d'Hebron, Spain); Miguel Gómez Álvarez (Hospital Clínico San Carlos, Spain); Ana Mendoza (Hospital Universitario 12 de Octubre de Madrid, Spain); David Brau Queralt (SpotLab, Spain); Juan E. Ortuño (CIBER de Bioingeniería, Biomateriales y Nanomedicina, Instituto de Salud Carlos III, Spain & Biomedical Image Technologies, Universidad Politécnica de Madrid, Spain); Nuria Díez (SpotLab, Spain); Andrés Santos (Universidad Politécnica de Madrid, Spain); Raquel Ancos, Roberto García and María Linares (Universidad Complutense de Madrid, Spain); Celina María Benavente (Hospital Clínico San Carlos, Spain); Julia Montoro (Hospital Universitario Vall d'Hebron, Spain); Joaquín Martínez López (Hospital Universitario 12 de Octubre, Spain); Miguel Luengo Oroz (SpotLab, Spain); Maria J. Ledesma-Carbayo (Universidad Politécnica de Madrid, Spain)

17:00
1571200591: Survival Modeling from Whole Slide Images via Patch-Level Graph Clustering and Mixture Density Experts
Ardhendu Sekhar, Vasu Soni, Keshav Aske and Garima Jain (Indian Institute of Technology Bombay, India); Pranav Jeevan P (IIT Bombay, India); Amit Sethi (Indian Institute of Technology Bombay, India)

17:10
1571226352: SPATIOMAP: A Tile-Based Spatial Heatmap Framework for Tumor Microenvironment Heterogeneity in Whole Slide Images
Mohamed Mounib Benimam (Institut Pasteur, France); Astri Frafjord and Alexandre Corthay (Oslo University Hospital, Norway); Thibault Lagache, Jean-Christophe Olivo-Marin and Vannary Meas-Yedid (Institut Pasteur, France)

17:20
1571218979: LognormalNet: Parametric Survival Model with Uncertainty Quantification via Evidential Likelihood-Based Inference
Chunlin MI (Heudiasyc, CNRS, Université de technologie de Compiègne, France & AIMS, QuantIF, Université de Rouen Normandie, France); Thierry Denoeux (Heudiasyc, CNRS, Université de technologie de Compiègne, France & Institut universitaire de France, Paris, France); Pierre Vera (AIMS, QuantIF, Université de Rouen Normandie & Department of Nuclear Medicine, Henri Becquerel Cancer Center, France); Su Ruan (AIMS, QuantIF, Université de Rouen Normandie, Rouen, France)

7:30 – 8:00
Registration
ICC Registration Area

8:00 - 9:00
Fast Recovery from Imperfect Data
Room 14
Chairs: Laura Brattain (University of Central Florida, USA); Esther Bron (Erasmus MC, The Netherlands)

08:00
1571220794: Consistency Models for Fast MRI Using Regularization by Denoising
Merve Gulle (University of Minnesota, USA & Center for Magnetic Resonance Research, USA); Junno Yun, Yasar Utku Alcalar and Mehmet Akcakaya (University of Minnesota & Center for Magnetic Resonance Research, USA)

08:10
1571216838: SO(3)-Invariant PCA with Application to Molecular Data
Michael Fraiman (Tel Aviv University, Israel); Paulina Hoyos (UT Austin, USA); Tamir Bendory (Tel Aviv University, Israel); Joe Kileel (UT Austin, USA); Oscar Mickelin (Tsinghua University, China); Nir Sharon (Tel Aviv University, Israel); Amit Singer (Princeton University, USA)

08:20
1571226130: DeLiver-MPI: Diffusion Embedded-Physics Model for Magnetic Particle Imaging Reconstruction Under Strong Liver Background
Ziwei Chen, Wenxuan Zou, Gen Shi, Jian'an Ye, Ning Sun, Zhongwei Bian, Yu An and Jie Tian (Beihang University, China)

08:30
1571226506: Swin-DDPM: A Transformer-Enhanced Diffusion Model for Multi-Organ Low Dose CT Denoising
Usama Jameel and Nicola Belcari (University of Pisa, Italy)

08:40
1571221542: Healthy Counterfactual Generation with Denoising Diffusion Bridge Models
Ana Lawry Aguila (Harvard University, USA); Marina Crespo Aguirre (ETH Zurich, Switzerland); Peirong Liu (Johns Hopkins University, USA); J. Eugenio Iglesias (Massachusetts General Hospital, USA)

08:50
1571225441: Fine-Tuning of Diffusion Models Using Perceptual-DPO for Generation of Biologically Accurate Medical Image
Pratyush Prasad, Swapnil Bhat and Sadaf Siddiqui (Indian Institute of Technology, Bombay, India); Siddharth Bhatt (INHS Asvini, Mumbai, India); Mrinal Mallya (P.D. Hinduja Hospital & Medical Research Center, Mumbai, India); Ankush Kumar Somvanshi (INHS Asvini, Mumbai, India); Deval Mehta (Monash University, Australia); Kshitij Jadhav (IIT Bombay, India)

8:00 - 9:00
Fingerprinting MRI, with Physics in the Loop
Room 16
Chairs: Yu An (Beihang University, China); Nantheera Anantrasirichai (University of Bristol, United Kingdom (Great Britain))

08:00
1571219766: Dictionary-Free MR Fingerprinting via Implicit Neural Representation
Chaoguang Gong and Yue Hu (Harbin Institute of Technology, China); Lixian Zou (Shenzhen Institute of Advanced Technology, China); Peng Li (Harbin Institute of Technology, China); Zhilang Qiu (McLean Hospital, USA); Shuo Zhou (Shenzhen Institute of Advanced Technology, China & University of Chinese Academy of Sciences, China); Xingyang Wu (Shenzhen Institutes of Advanced Technology, China); Zhanqi Hu (Shenzhen Guangming District People's Hospital, China); Xiaoyan Wang (Yuxi Normal University, China); Haifeng Wang (Shenzhen Institutes of Advanced Technology, China)

08:10
1571216455: Adaptive Gate-Aware Mamba Networks for Magnetic Resonance Fingerprinting
Tianyi Ding (The University of Queensland, Australia); Hongli Chen (University of Queensland, Australia); Yang Gao (Central South University, China); Feng Liu (The University of Queensland, Australia); Martijn A. Cloos (Radboud University, The Netherlands); Hongfu Sun (University of Newcastle, Australia)

08:20
1571221947: Physics-Guided Dual-Domain Network with Attention-Based Fusion for Portable MRI Reconstruction
Efe Ilicak, Baris Imre, Chloe Najac, Ruben Van Den Broek, Beatrice Lena, Andrew Webb and Marius Staring (Leiden University Medical Center, The Netherlands)

08:30
1571226161: Physics-Informed Spatial-Scaling Transformer for Accelerated MRI Reconstruction
Valiyeh Ansarian Nezhad and Tolga Cukur (Bilkent University, Turkey)

08:40
1571218509: Dictionary-Based Deep Neural Field with Clinically-Aware Learning and Pruning for 400-940× Image Compression in HARDI and fMRI
Soumya Mukherjee, Russel Abreo and Suyash P Awate (Indian Institute of Technology (IIT) Bombay, India)

08:50
1571226530: Optimize Flip Angle Schedules in MR Fingerprinting Using Reinforcement Learning
Shenjun Zhong (Monash University, Australia); Zhifeng Chen (Neusoft Medical Systems, China); Zhaolin Chen (Monash University, Australia)

8:00 - 9:00
New Modalities, New Measurements
Room 3
Chairs: Rina Bao (Boston Children's Hospital, USA); Tanmay Basu (Indian Institute of Science Education and Research Bhopal, India)

08:00
1571221173: DMC-SM: A Fast System Matrix Calibration Method for High-Quality Magnetic Particle Imaging Reconstruction
Jian'an Ye and Ziwei Chen (Beihang University, China); Gen Shi (Beijing University of Aeronautics and Astronautics, China); Zhongwei Bian, Yu An and Jie Tian (Beihang University, China)

08:10
1571214994: Deep Vortography: Intracardiac Vortex Analysis Using Color Doppler
Clara Cousteix, Nadege Singaye and Hang Jung Ling (University of Lyon, France); Pierre-Yves Courand (Hospices Civils de Lyon, France); Carole Frindel and Damien Garcia (University of Lyon, France)

08:20
1571226152: Geometric Deep Learning Model of Left Atrial Geometry and Conduction Velocity in Atrial Fibrillation
Thalia Seale, Alexander J Sharp and Abhirup Banerjee (University of Oxford, United Kingdom (Great Britain))

08:30
1571219777: Non-Invasive 3D Wound Measurement with RGB-D Imaging
Lena Harkämper (University of Lübeck, Germany); Leo Lebrat (Queensland University of Technology, Australia); David Ahmedt-Aristizabal (CSIRO Data61, Australia); Olivier Salvado (Queensland University of Technology, Australia); Mattias Heinrich (Institute of Medical Informatics, Germany); Rodrigo Santa Cruz (Queensland University of Technology, Australia)

08:40
1571225655: FreqFormer: Frequency-Aware Single Image Super Resolution Network for Biomedical HSI
Nour Aburaed (University of Dubai, UAE); Marouane Tliba (University of Orléans, France); Muzammil Behzad (King Fahd University of Petroleum and Minerals); Yousra Taifour (Universite Sorbonne Paris Nord, France); Aladine Chetouani (Institut Galilée - Université Sorbonne Paris Nord, France & L2TI, France); Azeddine Beghdadi (L2TI, Universite Paris 13, France); Faouzi Alaya Cheikh (Norwegian University of Science and Technology (NTNU), Norway); Rachid Jennane (University of Orleans & I3MTO Laboratory, France)

08:50
1571221865: Explainable Variational Networks with Unrolled Gradient Descent for Magnetic Particle Imaging Reconstruction
Hongbo Guo (Northwest University, China)

8:00 - 9:00
Reconstruction with Implicit Priors
Room 15
Chairs: Francesco Brun (University of Trieste, Italy); Ninon Burgos (Sorbonne Université, ICM, CNRS, France)

08:00
1571220862: SPINR: Self-Supervised PET Reconstruction Using Implicit Neural Representations
Younes Moussaoui (École Centrale Nantes, LS2N, France & Centre Hospitalier Universitaire de Nantes, France); Diana Mateus (Ecole Centrale de Nantes, LS2N, France); Lukman El Hadi (Centre Hospitalier Universitaire de Nantes, France); Saïd Moussaoui (Ecole Centrale Nantes, France); Simon Stute and Nasrin Taheri (CHU Nantes, France)

08:10
1571221055: Universal RL-INR: A Batch-Trained Implicit Neural Representation for Unsupervised Temporal Deconvolution in TOF-PET
Xuhui Feng and Chengkai He (Zhejiang University, China); Yuya Onishi and Ryosuke Ota (Hamamatsu Photonics, Japan); Huafeng Liu (Zhejiang University, China)

08:20
1571203999: TriDF-INR: Dual Frequency Self-Supervised Multi-Contrast MRI Super-Resolution via Tri-Head Implicit Neural Representation
Bowen Gao and Kaiyan Li (University of Science and Technology of China, China); S. Kevin Zhou (Siemens Corporate Research, USA)

08:30
1571219076: Self-Supervised Slice-to-Volume Reconstruction with Gaussian Representations for Fetal MRI
Yinsong Wang, Thomas Fletcher and Xinzhe Luo (Imperial College London, United Kingdom (Great Britain)); Áine Travers Dineen and Rhodri Cusack (Trinity College Dublin, Ireland); Chen Qin (Imperial College London, United Kingdom (Great Britain))

08:40
1571226442: Phase-Aware Vision Transformers Enable Prediction of Hepatocellular Carcinoma Recurrence After Liver Transplantation
Nishanth Arun (Carnegie Mellon University, USA); Alexander Weston, Fatima Islam, Candice Bolan, Beau Toskich and Fernando Gil Lopez (Mayo Clinic, USA); John Galeotti (Carnegie Mellon University, USA)

08:50
1571226489: Beer-Lambert Autoencoder for Unsupervised Stain Representation Learning and Deconvolution in Multi-Immunohistochemical Brightfield Histology Images
Mark Eastwood (University of Warwick, United Kingdom (Great Britain)); Thomas Mckee (University of Geneva, Switzerland); Zedong Hu and Sabine Tejpar (Katholeike Universitat Leuven, Belgium); Fayyaz Minhas (University of Warwick, United Kingdom (Great Britain))

8:00 - 9:00
Smarter Reconstruction Pipelines
Room 4
Chairs: Ujwala Bhangale (South Bank University London, United Kingdom (Great Britain)); Binod Bhattarai (University of Aberdeen, United Kingdom (Great Britain))

08:00
1571221069: End-to-End Optimization of Sparse Ultrasound Linear Probes
Sergio A Urrea (Universidad Industrial de Santander, Colombia); Adrian Basarab (University of Lyon, France); Hervé Liebgott (CREATIS Lyon, France); Henry Arguello (Universidad Industrial de Santander, Colombia)

08:10
1571217217: End-to-End Mandibular Reconstruction with Integrated Repositioning and Completion Networks
Feng Lu (Shanghaitech University, China & Biomedical Engineering School, China); Chenfan Xu (Shanghaitech University, China); Jiacheng Sun (Shanghai Jiao Tong University School of Medicine, China); Chi Zhang (Nanjing Medical University, China); Min Zhu (Shanghai Jiao Tong University School of Medicine, China); Zhiming Cui (Shanghaitech University, China); Dinggang Shen (USA)

08:20
1571226516: Bias-Aware Conformal Prediction for Metric-Based Imaging Pipelines
Matt Y. Cheung (Rice University, USA); Tucker J. Netherton and Laurence E. Court (MD Anderson, USA); Ashok Veeraraghavan and Guha Balakrishnan (Rice University, USA)

08:30
1571220160: Morphology-Embedded Graph Optimization for EM Neuron Tracing
Qihua Chen and Xuejin Chen (University of Science and Technology of China, China)

08:40
1571219441: CoPrimeEEG: CRT-Guided Dual-Branch Reconstruction from Co-Prime Sub-Nyquist EEG
Yanxuan Yu (Columbia University, USA); Dong Liu (Yale University, USA); Ying Nian Wu (UCLA, USA)

08:50
1571225457: Mitigating the Reconstruction-Detection Trade-off in VAE-Based Unsupervised Anomaly Detection
Agathe Senellart (Université Paris Cité, Inria, Inserm, HeKA, France); Maëlys Solal (Sorbonne Université, Paris Brain Institute, CNRS, Inria, Inserm, AP-HP, Hôpital de la Pitié Salpêtrière, Paris, France); Stéphanie Allassonnière (Université Paris Cité, Inria, Inserm, HeKA, France); Ninon Burgos (Sorbonne Université, Paris Brain Institute, CNRS, Inria, Inserm, AP-HP, Hôpital de la Pitié Salpêtrière, Paris, France)

8:00 - 9:00
Special Session: Digital Twins and Multi-Omics Integration: Methodological Advances for Personalized Biomedical Modeling
Room 1
Chairs:

08:00
1571221287: Hypernetwork-Based Adaptive Aggregation for Multimodal Multiple-Instance Learning in Predicting Coronary Calcium Debulking
Kaito Shiku and Ichika Seo (Department of Advanced Information Technology, Kyushu University); Tetsuya Matoba, Rissei Hino and Yasuhiro Nakano (Department of Cardiovascular Medicine, Kyushu University Graduate School of Medical Sciences); Ryoma Bise (Department of Advanced Information Technology, Kyushu University)

08:15
1571221535: Multi-Modal Domain Adaptation for Cancer Diagnosis via Integration of Pathological Images and Clinical Text Data
Binyu Zhang, Kai Yang and Wei Shao (Nanjing University of Aeronautics and Astronautics, China)

08:30
1571225579: Multimodal Oncology Agent for IDH1 Mutation Prediction in Low-Grade Glioma
Hafsa Akebli (University of Udine, Italy); Adam Shephard (University of Warwick, United Kingdom (Great Britain)); Vincenzo Della Mea (University of Udine, Italy); Nasir M Rajpoot (University of Warwick, United Kingdom (Great Britain))

08:45
1571226630: Adaptive Clinical-Aware Latent Diffusion for Multimodal Brain Image Generation and Missing Modality Imputation
Rong Zhou and Houliang Zhou (Lehigh University, USA); Yao Su (Worcester Polytechnic Institute, USA); Brian Chen (19 Memorial Drive West & Lehigh University, USA); Yu Zhang (Stanford University School of Medicine, USA); Lifang He (Lehigh University, USA)

8:00 - 9:00
Ultrasound and Photoacoustics, Rebuilt
Room 2
Chairs: Youssef Arafat (Queen Mary University, United Kingdom (Great Britain)); Abhirup Banerjee (University of Oxford, United Kingdom (Great Britain))

08:00
1571215170: Reconstruction of Absorption Coefficients for Quantitative Photoacoustic Tomography with Unsupervised Neural Representation
Youshen Xiao (ShanghaiTech University, China); Yiling Shi and Ruixi Sun (Shanghaitech University, China); Yuyao Zhang (ShanghaiTech University, China); Fei Gao (University of Science and Technology of China, China)

08:10
1571225141: Generative AI for Overcoming RF Data Inaccessibility in Quantitative Ultrasound Imaging
Nasrin Sheibani-Asl (York University, Canada); Gregory Czarnota (University of Toronto & Sunnybrook Health Sciences Centre, Canada); Ali Sadeghi-Naini (York University, Canada)

08:20
1571219675: Deformation-Aware Simulator for Handheld Ultrasound Imaging
Ziyi Chen (Ecole Centrale de Lyon); Shaifali Parashar (CRHEA-CNRS, France); Adrian Basarab (University of Lyon, France)

08:30
1571221984: Introduction of a Learned Prior to Passive Cavitation Imaging
Celestine Lachambre (Labtau, Inserm U1032); Bruno Gilles (University of Lyon, France); Barbara Nicolas (Creatis, France); Francois Varray (University of Claude Bernard Lyon 1, France); Jean-Christophe Béra (Polytech Lyon, France); Adrian Basarab (University of Lyon, France)

08:40
1571217064: A Multi-Modal Transformer for Ultrasound-Guided Diffuse Optical Tomography
Seongkwon Yu (KAIST, Korea (South)); Seok-Hwan Oh (Barreleye, Korea (South)); Yuqing Liang (KAIST, Korea (South)); Jimin Lee (Korea Advanced Institute of Science and Technology, Korea (South)); Bumjun Koh and Hyeon-Min Bae (KAIST, Korea (South))

08:50
1571221299: UltraSharp: Beltrami Transformers for Ultrasound Super-Resolution
Prabhav Sanga (University College London, United Kingdom (Great Britain)); Jaskaran Singh (University of Nottingham, United Kingdom (Great Britain)); Tapabrata Chakraborti (University College London, United Kingdom (Great Britain))

8:00 – 11:30
Workshop: Large Models Meet Surgical Data Science
Room 17

9:00 - 10:00
Keynote: Robustness by Design: Clinical Metrics for Imaging AI
Mauricio Reyes, University of Bern, Switzerland
Rooms 7-12
Chairs: Guang Yang, Imperial College London, UK

10:00 - 10:30
Coffee Break
Reception Area

10:30 - 11:30
Echo Guidance, Right at the Probe
Room 15
Chairs: Yuanyuan Gu (Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences, China); Xueqi Guo (Siemens Healthineers, USA)

10:30
1571221432: Frequency-Aware Spatiotemporal Modeling with Cross-Frequency Attention for Echocardiography Left Ventricle Segmentation
Xiaodi Li (Harbin Institute of Technology, China); Hongxu Li (Peng Cheng Laboratory, China); Sining Hu and Shuangtong Shao (The Second Affiliated Hospital of Harbin Medical University, China); Zhaolin Chen (Monash University, Australia); Yue Hu (Harbin Institute of Technology, China)

10:40
1571223456: Time-Embedding U-Net for Temporally Consistent Left Ventricular Segmentation in 3D Echocardiography
Ishani DasGupta, Nilanjan Ray and Kumaradevan Punithakumar (University of Alberta, Canada)

10:50
1571219402: SonoYOLO + MedSAM2: A Pipeline for Automatic Detection and Segmentation of Regions of Interest in Cardiac Ultrasound Videos
Iraj Shroff, Yuyan Ge and René Vidal (University of Pennsylvania, USA)

11:00
1571225612: Physics-Informed Neural Networks with Embedded Shape Priors for Ultrasound Image Segmentation
Kaan Sel and Roozbeh Jafari (Massachusetts Institute of Technology, USA)

11:10
1571208670: Optical Flow-Guided Echocardiography Label Augmentation for the Segment Anything Model
Guil Jung (Korea Advanced Institute of Science and Technology, Korea (South)); Seok-Hwan Oh (Barreleye, Korea (South)); Hyeonjik Lee (KAIST, Korea (South)); Myeong-Gee Kim and Young-Min Kim (Barreleye Inc., Korea (South)); Sang-Yun Kim (KAIST, Korea (South)); Jungjae Son (Korea Advanced Institute of Science and Technology (KAIST), Korea (South)); Hyuksool Kwon (Seoul National University Bundang Hospital, Korea (South)); Hyeon-Min Bae (KAIST, Korea (South))

11:20
1571219981: Follow Your Heart: Landmark-Guided Transducer Pose Scoring for Point-of-Care Echocardiography
Zaiyang Guo and Jessie N Dong (University of Pennsylvania, USA); Filippos Bellos (University of Michigan, USA); Jilei Hao and Emily Mackay (Penn Medicine, USA); Trevor Chan (University of Pennsylvania, USA); Shir Goldfinger (Penn Medicine, USA); Sethu Reddy and Steven Vance (Central Michigan University, USA); Jason J Corso (University of Michigan, USA); Alison M Pouch (Penn Medicine, USA)

10:30 - 11:30
Getting MRI Modalities into Register
Room 2
Chairs: Lina Chato (University of South Dakota, USA)

10:30
1571220673: Deep-Learning Cortical Registration Guided by Structural and Diffusion MRI and Connectivity
Zhen Zhou, Jian Li, Williams Jonathan, Bruce Fischl and Iman Aganj (Massachusetts General Hospital, USA)

10:40
1571221567: Bridging Modalities: Joint Synthesis and Registration Framework for Aligning Diffusion MRI with T1-Weighted Images
Xiaofan Wang and Junyi Wang (University of Electronic Science and Technology of China, China); Yuqian Chen and Lauren J. O'Donnell (Harvard Medical School, USA); Fan Zhang (University of Electronic Science and Technology of China, China)

10:50
1571226538: Effective Feature Learning for 3D Medical Registration via Domain-Specialized DINO Pretraining
Eytan Kats (Universität zu Lübeck, Germany); Mattias Heinrich (Institute of Medical Informatics, Germany)

11:00
1571211950: MeGMA: A Multi-Level Graph MAtching Framework for Gyral Hinge Alignment
Qiyu Wang (Northwestern Polytechnical University, China); Xiao Li and Yudan Ren (Northwest University, China); Zhibin He (Northwestern Polytechnical University, China & NorthWest University, China)

11:10
1571209225: HiMaC: Histogram-Driven and Mask-Aware Consistency Models for MRI Reconstruction
Qiudi He (University of California, Los Angeles, USA); Kai Zhao (UCLA, USA); Kaifeng Pang (University of California, Los Angeles, USA); Qi Miao and Sanghyeok Lim (UCLA, USA); Changsuk Oh (University of California, Los Angeles, USA); Alex Ling Yu Hung (UCLA, USA); Kyung Hyun Sung (University of California, Los Angeles, USA)

11:20
1571220137: DEMIST: Decoupled Multi-Stream Latent Diffusion for Quantitative Myelin Map Synthesis
Jiacheng Wang, Hao Li and Xing Yao (Vanderbilt University, USA); Ahmad Toubasi, Taegan Vinarsky, Caroline Gheen, Joy Derwenskus and Chaoyang Jin (Vanderbilt University Medical Center, USA); Richard Dortch (Barrow Neurological Institute, USA); Junzhong Xu and Francesca Bagnato (Vanderbilt University Medical Center, USA); Ipek Oguz (Vanderbilt University, USA)

10:30 - 11:30
Learning Time Without Labels
Room 4
Chairs: Moo K Chung (University of Wisconsin-Madison, USA); Maria Zuluaga (Eurecom Institute, France)

10:30
1571221469: Integrating Visual Features in Multiple Hypothesis Tracking Through Self-Supervised Learning
Raphael Reme (Institut Pasteur / Télécom Paris, France); Alasdair Newson (Telecom Paris, France); Elsa D. Angelini (Telecom Paris LTCI, Institut Polytechnique, France); Jean-Christophe Olivo-Marin and Thibault Lagache (Institut Pasteur, France)

10:40
1571226441: Self-Supervised Vision Transformer for Surgical Phase Recognition in Endoscopic Submucosal Dissection
Gyanateet Dutta (University of Leeds, United Kingdom (Great Britain)); Aya Hammad (University of York, United Kingdom (Great Britain)); Thomas Archer (Leeds Teaching Hospitals NHS Trust, United Kingdom (Great Britain)); Qi Dou (The Chinese University of Hong Kong, Hong Kong); Noor Mohammed (Leeds Teaching NHS Hospitals Trust, United Kingdom (Great Britain)); Sharib Ali (University of Leeds, United Kingdom (Great Britain))

10:50
1571217563: Predicting Post-Stenting Outcomes Using Self-Supervised 3D Vision Transformers in Intravascular OCT
Juhwan Lee, Justin N Kim and Ammar Hoori (Case Western Reserve University, USA); Luis A. P. Dallan, Gabriel T. R. Pereira and Bernardo Cortese (University Hospitals of Cleveland, USA); David Wilson (Case Western Reserve University, USA)

11:00
1571210372: GraphTrack: Automated Longitudinal Lesion Tracking in CT via Local-Global Reasoning with Contrastive and Graph Learning
Alejandro Vergara-Richart, Celia Martín Vicario, Gemma Urbanos García, Ángel Alberich-Bayarri and Ana Jiménez-Pastor (Quantitative Imaging Biomarkers in Medicine (Quibim S.L.), Spain)

11:10
1571226260: Cardiac Output Prediction from Echocardiograms: Self-Supervised Learning with Limited Data
Adson Duarte, Davide Vitturini and Emanuele Milillo (University of Turin, Italy); Andrea Bragagnolo (Links Foundation, Italy); Carlo Alberto Barbano and Riccardo Renzulli (University of Turin, Italy); Michele Cannito (Università Degli Studi di Torino, Italy); Federico Giacobbe (University of Turin, Italy); Francesco Bruno (Uiversity of Turin, Italy); Ovidio De Filippo and Fabrizio D'Ascenzo (University of Turin, Italy); Marco Grangetto (Università di Torino, Italy)

11:20
1571226508: Learnable Hierarchical Visual Contexts for Tumor Segmentation in Computed Tomography Images
Jue Jiang and Harini Veeraraghavan (Memorial Sloan Kettering Cancer Center, USA)

10:30 - 11:30
Segmenting the Brain with Missing Pieces
Room 14
Chairs: Alexandre Cunha (Caltech, USA); Eleonora D'Arnese (University of Edinburgh, United Kingdom (Great Britain))

10:30
1571226471: Label Brain Transplant: Utilizing Incomplete Manual Segmentations to Boost Deep Learning Generalization
Armina Fani, Isabelle Le, Mike Doan and Karen Uba (TReNDS Center & Georgia State University, USA); Jocelyne Bachevalier and Sarah Shultz (Emory University, USA); Vince Calhoun (Tri-Institutional Research Center in Neuroimaging and Data Science, USA); Sergey Plis (TReNDS Center & Georgia State University, USA)

10:40
1571220227: Toward Modality-Robust Brain Tumor Segmentation: Distilling Foundation Models for Incomplete MRI Scans
Kaiqi Qiang (Dalian University of Technology, China); Hongming Xu (Dalian University of Technology , China); Qinbin Zhang, Chen Wu and Fengyu Cong (Dalian University of Technology, China); Haozhe Piao (Cancer Hospital of Dalian University of Technology, Shenyang, China)

10:50
1571214646: Task-Oriented Uncertainty Collaborative Learning for Label-Efficient Brain Tumor Segmentation
Zhenxuan Zhang and Hongjie Wu (Imperial College London, United Kingdom (Great Britain)); Tao Wang (Fuzhou University, China); Jiahao Huang (Imperial College London, United Kingdom (Great Britain)); Baihong Xie and Zhifan Gao (Sun Yat-sen University, China); Peter J. Lally (Imperial College London, United Kingdom (Great Britain)); Guang Yang (Imperial College London, United Kingdom (Great Britain) & Royal Brompton Hospital, United Kingdom (Great Britain))

11:00
1571226391: Multi-Map Fusion for Weakly Supervised Disease Localization from Globally Assigned Diagnostic Labels in Brain MRI
Seoyoung OH (Sorbonne Université, France); Mélanie Pélégrini-Issac (Inserm, France); Hélène Urien (ISEP, France); Véronique Marchand-Pauvert (Sorbonne Université, Inserm, CNRS, LIB, France); Jeremie Sublime (ISEP, France)

11:10
1571219592: Annotation-Free Cerebrovascular Segmentation: A Synthetic Data Paradigm for TOF-MRA Segmentation
Juntao Chen and Pengxiao Xu (Southern University of Science and Technology, China); Li Lin (The University of Hong Kong, Hong Kong); PuJin Cheng (Hku, Hong Kong); Xiaoying Tang (Sustech, China)

11:20
1571219425: Trustworthy Longitudinal Brain MRI Completion: A Deformation-Based Approach with KAN-Enhanced Diffusion Model
Tianli Tao (King's College London, United Kingdom (Great Britain)); Ziyang Wang (Aston University, United Kingdom (Great Britain) & Oxford University, United Kingdom (Great Britain)); Delong Yang (Kunming Medical University, United Kingdom (Great Britain)); Han Zhang (ShanghaiTech University, China); Le Zhang (University of Birmingham, United Kingdom (Great Britain))

10:30 - 11:30
Special Session: Privacy-Aware, Data-Efficient AI via Personalized Incremental and Federated Learning in Healthcare
Room 1

10:30
1571222209: Continual Pretraining Prostate MRI ViT Encoder for Task Alignment
Bilal Sidiqi (University College London, University of London, United Kingdom (Great Britain)); Yipei Wang, Shaheer Ullah Saeed, Shiqi Huang, Daniel Alexander and Yipeng Hu (University College London, United Kingdom (Great Britain))

10:45
1571217774: FedHarmo: Harmonizing Global Aggregation and Local Alignment in Cross-Domain Federated Medical Image Segmentation
You Zhou (Beihang University, China); Guangxia Cui (Beijing Shijitan Hospital, China); Shuchang Lyu (Beihang University, China); Guangliang Cheng (University of Liverpool, United Kingdom (Great Britain)); Lijiang Chen (Beihang University, China); Wenpei Bai (Beijing Shijitan Hospital, China); Qi Zhao (Beihang University, China)

11:00
1571220910: Hyperbolic Model Aggregation for Federated Learning in fMRI
Jiyao Wang, Nicha C. Dvornek, Peiyu Duan, Andrew W Marshall, Lawrence Hamilton Staib and James Duncan (Yale University, USA)

11:15
1571226519: Federated Few-Shot Segmentation for Rare Brain Tumours via Weighted Aggregation and Prototype-Guided Adaptation
Shenghui Yan (University of New South Wales, Australia); Sidong Liu (Macquarie University, Australia); Maurice Pagnucco and Yang Song (The University of New South Wales, Australia)

10:30 - 11:30
Synthetic Data That Actually Helps
Room 16
Chairs: Xiangjian He (University of Nottingham Ningbo China, China)

10:30
1571211416: MSDM: Generating Task-Specific Pathology Images with a Multimodal Conditioned Diffusion Model for Cell and Nuclei Segmentation
Dominik Winter, Mai Bui, Monica Azqueta Gavaldon, Nicolas Triltsch, Marco Rosati and Nicolas Brieu (AstraZeneca, Germany)

10:40
1571226503: 3D-LLDM: Label-Guided 3D Latent Diffusion Model for Improving High-Resolution Synthetic MR Imaging in Hepatic Structure Segmentation
Kyeonghun Kim (OUTTA, Korea (South)); Jaehyeok Bae (Stanford University, USA); Youngung Han (Seoul National University, Korea (South) & OUTTA, Korea (South)); Joo Young Bae (Seoul National University, Korea (South)); Seoyoung Ju (Korea University & OUTTA, Korea (South)); Junsu Lim (Sang Myung University, Korea (South)); Gyeongmin Kim (Chung-Ang University, Korea (South)); Nam-Joon Kim (Seoul National University, Korea (South)); Woo Kyoung Jeong (Samsung Medical Center, Korea (South)); Ken Ying-Kai Liao (NVIDIA, Taiwan); Won Jae Lee (Samsung Medical Center, Sungkyunkwan University School of Medicine, Korea (South)); Pa Hong (Samsung Changwon Hospital, Korea (South)); Hyuk-Jae Lee (Seoul National University, Korea (South))

10:50
1571220619: High-Quality Synthetic Annotated Tissue Data Using Conditional Generative Adversarial Networks
Siddharth Srivastava (University of Warwick, United Kingdom (Great Britain)); Cornelis Jan Weijer (University of Dundee, United Kingdom (Great Britain)); Till Bretschneider (University of Warwick, United Kingdom (Great Britain))

11:00
1571221283: UIGM: Segmentation-Constrained Flow Matching Model for Ultrasound Data Augmentation
Chang Xiao and Li Yingtai (University of Science and Technology of China, China); Guohao Dong, Yaoxian Zou and Muqing Lin (Shenzhen Mindray Bio-Medical Electronics, Co., Ltd., China); S.kevin Zhou (University of Science and Technology of China, China)

11:10
1571221170: BASSL-MI: Batch-Agnostic Self-Supervised Learning Uncovers Clinically Relevant Tumor Niches in Multiplexed Imaging
Alexander L Lin, Shunxing Bao and Ken Lau (Vanderbilt University, USA); Simon Vandekar (Vanderbilt University Medical Center, USA); Daniel Moyer (Vanderbilt University, USA); Qi Liu and Siyuan Ma (Vanderbilt University Medical Center, USA)

11:20
1571226322: Direction-Guided Watershed for Adherent Cell Instance Segmentation
Ruochen Liu (University of Liverpool, United Kingdom (Great Britain)); Yi Tian (National University of Singapore, Singapore); Yalin Zheng (University of Liverpool, United Kingdom (Great Britain)); Yuxuan Zhao and Jingxin Liu (Xi'an Jiaotong-Liverpool University, China)

10:30 - 11:30
Weak Labels, Domain Shifts, and Real Robots
Room 3
Chairs: Chen Chen (University of Sheffield, United Kingdom (Great Britain)); Qingchao Chen (Peking University, China)

10:30
1571226458: ScribPreDiff: Preference-Guided Latent-Alignment Diffusion for Scribble-Supervised Microscopy Instance Segmentation
Miaomiao Cai (University of Science and Technology of China, China); Xiaoyu Liu (USTC, China); Zhiwei Xiong (University of Science and Technology of China, China)

10:40
1571226349: Scribble-Supervised Medical Image Segmentation with Dynamic Teacher Switching and Hierarchical Consistency
Huy Thanh Nguyen (Carnegie Mellon University, USA & Northwestern University, USA); Loc Hoang Cao and Dat Tien Chung (North Carolina A&T State University, USA); Anh Mai Vu (University of Houston, USA); Thanh-Minh Nguyen (University of Medicine and Pharmacy at Ho Chi Minh City, Vietnam); Minh Huu Nhat Le (Montefiore Medical Center, Albert Einstein College of Medicine, USA); Phat Kim Huynh (North Carolina A&T State University, USA); Ulas Bagci (Northwestern University, USA)

10:50
1571219640: DiSMemNet: Structure-Aware Distillation and Memory Network for Generalizable Unsupervised Domain Adaptation in EM Segmentation
Ruining Zhou, Jinyue Guo, Liuyun Jiang, Jing Liu and Hua Han (Institute of Automation, Chinese Academy of Sciences, China)

11:00
1571221001: LoSA-Net: A Localized and Scale-Adaptive Network for Boundary-Sensitive Prediction of Perineural Invasion in 3D MRI
Youngung Han (Seoul National University, Korea (South) & OUTTA, Korea (South)); Hyunsu Go (Seoul National University, Korea (South)); Kyeonghun Kim (OUTTA, Korea (South)); Induk Um (Chung-Ang University, Korea (South)); Junga Kim, Jaewon Jung and Nam-Joon Kim (Seoul National University, Korea (South)); Woo Kyoung Jeong (Samsung Medical Center, Korea (South)); Won Jae Lee (Samsung Medical Center, Sungkyunkwan University School of Medicine, Korea (South)); Ken Ying-Kai Liao (NVIDIA, Taiwan); Pa Hong (Samsung Changwon Hospital, Korea (South)); Hyuk-Jae Lee (Seoul National University, Korea (South))

11:10
1571214617: Pretext Task Adversarial Learning for Unpaired Low-Field to Ultra High-Field MRI Synthesis
Zhenxuan Zhang, Peiyuan Jing, Zi Wang, Ula Briski, Coraline Beitone, Yue Yang and Yinzhe Wu (Imperial College London, United Kingdom (Great Britain)); Fanwen Wang (Imperial College London & Royal Brompton Hospital, United Kingdom (Great Britain)); Liutao Yang and Jiahao Huang (Imperial College London, United Kingdom (Great Britain)); Zhifan Gao (Sun Yat-sen University, China); Guang Yang (Imperial College London, United Kingdom (Great Britain) & Royal Brompton Hospital, United Kingdom (Great Britain)); Peter J. Lally (Imperial College London, United Kingdom (Great Britain))

11:20
1571226478: 6D Robotic OCT Scanning of Curved Tissue Surfaces
Suresh Guttikonda (Technische Universität Hamburg, Germany); Maximilian Neidhardt (Hamburg University of Technology, Germany); Vidas Raudonis (KTU, Lithuania); Alexander Schlaefer (Hamburg University of Technology, Germany)

10:30 – 11:30
Special Session: Privacy-Aware, Data-Efficient AI via Personalized Incremental and Federated Learning in Healthcare
Room 1

11:30 – 13:00
Diversity Lunch
Rooms 7-12

17:00 - 116:00
Poster/Live Demo Session Two
Room 6/13
Chairs: Chen Chen (University of Sheffield, United Kingdom (Great Britain)); Qingchao Chen (Peking University, China)

1571214859: Otoscopy AI: Deeply Supervised Attention for Otoscopic Image Segmentation
Hoang Le (Taureau.ai, Vietnam); Quang Do (BelleTorus Corporation, USA); Thang Nguyen (Belle.ai & Torus.ai, France); Hang Nguyen (Belle.ai, France & Torus Actions, France)

1571215411: Attend What Matters: Leveraging Vision Foundational Models for Breast Cancer Classification Using Mammograms
Samyak Sanghvi (Indian Institute of Technology Delhi, India); Piyush Miglani (Indian Institute of Technology of Delhi, India); Sarvesh Shashikumar, Kaustubh R Borgavi and Chetan Arora (Indian Institute of Technology Delhi, India)

1571216040: Efficient Complex-Valued MR Image Reconstruction Using a Real-Value Trained Conditional Diffusion Model
Satoshi Ito and Tomoki Sawai (Utsunomiya University, Japan)

1571216470: Microstructure Informed Mamba Vision Masked Autoencoder for Personalized Brain Injury Detection from Diffusion MRI
Shuxin Cao (Nanjing University of Science and Technology, China & 南京理工大学, China); Tenglong Wang, Yazhe Zhai, Jiahao Yu, Jiaolong Qin and Ye Wu (Nanjing University of Science and Technology, China)

1571216554: TAR-Diff: Diffusion-Based Ultrasound Video Generation for Medical Diagnosis with Temporal Attention Residuals
Jisu Kim and Seok-Hwan Oh (Barreleye, Korea (South)); Hyeon-Min Bae (KAIST, Korea (South))

1571216602: Image Synthesis and Transfer Learning for Estimating Multi-Modal Brain Registration Error
Leandro Nascimento (Sorbonne Université, France & Robeauté, France); Quentin François and Bertrand Duplat (Robeauté, France); Sinan Haliyo (ISIR, Sorbonne Université, CNRS, France); Isabelle Bloch (LIP6, Sorbonne Université, CNRS, France)

1571216741: XBench: A Comprehensive Benchmark for Visual-Language Explanations in Chest Radiography
Haozhe Luo (University of Bern (ARTORG), Switzerland & Kaiko Company, Switzerland); Shelly Zixin Shu (University of Bern, Switzerland); Ziyu Zhou (Shanghai Jiao Tong University, China); Sebastian Otálora (Kaiko.AI, Switzerland); Mauricio Reyes (University of Bern, Switzerland)

1571216840: SFENet: Shallow Feature Excitation for Retinal Vessel Segmentation
Lei Zhang (Sun Yat-sen University, China); Zihuang Wu (Jiangxi Normal University, China); Xinyu Xiong (Sun-Yat Sen University, China); Ming Li (Shandong Inspur Database Technology, China); Guanbin Li (Sun Yat-sen University, China)

1571216876: MR-Derived Skeletal Muscle Features as Predictors of Diabetes Risk in the German National Cohort
Marius Winter (University Hospital of Tuebingen, Germany & University of Stuttgart, Germany); Lena Sophie Kiefer (University Hospital of Tuebingen, Germany); Bin Yang (University of Stuttgart, Germany); Fabian Bamberg (Center for Diagnostic and Therapeutic Radiology, Germany); Fritz Schick (Eberhard-Karls-University of Tübingen, Germany)

1571216906: MMC-Net: A Novel Deep Learning Architecture for Myopic Maculopathy Classification with Hierarchical Attention Mechanisms
Xue Wu, Chengxu Pan, Lin Chen and Chengjia Liu (Soochow University, China); Weifang Zhu (Soochow University (Suzhou), China)

1571216924: Integrating Neural Differential Forecasting with Safe Reinforcement Learning for Blood Glucose Regulation
Yushen Liu (University of Virginia, USA); Yanfu Zhang (College of William & Mary, USA); Xugui Zhou (Louisiana State University, USA)

1571217099: DSA-CycleGAN: A Domain Shift Aware CycleGAN for Robust Multi-Stain Glomeruli Segmentation
Zeeshan Nisar (University of Strasbourg, France); Friedrich Feuerhake (Hannover Medical School, Germany); Thomas Lampert (University of Strasbourg, France)

1571217111: Uncertainty Analysis in Intravascular OCT Segmentation
Leah Heil, Ruben van der Waerden, Rick Volleberg, Jos Thannhauser, Joske van der Zande and Thijs Luttikholt (RadboudUMC, The Netherlands); Pierandrea Cancian and Xiaojin Gu (AmsterdamUMC, The Netherlands); Bram van Ginneken (University Medical Center Utrecht, The Netherlands); Clarisa Sànchez Gutiérrez and Ivana Išgum (AmsterdamUMC, The Netherlands); Niels van Royen (RadboudUMC, The Netherlands); Simone Saitta (AmsterdamUMC, The Netherlands)

1571217164: LungEvaty: A Scalable, Open-Source Transformer-Based Deep Learning Model for Lung Cancer Risk Prediction in LDCT Screening
Johannes Brandt and Maulik Chevli (Technical University Munich, Germany); Rickmer Braren (University of Hamburg, Germany); Georgios Kaissis (Technical University of Munich, Germany); Philip Müller and Daniel Rueckert (Technical University Munich, Germany)

1571217298: Task-Agnostic Noisy Label Detection via Standardized Loss Aggregation
Inhyuk Park (VUNO, Korea (South)); Doohyun Park (VUNO Inc., Korea (South))

1571217324: Two-Dimensional Ultrasound Thermometry Using Peripheral Measurements and Learning-Based Inference for Tumor Ablation Monitoring
Ajay Anand, Ajeesh Ajayan Nayaruparambil, Yue Zhao, Diane Dalecki and Müjdat Çetin (University of Rochester, USA)

1571217451: BVD: A Two-Stage Network for Identifying Bronchial Variation Types from CT Images
Chang Yuwen and Xuelian Cheng (Monash University, Australia); Junrong Yang (Shukun Technology, China); Xin Wang (Shukun Technology, Australia); Juxi Leitner and Zongyuan Ge (Monash University, Australia)

1571217811: Evidence-Grounded Temporal Reasoning in Operating Room Long Video Understanding
Yaoqian Li and Jinpeng Li (The Chinese University of Hong Kong, Hong Kong); Pheng Ann Heng (The Chinese University of Hong, Hong Kong)

1571217949: Integrating Multi-Scale Foundation Model Pathology Embeddings for Accurate Tumor Detection in Renal Cancers
Sahil Kapadia (University of North Carolina at Chapel-Hill, USA); Brennan Flannery (Case Western Reserve University, USA); Satish E Viswanath (Emory University, USA)

1571217955: Leveraging Multi-Rater Annotations to Calibrate Object Detectors in Microscopy Imaging
Francesco Campi (Helmholtz Munich, Germany); Lucrezia Tondo (German Cancer Research Center (DKFZ) & University Medical Center Mannheim, Germany); Ekin Karabati (DKFZ Heidelberg & Heidelberg University, Germany); Johannes Betge (German Cancer Research Center (DKFZ), Germany & University Medical Center Mannheim, Cote d'Ivoire); Marie Piraud (Helmholtz Munich, Germany)

1571217984: Right Collateral Sulcus Morphology Correlates with Receptive Communication in Preterm-Born Adolescents and Neonates
Racim Menasria (Neurospin, France & Gaia Lab, France); Julien Laval and Denis Rivière (Université Paris-Saclay, CEA, NeuroSpin, France); Jessica Dubois (INSERM, France); Jean-François Mangin (NeuroSpin, CEA, Université Paris-Saclay, France); Joël Chavas (Université Paris-Saclay, CEA, NeuroSpin, France)

1571218133: Spatially-Aware Mixture of Experts with Log-Logistic Survival Modeling for Whole-Slide Images
Ardhendu Sekhar, Vasu Soni and Keshav Aske (Indian Institute of Technology Bombay, India); Shivam Madnoorkar (Inidan Institute of Technology Bombay, India); Pranav Jeevan P (IIT Bombay, India); Amit Sethi (Indian Institute of Technology Bombay, India)

1571218357: A Source-Free Segmentation Quality Estimation of a Model Adapted to a New Domain
Ido Nahum, Rotem Nizhar and Jacob Goldberger (Bar-Ilan University, Israel)

1571218360: DisDiff: Self-Supervised Segmentation on Histopathology Images Using Diffusion Models and Distance Maps
Xuanke Zhang, Qi Zhang and Jia Gu (City University of Macau, Macao); Runyang Jian (Portland State University, USA); Chongyu Bao (University of Bristol, United Kingdom (Great Britain)); Ziyang Zhu (City University of Macau, Macao); Fengyong You (Changsha Medical University, China); Jingzhang Sun (Hainan University, China)

1571218426: DeepSRS: Enhancing Stimulated Raman Scattering Imaging Through Multi-Stage Deep Learning for Super-Resolution and Denoising
Jiaxin Liu, Xu Songxiang and Xu Yihuan (University of Edinburgh and Zhejiang, China); Ying Chi (Zhejiang University, China)

1571218709: Joint Segmentation and Grading with Iterative Optimization for Multimodal Glaucoma Diagnosis
Zhiwei Wang (The University of Hong Kong, Hong Kong & Zhejiang University of Technology, China); Yuxing Li and Meilu Zhu (The University of Hong Kong, Hong Kong); Defeng He (Zhejiang University of Technology, China); Edmund Y. Lam (University of Hong Kong, Hong Kong)

1571218719: RTFGM-Net: A Deep Learning Model for Auto-Detection of Hypsarrhythmia EEG in West Syndrome
Cheng hao Xue (ShanghaiTech University, China); Yifei Bai (ShanghaiTech University); Yuanning Li (ShanghaiTech University, China); Dake He (Xinhua Hospital Affiliated to Shanghai Jiao Tong University School of Medicine, China); Lin Xu (ShanghaiTech University, China)

1571218727: Potential of Masked Vision Transformer for Predicting Macrovascular Invasion on Liver CT Images: Graph-Based Association Analysis of Attention Heads
Kengo Takahashi (Department of Radiological Imaging and Informatics, Tohoku University Graduate School of Medicine, Sendai, Japan); Yuwen Zeng (Tohoku University Advanced Institute of So-Go-Chi Informatics, Tohoku University, Sendai, Japan); Kei Ichiji (Department of Radiological Imaging and Informatics, Tohoku University Graduate School of Medicine, Sendai, Japan); Zhang Zhang (Center for Data-driven Science and Artificial Intelligence, Tohoku University, Sendai, Japan); Haoyang Liu (Intelligent Biomedical Systems Engineering Laboratory, Graduate School of Biomedical Engineering, Tohoku University); Issei Yoshizumi (Department of Radiological Imaging and Informatics, Tohoku University Graduate School of Medicine, Sendai, Japan); Ryusei Inamori (Department of Diagnostic Imaging, Tohoku University Graduate School of Medicine, Sendai, Japan); Takuma Usuzaki (Department of Diagnostic Radiology, Tohoku University Hospital, Sendai, Japan); Noriyasu Homma (Department of Radiological Imaging and Informatics, Tohoku University Graduate School of Medicine, Sendai, Japan)

1571218854: ACS-SegNet: An Attention-Based CNN-SegFormer Segmentation Network for Tissue Segmentation in Histopathology
Nima Torbati (Danube Private University, Austria); Anastasia Meshcheryakova (Medical University of Vienna, Austria); Ramona Woitek (Danube Private University, United Kingdom (Great Britain)); Diana Mechtcheriakova (Medical University of Vienna, Austria); Amirreza Mahbod (Danube Private University, Austria)

1571218906: Semantic-Aware 3D Polyp Segmentation in Dynamic Endoscopy Scenes
Jinhua Liu and Wen Tang (Bournemouth University, United Kingdom (Great Britain)); Yongsheng Shi and Dongjin Huang (Shanghai University, China)

1571218959: Deep Learning-Based Fetal Lung Segmentation and Lung Development Evaluation from Diffusion-Weighted MRI Images
Zhennan Xiao (King's College London, United Kingdom (Great Britain)); Katharine Brudkiewicz (University College London (UCL) & Kings College London, United Kingdom (Great Britain)); Zhen Yuan (King's College London, United Kingdom (Great Britain)); Rosalind Aughwane and Magdalena Sokolska (University College London Hospital NHS Foundation Trust, United Kingdom (Great Britain)); Joanna Chappell (Kings College London, United Kingdom (Great Britain)); Trevor Gaunt (University College London Hospitals NHS Foundation Trust, United Kingdom (Great Britain)); Anna L. David (University College London, United Kingdom (Great Britain)); Andrew P King (Kings College London, United Kingdom (Great Britain)); Andrew Melbourne (King's College London, United Kingdom (Great Britain))

1571218994: Automated 2D/3D Fluoroscopic Registration for Knee Joint Kinematics Using Fluoroscopic-to-DRR Translation
Jinhao Wang (ETH Zürich, Switzerland & Laboratory for Movement Biomechanics, Switzerland); Xia Li, Raphael Surbeck, Sasa Cukovic and William Taylor (ETH Zurich, Switzerland)

1571219052: Introducing Transformer-Based Cascaded Classifiers for Breast Cancer Histopathology Classification
Emilia López-Abad and Jorge Pérez-Martín (Universidad Nacional de Educación a Distancia (UNED), Spain)

1571219063: Weakly-Supervised Lung Nodule Segmentation in CT with One-Click Annotation
Tianyi Qu, Dichao Liu, Ze Jin and Yuqiao Yang (Institute of Science Tokyo, Japan); Kenji Suzuki (Tokyo Institute of Technology, Japan)

1571219092: Uncertainty-Aware Structured Data Extraction from Full CMR Reports via Distilled LLMs
Yi Yu (The Ohio State University, USA); Parker Martin (The Ohio State University Wexner Medical Center, USA); Zhenyu Bu and Yixuan Liu (The Ohio State University, USA); Yi-Yu Zheng (Protagolabs Inc., USA); Orlando P Simonetti (The Ohio State University, USA); Yuchi Han (The Ohio State University Wexner Medical Center, USA); Yuan Xue (The Ohio State University, USA)

1571219136: From Volumes to Slices: Computationally Efficient Contrastive Learning for Sequential Abdominal CT Analysis
Po-Kai Chiu and Hung-Hsuan Chen (National Central University, Taiwan)

1571219199: SpectroXAI: Quantitative Explainability Consistency for EEG-Based Spectrogram Imaging in Alzheimer's Disease Classification
Sukhpal Singh (Thapar Institute of Engineering & Technology, India); Husanbir Pannu (Thapar Institute of Engineering and Technology Patiala India, India); Poonam Saini (Punjab Engineering College, India)

1571219216: DiGMa: A Dual-Domain Collaborative Framework for Efficient Temporal MPI Reconstruction
Zining Liu (Beihang University, China); Gen Shi (Beijing University of Aeronautics and Astronautics, China); Ziwei Chen, Jie Tian, Hui Zhang and Jingying Jiang (Beihang University, China)

1571219262: Numerical Framework for Deep Learning Photoacoustics Image Reconstruction
Javier García Muñoz (University Complutense of Madrid, Spain)

1571219485: Toward Achieving Adjustable Smoothing Level in Cardiac-Gated SPECT Studies with a Deep Learning Denoising Network
Xirang Zhang (Illinois Institute of Technology, USA & Hunan University of Technology and Business, China); Yongyi Yang and Jovan Brankov (Illinois Institute of Technology, USA); Michael King (Umass Medical School, USA)

1571219510: Multi-View Consistent Wound Segmentation with Neural Fields
Remi Chierchia (Queensland University of Technology, Australia & CSIRO, Australia); Leo Lebrat (Queensland University of Technology, Australia); David Ahmedt-Aristizabal and Yulia Arzhaeva (CSIRO Data61, Australia); Olivier Salvado, Clinton Fookes and Rodrigo Santa Cruz (Queensland University of Technology, Australia)

1571219517: A Comparative Study of Machine Learning and Deep Learning for Out-of-Distribution Detection
Jihyeon Baek (VUNO Inc., Korea (South)); Seunghoon Lee (Vuno, Korea (South) & Inha University, Korea (South)); Gitaek Kwon (Korea (South)); Doohyun Park (VUNO Inc., Korea (South))

1571219523: GiG-Net: Cascaded Graph-in-Graph Framework for Molecular Subtype Classification Based on Multi-Modal Fusion in Glioma
Haoyang Liu, Yuwen Zeng, Zhang Zhang, Arata Nagai, Kengo Takahashi, Masayuki Kanamori, Hidenori Endo, Kuniyasu Niizuma and Noriyasu Homma (Tohoku University, Japan)

1571219541: FreqDINO: Frequency-Guided Adaptation for Generalized Boundary-Aware Ultrasound Image Segmentation
Yixuan Zhang (University of Nottingham Ningbo China, China); Qing Xu (University of Nottingham, United Kingdom (Great Britain)); Yue Li (University of Nottingham Ningbo China, China & University of Nottingham, United Kingdom (Great Britain)); Xiangjian He, Qian Zhang and Mainul Haque (University of Nottingham Ningbo China, China); Rong Qu (University of Nottingham, United Kingdom (Great Britain)); Wenting Duan (University of Lincoln, United Kingdom (Great Britain)); Zhen Chen (Yale University, USA)

1571219567: Ranking-Guided Semi-Supervised Domain Adaptation for Severity Classification
Shota Harada and Ryoma Bise (Kyushu University, Japan); Kiyohito Tanaka (Kyoto Second Red Cross Hopital, Japan); Seiichi Uchida (Kyushu University, Japan)

1571219571: High-Fidelity 3D CT Super-Resolution on Real-Paired Datasets with Adaptive Interpolation and Feature Consistency
Dingfu Huang, Wang Bo and S.kevin Zhou (University of Science and Technology of China, China)

1571219588: Structure Preserving Adversarial Diffusion for Unpaired Medical Image Synthesis
Kevin Giraldo Giraldo (Telecom Paris, France); Pierre-Henri Conze and Vincent Jaouen (IMT Atlantique, France); Elsa D. Angelini (Telecom Paris LTCI, Institut Polytechnique, France)

1571219694: MTFlow: Time-Conditioned Flow Matching for Microtubule Segmentation in Noisy Microscopy Images
Sidi Mohamed Sid'El Moctar (CNRS & Université de Rennes, IGDR, France); Achraf Ait Laydi (University of Rennes, France & University of Sultan Moulay Slimane, Morocco); El Mourabit Yousef (Sciences and Technology Faculty Sultane Moulay Slimane University, Morocco); Hélène Bouvrais (Université de Rennes & IGDR, France)

1571219802: Hierarchical Clustering for False Negative Aware Prototypical Contrastive Learning in Histopathology
Laetitia Rebiere (University of Strasbourg, France); Aïna Venkatasamy (Inserm, France); Thomas Lampert (University of Strasbourg, France)

1571219817: Towards ROI-Free Modality Translation for MRI with Test-Time Augmentation
Jae Wan Park, Suhyun Kim, Geunrip Park and Seong Jae Hwang (Yonsei University, Korea (South))

1571219857: Log Focal Frequency Loss for Bioimage Restoration
Xingjian Zhang, Claire Leclech, Louison Blivet-Bailly and Abdul I. Barakat (LadHyX, CNRS, École Polytechnique, Institut Polytechnique de Paris, France); Elsa D. Angelini (LTCI, Telecom Paris, Institut Polytechnique de Paris, France)

1571219909: A Unified Deep Learning Pipeline for Placental Morphometric and Phenotypic Mapping in Gestational Diabetes
Yi Fang, Lara Morley, Abigail Byford, Karen Forbes, Nigel Simpson and Arash Rabbani (University of Leeds, United Kingdom (Great Britain))

1571219927: Beyond Dichotomization: Ordinal Prediction of Functional Stroke Outcomes from 4D CTP and Clinical Metadata Using Deep Learning
Kimberly Amador and Anthony J. Winder (University of Calgary, Canada); Jens Fiehler (University Medical Center Hamburg-Eppendorf, Germany); Philip A. Barber (University of Calgary, Canada); Matthias Wilms (University of Michigan, USA); Nils Forkert (University of Calgary, Canada)

1571219962: Enhancing Multiple Sclerosis Lesion Detection: An in-Depth Comparison Between 2D, 2.5D and 3D U-Net Architectures
Mihai Cosmin (West University of Timisoara, Romania)

1571219967: 3D Lung Reconstruction from X-Rays: Implicit Single-View Occupancy vs. Explicit Voxel-Based Biplanar Methods
Alice Le Nilias Houmeau (École de technologie supérieure, Université du Québec, Canada); Carlos Vázquez (École de Technologie Supérieure, Canada)

1571220005: Folding-Fiducial Geodesic Representation for Morphometric Similarity Networks in Neurodegenerative Disease Characterization
Minheng Chen (University of Texas at Arlington, USA); Tong Chen, Chao Cao and Jing Zhang (The University of Texas at Arlington, USA); Li Su (University of Sheffield, United Kingdom (Great Britain)); Tianming Liu (University of Georgia, USA); Dajiang Zhu (University of Texas at Arlington, USA)

1571220021: Shortcut Learning in Glomerular AI: Adversial Penalties Hurt, Entropy Helps
Mohammad Daouk (University of Houston, USA); Jan Ulrich Becker (University Hospital of Cologne, Germany); Neeraja Kambham (Stanford University, USA); Anthony Chang (The University of Chicago, USA); Hien Nguyen Van and Chandra Mohan (University of Houston, USA)

1571220045: Integrating Population and Individual Brain Network with Mixture-of-Experts for Mild Cognitive Impairment Study
Jing Zhang (The University of Texas at Arlington, USA); Yanjun Lyu (University of Texas at Arlington, USA); Chao Cao (The University of Texas at Arlington, USA); Minheng Chen (University of Texas at Arlington, USA); Tong Chen (The University of Texas at Arlington, USA); Li Su (University of Sheffield, United Kingdom (Great Britain)); Tianming Liu (University of Georgia, USA); Dajiang Zhu (University of Texas at Arlington, USA)

1571220074: Scale-Aware Curriculum Learning for Data-Efficient Lung Nodule Detection with YOLOv11
Yi Luo, Yike Guo, Hamed Hooshangnejad and Kai Ding (Johns Hopkins University, USA)

1571220213: Separation of Epileptic Foci and Background Sources Using Heterogeneous Source Model with Poisson Wavelet Expansion
Kohei Shimazu (The University of Tokyo, Japan); Yuichiro Shirota (The University of Tokyo Hospital, Japan); Takaaki Nara (The University of Tokyo, Japan)

1571220279: External Spatial Adapter Tuning: Memory-Efficient Adaptation of Foundation Model for DDH Diagnosis with Ultrasound Images
Zhou Xueying (Shanghai University, China); Jing Shi, Jun Du and Qian Wang (Shanghai Jiao Tong University School of Medicine, China); Jun Shi (Shanghai University, China)

1571220303: Segmentation-Guided Multi-Task Learning for MRI-Based Prediction of Brain Metastasis Origin
Yuqi Ding, Mingde Xu and Xinyu Hao (Dalian University of Technology, China); Hongming Xu (Dalian University of Technology,China); Yiyao Sun, Juan Su, Mingchen Jiang and Chunna Yang (China Medical University,China)

1571220319: Human-Aligned Learning of Interpretable Biomarkers for Lung Ultrasound Diagnosis
Gautam Rajendrakumar R Gare (Carnegie Mellon University, USA); Tom Fox (LSUHSC Internal Medicine New Orleans, USA); Peter Lowery and Kevin Zamora (Louisiana State University Health Sciences Center New Orleans, USA); Hai Tran (LSUHSC Internal Medicine, USA); Beam Chansangavej (Louisiana State University Health Sciences Center New Orleans, USA); Laura Hutchins (LSUHSC Internal Medicine New Orleans, USA); David Montgomery (Louisiana State University Health Sciences Center New Orleans, USA); Amita Krishnan (LSUHSC Pulmonary Critical Care Medicine, USA); Deva Ramanan (Carnegie Mellon University, USA); Ricardo Rodriguez (Cosmeticsurg, Montenegro); Bennett DeBoisblanc (LSUHSC, USA); John M Galeotti (Carnegie Mellon Univ, USA)

1571220343: An Automated Pipeline for Processing and Analysis of Clinical Fetal Diffusion MRI
Mattia Cazzolla, Aurelie Manchon, Mathieu Milh, Nadine Girard and Olivier Coulon (Aix-Marseille Université, France); Francois Rousseau (IMT Atlantique, France); Guillaume Auzias (Aix-Marseille Université, France)

1571220389: PocketLV: A Point-of-Care Echocardiography Dataset for Deep Learning Image Processing of the Left Ventricle
Nida Ruseckaite (University of Cambridge, United Kingdom (Great Britain) & Imperial College London, United Kingdom (Great Britain)); Lucas Iijima, Dario Sesia and Amit Kaura (Imperial College London, United Kingdom (Great Britain)); Helen Ayles, Kwame Shanaube and Veronica Mweemba (Zambart, Zambia); Joseph Ngulube and Isabel Banda (University Teaching Hospital, Zambia); Anoop Shah (London School of Hygiene & Tropical Medicine, United Kingdom (Great Britain)); Jamil Mayet (Imperial College Healthcare NHS Trust, United Kingdom (Great Britain)); Marcello Scopazzini (London School of Hygiene & Tropical Medicine, United Kingdom (Great Britain)); Choon Hwai Yap (Imperial College London, United Kingdom (Great Britain))

1571220403: Structure-Augmented Standard Plane Detection with Temporal Aggregation in Blind-Sweep Fetal Ultrasound
Keli Niu (University of Bristol, United Kingdom (Great Britain)); He Zhao (University of Liverpool, United Kingdom (Great Britain)); Qianhui Men (University of Bristol, United Kingdom (Great Britain))

1571220412: Multi-Frequency and Locality-Guided Attention U-Net GAN for Limited-Angle CT Reconstruction
Haytham Ali and Hiroyuki Kudo (University of Tsukuba, Japan)

1571220444: Temporally Consistent and Controllable Video Generation of 2D Cine CMR via Latent Space Motion Modeling
Yiheng Cao (SIBET, China); Gustavo Andrade-Miranda (SyCoIA, France); Jiatian Zhang (SIBET, China); Guillaume Sallé (None, France); Xin Gao (SIBET, China)

1571220471: Motion Compensation in Multiview Light Sheet Microscopy Temporal Series
Gregoire Malandain (Université Côte d'Azur, Inria, CNRS, I3S, France); Haydar Jammoul (Université Côte d'Azur, CNRS, I3S, France); Kilian Biasuz and Patrick Lemaire (CRBM, Université de Montpellier, CNRS, France)

1571220485: Sample-Based Training Data for Effective 3D Cell Segmentation
Adam Smith and Till Bretschneider (University of Warwick, United Kingdom (Great Britain))

1571220544: A Benchmark Analysis of Graph and Non-Graph Methods for Caenorhabditis Elegans Neuron Classification
Jingqi Lu (University of Glasgow, United Kingdom (Great Britain)); Keqi Han and Yun Wang (Emory University, USA); Lu Mi (Tsinghua University, China); Carl Yang (Emory University, USA)

1571220589: Dynamics Segmentation of Single Trajectories Based on Recurrent Learning
Nadir Shikhli, Anne Brelot, Jean-Christophe Olivo-Marin and Thibault Lagache (Institut Pasteur, France); Giacomo Nardi (Laboratoire de Mathématiques de l'INSA de Rouen Normandie, France & Biological Images Analysis Unit, Institut Pasteur, France)

1571220591: A Proximal Approach for Stain Separation and Normalization of Whole-Slide Histopathological Images
Aymen Sadraoui (Centrale Supelec, France); Astrid Laurent-Bellue (AP-HP.GHU Paris Saclay, France); Mounir Kaaniche (Université Paris 13, France); Amel Benazza (Carthage University, Tunisia); Catherine Guettier (AP-HP.GHU Paris Saclay, France); Jean-Christophe Pesquet (CentraleSupelec, University Paris-Saclay, France)

1571220623: Leveraging Persistence Image to Enhance Robustness and Performance in Curvilinear Structure Segmentation
Zhuangzhi Gao, Feixiang Zhou and He Zhao (University of Liverpool, United Kingdom (Great Britain)); Xiuju Chen and Xiaoxin Li (Xiamen University, China); Qinkai Yu (University of Exeter, United Kingdom (Great Britain)); Yitian Zhao (University of Chinese Academy of Sciences, China); Alena Shantsila, Gregory Y. H. Lip, Eduard Shantsila and Yalin Zheng (University of Liverpool, United Kingdom (Great Britain))

1571220651: CSEval: A Framework for Evaluating Clinical Semantics in Text-to-Image Generation
Robert Cronshaw, Konstantinos Vilouras, Junyu Yan, Yuning Du, Feng Chen and Steven McDonagh (University of Edinburgh, United Kingdom (Great Britain)); Sotirios A. Tsaftaris (The University of Edinburgh, United Kingdom (Great Britain))

1571220672: NOA: A Versatile, Extensible Tool for AI-Based Organoid Analysis
Mikhail Konov, Lion J Gleiter, Khoa Co and Monica Yabal (Technische Universität München, Germany); Tingying Peng (Helmholtz Zentrum München, Germany)

1571220677: BrainOrg-QC: Automated Morphological Quality Control of Cerebral Organoids
Nuno Brás (Ecole Polytechnique, France); Héloïse Castiglione (NETRI & SupBiotech, Ecole D'ingénieurs En Biotechnologies, France); Jessica Rontard (NETRI, France); Pierre-Antoine Vigneron (SupBiotech, France); Anatole Chessel (Ecole Polytechnique, France)

1571220687: 3D Modality-Aware Pre-Training for Vision-Language Model in MRI Multi-Organ Abnormality Detection
Haowen Zhu (Southeast University, China); Ning Yin (Suzhou Traditional Chinese Medicine Hospital, China); Xiaogen Zhou (Chinese University of Hong Kong, Hong Kong)

1571220692: Towards Reliable Immunohistochemistry Virtual Staining via Edge-Aware Morphological Preserving
Jinhai Ma, Wentao Li and Xiaofang Jia (Xi'an Jiaotong University, China); Zuqi Huang (Xi'an Jiaotong University, China & Shanghai Jiao Tong University, China); Guolin Chen (Xi'an Jiaotong University, China); Chen Li (Xi'an Jiaotong University, China); Zhongyu Li (Shanghai Jiao Tong University, China)

1571220693: Improving Gradient Flow Methods for Instance Segmentation of Crossing Objects
Julie Mabon and Jean-Christophe Olivo-Marin (Institut Pasteur, France)

1571220695: Vision Foundation Models Pretrained on Skin Lesion Images Can Classify Oral Lesions Too!
Vedatroyee Pal (Jadavpur University, India); Rajarshi Bandyopadhyay (KPC Medical College & Hospital, India); Samarup Bhattacharjee and Sanjoy Kumar Saha (Jadavpur University, India); Tapabrata Chakraborti (University College London, United Kingdom (Great Britain))

1571220721: Cross-Modal Image Learning for HER2 Status Detection from H&E Histopathology Images
Shubham Mishra (IIT Jodhpur, India); Debapriya Roy (Techno Main Salt Lake, India); Sandeep R. Mathur (All India Institute of Medical Sciences, New Delhi, India); Bikash Santra (IIT Jodhpur, India)

1571220743: Automated, Vendor-Agnostic Detection of Myocardial Tissue Velocities in Echocardiography
Waqar Ali (Zurich University of Applied Sciences, Winterthur, Switzerland); Shana Stämpfli (MediRapp AG, Switzerland); Thilo Stadelmann (Zurich University of Applied Sciences, Switzerland); Schlomo Aschkenasy (MediRapp AG, Switzerland); Ahmed Abdulkadir (ZHAW - Zürcher Hochschule für Angewandte Wissenschaften, Switzerland)

1571220760: MambaME: A Mamba-Based Framework for Efficient and Accurate Joint Microstructure Estimation from Diffusion MRI
Taohui Xiao (Shandong University, China); Cheng Li, Wenxin Fan and Ruoyou Wu (Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, China); Enqing Dong (Shandong University, China); Shanshan Wang (Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, China)

1571220773: Automated Prediction of Paravalvular Regurgitation Before Transcatheter Aortic Valve Implantation
Michele Cannito and Riccardo Renzulli (University of Turin, Italy); Adson Duarte (Federal University of Pelotas, Brazil); Farzad Nikfam, Carlo Alberto Barbano and Enrico Chiesa (University of Turin, Italy); Francesco Bruno (Uiversity of Turin, Italy); Federico Giacobbe (University of Turin, Italy); Wojciech Wańha (Medical University of Silesia, Poland); Arturo Giordano (Pineta Grande Hospital, Italy); Marco Grangetto and Fabrizio D'Ascenzo (University of Turin, Italy)

1571220841: Cross-Domain Vision-Language Transfer Learning for Surgical Drain Detection in Real-World Postoperative Images
Ashok Choudhary, Frank Lee, Ellen Larson, Cornelius Thiels and Hojjat Salehinejad (Mayo Clinic, USA)

1571220845: MAE-SAM2: Mask Autoencoder-Enhanced SAM2 for Clinical Retinal Vascular Leakage Segmentation
Xin Xing (University of Nebraska, Omaha, USA); Irmak Karaca (Columbia University Irving Medical Center, USA); Amir Akhavanrezayat (Stanford University, USA); Samira Badrloo (University of Nebraska Omaha, USA); Quan Dong Nguyen (Stanford University, USA); Mahadevan Subramaniam (University of Nebraska Omaha, USA)

1571220854: Beyond the Mask: The Illusion of Privacy in Defaced Brain MRI
Imen Bajar (Institut National des Sciences Appliquées de Lyon, France); Mohamed Maouche (Inria, INSA Lyon, France); Carole Frindel (University of Lyon, France)

1571220858: HemBLIP: A Vision--Language Model for Interpretable Leukemia Cell Morphology Analysis
Julie Van Logtestijn and Petru Manescu (University College London, United Kingdom (Great Britain))

1571220865: Positional Segmentor-Guided Counterfactual Fine-Tuning for Spatially Localized Image Synthesis
Tian Xia (Imperial College London, United Kingdom (Great Britain)); Matthew Sinclair and Andreas Schuh (HeartFlow, Inc., United Kingdom (Great Britain)); Fabio De Sousa Ribeiro, Raghav Mehta and Rajat Rasal (Imperial College London, United Kingdom (Great Britain)); Esther Puyol-Anton (HeartFlow, Inc., United Kingdom (Great Britain)); Samuel Gerber and Kersten Petersen (HeartFlow, Inc., USA); Michiel Schaap (HeartFlow, Inc., United Kingdom (Great Britain)); Ben Glocker (Imperial College London, United Kingdom (Great Britain))

1571220886: Channel-Agnostic vs. Channel-Adaptive: Foundation Model Strategies for Spatial Proteomics
Hatef Mehrabian, Samantha Panakkal, Michael Sharpnack and Lauri Diehl (Gilead Sciences, USA)

1571220902: BrainTAP: Brain Disorder Prediction with Adaptive Distill and Selective Prior Integration
Zhenyu Lei and Aiying Zhang (University of Virginia, USA); Song Wang (University of Central Florida, USA); Xiaohan Fan and Jundong Li (University of Virginia, USA)

1571220904: Distribution-Based Brain Connectivity Graph Representations for Classification
Razan Mhanna (Inria, France); Sophie Achard (CNRS, France); Alexander Petersen (Brigham Young University, USA); Jonas Richiardi (University of Lausanne, Switzerland)

1571220951: Understanding the Transfer Limits of Vision Foundation Models
Shiqi Huang, Yipei Wang, Natasha Thorley, Alexander Ng, Shaheer Ullah Saeed, Mark Emberton, Shonit Punwani, Veeru Kasivisvanathan, Dean C. Barratt, Daniel Alexander and Yipeng Hu (University College London, United Kingdom (Great Britain))

1571220952: FALCON: Unfolded Variational Model for Blind Deconvolution and Segmentation in 3d Dental Imaging
Mario Amoros Rivera (Universidad de Alicante, Spain); Ouissem Smati and Jerome Michetti (IRIT, France); Manuel Curado and Jose F. Vicent (Universidad de Alicante, Spain); Duong Hung Pham (IRIT Laboratory, Toulouse University, France); Denis Kouamé (Université de Toulouse, IRIT Laboratory, France)

1571220993: A Physics-Informed and Mechanistically-Grounded Deep Learning Framework for Revealing Altered Structure-Function Coupling in Neurodegenerative Diseases
Tianmu Hu (National University of Singapore, Singapore); Chenxuan Wang (University of North Carolina at Chapel Hill, USA); Tingting Dan (The University of North Carolina at Chapel Hill, USA); Guorong Wu (University of North Carolina, USA)

1571220994: Coordinative Learning with Ordinal and Relational Priors for Volumetric Medical Image Segmentation
Haoyi Wang (University of Plymouth, United Kingdom (Great Britain))

1571221015: A Deep Learning Framework for Glomeruli Segmentation with Boundary Attention
Behnaz Elhaminia (University of Warwick, United Kingdom (Great Britain)); Catherine King (University of Birmingham, United Kingdom (Great Britain)); Jiaqi Lv (University of Warwick, United Kingdom (Great Britain)); Lorraine Harper (University Hospitals Birmingham NHS Foundation Trust, United Kingdom (Great Britain)); Paul Moss (University of Birmingham, United Kingdom (Great Britain)); Owen Cain (Queen Elizabeth Hospital Birmingham, United Kingdom (Great Britain)); Dimitrios Chanouzas (University of Birmingham, United Kingdom (Great Britain)); Shan E Ahmed Raza (University of Warwick, United Kingdom (Great Britain))

1571221034: End-to-End PET Image Reconstruction via a Posterior-Mean Diffusion Model
Yiran Sun (Rice University, USA & The University of Texas MD Anderson Cancer Center, USA); Osama Mawlawi (The University of Texas MD Anderson Cancer Center, USA & Rice University, USA)

1571221122: Towards Causality-Aware Modeling for Multimodal Brain-Muscle Interactions
Farwa Abbas (Imperial College London, United Kingdom (Great Britain)); Wei Dai (Imperial College, United Kingdom (Great Britain)); Zoran Cvetković and Verity McClelland (King's College London, United Kingdom (Great Britain))

1571221218: MEA-YOLO: Medical Enhanced Attention YOLO for Simultaneous Polyp and Lumen Detection in Robotic Colonoscopy
Jian Li (University of Technology Sydney, Australia)

1571221230: NEUSEG: Interpretable Unsupervised GM/WM Segmentation in Brain Histopathology Using Nuclei Morphometrics
Hyung Seok Roh, Noah Capp, Daniel Ohm, David Irwin, James Gee and Min Chen (University of Pennsylvania, USA)

1571221231: POSEIDON: Portable Ocular Surface Evaluation with Integrated Design of Hardware and Network
Juntao Qiu (University of Hong Kong, Hong Kong); Yaping Zhao and Yuxing Li (The University of Hong Kong, Hong Kong); Allie Lee, Vincent Tam and Edmund Y. Lam (University of Hong Kong, Hong Kong)

1571221234: Benchmarking Lesion-Level Response Assessment of Metastatic Bone Disease on WB-MRI Using Manual, Interactive and Automated Segmentation Methods
Joris Wuts (VUB & Cliniques Universitaire Saint-Luc, Belgium); Jakub Ceranka and Loris Giordano (VUB, Belgium); Nicolas Michoux and Vassiliki Pasoglou (Cliniques Universitaire Saint-Luc, Belgium); Jef Vandemeulebroucke (Vrije Universiteit Brussel, Belgium); Frédéric Lecouvet (Cliniques Universitaire Saint-Luc, Belgium)

1571221262: DBCoreset: A Density-Based Coreset Algorithm for Computationally Efficient Chest X-Ray Diagnosis
Jayant Mahawar and Angshuman Paul (Indian Institute of Technology Jodhpur, India)

1571221337: High-Fidelity 3D Tooth Reconstruction by Fusing Intraoral Scans and CBCT Data via a Deep Implicit Representation
Yi Zhu (CREATIS Laboratory, INSA Lyon, France & National Institute of Informatics, Japan); Razmig Kechichian (University of Lyon & CREATIS, France); Raphaël Richert (Hospices Civils de Lyon, PAM Odontologie, France); Satoshi Ikehata (National Institute of Informatics (NII), Japan); Sébastien Valette (CNRS UMR520, France)

1571221352: Toward Efficient End-to-End VEM Processing Using a Unified Agent on GPUs and NPUs
Haowen Xiao, Danyang Chen, Ziqian Guan, Xiangcheng Bao, Xie Fangnan, Jiarui Zhu, Jiayin Liang, Binqian Zou, Jiali Guan, Yanrui Lu, Chongyi Wang and Yuting Wang (Guangzhou Institutes of Biomedicine and Health, Chinese Academy of Sciences, China); Fukang Ge (Guangzhou Institutes of Biomedicine and Health Chinese Academy of Sciences, China); Lin Gu (RIKEN, Japan); Jinhao Bi (Center for Infectious Disease Research, Westlake University, China); Jun He and Yingying Zhu (Guangzhou Institutes of Biomedicine and Health, Chinese Academy of Sciences, China)

1571221389: Histological Brain Imaging Super-Resolution with Frequency-Guided Diffusion Models
Giovanni Casari (University of Modena and Reggio Emilia, Italy); Federico Bolelli (University of Modena, Italy); Costantino Grana (Università degli Studi di Modena e Reggio Emilia, Italy)

1571221451: Multi-Method eXplainability for Similarity Assessment in AI-Denoised PET Imaging
Mélanie Champendal and Théo Coutaudier (HESAV School of Health Sciences - Vaud, HES-SO University of Applied Sciences and Arts Western Switzerland); Daphné Faist and Maeva Ryser (Lausanne University Hospital (CHUV), Switzerland); Josh Schaefferkoetter and Maurizio Conti (Siemens Healthineers, USA); Mario Jreige and Adrien Depeursinge (Lausanne University Hospital (CHUV), Switzerland); LLuis Borras Ferris (HES-SO Valais-Wallis, Switzerland); Cláudia Sá dos Reis (HESAV School of Health Sciences - Vaud, HES-SO University of Applied Sciences and Arts Western Switzerland); John Olivier Prior (Lausanne University Hospital (CHUV), Switzerland); Henning Müller (Informatics Institute, University of Applied Sciences Western Switzerland (HES-SO Valais) Sierre, CH, Switzerland); Ricardo Teresa Ribeiro (HESAV School of Health Sciences - Vaud, HES-SO University of Applied Sciences and Arts Western Switzerland)

1571221476: Multi-Scale Attention Framework with Transformer Architecture for Explainable Chest X-Ray Report Generation
Ahmed Bouridane (University of Sharjah, United Arab Emirates); Nabil Hezil, Sr (University of Sharjah UAE, United Arab Emirates & Crstdla, Algeria); Rifat Hamoudi (University of Sharjah, United Arab Emirates); Somaya Ali Al-maadeed (Qatar University, Qatar); Oleg Y. Rogov (Artificial Intelligence Research Institute, United Arab Emirates)

1571221481: Biological Object Segmentation on Video Data Using Optical Flow-Guided Temporal Consistency
Tristan Manneville (Institut Pasteur, France); Raphael Reme (Institut Pasteur / Télécom Paris, France); Jean-Christophe Olivo-Marin and Thibault Lagache (Institut Pasteur, France)

1571221586: Radiomics-Integrated Deep Learning with Hierarchical Loss for Osteosarcoma Histology Classification
Yaxi Chen, Zi Ye, Shaheer Ullah Saeed, Oliver Yu, Simin Ni, Jie Huang and Yipeng Hu (University College London, United Kingdom (Great Britain))

1571221640: DDRT: Decoding the Dynamic Interaction of Hierarchical Brain Hubs Using Reinforcement Learning in Task fMRI
Xuan Liu and Xuhui Wang (Northwest Polytechnical University Xi'an, China); Sigang Yu (Northwestern Polytechnical University, China); Huawen Hu (Northwest Polytechnical University Xi'an, China); Shu Zhang (Northwestern Polytechnical University, China)

1571221709: Learnable Descent Algorithm for Cardiac Transmembrane Potential Imaging
Yunan Hou (Zhejiang University, China); Guojun Du (Zhejiang, China); Huafeng Liu (Zhejiang University, China)

1571221740: Cross-Modal Brain MRI Synthesis via Contrastive Disentanglement and Conditional Diffusion
Peeyush Kumar Singh, Inam Ul Haq Gulzar and Sneha Singh (Indian Institute of Technology Mandi, India); Aditya Nigam (IIT Mandi, India); Pankaj Gupta (PGIMER Chandigarh, India)

1571221784: SpineSynNet: Synthesis of Thin-Slice Spinal MR Images by a View-Prompt Elastic Deformation Network with Anatomical Constraint
Jieying Zhou, Chaoqun Fu and Ting Sun (Guangzhou Medical University, China); Yuhan Wang, Ao Jin, Zhihai Su and Hai Lu (The Fifth Affiliated Hospital of Sun Yat-Sen University, China); Shumao Pang (Guangzhou Medical University, China)

1571221838: Context-Gated Cross-Modal Perception with Visual Mamba for PET-CT Lung Tumor Segmentation
Elena Mulero Ayllón (Campus Bio-Medico University of Rome, Italy); Linlin Shen (Shenzhen University, China); Pierangelo Veltri (University of Calabria, Italy); Fabrizia Gelardi and Arturo Chiti (Vita-Salute San Raffaele University, Italy); Paolo Soda (Università Campus Bio-Medico di Roma, Italy); Matteo Tortora (University of Genoa, Italy)

1571221863: Transfer Learning from ImageNet for MEG-Based Decoding of Imagined Speech
Soufiane Jhilal (Institut Pasteur, France); Stéphanie Martin (University of Geneva, Switzerland); Anne-Lise Giraud (Institut Pasteur, France)

1571221885: Automatic Vertebrae Segmentation from Intraoperative 3D Point Clouds for Scoliosis Spine Surgery
Yu-Chi Kung (Polytechnique Montreal, Canada); Manuela Kunz (National Research Council Canada, Canada); Stefan Parent (CHU Sainte-Justine, Canada); Lama Seoud (Polytechnique Montreal, Canada)

1571221888: Dual-Domain Equivariant Generative Adversarial Network for Multimodal CT-PET Synthesis
G. Steele and Alzahra Altalib (University of Dundee, United Kingdom (Great Britain)); Alessandro Perelli (University of Glasgow, United Kingdom (Great Britain))

1571221956: Rethinking Slide-Level Adaptation of Pathology Foundation Models
Jiawen Li (Tsinghua University, China); Jiali Hu (City University of Hong Kong (Dongguan), China); Qiehe Sun, Xitong Ling and Yuxuan Chen (Tsinghua University, China); Renao Yan (University of Washington, USA); Tian Guan (Tsinghua University, China); Anjia Han (First Affiliated Hospital Sun Yat-Sen University, China); Chao He (University of Oxford, United Kingdom (Great Britain)); Yonghong He (Tsinghua University, China)

1571221987: MR-IQ Metric: A New Reference-Free Metric for Quantitative Preclinical MR Image Quality Assessment
Georgia Kanli, Selma Boudissa, Salah Gamizi and Valérie Palissot (Luxembourg Institute of Health, Luxembourg); Radovan Jiřík (Brno University of Technology & Academy of Sciences of the Czech Republic, Czech Republic); Olivier Keunen (Luxembourg Institute of Health, Luxembourg)

1571221999: Unsupervised Ultrasound Image Denoising with Monte-Carlo Risk Estimation
Ashutosh Gupta (Space Applications Centre Indian Space Research Organisation (ISRO), India); Chandra Sekhar Seelamantula (Indian Institute of Science, India); Thierry Blu (Department of Electrical Engineering, National Taiwan University, Taipei, Taiwan); Himanshu Shekhar (Indian Institute of Technology Gandhinagar, India); Nitant Dube (ISRO, India); Shanmuganathan Raman (Indian Institute of Technology, Gandhinagar, India)

1571222116: Reliable Brain Tumor Segmentation Based on Spiking Neural Networks with Efficient Training
Aurora Pia Ghiardelli, Guangzhi Tang and Tao Sun (Maastricht University, The Netherlands)

1571222117: Equi-ViT: Rotational Equivariant Vision Transformer for Robust Histopathology Analysis
Fuyao Chen, Yuexi Du, Eléonore V Lieffrig, Nicha C. Dvornek and John A. Onofrey (Yale University, USA)

1571222132: Unpaired Learning for Echocardiographic Quality Recovery Under Controlled Acoustic Degradation
Muhammad Shahid Jabbar (King Fahad University of Petroleum and Minerals, Saudi Arabia); Shujaat Khan (KFUPM, Saudi Arabia); Jaeyoung Huh (Siemens Healthineers, USA); Lamia Al Saikhan (IAU, Saudi Arabia); Mohammed Bennamoun (The University of Western Australia, Australia)

1571222189: Population-Prior-Assisted Implicit Neural Representations for Instance-Specific Unsupervised Accelerated MRI Reconstruction
Chushu Shen (Cedars-Sinai Medical Center, USA & University of California, Los Angeles, USA); Hengjie Liu (University of California, San Francisco, USA); Dan Ruan (University of California, Los Angeles); Debiao Li (Cedars-Sinai Medical Center, USA)

1571222289: Boundary-Aware Adversarial Filtering for Reliable Diagnosis Under Extreme Class Imbalance
Yanxuan Yu (Columbia University, USA); Michael S. Hughes (Columbia University Irving Medical Center, USA); Julien Lee, Jiacheng Zhou and Andrew F. Laine (Columbia University, USA)

1571222291: CRESTomics: Analyzing Carotid Plaques in the CREST-2 Trial with a New Additive Classification Model
Pranav Kulkarni (University of Maryland, College Park, USA); Brajesh Lal (University of Maryland School of Medicine, Baltimore, Md, USA); Georges Jreij (University of Maryland School of Medicine, USA); Sai Krishna Vallamchetla (Mayo Clinic, Jacksonville, FL, USA); Langford Green (University of Maryland School of Medicine, USA); Jenifer H Voeks (Medical University of South Carolina, Charleston, SC, USA); John Huston (Mayo Clinic, Rochester, MN, USA); Lloyd Edwards and George Howard (University of Alabama at Birmingham, USA); Bradley A Maron (University of Maryland School of Medicine, USA); Thomas G Brott and Meschia James (Mayo Clinic, Jacksonville, USA); Florence X Doo (University of Maryland School of Medicine, USA); Heng Huang (University of Maryland, College Park, USA)

1571222341: Leveraging Fourier Domain for Unsupervised Removal of Structured Noise in Fluorescence Microscopy Imaging
Haosen Liu and Edmund Y. Lam (University of Hong Kong, Hong Kong)

1571222371: Variance-Penalized MC-Dropout as a Learned Smoothing Prior for Brain Tumour Segmentation
Satyaki Chowdhury and Golrokh Mirzaei (Ohio State University, USA)

1571222384: Dual-Domain Diffusion Priors and Image Fusion-Based Model for Metal Artifact Reduction in Clinical Dental CBCT Images
Zihao Lin (ShanghaiTech University, China); Yuan Li (Ninth People's Hospital, School of Medicine, Shanghai Jiao Tong University, China); Zisheng Wang, Qiulei Yao, Jun Chen and Shishi Shu (ShanghaiTech University, China); Maurizio S. Tonetti (Ninth People's Hospital, School of Medicine, Shanghai Jiao Tong University, China); Guohua Cao (ShanghaiTech University, China)

1571219152: Multi-Branch and Multi-Task Learning Framework for Autism Diagnosis with Modality Incomplete Data
Changqing Wu and Chuang Liang (Nanjing University of Aeronautics and Astronautics, China); Tulay Adali (University of Maryland, Baltimore County, USA); Rongtao Jiang (Beijing Normal University, China); Daoqiang Zhang (Nanjing University of Aeronautics and Astronautics, China); Vince Calhoun (Tri-Institutional Research Center in Neuroimaging and Data Science, USA); Shile Qi (Nanjing University of Aeronautics and Astronautics, China)

1571219239: Latent Space Modelling of a Biomedical Multimodal Dataset
David Julian Fischer (Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany); Markus Eckstein (University Hospital Erlangen, Germany); Dr. Andreas Kist (Friedrich-Alexander-University Erlangen-Nuremberg, Germany)

1571219455: Does Medical Specialization of VLMs Enhance Discriminative Power?: A Comprehensive Investigation Through Feature Distribution Analysis
Keita Takeda and Tomoya Sakai (Nagasaki University, Japan)

1571219687: Segmentation-Based Image Manipulation for Interactive Counterfactual Explanations in Medical Image Analysis
Helena Montenegro (University of Porto, Portugal & INESC TEC, Portugal); Jaime Cardoso (Faculty of Engineering, University of Porto & INESC TEC, Portugal)

1571244915: Hybrid Fusion of Swin-Transformer V2 and Radiomics for Predicting anti-VEGF Outcomes in Neovascular AMD
Alberto Jose Beltran Carrero (Universidad Politécnica de Madrid, Spain); Javier Torresano Rodriguez, Esther Santos Vicente and Enrique Maldonado Belmonte (Hospital Gregorio Maranon, Spain); Ava Javadi (Universidad Politecnica de Madrid, Spain); Maria J. Ledesma-Carbayo and Juan J. Gómez-Valverde (Universidad Politécnica de Madrid, Spain)

Demo: fSTG Toolkit – an Open-Source Software for Longitudinal Brain Connectivity Analysis with Spatio-Temporal Graphs
Julien Pontabry (ICube, University of Strasbourg)

Demo: B-Guide – Breast Cancer Surgical Planning Tool
Felicia Alfano (Biomedical Image Technologies, Universidad Politécnica de Madrid; CIBER-BBN, ISCIII)

Demo: Spatio-Temporal AI for Lung Cancer Screening Nodule Assessment
Benito Farina (Centro de Investigación Biomédica en la Red (CIBER) – Universidad Politécnica de Madrid – BIT)

Demo: Hope4kids – AI-Powered Brain Tumor Segmenter
Daniel Capellán-Martín (Universidad Politécnica de Madrid); Abhijeet Parida (Children's National Hospital)

Demo: Deep Learning for Pediatric TB Detection in Chest Radiographs
Daniel Capellán-Martín (Universidad Politécnica de Madrid)

Demo: Visualizing Intelligence with ASCRIBE-VR for Granular, Data-Agnostic 3D Analysis of AI Results
Daniela Ushizima (Berkeley Lab, University of California San Francisco, University of California Berkeley)

Demo: A Reconfigurable High-Resolution Handheld Ultrasound Imaging System with Non-Linear Beamforming Capabilities
Banhimitra Kundu (Indian Institute of Science, Bangalore , INDIA)

14:00 – 15:00
Keynote: AI for Image-Guided Navigation
Polina Golland, MIT, USA
Room 7-12
Chairs: Guang Yang, Imperial College London, UK

15:00 - 16:00
Microscopy, Mitochondria, and Neural Structure
Room 16
Chairs: Samuel Kadoury (Ecole Polytechnique de Montreal, Canada)

15:00
1571225784: Self-Supervised Learning for Single Cell Large Scale Neuroimaging
Marion Giraud (École Polytechnique, France); Hugo Blanc (CNRS, Inserm, Ecole Polytechnique, France); PIerre Mahou (CNRS, Inserm, Ecole polytechnique); Gabriel Kaddour (Sorbonne Université, INSERM, CNRS, Institut de la Vision); Clément Caporal (CNRS, Inserm, Ecole Polytechnique, France); Gwenvael Le Dréau and Jean Livet (Sorbonne Université, INSERM, CNRS, Institut de La Vision, France); Emmanuel Beaurepaire (CNRS, Inserm, Ecole Polytechnique, France); Anatole Chessel (Ecole Polytechnique, France)

15:10
1571220917: Lightweight Zero-Shot Segmentation of Mitochondria in Electron Microscopy Images
Aitor González-Marfil (Donostia International Physics Center (DIPC), Spain); Mirja Granfors and Giovanni Volpe (University of Gothenburg, Sweden); Estibaliz Gómez-De-Mariscal (Gulbenkian Institute for Molecular Medicine, Portugal); Ignacio Arganda-Carreras (UPV-IKERBASQUE, Spain)

15:20
1571219241: CGMD: Centrality-Guided Maximum Diversity for Annotation-Efficient Fine-Tuning of Pretrained Cell Segmentation Models
Eiram Mahera Sheikh, Alaa Tharwat, Constanze Schwan and Wolfram Schenck (Bielefeld University of Applied Sciences and Arts, Germany)

15:30
1571226457: A Scalable and Modular Pipeline for Synthesizing and Reconstructing Biological Networks
David Mayerich (University of Houston & SwiftFront, LLC, USA)

15:40
1571226178: Boundary-Aware Instance Segmentation in Microscopy Imaging
Thomas Mendelson (Ben Gurion University of the Negev, Israel); Joshua J François and Galit Lahav (Harvard Medical School, USA); Tammy Riklin Raviv (Ben Gurion University, Israel)

15:50
1571219762: Diffusion Model-Based Data Augmentation for Enhanced Neuron Segmentation
Liuyun Jiang, Yanchao Zhang, Jinyue Guo, Yizhuo Lu, Ruining Zhou and Hua Han (Institute of Automation, Chinese Academy of Sciences, China)

15:00 - 16:00
PET, Sharpened and Reimagined
Room 4
Chairs: Yu An (Beihang University, China); Mattias Paul Heinrich (University of Lübeck, Germany)

15:00
1571221207: Intensity Normalization Using Elastic Warping for FDG-PET Images
Chenrui Li (Hong Kong University of Science and Technology, Hong Kong); Xuechen Zhang (The Hong Kong University of Science and Technology, China); Weichuan Yu (The Hong Kong University of Science and Technology, Hong Kong)

15:10
1571226579: Feature Aggregation for Alzheimer's Disease Diagnosis Using FDG-PET Images: The Potential of Graph-Based Methods
Tuan Minh Pham (Aix Marseille University, France); Julien Wojak (Aix Marseille Univ, CNRS, Centrale Med, Institut Fresnel, France); Mouloud Adel (Universite Aix-Marseille, France); Eric Guedj (Aix-Marseille University, France); Nguyen Linh Trung (Vietnam National University, Hanoi, Vietnam)

15:20
1571218580: Unsupervised Adaptation from FDG to PSMA PET/CT for 3D Lesion Detection Under Label Shift
Xiaofeng Liu (Yale University, USA & Broad Institute of MIT and Harvard, USA); Menghua Xia, Yanis Chemli, Georges El Fakhri, Chi Liu and Jinsong Ouyang (Yale University, USA)

15:30
1571214035: Unified PET Image Enhancement for Diverse Degradation Levels with Mixture-of-Experts and Dynamic Prompts
Yi Luo (Zhejiang University, China); Jianan Cui (Zhejiang University of Technology, China); Huiyuan Zhang, Yang Yang and Heran Shalihaer (Beijing Chest Hospital, China); Yuanjing Feng (Zhejiang University of Technology, China); Xinhui Su (The First Affiliated Hospital, Zhejiang University School of Medicine, China); Huafeng Liu (Zhejiang University, China); Xiang Li (Beijing Chest Hospital, China)

15:40
1571221361: DAPS: Diffusion-Based and Anatomical Prior-Guided CT Synthesis for PET Attenuation Correction
Chen Huang (Southern University of Science and Technology, China); PuJin Cheng (Hku, Hong Kong); Li Lin (The University of Hong Kong, Hong Kong); Zheng Gu (Institute of Biomedical Engineering, Shenzhen Bay Laboratory, China); Xiaoying Tang (Sustech, China)

15:50
1571219426: TriAlign: Pathology-Aware Aβ-PET Synthesis from MRI via Disentangled Anatomical, Pathological, and Modality Alignment
Hongjie Yu (ShanghaiTech University, China); Kaicong Sun (Shanghaitech University, China); Dinggang Shen (USA)

15:00 - 16:00
Segmentation Guided by More Than the Image
Room 15
Chairs: Xiaoyi Jiang (University of Muenster, Germany); Zhifan Jiang (Children's National Hospital, USA)

15:00
1571221577: SAM-PEFT: A Parameter-Efficient Fine-Tuning Framework Fusing Multi-Modal MRI for Prompt-Free Glioma Segmentation
WenKai Zhang (Zhejiang University of Technology); Jie Liu, Fengbin Jin, Jianan Cui and Yuanjing Feng (Zhejiang University of Technology, China)

15:10
1571225839: Multimodal MRI Report Findings Supervised Brain Lesion Segmentation with Substructures
Yubin Ge (Amazon AWS, USA); Yongsong Huang (Tohoku University, Japan); Xiaofeng Liu (Yale University, USA & Broad Institute of MIT and Harvard, USA)

15:20
1571221727: CRC-SAM: SAM-Based Multi-Modal Segmentation and Quantification of Colorectal Cancer in CT, Colonoscopy, and Histology Images
Daniel Lao (Council Rock High School North, USA); Quncai Zou (DataRobot Inc, USA)

15:30
1571224204: Track, Measure, Evaluate: A Clinically Aligned Pipeline for Automatic Radiotherapy Response Assessment in Brain Tumors
Nauman Bashir Bhatti and Ali Sadeghi-Naini (York University, Canada)

15:40
1571226191: Seeing Beyond the Image: ECG and Anatomical Knowledge-Guided Myocardial Scar Segmentation from Late Gadolinium-Enhanced Images
Farheen Ramzan (University of Sheffield, United Kingdom (Great Britain)); Yusuf Kiberu (Nottingham University Hospitals, United Kingdom (Great Britain)); Nikesh Jathanna (University of Nottingham, United Kingdom (Great Britain)); Meryem Jabrane (University of Sheffield, United Kingdom (Great Britain)); Vicente Grau (University of Oxford, United Kingdom (Great Britain)); Shahnaz Jamil-Copley (University of Nottingham, United Kingdom (Great Britain)); Richard H Clayton and Chen Chen (University of Sheffield, United Kingdom (Great Britain))

15:50
1571220983: Texture-Guided Adversarial Segmentation of Non-Muscle Invasive Bladder Cancer in T2-Weighted Imaging
Israa Sharaby and Ahmed Alksas (University of Louisville, USA); Osama Ezzat, Amr A. Elsawy, Rasha T. Abouelkheir, Ahmed Elmahdy and Sherry M. Khater (Mansoura University, Egypt); Moumen El-Melegy, Asem Ali and Ali Mahmoud (University of Louisville, USA); Mohammed A. Ghazal (Abu Dhabi University, United Arab Emirates); Sohail Contractor (University of Louisville, USA); Mahmoud A. Bazeed and Ahmed Mosbah (Mansoura University, Egypt); Ayman El-Baz (University of Louisville, USA)

15:00 - 16:00
Segmenting the Body at Scale in CT
Room 2
Chairs: Junlin Hou (The Hong Kong University of Science and Technology, Hong Kong); Yongsong Huang (Tohoku University, Japan)

15:00
1571219593: Preserving Anatomical Continuity: Three-Stage Pipeline for Colon Segmentation in 3D Abdominal CT Scans
Deshan Kalupahana and Sonit Singh (University of New South Wales, Australia); Praveen Ravindran (Sydney Adventist Hospital, Wahroonga, Australia); Arcot Sowmya (University of New South Wales, Australia)

15:10
1571221605: Bonnet: Ultra-Fast Whole-Body Bone Segmentation from CT Scans
Hanjiang Zhu (Clemson, USA); Pedro Martelleto Bressane Rezende (ETH Zurich, Switzerland); Zhang Yang (Fujian Medical University Union Hospital, China); Tong Ye, Gao Bruce Z, Feng Luo and Siyu Huang (Clemson University, USA); Jiancheng Yang (ELLIS Institute Finland, Finland)

15:20
1571226243: Rethinking 3D Small Object Segmentation: Comparative Insights Between nnU-Net and Transformers
Jianfei Liu (National Institutes of Health Clinical Center, USA); Vivek Batheja (National Institutes of Health, USA); Perry J Pickhardt (University of Wisconsin School of Medicine & Public Health, USA); Peter C. Grayson and Ronald Summers (National Institutes of Health, USA)

15:30
1571222260: Abdominal Segmentation and Blood Vessel Detection in CTA Scans for DIEP Reconstruction Procedures
Shir Ashkenazi (Tel Aviv University, Israel); Nahum Kiryati (Tel-Aviv University, Israel); Dor Freidin, Ariel Tessone, Shai Tejman-Yarden and Arnaldo Mayer (Sheba Medical Center, Israel)

15:40
1571226580: PIVM: Diffusion-Based Prior-Integrated Variation Modeling for Anatomically Precise Abdominal CT Synthesis
Dinglun He (University of Missouri, USA); Baoming Zhang (The University of Texas at Dallas, USA); Xu Wang (University of Missouri, USA); Yao Hao (Washington University in St. Louis, USA); Deshan Yang (Duke University, USA); Ye Duan (Clemson University, USA)

15:50
1571224922: Evaluating Segmentation Using Betti-1 Topological Metric: Application to Nasal Cavities in the Context of Airflow Simulation
Nathan Hutin (Université Claude Bernard Lyon 1, France & Institut National des Sciences Appliquées de Lyon, France); Thomas Grenier (CREATIS, CNRS UMR 5220, Inserm U, France); Sébastien Valette (CNRS UMR520, France); Hamid Ladjal (University Claude Bernard of Lyon1, France)

15:00 - 16:00
Special Session: Data Crimes in Medical Imaging: Pitfalls, Biases, and Mitigation Strategies
Room 1
Chairs: Efrat Shimron, Israel Institute of Technology

A talk that explains the topic of “inverse crimes” (a.k.a. data crimes) in medical AI and introduces new techniques to mitigate them (by myself).

A live hands-on tutorial by Prof. Moritz Zaiss from the University of Erlangen (cc’d), introducing new Python tools to simulate and detect data crimes.

A talk introducing a new theoretical analysis of data crimes by Mr. Evan Frenklak from the University of Texas at Austin. This talk corresponds to the following accepted paper, which was submitted directly to our special session: 1571226467 Theoretical Bounds on Parallel Imaging Implicit Data Crimes in an MRI Reproducing Kernel Hilbert Space

Closing remarks and Q& A.

1571226467: Theoretical Bounds on Parallel Imaging Implicit Data Crimes in an MRI Reproducing Kernel Hilbert Space
Evan Frenklak (University of Texas at Austin, USA); Yamin Arefeen and Jonathan I Tamir (The University of Texas at Austin, USA)

15:00 - 16:00
Vessels, Lungs, and Weak Supervision
Room 3
Chairs: Efe Ilicak (Leiden University Medical Center, The Netherlands); Marianna Inglese (Tor Vergata University of Rome, Italy)

15:00
1571220334: Iterative Confidence-Based Pseudo-Labeling for Semi-Supervised Lung Cancer Segmentation Under Annotation Scarcity
Sacha Dedeken (Université de Bretagne Occidentale, France); Thierry Colin and Jérôme Faure (SOPHiA GENETICS, France); Dimitris Visvikis (LaTIM, INSERM, France); Pierre-Henri Conze (IMT Atlantique, France)

15:10
1571219879: Illuminating Uncertainty: A Trifocal Fine-Grained and Transformer-like Axial Attention Framework for Pulmonary Vascular Segmentation
Shiyi Wang and Yingying Fang (Imperial College London, United Kingdom (Great Britain)); Yuxuan Li (Tongji Medical College, China); Yang Nan and Simon Walsh (Imperial College London, United Kingdom (Great Britain)); Guang Yang (Imperial College London, United Kingdom (Great Britain) & Royal Brompton Hospital, United Kingdom (Great Britain))

15:20
1571220762: Resource-Efficient Automatic Refinement of Segmentations via Weak Supervision from Light Feedback
Alix de Langlais and Benjamin Billot (Inria, France); Théo Aguilar Vidal and Marc-Olivier Gauci (Centre Hospitalier Universitaire Nice, France); Hervé Delingette (INRIA, France)

15:30
1571222943: ACE-Net: 3D VFM-CNN Fusion with Adaptive Covariance Eigen-Gate for Coronary Artery Segmentation
Caixia Dong (Xi'an Jiaotong University, China); Duwei Dai (The Second Affiliated Hospital of Xi'an Jiaotong University, China); Yu Wang (The Second Affiliated Hospital of Xi'an Jiaotong University, China); Guowei Dai (Sichuan University, China); Jiangbo Zhang (Xinyang Aviation Vocational College, China); Wei Zeng (Xi'an Jiaotong University, China)

15:40
1571220385: Two-Stage 3D Coronary Artery Segmentation via Multi-View Attention and UA-Mamba Refinement
Pan Dan, Jin Lv and Huayu Huang (Guangdong Polytechnic Normal University, China); An Zeng (Guangdong University of Technology, China)

15:50
1571220826: LPD: Learnable Prototypes with Diversity Regularization for Weakly Supervised Histopathology Segmentation
Khang Phuc Le (Ho Chi Minh City University of Technology, Vietnam); Anh Mai Vu (University of Houston, USA); Kim Trang Thị Võ (University of Information Technology, Vietnam & Vietnam National University, HoChiMinh City, Vietnam); Ha Thach (University of Technology Sydney, Australia); Ngoc Lam Quang Bui (The University of Danang - VNUK Institute for Research and Executive Education, Vietnam); Huy Thanh Nguyen (Carnegie Mellon University, USA & Northwestern University, USA); Minh Huu Nhat Le (Montefiore Medical Center, Albert Einstein College of Medicine, USA); Zhu Han, Chandra Mohan and Hien Nguyen Van (University of Houston, USA)

15:00 - 16:00
When Foundation Models Meet Sparse Labels
Room 14
Chairs: Krithika Iyer (Children's National Hospital, USA); Jue Jiang (Memorial Sloan Kettering Cancer Center, USA)

15:00
1571226110: Bridging Foundation and Domain-Specific Models for Semi-Supervised Medical Image Segmentation
Ying He (Queen Marry, University of London & Barts Health Trust, United Kingdom (Great Britain)); Marc E. Miquel (NHS, United Kingdom (Great Britain)); Qianni Zhang (Queen Mary University of London, United Kingdom (Great Britain))

15:10
1571225776: LIDSS: A Latent Information-Driven Dynamic Framework for Semi-Supervised Medical Image Segmentation
Yuan Yuan (Guangdong Polytechnic Normal University, China); Deping Zhang (Guangdong Polytechnic Normal Universit, China); Bingfeng Luo (The University of Hong Kong- Shenzhen Hospita, China); Yaozhong Luo, Shaopeng Liu and Xu Lu (Guangdong Polytechnic Normal University, China)

15:20
1571225917: SAM-Fed: SAM-Guided Federated Semi-Supervised Learning for Medical Image Segmentation
Sahar Nasirihaghighi (University of Klagenfurt, Austria); Negin Ghamsarian (University of Bern, Switzerland); Yiping Li and Marcel Breeuwer (Eindhoven University of Technology, The Netherlands); Raphael Sznitman (University of Bern, Switzerland); Klaus Schoeffmann (University of Klagenfurt, Austria)

15:30
1571219479: UCAD: Uncertainty-Guided Contour-Aware Displacement for Semi-Supervised Medical Image Segmentation
Chengbo Ding, Tang Fenghe and S.kevin Zhou (University of Science and Technology of China, China)

15:40
1571226411: From Specialist to Generalist: Unlocking SAM's Learning Potential on Unlabeled Medical Images
Nguyen Lan Vi Vu (Ho Chi Minh University of Technology, Vietnam); Huy Thanh Nguyen (Carnegie Mellon University, USA & Northwestern University, USA); Thinh Tien Nguyen (Industrial University of Ho Chi Minh City, Vietnam); Thinh Ba Lam (University of North Carolina at Charlotte, USA); Thien Hoang Nguyen (Carnegie Mellon University, USA); Tianyang Wang (University of Alabama at Birmingham, USA); Xingjian Li and Min Xu (Carnegie Mellon University, USA)

15:50
1571223376: Entropy-Guided Agreement-Diversity: A Semi-Supervised Active Learning Framework for Fetal Head Segmentation in Ultrasound
Fangyijie Wang, Siteng Ma, Guenole Silvestre and Kathleen Curran (University College Dublin, Ireland)

15:00 – 17:30
Workshop: Exploring Foundation Models in Medical Image Analysis: Applications, Challenges, and Uncertainties
Room 17

16:00 – 16:30
Coffee Break
Reception Area

16:30 - 17:30
Better Labels, Better Segmentation
Room 4
Chairs: Jingxin Liu (Xi'an Jiaotong-Liverpool University, China); Xiaofeng Liu (Yale University, USA)

16:30
1571221418: Pixel-Level Counterfactual Contrastive Learning\\for Medical Image Segmentation
Marceau Lafargue, Raghav Mehta, Fabio De Sousa Ribeiro, Melanie Roschewitz and Ben Glocker (Imperial College London, United Kingdom (Great Britain))

16:40
1571221066: Peripheral Prototypical Contrastive Loss for Supervised Medical Image Segmentation
Takuro Shimaya and Ryosaku Shino (NEC Corporation, Japan); Masahiro Saiko (NEC, Japan)

16:50
1571226075: Shape-Guided Self-Supervised Learning for Intracranial Aneurysm Segmentation
Woohyun Jeong (Korea Advanced Institute of Science & Technology, Korea (South)); Suhyun Ahn and Jinah Park (Korea Advanced Institute of Science and Technology, Korea (South))

17:00
1571219837: Beat-SSL: Capturing Local ECG Morphology Through Heartbeat-Level Contrastive Learning with Soft Targets
Muhammad Ilham Rizqyawan and Peter Macfarlane (University of Glasgow, United Kingdom (Great Britain)); Stathis Hadjidemetriou (University of Limassol, Cyprus); Fani Deligianni (University of Glasgow, United Kingdom (Great Britain))

17:10
1571220031: Large-Scale Label Quality Assessment for Medical Segmentation via a Vision-Language Judge and Synthetic Data
Yixiong Chen, Zongwei Zhou, Wenxuan Li and Alan Yuille (Johns Hopkins University, USA)

17:20
1571221321: Foundation Model-Guided Iteratively Prompting and Pseudo-Labeling for Partially Labeled Medical Image Segmentation
Qiaochu Zhao (Columbia University, USA); Wei Wei and David Horowitz (Columbia University Irving Medical Center, USA); Richard Bakst (Icahn School of Medicine at Mount Sinai, USA); Yading Yuan (Columbia University Irving Medical Center, USA)

16:30 - 17:30
Catching Small Lesions and Bad Labels
Room 14
Chairs: Wei Lou (Zhejiang Normal University, China)

16:30
1571219826: Learning to Look Closer: A New Instance-Wise Loss for Small Cerebral Lesion Segmentation
Luc Bouteille (University Hospital Essen (AöR), Germany); Alexander Jaus (Karlsruhe Institute of Technology, Germany); Jens Kleesiek (University Hospital Essen, Germany); Rainer Stiefelhagen (Karlsruhe Institute of Technology, Germany); Lukas Heine (University Medicine Essen, Germany)

16:40
1571226436: Morphogenetic Field Loss for Unified Medical Image Segmentation
Soma Dasgupta (Tata Consultancy Services, India); Swarnava Dey (TCS Research & Tata Consultancy Service Limited, India); Avik Ghose (Tata Consultancy Services, India); Arijit Mukherjee (TCS Research, India & Tata Consultancy Services, India); Arpan Pal (Tata Consultancy Services, India)

16:50
1571226455: Quality Control for Medical Image Segmentation Under Domain Shift with Heteroscedastic Regression
Jonathan Lennartz and Thomas Schultz (Rheinische Friedrich-Wilhelms Universität Bonn, Germany)

17:00
1571225277: SLD: Segmentation-Based Landmark Detection for Spinal Ligaments
Lara Blomenkamp and Ivanna Kramer (University of Koblenz, Germany); Sabine Bauer (University Koblenz, Germany); Theresa Schöche (Johannes Gutenberg University Mainz, Germany)

17:10
1571219277: Unsupervised Detection of Post-Stroke Brain Abnormalities
Youwan Mahé (Univ Rennes, Inria-IRISA, Empenn & Siemens Healtineers, France); Elise Bannier (Univ Rennes, Inria-IRISA, Empenn, France & CHU Rennes, France); Stéphanie Leplaideur (Univ Rennes, Inria-IRISA, Empenn, France); Elisa Fromont (Université de Rennes 1, France); Francesca Galassi (Univ Rennes, Inria-IRISA, Empenn, France)

17:20
1571226459: TrackletGPT: A Language-like GPT Framework for White Matter Tract Segmentation
Anoushkrit Goel, Simroop Singh and Ankita Joshi (Indian Institute of Technology Mandi, India); Ranjeet Ranjan Jha (Indian Institute of Technology Patna, India); Chirag Kamal Ahuja (Postgraduate Institute of Medical Education and Research, India); Aditya Nigam and Arnav Bhavsar (IIT Mandi, India)

16:30 - 17:30
From MRI or CBCT to a Usable CT
Room 16
Chairs: Gloria Menegaz (University of Verona, Italy); Golrokh Mirzaei (Ohio State University, USA)

16:30
1571221464: DINOv3-Guided Cross Fusion Framework for Semantic-Aware CT Generation from MRI and CBCT
Xianhao Zhou (University of Electronic Science and Technology of China, China); Jianghao Wu (Monash University, Australia); Ku Zhao and Jinlong He (University of Electronic Science and Technology of China, China); Huangxuan Zhao (Wuhan University, China); Lei Chen (Huazhong University of Science and Technology, China); Shaoting Zhang and Guotai Wang (University of Electronic Science and Technology of China, China)

16:40
1571223899: Semantic-Guided 3D CT Generation for Stroke Lesion Segmentation
Hongxi Yang, Zhen Yu, Deval Mehta, Yasmeen George and Zongyuan Ge (Monash University, Australia)

16:50
1571222067: HAGD: Hierarchical Anatomical-Guided Diffusion for Synthetic CT Generation from CBCT
Yike Guo, Yi Luo, Hamed Hooshangnejad and Kai Ding (Johns Hopkins University, USA)

17:00
1571226207: ProGiDiff: Prompt-Guided Diffusion-Based Medical Image Segmentation
Yuan Lin (Friedrich-Alexander-University Erlangen-Nuremberg, Germany); Murong Xu (University of Zurich, Switzerland); Marc Hoelle (Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany); Chinmay Prabhakar (University of Zurich, Switzerland); Andreas K Maier and Vasileios Belagiannis (Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany); Bjoern Menze and Suprosanna Shit (University of Zurich, Switzerland)

17:10
1571226375: MRI-to-CT Synthesis with Cranial Suture Segmentation Using a Variational Autoencoder Framework
Krithika Iyer and Austin Tapp (Children's National Hospital, USA); Athelia Paulli (University of Southern California, USA); Gabrielle Dickerson (Children's National Hospital, USA); Syed Muhammad Anwar (Children's National Hospital & Signal, Image, Multimedia Processing and Learning, USA); Natasha Lepore (University of California, USA); Marius Linguraru (Children's National Medical Center, USA)

17:20
1571225971: Parallel Swin Transformer-Enhanced 3D MRI-to-CT Synthesis for MRI-Only Radiotherapy Planning
Zolnamar Dorjsembe (National Taiwan University of Science and Technology, Taiwan); Hung-Yi Chen (National Taiwan University Hospital, Taiwan); Furen Xiao (National Taiwan University, Taiwan); Hsing-Kuo Pao (National Taiwan University of Science and Technology, Taiwan)

16:30 - 17:30
Parsing Tissue, Nuclei, and Detail
Room 3
Chairs: Yuxing Li (The University of Hong Kong, Hong Kong)

16:30
1571221200: Prompt-Free Lightweight SAM Adaptation for Histopathology Nuclei Segmentation with Strong Cross-Dataset Generalization
Muhammad Hassan Maqsood, Yanming Zhu, Alfred Lam, Getamesay Dagnaw, Xuefei Yin and Alan Wee-Chung Liew (Griffith University, Australia)

16:40
1571224070: Tissue Aware Nuclei Detection and Classification Model for Histopathology Images
Kesi Xu (University of Warwick, United Kingdom (Great Britain)); Eleni Chiou, Ali Varamesh and Laura Acqualagna (GSK, Artificial Intelligence and Machine Learning, London, United Kingdom (Great Britain)); Nasir M Rajpoot (University of Warwick, United Kingdom (Great Britain))

16:50
1571222051: Generalizing to Unseen Domains in Histopathology: A Multi-Task Learning Approach
Gennaro Percannella and Mattia Sarno (University of Salerno, Italy); Francesco Tortorella (Università degli Studi di Salerno, Italy); Mario Vento (Universita' di Salerno, Italy)

17:00
1571222089: Osteo-Net: Mask R-CNN Based Osteoclasts Detector
Yeonsoo Chung and Seung-Hyun Hong (University of Connecticut, USA); Frank C. Nichols and David W. Rowe (Uconn Health, USA); Dong-Guk Shin (University of Connecticut, USA)

17:10
1571216888: Enhanced Diagnostic Performance via Large-Resolution Inference Optimization for Pathology Foundation Models
Mengxuan Hu and Zihan Guan (University of Virginia, USA); John Kang (Merck, USA); Sheng Li (University of Virginia, USA); Zhongliang Zhou (Merck, USA)

17:20
1571216064: Lasagna-U-Net: Revisiting U-Shape Architecture for Histopathology Image Segmentation
Junlai Qiu (Hainan University, China); Yunzhu Chen (Guangxi Polytechnic of Construction, China); Jiaqi Zhao (Guangxi Medical University, China); Yawen Huang (Tencent, United Kingdom (Great Britain)); Fubo Wang (The First Affiliated Hospital of Guangxi Medical University, China); Yuexiang Li (Guangxi Medical University, China)

16:30 - 17:30
Prompts, Ambiguity, and Robust Masks
Room 2
Chairs: Leo Lebrat (Queensland University of Technology, Australia); Maria J. Ledesma-Carbayo (Universidad Politécnica de Madrid, Spain)

16:30
1571214744: PCA-Enhanced Probabilistic U-Net for Effective Ambiguous Medical Image Segmentation
Xiangyu Li (Harbin Institute of Technology, China); Chenglin Wang (Harbin Institude of Technology, China); Qiantong Shen (Peking University, China); Fanding Li, Wei Wang, Kuanquan Wang and Shen Yi (Harbin Institute of Technology, China); Baochun Zhao (Hainan College of Software Technology, China); Gongning Luo (Harbin Institute of Technology, China)

16:40
1571219106: On the Robustness of Foundational 3D Medical Image Segmentation Models Against Imprecise Visual Prompts
Soumitri Chattopadhyay, Basar Demir and Marc Niethammer (UC San Diego, USA)

16:50
1571218708: Identifying Optimal nnU-Net Configuration for Cerebral Microbleed Segmentation
Junmo Kwon (Sungkyunkwan University, Korea (South)); Sang Won Seo (Sungkyunkwan University School of Medicine, Korea (South)); Hwan-ho Cho (Incheon National University, Korea (South)); Hyunjin Park (Sungkyunkwan University, Korea (South))

17:00
1571219842: LocBAM: Advancing 3D Patch-Based Image Segmentation by Integrating Location Context
Donnate Hooft, Stefan Michael Fischer and Cosmin Bercea (Technical University Munich, Germany); Jan Peeken (School of Medicine and Klinikum Rechts der Isar, Germany); Julia A. Schnabel (Helmholtz and Technical University of Munich, Germany)

17:10
1571226336: Introducing Curvature Trajectory Information into Boundary Corner Point Distribution to Guide Colorectal Polyp Segmentation
Zekun Hu, Yong Qi and Huafeng Wang (North China University of Technology, China); Yanqing Wang (Changzhi People's Hospital, China); Longzhen Wang and Suqing Wang (The Second People's Hospital Of Changzhi, China)

17:20
1571220442: Enhancing SAM Prompt Generation with DINOv3 Representations for Referring Medical Image Segmentation
Jiaxu Jiang (Southwest Jiaotong University, China); Sen Lei (Beihang University, China); Heng-Chao Li (Southwest Jiaotong University, China)

16:30 - 17:30
Segmentation That Adapts to the Expert
Room 1
Chairs: Boah Kim (Sungkyunkwan University, Korea (South)); Toni Lassila (University of Leeds, United Kingdom (Great Britain))

16:30
1571223330: ProSona: Prompt-Guided Personalization for Multi-Expert Medical Image Segmentation
Aya Elgebaly (Technical University of Denmark, Denmark); Nikolaos Delopoulos (LMU University Hospital, Germany); Juliane Hörner (University Hospital Düsseldorf, Germany); Carolin Rippke (Heidelberg University Hospital, Germany); Sebastian Klüter (University Hospital of Heidelberg, Germany); Luca Boldrini (Università Cattolica del Sacro Cuore, Italy); Lorenzo Placidi (Università Cattolica del Sacro Cuore, Rome, Italy); Riccardo Dal Bello, Nicolaus Andratschke and Michael Baumgart (University Hospital Zurich, Switzerland); Claus Belka, Christopher Kurz and Guillaume Landry (LMU University Hospital, Germany); Shadi Albarqouni (University Hospital Bonn, Germany)

16:40
1571220059: Label Uncertainty for Ultrasound Segmentation
Malini Shivaram and Gautam Rajendrakumar R Gare (Carnegie Mellon University, USA); Laura Hutchins (LSUHSC Internal Medicine New Orleans, USA); Jacob Duplantis, Thomas Deiss, Thales Nogueira Gomes, Thong Tran and Keyur H Patel (Louisiana State University Health Sciences Center New Orleans, USA); Krystal Kirby (Mary Bird Perkins Cancer Center, USA); Tom Fox (LSUHSC Internal Medicine New Orleans, USA); Amita Krishnan (LSUHSC Pulmonary Critical Care Medicine, USA); Deva Ramanan (Carnegie Mellon University, USA); Bennett DeBoisblanc (LSUHSC, USA); Ricardo Rodriguez (Cosmeticsurg, Montenegro); John M Galeotti (Carnegie Mellon Univ, USA)

16:50
1571210269: SAM-TXD: SAM with Text-Guided Diffusion for Refined Medical Image Segmentation
Seunghee Yoo, Junghyo Sohn and Kwanseok Oh (Korea University, Korea (South)); Heung-Il Suk (Koera University, Korea (South))

17:00
1571219266: LmPT: Conditional Point Transformer for Anatomical Landmark Detection on 3D Point Clouds
Matteo Bastico, Pierre Onghena, David Ryckelynck and Beatriz Marcotegui (Mines Paris - PSL, France); Santiago Velasco-Forero (MINES ParisTech, PSL Research University, CMM-Center of Mathematical Morphology, France); Laurent Corté (Mines Paris - PSL, France); Caroline Robine-Decourcelle (École Nationale Vétérinaire d'Alfort, France); Etienne Decencière (Mines Paris - PSL University, Centre for Mathematical Morphology, France)

17:10
1571218530: Federated Learning with Layer-Wise Contribution Estimation and Consensus-Based Parameter Personalization for Medical Image Classification
Tianpeng Deng (South China University of Technology, China); Ming Cai and Zaiyi Liu (Guangdong Provincial People's Hospital, China); Ying Wang (The First Affiliated Hospital of Guangzhou Medical University, China); Guoqiang Han (South China University of Technology, China); Chu Han (Guangdong Provincial People's Hospital, China)

17:20
1571221694: Understanding Annotation Error Propagation and Learning an Adaptive Policy for Expert Intervention in Barrett's Video Segmentation
Lokesha Rasanjalee (Adelaide University, Australia); Jin Tan, Dileepa Pitawela and Rajvinder Singh (The University of Adelaide, Australia); Hsiang-Ting Chen (University of Adelaide, Australia)

16:30 - 17:30
X-Rays with Fewer Blind Spots
Room 15
Chairs: Baoqiang Ma (University Medical Center Utrecht, The Netherlands); Norberto Malpica (Universidad Rey Juan Carlos, Spain)

16:30
1571221949: Deep Learning Based Landmarks Detection for Positioning Assessment in Mammography
Lauriane Grondin-Reiher (École Polytechnique de Montréal, Université de Montréal, Canada); Victor Patenaude, Valérie Gauvin, François Guibault and Lama Seoud (Polytechnique Montreal, Canada)

16:40
1571226328: Feature Invariance via Interpretable Ablation for Single-Source Domain Generalization in X-Ray Angiography Segmentation
Mohammad Atwany, Mojtaba Lashgari and Abhirup Banerjee (University of Oxford, United Kingdom (Great Britain))

16:50
1571222600: AdaLoRA-QAT: Adaptive Low Rank and Quantization Aware Segmentation
Prantik Deb and Srimanth Dhondy (IIIT Hyderabad, India); N Ramakrishna and Anu Kapoor (NIMS, India); Raju Surampudi Bapi (International Institute of Information Technology, India); Tapabrata Chakraborti (University College London, United Kingdom (Great Britain))

17:00
1571226326: Obscuration to Clarity: Bone Suppression for Enhanced Localization in Pneumothorax Segmentation of Chest Radiographs
Ananya Shukla, Amog Rao and Siddharth Siddharth (Plaksha University, India); Rina Bao (Boston Children's Hospital, USA)

17:10
1571219754: Identifying Digital Mammography Artifacts Through Interpretable Feature-Based Anomaly Detection
Tahsin Rahman and Jason Granstedt (United States Food and Drug Administration, USA); Jana G. Delfino (US Food and Drug Administration, USA); Aldo Badano and Seyed Kahaki (United States Food and Drug Administration, USA)

17:20
1571225950: Automated Landmark Detection for Assessing Hip Conditions: A Cross-Modality Validation of MRI Versus X-Ray
Roberto Di Via (University of Genoa, Italy); Vito Paolo Pastore (University of Genova, Italy); Francesca Odone (Università Degli Studi di Genova, Italy); Siôn Glyn-Jones (University of Oxford, United Kingdom (Great Britain)); Irina Voiculescu (Oxford University, United Kingdom (Great Britain))

17:30 – 18:30
Meet the Journal Editors
Room 16
Chairs: Ge Wang, Rensselaer Polytechnic Institute

7:30 - 8:00
Registration
ICC Registration Area

8:00 - 9:00
Biomarkers, Shapes, and Quantitative Clues
Room 14
Chairs: Arun K Thittai (Indian Institute of Technology Madras, India); Angel Torrado-Carvajal (Universidad Rey Juan Carlos, Spain)

08:00
1571209055: An Automated Framework for Large-Scale Graph-Based Cerebrovascular Analysis
Daniele Falcetta (Eurecom Institute, France); Liane dos Santos Canas (King's College London, United Kingdom (Great Britain)); Lorenzo Suppa (Politecnico di Torino, Italy); Matteo Pentassuglia (Eurecom Institute, France); Jon Cleary, Marc Modat and Sebastien Ourselin (King's College London, United Kingdom (Great Britain)); Maria Zuluaga (Eurecom Institute, France)

08:10
1571219326: A Continuous and Interpretable Morphometric for Robust Quantification of Dynamic Biological Shapes
Roua Rouatbi (MPI CBG, TU Dresden, CSBD, Germany); Juan-Esteban Suarez Cardona (LMU Munich, Germany); Alba Villaronga-Luque (The Max Planck Institute of Molecular Cell Biology and Genetics, Germany); Jesse V. Veenvliet (Max Planck Institute of Molecular Cell Biology and Genetics, Germany); Ivo F. Sbalzarini (The Max Planck Institute of Molecular Cell Biology and Genetics, Germany)

08:20
1571223294: Bias-Field Rotation Encoding: Toward a Large-Aperture Magnetic Particle Imaging System
Yang Jing (Beihang University, China); Ruiyi Wang (Beijing University of Aeronautics and Astronautics, China); Wenxuan Zou, Ziwei Chen and Zhenchao Tang (Beihang University, China); Jie Tian (Institute of Automation, Chinese Academy of Sciences, China)

08:30
1571221980: A Temporally Aware Transformer Model for Predicting Personalized Head Growth and Surgical Outcomes in Craniosynostosis
Connor Elkhill (Colorado School of Public Health, USA); Ines Alejandro Cruz Guerrero (Colorado School of Public Health); David Khechoyan, Phuong D. Nguyen and Brooke French (Children's Hospital Colorado, USA); Antonio R. Porras (Colorado School of Public Health, USA)

08:40
1571221521: 3D DoseGLA: Gated Linear Attention with Wavelet-Domain Constraint for Efficient 3D Radiotherapy Dose Prediction
Ku Zhao, Xianhao Zhou, Wenjun Liao, Shichuan Zhang, Shaoting Zhang and Guotai Wang (University of Electronic Science and Technology of China, China)

08:50
1571219952: Predicting Cell Division Orientation in Ascidian Development
Haydar Jammoul (Université Côte d'Azur, CNRS, I3S, France); Kilian Biasuz, Benjamin Gallean and Patrick Lemaire (CRBM, Université de Montpellier, CNRS, France); Gregoire Malandain (Université Côte d'Azur, Inria, CNRS, I3S, France)

8:00 - 9:00
Connectivity as a Psychiatric Signal
Room 3
Chairs: Bradley P Sutton (University of Illinois at Urbana, USA); Kenji Suzuki (Tokyo Institute of Technology, Japan)

08:00
1571222740: Functional Connectivity Alterations in Major Depressive Disorder
Malvika Sridhar (Georgia State University, USA); Sir-Lord Wiafe (Tri-Institutional Center for Translational Research in Neuroimaging and Data Science (TReNDS), USA); Bradley T Baker (Georgia State University, USA); Vince Calhoun (Tri-Institutional Research Center in Neuroimaging and Data Science, USA)

08:10
1571219191: A Multi-Modal Variational Hypergraph Autoencoder for Structural-Functional Brain Connectivity Analysis
Chyong Yi Poh (Monash University, Australia); Fuad Noman, Yee Fan Tan and Hwa Hui Tew (Monash University Malaysia, Australia); Junn Yong Loo (Monash University Malaysia, Malaysia); Raphael C.W. Phan (Monash University, Malaysia Campus, Malaysia); Chee-Ming Ting (Monash University, Malaysia)

08:20
1571222431: Cross-Domain Positive and Negative Syndrome Scale Associated Multimodal Brain Patterns in Schizophrenia
Jingxian Hu and Chuang Liang (Nanjing University of Aeronautics and Astronautics, China); Vince Calhoun (Tri-Institutional Research Center in Neuroimaging and Data Science, USA); Shile Qi (Nanjing University of Aeronautics and Astronautics, China)

08:30
1571220062: Understanding Brain Functional Dynamics with Deep State-Space Modeling on Riemannian Manifold
Yuwei Cao (Yunnan Normal University, China); Tingting Dan (The University of North Carolina at Chapel Hill, USA); Chuhan Yu (University of Liverpool, United Kingdom (Great Britain)); Yang Yang (Yunnan Normal University, China); Guorong Wu (University of North Carolina, USA)

08:40
1571220216: Brain Topology-Driven Graph Structure Learning for Functional Brain Network-Based Major Depressive Disorder Diagnosis
Suyeon Kwak, Ji-Hye Oh, Chang-Hoon Ji, Yu-Kyum Kang, Jaeyong Chang and Tae-Eui Kam (Korea University, Korea (South))

08:50
1571191803: An in Silico Study of Low-Intensity Focused Ultrasound Displacement Mapping with a 220 kHz Clinical Phased-Array Transducer
Ryan Holman, Tiago Oliviera and Stecia Marie Fletcher (Brigham and Women's Hospital, USA); Allison H Payne (University of Utah, USA); Nathan McDannold (Harvard Medical School and Brigham & Women's Hospital, USA)

8:00 - 9:00
Fusing and Rewriting Brain MRI Signals
Room 1
Chairs: Arrate Muñoz-Barrutia (Universidad Carlos III de Madrid, Spain); Leandro Nascimento (Sorbonne Université, France)

08:00
1571226169: Generation of Infant Brain fMRI Functional Connectivity from Asynchronous EEG Recording with Identity Consistency
Xiaoshu Luo (ShanghaiTech University, China); Yitian Tao (Shanghaitech University, China); Zihao Zhu, Chen Xie, Kaidong Wang, Yanhao Wang, Gaofeng Wu and Han Zhang (ShanghaiTech University, China)

08:10
1571218923: Synthesized Ultra-High B-Value Diffusion Images for Characterization of Neurite and Soma Organization
Tenglong Wang, Zhonghua Wan, Yu Xie, Jiahao Yu, Yifei He and Ye Wu (Nanjing University of Science and Technology, China)

08:20
1571210600: Decoupling Multi-Contrast Super-Resolution: Pairing Unpaired Synthesis with Implicit Representations
Hongyu Rui and Yinzhe Wu (Imperial College London, United Kingdom (Great Britain)); Fanwen Wang (Imperial College London & Royal Brompton Hospital, United Kingdom (Great Britain)); Jiahao Huang, Zhenxuan Zhang, Liutao Yang and Zi Wang (Imperial College London, United Kingdom (Great Britain)); Guang Yang (Imperial College London, United Kingdom (Great Britain) & Royal Brompton Hospital, United Kingdom (Great Britain))

08:30
1571225898: CAC-GAN: High-Fidelity Synthesis of MRI Sequences Using Contrast-Aware CycleGAN
Rinku Sadh (Indian Institute of Technology, Jodhpur, India); Prabhat Ranjan and Angshuman Paul (Indian Institute of Technology Jodhpur, India)

08:40
1571218926: Artifact Correction and Quality Assessment via Perceptual Contrastive Learning on Diffusion MRI
Jiahao Yu, Tenglong Wang, Yu Xie, Jiaolong Qin and Ye Wu (Nanjing University of Science and Technology, China)

08:50
1571221053: An Ensemble Graph-Based Deep Learning Framework Integrating Phenotypic and fMRI Data for Autism Classification
Juliana Mantebea Danso (Texas State University, USA); Enoch Opanin Gyamfi (C. K. Tedam University of Technology and Applied Sciences (CKT-UTAS), Ghana); Byron Gao and Mylene Farias (Texas State University, USA)

8:00 - 9:00
How Brain Dynamics Relate to Behavior
Room 2
Chairs: Jean-Christophe Olivo-Marin (Institut Pasteur, France)

08:00
1571226341: AI-Driven Prediction of Communication Score from Functional MRI with Neurocircuit Characterization in Autism
Mohamed Khudri (Bioengineering Departement, University of Louisville, KY, USA); Mostafa Abdelrahim and Ali Mahmoud (University of Louisville, USA); Ahmed Shalaby (UTSW Medical Center, Dallas, TX, USA); Moumen El-Melegy and Asem Ali (University of Louisville, USA); Mohammed A. Ghazal (Abu Dhabi University, United Arab Emirates); Fatma Taher (Dubai, UAE, United Arab Emirates & Zayed University, United Arab Emirates); Ashraf Khalil (Zayed University, United Arab Emirates); Sohail Contractor (University of Louisville, USA); Gregory N.Barnes (University of Louisville Autism Center, USA); Ayman El-Baz (University of Louisville, USA)

08:10
1571220892: Human Brain Excitation-Inhibition Balance Through fMRI Dynamics: Estimators and in-Vivo Validation
Francesca Saviola (EPFL - EPF Lausanne, Switzerland); Matilde Bisi (Ecole Polytechnique Fédérale de Lausanne, Italy); Asia Ferrari (University of Geneva, Switzerland); Karolis Degutis (Ecole Polytechnique Fédérale de Lausanne, Switzerland); Stefano Tambalo (University of Trento, Italy); Michael V. Lombardo (Istituto Italiano di Tecnologia, Italy); Jorge Jovicich (University of Trento, Italy); Dimitri Van De Ville (Ecole Polytechnique Fédérale de Lausanne, Switzerland)

08:20
1571226549: Boltzmann-Inspired Model for fMRI Time-Series Classification
Joseph Van Duyn (Emory University, USA); Pavel Popov and Armin Iraji (Georgia State University, USA); Yang Liu (King's College London, United Kingdom (Great Britain)); Zening Fu (TReNDS, Georgia State University, USA); Vince Calhoun (Tri-Institutional Research Center in Neuroimaging and Data Science, USA); Sergey Plis (TReNDS Center & Georgia State University, USA); Alex Fedorov (Emory University, USA)

08:30
1571219934: Functional Gradients of the Spinal Cord and Corticospinal System
Ekansh Sareen (École Polytechnique Fédérale de Lausanne, Switzerland); Nivedya Suresh Nambiar and Dimitri Van De Ville (Ecole Polytechnique Fédérale de Lausanne, Switzerland)

08:40
1571226259: Neural Flexibility in Timescale-Aligned Brain Network Amplitude Dynamics Reveals Sex-Specific Differences and Supports Cognition in Late Childhood
Aline Kotoski (Georgia State University & TReNDS Center, USA); Sir-Lord Wiafe (Tri-Institutional Center for Translational Research in Neuroimaging and Data Science (TReNDS), USA); Tulay Adali (University of Maryland, Baltimore County, USA); Vince Calhoun (Tri-Institutional Research Center in Neuroimaging and Data Science, USA)

08:50
1571221765: How Important are Inter-Dataset Interactions for Large Scale Analysis of fMRI Data: A Multi-Dimensional Comparison
Clément Cosserat (CVN, Inria Saclay, France); Lucas Gois (University of Maryland, Baltimore County, USA); Emilie Chouzenoux (CVN, Inria Saclay, France); Vince Calhoun (Georgia Institute of Technology, USA); Tulay Adali (University of Maryland, Baltimore County, USA)

8:00 - 9:00
How the Brain Changes, Folds, and Drifts
Room 4
Chairs: Yee Fan Tan (Monash University Malaysia, Australia)

08:00
1571215181: Counterfactual Analysis of Brain Dynamics
Moo K Chung (University of Wisconsin-Madison, USA)

08:10
1571225907: Genetic Correlations in Cortical Folding Mirror Functional Brain Networks
Mahan Shafie, Alessandro Amaolo, Anna Fiorito and Davide Marnetto (University of Turin, Italy); Paul M. Thompson and Neda Jahanshad (University of Southern California, USA); Paolo Provero and Fabrizio Pizzagalli (University of Turin, Italy)

08:20
1571219519: Jacobian Determinant Quantifies White Matter Plasticity Associated with Ssri Response in Depression
Zhaoxian Ming, Yifei He and Yu Xie (Nanjing University of Science and Technology, China); Huangjing Ni (Nanjing University of Posts and Telecommunications, China); Zhijian Yao (The Affiliated Brain Hospital of Nanjing Medical University, China); Qing Lu (Southeast University, China); Ye Wu and Jiaolong Qin (Nanjing University of Science and Technology, China)

08:30
1571226602: Gyral-Sulcal-Net: An Integrated Network Representation of Brain Folding Patterns
Chao Cao and Tong Chen (The University of Texas at Arlington, USA); Nan Zhao (Indiana University Indianapolis, USA); Minheng Chen (University of Texas at Arlington, USA); Michael Qu (Mission San Jose High School, USA); Zeyu Zhang and Xiao Shi (The University of Texas at Arlington, USA); Xiang Li (Mass General Research Institute, USA); Tianming Liu (University of Georgia, USA); Lu Zhang (Indiana University Indianapolis, USA)

08:40
1571226438: Deep-GyralNet: Enabling Machine Learning in Gyral Folding Pattern Extraction on Cortical Surface
Chao Cao (The University of Texas at Arlington, USA); Jiale Cheng (University of North Carolina at Chapel Hill, USA); Minheng Chen (University of Texas at Arlington, USA); Jing Zhang (The University of Texas at Arlington, USA); Tianming Liu (University of Georgia, USA); Lu Zhang (Indiana University Indianapolis, USA); Dajiang Zhu (University of Texas at Arlington, USA); Gang Li (University of North Carolina at Chapel Hill, USA)

08:50
1571220461: Disease Progression and Subtype Modeling for Combined Discrete and Continuous Input Data
Sterre de Jonge and Elisabeth J. Vinke (Erasmus MC, the Netherlands); Meike Vernooij (Erasmus MC, The Netherlands); Daniel Alexander and Alexandra Young (University College London, United Kingdom (Great Britain)); Esther Bron (Erasmus MC, The Netherlands)

8:00 - 9:00
Reports, Retrieval, and Medical Reasoning in One Loop
Room 16
Chairs: Zi Wang (Imperial College London, United Kingdom (Great Britain)); Xin Yang (Shenzhen University, China)

08:00
1571222455: RadGaze-LLM: Anatomical Region-Grounded Radiology Report Generation via Learning from Expert Gaze
Jamalia Sultana (State University of New York at Stony Brook, USA); Ruwen Qin and Zhaozheng Yin (Stony Brook University, USA)

08:10
1571226431: Gaze2Report: Radiology Report Generation via\\ Visual-Gaze Prompt Tuning of LLMs
Aishik Konwer, Moinak Bhattacharya and Prateek Prasanna (Stony Brook University, USA)

08:20
1571226338: Automatic Correction of Generative AI Chest X-Ray Radiology Reports
Raziuddin Mahmood (Rensselaer Polytechnic Institute, USA); Pingkun Yan (RPI, USA); Tanveer Syeda-Mahmood (Stanford University)

08:30
1571212167: REAF: A Region-Enhanced Volume-Slice Hierarchical Attention Fusion Vision-Language Model for CT-Report Retrieval
Jinlong He, Kang Li and Guotai Wang (University of Electronic Science and Technology of China, China)

08:40
1571220251: Learning to Reason About Rare Diseases Through Retrieval-Augmented Agents
Ha Young Kim and Jun Li (Technical University of Munich, Germany); Ana Beatriz Solana and Carolin M. Pirkl (GE HealthCare, Germany); Benedikt Wiestler (Technical University of Munich, Germany); Julia A. Schnabel (Helmholtz and Technical University of Munich, Germany); Cosmin Bercea (Technical University Munich, Germany); Predictom Consortium (PREDICTOM Consortium, European Union)

08:50
1571222252: Distilling Expert Surgical Knowledge: How to Train Local Surgical VLMs for Anatomy Explanation in Complete Mesocolic Excision
Lennart Maack (Technische Universität Hamburg, Germany); Julia-Kristin Graß (University Medical Center Eppendorf, Germany); Lisa-Marie Toscha and Nathaniel Melling (University Medical Center Hamburg-Eppendorf, Germany); Alexander Schlaefer (Hamburg University of Technology, Germany)

8:00 - 9:00
Sharper MRI from Less, Lower, and Other Modalities
Room 15
Chairs: Haifeng Wang (Mississippi State University, USA)

08:00
1571221670: MRIQT: Physics-Aware Diffusion Model for Image Quality Transfer in Neonatal Ultra-Low-Field MRI
Malek Al Abed (Technical University of Munich & University Hospital Bonn, Germany); Sebiha Demir and Anne Groteklaes (University Hospital Bonn, Germany); Elodie Germani (University of Rennes, France); Shahrooz Faghihroohi (Technical University of Munich, Germany); Hemmen Sabir and Shadi Albarqouni (University Hospital Bonn, Germany)

08:10
1571216058: Direct Low-Field MRI Super-Resolution Using Undersampled k-Space
Daniel Tweneboah Anyimadu, Mohammed M. Abdelsamea and Ahmed Karam Eldaly (University of Exeter, United Kingdom (Great Britain))

08:20
1571208942: AICM: An Anatomical-Prior Integrated Conditional Consistency Model for Self-Supervised MRI Through-Plane Super-Resolution
Kaifeng Pang (University of California, Los Angeles, USA); Qi Miao and Alex Ling Yu Hung (UCLA, USA); Changsuk Oh (University of California, Los Angeles, USA); Kai Zhao (UCLA, USA); Qiudi He (University of California, Los Angeles, USA); Marcel Dominik Nickel (Siemens Healthineers, Germany); Fei Han (Siemens Healthineers, USA); Kyung Hyun Sung (University of California, Los Angeles, USA)

08:30
1571225649: Conditional Diffusion Model Optimization for Real-Time Point-of-Care Image-Quality Enhancement on NVIDIA Jetson Orin Nano
Tharun Kumar Jayaprakash, Ye Tian, Jedrzej Golebka and Royce W S Chen (Columbia University, USA); Yu Gan (Stevens Institute of Technology, USA); Kaveri Thakoor (Columbia University, USA)

08:40
1571222128: Quantitative and Qualitative Assessment of Generative AI for Cross-Modal CT-to-MRI Translation in Spine Imaging
Paul Banahan (University College Dublin, Ireland); Edward McDermott and Molly Godson Treacy (Mater Misericordiae University Hospital, Ireland); Prateek Mathur (Insight Centre for Data Analytics, Ireland); David Caldwell and Eimear Kyle (Mater Misericordiae University Hospital, Ireland); Aonghus Lawlor (University College Dublin, Ireland); Peter Macmahon (Mater Misericordiae University Hospital, Ireland)

08:50
1571221454: Graph-FISTA-Net: An Interpretable Graph Unrolling Network for Fast Compressed Sensing MRI
Aromal C J and Sumit Datta (Digital University Kerala, India)

8:00 - 11:30
Workshop: POCUS-AI: Point-of-care Ultrasound Powered by AI
Room 17
Chairs: Laura Brattain (University of Central Florida, USA)

08:00
1571267581: Fully Automatic Data Labeling for Ultrasound Screen Detection
Alberto Gomez (Ultromics, United Kingdom (Great Britain)); Jorge Oliveira (Ultromcis, United Kingdom (Great Britain)); Ramon Casero and Agisilaos Chartsias (Ultromics, United Kingdom (Great Britain))

08:35
1571267587: U-Net with SSM-Inspired Gated Large-Receptive-Field Refinement for Fetal Abdomen Segmentation and Circumference Measurement Using Ultrasound Images
Vrushti Patel and Jayendra M Bhalodiya (Ahmedabad University, India)

09:10
1571267590: Automated Sarcopenia Risk Stratification from Pocus Using Vision Transformers and Radiomics
Ricardo Teresa Ribeiro (School of Health Sciences HESAV HES-SO Lausanne, Switzerland); Théo Coutaudier (School of Health HESAV School of Health Sciences, Switzerland); Patrizia D'Amelio (University of Lausanne Hospital Centre (CHUV) Lausanne, Switzerland)

09:45
1571267592: Intuitive Gradient Feedback: Continuous Ultrasound Scan Quality from Weak Expert Preferences for Probe Guidance
Adam McArthur, Abhilash Hareendranathan and Jacob Jaremko (University of Alberta, Canada)

10:20
1571267593: A Point-of-Care Ultrasound System with Novel Nonlinear Beamformer for High-Resolution Imaging
Banhimitra Kundu (Indian Institute of Science, India); Chandra Sekhar Seelamantula (Indian Institute of Science, Bengaluru, India); Chetan Singh Thakur (India)

10:55
1571267594: A Comparison of Strategies for Automatic Frame Selection Towards Blind Sweep Point of Care Ultrasound
Abhinav Dhere (Siemens Healthcare Private Limited, India)

9:00 – 10:00
Keynote: From Interpretable Multimodal Models to Foundation Models in Biomedical Imaging
Greg Slabaugh, Queen Mary University, London
Rooms 7-12
Chairs: Guang Yang, Imperial College London, UK

10:00 – 10:30
Coffee Break
Reception Area

10:30 - 11:30
Decoding the Brain Through Networks and Signals
Room 1
Chairs: Ge Yang (Institute of Automation, Chinese Academy of Sciences, China); Jiancheng Yang (ELLIS Institute Finland, Finland)

10:30
1571226430: Decoding Functional Networks for Visual Categories via GNNs
Shira Karmi and Galia Avidan (Ben Gurion University of the Negev, Israel); Tammy Riklin Raviv (Ben Grunion University of the Negev)

10:40
1571219408: Functional Connectivity During Visual-Auditory Associative Learning with Submillimeter fMRI at 7T: Comparing Pearson and PCA-Based Partial Correlation in Beta-Series Analysis
Santa Sozzi (University of Pisa, Italy); Mahdi Enan (Maastricht University, The Netherlands); Lucia Melloni (University Alliance Ruhr, Germany); Fabrizio Esposito (University of Campania Luigi Vanvitelli, Italy); Nicola Vanello (University of Pisa, Italy); Federico De Martino (Maastricht University, The Netherlands)

10:50
1571226557: A Reproducible Framework for Bias-Resistant Machine Learning on Small-Sample Neuroimaging Data
Jagan Mohan Reddy Dwarampudi (University of Houston, USA); Jennifer L Purks (University of FLorida, USA); Joshua Wong (University of Florida, USA); Renjie Hu and Tania Banerjee (University of Houston, USA)

11:00
1571221764: KOCOBRAIN: Kuramoto-Guided Graph Network for Uncovering Structure-Function Coupling in Adolescent Prenatal Drug Exposure
Badhan Mazumder (Georgia State University, USA); Lei Wu (TReNDS Center, USA); Sir-Lord Wiafe (Tri-Institutional Center for Translational Research in Neuroimaging and Data Science (TReNDS), USA); Vince Calhoun (Tri-Institutional Research Center in Neuroimaging and Data Science, USA); Dong Hye Ye (Georgia State University, USA)

11:10
1571225451: MFD: Modality-Aware Fusion of fMRI and MEG for Noninvasive Speech Decoding
Pengfei Yun (Shanghaitech, China); Che Liu (Institute of Automation, Chinese Academy of Sciences, China); Changde Du (University of Chinese Academy of Sciences, China); Huiguang He (Chinese Academy of Science, China); Dinggang Shen (ShanghaiTech University, China)

11:20
1571226600: A Novel Dual-Stream Framework for dMRI Tractography Streamline Classification with Joint dMRI and fMRI Data
Haotian Yan and Bocheng Guo (University of Electronic Science and Technology of China, China); Jianzhong He (Zhejiang University of Technology, China); Nir Sochen (Tel Aviv University, Israel); Ofer Pasternak (Mass General Brigham, Harvard Medical School, USA); Lauren J. O'Donnell (Harvard Medical School, USA); Fan Zhang (University of Electronic Science and Technology of China, China)

10:30 - 11:30
Few Shots, Better Masks, Better Landmarks
Room 16
Chairs: Ajay Anand (University of Rochester, USA)

10:30
1571219663: AI-Assisted Colonoscopy: Polyp Detection and Segmentation Using Foundation Models
Uxue Delaquintana Aramendi (TECNALIA, Spain); Leire Benito-del-Valle (Tecnalia, Spain & University of the Basque Country, Spain); Aitor Alvarez Gila (TECNALIA, Spain); Javier Pascau (Universidad Carlos III de Madrid, Spain); Luisa F. Sánchez-Peralta (Jesus Usón Minimally Invasive Surgery Centre, Spain); Artzai Picon (Tecnalia Research and Innovation, Spain); José Blas Pagador Carrasco (Jesus Usón Minimally Invasive Surgery Centre, Spain); Cristina Lopez Saratxaga (TECNALIA, Spain)

10:40
1571221539: Training-Free One-Shot Medical Image Segmentation with SAM via Confidence and Consistency-Based Bidirectional Prompt Evolution
Muyang Li, Kang Li and Guotai Wang (University of Electronic Science and Technology of China, China)

10:50
1571226417: Segment Anything Model with Refined-Prompts for Multimodal Cross-Data Few-Shot Medical Image Segmentation
Bhumika Adhya (Heritage Institute of Technology, India); Saptarshi Pani (Jadavpur University, India); Irina Shpakovskaya (Saint Petersburg Electrotechnical University "LETI", Russia); Dmitrii Kaplun (Saint Petersburg Electrotechnical University LETI, Russia); Ram Sarkar (Jadavpur University, India)

11:00
1571226372: Learning with Geometric Priors in U-Net Variants for Polyp Segmentation
Fabian Vazquez, Jose A Nunez, Diego Adame and Alissen Moreno (University of Texas Rio Grande Valley, USA); Augustin Zhan (Sewickley Academy, USA); Huimim Li (University of Texas Rio Grande Valley, USA); Haoteng Tang, Bin Fu and Pengfei Gu (The University of Texas Rio Grande Valley, USA)

11:10
1571218901: Comparative Evaluation of Five Hippocampal Segmentation Algorithms in Limbic Encephalitis: Addressing Inflammation and Atrophy Challenges
Walaa Zakaria (Center for Research in Image Acquisition and Processing for Health (CREATIS) Laborator & Mechanisms in Integrated Life Science (MeLiS) Lab, Synaptopathies et Autoanticorps (SYNATAC) Team, France); Alae-Eddine El Barkaoui (CREATIS, HCL, France); Guillaume Criton (CREARIS, HCL, France); Jerome Honnorat (Hospices Civils de Lyon, France); François Cotton (CHU Lyon, France); Bastien Joubert (Hospices Civils de Lyon, France); Thomas Grenier (CREATIS, CNRS UMR 5220, Inserm U, France)

11:20
1571225962: KAN-OSD: DINO-Based Encoder and KAN-Based Decoders with Dual Contrastive Learning for One-Shot Anatomical Landmark Detection
Yinbing Tian (Beijing University of Posts and Telecommunications, China); Ziyang Wang (Aston University, United Kingdom (Great Britain) & Oxford University, United Kingdom (Great Britain)); Shibiao Xu and Li Guo (Beijing University of Posts and Telecommunications, China)

10:30 - 11:30
Registering, Translating, and Aligning Brain MRI
Room 2
Chairs: Peng Yang (Employment, China)

10:30
1571216941: Atlas-Free Functional Brain Connectome Analysis via Task-Driven Parcellation
Keqi Han (Emory University, USA); Yao Su (Worcester Polytechnic Institute, USA); Songlin Zhao (Lehigh University, USA); Charles Gillespie and Boadie Dunlop (Emory University, USA); Daniel Barron (Brigham and Women's Hospital, USA); Randy Hirschtick (Massachusetts General Hospital, USA); Liang Zhan (University of Pittsburgh, USA); Lifang He (Lehigh University, USA); Xiang Li (Massachusetts General Hospital, USA); Carl Yang (Emory University, USA)

10:40
1571226253: BRAIN-CLIP: An Individual-Preserving Contrastive Framework for Bidirectional Cross-Modal Brain Connectome Translation
Yaokai Yang and Nan Zhao (Indiana University Indianapolis, USA); Zeyu Zhang and Jing Zhang (The University of Texas at Arlington, USA); Lu Zhang (Indiana University Indianapolis, USA)

10:50
1571226453: Cortical Surface-Constrained Temporally Continuous Atlas Learning for Fetal Brain MRI
Kai Zhang (Shanghai Tech, China); Dan Hu and Jiale Cheng (University of North Carolina at Chapel Hill, USA); Shijie Huang (Shanghaitech University, China); Weili Lin (University of North Carolina at Chapel Hill, USA); Dinggang Shen (ShanghaiTech University, China); Gang Li (University of North Carolina at Chapel Hill, USA)

11:00
1571217877: A Robust Multi-Stage Temporal Registration for Quantitative Analysis of 4D Multi-Parametric Fetal Lung MRI
Katharine Brudkiewicz (University College London (UCL) & Kings College London, United Kingdom (Great Britain)); Zhennan Xiao (King's College London, United Kingdom (Great Britain)); Magdalena Sokolska (University College London Hospital NHS Foundation Trust, United Kingdom (Great Britain)); Joanna Chappell (Kings College London, United Kingdom (Great Britain)); Trevor Gaunt (University College London Hospitals NHS Foundation Trust, United Kingdom (Great Britain)); Anna L. David (University College London, United Kingdom (Great Britain)); Rosalind Aughwane (University College London Hospital NHS Foundation Trust, United Kingdom (Great Britain)); Andrew Melbourne (King's College London, United Kingdom (Great Britain))

11:10
1571221499: Uncertainty-Guided Physics-Informed Image Registration for Brain Tumor MRI with Missing Correspondences
Y. L. Lyndon Chan and Albert C. S. Chung (The Hong Kong University of Science and Technology, Hong Kong)

11:20
1571213459: U2Model: A Unified-Universal Model for Multi-Modal MRI Synthesis and Registration
Yinghui Wang (The Hong Kong Polytechnic University, Hong Kong); Jing Cai (Hong Kong Polytechnic University, Hong Kong)

10:30 - 11:30
Restoring Images and Modeling Motion
Room 14
Chairs: Xiao Zhang (Harbin Institute of Technology, China); Yalin Zheng (University of Liverpool, United Kingdom (Great Britain))

10:30
1571220397: GLUS: Guidance Loss Driven Plug-and-Play Diffusion for Ultrasound Image Super-Resolution
Xuan Hieu Le (IRIT Laboratory, France); Denis Kouamé (Université de Toulouse, IRIT Laboratory, France); Duong Hung Pham (IRIT Laboratory, Toulouse University, France)

10:40
1571220657: Diffusion-Based Fourier Domain Deconvolution with Application to Ultrasound Image Restoration
Vassili Pustovalov (Université de Toulouse, IRIT Laboratory, France); Anes Ghouli (IRIT Laboratory, France); Duong Hung Pham (IRIT Laboratory, Toulouse University, France); Denis Kouamé (Université de Toulouse, IRIT Laboratory, France)

10:50
1571226343: VAID: Valve Artifact Inpainting for Normal Pressure Hydrocephalus from a 3D MRI Diffusion Model
Shimeng Wang, Shuwen Wei, Samuel W Remedios and Jinwei Zhang (Johns Hopkins University, USA); Blake Dewey (Johns Hopkins School of Medicine, USA); Ari Blitz (Case Western Reserve University, USA); Mark Luciano (Johns Hopkins School of Medicine, USA); Aaron Carass and Jerry Prince (Johns Hopkins University, USA)

11:00
1571226495: Mixture of Brownian Motions with Constrained Drift Velocities for Modeling Time-Varying Dynamics of Intracellular Bio-Molecules
Vincent Briane (Inria, France); Charles Kervrann (INRIA, France); Cyrille Billaudeau and Claire-Jing Rouchet (INRAE, France); Rut Carballido-Lopez (Inrae, France)

11:10
1571225610: Beyond Zero-Filled Mask: Inpainting Quality Enhancement via Neural Implicit Guidance Prior
Changsuk Oh, Kaifeng Pang, Ricky Savjani and Kyung Hyun Sung (University of California, Los Angeles, USA)

11:20
1571220668: ResMatching: Noise-Resilient Computational Super-Resolution via Guided Conditional Flow Matching
Anirban Ray (Human Technopole, Italy & Technische Universität Dresden, Germany); Vera Galinova (Human Technopole, Italy); Florian Jug (Fondazione Human Technopole, Italy)

10:30 - 11:30
Tracking Brain Disease Across Time and Disorders
Room 4
Chairs: Lequan Yu (The University of Hong Kong, Hong Kong); Fan Zhang (University of Electronic Science and Technology of China, China)

10:30
1571220895: Predicting Longitudinal Brain Change from Baseline 3D MRI and Detecting Abnormal Atrophy Using Deep Learning
Linh Nguyen Ngoc Le and Evan Fletcher (University of California, Davis, USA); Duygu Tosun (UCSF, USA); Jinyi Qi and Audrey P Fan (University of California, Davis, USA)

10:40
1571226539: CGDA: CLIP-Guided Cross-Modal Dual-Alignment Framework for Early Alzheimer's Diagnosis
Gai Li, Ronglin Zhang, Jiaqiang Li and Zhenghua Guan (Shenzhen University, China); Yujiao Zhang (Guangzhou Red Cross Hospital of Jinan University, China); Peng Yang (Employment, China & Shenzhen University, China); Baiying Lei (Shenzhen University, China)

10:50
1571215439: Neuropsychiatric Deviations from Normative Profiles: An MRI-Derived Marker for Early Alzheimer Disease Detection
Synne Hjertager Osenbroch, Lisa Ramona Rosvold, Yao Lu and Alvaro Fernandez Quilez (University of Stavanger, Norway)

11:00
1571221520: Forecasting Future Anatomies: Longitudinal Brain MRI-to-MRI Prediction
Ali Farki, Elaheh Moradi, Deepika Koundal and Jussi Tohka (University of Eastern Finland, Finland)

11:10
1571226583: Cross-Modal Graph Attention Network for Parkinson's Disease Diagnosis
Haojie Song (Shenzhen University, China); Xiaojun Guan (Zhejiang University School of Medicine, China); Ao Zhang (Shenzhen University, China); Xiaojie Duanmu and Zihao Zhu (Zhejiang University School of Medicine, China); Jiaqiang Li and Ronglin Zhang (Shenzhen University, China); Yujiao Zhang (Guangzhou Red Cross Hospital of Jinan University, China); Peng Yang (Employment, China & Shenzhen University, China); Tianfu Wang (ShenZhen University, China); Xiaojun Xu (Zhejiang University School of Medicine, China); Baiying Lei (Shenzhen University, China)

11:20
1571221666: DualCLIP: Joint Cortical-Subcortical Representation Learning for Neurodevelopmental Disorder Detection
Jie Luo and Pengcheng Xue (Nanjing University of Aeronautics and Astronautics, China); Ming Yang (Children Hospital of Nanjing Medical University, China); Han Zhang (ShanghaiTech University, China); Xuyun Wen (Nanjing University of Aeronautics and Astronautics, China)

10:30 - 11:30
Tumors, Organs, and What the Masks Reveal
Room 3
Chairs: Yongyi Yang (Illinois Institute of Technology, USA); Hengyong Yu (UMass Lowell, USA)

10:30
1571226203: Radiomics LUS Transformer for Liver Tumour Segmentation
Ali Khalife, Mohammad Alkhatib and Erol Ozgur (Clermont Auvergne INP, France); Emmanuel Buc (University Hospital - Clermont-Ferrand, France); Bertrand Le Roy (University Hospital - Saint-Etienne, France); Youcef Mezouar (Université Clermont Auvergne, France); Adrien Bartoli (Universit, France)

10:40
1571225382: Benchmarking Deep Learning for Future Liver Remnant Segmentation in Colorectal Liver Metastasis
Anthony T Wu and Arghavan Rezvani (University of California, Irvine, USA); Kela Liu (Columbia University, USA); Roozbeh Houshyar (University of California, Irvine School of Medicine, USA); Pooya Khosravi (University of California, Irvine, USA); Whitney Li (University of California, Irvine School of Medicine, USA); Xiaohui Xie (University of California, Irvine, USA)

10:50
1571219313: Enhancing Early Liver Cancer Diagnosis: AI-Based Detection of Small Malignant Lesions on Contrast-Enhanced CT
Sébastien Poullot, Ezequiel Geremia, Vladimir Groza, Van-Khoa Le, Benjamin Renoust, Jean-Christophe Brisset, Benoit Huet, Valérie Bourdès and Jun Shen (Median Technologies, France); Olivier Lucidarme (AP-HP, France)

11:00
1571219719: Anatomical Context Improves Multi-Class Liver Tumor Classification Under Severe Class Imbalance: A Statistical Validation Study
Talha Waqas (Universite Paris Est, LISSI & ESME, France); Mounir Lahlouh (ESME, LRE EPITA, France); Sebastien Mule (Henri Mondor University Hospital, INSERM IMRB, France); Yasmina Chenoune-Leroul (ESME Sudria & Université Paris-Est, LISSI, France) 2026

11:10
1571219335: Detecting and Refurbishing Ground Truth Errors During Training of Deep Learning-Based Echocardiography Segmentation Models
Iman Islam, Bram Ruijsink and Andrew J Reader (King's College London, United Kingdom (Great Britain)); Andrew P King (Kings College London, United Kingdom (Great Britain))

11:20
1571226540: Meso-Regions: 4D Segmentation of Early Contrast Enhancement Biomarkers for Pleural Mesothelioma Diagnosis
Taylla Milena Theodoro and Ilan Francisco Da Silva Theodoro (Institute of Computing, University of Campinas, Brazil); Selena Tsim and Kevin Blyth (School of Cancer Sciences, University of Glasgow, Scotland); Alexandre Falcão (Institute of Computing, University of Campinas, Brazil)

10:30 - 11:30
When Segmentation Design Meets Explainability
Room 15
Chairs: Olivier Salvado (Queensland University of Technology, Australia)

10:30
1571221380: RDTE-UNet: A Boundary and Detail Aware UNet for Precise Medical Image Segmentation
Qu Jierui (National University of Singapore, Singapore); Jianchun Zhao (Xi'an Jiaotong University, China)

10:40
1571219534: TM-UNet: Token-Memory Enhanced Sequential Modeling for Efficient Medical Image Segmentation
Yaxuan Jiao (Dalian University of Technology, China); Qing Xu (University of Nottingham, United Kingdom (Great Britain)); Yuxiang Luo (Waseda University, Japan); Xiangjian He (University of Nottingham Ningbo China, China); Zhen Chen (Yale University, USA); Wenting Duan (University of Lincoln, United Kingdom (Great Britain))

10:50
1571220032: When Swin Transformer Meets KANs: An Improved Transformer Architecture for Medical Image Segmentation
Nishchal Sapkota, Haoyan Shi, Yejia Zhang, Xianshi Ma, Bofang Zheng and Danny Z. Chen (University of Notre Dame, USA)

11:00
1571218049: MSSANET: Multi-Scale Self-Attention Mechanism Network for Polyp Segmentation
Ziyang Zhu (City University of Macau, Macau); Qi Zhang (City University of Macau, Macao); Jia Gu (City University of Macau, Macau); Runyang Jian (Portland State University, USA); Chongyu Bao (University of Bristol, United Kingdom (Great Britain)); Xuanke Zhang (City University of Macau, Macao); Fengyong You (Changsha Medical University, China)

11:10
1571219529: Cross-Domain Vessel Segmentation via Latent Similarity Mining and Iterative Co-Optimization
Zhanqiang Guo, Jianjiang Feng and Jie Zhou (Tsinghua University, China)

11:20
1571219524: Clinical Interpretability of Deep Learning Segmentation Through Shapley-Derived Agreement and Uncertainty Metrics
Tianyi Ren (University of Washington, USA); Daniel Low and Pittra Jaengprajak (University of Washington School of Medicine, USA); Juampablo E. Heras Rivera, Jacob Ruzevick and Mehmet Kurt (University of Washington, USA)

11:30 – 13:00
Lunch – *on own*

13:00 - 16:00
Poster/Live Demo Session Three
Room 6/13
Chairs: Emilie Chouzenoux (CVN, France); Moo K Chung (University of Wisconsin-Madison, USA)

1571223630: Prostate MR Imaging Quality Assessment: Multi-Reader Evaluation and Clinical Impact of PI-QUAL V2
Liang Wang and Qiubai Li (University Hospitals Cleveland Medical Center, USA)

1571226554: Incorporating Precalculated Coil Sensitivity in Deep Learned Based MRI Reconstruction
Harry Tang (University of California, San Diego, USA); Yajun Ma (UCSD, USA)

1571234017: Benchmarking Visual Question Answering Methods for IBD Colonoscopy
Jinan Fiaidhi, Sabah M.A. Mohammed and Sarthak Kaushik (Lakehead University, Canada)

1571234849: Detailed CT-Based Intracardiac Echo Simulations
Annelies Severens (Eindhoven University of Technology, The Netherlands); Midas Meijs (Philips Healthcare, The Netherlands); Vipul Pai Raikar (Philips Healthcare, USA); Richard Lopata (Eindhoven University of Technology, USA)

1571234984: Attention-Based Multiple Instance Learning for Rare Cell Detection
Rajiv Krishnakumar, Julien Baglio and Frederik F. Flöther (QuantumBasel, Switzerland); Christian Ruiz (Moonlight AI, Switzerland); Stefan Habringer (Charité Universitätsmedizin Berlin, Germany); Nicole H. Romano (Moonlight AI, Switzerland)

1571235103: Label-Free DIC-Guided One-Pass Smart Scanning Protocol for Brillouin Microscopy
Léo Brechet (Université d'Angers, France); Valentin Gilet (University of Angers, France); Nizar Bouhlel (Institut Agro Rennes-Angers & IRHS, INRAE, University of ANGERS, France); Mathieu Loumaigne (Université d'Angers, France); Li Zhang, Fabrizio Gala and Claudia Testi (IIT, Roma, Italy); Emanuele Pontecorvo (Crestoptics, Italy); Giancarlo Ruocco (Center for Life Nano Science, Sapienza - Istituto Italiano di Tecnologia, IIT, Italy); David Rousseau (University of Angers, France)

1571235990: HCAF-XUNET: A Novel Backbone-Agnostic Hierarchical Fusion for Robust Multi-Modal Brain Tumor Segmentation
Anshu Mishra and Scindhiya Laxmi (IIT Dhanbad, India)

1571237073: Multi-Pinhole-Based X-Ray Fluorescence Computed Tomography: Ex-Vivo Imaging Experiments Using Mouse Brain
Tetsuya Yuasa (Yamagata University, Japan); Ryuku Abe, Sota Kusakari and Michihiro Kobayashi (Hirosaki University, Japan); Kazuyuki Hyodo (KEK, Japan); Hidekazu Kawashima (Kyoto Pharmaceutical University, Japan); Tsutomu Zeniya (Hirosaki University, Japan); Naoki Sunaguchi (Inter-University Research Institute Corporation High Energy Accelerator Research, Japan); T. Test (Test, Japan)

1571237311: A Motion Actuated Anthropomorphic Head Phantom for MRI Motion Mitigation Testing
Pauline Jeong and Jeffrey Short (Athinoula A. Martinos Center for Biomedical Imaging, Mass General Hospital, USA); Kerlina Liu (Massachusetts Institute of Technology, USA); Lawrence Wald (Massachusetts General Hospital, USA)

1571238385: Radiographers' Readiness for Artificial Intelligence in Medical Imaging: A Mixed-Methods Study from Kuwait
Asseel Khalaf (Kuwait University, Kuwait); Manar Alshammari (AlSabah Hospital, Kuwait); Hawraa Zayed (Jaber AlAhmad Hospital, Kuwait); Maryam Emnawer (AlAmiri Hospital, Kuwait); Abdulmohsen Esfahani (Jaber AlAhmad Hospital, Kuwait)

1571238846: Streak-Reduced Human-Scale Dark-Field CT with 3D Gaussian Splatting
Tina Dorosti and Daniel Frey (Technical University of Munich, Germany); Johannes Thalhammer (Technische Universität München, Germany); Josepha F. Hilmer, Paulina Bleuel, Sebastian Peterhansl and Julian McGinnis (Technical University of Munich, Germany); Daniel Rueckert (Technical University Munich, Germany); Daniela Pfeiffer (Klinikum Rechts der Isar, Germany); Franz Pfeiffer (Technical University Munich, Germany); Florain Schaff (Technical University of Munich, Germany)

1571238881: Development of an Automated Mammography-Based Skin Segmentation Approach for the Monitoring of Inflammatory Breast Cancer
Carlos A Gallegos and Huong Le-Petross (The University of Texas MD Anderson Cancer Center, USA); Joshua P Yung (MD Anderson Cancer Center, USA); Bora Lim (The University of Texas MD Anderson Cancer Center, USA); Chengyue Wu (The MD Anderson Cancer Center, USA)

1571239198: Regulatory Science Tools for Risk and Performance Assessment in AI Medical Devices
Feng Yang, Tingting Hu, Qian Cao and Nicholas Petrick (US Food and Drug Administration, USA)

1571239205: Journal Paper: Fused Photoacoustic and White-Light Microscopic Imaging with Cross-Modality Representation and Registration
Yuxuan Liu (Shanghai Jiao Tong University); Yao Guo and Guang-Zhong Yangaction (Shanghai Jiao Tong University, China)

1571239220: Fast and Accurate MRI-Based Glioma Growth Prediction via Mathematical Modeling and Supervised Learning
Reyna Quita, Cheyu Hsu, Chunhao Chang and Weichung Wang (National Taiwan University, Taiwan)

1571239228: BrainMR Specialist: A Foundation Model of Brain MRI for Diverse Downstream Applications
Juhyung Park, Minjun Kim, Rokgi Hong, Jaehyeon Koo, Roh-Eul Yoo, Seung Hong Choi and Jongho Lee (Seoul National University, Korea (South))

1571239348: Brain Responses During Turn-Taking Conversations with AI - Magnetoencephalographic Study
Yamato Kobayashi, Hayato Watanabe and Atsushi Shimojo (Hokkaido University, Japan); Yuki Ueda and Noriki Ochi (Hokkaido University Hospital, Japan); Koichi Yokosawa (Hokkaido University, Japan)

1571239512: Gallbladder Imaging Signatures Improve Early Risk Stratification for Pancreatic Cancer
Sehrish Javed (Cedars-Sinai Medical Center, USA)

1571239749: Prostate and Urethra Segmentation in Brachytherapy TRUS Images Using Parameter-Efficient MedSAM Fine-Tuning
Rucha Bhalchandra Joshi, Eleftherios Papageorgiou, Eleftherios Ioannou and Myrianthi Hadjicharalambous (The Cyprus Institute, Cyprus); Yiannis Roussakis, Georgios Anagnostopoulos, Iosif Strouthos and Constantinos Zamboglou (German Oncology Center, European University Cyprus, Cyprus); Constantine Dovrolis (The Cyprus Institute, Cyprus)

1571239864: Evaluating Detection Delay for Real-Time AI Enabled Polyp Detection
Samuel Gussman-Toh (Georgia Institute of Technology, USA); Wei-Chung Cheng (Food and Drug Administration (FDA), USA); Nicholas Petrick and Feng Yang (US Food and Drug Administration, USA)

1571240138: Exploiting Deep Segmentation Features for Correspondence Estimation
Eli Duval (KU Leuven); Frederik Maes (KU Leuven, Belgium)

1571240205: Prompt-Constrained Vision-Language Models for Zero-Shot Orthopedic Pathology Recognition
Farnaz Rezvani (IEEE Member, United Kingdom (Great Britain)); Vivaan Jain (Delhi Technological University, India); Fengyi Gao, Nickolas Littlefield, Michael Kann, Johannes F. Plate and Ahmad P. Tafti (University of Pittsburgh, USA)

1571240690: X-Ray Dark-Field CT Radiomics for Lung Phantom Assessment
Sofia Demianova (Technische Universität München, Germany); Daniel Frey, Paulina Bleuel, Josepha F. Hilmer and Lennard Kayser (Technical University of Munich, Germany); Daniela Pfeiffer (Klinikum Rechts der Isar, Germany); Thomas Koehler (Philips Research Europe - Hamburg, Germany); Franz Pfeiffer (Technical University Munich, Germany)

1571240738: Quantifying Explanation Consistency in Medical Image Classification Using a Reference-Free Stability Metric
Kabilan Elangovan and Daniel Ting (Singapore Health Services, Singapore)

1571240784: Neighbor2Inverse: Self-Supervised Denoising for Low-Dose Region-of-Interest Phase Contrast CT
Johannes Thalhammer (Technische Universität München, Germany); Lorenzo D'Amico and Lucy Costello (X-Ray Imaging Group, School of Physics and Astronomy, Monash University, Australia); Sebastian Peterhansl, Tina Dorosti and Florain Schaff (Technical University of Munich, Germany); Jannis Ahlers (X-Ray Imaging Group, School of Physics and Astronomy, Monash University, Australia); Ronan Smith (Medical School and Robinson Research Institute, University of Adelaide, Australia); Marcus Kitchen (X-Ray Imaging Group, School of Physics and Astronomy, Monash University, Australia); Franz Pfeiffer (Technical University Munich, Germany); Martin Donnelley (Women's and Children's Hospital, Adelaide, Australia); Daniela Pfeiffer (Klinikum Rechts der Isar, Germany); Kaye S. Morgan (X-Ray Imaging Group, School of Physics and Astronomy, Monash University, Australia)

1571240792: From Triplex to Virtual Singleplex: A Perceptually Guided CycleGAN for Brightfield Multiplex Immunohistochemistry
Nicky Anvari (McMaster University, Canada); Fariba Dambandkhameneh and Zeinab Shekarghand (Roche, Canada); Nazim Shaikh, Uday Kurkure, Yao Nie and Satarupa Mukherjee (Roche, USA)

1571240813: Fetal Ultrasound 2D Sweeps to 3D Registration Using Swin Transformer
Furat Aljishi, Alice Self and Aris T Papageorghiou (University of Oxford, United Kingdom (Great Britain)); Hayat Al-Jumah (Saudi Arabia); J. Alison Noble (University of Oxford, United Kingdom (Great Britain))

1571240827: Connectivity-Preserving Losses for 3D Coronary Artery Segmentation
Denis Krnjaca (Karlsruhe Institute of Technology & Philips Innovative Technologies, Germany); Harald Heese (Philips Innovative Technologies, Germany); Ciro Benito Raggio and Maria Francesca Spadea (Karlsruhe Institute of Technology, Germany); Hannes Nickisch (Philips Innovative Technologies, Germany)

1571240875: Blur-Aware Post-Processing for Singe-Cell Segmentation in Brightfield Organoid Imaging
Serena Sritharan and Marie Piraud (Helmholtz Munich, Germany); Fátima Gutiérrez Tenorio (National Center for Tumor Diseases (NCT), Germany); Claudia Ball (National Center for Tumor Diseases, Germany)

1571240912: When Fine-Tuning Changes the Evidence: Architecture-Dependent Semantic Drift in Chest X-Ray Explanations
Kabilan Elangovan and Daniel Ting (Singapore Health Services, Singapore)

1571240939: Cross-Modality Learning for Echocardiography Denoising via Synthetic Noise Injection on Computed Tomography
Hyeonji Lee, Kayoung Shim, Hyung-Chul Lee and Hyeonhoon Lee (Seoul National University Hospital, Korea (South))

1571240983: Measurement and Visualization of Biomagnetic Signals
Asuka Otsuka (National Institute of Information and Communications Technology, Japan)

1571241078: Longitudinal Assessment of Mr-Derived Radiomic Feature Stability in Locally Advanced Cervical Cancer
Jasmine Morrison, Alan McWilliam and Eliana Vasquez Osorio (University of Manchester, United Kingdom (Great Britain)); Peter Hoskin (University of Manchetser, United Kingdom (Great Britain)); Marcel Van Herk (University of Manchester, United Kingdom (Great Britain)); Anthea Cree (Clatterbridge Cancer Centre NHS Foundation Trust, United Kingdom (Great Britain))

1571241090: Beyond SSIM: Robust 3D-MRI Generation via Cross-Dataset Evaluation
Tayyaba Arshad and Endre Grøvik (Helse Møre Og Romsdal HF, Norway)

1571241116: Can a Generative Multimodal AI Perform Discriminative Clinical Assessment? Evaluating Zero-Shot Performance in Post-Mastectomy Breast Reconstruction
Seok-Joo Chun (Ilsan Dongguk University Hospital, Korea (South)); Jae Sik Kim (Soonchunhyang University Seoul Hospital, Korea (South)); Dong-Yun Kim (Chung-Ang University Hospital, Korea (South)); Choong-Won Lee, Ji Hyun Chang, Kyung Hwan Shin and Bum-Sup Jang (Seoul National University Hospital, Korea (South))

1571241151: Bayesian Networks for Severe Ventricular Arrhythmias Risk Prediction in a Cohort of Patients with Arrhythmogenic Right Ventricular Cardiomyopathy
Brunnhilde Marie Anne-Sophie Ponsi (University Hospital of Nantes & CRCI2NA INSERM UMR 1307, France); Charlotte Bounolleau (INSERM Institut Du Thorax, France); Hatem Necib (University Hospital of Nantes & CRCI2NA INSERM UMR 1307, France); Thomas Carlier (University Hospital of Nantes & CRCI2NA INSERM UMR 1307, France); Jean-Michel Serfaty (University Hospital of Nantes & INSERM Institut Du Thorax, France); Nicolas Piriou (University Hospital of Nantes & INSERM Institut Du Thorax, France); Damien Minois (University Hospital of Nantes & INSERM Institut Du Thorax, France)

1571241168: Robust Sparse-View Dark-Field CT with 3D Gaussian Splatting
Daniel Frey, Tina Dorosti, Julian McGinnis, Theresa Hiu and Fatih Ibrahim Ozlugedik (Technical University of Munich, Germany); Johannes Thalhammer (Technische Universität München, Germany); Sebastian Peterhansl (Technical University of Munich, Germany); Daniel Rueckert and Franz Pfeiffer (Technical University Munich, Germany); Florain Schaff (Technical University of Munich, Germany)

1571241171: Anatomical Reconstruction of Optoacoustic Tomography Images by Conditioning Deep Anatomical Prior Knowledge
Sarah Franceschin, Lukas Imanuel Scheel Platz and Philipp Haim (Helmholtz Munich, Germany); Vasilis Ntziachristos (Technical University Munich & Helmholtz Zentrum München, Germany); Dominik Jüstel (Helmholtz Munich, Germany)

1571241220: A Data-Centric Platform for Efficient Human-in-the-Loop Microscopy Annotation
Christina Bukas, Haider Khan, Francesco Campi and Marie Piraud (Helmholtz Munich, Germany)

1571241303: Semi-Supervised Deep Unrolled Network for Biopsy Needle Tracking in Ultrasound: A Missing Link Between Classical Foreground Detection and Novel Deep Learning Methods with the Limited Training Data
Jihyeon Jeon (Chonnam National University, Korea (South)); Hyunseung Ryu, Myeongjin Lee and Suhyung Park (Chonnam National University, Gwangju, Korea (South))

1571241514: CT-Guided Generative Modelling for Multiplexed Tracer Separation in Total-Body PET
Denis Prokopenko (King's College London, University of London, United Kingdom (Great Britain)); Andrew J Reader (King's College London, United Kingdom (Great Britain))

1571241842: Accelerating Donor Bone Matching: A Case Study at Queensland Tissue Bank
Akila Pemasiri, Clinton Fookes, Kien N Thanh, Wenbo Li and Abdullah Nazib (Queensland University of Technology, Australia); Huynh Nguyen (Queensland Tissue Bank, Australia)

1571242209: Comparative Evaluation of Methods for Failure Detection Under Various Data Shifts in a Multiclass Classification Task
Paul Steinmetz (Institut Curie, France); Irene Buvat (CNRS, France); Frédérique Frouin (Inserm, France)

1571242243: Structured Random Models for Phase Retrieval with Optical Diffusers
Zhiyuan Hu (EPFL - EPF Lausanne, Switzerland); Jonathan Dong (EPFL, Switzerland); Michael Unser (Ecole Polytechnique Fédérale de Lausanne, Switzerland)

1571242440: Conditional Diffusion with Blue Noise for CBCT-to-sCT Translation
Jiaming Cao, Chelsea A.h. Sargeant, Alan McWilliam and Eliana Vasquez Osorio (University of Manchester, United Kingdom (Great Britain))

1571242912: CoSMa: Contrastive Learning with Surface Mamba for Infant Brain Age Prediction
Hye Jin Yoon and Jin Kyu Gahm (Pusan National University, Korea (South))

1571243138: Assessment of Deformable Image Registration Geometric Performance in Paediatric Head and Neck Reirradiation
Ellie Glaister, Chelsea A.h. Sargeant, Chelmis Muthoni Thiong'o and Alejandro F Frangi (University of Manchester, United Kingdom (Great Britain)); Thomas E. Merchant (St. Jude Children's Research Hospital, USA); Marianne Aznar and Eliana Vasquez Osorio (University of Manchester, United Kingdom (Great Britain))

1571243254: Validation of Voxel-Based Gaussian Mixture Model for CT-Derived Breast Density Estimation as a Surrogate for Mammographic Density in Young Women
Rory A. D. Bell (University of Manchester, United Kingdom (Great Britain)); Tanwiwat Jaikuna (Siriraj Hospital, Mahidol University, Thailand); Hannah Chamberlin (United Kingdom (Great Britain)); Edward G. A. Henderson (The Alan Turing Institute, United Kingdom (Great Britain)); Sacha J. Howell (University of Manchester, United Kingdom (Great Britain)); Jake Southworth (Manchester University NHS Foundation Trust, United Kingdom (Great Britain)); Kim M Linton, Eliana Vasquez Osorio and Marianne Aznar (University of Manchester, United Kingdom (Great Britain))

1571243336: Optical Property Mapping from Noisy SFDI Fringes via Conditioned Implicit Neural Representations
Md Raihan Goni, George Gordon and Maria Cortes Salas (University of Nottingham, United Kingdom (Great Britain))

1571243547: Fully Automated 3D MRI Segmentation of Sheep Placentomes for Preclinical Studies
Dimitra Flouri (University of Cyprus, Cyprus & King's College London, United Kingdom (Great Britain)); Giorgos Adamides (3A Health LTD, Cyprus); Jack RT Darby and Stacey L Holman (University of South Australia, Australia); Andreas S. Panayides (CYENS Centre of Excellence, Cyprus & 3AE Health LTD, Cyprus); Anna L. David (University College London, United Kingdom (Great Britain)); Vasileios Vavourakis (University of Cyprus, Cyprus); Janna L Morrison (University of South Australia, Australia); Andrew Melbourne (King's College London, United Kingdom (Great Britain))

1571243829: VSF-Med: A Vulnerability Scoring Framework for Medical Vision-Language Models
Binesh Sadanandan and Vahid Behzadan (University of New Haven, USA)

1571243858: Endoscopic Proficiency Evaluation Using Kinematic Data and Spatial Mapping of Multimodal Simulator
Masashi Fujii (Tottori University & R ZERO Inc., Japan); Katsuya Kondo (Tottori University, Japan)

1571244335: A Normal-Aware Fixed Ratio-Adaptive Sample-Level Prioritizing Loss for Mammographic Mass Segmentation
Dohyun Lim and Seungryong Cho (Korea Advanced Institute of Science and Technology, Korea (South)); Kihong Son (ETRI, Korea (South))

1571244341: Synthetic Uterus MRI Dataset with Uterine Orientation Labels
Johanna Paula Müller (Friedrich-Alexander-University Erlangen-Nuremberg, Germany); Anika Knupfer (Leibniz Universität Hannover, Germany); Maximilian Lindholz and Robin Schmidt (Charité, Institute of Health, Germany); Bernhard Kainz (Imperial College London, United Kingdom (Great Britain)); Jana Hutter (Leibniz Universität Hannover, Germany)

1571244507: An Explainable Age- and Sex-Aware Contrastive Artificial Intelligence Framework for Knee Osteoarthritis Classification
Fengyi Gao (University of Pittsburgh, USA); Farnaz Rezvani (IEEE Member, United Kingdom (Great Britain)); Michael Kann, Nickolas Littlefield, Will Pitt and James J. Irrgang (University of Pittsburgh, USA); Adolph J. Yates (University of Pittsburgh Medical Center, USA); Johannes F. Plate and Ahmad P. Tafti (University of Pittsburgh, USA)

1571244530: Investigating Temporal Stereotypy in Ascidian Embryos Development
Haydar Jammoul (Université Côte d'Azur, CNRS, I3S, France); Benjamin Gallean, Kilian Biasuz and Patrick Lemaire (CRBM, Université de Montpellier, CNRS, France); Gregoire Malandain (Université Côte d'Azur, Inria, CNRS, I3S, France)

1571244533: StrokeSeg: A Lightweight Tool for Stroke Lesion Segmentation in Clinical Research
Yann Kerverdo and Florent Leray (Univ Rennes, Inria-IRISA, Empenn, France); Youwan Mahé (Univ Rennes, Inria-IRISA, Empenn & Siemens Healtineers, France); Stéphanie Leplaideur and Francesca Galassi (Univ Rennes, Inria-IRISA, Empenn, France)

1571244581: Beyond Perceptual Quality: Identifying CNR as a Terminal Feature for Task-Specific MRI Segmentation
Alexandre Carminot (Ecole Polytechnique Feminine Paris, France); Jing Ke (Shanghai JiaoTong University, China)

1571244591: Generating Anatomically Grounded Subject-Level Explainability for Alzheimer's Disease Classification
Agrima Verma (Pascack Hills High School, USA)

1571244603: Demixing Streaking for Quantitative Susceptibility Mapping
Ignacio Contreras-Zúñiga (Pontificia Universidad Catolica de Chile, Chile); Cristian Tejos (Pontificia Universidad Catlica de Chile, Chile); Carlos Milovic (Pontificia Universidad Catolica de Chile, Chile)

1571244606: Comparative Analysis of Fast Raman Acquisition Protocols and Post-Processing-Based Denoising Approaches
Valentin Gilet (University of Angers, France); Thomas Oberlin (SupAéro, France); Guillaume Mabilleau, Matthieu Loumaigne and David Rousseau (University of Angers, France)

1571244625: Multiparametric Deep Learning for Cardiac Sarcoidosis Detection
Shalmali Rao (University of Virginia, USA); Nivetha Jayakumar (University of Virginia, Charlottesville, USA); Derek Bivona (University of Virginia Health System, USA); Chetan Shenoy (University of Minnesota, USA); Kenneth Bilchick (University of Virignia Health System, USA); Amit Patel and Miaomiao Zhang (University of Virginia, USA)

1571244668: Brain Age Gap Progression in Individuals at Risk for Neurodegeneration
Jason Scheffel and Saurabh Sihag (University at Albany, SUNY, USA)

1571244700: Noise-Agnostic Deep Learning for Clinical MR Vascular Fingerprinting: An Unified Framework for Hemodynamic Mapping
Chieh-Te Lin, Michael Germuska and Audrey P Fan (University of California, Davis, USA)

1571244741: VITA-UNET: Volume and Uncertainty Informed Task-Adaptive U-NET for Brain Tumor Segmentation
Harshit Pandey (Indian Institute of Technology, Kharagpur, India); Sanjay Ghosh (IIT Kharagpur, India)

1571244771: End-to-End Multi-Task Learning for Simultaneous Upper Airway 3D Reconstruction and Segmentation from Biplanar X-Rays via U-Net Cross Transformer (UXFormer)
Sejin Hwang, Myeongjin Lee, Hyunseung Ryu and Suhyung Park (Chonnam National University, Gwangju, Korea (South))

1571244777: MPath: Multimodal Pathology Report Generation from Whole Slide Images
Noorul Wahab and Nasir M Rajpoot (University of Warwick, United Kingdom (Great Britain))

1571244784: A Multi-Agent Framework for Automated Brain MRI Segmentation and Anatomical Volume Analysis
Hoda Helmy and Ahmed Serag (Weill Cornell Medicine Qatar, Qatar)

1571244786: Segmentation-Based Beam Hardening Correction for \\ Clinical X-Ray Dark-Field Chest Radiographs
Lennard Kaster, Maximilian E. Lochschmidt, Anne M. Bauer and Tina Dorosti (Technical University of Munich, Germany); Daniela Pfeiffer (Klinikum Rechts der Isar, Germany); Franz Pfeiffer (Technical University Munich, Germany)

1571244798: Predicting Proteomic Signatures from Hematoxylin and Eosin-Stained Images Enables Unsupervised Tissue Prototyping
Matthieu Blons (Mines Paris, PSL University, France & INSERM U1331, Computational Oncology & Institut Curie, France); Thomas Walter (Institut Curie, France)

1571244800: Enhanced Neural ODE with Multi-Task Feature Selection for Memory-Efficient Multi-Modal Alzheimer's Disease Progression Forecasting
Akeem Temitope Otapo (University of Paris-Est Créteil, France); Zuheng Ming (Université Sorbonne Paris Nord, France); Ghazaleh Khodabandelou (University of Paris-Est Créteil, France); Alice Othmani (Université Paris-Est Créteil, France)

1571244807: Tractography-Based Mapping of Glioma-Induced White Matter Deformation via Convolutional Autoencoder
Boshra Shams, Lucius Fekonja, Preter Vajkoczy and Thomas Picht (Charité - Universitätsmedizin Berlin, Germany); Baran Aydogan (University of Eastern Finland, Kuopio, Finland)

1571244816: Physics-Informed Neural Reconstruction in Optoacoustic Microscopy
Abeer Banerjee (Institute of Biological and Medical Imaging); Ludwig Englert (Technical University of Munich, Germany); Dominik Jüstel (Helmholtz Munich, Germany); Sanjay Singh (CSIR-Central Electronics Engineering Research Institute (CSIR-CEERI), India & Academy of Scientific & Innovative Research (AcSIR), India); Vasilis Ntziachristos (Tecchnical University of Munich, Germany)

1571244831: Multi-Centre Evaluation of Clinical, Radiomic, and Deep Learning Predictors of Recurrence and Survival After Stereotactic Ablative Body Radiotherapy
Gargi Kothari (Peter MacCallum Cancer Centre, Melbourne, Australia); Mu'ath Ibrahim (The University of Sydney, Australia); Harriet Gee, Tracy Pearl-Larson and Eric Hau (Westmead Hospital, Australia); Ann-Marie Nguyen (Peter MacCallum Cancer Centre, Australia); Thirada Vongvanichvathana (Wattanosoth Cancer Hospital (Bangkok Hospital), Thailand); Tomas Kron and Nick Hardcastle (Peter MacCallum Cancer Centre, Australia); Patrick Brennan (The University of Sdyney, Australia); Shankar Siva (Peter MacCallum Cancer Centre, Australia); Ziba Gandomkar (University of Sydney, Australia)

1571244850: Residual Bottleneck Adapters for Few-Shot Medical Image Anomaly Detection
Waad Alshuaibi (King Fahd University of Petroleum and Minerals, Saudi Arabia); Nour Aburaed (University of Dubai, United Arab Emirates); Muzammil Behzad (King Fahad University of Petroleum and Minerals, Saudi Arabia)

1571244861: Three-Dimensional Quantitative Characterization of Lung Destruction Using Synchrotron X-Ray Tomography
Achintha I. Kondarage (King's College London, United Kingdom (Great Britain)); Debbie Clements, Mobina Khadivar, Bitasadat Hosseini, Ian Sayers, Simon Johnson, Alice Peyraut, Reuben O'Dea and Bindi Brook (University of Nottingham, United Kingdom (Great Britain)); Gowsihan Poologasundarampillai (King's College London, United Kingdom (Great Britain))

1571244863: HistoAlign: A Dual-Encoder Many-to-Many Alignment Framework for Zero-Shot Histopathology Classification
Quratulain Arshad (King Fahd University of Petroleum and Minerals, Saudi Arabia); Nour Aburaed (University of Dubai, United Arab Emirates); Muzammil Behzad (King Fahad University of Petroleum and Minerals, Saudi Arabia)

1571244865: An Anatomy-Aware Benchmark of Saliency Methods for 3D MRI-Based Alzheimer's Disease Classification
Shubham Joshi (Indian Institute of Technology, Roorkee, India); Millie Pant and Kusum Deep (Indian Institute of Technology Roorkee, India)

1571244869: A Systematic Comparison of Structural Preservation Constraints in Unpaired Brain MRI Translation
Elena Fernández-Zorrilla, Juan J. Gómez-Valverde and Lucilio Cordero-Grande (Universidad Politécnica de Madrid, Spain)

1571244885: Statistical Shape Modelling of the Pelvis from Radiotherapy Planning CT to Predict Sacral Insufficiency Fractures
Artemis Bouzaki (University of Manchester, United Kingdom (Great Britain)); Timothy Cootes and Claudia Lindner (The University of Manchester, United Kingdom (Great Britain)); Anubhav Datta and Claire Higham (The Christie NHS Foundation Trust, United Kingdom (Great Britain)); Alan McWilliam and Azadeh Abravan (University of Manchester, United Kingdom (Great Britain))

1571244891: A Foundation-Aware U-Net for High-Precision Choroid Segmentation in Optical Coherence Tomography Images
Roya Arian (Durham University, United Kingdom (Great Britain))

1571244900: ModalSurv: Investigating Opportunities and Limitations of Multimodal Deep Survival Learning in Prostate Cancer
Noorul Wahab (University of Warwick, United Kingdom (Great Britain)); Ethar Alzaid (Predictive Systems in Biomedicine (PRISM) Lab, University of Warwick, United Kingdom (Great Britain) & Tissue Image Analytics Centre, University of Warwick, United Kingdom (Great Britain)); Jiaqi Lv, Fayyaz Minhas, Adam Shephard and Shan E Ahmed Raza (University of Warwick, United Kingdom (Great Britain))

1571244905: Weakly Supervised Morphometric Vectors Drive Global-to-Local Cortical Representation Learning
Chikh Abdelghani Baroud (University Paris Saclay, France & CEA Neurospin, France); Julien Laval and Denis Rivière (Université Paris-Saclay, CEA, NeuroSpin, France); Vincent Frouin (CEA, France); Pietro Gori (Télécom Paris, France); Jean-François Mangin (NeuroSpin, CEA, Université Paris-Saclay, France); Joël Chavas (Université Paris-Saclay, CEA, NeuroSpin, France)

1571244912: Automated Plasma Cell Detection in Digitized Bone Marrow Smears
Nermin Zecic (Vestfold Hospital Trust, Norway); Jon Kristian Nilssen and Antony Gitau (University of South-Eastern Norway, Norway); Bjørn-Jostein Singstad (Vestfold Hospital Trust, Norway & University of Oslo, Norway); Jarle Berge (Vestfold Hospital Trust, Norway); Karl Thomas Hjelmervik, Ola Marius Lysaker and Vimala Nunavath (University of South-Eastern Norway, Norway); Veralia Gabriela Sanchez (University College of Southeast Norway, Norway); Martin Paulson (Vestfold Hospital Trust, Norway)

1571244913: Towards Flexible qMRI Protocols: A Comparison of Neural Models for IVIM Parameter Estimation from Irregular Signals
Florent Tachenne (PINKcc, Montpellier Cancer Research Institute, Inserm, France & Siemens Healthcare SAS, France); Marie Pelissier-Combescure and Marion Tardieu (PINKcc, Montpellier Cancer Research Institute, Inserm, France); Olivier Riou (Montpellier Cancer Institute, France); Stephanie Nougaret (PINKcc, Montpellier Cancer Research Institute, Inserm, France)

1571244925: Enhancing Brain Age Estimation with a Transformer Add-on Incorporating a Longitudinal Consistency Prior
Clara Lisazo, Adrià Casamitjana, Agustin Cartaya Lathulerie, Arnau Oliver and Xavier Lladó (University of Girona, Spain)

1571244946: Enhancing Deep Gray Matter Contrast in Atypical Parkinsonism via SWI-Aware Fusion
YoungHoon Lim (Pusan National University, Korea (South)); Jae Hyeok Lee (Pusan National University Yangsan Hospital, Korea (South)); Jin Kyu Gahm (Pusan National University, Korea (South))

1571244950: The Impact of Augmentation and Positional Encoding on Laterality in Paediatric Craniofacial Segmentation
Tom Melichar (University of Manchester, United Kingdom (Great Britain)); JiaMin Lim (Manchester University NHS Foundation Trust, United Kingdom (Great Britain)); Lucy Davies (The Christie NHS Foundation Trust, United Kingdom (Great Britain)); Angela Davey and Eliana Vasquez Osorio (University of Manchester, United Kingdom (Great Britain)); Emma Foster-Thomas (Manchester University NHS Foundation Trust, United Kingdom (Great Britain)); Shermaine Pan (The Christie NHS Foundation Trust, United Kingdom (Great Britain)); Marianne Aznar (University of Manchester, United Kingdom (Great Britain))

1571244959: Robust Sulci Segmentation via SO(3)-Equivariant Spectral U-Net
Saeb Tounsi (CEA, France); Denis Rivière, Joël Chavas and Jean-François Mangin (Université Paris-Saclay, CEA, NeuroSpin, France)

1571244993: Comparative Assessment of Blood Coagulation Indices Using Thromboelastometry and Microchannel Microscopy Image Analysis
Marinos Louka (EMBIO Diagnostics LTD, Cyprus); Efstathios Kaliviotis (Cyprus University of Technology, Cyprus)

1571244997: Maximum Intensity Projection Enables Existing Segmentation Algorithms for Multiplexed Images
Benjamin Bancher (University Regensburg, Germany); Paurush Praveen, Werner Müller, Fabian Staubach and Jutta Kollet (Miltenyi Biotec B.V. & Co.KG, Germany)

1571245006: A Privacy-Preserving Health-of-Things Approach to Predict Body Fat Percentage
Nicolas Araújo Primo (Federal University of Ceara, Brazil); Debora S Costa (Laboratório de Processamento de Imagens, Sinais e Computação Aplicada, Brazil); Elene Firmeza Ohata (Federal University of Ceara, Brazil); Pedro Pedrosa Rebouças Filho (IFCE, Brazil)

1571245012: Rapid Spatial Convergence of Functional Brain Networks During the First Six Postnatal Months
Masoud Seraji (Tri-Institutional Center for Translational Research in Neuroimaging and Data Science, USA & University of Texas at Austin, USA); Sarah Shultz (Emory University, USA); Zening Fu (TReNDS, Georgia State University, USA); Vince Calhoun (Tri-Institutional Research Center in Neuroimaging and Data Science, USA)

1571245021: Diagnostic Capability Aware Image Quality Metric
Miguel Borrego-Casado (Universidad de Sevilla, Spain); Begoña Acha (University of Sevilla, Spain); Amalia Serrano (Dermatology Service, Virgen Macarena University Hospital, Spain); Lara Ferrandiz and David Moreno-Ramirez (Virgen Macarena University Hospital, Spain); Carmen Serrano (University of Sevilla, Spain)

1571245024: Blood Cell Image Generation with Stable Diffusion Models: Evaluating Morphology and Class Fidelity
Santiago Alférez (Technical University of Catalonia, Spain); Alexander Caicedo (Pontificia Universidad Javeriana, Colombia); Kevin Barrera (Technical University of Catalonia, Spain); Anna Merino (Hospital Clínic of Barcelona-IDIBAPS, Biochemistry and Molecular Genetics, Spain); José Rodellar (Technical University of Catalonia, Spain)

1571245026: Hyperspectral Analysis of Bacterial Cultures from Cardiac Implantable Electronic Device Infections
Beata Sarecka-Hujar and Magdalena Hartman-Petrycka (Department of Basic Biomedical Science, Medical University of Silesia in Katowice, Poland); Julita Tomczyk (Student Science Club at the Department of Basic Biomedical Sciences, Medical University of Silesia in Katowice, Poland); Danuta Łoboda (Department of Electrocardiology and Heart Failure, Medical University of Silesia in Katowice, Poland;); Denis Swolana (Department of Microbiology, Medical University of Silesia in Katowice, Poland;); Marlena Przewłoka, Kinga Nowakowska and Michał Nosal (Student Science Club at the Department of Microbiology, Medical University of Silesia in Katowice, Poland); Krzysztof S. Gołba (Department of Electrocardiology and Heart Failure, Medical University of Silesia in Katowice, Poland); Robert D. Wojtyczka (Department of Microbiology, Medical University of Silesia in Katowice, Poland); Sławomir Wilczyński (Department of Basic Biomedical Science, Medical University of Silesia in Katowice, Poland)

1571245033: Leveraging High-Quality Annotations for Efficient Skin Lesion Segmentation and Classification
Youssef Karout, Nicolas Nerrienet, Clara Simmat, Stéphane Sockeel and Rémy Peyret (Primaa, France)

1571245038: Patient-Specific Cobb Angle Determination from 3D Lumbar Spine Meshes: Novel Automated Approach
Ivanna Kramer and Vinzent Rittel (University of Koblenz, Germany); Sabine Bauer (University Koblenz, Germany); Lara Blomenkamp (University of Koblenz, Germany); Dietrich Paulus (Universität Koblenz-Landau, Germany)

1571245044: Brain Atlases Improve Diagnosis of Alzheimer's Disease Using Persistent Homology
Sanjori Mukherjee and Murray Loew (George Washington University, USA)

1571245045: Optical Flow Components as Auxiliary Features for 3D Pancreatic Ductal Adenocarcinoma Tumor Segmentation
Soomin Park, Kay Chioma Igwe, Soroush Arabshahi, Siddhardha Nanda, Samuel Lee and Sree Kuntamukkala (Columbia University, USA); Carmine Palermo, Stephen Sastra, Michael A Badgley, Yanping Sun and Kenneth P Olive (Columbia University Irving Medical Center, USA); Andrew F. Laine (Columbia University, USA)

1571245048: Enhanced Severe Coronary Artery Disease Prediction by Incorporating Colour Features of Electronic Health Records and Ultrasound Imaging
Min Jing (Ulster University, United Kingdom (Great Britain)); Kathryn Owen (Craigavon Area Hospital, United Kingdom (Great Britain)); Brian Mac Namee (University College Dublin, Ireland); Ian Menown (Craigavon Area Hospital, United Kingdom (Great Britain)); James Mclaughlin (University of Ulster, United Kingdom (Great Britain))

1571245052: Perceptually Invariant Mamba Network for Dynamic MRI Super-Resolution and Inter-Slice Synthesis
Simin Mirzaei (The University of British Columbia, Canada); Panos Nasiopoulos (University of British Columbia, Canada)

1571245059: Enhancing Dual-Stream Attention Network: Multimodal Fusion Framework for Cognitive Assessment in Cerebral Small Vessel Disease
Sen Zeng and Haitao Yang (Tsinghua University, China); Yang Liu (King's College London, United Kingdom (Great Britain))

1571245074: Journal Paper: Enhancing Newborn Health Assessment: Ultrasound-Based Body Composition Prediction Using Deep Learning Techniques
Keshi He, Julia Hohenberg, Yi Li, Audrey Xiao and Hayoung Cho (Boston College, USA); Emily Nagel and Sara Ramel (University of Minnesota, USA); Katherine Bell (Brigham and Women's Hospital, USA); Donglai Wei, Jinhee Park and Bryan J. Ranger (Boston College, USA)

1571245075: Prototype-Based Network for Lung Diseases Diagnosis on DR Images
Xiaotian Yu (Midea Group, China); Hongyu Guo (MIDEA GROUP, China); Yiming Liu (Midea Group, China); Lian Yang (Huazhong University of Science and Technology, China)

1571245078: Multichannel End-to-End AI-Based Ultrasound Super-Resolution
Anass Hameddine, Bram De Wilde, Jelmer Wolterink, Michel Versluis and Guillaume Lajoinie (University of Twente, The Netherlands)

1571245081: Resting State MEG Spectral and Network Alterations Associated with Cognition in Atrial Fibrillation Related Stroke
Tan Yanmin (Beijing University of Aeronautics and Astronautics, China); Peiling Cui and Min Xiang (Beihang University, China)

1571245084: Using Deep Learning to Detect Bullet Fragments in CT Scans for Enhanced Clinical Assessment in Trauma Surgery
Yi-An Hsieh (Perelman School of Medicine, University of Pennsylvania, USA); Digonto Chatterjee (University of Pennsylvania, USA); Rashad Madi (Perelman School of Medicine, University of Pennsylvania, USA); Olivia Rosen (Utica University, USA); Autumn Tyler (University of Pennsylvania, USA); Iris Yang (Commonwealth School, USA); Brandan Yan (University of Pennsylvania, USA); Elena Taratuta, Jeremy Cannon, Kristen Chreiman, Christiana Cottrell and Chamith Rajapakse (Perelman School of Medicine, University of Pennsylvania, USA)

1571245090: Joint Image Reconstruction and Super-Resolution for Inner-Volume GRASE via Self-Supervised Deep Learning
SungHun Lee, Myeongjin Lee and Hyunseung Ryu (Chonnam National University, Gwangju, Korea (South)); Hahnsung Kim (Emory University, Atlanta, USA); Suhyung Park (Chonnam National University, Gwangju, Korea (South))

1571245102: Prompt Dominance in Medical Multimodal Large Language Models
Inhyuk Park (VUNO, Korea (South)); Jihyeon Baek and Doohyun Park (VUNO Inc., Korea (South))

1571245104: Prompt-Induced Bias from One-Shot Multimodal Large Language Models Prompting in Medical Imaging
Inhyuk Park (VUNO, Korea (South)); Jihyeon Baek and Doohyun Park (VUNO Inc., Korea (South))

1571197300: Optimizing Paths for Adaptive Fly-Scan Microscopy
Yu Lu (University of California, Merced, USA); Thomas F. Lynn (Johns Hopkins University Applied Physics Laboratory, USA); Ming Du, Zichao Di and Sven Leyffer (Argonne National Laboratory, USA)

1571206089: SFC-GAN: A Generative Adversarial Network for Brain Functional and Structural Connectome Translation
Yee Fan Tan (Monash University Malaysia, Australia); Jun Lin Liow (Australia); Pei Sze Tan (Monash University, Malaysia Campus, Malaysia); Fuad Noman (Monash University Malaysia, Australia); Raphael C.W. Phan (Monash University, Malaysia Campus, Malaysia); Hernando Ombao (King Abdullah University of Science and Technology, Saudi Arabia); Chee-Ming Ting (Monash University, Malaysia)

1571207083: Low-Field Magnetic Resonance Image Quality Enhancement Using a Conditional Flow Matching Model
Huu Tien Nguyen and Ahmed Karam Eldaly (University of Exeter, United Kingdom (Great Britain))

1571210984: CLEAR: Causal Learning Framework for Robust Histopathology Tumor Detection Under Out-of-Distribution Shifts
Kieu Anh Thi Truong (VNU University of Engineering and Technology, Vietnam); Huy Hieu Pham (VinUniversity, Vietnam); Duc-Trong Le (VNU University of Engineering and Technology, Vietnam)

1571211047: DINO-AD: Unsupervised Anomaly Detection with Frozen DINO-V3 Features
Jiayu Huo and Jingyuan Hong (King's College London, United Kingdom (Great Britain)); Liyun Chen (SonoScape Medical Corp., China)

1571212134: HG-MRF: Anatomy-Aware Hierarchical Hypergraph Regularization for MR Fingerprinting Reconstruction
Peng Li, Yue Zhao, Jianxing Liu and Yue Hu (Harbin Institute of Technology, China)

1571212796: ResDiff: Residual Diffusion Model for Conditional Distribution Learning in Medical Image Segmentation
Xiangyu Li, Fanding Li, Yifan Liu, Wei Wang, Gongning Luo, Kuanquan Wang and Shen Yi (Harbin Institute of Technology, China); Baochun Zhao (Hainan College of Software Technology, China); Shuo Li (Case Western Reserve University, USA)

1571213657: Selective Visual Program Reasoning in Whole-Slide Large Vision-Language Models
Wei Lou (Zhejiang Normal University, China); Guanbin Li (Sun Yat-sen University, China); Xiang Wan (Shenzhen Research Institute of Big Data, China); Haofeng Li (Sun Yat-sen University, China)

1571213918: Spatio-Temporal Continuous Fetal Body Atlas via Latent-Conditioned Implicit Neural Representation
Xiao Wang, Jiangjie Wu and Xuanyu Tian (ShanghaiTech University, China); Taotao Sun (The International Peace Maternity and Child Health Hospital, China); Hongjiang Wei (Shanghai Jiao Tong University, China); Yuyao Zhang (ShanghaiTech University, China)

1571214004: Deep Learning Analysis of Tumor-Infiltrating Lymphocyte, High Endothelial Venule, and Tertiary Lymphoid Structures in Breast Cancer Histopathology Whole Slide Imaging
Hongxuan Tan, On Ki Tang and Chi Wai Lou (The Chinese University of Hong Kong, Hong Kong); Hong Ching Conrad Lee (University College London, United Kingdom (Great Britain) & The Chinese University of Hong Kong, Hong Kong); Wai Ki Wong and Ngou Men Wong (The Chinese University of Hong Kong, Hong Kong); Scotty Kwok (Sebit Company Limited, Hong Kong); Julia Tsang, Ronald Cheong Kin Chan and Gary Man-Kit Tse (The Chinese University of Hong Kong, Hong Kong)

1571214570: Synthesizing Brain Magnetic Resonance Images for Myelin Assessment
Nikhil N Chaudhari, Nahian F Chowdhury and Andrei Irimia (University of Southern California, USA)

1571214620: EnergyFlow: A Physically Consistent Learning Framework for 3D Microscopy Deconvolution
Yue Yang, Zhenxuan Zhang, Peiyuan Jing and Krinos Li (Imperial College London, United Kingdom (Great Britain)); Guang Yang (Imperial College London, United Kingdom (Great Britain) & Royal Brompton Hospital, United Kingdom (Great Britain))

1571214774: FMIR, a Foundation Model-Based Image Registration Framework for Robust Image Registration
Fengting Zhang, Yue He, Qinghao Liu, Yaonan Wang and Xiang Chen (Hunan University, China); Hang Zhang (Cornell University, USA)

1571214818: ST-SAM: A Spatio-Temporal Enhanced Segment Anything Model for Echocardiogram Video Segmentation
Ningshu Li (The Hong Kong University of Science and Technology, China & HKUST, Hong Kong); Minglang Chen (Macau University of Science and Technology, Macao); Bin Pu (The Hong Kong University of Science and Technology, China); Jingqiao Li (Shimaoshengang T2 4103, Shenzheng, China); Xiaomeng Li (Hong Kong University of Science and Technology, Hong Kong)

1571220019: Robust by Design: A Continuous Monitoring and Data Integration Framework for Medical AI
Mohammad Daouk (University of Houston, USA); Jan Ulrich Becker (University Hospital of Cologne, Germany); Neeraja Kambham (Stanford University, USA); Anthony Chang (The University of Chicago, USA); Chandra Mohan and Hien Nguyen Van (University of Houston, USA)

1571222113: MORPHFED: Federated Learning for Cross-Institutional Blood Morphology Analysis
Gabriel Ansah, Eden Ruffell, Delmiro Fernandez-Reyes and Petru Manescu (University College London, United Kingdom (Great Britain))

1571222300: Local K-Similarity Constraint for Medical Federated Learning with Label Noise
Sanskar Amgain and Prashant Shrestha (NAAMII, Nepal); Bidur Khanal (Rochester Institute of Technology, USA); Alina Devkota (West Virginia University, USA); Yash Raj Shrestha (University of Lausanne, Switzerland); Seungryul Baek (UNIST, Korea (South)); Prashnna K Gyawali (West Virginia University, USA); Binod Bhattarai (University of Aberdeen, United Kingdom (Great Britain))

Demo: fSTG Toolkit – an Open-Source Software for Longitudinal Brain Connectivity Analysis with Spatio-Temporal Graphs
Julien Pontabry (ICube, University of Strasbourg)

Demo: B-Guide – Breast Cancer Surgical Planning Tool
Felicia Alfano (Biomedical Image Technologies, Universidad Politécnica de Madrid; CIBER-BBN, ISCIII)

Demo: Spatio-Temporal AI for Lung Cancer Screening Nodule Assessment
Benito Farina (Centro de Investigación Biomédica en la Red (CIBER) – Universidad Politécnica de Madrid – BIT)

Demo: Hope4kids – AI-Powered Brain Tumor Segmenter
Daniel Capellán-Martín (Universidad Politécnica de Madrid); Abhijeet Parida (Children's National Hospital)

Demo: Deep Learning for Pediatric TB Detection in Chest Radiographs
Daniel Capellán-Martín (Universidad Politécnica de Madrid)

Demo: Visualizing Intelligence with ASCRIBE-VR for Granular, Data-Agnostic 3D Analysis of AI Results
Daniela Ushizima (Berkeley Lab, University of California San Francisco, University of California Berkeley)

Demo: A Reconfigurable High-Resolution Handheld Ultrasound Imaging System with Non-Linear Beamforming Capabilities
Banhimitra Kundu (Indian Institute of Science, Bangalore , INDIA)

14:00 - 15:00
Alignment, Localization, and Matching-Precisely
Room 14
Chairs: Bryan J. Ranger (Boston College, USA); Borja Rodriguez-Vila (Universidad Rey Juan Carlos, Spain)

14:00
1571221116: NC-Reg: Neural Cortical Maps for Rigid Registration
Ines Ralya Asia Vati (Queensland University of Technology, Australia & CSIRO, Australia); Pierrick Bourgeat (CSIRO, Australia); Rodrigo Santa Cruz (Queensland University of Technology, Australia); Vincent Dore (CSIRO, Australia); Olivier Salvado, Clinton Fookes and Leo Lebrat (Queensland University of Technology, Australia)

14:10
1571221358: Mobile Augmented Reality for Hip Osteotomy Planning: Integration with 3D Slicer and Pilot Evaluation
Piyush Soni, Rahul Ganesh S and Somashekhar Dehury (National Institute of Technology Calicut, India); Inger A. Grunbeck and Ola Wiig (Oslo University Hospital, Norway); Sudhish N George (National Institute of Technology, Calicut, India); Rahul P K Menon (Oslo University Hospital, Norway)

14:20
1571220082: Knee Joint Registration Based on Chart and Learnable Superpoint Match
Wang Junjie, Lujian Zhang, Ziqi Li and Tianyu Fu (Beijing Institute of Technology, China); Yixin Zhou (Beijing Jishuitan Hospital, China); Jian Yang (Beijing Institute of Technology, China)

14:30
1571217054: Reg-TTR, Test-Time Refinement for Fast, Robust and Accurate Image Registration
Lin Chen, Yue He, Fengting Zhang and Yaonan Wang (Hunan University, China); Fengming Lin (University of Manchester ,uk); Xiang Chen and Min Liu (Hunan University, China)

14:40
1571226162: STU-Net: A Hybrid CNN-Transformer Architecture for Spherical Cortical Surface Registration
Zhuoyan Dai (South China University of Technology, China); Wenxuan Wu (Kings College London, United Kingdom (Great Britain)); Sijin Yu, Mingjin Chen, Zhongliang Liu and Xin Zhang (South China University of Technology, China)

14:50
1571219662: AMIE: Affine-Attentive Matching and Interpretive Imprint Evaluation for Partial Fingerprint Verification
Tsai-Chieh Chen (National Tsinghua University, Taiwan); Ching-Te Chiu (National Tsing Hua University, Taiwan); Ned Lin, Ang Yu, Paul Lai and Daniel Chen (FocalTech Electronics Co., Ltd., Taiwan); Chia-Yi Lin (National Tsinghua University, Taiwan)

14:00 - 15:00
Breast Imaging Beyond a Single Modality
Room 15
Chairs: Heba Sailem (King's College London, United Kingdom (Great Britain)); Kaan Sel (Massachusetts Institute of Technology, USA)

14:00
1571226524: PKAttn: Pharmacokinetics-Inspired Fusion of DCE-MRI and Clinical Data for Accurate Breast Cancer Recurrence Prediction
Yang Gu, Xinling Li, Cheng Zhang, Ruoyu Wang, Xizhe Huang, Erin Cargin, Micky C Nnamdi and Junior Ben Tamo (Georgia Institute of Technology, USA); Wenqi Shi (University of Texas Southwestern Medical Center, USA); May Dongmei Wang (Georgia Institute of Technology and Emory University, USA)

14:10
1571225477: A Novel Radiopathomics Signature for Oncotype DX® Prediction in Breast Cancer
Arianna Defeudis (Candiolo Cancer Institute, FPO-IRCCS, Candiolo, Turin, Italy); Claudia Iuliani (Polytechnic University of Turin, Italy); Giulia Nicoletti, Eleonora Battista, Greta Vercella and Alessia Demichelis (University of Turin, Italy); Manuela Durando (Azienda Ospedaliero-Universitaria Città Della Salute e Della Scienza, Italy); Isabella Castellano and Valentina Giannini (University of Turin, Italy)

14:20
1571218743: Vision Transformer for Breast Cancer Diagnosis: Layer-Wise Analyses Beyond Attention Mechanism
Kengo Takahashi (Tohoku University Graduate School of Medicine, Japan); Yuwen Zeng (Tohoku University Advanced Institute of So-Go-Chi Informatics, Tohoku University, Sendai, Japan); Kei Ichiji (Department of Radiological Imaging and Informatics, Tohoku University Graduate School of Medicine, Sendai, Japan); Zhang Zhang (Center for Data-driven Science and Artificial Intelligence, Tohoku University, Sendai, Japan); Haoyang Liu (Intelligent Biomedical Systems Engineering Laboratory, Graduate School of Biomedical Engineering, Tohoku University); Ryusei Inamori (Department of Diagnostic Imaging, Tohoku University Graduate School of Medicine, Sendai, Japan); Takuma Usuzaki (Department of Diagnostic Radiology, Tohoku University Hospital, Sendai, Japan); Noriyasu Homma (Department of Radiological Imaging and Informatics, Tohoku University Graduate School of Medicine, Sendai, Japan)

14:30
1571222440: A Novel Two-Stage Weighting Nonlinear Beamformer for PLD-Based Photoacoustic Imaging Systems: Initial Experimental Results
Anwar Tesfaye Beshir and Arun K Thittai (Indian Institute of Technology Madras, India)

14:40
1571226381: Acquisition Time-Informed Breast Tumor Segmentation from Dynamic Contrast-Enhanced MRI
Rui Wang, Yuexi Du, John Lewin, R. Todd Constable and Nicha C. Dvornek (Yale University, USA)

14:50
1571220400: Diff-Mamba: Efficient State-Space Modeling for End-to-End Ultrasound Video Diagnosis
Jinghan Yang, Jie Tian and Kun Wang (Institute of Automation, Chinese Academy of Sciences, China)

14:00 - 15:00
Explaining Brain Decisions Across Development
Room 2
Chairs: Ha Q. Nguyen (Vingroup Big Data Institute, USA); Tingying Peng (Helmholtz Zentrum München, Germany)

14:00
1571226274: Autism Spectrum Disorder Detection Using Multidomain Features of Rs-fMRI BOLD Time Series and Machine Learning
Dibyasree Lahkar (IIT BHU, India); Sandeep Singh Sengar (Cardiff Metropolitan University, United Kingdom, United Kingdom (Great Britain)); Jac Fredo Agastinose Ronickom (Indian Institute of Technology (BHU) Varanasi, India)

14:10
1571226143: ClinAlignNet: A Clinician-Interactive Framework for Faithful and Aligned Explainability in MRI
Dost Muhammad (University of Galway & Research Ireland Centre's for Research Training in Artificial Intelligence, Ireland); Pınar Akdemir Özışık (Yıldırım Beyazıt University, Turkey); Ayse Keles (University of Galway, Ireland); Iftikhar Ahmed (University of Europe for Applied Sciences, Germany); Malika Bendechache (University of Galway, Ireland)

14:20
1571218611: Brain Disease Diagnosis via Integration of Topological Features and Class Prototypes
Yinyu Lan (School of Medicine and Health, Harbin Institute of Technology, China); Xiao Zhang (Harbin Institute of Technology, China)

14:30
1571220070: LBFC-MDG: Learnable Brain Functional Connectivity with Multi-Site Domain Generalization Enhances Diagnosis of Schizophrenia
Yixin Ji (Nanjing University of Aeronautics and Astronautics, China); Vince Calhoun (Tri-Institutional Research Center in Neuroimaging and Data Science, USA); Jin Zhang (Northwestern Polytechnical University, China); Qi Zhu and Shengrong Li (Nanjing University of Aeronautics and Astronautics, China); Yong Yeo Si (Nanyang Technological University, Singapore); Daoqiang Zhang and Shile Qi (Nanjing University of Aeronautics and Astronautics, China)

14:40
1571213713: Explainable Brain Tumor Detection with Eye Fixation Density Map Alignment
Sahar Moradizeyveh, Ambreen Hanif and Ghasem Azemi (Macquarie University, Australia); Lija George (Computational NeuroSurgery (CNS) Lab, Macquarie University, Sydney, Australi, Australia); Amin Beheshti and Antonio Diieva (Macquarie University, Australia)

14:50
1571226546: MRI-Based Multi-Scale Multi-Modal Neonatal Brain Age Estimation Framework with Weight-Aware Feature Fusion
Zhenyu Yang (South China University of Technology,China); Jiakun Xu and Sijin Yu (South China University of Technology, China); Ying Ouyang (Sun Yat-sen University, China); Xin Zhang (South China University of Technology, China)

14:00 - 15:00
Foundation Models Under Stress and Shift
Room 1
Chairs: Vito Paolo Pastore (University of Genova, Italy); Duong Hung Pham (IRIT Laboratory, Toulouse University, France)

14:00
1571218705: A Unified Brain Extraction Framework Powered by Structure-Intensity Disentanglement-Based Data Augmentation
Xiaoye Li, Shijie Huang, Yulin Wang and Zifeng Lian (Shanghaitech University, China); Jiameng Liu (Shanghaitech, China); Kaicong Sun (Shanghaitech University, China); Dinggang Shen (ShanghaiTech University, China)

14:10
1571222334: Exploring Xeno-Learning for Brain Image Synthesis: An Image-to-Image Translation Approach to Cross-Species Knowledge Transfer
Jessica Bohm, Vibujithan Vigneshwaran, Emma A. M. Stanley, Yohan Yee and Nils Forkert (University of Calgary, Canada)

14:20
1571217918: Distilling Knowledge from Multiple Foundation Models for Accurate and Efficient Spatial Gene Expression Prediction
Zexi Li, Bin Li, Hu Yang, Jens Rittscher and Clare Verrill (University of Oxford, United Kingdom (Great Britain))

14:30
1571226378: A Calibrated Memorization Index (MI) for Detecting Training Data Leakage in Generative MRI Models
Yash Deo and Yan Jia (University of York, United Kingdom (Great Britain)); Toni Lassila (University of Leeds, United Kingdom (Great Britain)); Victoria J Hodge (University of York, United Kingdom (Great Britain)); Alejandro F Frangi (University of Manchester, United Kingdom (Great Britain) & KU Leuven, Belgium); Chenghao Qian (University of Leeds, United Kingdom (Great Britain)); Siyuan Kang (Manchester Metropolitan University, United Kingdom (Great Britain)); Ibrahim Habli (University of York, United Kingdom (Great Britain))

14:40
1571221757: Stylizing ViT: Anatomy-Preserving Instance Style Transfer for Domain Generalization
Sebastian Doerrich, Francesco Di Salvo, Jonas Alle and Christian Ledig (University of Bamberg, Germany)

14:50
1571216913: DiffusionQC: Artifact Detection and Quality Control in Histopathology Images via Diffusion Model
Zhenzhen Wang (Johns Hopkins University, USA); Zhongliang Zhou, Zhuoyu Wen, Jeong Hwan Kook, John B Wojcik and John Kang (Merck, USA)

14:00 - 15:00
Reasoning Across Organs, Not Just Labels
Room 3
Chairs: Prateek Prasanna (Stony Brook University, USA); Elodie Puybareau (LRE EPITA Research Laboratory, France)

14:00
1571222000: Entity Knowledge Graph Enhanced Vision Language Model for Multi-Organ Diagnosis
Jianxun Yu, Meirui Jiang, Winnie Chiu Wing Chu and Qi Dou (The Chinese University of Hong Kong, Hong Kong)

14:10
1571202062: Enhancing Renal Tumor Malignancy Prediction: Deep Learning with Automatic 3D CT Organ Focused Attention
Zhengkang Fan (University of Florida, USA & Temple University, USA); Chengkun Sun, Russell Terry and Jie Xu (University of Florida, USA); Longin Jan Latecki (Temple University, USA)

14:20
1571212947: MedReason-R1: Learning to Reason for CT Diagnosis with Reinforcement Learning and Local Zoom
Li Yifan, Tang Fenghe, Li Yingtai and S.kevin Zhou (University of Science and Technology of China, China)

14:30
1571222246: DA-GMGENet: A Domain Adaptation Framework for 3D CT-Based ECE Identification in Head and Neck Cancer
Yibin Wang (AgriLife Research, Texas A&M University, USA); Abhro Shome Pias and Amirhossein Eskorouchi (Mississippi State University, USA); William N. Duggar and Lir-Wan Fan (University of Mississippi Medical Center, USA); Haifeng Wang (Mississippi State University, USA)

14:40
1571216899: DentalX: Context-Aware Dental Disease Detection with Radiographs
Zhi Qin Tan (King's College London, United Kingdom (Great Britain)); Xiatian Zhu (University of Surrey, United Kingdom (Great Britain)); Owen Addison and Yunpeng Li (King's College London, United Kingdom (Great Britain))

14:50
1571221936: INTERACT-CMIL: Multi-Task Shared Learning and Inter-Task Consistency for Conjunctival Melanocytic Intraepithelial Lesion Grading
Mert Ikinci (Technical University of Munich, Germany); Luna Toma, Karin Loeffler and Leticia Ussem (University Hospital Bonn, Germany); Saniela Suesskind (University Hospital Tuebingen, Germany); Julia Weller (University Hospital Erlangen, Germany); Yousef Yeganeh (Technical University of Munich, Germany); Martina C. Herwig-Carl and Shadi Albarqouni (University Hospital Bonn, Germany)

14:00 - 15:00
Technical Workflows Behind the Images
Room 16
Chairs: Bjørn-Jostein Singstad (Vestfold Hospital Trust, Norway); Yao Sui (Peking University, China)

14:00
1571218319: From Global Radiomics to Parametric Maps: A Unified Workflow Fusing Radiomics and Deep Learning for PDAC Detection
Zengtian Deng (Cedars-Sinai Medical Center, USA & University of California Los Angeles, USA); Yimeng He (Cedars Sinai Medical Center, USA); Yu Shi, Lixia Wang, Touseef A Qureshi, Xiuzhen Huang and Debiao Li (Cedars-Sinai Medical Center, USA)

14:10
1571221462: Testing of Deep Learning Model in Real World Clinical Setting: A Case Study in Obstetric Ultrasound
Chun Kit Wong (Technical University of Denmark, Denmark); Mary Le Ngo (CAMES RH, Denmark); Manxi Lin (Technical University of Denmark, Denmark); Zahra Bashir, Amihai Heen, Morten Bo Søndergaard Svendsen and Martin Grønnebæk Tolsgaard (CAMES RH, Denmark); Anders Nymark Christensen and Aasa Feragen (Technical University of Denmark, Denmark)

14:20
1571226439: Content-Aware Image Compression Model for Macromolecular Crystallography Data
Jianxiang Dong (The State University of New York at Stony Brook, USA); Zhaozheng Yin (Stony Brook University, USA); Herbert J. Bernstein and Jean Jakoncic (Brookhaven National Laboratory, USA)

14:30
1571225586: Robust Circle of Willis ROI Extraction in MRA via Adaptive Landmark Detection
Nesrin Mansouri (Nantes University, Institut Du Thorax, France); Romain Bourcier (Nantes University Hospital, France); Florent Autrusseau (Nantes University & Institut Du Thorax, France)

14:40
1571221484: Deep Diffusion Models for Subject-Specific SAR Estimation in 10.5 T Magnetic Resonance Imaging
Javier Hernandez-Rubia, Candela Chinchilla-Sicilia and Blanca Rodriguez-Gonzalez (Universidad Rey Juan Carlos, Spain); Alireza Sadeghi-Tarakameh and Yigitcan Eryaman (University of Minnesota, USA); Sydney Nicole Williams and Angel Torrado-Carvajal (Universidad Rey Juan Carlos, Spain)

14:50
1571219944: Strict Quadratically-Constrained Parallel Transmit Design with Unrolled Homeomorphic Projection
Junno Yun and Toygan Kilic (University of Minnesota, USA); Jürgen Herrler and Patrick Liebig (Siemens Healthineers, Germany); Kamil Ugurbil and Mehmet Akcakaya (University of Minnesota, USA)

14:00 - 15:00
When Clinical Imaging Needs Better Metrics and Models
Room 4
Chairs: Abhilash Hareendranathan (University of Alberta, Canada); Shile Qi (Nanjing University of Aeronautics and Astronautics, China)

14:00
1571217797: Low Performing Pixel Correction in Computed Tomography with Unrolled Network and Synthetic Data Training
Hongxu Yang (GE Healthcare, The Netherlands); Levente Lippenszky (GE HealthCare, Hungary); Edina Timko (GE Healthcare, Hungary); Lehel Ferenczi (GE HealthCare, Hungary); Gopal Avinash (GE HealthCare, USA)

14:10
1571218879: Learning from Limited Multi-Phase CT: Dual-Branch Prototype-Guided Framework for Early Recurrence Prediction in HCC
Hsin-Pei Yu, Si-Qin Lyu, Quang Van Nghiem, Yi-Hsien Hsieh and Weichung Wang (National Taiwan University, Taiwan); Tung-Hung Su and Jia-Horng Kao (National Taiwan University Hospital, Taiwan); Che Lin (National Taiwan University & Institute of Communication Engineering, Taiwan)

14:20
1571226593: CTest-Metric: A Unified Framework to Assess Clinical Validity of Metrics for CT Report Generation
Vanshali Sharma, Andrea Mia Bejar, Gorkem Durak and Ulas Bagci (Northwestern University, USA)

14:30
1571219913: Distortion-Guided Learning for Opinion-Unaware No-Reference Image Quality Assessment in Low Dose CT
Quentin Bourbon (Télécom Paris, France); Elsa D. Angelini (Telecom Paris LTCI, Institut Polytechnique, France); Thomas Benseghir (GE HealthCare, France); Christophe Kervazo (Telecom Paris, France); Saïd Ladjal (Télécom Paris, France)

14:40
1571226325: PatchSurg: Leveraging Synthetic Datasets for High-Fidelity Depth Estimation in Surgery
Ziang Xu (Chinese University of HongKong, Hong Kong); Chenyu Zhang and Jens Rittscher (University of Oxford, United Kingdom (Great Britain)); Sharib Ali (University of Leeds, United Kingdom (Great Britain))

14:50
1571225469: VesselFusion: Diffusion Models for Vessel Centerline Extraction from 3D CT Images
Soichi Mita, Shumpei Takezaki and Ryoma Bise (Kyushu University, Japan)

14:00 – 17:30
Workshop: The 2nd Workshop on Foundation AI models in Biomedical Imaging (FAIBI)
Room 17

15:00 – 16:00
Closing & Award Ceremony
Rooms 7-12

16:00 – 16:30
Coffee Break
Reception Area

16:30 - 17:30
Challenge: CSV 2026: Carotid Plaque Segmentation and Vulnerability Assessment in Ultrasound
Room 4
Chairs: Zhiyuan Zhu, Shenzhen University

1571263080: Dual-Network Semi-Supervised Framework for Carotid Plaque Ultrasound Analysis
Zejun Fu (The University of Nottingham Ningbo China, China); Hongshun Ling, Jinjing Wu and Li Zhang (South-Central Minzu University, China)

1571263613: Ultrasound Carotid Plaque Segmentation and Vulnerability Assessment Algorithm Report
Lei Wang (China); Kexu Long (China Telecom Corporation Limited Chongqing Branch, China); Changqin Yan (China Telecommunications Corporation, China); Bo Zhai, Kundong Mo, Feng Wei and Chenzi Wang (China Telecom Co., Ltd. Chongqing Branch, China)

1571263614: MAGNET: Mask Guided Network with EMA Teacher for Joint Carotid Segmentation and Plaque Classification
Yeonwoo Seo (Korea University, Korea (South)); Minjun Youn (Korea Advanced Institute of Science & Technology, Korea (South)); Yihan Kim (Seoul National University, Korea (South)); Lynn Y. Kim (Ewha Womans University, Korea (South)); Beomsu Kim and Jong Chul Ye (KAIST, Korea (South))

1571263632: Shared-Weight Segmentation with Mask-Conditioned Risk Classification for Carotid Ultrasound
Yujie Sun, Zexuan Fan, Haoyu Wu and Xiaowu Sun (Xi'an Jiaotong-Liverpool University, China)

1571263744: DINOv2-Enhanced Dual-View UniMatch for Joint Carotid Plaque Segmentation and Classification
Yue Qi (Beijing University of Technology, China); Lei Mou (Rizhao Hospital of Traditional Chinese Medicine, China); Zheng Li (Dalian University of Technology, China); Xin Han (Rizhao Hospital of Traditional Chinese Medicine, China)

1571263838: Pathology-Centric Region Exchange: Joint Carotid Plaque Segmentation and Vulnerability Assessment in Ultrasound
Xuanqi Huang, Bodong Du, Xinrui Zhou and Xiaomeng Li (Hong Kong University of Science and Technology, Hong Kong)

1571263867: RS RDMASTERCLASS: Technical Report for CSV2026 Challenge
Kiet Dang and Thanh Nguyen (Rainscales Vietnam Co Ltd, Vietnam)

1571263873: A Multi-View Adapter-Based Tuning Model for Carotid Artery Plaque Detection and Characterization in Ultrasound Imaging
Jiaqi Liu (South China University, China); Yilin Wan (University of South China, China); Yi Ni (Harbin University of Science and Technology, China)

1571263917: Semi-Supervised Carotid Plaque Segmentation with Multi-Scale Deep Supervision and Consistency Learning for Multi-View Vulnerable Plaque Classification
Long Yang (Institute of Scientific Instrumentation, Shenzhen Institutes of Advanced Technology, Chinese Academy, China); Xiaoyin Chen, Bing Wang, Pengpeng Ou, Shaomin Niu, Peipei Zhang, Zeping Gao and Teng Ma (Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, China)

1571263925: Uncertainty-Guided Multi-Task Consistency for Semi-Supervised Carotid Plaque Segmentation and Vulnerability Assessment
Rudra Sainatha, Mahesh Raveendranatha Panicker, Gopika Gopikrishnan and Somashekhar Dehury (Singapore Institute of Technology, Singapore)

1571263932: A Dual-View U-Net Framework for Carotid Ultrasound Plaque Segmentation and Vulnerability Classification
Xiangyu Guo (Zhejiang University, China); Changrui Li (Georgia Institute of Technology, USA); Zihang Shu (New York University Shanghai, China)

16:30 - 17:30
Challenge: CXR-LT 2026: Long-Tailed Multi-Label Chest X-ray Benchmark for Clinical AI
Room 2
Chairs: Yifan Peng, Weill Cornell Medicine

1571236046: Overview of the CXR-LT 2026 Challenge: Multi-Center Long-Tailed and Zero Shot Chest X-Ray Classification
Hexin Dong (Weill Cornell Medicine, USA); Yi Lin (Cornell University, USA); Pengyu Zhou (Peking Union Medical College, China); Xuan Zhong Feng (Cornell University, USA); Alan Clint Legasto (Weill Cornell Medicine, USA); Mingquan Lin (University of Minnesota, USA); Hao Chen (The Hong Kong University of Science and Technology, Hong Kong); Yuzhe Yang (University of California, Los Angeles, USA); George Shih and Yifan Peng (Weill Cornell Medicine, USA)

1571257587: Handling Supervision Scarcity in Chest X-Ray Classification: Long-Tailed and Zero-Shot Learning
Ha-Hieu Pham (Ho Chi Minh City University of Science, Vietnam); Hai-Dang Nguyen (VinUniversity, Hanoi, Vietnam); Huy Thanh Nguyen (Carnegie Mellon University, USA & Northwestern University, USA); Min Xu (Carnegie Mellon University, USA); Ulas Bagci (Northwestern University, USA); Trung-Nghia Le (University of Science, Vietnam); Huy Hieu Pham (VinUniversity, Vietnam)

1571260366: CXR-LT 2026 Challenge: Projection-Aware Multi-Label and Zero-Shot Chest X-Ray Classification
Juno Cho (KAIST, Korea (South)); Dohui Kim (GIST, Korea (South)); Mingeon Kim (KAIST, Korea (South)); Hyunseo Jang (Korea University, Korea (South)); Chang Sun Lee and Jong Chul Ye (KAIST Graduate School of AI (GSAI), Korea (South))

1571260538: Zero-Shot Multi-Label Chest X-Ray Diagnosis via MedKLIP Fine-Tuning and Prototype-Based Prompting
Ang Zu and Ruichi Zhang (Xiamen University, China); Yang Zhou (Institute of High Performance Computing (IHPC), Singapore); Yang Lu (Xiamen University, China)

1571260679: An Efficient Framework for Long-Tailed and Multi-Label Classification on Chest X-Rays
Nguyen Trung Ky, Huy Le Pham, Khoa Anh Ha and Thao Nguyen Thanh Vo (International University, Vietnam); Chau Thi Huyen Ly (Van Lang University, Vietnam); Hien Ta (International University, Vietnam); Thang Van Thang (Industrial University of Ho Chi Minh City, Vietnam)

16:30 - 18:00
Challenge: FETUS 2026: Fetal HearT UltraSound Segmentation and Sizing Challenge
Room 15
Chairs: Xin Yang, Shenzhen University

1571263078: A View-Specific Dual-Task Framework for Fetal Heart UltraSound Analysis
Zejun Fu (The University of Nottingham Ningbo China, China); Hongshun Ling, Jinjing Wu and Li Zhang (South-Central Minzu University, China)

1571263630: Semi-Supervised Learning for Congenital Heart Disease Prediction in Fetal Echocardiography
Haoyu Wu, Yujie Sun, Zexuan Fan and Xiaowu Sun (Xi'an Jiaotong-Liverpool University, China)

1571263685: Dual Agreement Consistency Learning with Foundation Models for Semi-Supervised Fetal Heart Ultrasound Segmentation and Diagnosis
Fangyijie Wang (University College Dublin, Ireland)

1571263750: Swin-Enhanced View-Aware UniMatch for Joint Fetal Cardiac Segmentation and Classification
Yue Qi (Beijing University of Technology, China); Zheng Li (Dalian University of Technology, China); Ning Li (Peking University First Hospital Ningxia Women and Children's Hospital, China)

1571263790: A Unified Semi-Supervised Framework for View-Aware Fetal Cardiac Segmentation and Congenital Heart Disease Classification
Deboch Eyob Abera (Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, China); Zhanli Hu and Na Zhang (Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, Shenzhe, China); Tirsit Alemu Tadesse (School of Health Sciences and Medicine, Wolaita Sodo University, Ethiopia); Wenjian Qin (Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, China)

1571263804: Dual-Domain Hierarchical Adversarial Learning for Semi-Supervised Multi-View Fetal Cardiac Ultrasound Segmentation and Disease Classification
Kerong Zhou (Sun Yat-sen University, China)

1571263847: UMS-SAM: Semi-Supervised Fetal Heart Ultrasound Analysis Based on UniMatch and Multi-Scale SAM
Tao Lei (Shaanxi University of Science and Technology, China); Bo Feng, Mengxi Wang, Yuyin Jiao and Shuxin Zhang (陕西科技大学, China)

1571263848: Synergistic Foundation Models for Semi-Supervised Fetal Cardiac Ultrasound Analysis: SAM-Med2D Boundary Refinement and DINOv3 Semantic Enhancement
Tonghao Zhuang, Shanglong Hu, Yongsheng Luo, Zhiqi Zhang and Yu Li (Zhuhai College of Science and Technology, China)

1571263853: Optimization Scheme of Fetal Congenital Heart Disease Ultrasound Image Segmentation and Diagnosis Algorithm Based on Structural Prior
Bo Zhai (China Telecom Co., Ltd. Chongqing Branch, China); Changqin Yan (China Telecommunications Corporation, China); Zhiyuan Zhao, Fangjin Deng, Kundong Mo, Feng Wei and Chenzi Wang (China Telecom Co., Ltd. Chongqing Branch, China)

1571263856: AdaH-SAM2: Adaptive Hierarchical SAM2 for Efficient Semi-Supervised Fetal Echocardiography
Tao Lei and Huan Sun (Shaanxi University of Science and Technology, China); Jun yin Liu (Shaanxi University of Scienceand.Technology, China); Chen yang Peng and Shao xiong Lin (Shaanxi University of Science and Technology, China)

1571263880: Semi-Supervised Fetal Echocardiography Segmentation and CHD Classification
Xin Fang, Xuwen Qiu, Xi Chen, Lyuyang Tong and Bo Du (Wuhan University, China)

1571263885: View-Guided Multi-Task Learning for Fetal Cardiac Segmentation and CHD Classification
Yingyu Yang, Qianye Yang, Can Peng, Yuyuan Liu and J. Alison Noble (University of Oxford, United Kingdom (Great Britain))

1571263901: Hybrid ResNet-UNETR for Semi-Supervised Fetal Cardiac Segmentation and CHD Classification
Rodrigo Medellin-Robles (Bloom Standard, USA); Flavio Alfonso Juárez-Castro (Bloom Standard INC, USA); Mohammad A Bukhari (Bloom Standard, USA)

1571263929: Decoupled Segmentation and Segmentation-Guided Classification for Fetal Ultrasound
Wenying Li, Yi Qin and Honglong Yang (The Hong Kong University of Science and Technology, Hong Kong)

1571263933: View-Conditioned Collaborative Learning for Semi-Supervised Fetal Cardiac Ultrasound Analysis
Zhanpei Gao (Beijing University of Posts and Telecommunications, China); Chenyu Zhang (Beijing Institute of Technology, China); Mingxuan Liu and Yifei Chen (Tsinghua University, China); Xiaotian Hu (Beijing University of Aeronautics and Astronautics, China); Qiyuan Tian (Tsinghua University, China)

16:30 - 17:30
Challenge: Foundation Model Challenge for Ultrasound Image Analysis
Room 1
Chairs: Jieyun Bai, The University of Auckland

1571260196: Aurora: Adaptive Unified Representation for Robust Ultrasound Analysis
Ufaq Khan (Mohamed Bin Zayed University of Artificial Intelligence, United Arab Emirates); L D M S Sai Teja (National Institute of Technology Silchar, India); Shakiru Oyelekan Ayuba (Birmingham City University, United Kingdom (Great Britain)); Mai A. Shaaban and Yutong Xie (Mohamed Bin Zayed University of Artificial Intelligence, United Arab Emirates); Muhammad Bilal (Birmingham City University, United Kingdom (Great Britain)); Muhammad Haris Khan (MBZUAI, United Arab Emirates)

1571260247: YOLO-US: A Unified Multi-Task Foundation Framework for Generalist Ultrasound Image Analysis
Liu Wenpei, Dong Leshui, Zhihan Zhang, Liu Xinyang, Yulin Sun and Runnan He (Tianjin University, China); Xiuyun Liu (University of California, San Francisco, USA); Dong Ming (Tianjin University, China)

1571260260: Towards Universal Ultrasound Analysis: Parameter-Efficient Foundation Model with Task-Aware Routing for Heterogeneous Multi-Task Learning
Yixuan Zhang (University of Nottingham Ningbo China, China); Qing Xu (University of Nottingham, United Kingdom (Great Britain)); Yue Li (University of Nottingham Ningbo China, China & University of Nottingham, United Kingdom (Great Britain)); Xiangjian He (University of Nottingham Ningbo China, China); Zhen Chen (The Hong Kong Polytechnic University, Hong Kong)

1571260286: A Unified Multi-Task Learning Framework for Ultrasound Image Analysis
Hongshun Ling (South-Central Minzu University, China)

1571260295: TAP-SLF: Parameter-Efficient Adaptation of Vision Foundation Models for Multi-Task Ultrasound Image Analysis
Hui Wan and Libin Lan (Chongqing University of Technology, China)

1571260325: DualConvUS: A Dual-Encoder Based on ConvNeXt Multi-Task Learning Framework for Ultrasound Image Analysis
Hao Yang (Shanghai Tech, China); Yue Qi (Beijing University of Technology, China); Zheng Li (Dalian University of Technology, China); Guoquan Ning (Guangzhou National Laboratory); Jiuhong Jiang (ShanghaiTech University, China); Zhichao Miao (Guangzhou National Laboratory, China); Fang Bai (ShanghaiTech University, China)

1571260649: Unified Ultrasound Intelligence Toward an End-to-End Agentic System
Chen Ma, Yunshu Li, Junhu Fu, Shuyu Liang, Yuanyuan Wang and Yi Guo (Fudan University, China)

1571260743: Transformer-Based Foundation Model for Universal Ultrasound Image Analysis
Zhikai Yang (KTH Royal Institute of Technology, Sweden); Junjie Hu (Uppsala University, Sweden); Felix Nieto-del-Amor, Guangyuan Li and Rodrigo Moreno (KTH Royal Institute of Technology, Sweden)

1571260826: Foundation Model for Ultrasound Image Analysis: A Multi-Task Learning Approach
Ren Chen and Wei Zhang (Chengdu University of Information Technology, China)

1571260302: Towards a Generalist Ultrasound Foundation Model via Task-Adaptive Multi-Task Learning
Gautham Krishnan Priya (Amrita Vishwa Vidyapeetham (Deemed University), India); Anshuman Swain (Amrita Vishwa Vidyapeetham, India); Aniketh Vijesh (Amrita Vishwa Vidyapeetham (Deemed University), India)

1571260359: UniUltra: A Unified Foundation Model for Universal Ultrasound Analysis
Zi Yang (First Hospital of LanZhou University, China); Zengxing Li (Lanzhou University, China); Qingchen Liu (Gansu University of Chinese Medicine, China); Kun Wang (Lanzhou Jiaotong University, China); Yu Fu (Lanzhou University, China)

1571260639: UMGP-Net: A Unified Multi-Granularity Perception Network for Multi-Organ and Multi-Task Ultrasound Image Analysis
Xueling Li, Yunfei Zhu and Wenfeng Zhang (Chongqing Normal University, China); Qibing Qin (Weifang University, China); Chongzhou Zhang and Wei Hu (Chongqing Normal University, China)

16:30 - 17:30
Challenge: RIVA Cervical Cytology Challenge: Multi-Expert Pap Smear Dataset for Precancer and Cancer Detection
Room 16
Chairs: Emmanuel Iarussi, Universidad Torcuato Di Tella

1571258735: Center-Aware Detection with Swin-Based Co-DETR Framework for Cervical Cytology
Yan Kong (Nanjing University, China); Yuan Yin (Shanghai Tech, China); Hongan Chen, Fang Yuqi and Caifeng Shan (Nanjing University, China)

1571259882: Benchmarking Detectors for the RIVA Cervical Cytology Challenge
Haotian Jiang and Mengjie Xu (ShanghaiTech University, China); Manman Fei, Zelin Liu and Lichi Zhang (Shanghai Jiao Tong University, China); Qian Wang (ShanghaiTech University, China)

1571260407: A Multi-Stage Optimization Pipeline for Bethesda Cell Detection in Pap Smear Cytology
Martin Amster and Camila María Polotto (Universidad de Buenos Aires, Argentina)

1571260951: A Cascaded YOLO-Based Framework for Robust Cervical Cell Detection in Pap Smear Images
Vibujithan Vigneshwaran, Chris Kang and Nils Forkert (University of Calgary, Canada)

16:30 - 17:30
Challenge: WBCBench2026: Robust White Blood Cell Classification
Room 5
Chairs: Nantheera Anantrasirichai, University of Bristol

1571260502: WBCBench 2026: A Challenge for Robust White Blood Cell Classification Under Class Imbalance
Xin Tian and Xudong Ma (University of Oxford, United Kingdom (Great Britain)); Tianqi Yang (University Collage London, United Kingdom (Great Britain)); Alin M Achim (University of Bristol, United Kingdom (Great Britain)); Bartlomiej W Papiez (University of Oxford, United Kingdom (Great Britain)); Phandee Watanaboonyongcharoen (Chulalongkorn University, Thailand); Nantheera Anantrasirichai (University of Bristol, United Kingdom (Great Britain))

16:30 - 17:30
Challenge: Multi-modal Ulcerative Colitis Grading in Endoscopy
Room 14
Chairs: Sharib Ali, University of Leeds

16:30 - 17:30
Challenge: Low Concentration Reconstruction Challenge in Magnetic Particle Imaging
Room 3
Chairs: Jie Tian, Beihang University

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