

MICCAI 2024 Program-at-a-glance (Tentative)

	Sunday, October 6, 2024	Monday, October 7, 2024	Tuesday, October 8, 2024	Wednesday, October 9, 2024	Thursday, October 10, 2024
8:00					
8:30	AM Satellite Event	Opening Ceremony + Chairs report + MICCAI Society Spotlight + Reviewer Awards		CLINICCAI (Diamand room)	AM Satellite Event
9:00		Oral 7: Health Equity: Low Resource Settings	Oral 8: Image Registration		
9:30		Keynote 1		Keynote 3	
10:00	Coffee break	Keynote 2			Coffee break
10:30	AM Satellite Event Continued	Poster session 1, with Coffee break: Image Segmentation 1, Health Equity, and Surgical Scene Understanding		CLINICCAI (Diamand room)	AM Satellite Event Continued
11:00		Poster session 3, with Coffee break Transparency, Fairness and Uncertainty 1, Image Formation and Reconstruction 1, and Computer Aided Diagnosis 1			
11:30		Oral 1: Generative modelling: Image reconstruction and synthesis	Oral 2: Surgical Scene Understanding	Debate on AI	
12:00			Health Equity panel discussion		
12:30	Lunch Break	Lunch Break	WIM event	Lunch Break	Lunch Break
13:00			Lunch Break	Ph.D Thesis and EC Challenge event	
13:30	PM Satellite Event	Oral 3 + Spotlights: Machine learning strategies for MICCAI	Oral 4 + Spotlights: Health Equity: Care for All	CLINICCAI (Diamand room)	PM Satellite Event
14:00		Oral 9 + Spotlights: Image Segmentation	Oral 10 + Spotlights: Foundation models and multimodal data for MICCAI		
14:30		Open Data (Diamand room)			
15:00		Poster Session 2, with Coffee Break: Machine Learning: Learning Strategies and Clinical applications: Neuroimaging and Ultrasound		Poster Session 4, with Coffee Break: Image Segmentation 2, Surgical Data Science, and Foundation models and Multimodal Data	Industry sponsor event
15:30	Coffee break			Poster session 6, with Coffee Break Computer Assisted Interventions and Surgery, Image Formation and Reconstruction 2, and Clinical Translation	
16:00	PM Satellite Event continued	Oral 5: Computer aided diagnosis	Oral 6: Clinical translation: Functional imaging and oncology	From MICCAI to AFRICAI	
16:30				Special Interest Group (SIG) Event	
17:00				MICCAI Paper Awards	
17:30				Closing ceremony and 2025 preview	
18:00					
18:30	Welcome Reception with local posters	MSB Academia & Industry Panel Discussion and Networking event			
19:00					
19:30					
20:00		Gala Dinner + Enduring Impact and fellow distinguished awards		Soccer Game	
20:30					
21:00					

Oral and Spotlight Presentations

<p>Oral Session 1: Generative modelling: Image reconstruction and synthesis Monday, October 7, 2024, 11:30 to 12:30</p>	<p>Oral Session 2: Surgical Scene Understanding Monday, October 7, 2024, 11:30 to 12:30</p>
<p>Center-to-Edge Denoising Diffusion Probabilistic Models with Cross-domain Attention for Undersampled MRI Reconstruction <i>Speaker: Jianfeng Zhao, Western University, Canada</i></p> <p>Diffusion as Sound Propagation: Physics-inspired Model for Ultrasound Image Generation <i>Speaker: Marina Domínguez, MCML, Germany</i></p> <p>Masked Residual Diffusion Probabilistic Model with Regional Asymmetry Prior for Generating Perfusion Maps from Multi-phase CTA <i>Speaker: Yuxin Cai, Huazhong University of Science and Technology, China</i></p> <p>Myocardial Scar Enhancement in LGE Cardiac MRI using Localized Diffusion <i>Speaker: Marta Hasny, Technical University of Munich, Germany</i></p>	<p>Depth-Driven Geometric Prompt Learning for Laparoscopic Liver Landmark Detection <i>Speaker: Jialun Pei, The Chinese University of Hong Kong, Hong Kong SAR</i></p> <p>Transferring Relative Monocular Depth to Surgical Vision with Temporal Consistency <i>Speaker: Charlie Budd, King's College London, UK</i></p> <p>Structure-preserving Image Translation for Depth Estimation in Colonoscopy <i>Speaker: Shuxian Wang, UNC Chapel Hill, USA</i></p> <p>Enhanced Scale-aware Depth Estimation for Monocular Endoscopic Scenes with Geometric Modeling <i>Speaker: Ruofeng Wei, The Chinese University of Hong Kong, Hong Kong SAR</i></p>

<p>Oral & Spotlight Session 3: Machine Learning Strategies for MICCAI Monday, October 7, 2024, 13:30 to 15:00</p>	<p>Oral & Spotlight Session 4: Health Equity: Care for All Monday, October 7, 2024, 13:30 to 15:00</p>
<p>Spotlight Presentations:</p> <p>Few-shot Adaptation of Medical Vision-Language Models <i>Speaker: Fereshteh Shakeri, École de technologie supérieure (ÉTS), Canada</i></p> <p>Advancing Text-Driven Chest X-Ray Generation with Policy-Based Reinforcement Learning <i>Speaker: Woojung Han, Yonsei University, South Korea</i></p> <p>Physics informed neural networks for estimation of tissue properties from multi-echo configuration state MRI <i>Speaker: Samuel Adams-Tew, University of Utah, USA</i></p>	<p>Spotlight Presentations:</p> <p>FairDiff: Fair Segmentation with Point-Image Diffusion <i>Speaker: Wenyi Li, Institute for AI Industry Research (AIR), Tsinghua University, China</i></p> <p>RadiomicsFill-Mammo: Synthetic Mammogram Mass Manipulation with Radiomics Features <i>Speaker: Inye Na, Sungkyunkwan University, South Korea</i></p> <p>SlicerTMS: Real-Time Visualization of Transcranial Magnetic Stimulation for Mental Health Treatment <i>Speaker: Loraine Franke, University of Massachusetts Boston, USA</i></p>
<p>Oral Presentations:</p> <p>Diffusion-based Domain Adaptation for Medical Image Segmentation using Stochastic Step Alignment <i>Speaker: Wen Ji, Hong Kong University of Science and Technology, Hong Kong SAR</i></p> <p>A Clinical-oriented Lightweight Network for High-resolution Medical Image Enhancement <i>Speaker: Peng Cao, Computer Science and Engineering, Northeastern University, China</i></p> <p>Self-Supervised k-Space Regularization for Motion-Resolved Abdominal MRI Using Neural Implicit k-Space Representations <i>Speaker: Veronika Spieker, Helmholtz Munich / Technical University of Munich, Germany</i></p> <p>Few Slices Suffice: Multi-Faceted Consistency Learning with Active Cross-Annotation for Barely-supervised 3D Medical Image Segmentation <i>Speaker: Zhe Xu and Xinyao Wu, The Chinese University of Hong Kong, Hong Kong SAR</i></p> <p>CoReEcho: Continuous Representation Learning for 2D+time Echocardiography Analysis <i>Speaker: Fadillah Maani, Mohamed Bin Zayed University of Artificial Intelligence, United Arab Emirates</i></p>	<p>Oral Presentations:</p> <p>EchoMEN: Combating Data Imbalance in Ejection Fraction Regression via Multi-Expert Network <i>Speaker: Song Lai, City University of Hong Kong, Hong Kong SAR</i></p> <p>Towards Rapid Mycetoma Species Diagnosis: A Deep Learning Approach for Stain-Invariant Classification on H&E Images from Senegal <i>Speaker: Kpêtchéhoué Merveille Santi ZINSOU, University of Gaston Berger, Senegal</i></p> <p>PASSION for Dermatology: Bridging the Diversity Gap with Pigmented Skin Images from Sub-Saharan Africa <i>Speaker: Philippe Gottfrois, University Basel/ University Hospital Basel, Switzerland</i></p> <p>S-SYNTH: Knowledge-Based, Synthetic Generation of Skin Images <i>Speaker: Niloufar Saharkhiz, FDA, USA</i></p> <p>FD-SOS: Vision-Language Open-Set Detectors for Bone Fenestration and Dehiscence Detection from Intraoral Images <i>Speaker: Marawan Elbatel, The Hong Kong University of Science and Technology, Hong Kong SAR</i></p>

Oral Session 5: Computer Aided Diagnosis Monday, October 7, 2024, 16:30 to 18:00	Oral Session 6: Clinical Translation: Functional Imaging and Oncology Monday, October 7, 2024, 16:30 to 18:00
<p>3D Spine Shape Estimation from Single 2D DXA <i>Speaker: Emmanuelle Bourigault, University of Oxford, UK</i></p> <p>TAPoseNet: Teeth Alignment based on Pose estimation via multi-scale Graph Convolutional Network <i>Speaker: Qingxin Deng, Shenzhen University, China</i></p> <p>Deep Learning for Cancer Prognosis Prediction Using Portrait Photos by StyleGAN Embedding <i>Speaker: Amr Hagag, University Hospital Erlangen, Germany</i></p> <p>Topological GCN for Improving Detection of Hip Landmarks from B-Mode Ultrasound Images <i>Speaker: Jun Shi, Shanghai University, China</i></p> <p>Cardiovascular Disease Detection from Multi-View Chest X-rays with BI-Mamba <i>Speaker: Pingkun Yan, Rensselaer Polytechnic Institute, USA</i></p> <p>Aligning Medical Images with General Knowledge from Large Language Models <i>Speaker: Xiao Fang, The Hong Kong University of Science and Technology, Hong Kong SAR, China</i></p>	<p>MetaAD: Metabolism-Aware Anomaly Detection for Parkinson’s Disease in 3D 18F-FDG PET <i>Speaker: Zhenrong Shen, Shanghai Jiao Tong University, China</i></p> <p>Is this hard for you? Personalized human difficulty estimation for skin lesion diagnosis <i>Speaker: Peter Johannes Tejlgaard Kampen, Technical University of Denmark, Denmark</i></p> <p>Genomics-guided Representation Learning for Pathologic Pan-cancer Tumor Microenvironment Subtype Prediction <i>Speaker: Fangliangzi Meng, Tongji University, China</i></p> <p>Ordinal Learning: Longitudinal Attention Alignment Model for Predicting Time to Future Breast Cancer Events from Mammograms <i>Speaker: Xin Wang, The Netherlands Cancer Institute, The Netherlands</i></p> <p>MMFusion: Multi-modality Diffusion Model for Lymph Node Metastasis Diagnosis in Esophageal Cancer <i>Speaker: Chengyu Wu, Shandong University, China</i></p> <p>Biophysics-based data assimilation of longitudinal tau and amyloid-β PET scans <i>Speaker: George Biro, The University of Texas at Austin, USA</i></p>

Oral Session 7: Health Equity: Low Resource Settings Tuesday, October 8, 2024, 8:30 to 9:30	Oral Session 8: Image Registration Tuesday, October 8, 2024, 8:30 to 9:30
<p>TinyU-Net: Lighter yet Better U-Net with Cascaded Multi-Receptive Fields <i>Speaker: Junren Chen, Sichuan University, China</i></p> <p>UnWave-Net: Unrolled Wavelet Network for Compton Tomography Image Reconstruction <i>Speaker: Ishak Ayad, ENSEA & CY Cergy Paris University, France</i></p> <p>Rethinking Histology Slide Digitization Workflows for Low-Resource Settings <i>Speaker: Talat Zehra, Jinnah Sindh medical university, Pakistan</i></p> <p>SpeChrOmics: A Biomarker Characterization Framework for Medical Hyperspectral Imaging <i>Speaker: Ajibola S. Oladokun, University of Cape Town, South Africa</i></p>	<p>NODER: Image Sequence Regression Based on Neural Ordinary Differential Equations <i>Speaker: Yi Hong, Shanghai Jiao Tong University, China</i></p> <p>IM-MoCo: Self-supervised MRI Motion Correction using Motion-Guided Implicit Neural Representations <i>Speaker: Ziad Al-Haj Hemidi, Universität zu Lübeck, Germany</i></p> <p>Aligning and Restoring Imperfect ssEM images for Continuity Reconstruction <i>Speaker: Haiyang Yan, Institute of Automation, Chinese Academy of Sciences, China</i></p> <p>Large-Scale 3D Infant Face Model <i>Speaker: Till Schnabel, ETH Zürich, Switzerland</i></p>

Oral & Spotlight Session 9: Image Segmentation Tuesday, October 8, 2024, 13:30 to 15:00	Oral & Spotlight Session 10: Foundation Models and Multimodal Data for MICCAI Tuesday, October 8, 2024, 13:30 to 15:00
<p>Spotlight Presentations:</p> <p>VCLIPSeg: Voxel-wise CLIP-Enhanced model for Semi-Supervised Medical Image Segmentation <i>Speaker: Lei Li, Xiamen University, China</i></p> <p>Swin SMT: Global Sequential Modeling for Enhancing 3D Medical Image Segmentation <i>Speaker: Maciej Chrabaszcz, Warsaw University of Technology, Poland</i></p> <p>FRCNet: Frequency and Region Consistency for Semi-supervised Medical Image Segmentation <i>Speaker: Huazhu Fu, Institute of High Performance Computing (IHPC), Agency for Science, Technology and Research (A*STAR), Singapore</i></p>	<p>Spotlight Presentations:</p> <p>An approach to building foundation models for brain image analysis <i>Speaker: Davood Karimi, Harvard Medical School, USA</i></p> <p>DRIM: Learning Disentangled Representations from Incomplete Multimodal Healthcare Data <i>Speaker: Lucas Robinet, Oncopole Claudius Regaud, France</i></p> <p>Black-Box Adaptation for Medical Image Segmentation <i>Speaker: Jay N. Paranjape, Johns Hopkins University, USA</i></p>
<p>Oral Presentations:</p> <p>CT-based brain ventricle segmentation via diffusion Schrödinger Bridge without target domain ground truths <i>Speaker: Yiming Xiao, Concordia Univeristy, Canada</i></p> <p>DPMNet: Dual-Path MLP-based Network for Aneurysm Image Segmentation <i>Speaker: Xue Zhao, China University of Petroleum (East China), China</i></p> <p>PEMMA: Parameter-Efficient Multi-Modal Adaptation for Medical Image Segmentation <i>Speaker: Nada Saadi, Mohamed Bin Zayed University of Artificial Intelligence, United Arab Emirates</i></p> <p>IterMask2: Iterative Unsupervised Anomaly Segmentation via Spatial and Frequency Masking for Brain Lesions in MRI <i>Speaker: Ziyun Liang, University of Oxford, UK</i></p> <p>HRDecoder: High-Resolution Decoder Network for Fundus Image Lesion Segmentation <i>Speaker: Ziyuan Ding, Central South University, China</i></p>	<p>Oral Presentations:</p> <p>ProstNFound: Integrating Foundation Models with Ultrasound Domain Knowledge and Clinical Context for Robust Prostate Cancer Detection <i>Speaker: Paul Wilson, Queen's University, Canada</i></p> <p>Learning to Segment Multiple Organs from Multimodal Partially Labeled Datasets <i>Speaker: Hong Liu, Xiamen University, China</i></p> <p>Whole Heart 3D+T Representation Learning Through Sparse 2D Cardiac MR Images <i>Speaker: Yundi Zhang, AI in Medicine and Healthcare/Technical University of Munich, Germany</i></p> <p>DB-SAM: Delving into High Quality Universal Medical Image Segmentation <i>Speaker: Chao Qin, Mohamed Bin Zayed University of Artificial Intelligence, United Arab Emirates</i></p> <p>M4oE: A Foundation Model for Medical Multimodal Image Segmentation with Mixture of Experts <i>Speaker: Yiqing Shen, Johns Hopkins University, USA</i></p>

Oral Session 11: Transparency, Fairness and Uncertainty	Oral Session 12: Surgical Data Science
Tuesday, October 8, 2024, 16:30 to 18:00	Tuesday, October 8, 2024, 16:30 to 18:00
<p>BiasPruner: Debiased Continual Learning for Medical Image Classification Speaker: Nourhan Bayasi, University of British Columbia, Canada</p> <p>Follow the Radiologist: Clinically Relevant Multi-View Cues for Breast Cancer Detection from Mammograms Speaker: Kshitiz Jain, Indian Institute of Technology Delhi, India</p> <p>Learning a Clinically-Relevant Concept Bottleneck for Lesion Detection in Breast Ultrasound Speaker: Arianna Bunnell, University of Hawaii Cancer Center, USA</p> <p>Geometric Transformation Uncertainty for Improving 3D Fetal Brain Pose Prediction from Freehand 2D Ultrasound Videos Speaker: Jayroop Ramesh, University of Oxford, UK</p> <p>A Large-scale Multi Domain Leukemia Dataset for the White Blood Cells Detection with Morphological Attributes for Explainability Speaker: Abdul Rehman, Information Technology University, Pakistan</p> <p>Are We Ready for Out-of-Distribution Detection in Digital Pathology? Speaker: Ji-Hun Oh, UIUC, USA</p>	<p>SALI: Short-term Alignment and Long-term Interaction Network for Colonoscopy Video Polyp Segmentation Speaker: Qiang Hu, Huazhong University of Science and Technology, China</p> <p>ORacle: Large Vision-Language Models for Knowledge-Guided Holistic OR Domain Modeling Speaker: Ege Özsoy, TUM, Germany</p> <p>VideoCutMix: Temporal Segmentation of Surgical Videos in Scarce Data Scenarios Speaker: Rohan Raju Dhanakshirur, Indian Institute of Technology, Delhi, India</p> <p>TeleOR: Real-time Telemedicine System for Full-Scene Operating Room Speaker: Yixuan Wu, Zhejiang University, China</p> <p>Deep intra-operative illumination calibration of hyperspectral cameras Speaker: Alexander Baumann, Siemens AG/German Cancer Research Center/Heidelberg University, Germany</p> <p>PitVQA: Image-grounded Text Embedding LLM for Visual Question Answering in Pituitary Surgery Speaker: Mobarakol Islam, University College London, UK</p>

Oral Session 13: Neuroimaging	Oral Session 14: Computational Pathology
Wednesday, October 9, 2024, 8:30 to 9:30	Wednesday, October 9, 2024, 8:30 to 9:30
<p>TractOracle: towards an anatomically-informed reward function for RL-based tractography Speaker: Antoine Théberge, Université de Sherbrooke, Canada</p> <p>Enhancing Spatiotemporal Disease Progression Models via Latent Diffusion and Prior Knowledge Speaker: Lemuel Puglisi, University of Catania, Italy</p> <p>BrainWaveNet: Wavelet-based Transformer for Autism Spectrum Disorder Diagnosis Speaker: Ah-Yeong Jeong, Korea University, South Korea</p> <p>Longitudinally Consistent Individualized Prediction of Infant Cortical Morphological Development Speaker: Xinrui Yuan, University of North Carolina at Chapel Hill, USA</p>	<p>DSCENet: Dynamic Screening and Clinical-Enhanced Multimodal Fusion for MPNs Subtype Classification Speaker: Yuan Zhang, Southeast University, China</p> <p>Enhancing Gene Expression Prediction from Histology Images with Spatial Transcriptomics Completion Speaker: Gabriel Mejia and Daniela Ruiz, Center for Research and Formation in Artificial Intelligence (CinforIA), Universidad de los Andes, Colombia</p> <p>Joint multi-task learning improves weakly-supervised biomarker prediction in computational pathology Speaker: Omar S. M. El Nahhas, EKfZ for Digital Health, Germany</p> <p>WsiCaption: Multiple Instance Generation of Pathology Reports for Gigapixel Whole-Slide Images Speaker: Pingyi Chen, Westlake University, China</p>

Oral & Spotlight Session 15: Clinical Translation: Neuro, Spine and Ultrasound Wednesday, October 9, 2024, 13:30 to 15:00	Oral & Spotlight Session 16: Computer Assisted Interventions Wednesday, October 9, 2024, 13:30 to 15:00
<p>Spotlight Presentations:</p> <p>A Patient-Specific Framework for Autonomous Spinal Fixation via a Steerable Drilling Robot <i>Speaker: Susheela Sharma, The University of Texas at Austin, USA</i></p> <p>Automated Spinal MRI Labelling from Reports Using a Large Language Model <i>Speaker: Robin Y. Park, University of Oxford, UK</i></p> <p>PRISM: A Promptable and Robust Interactive Segmentation Model with Visual Prompts <i>Speaker: Hao Li, Vanderbilt University, USA</i></p>	<p>Spotlight Presentations:</p> <p>Two Projections Suffice for Cerebral Vascular Reconstruction <i>Speaker: Alexandre Cafaro, Université Paris-Saclay, France</i></p> <p>DCrownFormer: Morphology-aware Point-to-Mesh Generation Transformer for Dental Crown Prosthesis from 3D Scan Data of Antagonist and Preparation Teeth <i>Speaker: Su Yang, Seoul National University, South Korea</i></p> <p>Vision-Based Neurosurgical Guidance: Unsupervised Localization and Camera-Pose Prediction <i>Speaker: Gary Sarwin, ETH Zurich, Switzerland</i></p>
<p>Oral Presentations:</p> <p>Hybrid-Structure-Oriented Transformer for Arm Musculoskeletal Ultrasound Segmentation <i>Speaker: Lingyu Chen, Nanjing University of Aeronautics and Astronautics, China</i></p> <p>SimBrainNet: Evaluating Brain Network Similarity for Attention Disorders <i>Speaker: Debashis Das Chakladar, Luleå University of Technology, Sweden</i></p> <p>Knowledge-Guided Prompt Learning for Lifespan Brain MR Image Segmentation <i>Speaker: Lin Teng, ShanghaiTech University, China</i></p> <p>Quantitative Assessment of Thyroid Nodules through Ultrasound Imaging Analysis <i>Speaker: Young-Min Kim, KAIST, South Korea</i></p> <p>RoCoSDF: Row-Column Scanned Neural Signed Distance Fields for Freehand 3D Ultrasound Imaging Shape Reconstruction <i>Speaker: Hongbo Chen, ShanghaiTech University, China</i></p>	<p>Oral Presentations:</p> <p>LighTDiff: Surgical Endoscopic Image Low-Light Enhancement with T-Diffusion <i>Speaker: Luping Zhou, The University of Sydney, Australia</i></p> <p>Transforming Surgical Interventions with Embodied Intelligence for Ultrasound Robotics <i>Speaker: Huan Xu, CAIR, HKISI-CAS, Hong Kong SAR</i></p> <p>EndoSelf: Self-Supervised Monocular 3D Scene Reconstruction of Deformable Tissues with Neural Radiance Fields on Endoscopic Videos <i>Speaker: Wenda Li, Nagoya University, Japan</i></p> <p>Keypoint Matching for Instrument-Free 3D Registration in Video-based Surgical Navigation <i>Speaker: Tânia Baptista, Universidade de Coimbra, Portugal</i></p> <p>Topological SLAM in colonoscopies leveraging deep features and topological priors <i>Speaker: Javier Morlana, University of Zaragoza, Spain</i></p>

Poster Presentations

Poster Session 1: Image Segmentation 1, Health Equity, and Surgical Scene Understanding

Monday, October 7, 2024, 10:30 to 11:30

- M-AM-001 **7T MRI Synthesization from 3T Acquisitions**
Qiming Cui, Duygu Tosun, Pratik Mukherjee, Reza Abbasi-Asl
- M-AM-003 **A Curvature-Guided Coarse-to-Fine Framework for Enhanced Whole Brain Segmentation**
Fenqiang Zhao, Yuxing Tang, Le Lu, Ling Zhang
- M-AM-005 **A Hyperreflective Foci Segmentation Network for OCT Images with Multi-dimensional Semantic Enhancement**
Xingguo Wang, Yuhui Ma, Xinyu Guo, Yalin Zheng, Jiong Zhang, Yonghuai Liu, Yitian Zhao
- M-AM-007 **A New Benchmark In Vivo Paired Dataset for Laparoscopic Image De-smoking**
Wenyao Xia, Victoria Fan, Terry Peters, Elvis C. S. Chen
- M-AM-009 **A New Dataset and Baseline Model for Rectal Cancer Risk Assessment in Endoscopic Ultrasound Videos**
Jiansong Zhang, Shengnan Wu, Peizhong Liu, Linlin Shen
- M-AM-011 **A New Perspective to Boost Performance Fairness For Medical Federated Learning**
Yunlu Yan, Lei Zhu, Yuexiang Li, Xinxing Xu, Rick Siow Mong Goh, Yong Liu, Salman Khan, Chun-Mei Feng
- M-AM-013 **A Novel Adaptive Hypergraph Neural Network for Enhancing Medical Image Segmentation**
Shurong Chai, Rahul K. JAIN, Shaocong Mo, Jiaqing Liu, Yulin Yang, Yinhao Li, Tomoko Tateyama, Lanfen Lin, Yen-Wei Chen
- M-AM-015 **A Universal and Flexible Framework for Unsupervised Statistical Shape Model Learning**
Nafie El Amrani, Dongliang Cao, Florian Bernard
- M-AM-017 **Achieving Fairness Through Channel Pruning for Dermatological Disease Diagnosis**
Qingpeng Kong, Ching-Hao Chiu, Dewen Zeng, Yu-Jen Chen, Tsung-Yi Ho, Jingtong Hu, Yiyu Shi
- M-AM-019 **Adaptive Smooth Activation Function for Improved Organ Segmentation and Disease Diagnosis**
Koushik Biswas, Debesh Jha, Nikhil Kumar Tomar, Meghana Karri, Amit Reza, Gorkem Durak, Alpay Medetalibeyoglu, Matthew Antalek, Yury Velichko, Daniela Ladner, Amir Borhani, Ulas Bagci
- M-AM-021 **Advancing Sensorless Freehand 3D Ultrasound Reconstruction with a Novel Coupling Pad**
Ling Dai, Kaitao Zhao, Zhongyu Li, Jihua Zhu, Libin Liang
- M-AM-023 **Airway segmentation based on topological structure enhancement using multi-task learning**
Xuan Yang, Lingyu Chen, Yuchao Zheng, Longfei Ma, Fang Chen, Guochen Ning, Hongen Liao
- M-AM-025 **Algebraic Sphere Surface Fitting for Accurate and Efficient Mesh Reconstruction from Cine CMR Images**
Jin He, Weizhou Liu, Shifeng Zhao, Yun Tian, Shuo Wang
- M-AM-027 **Algorithmic Fairness in Lesion Classification by Mitigating Class Imbalance and Skin Tone Bias**
Faizanuddin Ansari, Tapabrata Chakraborti, Swagatam Das
- M-AM-029 **AMONuSeg: A Histological Dataset for African Multi-Organ Nuclei Semantic Segmentation**
Hasnae Zerouaoui, Gbenga Peter Oderinde, Rida Lefdali, Karima Echihabi, Stephen Peter Akpulu, Nosereme Abel Agbon, Abraham Sunday Musa, Yousef Yeganeh, Azade Farshad, Nassir Navab
- M-AM-031 **An Empirical Study on the Fairness of Foundation Models for Multi-Organ Image Segmentation**
Qing Li, Yizhe Zhang, Yan Li, Jun Lyu, Meng Liu, Longyu Sun, Mengting Sun, Qirong Li, Wenye Mao, Xinran Wu, Yajing Zhang, Yinghua Chu, Shuo Wang, Chengyan Wang
- M-AM-033 **Analyzing Adjacent B-Scans to Localize Sickle Cell Retinopathy In OCTs**
Ashuta Bhattarai, Jing Jin, Chandra Kambhamettu

- M-AM-035 **Analyzing Cross-Population Domain Shift in Chest X-Ray Image Classification and Mitigating the Gap with Deep Supervised Domain Adaptation**
Aminu Musa, Mariya Ibrahim Adamu, Habeebah Adamu Kakudi, Monica Hernandez, Yusuf Lawal
- M-AM-037 **Anatomy-guided Pathology Segmentation**
Alexander Jaus, Constantin Seibold, Simon Reiß, Lukas Heine, Anton Schily, Moon Kim, Fin Hendrik Bahnsen, Ken Herrmann, Rainer Stiefelhagen, Jens Kleesiek
- M-AM-039 **Automated Robust Muscle Segmentation in Multi-level Contexts using a Probabilistic Inference Framework**
Jinge Wang, Guilin Chen, Xuefeng Wang, Nan Wu, Terry Jianguo Zhang
- M-AM-041 **Automatic Mandibular Semantic Segmentation of Teeth Pulp Cavity and Root Canals, and Inferior Alveolar Nerve on Pulpy3D Dataset**
Mahmoud Gamal, Marwa Baraka, Marwan Torki
- M-AM-043 **BGDiffSeg: a Fast Diffusion Model for Skin Lesion Segmentation via Boundary Enhancement and Global Recognition Guidance**
Yilin Guo, Qingling Cai
- M-AM-045 **BGF-YOLO: Enhanced YOLOv8 with Multiscale Attentional Feature Fusion for Brain Tumor Detection**
Ming Kang, Chee-Ming Ting, Fung Fung Ting, Raphaël C.-W. Phan
- M-AM-047 **Boosting FFPE-to-HE Virtual Staining with Cell Semantics from Pretrained Segmentation Model**
Yihuang Hu, Qiong Peng, Zhicheng Du, Guojun Zhang, Huisi Wu, Jingxin Liu, Hao Chen, Liansheng Wang
- M-AM-049 **Cache-Driven Spatial Test-Time Adaptation for Cross-Modality Medical Image Segmentation**
Xiang Li, Huihui Fang, Changmiao Wang, Mingsi Liu, Lixin Duan, Yanwu Xu
- M-AM-051 **Causal Intervention for Brain tumor Segmentation**
Hengxin Liu, Qiang Li, Weizhi Nie, Zibo Xu, Anan Liu
- M-AM-053 **Causality-Informed Fusion Network for Automated Assessment of Parkinsonian Body Bradykinesia**
Yuyang Quan, Chencheng Zhang, Rui Guo, Xiaohua Qian
- M-AM-055 **Centerline-Diameters Data Structure for Interactive Segmentation of Tube-shaped Objects**
Ilyas Sirazitdinov, Dmitry V. Dyllov
- M-AM-057 **Class-aware Mutual Mixup with Triple Alignments for Semi-Supervised Cross-domain Segmentation**
Zhuotong Cai, Jingmin Xin, Tianyi Zeng, Siyuan Dong, Nanning Zheng, James S. Duncan
- M-AM-059 **Common Vision-Language Attention for Text-Guided Medical Image Segmentation of Pneumonia**
Yunpeng Guo, Xinyi Zeng, Pinxian Zeng, Yuchen Fei, Lu Wen, Jiliu Zhou, Yan Wang
- M-AM-061 **Conditional diffusion model with spatial attention and latent embedding for medical image segmentation**
Behzad Hejrati, Soumyanil Banerjee, Carri Glide-Hurst, Ming Dong
- M-AM-063 **Contrast Representation Learning from Imaging Parameters for Magnetic Resonance Image Synthesis**
Honglin Xiong, Yu Fang, Kaicong Sun, Yulin Wang, Xiaopeng Zong, Weijun Zhang, Qian Wang
- M-AM-065 **Controllable Counterfactual Generation for Interpretable Medical Image Classification**
Shiyu Liu, Fan Wang, Zehua Ren, Chunfeng Lian, Jianhua Ma
- M-AM-067 **Convex Segments for Convex Objects using DNN Boundary Tracing and Graduated Optimization**
Jimut B. Pal, Suyash P. Awate
- M-AM-069 **Cross-graph Interaction and Diffusion Probability Models for Lung Nodule Segmentation**
Huaqiang Su, Haijun Lei, Chen Guoliang, Baiying Lei
- M-AM-071 **CS3: Cascade SAM for Sperm Segmentation**

Yi Shi, Xu-Peng Tian, Yun-Kai Wang, Tie-Yi Zhang, Bing Yao, Hui Wang, Yong Shao, Cen-Cen Wang, Rong Zeng, De-Chuan Zhan

- M-AM-073 **CUTS: A Deep Learning and Topological Framework for Multigranular Unsupervised Medical Image Segmentation**
Chen Liu, Matthew Amodio, Liangbo L. Shen, Feng Gao, Arman Avesta, Sanjay Aneja, Jay C. Wang, Lucian V. Del Priore, Smita Krishnaswamy
- M-AM-075 **Cycle-consistent Learning for Fetal Cortical Surface Reconstruction**
Xiuyu Dong, Zhengwang Wu, Laifa Ma, Ya Wang, Kaibo Tang, He Zhang, Weili Lin, Gang Li
- M-AM-077 **Data-Algorithm-Architecture Co-Optimization for Fair Neural Networks on Skin Lesion Dataset**
Yi Sheng, Junhuan Yang, Jinyang Li, James Alaina, Xiaowei Xu, Yiyu Shi, Jingtong Hu, Weiwen Jiang, Lei Yang
- M-AM-079 **Debiased Noise Editing for Fair Medical Image Classification**
Ruinan Jin, Wenlong Deng, Minghui Chen, Xiaoxiao Li
- M-AM-081 **Decoupled Training for Semi-supervised Medical Image Segmentation with Worst-Case-Aware Learning**
Ankit Das, Chandan Gautam, Hisham Cholakkal, Pritee Agrawal, Feng Yang, Ramasamy Savitha, Yong Liu
- M-AM-083 **DeepRepViz: Identifying potential confounders in deep learning model predictions**
Roshan Prakash Rane, JiHoon Kim, Arjun Umesh, Didem Stark, Marc-André Schulz, Kerstin Ritter
- M-AM-085 **DiffDGSS: Generalizable Retinal Image Segmentation with Deterministic Representation from Diffusion Models**
Yingpeng Xie, Junlong Qu, Hai Xie, Tianfu Wang, Baiying Lei
- M-AM-087 **Differentiable Soft Morphological Filters for Medical Image Segmentation**
Lisa Guzzi, Maria A. Zuluaga, Fabien Lareyre, Gilles Di Lorenzo, Sébastien Goffart, Andrea Chierici, Juliette Raffort, Hervé Delingette
- M-AM-089 **DiffRect: Latent Diffusion Label Rectification for Semi-supervised Medical Image Segmentation**
Xinyu Liu, Wuyang Li, Yixuan Yuan
- M-AM-091 **Diffusion-Enhanced Transformation Consistency Learning for Retinal Image Segmentation**
Xiang Li, Huihui Fang, Mingsi Liu, Yanwu Xu, Lixin Duan
- M-AM-093 **Diff-VPS: Video Polyp Segmentation via a Multi-task Diffusion Network with Adversarial Temporal Reasoning**
Yingling Lu, Yijun Yang, Zhaohu Xing, Qiong Wang, Lei Zhu
- M-AM-095 **Diversified and Structure-realistic Fundus Image Synthesis for Diabetic Retinopathy Lesion Segmentation**
Xiaoyi Feng, Mingqing Zhang, Mengxian He, Mengdi Gao, Hao Wei, Wu Yuan
- M-AM-097 **DomainAdapt: Leveraging Multitask Learning and Domain Insights for Children’s Nutritional Status Assessment**
Misaal Khan, Richa Singh, Mayank Vatsa, Kuldeep Singh
- M-AM-099 **DTCA: Dual-Branch Transformer with Cross-Attention for EEG and Eye Movement Data Fusion**
Xiaoshan Zhang, Enze Shi, Sigang Yu, Shu Zhang
- M-AM-101 **Dynamic Position Transformation and Boundary Refinement Network for Left Atrial Segmentation**
Fangqiang Xu, Wenxuan Tu, Fan Feng, Malitha Gunawardhana, Jiayuan Yang, Yun Gu, Jichao Zhao
- M-AM-103 **Efficient Cortical Surface Parcellation via Full-Band Diffusion Learning at Individual Space**
Yuanzhuo Zhu, Chunfeng Lian, Xianjun Li, Fan Wang, Jianhua Ma
- M-AM-105 **Efficient In-Context Medical Segmentation with Meta-driven Visual Prompt Selection**
Chenwei Wu, David Restrepo, Zitao Shuai, Zhongming Liu, Liyue Shen

- M-AM-107 **EgoSurgery-Phase: A Dataset of Surgical Phase Recognition from Egocentric Open Surgery Videos**
Ryo Fujii, Masashi Hatano, Hideo Saito, Hiroki Kajita
- M-AM-109 **Embracing Massive Medical Data**
Yu-Cheng Chou, Zongwei Zhou, Alan Yuille
- M-AM-111 **EMF-former: An Efficient and Memory-Friendly Transformer for Medical Image Segmentation**
Zhaoquan Hao, Hongyan Quan, Yinbin Lu
- M-AM-113 **EM-Net: Efficient Channel and Frequency Learning with Mamba for 3D Medical Image Segmentation**
Ao Chang, Jiajun Zeng, Ruobing Huang, Dong Ni
- M-AM-115 **Enabling Text-free Inference in Language-guided Segmentation of Chest X-rays via Self-guidance**
Shuchang Ye, Mingyuan Meng, Mingjian Li, Dagan Feng, Jinman Kim
- M-AM-117 **Enhancing Federated Learning Performance Fairness via Collaboration Graph-based Reinforcement Learning**
Yuexuan Xia, Benteng Ma, Qi Dou, Yong Xia
- M-AM-119 **Enhancing Label-efficient Medical Image Segmentation with Text-guided Diffusion Models**
Chun-Mei Feng
- M-AM-121 **Ensembled Cold-Diffusion Restorations for Unsupervised Anomaly Detection**
Sergio Naval Marimont, Vasilis Siomos, Matthew Baugh, Christos Tzelepis, Bernhard Kainz, Giacomo Tarroni
- M-AM-123 **Evaluating the Fairness of Neural Collapse in Medical Image Classification**
Kaouther Mouheb, Marawan Elbatel, Stefan Klein, Esther E. Bron
- M-AM-125 **Exploring Spatio-Temporal Interpretable Dynamic Brain Function with Transformer for Brain Disorder Diagnosis**
Lanting Li, Liuzeng Zhang, Peng Cao, Jinzhu Yang, Fei Wang, Osmar R. Zaiane
- M-AM-127 **Fair and Accurate Skin Disease Image Classification by Alignment with Clinical Labels**
Aayushman, Hemanth Gaddey, Vidhi Mittal, Manisha Chawla, Gagan Raj Gupta
- M-AM-129 **FairQuantize: Achieving Fairness Through Weight Quantization for Dermatological Disease Diagnosis**
Yuanbo Guo, Zhengge Jia, Jingtong Hu, Yiyu Shi
- M-AM-131 **FedIA: Federated Medical Image Segmentation with Heterogeneous Annotation Completeness**
Yangyang Xiang, Nannan Wu, Li Yu, Xin Yang, Kwang-Ting Cheng, Zengqiang Yan
- M-AM-133 **FedMRL: Data Heterogeneity Aware Federated Multi-agent Deep Reinforcement Learning for Medical Imaging**
Pranab Sahoo, Ashutosh Tripathi, Sriparna Saha, Samrat Mondal
- M-AM-135 **Few-Shot 3D Volumetric Segmentation with Multi-Surrogate Fusion**
Meng Zheng, Benjamin Planche, Zhongpai Gao, Terrence Chen, Richard J. Radke, Ziyang Wu
- M-AM-137 **FM-ABS: Promptable Foundation Model Drives Active Barely Supervised Learning for 3D Medical Image Segmentation**
Zhe Xu, Cheng Chen, Donghuan Lu, Jinghan Sun, Dong Wei, Yefeng Zheng, Quanzheng Li, Raymond Kai-yu Tong
- M-AM-139 **From Pixel to Cancer: Cellular Automata in Computed Tomography**
Yuxiang Lai, Xiaoxi Chen, Angtian Wang, Alan Yuille, Zongwei Zhou
- M-AM-141 **FUNAvg: Federated Uncertainty Weighted Averaging for Datasets with Diverse Labels**
Malte Tölle, Fernando Navarro, Sebastian Eble, Ivo Wolf, Bjoern Menze, Sandy Engelhardt
- M-AM-143 **GEM: Context-Aware Gaze Estimation with Visual Search Behavior Matching for Chest Radiograph**
Shaonan Liu, Wenting Chen, Jie Liu, Xiaoling Luo, Linlin Shen

- M-AM-145 **H2ASeg: Hierarchical Adaptive Interaction and Weighting Network for Tumor Segmentation in PET/CT Images**
Jinpeng Lu, Jingyun Chen, Linghan Cai, Songhan Jiang, Yongbing Zhang
- M-AM-147 **Hemodynamic-Driven Multi-Prototypes Learning for One-Shot Segmentation in Breast Cancer DCE-MRI**
Xiang Pan, Shiyun Nie, Tianxu Lv, Lihua Li
- M-AM-149 **HistoSyn: Histomorphology-Focused Pathology Image Synthesis**
Chong Yin, Siqi Liu, Vincent Wai-Sun Wong, Pong C. Yuen
- M-AM-151 **HySpark: Hybrid Sparse Masking for Large Scale Medical Image Pre-Training**
Fenghe Tang, Ronghao Xu, Qingsong Yao, Xueming Fu, Quan Quan, Heqin Zhu, Zaiyi Liu, S. Kevin Zhou
- M-AM-153 **Implicit Representation Embraces Challenging Attributes of Pulmonary Airway Tree Structures**
Minghui Zhang, Hanxiao Zhang, Xin You, Guang-Zhong Yang, Yun Gu
- M-AM-155 **InstaSAM: Instance-aware Segment Any Nuclei Model with Point Annotations**
Siwoo Nam, Hyun Namgung, Jaehoon Jeong, Miguel Luna, Soopil Kim, Philip Chikontwe, Sang Hyun Park
- M-AM-157 **Intraoperative Registration by Cross-Modal Inverse Neural Rendering**
Maximilian Fehrentz, Mohammad Farid Azampour, Reuben Dorent, Hassan Rasheed, Colin Galvin, Alexandra Golby, William M. Wells, Sarah Frisken, Nassir Navab, Nazim Haouchine
- M-AM-159 **k-t Self-Consistency Diffusion: A Physics-Informed Model for Dynamic MR Imaging**
Ye Liu, Zhuo-Xu Cui, Kaicong Sun, Ting Zhao, Jing Cheng, Yuliang Zhu, Dinggang Shen, Dong Liang
- M-AM-161 **Learning Representations by Maximizing Mutual Information Across Views for Medical Image Segmentation**
Weihao Weng, Xin Zhu
- M-AM-163 **Letting Osteocytes Teach SR-microCT Bone Lacunae Segmentation: A Feature Variation Distillation Method via Diffusion Denoising**
Isabella Poles, Marco D. Santambrogio, Eleonora D'Arnese
- M-AM-165 **Leveraging the Mahalanobis Distance to enhance Unsupervised Brain MRI Anomaly Detection**
Finn Behrendt, Debayan Bhattacharya, Robin Mieling, Lennart Maack, Julia Krüger, Roland Opfer, Alexander Schlaefer
- M-AM-167 **LGS: A Light-weight 4D Gaussian Splatting for Efficient Surgical Scene Reconstruction**
Hengyu Liu, Yifan Liu, Chenxin Li, Wuyang Li, Yixuan Yuan
- M-AM-169 **Lost in Tracking: Uncertainty-guided Cardiac Cine MRI Segmentation at Right Ventricle Base**
Yidong Zhao, Yi Zhang, Orlando Simonetti, Yuchi Han, Qian Tao
- M-AM-171 **Low-Rank Continual Pyramid Vision Transformer: Incrementally Segment Whole-Body Organs in CT with Light-Weighted Adaptation**
Vince Zhu, Zhanghexuan Ji, Dazhou Guo, Puyang Wang, Yingda Xia, Le Lu, Xianghua Ye, Wei Zhu, Dakai Jin
- M-AM-173 **Low-Rank Mixture-of-Experts for Continual Medical Image Segmentation**
Qian Chen, Lei Zhu, Hangzhou He, Xinliang Zhang, Shuang Zeng, Qiushi Ren, Yanye Lu
- M-AM-175 **MCAD: Multi-modal Conditioned Adversarial Diffusion Model for High-Quality PET Image Reconstruction**
Jiaqi Cui, Xinyi Zeng, Pinxian Zeng, Bo Liu, Xi Wu, Jiliu Zhou, Yan Wang
- M-AM-177 **MedContext: Learning Contextual Cues for Efficient Volumetric Medical Segmentation**
Hanan Gani, Muzammal Naseer, Fahad Khan, Salman Khan
- M-AM-179 **MedMLP: An Efficient MLP-like Network for Zero-shot Retinal Image Classification**
Menghan Zhou, Yanyu Xu, Zhi Da Soh, Huazhu Fu, Rick Siow Mong Goh, Ching-Yu Cheng, Yong Liu, Liangli Zhen

- M-AM-181 **MemWarp: Discontinuity-Preserving Cardiac Registration with Memorized Anatomical Filters**
Hang Zhang, Xiang Chen, Renjiu Hu, Dongdong Liu, Gaolei Li, Rongguang Wang
- M-AM-183 **MetaStain: Stain-generalizable Meta-learning for Cell Segmentation and Classification with Limited Exemplars**
Aishik Konwer, Prateek Prasanna
- M-AM-185 **MetaUNETR: Rethinking Token Mixer Encoding for Efficient Multi-Organ Segmentation**
Pengju Lyu, Jie Zhang, Lei Zhang, Wenjian Liu, Cheng Wang, Jianjun Zhu
- M-AM-187 **Mining Gold from the Sand: Weakly Supervised Histological Tissue Segmentation with Activation Relocalization and Mutual Learning**
Siyang Feng, Jiale Chen, Zhenbing Liu, Wentao Liu, Zimin Wang, Rushi Lan, Xipeng Pan
- M-AM-189 **Mitigating attribute amplification in counterfactual image generation**
Tian Xia, Mélanie Roschewitz, Fabio De Sousa Ribeiro, Charles Jones, Ben Glocker
- M-AM-191 **ModelMix: A New Model-Mixup Strategy to Minimize Vicinal Risk across Tasks for Few-scribble based Cardiac Segmentation**
Ke Zhang, Vishal M. Patel
- M-AM-193 **MoreStyle: Relax Low-frequency Constraint of Fourier-based Image Reconstruction in Generalizable Medical Image Segmentation**
Haoyu Zhao, Wenhui Dong, Rui Yu, Zhou Zhao, Bo Du, Yongchao Xu
- M-AM-195 **MOST: Multi-Formation Soft Masking for Semi-Supervised Medical Image Segmentation**
Xinyu Liu, Zhen Chen, Yixuan Yuan
- M-AM-197 **Multi-category Graph Reasoning for Multi-modal Brain Tumor Segmentation**
Dongzhe Li, Baoyao Yang, Weide Zhan, Xiaochen He
- M-AM-199 **Multilevel Causality Learning for Multi-label Gastric Atrophy Diagnosis**
Xiaoxiao Cui, Shanzhi Jiang, Baolin Sun, Yiran Li, Yankun Cao, Zhen Li, Chaoyang Lv, Zhi Liu, Lizhen Cui, Shuo Li
- M-AM-201 **Multi-modality 3D CNN Transformer for Assisting Clinical Decision in Intracerebral Hemorrhage**
Zicheng Xiong, Kai Zhao, Like Ji, Xujun Shu, Dazhi Long, Shengbo Chen, Fuxing Yang
- M-AM-203 **Multi-stage Multi-granularity Focus-tuned Learning Paradigm for Medical HSI Segmentation**
Haichuan Dong, Runjie Zhou, Boxiang Yun, Huihui Zhou, Benyan Zhang, Qingli Li, Yan Wang
- M-AM-205 **Neural Cellular Automata for Lightweight, Robust and Explainable Classification of White Blood Cell Images**
Michael Deutges, Ario Sadafi, Nassir Navab, Carsten Marr
- M-AM-207 **nnU-Net Revisited: A Call for Rigorous Validation in 3D Medical Image Segmentation**
Fabian Isensee, Tassilo Wald, Constantin Ulrich, Michael Baumgartner, Saikat Roy, Klaus Maier-Hein, Paul Jäger
- M-AM-209 **Ocular Stethoscope: Auditory Support for Retinal Membrane Peeling**
Sasan Matinfar, Shervin Dehghani, Michael Sommersperger, Koorosh Faridpooya, Merle Fairhurst, Nassir Navab
- M-AM-211 **On Instabilities of Unsupervised Denoising Diffusion Models in Magnetic Resonance Imaging Reconstruction**
Tianyu Han, Sven Nebelung, Firas Khader, Jakob Nikolas Kather, Daniel Truhn
- M-AM-213 **Overlay Mantle-Free for Semi-Supervised Medical Image Segmentation**
Jiacheng Liu, Wenhua Qian, Jinde Cao, Peng Liu
- M-AM-215 **Pair Shuffle Consistency for Semi-supervised Medical Image Segmentation**
Jianjun He, Chenyu Cai, Qiong Li, Andy J Ma

- M-AM-217 **Patch-Slide Discriminative Joint Learning for Weakly-Supervised Whole Slide Image Representation and Classification**
Jiahui Yu, Xuna Wang, Tianyu Ma, Xiaoxiao Li, Yingke Xu
- M-AM-219 **Perspective+ Unet: Enhancing Segmentation with Bi-Path Fusion and Efficient Non-Local Attention for Superior Receptive Fields**
Jintong Hu, Siyan Chen, Zhiyi Pan, Sen Zeng, Wenming Yang
- M-AM-221 **Polyp-Mamba: Polyp Segmentation with Visual Mamba**
Zhongxing Xu, Feilong Tang, Zhe Chen, Zheng Zhou, Weishan Wu, Yuyao Yang, Yu Liang, Jiyu Jiang, Xuyue Cai, Jionglong Su
- M-AM-223 **Progressive Growing of Patch Size: Resource-Efficient Curriculum Learning for Dense Prediction Tasks**
Stefan M. Fischer, Lina Felsner, Richard Osuala, Johannes Kiechle, Daniel M. Lang, Jan C. Peeken, Julia A. Schnabel
- M-AM-225 **Progressively Correcting Soft Labels via Teacher Team for Knowledge Distillation in Medical Image Segmentation**
Yaqi Wang, Peng Cao, Qingshan Hou, Linqi Lan, Jinzhu Yang, Xiaoli Liu, Osmar R. Zaiane
- M-AM-227 **QueryNet: A Unified Framework for Accurate Polyp Segmentation and Detection**
Jiaxing Chai, Zhiming Luo, Jianzhe Gao, Licun Dai, Yingxin Lai, Shaozi Li
- M-AM-229 **Quest for Clone: Test-time Domain Adaptation for Medical Image Segmentation by Searching the Closest Clone in Latent Space**
Hritam Basak, Zhaozheng Yin
- M-AM-231 **Region Attention Transformer for Medical Image Restoration**
Zhiwen Yang, Haowei Chen, Ziniu Qian, Yang Zhou, Hui Zhang, Dan Zhao, Bingzheng Wei, Yan Xu
- M-AM-233 **Rethinking Cell Counting Methods: Decoupling Counting and Localization**
Zixuan Zheng, Yilei Shi, Chunlei Li, Jingliang Hu, Xiao Xiang Zhu, Lichao Mou
- M-AM-235 **SAM Guided Task-Specific Enhanced Nuclei Segmentation in Digital Pathology**
Bishal R. Swain, Kyung J. Cheoi, Jaepil Ko
- M-AM-237 **SANGRE: a Shallow Attention Network Guided by Resolution Expansion for MR Image Segmentation**
Ying He, Marc E. Miquel, Qianni Zhang
- M-AM-239 **SegMamba: Long-range Sequential Modeling Mamba For 3D Medical Image Segmentation**
Zhaohu Xing, Tian Ye, Yijun Yang, Guang Liu, Lei Zhu
- M-AM-241 **Self-supervised 3D Skeleton Completion for Vascular Structures**
Jiaxiang Ren, Zhenghong Li, Wensheng Cheng, Zhilin Zou, Kicheon Park, Yingtian Pan, Haibin Ling
- M-AM-243 **ShapeMamba-EM: Fine-Tuning Foundation Model with Local Shape Descriptors and Mamba Blocks for 3D EM Image Segmentation**
Ruohua Shi, Qiufan Pang, Lei Ma, Lingyu Duan, Tiejun Huang, Tingting Jiang
- M-AM-245 **SimTxtSeg: Weakly-Supervised Medical Image Segmentation with Simple Text Cues**
Yuxin Xie, Tao Zhou, Yi Zhou, Geng Chen
- M-AM-247 **SiNGR: Brain Tumor Segmentation via Signed Normalized Geodesic Transform Regression**
Trung Dang, Huy Hoang Nguyen, Aleksei Tiulpin
- M-AM-249 **SkinCON: Towards consensus for the uncertainty of skin cancer sub-typing through distribution regularized adaptive predictive sets (DRAPS)**
Zhihang Ren, Yunqi Li, Xinyu Li, Xinrong Xie, Erik P. Duhaime, Kathy Fang, Tapabrata Chakraborty, Yunhui Guo, Stella X. Yu, David Whitney
- M-AM-251 **Spatial Diffusion for Cell Layout Generation**
Chen Li, Xiaoling Hu, Shahira Abousamra, Meilong Xu, Chao Chen

- M-AM-253 **Stable Diffusion Segmentation for Biomedical Images with Single-step Reverse Process**
Tianyu Lin, Zhiguang Chen, Zhonghao Yan, Weijiang Yu, Fudan Zheng
- M-AM-255 **StereoDiffusion: Temporally Consistent Stereo Depth Estimation with Diffusion Models**
Haozheng Xu, Chi Xu, Stamatia Giannarou
- M-AM-257 **Super-Field MRI Synthesis for Infant Brains Enhanced by Dual Channel Latent Diffusion**
Austin Tapp, Can Zhao, Holger R. Roth, Jeffrey Tanedo, Syed Muhammad Anwar, Niall J. Bourke, Joseph Hajnal, Victoria Nankabirwa, Sean Deoni, Natasha Lepore, Marius George Linguraru
- M-AM-259 **Tail-Enhanced Representation Learning for Surgical Triplet Recognition**
Shuangchun Gui, Zhenkun Wang
- M-AM-261 **The Centerline-Cross Entropy Loss for Vessel-Like Structure Segmentation: Better Topology Consistency Without Sacrificing Accuracy**
Cesar Acebes, Abdel Hakim Moustafa, Oscar Camara, Adrian Galdran
- M-AM-263 **The MRI Scanner as a Diagnostic: Image-less Active Sampling**
Yuning Du, Rohan Dharmakumar, Sotirios A. Tsaftaris
- M-AM-265 **Towards Precise Pose Estimation in Robotic Surgery: Introducing Occlusion-Aware Loss**
Jihun Park, Jiuk Hong, Jihun Yoon, Bokyung Park, Min-Kook Choi, Heechul Jung
- M-AM-267 **TSBP: Improving Object Detection in Histology Images via Test-time Self-guided Bounding-box Propagation**
Tingting Yang, Liang Xiao, Yizhe Zhang
- M-AM-269 **Universal Topology Refinement for Medical Image Segmentation with Polynomial Feature Synthesis**
Liu Li, Hanchun Wang, Matthew Baugh, Qiang Ma, Weitong Zhang, Cheng Ouyang, Daniel Rueckert, Bernhard Kainz
- M-AM-271 **Unsupervised Training of Neural Cellular Automata on Edge Devices**
John Kalkhof, Amin Ranem, Anirban Mukhopadhyay
- M-AM-273 **Variational Field Constraint Learning for Degree of Coronary Artery Ischemia Assessment**
Qi Zhang, Xiujian Liu, Heye Zhang, Chenchu Xu, Guang Yang, Yixuan Yuan, Tao Tan, Zhifan Gao
- M-AM-275 **Visual-Textual Matching Attention for Lesion Segmentation in Chest Images**
Phuoc-Nguyen Bui, Duc-Tai Le, Hyunseung Choo
- M-AM-277 **VolumeNeRF: CT Volume Reconstruction from a Single Projection View**
Jiachen Liu, Xiangzhi Bai
- M-AM-279 **Weakly Supervised Tooth Instance Segmentation on 3D Dental Models with Multi-Label Learning**
Haoyu Wang, Kehan Li, Jihua Zhu, Fan Wang, Chunfeng Lian, Jianhua Ma
- M-AM-281 **Weak-supervised Attention Fusion Network for Carotid Artery Vessel Wall Segmentation**
Haijun Lei, Guanjiie Tong, Huaqiang Su, Baiying Lei
- M-AM-283 **When 3D Partial Points Meets SAM: Tooth Point Cloud Segmentation with Sparse Labels**
Yifan Liu, Wuyang Li, Cheng Wang, Hui Chen, Yixuan Yuan

Poster Session 2: Machine Learning: Learning Strategies and Clinical applications: Neuroimaging and Ultrasound

Monday, October 7, 2024, 15:00 to 16:30

- M-PM-002 **3D Vessel Graph Generation Using Denoising Diffusion**
Chinmay Prabhakar, Suprosanna Shit, Fabio Musio, Kaiyuan Yang, Tamaz Amiranashvili, Johannes C. Paetzold, Hongwei Bran Li, Bjoern Menze
- M-PM-004 **A Clinical-oriented Lightweight Network for High-resolution Medical Image Enhancement**
Yaqi Wang, Leqi Chen, Qingshan Hou, Peng Cao, Jinzhu Yang, Xiaoli Liu, Osmar R. Zaiane

- M-PM-006 **A Hybrid CNN-Transformer Feature Pyramid Network for Granular Abdominal Aortic Calcification Detection from DXA Images**
Zaid Ilyas, Afsah Saleem, David Suter, John T. Schousboe, William D. Leslie, Joshua R. Lewis, Syed Zulqarnain Gilani
- M-PM-008 **A Wasserstein Recipe for Replicable Machine Learning on Functional Neuroimages**
Jiaqi Ding, Tingting Dan, Ziquan Wei, Paul Laurienti, Guorong Wu
- M-PM-010 **Across-subject ensemble-learning alleviates the need for large samples for fMRI decoding**
Himanshu Aggarwal, Liza Al-Shikhley, Bertrand Thirion
- M-PM-012 **Active Label Refinement for Robust Training of Imbalanced Medical Image Classification Tasks in the Presence of High Label Noise**
Bidur Khanal, Tianhong Dai, Binod Bhattarai, Cristian Linte
- M-PM-014 **Adaptive Subtype and Stage Inference for Alzheimer’s Disease**
Xinkai Wang, Yonggang Shi
- M-PM-016 **Affinity Learning Based Brain Function Representation for Disease Diagnosis**
Mengjun Liu, Zhiyun Song, Dongdong Chen, Xin Wang, Zixu Zhuang, Manman Fei, Lichi Zhang, Qian Wang
- M-PM-018 **An MR-Compatible Virtual Reality System for Assessing Neuronal Plasticity of Sensorimotor Neurons and Mirror Neurons**
Xiaocheng Wang, D. B. Mekbib, Tian Zhou, Junming Zhu, Li Zhang, Ruidong Cheng, Jianmin Zhang, Xiangming Ye, Dongrong Xu
- M-PM-020 **Anatomy-Aware Gating Network for Explainable Alzheimer’s Disease Diagnosis**
Hongchao Jiang, Chunyan Miao
- M-PM-022 **ASA: Learning Anatomical Consistency, Sub-volume Spatial Relationships and Fine-grained Appearance for CT Images**
Jiaxuan Pang, DongAo Ma, Ziyu Zhou, Michael B. Gotway, Jianming Liang
- M-PM-024 **Assessing Risk of Stealing Proprietary Models for Medical Imaging Tasks**
Ankita Raj, Harsh Swaika, Deepankar Varma, Chetan Arora
- M-PM-026 **Beyond Adapting SAM: Towards End-to-End Ultrasound Image Segmentation via Auto Prompting**
Xian Lin, Yangyang Xiang, Li Yu, Zengqiang Yan
- M-PM-028 **BIMCV-R: A Landmark Dataset for 3D CT Text-Image Retrieval**
Yinda Chen, Che Liu, Xiaoyu Liu, Rossella Arcucci, Zhiwei Xiong
- M-PM-030 **Binary Noise for Binary Tasks: Masked Bernoulli Diffusion for Unsupervised Anomaly Detection**
Julia Wolleb, Florentin Bieder, Paul Friedrich, Peter Zhang, Alicia Durrer, Philippe C. Cattin
- M-PM-032 **Biophysics Informed Pathological Regularisation for Brain Tumour Segmentation**
Lipei Zhang, Yanqi Cheng, Lihao Liu, Carola-Bibiane Schönlieb, Angelica I Aviles-Rivero
- M-PM-034 **Cardiac Copilot: Automatic Probe Guidance for Echocardiography with World Model**
Haojun Jiang, Zhenguo Sun, Ning Jia, Meng Li, Yu Sun, Shaqi Luo, Shiji Song, Gao Huang
- M-PM-036 **CAR-MFL: Cross-Modal Augmentation by Retrieval for Multimodal Federated Learning with Missing Modalities**
Pranav Poudel, Prashant Shrestha, Sanskar Amgain, Yash Raj Shrestha, Prashna Gyawali, Binod Bhattarai
- M-PM-038 **Center-to-Edge Denoising Diffusion Probabilistic Models with Cross-domain Attention for Undersampled MRI Reconstruction**
Jianfeng Zhao, Shuo Li
- M-PM-040 **CoBooM: Codebook Guided Bootstrapping for Medical Image Representation Learning**
Azad Singh, Deepak Mishra

- M-PM-042 **Consecutive-Contrastive Spherical U-net: Enhancing Reliability of Individualized Functional Brain Parcellation for Short-duration fMRI Scans**
Dan Hu, Kangfu Han, Jiale Cheng, Gang Li
- M-PM-044 **Context-guided Continual Reinforcement Learning for Landmark Detection with Incomplete Data**
Kaiwen Wan, Bomin Wang, Fuping Wu, Haiyu Gong, Xiahai Zhuang
- M-PM-046 **Continual Domain Incremental Learning for Privacy-aware Digital Pathology**
Pratibha Kumari, Daniel Reisenbüchler, Lucas Luttmner, Nadine S. Schaadt, Friedrich Feuerhake, Dorit Merhof
- M-PM-048 **CoReEcho: Continuous Representation Learning for 2D+time Echocardiography Analysis**
Fadillah Adamsyah Maani, Numan Saeed, Aleksandr Matsun, Mohammad Yaqub
- M-PM-050 **COVID19 to Pneumonia: Multi Region Lung Severity Classification using CNN Transformer Position-Aware Feature Encoding Network**
Jong Bub Lee, Jung Soo Kim, Hyun Gyu Lee
- M-PM-052 **CriDiff: Criss-cross Injection Diffusion Framework via Generative Pre-train for Prostate Segmentation**
Tingwei Liu, Miao Zhang, Leiye Liu, Jialong Zhong, Shuyao Wang, Yongri Piao, Huchuan Lu
- M-PM-054 **Cross Prompting Consistency with Segment Anything Model for Semi-supervised Medical Image Segmentation**
Juzheng Miao, Cheng Chen, Keli Zhang, Jie Chuai, Quanzheng Li, Pheng-Ann Heng
- M-PM-056 **Cross-Dimensional Medical Self-Supervised Representation Learning Based on a Pseudo-3D Transformation**
Fei Gao, Siwen Wang, Fandong Zhang, Hong-Yu Zhou, Yizhou Wang, Churan Wang, Gang Yu, Yizhou Yu
- M-PM-058 **CT2Rep: Automated Radiology Report Generation for 3D Medical Imaging**
Ibrahim Ethem Hamamci, Sezgin Er, Bjoern Menze
- M-PM-060 **D-CoRP: Differentiable Connectivity Refinement for Functional Brain Networks**
Haoyu Hu, Hongrun Zhang, Chao Li
- M-PM-062 **Deep Spectral Methods for Unsupervised Ultrasound Image Interpretation**
Oleksandra Tmenova, Yordanka Velikova, Mahdi Saleh, Nassir Navab
- M-PM-064 **Deformation-Aware Segmentation Network Robust to Motion Artifacts for Brain Tissue Segmentation using Disentanglement Learning**
Sunyoung Jung, Yoonseok Choi, Mohammed A. Al-masni, Minyoung Jung, Dong-Hyun Kim
- M-PM-066 **Design as Desired: Utilizing Visual Question Answering for Multimodal Pre-training**
Tongkun Su, Jun Li, Xi Zhang, Haibo Jin, Hao Chen, Qiong Wang, Faqin Lv, Baoliang Zhao, Ying Hu
- M-PM-068 **Diffusion as Sound Propagation: Physics-inspired Model for Ultrasound Image Generation**
Marina Domínguez, Yordanka Velikova, Nassir Navab, Mohammad Farid Azampour
- M-PM-070 **Diffusion-based Domain Adaptation for Medical Image Segmentation using Stochastic Step Alignment**
Wen Ji, Albert C. S. Chung
- M-PM-072 **Disease-informed Adaptation of Vision-Language Models**
Jiajin Zhang, Ge Wang, Mannudeep K. Kalra, Pingkun Yan
- M-PM-074 **Disentangled Hybrid Transformer for Identification of Infants with Prenatal Drug Exposure**
Jiale Cheng, Zhengwang Wu, Xinrui Yuan, Li Wang, Weili Lin, Karen Grewen, Gang Li
- M-PM-076 **Distributionally-Adaptive Variational Meta Learning for Brain Graph Classification**
Jing Du, Guangwei Dong, Congbo Ma, Shan Xue, Jia Wu, Jian Yang, Amin Beheshti, Quan Z. Sheng, Alexis Giral

- M-PM-078 **Double-tier Attention based Multi-label Learning Network for Predicting Biomarkers from Whole Slide Images of Breast Cancer**
Mingkang Wang, Tong Wang, Fengyu Cong, Cheng Lu, Hongming Xu
- M-PM-080 **EchoFM: A View-Independent Echocardiogram Model for the Detection of Pulmonary Hypertension**
Shreyas Fadnavis, Chaitanya Parmar, Nastaran Emaminejad, Alvaro Ulloa Cerna, Areez Malik, Mona Selej, Tommaso Mansi, Preston Dunnmon, Tarik Yardibi, Kristopher Standish, Pablo F. Damasceno
- M-PM-082 **Enable the Right to be Forgotten with Federated Client Unlearning in Medical Imaging**
Zhipeng Deng, Luyang Luo, Hao Chen
- M-PM-084 **Enhancing New Multiple Sclerosis Lesion Segmentation via Self-supervised Pre-training and Synthetic Lesion Integration**
Peyman Tahghighi, Yunyan Zhang, Roberto Souza, Amin Komeili
- M-PM-086 **Exploiting Supervision Information in Weakly Paired Images for IHC Virtual Staining**
Yueheng Li, Xianchao Guan, Yifeng Wang, Yongbing Zhang
- M-PM-088 **F2TNet: FMRI to T1w MRI Knowledge Transfer Network for Brain Multi-phenotype Prediction**
Zhibin He, Wuyang Li, Yu Jiang, Zhihao Peng, Pengyu Wang, Xiang Li, Tianming Liu, Junwei Han, Tuo Zhang, Yixuan Yuan
- M-PM-090 **FD-SOS: Vision-Language Open-Set Detectors for Bone Fenestration and Dehiscence Detection from Intraoral Images**
Marawan Elbatel, Keyuan Liu, Yanqi Yang, Xiaomeng Li
- M-PM-092 **Feature Extraction for Generative Medical Imaging Evaluation: New Evidence Against an Evolving Trend**
McKell Woodland, Austin Castelo, Mais Al Taie, Jessica Albuquerque Marques Silva, Mohamed Eltaher, Frank Mohn, Alexander Shieh, Suprateek Kundu, Joshua P. Yung, Ankit B. Patel, Kristy K. Brock
- M-PM-094 **Few Slices Suffice: Multi-Faceted Consistency Learning with Active Cross-Annotation for Barely-supervised 3D Medical Image Segmentation**
Xinyao Wu, Zhe Xu, Raymond Kai-yu Tong
- M-PM-096 **Few-Shot Domain Adaptive Object Detection for Microscopic Images**
Sumayya Inayat, Nimra Dilawar, Waqas Sultani, Mohsen Ali
- M-PM-098 **Few-Shot Lymph Node Metastasis Classification Meets High Performance on Whole Slide Images via the Informative Non-Parametric Classifier**
Yi Li, Qixiang Zhang, Tianqi Xiang, Yiqun Lin, Qingling Zhang, Xiaomeng Li
- M-PM-100 **Follow Sonographers' Visual Scan-path: Adjusting CNN Model for Diagnosing Gout from Musculoskeletal Ultrasound**
Xin Tang, Zhi Cao, Weijing Zhang, Di Zhao, Hongen Liao, Daoqiang Zhang, Fang Chen
- M-PM-102 **Force Sensing Guided Artery-Vein Segmentation via Sequential Ultrasound Images**
Yimeng Geng, Gaofeng Meng, Mingcong Chen, Guanglin Cao, Mingyang Zhao, Jianbo Zhao, Hongbin Liu
- M-PM-104 **fTSP: Enhancing Brain Analysis with fMRI-Text Synergistic Prompt Learning**
Pengyu Wang, Huaqi Zhang, Zhibin He, Zhihao Peng, Yixuan Yuan
- M-PM-106 **GBT: Geometric-oriented Brain Transformer for Autism Diagnosis**
Zhihao Peng, Zhibin He, Yu Jiang, Pengyu Wang, Yixuan Yuan
- M-PM-108 **Generalizing to Unseen Domains in Diabetic Retinopathy with Disentangled Representations**
Peng Xia, Ming Hu, Feilong Tang, Wenxue Li, Wenhao Zheng, Lie Ju, Peibo Duan, Huaxiu Yao, Zongyuan Ge
- M-PM-110 **Generating Progressive Images from Pathological Transitions via Diffusion Model**
Zeyu Liu, Tianyi Zhang, Yufang He, Guanglei Zhang
- M-PM-112 **Goal-conditioned reinforcement learning for ultrasound navigation guidance**

Abdoul Aziz Amadou, Vivek Singh, Florin C. Ghesu, Young-Ho Kim, Laura Stanciulescu, Harshitha P. Sai, Puneet Sharma, Alistair Young, Ronak Rajani, Kawal Rhode

- M-PM-114 **Gradient Guided Co-Retention Feature Pyramid Network for LDCT Image Denoising**
Li Zhou, Dayang Wang, Yongshun Xu, Shuo Han, Bahareh Morovati, Shuyi Fan, Hengyong Yu
- M-PM-116 **Gyri vs. Sulci: Core-Periphery Organization in Functional Brain Networks**
Xiaowei Yu, Lu Zhang, Chao Cao, Tong Chen, Yanjun Lyu, Jing Zhang, Tianming Liu, Dajiang Zhu
- M-PM-118 **HAMIL-QA: Hierarchical Approach to Multiple Instance Learning for Atrial LGE MRI Quality Assessment**
K M Arefeen Sultan, Md Hasibul Husain Hisham, Benjamin Orkild, Alan Morris, Eugene Kholmovski, Erik Bieging, Eugene Kwan, Ravi Ranjan, Ed DiBella, Shireen Elhabian
- M-PM-120 **HATs: Hierarchical Adaptive Taxonomy Segmentation for Panoramic Pathology Image Analysis**
Ruining Deng, Quan Liu, Can Cui, Tianyuan Yao, Juming Xiong, Shunxing Bao, Hao Li, Mengmeng Yin, Yu Wang, Shilin Zhao, Yucheng Tang, Haichun Yang, Yuankai Huo
- M-PM-122 **Hierarchical Graph Learning with Small-World Brain Connectomes for Cognitive Prediction**
Yu Jiang, Zhibin He, Zhihao Peng, Yixuan Yuan
- M-PM-124 **Hierarchical multiple instance learning for COPD grading with relatively specific similarity**
Hao Zhang, Mingyue Zhao, Mingzhu Liu, Jiejun Luo, Yu Guan, Jin Zhang, Yi Xia, Di Zhang, Xiuxiu Zhou, Li Fan, Shiyuan Liu, S. Kevin Zhou
- M-PM-126 **HUP-3D: A 3D multi-view synthetic dataset for assisted-egocentric hand-ultrasound-probe pose estimation**
Manuel Birlo, Razvan Caramalau, Philip J. "Eddie" Edwards, Brian Dromey, Matthew J. Clarkson, Danail Stoyanov
- M-PM-128 **IHCSurv: Effective Immunohistochemistry Priors for Cancer Survival Analysis in Gigapixel Multi-stain Whole Slide Images**
YeJia Zhang, Hanqing Chao, Zhongwei Qiu, Wenbin Liu, Yixuan Shen, Nishchal Sapkota, Pengfei Gu, Danny Z. Chen, Le Lu, Ke Yan, Dakai Jin, Yun Bian, Hui Jiang
- M-PM-130 **Image Distillation for Safe Data Sharing in Histopathology**
Zhe Li, Bernhard Kainz
- M-PM-132 **Improving cross-domain brain tissue segmentation in fetal MRI with synthetic data**
Vladyslav Zalevskyi, Thomas Sanchez, Margaux Roulet, Jordina Aviles Verdera, Jana Hutter, Hamza Kebiri, Meritxell Bach Cuadra
- M-PM-134 **Integrative Graph-Transformer Framework for Histopathology Whole Slide Image Representation and Classification**
Zhan Shi, Jingwei Zhang, Jun Kong, Fusheng Wang
- M-PM-136 **Inter-Intra High-Order Brain Network for ASD Diagnosis via Functional MRIs**
Xiangmin Han, Rundong Xue, Shaoyi Du, Yue Gao
- M-PM-138 **Intrapartum Ultrasound Image Segmentation of Pubic Symphysis and Fetal Head Using Dual Student-Teacher Framework with CNN-ViT Collaborative Learning**
Jianmei Jiang, Huijin Wang, Jieyun Bai, Shun Long, Shuangping Chen, Victor M. Campello, Karim Lekadir
- M-PM-140 **LaB-GATr: geometric algebra transformers for large biomedical surface and volume meshes**
Julian Suk, Baris Imre, Jelmer M. Wolterink
- M-PM-142 **Latent Spaces Enable Transformer-Based Dose Prediction in Complex Radiotherapy Plans**
Edward Wang, Ryan Au, Pencilla Lang, Sarah A. Mattonen
- M-PM-144 **Learning from Partial Label Proportions for Whole Slide Image Segmentation**
Shinnosuke Matsuo, Daiki Suehiro, Seiichi Uchida, Hiroaki Ito, Kazuhiro Terada, Akihiko Yoshizawa, Ryoma Bise
- M-PM-146 **Leveraging Image Captions for Selective Whole Slide Image Annotation**

Jingna Qiu, Marc Aubreville, Frauke Wilm, Mathias Öttl, Jonas Utz, Maja Schlereth, Katharina Breininger

- M-PM-148 **LGRNet: Local-Global Reciprocal Network for Uterine Fibroid Segmentation in Ultrasound Videos**
Huihui Xu, Yijun Yang, Angelica I Aviles-Rivero, Guang Yang, Jing Qin, Lei Zhu
- M-PM-150 **Lifelong Histopathology Whole Slide Image Retrieval via Distance Consistency Rehearsal**
Xinyu Zhu, Zhiguo Jiang, Kun Wu, Jun Shi, Yushan Zheng
- M-PM-152 **Low-Shot Prompt Tuning for Multiple Instance Learning based Histology Classification**
Philip Chikontwe, Myeongkyun Kang, Miguel Luna, Siwoo Nam, Sang Hyun Park
- M-PM-154 **MARVEL: MR Fingerprinting with Additional micRoVascular Estimates using bidirectional LSTMs**
Antoine Barrier, Thomas Coudert, Aurélien Delphin, Benjamin Lemasson, Thomas Christen
- M-PM-156 **Masked Residual Diffusion Probabilistic Model with Regional Asymmetry Prior for Generating Perfusion Maps from Multi-phase CTA**
Yuxin Cai, Jianhai Zhang, Lei He, Aravind Ganesh, Wu Qiu
- M-PM-158 **MBA-Net: SAM-driven Bidirectional Aggregation Network for Ovarian Tumor Segmentation**
Yifan Gao, Wei Xia, Wenkui Wang, Xin Gao
- M-PM-160 **MedSynth: Leveraging Generative Model for Healthcare Data Sharing**
Renuga Kanagavelu, Madhav Walia, Yuan Wang, Huazhu Fu, Qingsong Wei, Yong Liu, Rick Siow Mong Goh
- M-PM-162 **MEGFormer: enhancing speech decoding from brain activity through extended semantic representations**
Maria Boyko, Polina Druzhinina, Georgii Kormakov, Aleksandra Beliaeva, Maxim Sharaev
- M-PM-164 **MH-pFLGB: Model Heterogeneous personalized Federated Learning via Global Bypass for Medical Image Analysis**
Luyuan Xie, Manqing Lin, ChenMing Xu, Tianyu Luan, Zhipeng Zeng, Wenjun Qian, Cong Li, Yuejian Fang, Qingni Shen, Zhonghai Wu
- M-PM-166 **Mixed Integer Linear Programming for Discrete Sampling Scheme Design in Diffusion MRI**
Si-Miao Zhang, Jing Wang, Yi-Xuan Wang, Tao Liu, Haogang Zhu, Han Zhang, Jian Cheng
- M-PM-168 **MMSummary: Multimodal Summary Generation for Fetal Ultrasound Video**
Xiaoqing Guo, Qianhui Men, J. Alison Noble
- M-PM-170 **Multi-Dataset Multi-Task Learning for COVID-19 Prognosis**
Filippo Ruffini, Lorenzo Tronchin, Zhuoru Wu, Wenting Chen, Paolo Soda, Linlin Shen, Valerio Guarrasi
- M-PM-172 **Open-Set Semi-Supervised Medical Image Classification with Learnable Prototypes and Outlier Filter**
Along He, Tao Li, Yitian Zhao, Junyong Zhao, Huazhu Fu
- M-PM-174 **OSAL-ND: Open-set Active Learning for Nucleus Detection**
Jiao Tang, Yagao Yue, Peng Wan, Mingliang Wang, Daoqiang Zhang, Wei Shao
- M-PM-176 **Overcoming Atlas Heterogeneity in Federated Learning for Cross-site Connectome-based Predictive Modeling**
Qinghao Liang, Brendan D. Adkinson, Rongtao Jiang, Dustin Scheinost
- M-PM-178 **PAMIL: Prototype Attention-based Multiple Instance Learning for Whole Slide Image Classification**
Jiashuai Liu, Anyu Mao, Yi Niu, Xianli Zhang, Tieliang Gong, Chen Li, Zeyu Gao
- M-PM-180 **Patient-Specific Real-Time Segmentation in Trackerless Brain Ultrasound**
Reuben Dorent, Erickson Torio, Nazim Haouchine, Colin Galvin, Sarah Frisken, Alexandra Golby, Tina Kapur, William Wells
- M-PM-182 **pFLFE: Cross-silo Personalized Federated Learning via Feature Enhancement on Medical Image Segmentation**

Luyuan Xie, Manqing Lin, Siyuan Liu, ChenMing Xu, Tianyu Luan, Cong Li, Yuejian Fang, Qingni Shen, Zhonghai Wu

- M-PM-184 **Progressive Knowledge Distillation for Automatic Perfusion Parameter Maps Generation from Low Temporal Resolution CT Perfusion Images**
Moo Hyun Son, Juyoung Bae, Elizabeth Tong, Hao Chen
- M-PM-186 **Prompt Your Brain: Scaffold Prompt Tuning for Efficient Adaptation of fMRI Pre-trained Model**
Zijian Dong, Yilei Wu, Zijiao Chen, Yichi Zhang, Yueming Jin, Juan Helen Zhou
- M-PM-188 **Real-world Visual Navigation for Cardiac Ultrasound View Planning**
Mingkun Bao, Yan Wang, Xinlong Wei, Bosen Jia, Xiaolin Fan, Dong Lu, Yifan Gu, Jian Cheng, Yingying Zhang, Chuanyu Wang, Haogang Zhu
- M-PM-190 **Reciprocal Collaboration for Semi-supervised Medical Image Classification**
Qingjie Zeng, Zilin Lu, Yutong Xie, Mengkang Lu, Xinke Ma, Yong Xia
- M-PM-192 **Reducing Annotation Burden: Exploiting Image Knowledge for Few-Shot Medical Video Object Segmentation via Spatiotemporal Consistency Relearning**
Zixuan Zheng, Yilei Shi, Chunlei Li, Jingliang Hu, Xiao Xiang Zhu, Lichao Mou
- M-PM-194 **Representation Learning with a Transformer-Based Detection Model for Localized Chest X-Ray Disease and Progression Detection**
Mehrdad Eshraghi Dehaghani, Amirhossein Sabour, Amarachi B. Madu, Ismini Lourentzou, Mehdi Moradi
- M-PM-196 **Representing Functional Connectivity with Structural Detour: A New Perspective to Decipher Structure-Function Coupling Mechanism**
Ziquan Wei, Tingting Dan, Jiaqi Ding, Paul Laurienti, Guorong Wu
- M-PM-198 **RetMIL: Retentive Multiple Instance Learning for Histopathological Whole Slide Image Classification**
Hongbo Chu, Qiehe Sun, Jiawen Li, Yuxuan Chen, Lizhong Zhang, Tian Guan, Anjia Han, Yonghong He
- M-PM-200 **Robustly Optimized Deep Feature Decoupling Network for Fatty Liver Diseases Detection**
Peng Huang, Shu Hu, Bo Peng, Jiashu Zhang, Xi Wu, Xin Wang
- M-PM-202 **SBC-AL: Structure and Boundary Consistency-based Active Learning for Medical Image Segmentation**
Taimin Zhou, Jin Yang, Lingguo Cui, Nan Zhang, Senchun Chai
- M-PM-204 **Self-Supervised Contrastive Graph Views for Learning Neuron-level Circuit Network**
Junchi Li, Guojia Wan, Minghui Liao, Fei Liao, Bo Du
- M-PM-206 **Self-supervised Denoising and Bulk Motion Artifact Removal of 3D Optical Coherence Tomography Angiography of Awake Brain**
Zhenghong Li, Jiaxiang Ren, Zhilin Zou, Kalyan Garigapati, Congwu Du, Yingtian Pan, Haibin Ling
- M-PM-208 **Self-Supervised k-Space Regularization for Motion-Resolved Abdominal MRI Using Neural Implicit k-Space Representations**
Veronika Spieker, Hannah Eichhorn, Jonathan K. Stelter, Wenqi Huang, Rickmer F. Braren, Daniel Rueckert, Francisco Sahli Costabal, Kerstin Hammernik, Claudia Prieto, Dimitrios C. Karampinos, Julia A. Schnabel
- M-PM-210 **Self-supervised Learning with Adaptive Graph Structure and Function Representation For Cross-Dataset Brain Disorder Diagnosis**
Dongdong Chen, Linlin Yao, Mengjun Liu, Zhenrong Shen, Yuqi Hu, Zhiyun Song, Qian Wang, Lichi Zhang
- M-PM-212 **Semi-Supervised Learning for Deep Causal Generative Models**
Yasin Ibrahim, Hermione Warr, Konstantinos Kamnitsas
- M-PM-214 **SHAN: Shape Guided Network for Thyroid Nodule Ultrasound Cross-Domain Segmentation**
Ruixuan Zhang, Wenhuan Lu, Cuntai Guan, Jie Gao, Xi Wei, Xuwei Li

- M-PM-216 **Shortcut Learning in Medical Image Segmentation**
Manxi Lin, Nina Weng, Kamil Mikolaj, Zahra Bashir, Morten B. S. Svendsen, Martin G. Tolsgaard, Anders N. Christensen, Aasa Feragen
- M-PM-218 **SiFT:A Serial Framework with Textual Guidance for Federated Learning**
Xuyang Li, Weizhuo Zhang, Yue Yu, Wei-Shi Zheng, Tong Zhang, Ruixuan Wang
- M-PM-220 **SlideGCD: Slide-based Graph Collaborative Training with Knowledge Distillation for Whole Slide Image Classification**
Tong Shu, Jun Shi, Dongdong Sun, Zhiguo Jiang, Yushan Zheng
- M-PM-222 **SOM2LM: Self-Organized Multi-Modal Longitudinal Maps**
Jiahong Ouyang, Qingyu Zhao, Ehsan Adeli, Greg Zaharchuk, Kilian M. Pohl
- M-PM-224 **Spatiotemporal Representation Learning for Short and Long Medical Image Time Series**
Chengzhi Shen, Martin J. Menten, Hrvoje Bogunović, Ursula Schmidt-Erfurth, Hendrik P.N. Scholl, Sobha Sivaprasad, Andrew Lotery, Daniel Rueckert, Paul Hager, Robbie Holland
- M-PM-226 **STAN-LOC: Visual Query-based Video Clip Localization for Fetal Ultrasound Sweep Videos**
Divyanshu Mishra, Pramit Saha, He Zhao, Olga Patey, Aris T. Papageorghiou, J. Alison Noble
- M-PM-228 **Striving for Simplicity: Simple Yet Effective Prior-Aware Pseudo-Labeling for Semi-Supervised Ultrasound Image Segmentation**
Yaxiong Chen, Yujie Wang, Zixuan Zheng, Jingliang Hu, Yilei Shi, Shengwu Xiong, Xiao Xiang Zhu, Lichao Mou
- M-PM-230 **Subject-Adaptive Transfer Learning Using Resting State EEG Signals for Cross-Subject EEG Motor Imagery Classification**
Sion An, Myeongkyun Kang, Soopil Kim, Philip Chikontwe, Li Shen, Sang Hyun Park
- M-PM-232 **Surface-based and Shape-informed U-fiber Atlasing for Robust Superficial White Matter Connectivity Analysis**
Yuan Li, Xinyu Nie, Jianwei Zhang, Yonggang Shi
- M-PM-234 **Tackling Data Heterogeneity in Federated Learning via Loss Decomposition**
Shuang Zeng, Pengxin Guo, Shuai Wang, Jianbo Wang, Yuyin Zhou, Liangqiong Qu
- M-PM-236 **TaGAT: Topology-Aware Graph Attention Network For Multi-modal Retinal Image Fusion**
Xin Tian, Nantheera Anantrasirichai, Lindsay Nicholson, Alin Achim
- M-PM-238 **TAKT: Target-Aware Knowledge Transfer for Whole Slide Image Classification**
Conghao Xiong, Yi Lin, Hao Chen, Hao Zheng, Dong Wei, Yefeng Zheng, Joseph J. Y. Sung, Irwin King
- M-PM-240 **TARDRL: Task-Aware Reconstruction for Dynamic Representation Learning of fMRI**
Yunxi Zhao, Dong Nie, Geng Chen, Xia Wu, Daoqiang Zhang, Xuyun Wen
- M-PM-242 **TE-SSL: Time and Event-aware Self Supervised Learning for Alzheimer’s Disease Progression Analysis**
Jacob Thrasher, Alina Devkota, Ahmad P. Tafti, Binod Bhattarai, Prashanna Gyawali, for the Alzheimer’s Disease Neuroimaging Initiative
- M-PM-244 **Topological Cycle Graph Attention Network for Brain Functional Connectivity**
Jinghan Huang, Nanguang Chen, Anqi Qiu
- M-PM-246 **Towards Multi-modality Fusion and Prototype-based Feature Refinement for Clinically Significant Prostate Cancer Classification in Transrectal Ultrasound**
Hong Wu, Juan Fu, Hongsheng Ye, Yuming Zhong, Xuebin Zou, Jianhua Zhou, Yi Wang
- M-PM-248 **Towards Rapid Mycetoma Species Diagnosis: A Deep Learning Approach for Stain-Invariant Classification on H&E Images from Senegal**
Kpêchéhoué Merveille Santi ZINSOU, Cheikh Talibouya DIOP, Idy DIOP, Apostolia Tsirikoglou, Emmanuel Edwar SIDDIG, Doudou SOW, Maodo NDIAYE
- M-PM-250 **Towards Real-time Intrahepatic Vessel Identification in Intraoperative Ultrasound-Guided Liver Surgery**

Karl-Philippe Beaudet, Alexandros Karargyris, Sidaty El Hadramy, Stéphane Cotin, Jean-Paul Mazellier, Nicolas Padoy, Juan Verde

- M-PM-252 **Training ViT with Limited Data for Alzheimer’s Disease Classification: an Empirical Study**
Kassymzhomart Kunanbayev, Vyacheslav Shen, Dae-Shik Kim
- M-PM-254 **Training-Free Condition Video Diffusion Models for single frame Spatial-Semantic Echocardiogram Synthesis**
Van Phi Nguyen, Tri Nhan Luong Ha, Huy Hieu Pham, Quoc Long Tran
- M-PM-256 **Treplorer: Recurrent DETR for Topologically Correct Tree Centerline Tracking**
Roman Naeem, David Hagerman, Lennart Svensson, Fredrik Kahl
- M-PM-258 **TrIND: Representing Anatomical Trees by Denoising Diffusion of Implicit Neural Fields**
Ashish Sinha, Ghassan Hamarneh
- M-PM-260 **UinTSeg: Unified Infant Brain Tissue Segmentation with Anatomy Delineation**
Jiameng Liu, Feihong Liu, Kaicong Sun, Yuhang Sun, Jiawei Huang, Caiwen Jiang, Islem Rekik, Dinggang Shen
- M-PM-262 **Ultrasound Image-to-Video Synthesis via Latent Dynamic Diffusion Models**
Tingxiu Chen, Yilei Shi, Zixuan Zheng, Bingcong Yan, Jingliang Hu, Xiao Xiang Zhu, Lichao Mou
- M-PM-264 **Uncertainty-aware meta-weighted optimization framework for domain-generalized medical image segmentation**
Seok-Hwan Oh, Guil Jung, Sang-Yun Kim, Myeong-Gee Kim, Young-Min Kim, Hyeon-Jik Lee, Hyuk-Sool Kwon, Hyeon-Min Bae
- M-PM-266 **Uncovering Cortical Pathways of Prion-like Pathology Spreading in Alzheimer’s Disease by Neural Optimal Mass Transport**
Yanquan Huang, Tingting Dan, Won Hwa Kim, Guorong Wu
- M-PM-268 **Understanding Brain Dynamics Through Neural Koopman Operator with Structure-Function Coupling**
Chiyuen Chow, Tingting Dan, Martin Styner, Guorong Wu
- M-PM-270 **Universal Semi-Supervised Learning for Medical Image Classification**
Lie Ju, Yicheng Wu, Wei Feng, Zhen Yu, Lin Wang, Zhuoting Zhu, Zongyuan Ge
- M-PM-272 **Unsupervised Latent Stain Adaptation for Computational Pathology**
Daniel Reisenbüchler, Lucas Luttner, Nadine S. Schaadt, Friedrich Feuerhake, Dorit Merhof
- M-PM-274 **Unsupervised Ultrasound Image Quality Assessment with Score Consistency and Relativity Co-learning**
Juncheng Guo, Jianxin Lin, Guanghua Tan, Yuhuan Lu, Zhan Gao, Shengli Li, Kenli Li
- M-PM-276 **URCDM: Ultra-Resolution Image Synthesis in Histopathology**
Sarah Cechnicka, James Ball, Matthew Baugh, Hadrien Reynaud, Naomi Simmonds, Andrew P.T. Smith, Catherine Horsfield, Candice Roufousse, Bernhard Kainz
- M-PM-278 **Vertex Proportion Loss for Multi-Class Cell Detection from Label Proportions**
Carolina Pacheco, Florence Yellin, René Vidal, Benjamin Haeffele
- M-PM-280 **Weakly Supervised Learning of Cortical Surface Reconstruction from Segmentations**
Qiang Ma, Liu Li, Emma C. Robinson, Bernhard Kainz, Daniel Rueckert
- M-PM-282 **When Diffusion MRI Meets Diffusion Model: A Novel Deep Generative Model for Diffusion MRI Generation**
Xi Zhu, Wei Zhang, Yijie Li, Lauren J. O’Donnell, Fan Zhang
- M-PM-284 **WSSADN: A Weakly Supervised Spherical Age-Disentanglement Network for Detecting Developmental Disorders with Structural MRI**
Pengcheng Xue, Dong Nie, Meijiao Zhu, Ming Yang, Han Zhang, Daoqiang Zhang, Xuyun Wen

M-PM-286 **Zoom Pattern Signatures for Fetal Ultrasound Structures**
Mohammad Alsharid, Robail Yasrab, Lior Drukker, Aris T. Papageorghiou, J. Alison Noble

Poster Session 3: Transparency, Fairness and Uncertainty 1, Image Formation and Reconstruction 1, and Computer Aided Diagnosis 1

Tuesday, October 8, 2024, 10:30 to 11:30

- T-AM-001 **3D Spine Shape Estimation from Single 2D DXA**
Emmanuelle Bourigault, Amir Jamaludin, Andrew Zisserman
- T-AM-003 **A Domain Adaption Approach for EEG-based Automated Seizure Classification with Temporal-Spatial-Spectral Attention**
Xiaoya Fan, Pengzhi Xu, Qi Zhao, Chenru Hao, Zheng Zhao, Zhong Wang
- T-AM-005 **A New Cine-MRI Segmentation Method of Tongue Dorsum for Postoperative Swallowing Function Analysis**
Minghao Sun, Tian Zhou, Chenghui Jiang, Xiaodan Lv, Han Yu
- T-AM-007 **A Region-Based Approach to Diabetic Retinopathy Classification with Superpixel Tokenization**
Clément Ployout, Zacharie Legault, Renaud Duval, Marie Carole Boucher, Farida Cheriet
- T-AM-009 **A Scanning Laser Ophthalmoscopy Image Database and Trustworthy Retinal Disease Detection Method**
Yichen Hu, Chao Wang, Weitao Song, Aleksei Tiulpin, Qing Liu
- T-AM-011 **A Weakly-supervised Multi-lesion Segmentation Framework Based on Target-level Incomplete Annotations**
Jianguo Ju, Shumin Ren, Dandan Qiu, Huijuan Tu, Juanjuan Yin, Pengfei Xu, Ziyu Guan
- T-AM-013 **ACLNet: A Deep Learning Model for ACL Rupture Classification Combined with Bone Morphology**
Chao Liu, Xueqing Yu, Dingyu Wang, Tingting Jiang
- T-AM-015 **AcneAI: A new acne severity assessment method using digital images and deep learning**
Léa Gazeau, Hang Nguyen, Zung Nguyen, Mariia Lebedeva, Thanh Nguyen, Tat-Dat To, Jimmy Le Digabel, Jérôme Filiol, Gwendal Josse, Clifford Perlis, Jonathan Wolfe
- T-AM-017 **AdaCBM: An Adaptive Concept Bottleneck Model for Explainable and Accurate Diagnosis**
Townim F. Chowdhury, Vu Minh Hieu Phan, Kewen Liao, Minh-Son To, Yutong Xie, Anton van den Hengel, Johan W. Verjans, Zhibin Liao
- T-AM-019 **Adapting Pre-trained Generative Model to Medical Image for Data Augmentation**
Zhouhang Yuan, Zhengqing Fang, Zhengxing Huang, Fei Wu, Yu-Feng Yao, Yingming Li
- T-AM-021 **Advancing H&E-to-IHC Virtual Staining with Task-Specific Domain Knowledge for HER2 Scoring**
Qiong Peng, Weiping Lin, Yihuang Hu, Ailisi Bao, Chenyu Lian, Weiwei Wei, Meng Yue, Jingxin Liu, Lequan Yu, Liansheng Wang
- T-AM-023 **Aligning Human Knowledge with Visual Concepts Towards Explainable Medical Image Classification**
Yunhe Gao, Difei Gu, Mu Zhou, Dimitris Metaxas
- T-AM-025 **Aligning Medical Images with General Knowledge from Large Language Models**
Xiao Fang, Yi Lin, Dong Zhang, Kwang-Ting Cheng, Hao Chen
- T-AM-027 **Anatomical Positional Embeddings**
Mikhail Goncharov, Valentin Samokhin, Eugenia Soboleva, Roman Sokolov, Boris Shirokikh, Mikhail Belyaev, Anvar Kurmukov, Ivan Oseledets
- T-AM-029 **Anatomical Structure-Guided Medical Vision-Language Pre-training**
Qingqiu Li, Xiaohan Yan, Jilan Xu, Runtian Yuan, Yuejie Zhang, Rui Feng, Quanli Shen, Xiaobo Zhang, Shujun Wang
- T-AM-031 **APS-USCT: Ultrasound Computed Tomography on Sparse Data via AI-Physic Synergy**
Yi Sheng, Hanchen Wang, Yipei Liu, Junhuan Yang, Weiwen Jiang, Youzuo Lin, Lei Yang
- T-AM-033 **AutoSkull: Learning-based Skull Estimation for Automated Pipelines**

Aleksandar Milojevic, Daniel Peter, Niko B. Huber, Luis Azevedo, Andrei Latyshev, Irena Sailer, Markus Gross, Bernhard Thomaszewski, Barbara Solenthaler, Baran Gözcü

- T-AM-035 **Average Calibration Error: A Differentiable Loss for Improved Reliability in Image Segmentation**
Theodore Barfoot, Luis C. Garcia Peraza Herrera, Ben Glocker, Tom Vercauteren
- T-AM-037 **BackMix: Mitigating Shortcut Learning in Echocardiography with Minimal Supervision**
Kit M. Bransby, Arian Beqiri, Woo-Jin Cho Kim, Jorge Oliveira, Agisilaos Chatsias, Alberto Gomez
- T-AM-039 **BAPLe: Backdoor Attacks on Medical Foundational Models using Prompt Learning**
Asif Hanif, Fahad Shamshad, Muhammad Awais, Muzammal Naseer, Fahad Shahbaz Khan, Karthik Nandakumar, Salman Khan, Rao Muhammad Anwer
- T-AM-041 **Biophysics-based data assimilation of longitudinal tau and amyloid- β PET scans**
Zheyu Wen, Ali Ghafouri, George Biros
- T-AM-043 **BPaCo: Balanced Parametric Contrastive Learning for Long-tailed Medical Image Classification**
Zhiyuan Cai, Tianyunxi Wei, Li Lin, Hao Chen, Xiaoying Tang
- T-AM-045 **Can LLMs' Tuning Methods Work in Medical Multimodal Domain?**
Jiawei Chen, Yue Jiang, Dingkan Yang, Mingcheng Li, Jinjie Wei, Ziyun Qian, Lihua Zhang
- T-AM-047 **CAPTURE-GAN: Conditional Attribute Preservation through Unveiling Realistic GAN for artifact removal in dual-energy CT imaging**
Chunsu Park, Seonho Kim, DongEon Lee, SiYeoul Lee, Ashok Kambaluru, Chankue Park, MinWoo Kim
- T-AM-049 **Cardiovascular Disease Detection from Multi-View Chest X-rays with BI-Mamba**
Zefan Yang, Jiajin Zhang, Ge Wang, Mannudeep K. Kalra, Pingkun Yan
- T-AM-051 **ccRCC Metastasis Prediction via Exploring High-Order Correlations on Multiple WSIs**
Huijian Zhou, Zhiqiang Tian, Xiangmin Han, Shaoyi Du, Yue Gao
- T-AM-053 **Characterizing the left ventricular ultrasound dynamics in the frequency domain to estimate the cardiac function**
Andrés Felipe Carrera-Pinzón, Leonard Toro-Quitian, Juan Camilo Torres, Alexander Cerón, Wilsón Sarmiento, Arnold Mendez-Toro, Angel Cruz-Roa, R.E Gutiérrez-Carvajal, Carlos Órtiz-Davila, Fabio González, Eduardo Romero, Marcela Iregui Guerrero
- T-AM-055 **Class and Region-Adaptive Constraints for Network Calibration**
Balamurali Murugesan, Julio Silva-Rodriguez, Ismail Ben Ayed, Jose Dolz
- T-AM-057 **CLIP-DR: Textual Knowledge-Guided Diabetic Retinopathy Grading with Ranking-aware Prompting**
Qinkai Yu, Jianyang Xie, Anh Nguyen, He Zhao, Jiong Zhang, Huazhu Fu, Yitian Zhao, Yalin Zheng, Yanda Meng
- T-AM-059 **Concept-Attention Whitening for Interpretable Skin Lesion Diagnosis**
Junlin Hou, Jilan Xu, Hao Chen
- T-AM-061 **Conditional Diffusion Model for Versatile Temporal Inpainting in 4D Cerebral CT Perfusion Imaging**
Juyoung Bae, Elizabeth Tong, Hao Chen
- T-AM-063 **Conditional Score-Based Diffusion Model for Cortical Thickness Trajectory Prediction**
Qing Xiao, Siyeop Yoon, Hui Ren, Matthew Tivnan, Lichao Sun, Quanzheng Li, Tianming Liu, Yu Zhang, Xiang Li
- T-AM-065 **Confidence intervals uncovered: Are we ready for real-world medical imaging AI?**
Evangelia Christodoulou, Annika Reinke, Rola Houhou, Piotr Kalinowski, Selen Erkan, Carole H. Sudre, Ninon Burgos, Sofiène Boutaj, Sophie Loizillon, Maëlys Solal, Nicola Rieke, Veronika Cheplygina, Michela Antonelli, Leon D. Mayer, Minu D. Tizabi, M. Jorge Cardoso, Amber Simpson, Paul F. Jäger, Annette Kopp-Schneider, Gaël Varoquaux, Olivier Colliot, Lena Maier-Hein
- T-AM-067 **Confidence Matters: Enhancing Medical Image Classification Through Uncertainty-Driven Contrastive Self-Distillation**
Saurabh Sharma, Atul Kumar, Joydeep Chandra

- T-AM-069 **Confidence-guided Semi-supervised Learning for Generalized Lesion Localization in X-ray Images**
Abhijit Das, Vandan Gorade, Komal Kumar, Snehashis Chakraborty, Dwarikanath Mahapatra, Sudipta Roy
- T-AM-071 **Cross-Modality Cardiac Insight Transfer: A Contrastive Learning Approach to Enrich ECG with CMR Features**
Zhengyao Ding, Yujian Hu, Ziyu Li, Hongkun Zhang, Fei Wu, Yilang Xiang, Tian Li, Ziyi Liu, Xuesen Chu, Zhengxing Huang
- T-AM-073 **DCDiff: Dual-Domain Conditional Diffusion for CT Metal Artifact Reduction**
Ruochong Shen, Xiaoxu Li, Yuan-Fang Li, Chao Sui, Yu Peng, Qihong Ke
- T-AM-075 **Deep Learning for Cancer Prognosis Prediction Using Portrait Photos by StyleGAN Embedding**
Amr Hagag, Ahmed Gomaa, Dominik Kornek, Andreas Maier, Rainer Fietkau, Christoph Bert, Yixing Huang, Florian Putz
- T-AM-077 **Deep Model Reference: Simple yet Effective Confidence Estimation for Image Classification**
Yuanhang Zheng, Yiqiao Qiu, Haoxuan Che, Hao Chen, Wei-Shi Zheng, Ruixuan Wang
- T-AM-079 **Deform-Mamba Network for MRI Super-Resolution**
Zexin Ji, Beiji Zou, Xiaoyan Kui, Pierre Vera, Su Ruan
- T-AM-081 **Diff3Dformer: Leveraging Slice Sequence Diffusion for Enhanced 3D CT Classification with Transformer Networks**
Zihao Jin, Yingying Fang, Jiahao Huang, Caiwen Xu, Simon Walsh, Guang Yang
- T-AM-083 **Disease Progression Prediction Incorporating Genotype-Environment Interactions: A Longitudinal Neurodegenerative Disorder Study**
Jin Zhang, Muheng Shang, Yan Yang, Lei Guo, Junwei Han, Lei Du
- T-AM-085 **Domain Adaptation of Echocardiography Segmentation Via Reinforcement Learning**
Arnaud Judge, Thierry Judge, Nicolas Duchateau, Roman A. Sandler, Joseph Z. Sokol, Olivier Bernard, Pierre-Marc Jodoin
- T-AM-087 **Dynamic Hybrid Unrolled Multi-Scale Network for Accelerated MRI Reconstruction**
Xiao-Xin Li, Fang-Zheng Zhu, Junwei Yang, Yong Chen, Dinggang Shen
- T-AM-089 **EchoMEN: Combating Data Imbalance in Ejection Fraction Regression via Multi-Expert Network**
Song Lai, Mingyang Zhao, Zhe Zhao, Shi Chang, Xiaohua Yuan, Hongbin Liu, Qingfu Zhang, Gaofeng Meng
- T-AM-091 **EndoUIC: Promptable Diffusion Transformer for Unified Illumination Correction in Capsule Endoscopy**
Long Bai, Tong Chen, Qiaozhi Tan, Wan Jun Nah, Yanheng Li, Zhicheng He, Sishen Yuan, Zhen Chen, Jinlin Wu, Mobarakol Islam, Zhen Li, Hongbin Liu, Hongliang Ren
- T-AM-093 **Energy-Based Controllable Radiology Report Generation with Medical Knowledge**
Zeyi Hou, Ruixin Yan, Ziye Yan, Ning Lang, Xiuzhuang Zhou
- T-AM-095 **Enhancing Human-Computer Interaction in Chest X-ray Analysis using Vision and Language Model with Eye Gaze Patterns**
Yunsoo Kim, Jing Wu, Yusuf Abdulle, Yue Gao, Honghan Wu
- T-AM-097 **Epileptic Seizure Detection in SEEG Signals using a Unified Multi-scale Temporal-Spatial-Spectral Transformer Model**
Zhuoyi Li, Wenjun Li, Ning Zhu, Junwei Han, Tianming Liu, Beibei Chen, Zhiqiang Yan, Tuo Zhang
- T-AM-099 **ESPA: An Unsupervised Harmonization Framework via Enhanced Structure Preserving Augmentation**
Mahbaneh Eshaghzadeh Torbati, Davneet S. Minhas, Ahmad P. Tafti, Charles S. DeCarli, Dana L. Tudorascu, Seong Jae Hwang
- T-AM-101 **Evidential Concept Embedding Models: Towards Reliable Concept Explanations for Skin Disease Diagnosis**

Yibo Gao, Zheyao Gao, Xin Gao, Yuanye Liu, Bomin Wang, Xiahai Zhuang

- T-AM-103 **Explainable vertebral fracture analysis with uncertainty estimation using differentiable rule-based classification**
Victor Wählstrand Skärström, Lisa Johansson, Jennifer Alvé, Mattias Lorentzon, Ida Häggström
- T-AM-105 **FairDiff: Fair Segmentation with Point-Image Diffusion**
Wenyi Li, Haoran Xu, Guiyu Zhang, Huan-ang Gao, Mingju Gao, Mengyu Wang, Hao Zhao
- T-AM-107 **Feature Fusion Based on Mutual-Cross-Attention Mechanism for EEG Emotion Recognition**
Yimin Zhao, Jin Gu
- T-AM-109 **FedMedICL: Towards Holistic Evaluation of Distribution Shifts in Federated Medical Imaging**
Kumail Alhamoud, Yasir Ghunaim, Motasem Alfarra, Thomas Hartvigsen, Philip Torr, Bernard Ghanem, Adel Bibi, Marzyeh Ghassemi
- T-AM-111 **FedMLP: Federated Multi-Label Medical Image Classification under Task Heterogeneity**
Zhaobin Sun, Nannan Wu, Junjie Shi, Li Yu, Kwang-Ting Cheng, Zengqiang Yan
- T-AM-113 **FissionFusion: Fast Geometric Generation and Hierarchical Souping for Medical Image Analysis**
Santosh Sanjeev, Nuren Zhaksylyk, Ibrahim Almakky, Anees Ur Rehman Hashmi, Mohammad Areeb Qazi, Mohammad Yaqub
- T-AM-115 **FM-OSD: Foundation Model-Enabled One-Shot Detection of Anatomical Landmarks**
Juzheng Miao, Cheng Chen, Keli Zhang, Jie Chuai, Quanzheng Li, Pheng-Ann Heng
- T-AM-117 **Free-SurGS: SfM-Free 3D Gaussian Splatting for Surgical Scene Reconstruction**
Jiaxin Guo, Jiangliu Wang, Di Kang, Wenzhen Dong, Wenting Wang, Yun-hui Liu
- T-AM-119 **Gait Patterns as Biomarkers: A Video-Based Approach for Classifying Scoliosis**
Zirui Zhou, Junhao Liang, Zizhao Peng, Chao Fan, Fengwei An, Shiqi Yu
- T-AM-121 **Gaussian Pancakes: Geometrically-Regularized 3D Gaussian Splatting for Realistic Endoscopic Reconstruction**
Sierra Bonilla, Shuai Zhang, Dimitrios Psychogyios, Danail Stoyanov, Francisco Vasconcelos, Sophia Bano
- T-AM-123 **Gaze-directed Vision GNN for Mitigating Shortcut Learning in Medical Image**
Shaouxuan Wu, Xiao Zhang, Bin Wang, Zhuo Jin, Hansheng Li, Jun Feng
- T-AM-125 **Generalized Robust Fundus Photography-based Vision Loss Estimation for High Myopia**
Zipei Yan, Zhile Liang, Zhengji Liu, Shuai Wang, Rachel Ka-Man Chun, Jizhou Li, Chea-su Kee, Dong Liang
- T-AM-127 **Genomics-guided Representation Learning for Pathologic Pan-cancer Tumor Microenvironment Subtype Prediction**
Fangliangzi Meng, Hongrun Zhang, Ruodan Yan, Guohui Chuai, Chao Li, Qi Liu
- T-AM-129 **GMOd: Graph-driven Momentum Distillation Framework with Active Perception of Disease Severity for Radiology Report Generation**
ZhiPeng Xiang, ShaoGuo Cui, CaoZhi Shang, Jingfeng Jiang, Liqiang Zhang
- T-AM-131 **Hallucination Index: An Image Quality Metric for Generative Reconstruction Models**
Matthew Tivnan, Siyeop Yoon, Zhennong Chen, Xiang Li, Dufan Wu, Quanzheng Li
- T-AM-133 **Hard Negative Sample Mining for Whole Slide Image Classification**
Wentao Huang, Xiaoling Hu, Shahira Abousamra, Prateek Prasanna, Chao Chen
- T-AM-135 **HDilemma: Are Open-Source Hausdorff Distance Implementations Equivalent?**
Gašper Podobnik, Tomaž Vrtovec
- T-AM-137 **HeartBeat: Towards Controllable Echocardiography Video Synthesis with Multimodal Conditions-Guided Diffusion Models**
Xinrui Zhou, Yuhao Huang, Wufeng Xue, Haoran Dou, Jun Cheng, Han Zhou, Dong Ni

- T-AM-139 **HF-ResDiff: High-Frequency-guided Residual Diffusion for Multi-dose PET Reconstruction**
Xixin Tang, Caiwen Jiang, Zhiming Cui, Dinggang Shen
- T-AM-141 **High-resolution Medical Image Translation via Patch Alignment-Based Bidirectional Contrastive Learning**
Wei Zhang, Tik Ho Hui, Pui Ying Tse, Fraser Hill, Condon Lau, Xinyue Li
- T-AM-143 **In vivo deep learning estimation of diffusion coefficients of nanoparticles**
Julius B. Kirkegaard, Nikolay P. Kutuzov, Rasmus Netterstrøm, Sune Darkner, Martin Lauritzen, François Lauze
- T-AM-145 **Integrating Clinical Knowledge into Concept Bottleneck Models**
Winnie Pang, Xueyi Ke, Satoshi Tsutsui, Bihan Wen
- T-AM-147 **Interpretable phenotypic profiling of 3D cellular morphodynamics**
Matt De Vries, Reed Naidoo, Olga Fourkioti, Lucas G. Dent, Nathan Curry, Christopher Dunsby, Chris Bakal
- T-AM-149 **Interpretable Spatio-Temporal Embedding for Brain Structural-Effective Network with Ordinary Differential Equation**
Haoteng Tang, Guodong Liu, Siyuan Dai, Kai Ye, Kun Zhao, Wenlu Wang, Carl Yang, Lifang He, Alex Leow, Paul Thompson, Heng Huang, Liang Zhan
- T-AM-151 **Is this hard for you? Personalized human difficulty estimation for skin lesion diagnosis**
Peter Johannes Tejlgaard Kampen, Anders Nymark Christensen, Morten Rieger Hannemose
- T-AM-153 **Knowledge-driven Subspace Fusion and Gradient Coordination for Multi-modal Learning**
Yupei Zhang, Xiaofei Wang, Fangliangzi Meng, Jin Tang, Chao Li
- T-AM-155 **Language-Enhanced Local-Global Aggregation Network for Multi-Organ Trauma Detection**
Jianxun Yu, Qixin Hu, Meirui Jiang, Yaning Wang, Chin Ting Wong, Jing Wang, Huimao Zhang, Qi Dou
- T-AM-157 **Laplacian Segmentation Networks Improve Epistemic Uncertainty Quantification**
Kilian Zepf, Selma Wanna, Marco Miani, Juston Moore, Jes Frellsen, Søren Hauberg, Frederik Warburg, Aasa Feragen
- T-AM-159 **LoCI-DiffCom: Longitudinal Consistency-Informed Diffusion Model for 3D Infant Brain Image Completion**
Zihao Zhu, Tianli Tao, Yitian Tao, Haowen Deng, Xinyi Cai, Gaofeng Wu, Kaidong Wang, Haifeng Tang, Lixuan Zhu, Zhuoyang Gu, Dinggang Shen, Han Zhang
- T-AM-161 **LOMIA-T: A Transformer-based LOngitudinal Medical Image Analysis framework for predicting treatment response of esophageal cancer**
Yuchen Sun, Kunwei Li, Duanduan Chen, Yi Hu, Shuaitong Zhang
- T-AM-163 **Loose Lesion Location Self-supervision Enhanced Colorectal Cancer Diagnosis**
Tianhong Gao, Jie Song, Xiaotian Yu, Shengxuming Zhang, Wenjie Liang, Hongbin Zhang, Ziqian Li, Wenzhuo Zhang, Xiuming Zhang, Zipeng Zhong, Mingli Song, Zunlei Feng
- T-AM-165 **LS+: Informed Label Smoothing for Improving Calibration in Medical Image Classification**
Abhishek Singh Sambyal, Usma Niyaz, Saksham Shrivastava, Narayanan C. Krishnan, Deepti R. Bathula
- T-AM-167 **Med-Former: A Transformer based Architecture for Medical Image Classification**
G. Jignesh Chowdary, Zhaozheng Yin
- T-AM-169 **Medical Cross-Modal Prompt Hashing with Robust Noisy Correspondence Learning**
Yishu Liu, Zhongqi Wu, Bingzhi Chen, Zheng Zhang, Guangming Lu
- T-AM-171 **MetaAD: Metabolism-Aware Anomaly Detection for Parkinson's Disease in 3D 18F-FDG PET**
Haolin Huang, Zhenrong Shen, Jing Wang, Xinyu Wang, Jiaying Lu, Huamei Lin, Jingjie Ge, Chuantao Zuo, Qian Wang
- T-AM-173 **MGDR: Multi-Modal Graph Disentangled Representation for Brain Disease Prediction**

Bo Jiang, Yapeng Li, Xixi Wan, Yuan Chen, Zhengzheng Tu, Yumiao Zhao, Jin Tang

- T-AM-175 **MMFusion: Multi-modality Diffusion Model for Lymph Node Metastasis Diagnosis in Esophageal Cancer**
Chengyu Wu, Chengkai Wang, Huiyu Zhou, Yatao Zhang, Qifeng Wang, Yaqi Wang, Shuai Wang
- T-AM-177 **MMQL: Multi-Question Learning for Medical Visual Question Answering**
Qishen Chen, Minjie Bian, Huahu Xu
- T-AM-179 **MM-Retinal: Knowledge-Enhanced Foundational Pretraining with Fundus Image-Text Expertise**
Ruiqi Wu, Chenran Zhang, Jianle Zhang, Yi Zhou, Tao Zhou, Huazhu Fu
- T-AM-181 **MRScore: Evaluating Medical Report with LLM-based Reward System**
Yunyi Liu, Zhanyu Wang, Yingshu Li, Xinyu Liang, Lingqiao Liu, Lei Wang, Luping Zhou
- T-AM-183 **MuGI: Multi-Granularity Interactions of Heterogeneous Biomedical Data for Survival Prediction**
Lifan Long, Jiaqi Cui, Pinxian Zeng, Yilun Li, Yuanjun Liu, Yan Wang
- T-AM-185 **Multi-disease Detection in Retinal Images Guided by Disease Causal Estimation**
Jiayang Xie, Xiuju Chen, Yitian Zhao, Yanda Meng, He Zhao, Anh Nguyen, Xiaoxin Li, Yalin Zheng
- T-AM-187 **Multimodal Variational Autoencoder for Low-cost Cardiac Hemodynamics Instability Detection**
Mohammad N. I. Suvon, Prasun C. Tripathi, Wenrui Fan, Shuo Zhou, Xianyuan Liu, Samer Alabed, Venet Osmani, Andrew J. Swift, Chen Chen, Haiping Lu
- T-AM-189 **Multi-order Simplex-based Graph Neural Network for Brain Network Analysis**
Yechan Hwang, Soojin Hwang, Guorong Wu, Won Hwa Kim
- T-AM-191 **Multi-scale Region-aware Implicit Neural Network for Medical Images Matting**
Yanyu Xu, Yingzhi Xia, Huazhu Fu, Rick Siow Mong Goh, Yong Liu, Xinxing Xu
- T-AM-193 **MultiVarNet - Predicting Tumour Mutational status at the Protein Level**
Louis-Oscar Morel, Muhammad Muzammel, Nathan Vinçon, Valentin Derangère, Sylvain Ladoire, Jens Rittscher
- T-AM-195 **Myocardial Scar Enhancement in LGE Cardiac MRI using Localized Diffusion**
Marta Hasny, Omer B. Demirel, Amine Amyar, Shahrooz Faghihroohi, Reza Nezafat
- T-AM-197 **No-New-Denoiser: A Critical Analysis of Diffusion Models for Medical Image Denoising**
Laura Pfaff, Fabian Wagner, Nastassia Vysotskaya, Mareike Thies, Noah Maul, Siyuan Mei, Tobias Wuerfl, Andreas Maier
- T-AM-199 **OCL: Ordinal Contrastive Learning for Imputating Features with Progressive Labels**
Seunghun Baek, Jaeyoon Sim, Guorong Wu, Won Hwa Kim
- T-AM-201 **Ordinal Learning: Longitudinal Attention Alignment Model for Predicting Time to Future Breast Cancer Events from Mammograms**
Xin Wang, Tao Tan, Yuan Gao, Eric Marcus, Luyi Han, Antonio Portaluri, Tianyu Zhang, Chunyao Lu, Xinglong Liang, Regina Beets-Tan, Jonas Teuwen, Ritse Mann
- T-AM-203 **PASSION for Dermatology: Bridging the Diversity Gap with Pigmented Skin Images from Sub-Saharan Africa**
Philippe Gottfrois, Fabian Gröger, Faly Herizo Andriambololoniaina, Ludovic Amruthalingam, Alvaro Gonzalez-Jimenez, Christophe Hsu, Agnes Kessy, Simone Lionetti, Daudi Mavura, Wingston Ng'ambi, Dingase Faith Ngongonda, Marc Pouly, Mendrika Fifaliana Rakotoarisaona, Fahafahantsoa Rapelanoro Rabenja, Ibrahima Traoré, Alexander A. Navarini
- T-AM-205 **PET Image Denoising Based on 3D Denoising Diffusion Probabilistic Model: Evaluations on Total-Body Datasets**
Boxiao Yu, Savas Ozdemir, Yafei Dong, Wei Shao, Kuangyu Shi, Kuang Gong
- T-AM-207 **Pixel2Mechanics: Automated biomechanical simulations of high-resolution intervertebral discs from anisotropic MRIs**

Sai Natarajan, Estefano Muñoz-Moya, Carlos Ruiz Wills, Gemma Piella, Jérôme Noailly, Ludovic Humbert, Miguel A. González Ballester

- T-AM-209 **Prediction of Disease-Related Femur Shape Changes Using Geometric Encoding and Clinical Context on a Hip Disease CT Database**
Ganping Li, Yoshito Otake, Mazen Soufi, Masachika Masuda, Keisuke Uemura, Masaki Takao, Nobuhiko Sugano, Yoshinobu Sato
- T-AM-211 **Privacy Protection in MRI Scans Using 3D Masked Autoencoders**
Lennart A. Van der Goten, Kevin Smith
- T-AM-213 **Prompting Vision-Language Models for Dental Notation Aware Abnormality Detection**
Chenlin Du, Xiaoxuan Chen, Jingyi Wang, Junjie Wang, Zhongsen Li, Zongjiu Zhang, Qicheng Lao
- T-AM-215 **PromptSmooth: Certifying Robustness of Medical Vision-Language Models via Prompt Learning**
Noor Hussein, Fahad Shamshad, Muzammal Naseer, Karthik Nandakumar
- T-AM-217 **RadiomicsFill-Mammo: Synthetic Mammogram Mass Manipulation with Radiomics Features**
Inye Na, Jonghun Kim, Eun Sook Ko, Hyunjin Park
- T-AM-219 **Reliable Multi-View Learning with Conformal Prediction for Aortic Stenosis Classification in Echocardiography**
Ang Nan Gu, Michael Tsang, Hooman Vaseli, Teresa Tsang, Purang Abolmaesumi
- T-AM-221 **Reliable Source Approximation: Source-Free Unsupervised Domain Adaptation for Vestibular Schwannoma MRI Segmentation**
Hongye Zeng, Ke Zou, Zhihao Chen, Rui Zheng, Huazhu Fu
- T-AM-223 **Rethinking Autoencoders for Medical Anomaly Detection from A Theoretical Perspective**
Yu Cai, Hao Chen, Kwang-Ting Cheng
- T-AM-225 **RIP-AV: Joint Representative Instance Pre-training with Context Aware Network for Retinal Artery/Vein Segmentation**
Wei Dai, Yinghao Yao, Hengte Kong, Zhen Ji Chen, Sheng Wang, Qingshi Bai, Haojun Sun, Yongxin Yang, Jianzhong Su
- T-AM-227 **Robust Conformal Volume Estimation in 3D Medical Images**
Benjamin Lambert, Florence Forbes, Senan Doyle, Michel Dojat
- T-AM-229 **SCMIL: Sparse Context-aware Multiple Instance Learning for Predicting Cancer Survival Probability Distribution in Whole Slide Images**
Zekang Yang, Hong Liu, Xiangdong Wang
- T-AM-231 **Self-guided Knowledge-injected Graph Neural Network for Alzheimer’s Diseases**
Zhepeng Wang, Runxue Bao, Yawen Wu, Guodong Liu, Lei Yang, Liang Zhan, Feng Zheng, Weiwen Jiang, Yanfu Zhang
- T-AM-233 **Self-supervised Vision Transformer are Scalable Generative Models for Domain Generalization**
Sebastian Doerrich, Francesco Di Salvo, Christian Ledig
- T-AM-235 **Semantics-Aware Attention Guidance for Diagnosing Whole Slide Images**
Kechun Liu, Wenjun Wu, Joann G. Elmore, Linda G. Shapiro
- T-AM-237 **Simplify Implant Depth Prediction as Video Grounding: A Texture Perceive Implant Depth Prediction Network**
Xinquan Yang, Xuguang Li, Xiaoling Luo, Leilei Zeng, Yudi Zhang, Linlin Shen, Yongqiang Deng
- T-AM-239 **Single-source Domain Generalization in Deep Learning Segmentation via Lipschitz Regularization**
Mazlum Ferhat Arslan, Weihong Guo, Shuo Li
- T-AM-241 **SlicerTMS: Real-Time Visualization of Transcranial Magnetic Stimulation for Mental Health Treatment**
Loraine Franke, Jie Luo, Tae Young Park, Nam Wook Kim, Yogesh Rathi, Steve Pieper, Lipeng Ning, Daniel Haehn

- T-AM-243 **SpeChrOmics: A Biomarker Characterization Framework for Medical Hyperspectral Imaging**
Ajibola S. Oladokun, Bessie Malila, Victor M. Campello, Muki Shey, Tinashe E.M. Mutsvangwa
- T-AM-245 **S-SYNTH: Knowledge-Based, Synthetic Generation of Skin Images**
Andrea Kim, Niloufar Saharkhiz, Elena Sizikova, Miguel Lago, Berkman Sahiner, Jana Delfino, Aldo Badano
- T-AM-247 **SurvRNC: Learning Ordered Representations for Survival Prediction using Rank-N-Contrast**
Numan Saeed, Muhammad Ridzuan, Fadillah Adamsyah Maani, Hussain Alasmawi, Karthik Nandakumar, Mohammad Yaqub
- T-AM-249 **Synchronous Image-Label Diffusion with Anisotropic Noise for Stroke Lesion Segmentation on Non-contrast CT**
Jianhai Zhang, Tonghua Wan, M. Ethan MacDonald, Bijoy K Menon, Wu Qiu, Aravind Ganesh
- T-AM-251 **TADM: Temporally-Aware Diffusion Model for Neurodegenerative Progression on Brain MRI**
Mattia Litrico, Francesco Guarnera, Mario Valerio Giuffrida, Daniele Ravi, Sebastiano Battiato
- T-AM-253 **TAPoseNet: Teeth Alignment based on Pose estimation via multi-scale Graph Convolutional Network**
Qingxin Deng, Xunyu Yang, Minghan Huang, Landu Jiang, Dian Zhang
- T-AM-255 **TeethDreamer: 3D Teeth Reconstruction from Five Intra-oral Photographs**
Chenfan Xu, Zhentao Liu, Yuan Liu, Yulong Dou, Jiamin Wu, Jiepeng Wang, Minjiao Wang, Dinggang Shen, Zhiming Cui
- T-AM-257 **ThyGraph: A Graph-Based Approach for Thyroid Nodule Diagnosis from Ultrasound Studies**
Ashwath Radhachandran, Alekhya Vittalam, Vedrana Ivezic, Vivek Sant, Shreeram Athreya, Chace Moleta, Maitraya Patel, Rinat Masamed, Corey Arnold, William Speier
- T-AM-259 **TinyU-Net: Lighter yet Better U-Net with Cascaded Multi-Receptive Fields**
Junren Chen, Rui Chen, Wei Wang, Junlong Cheng, Lei Zhang, Liangyin Chen
- T-AM-261 **Topological GCN for Improving Detection of Hip Landmarks from B-Mode Ultrasound Images**
Tianxiang Huang, Jing Shi, Ge Jin, Juncheng Li, Jun Wang, Jun Du, Jun Shi
- T-AM-263 **Towards a text-based quantitative and explainable histopathology image analysis**
Anh Tien Nguyen, Trinh Thi Le Vuong, Jin Tae Kwak
- T-AM-265 **Towards Explainable Automated Neuroanatomy**
Kui Qian, Litao Qiao, Beth Friedman, Edward O'Donnell, David Kleinfeld, Yoav Freund
- T-AM-267 **Towards Graph Neural Networks with Domain-Generalizable Explainability for fMRI-Based Brain Disorder Diagnosis**
Xinmei Qiu, Fan Wang, Yongheng Sun, Chunfeng Lian, Jianhua Ma
- T-AM-269 **Towards Learning Contrast Kinetics with Multi-Condition Latent Diffusion Models**
Richard Osuala, Daniel M. Lang, Preeti Verma, Smriti Joshi, Apostolia Tsirikoglou, Grzegorz Skorupko, Kaiser Kushibar, Lidia Garrucho, Walter H. L. Pinaya, Oliver Diaz, Julia A. Schnabel, Karim Lekadir
- T-AM-271 **Towards tDCS Digital Twins using Deep Learning-based Direct Estimation of Personalized Electrical Field Maps from T1-Weighted MRI**
Skylar E. Stolte, Aprinda Indahlastari, Alejandro Albizu, Adam J. Woods, Ruogu Fang
- T-AM-273 **Unsupervised Domain Adaptation using Soft-Labeled Contrastive Learning with Reversed Monte Carlo Method for Cardiac Image Segmentation**
Mingxuan Gu, Mareike Thies, Siyuan Mei, Fabian Wagner, Mingcheng Fan, Yipeng Sun, Zhaoya Pan, Sulaiman Vesal, Ronak Kostl, Dennis Possart, Jonas Utz, Andreas Maier
- T-AM-275 **UnWave-Net: Unrolled Wavelet Network for Compton Tomography Image Reconstruction**
Ishak Ayad, Cécilia Tarpau, Javier Cebeiro, Mai K. Nguyen
- T-AM-277 **VDPF: Enhancing DVT Staging Performance Using a Global-Local Feature Fusion Network**

Xiaotong Xie, Yufeng Ye, Tingting Yang, Bin Huang, Bingsheng Huang, Yi Huang

- T-AM-279 **Vestibular schwannoma growth prediction from longitudinal MRI by time-conditioned neural fields**
Yunjie Chen, Jelmer M. Wolterink, Olaf M. Neve, Stephan R. Romeijn, Berit M. Verbist, Erik F. Hensen, Qian Tao, Marius Staring
- T-AM-281 **VLSM-Adapter: Finetuning Vision-Language Segmentation Efficiently with Lightweight Blocks**
Manish Dhakal, Rabin Adhikari, Safal Thapaliya, Bishesh Khanal
- T-AM-283 **Volume-optimal persistence homological scaffolds of hemodynamic networks covary with MEG theta-alpha aperiodic dynamics**
Nghi Nguyen, Tao Hou, Enrico Amico, Jingyi Zheng, Huajun Huang, Alan D. Kaplan, Giovanni Petri, Joaquín Goñi, Ralph Kaufmann, Yize Zhao, Duy Duong-Tran, Li Shen
- T-AM-285 **WIA-LD2ND: Wavelet-based Image Alignment for Self-supervised Low-Dose CT Denoising**
Haoyu Zhao, Yuliang Gu, Zhou Zhao, Bo Du, Yongchao Xu, Rui Yu

Poster Session 4: Image Segmentation 2, Surgical Data Science, and Foundation models and Multimodal Data

Tuesday, October 8, 2024, 15:00 to 16:30

- T-PM-002 **3DGPS: A 3D Differentiable-Gaussian-based Planning Strategy for Liver Tumor Cryoablation**
Ce Wang, Xiaoyu Huang, Yaqing Kong, Qian Li, You Hao, Xiang Zhou
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Hee Guan Khor, Xin Yang, Yihua Sun, Jie Wang, Sijuan Huang, Shaobin Wang, Bai Lu, Longfei Ma, Hongen Liao
- T-PM-276 **UrFound: Towards Universal Retinal Foundation Models via Knowledge-Guided Masked Modeling**
Kai Yu, Yang Zhou, Yang Bai, Zhi Da Soh, Xinxing Xu, Rick Siow Mong Goh, Ching-Yu Cheng, Yong Liu

- T-PM-278 **VCLIPSeg: Voxel-wise CLIP-Enhanced model for Semi-Supervised Medical Image Segmentation**
Lei Li, Sheng Lian, Zhiming Luo, Beizhan Wang, Shaozi Li
- T-PM-280 **VertFound: Synergizing Semantic and Spatial Understanding for Fine-grained Vertebrae Classification via Foundation Models**
Jinzhou Tang, Yinhao Wu, Zequan Yao, Mingjie Li, Yuan Hong, Dongdong Yu, Zhifan Gao, Bin Chen, Shen Zhao
- T-PM-282 **Weakly-supervised Medical Image Segmentation with Gaze Annotations**
Yuan Zhong, Chenhui Tang, Yumeng Yang, Ruoxi Qi, Kang Zhou, Yuqi Gong, Pheng Ann Heng, Janet H. Hsiao, Qi Dou
- T-PM-284 **Whole Heart 3D+T Representation Learning Through Sparse 2D Cardiac MR Images**
Yundi Zhang, Chen Chen, Suprosanna Shit, Sophie Starck, Daniel Rueckert, Jiazhen Pan

Poster Session 5: Image Registration, Computer Aided Diagnosis 2, and Transparency, Fairness and Uncertainty 2

Wednesday, October 9, 2024, 10:30 to 11:30

- W-AM-001 **A Clinical-oriented Multi-level Contrastive Learning Method for Disease Diagnosis in Low-quality Medical Images**
Qingshan Hou, Shuai Cheng, Peng Cao, Jinzhu Yang, Xiaoli Liu, Yih Chung Tham, Osmar R. Zaiane
- W-AM-003 **A Foundation Model for Brain Lesion Segmentation with Mixture of Modality Experts**
Xinru Zhang, Ni Ou, Berke Doga Basaran, Marco Visentin, Mengyun Qiao, Renyang Gu, Cheng Ouyang, Yaou Liu, Paul M. Matthews, Chuyang Ye, Wenjia Bai
- W-AM-005 **A framework for assessing joint human-AI systems based on uncertainty estimation**
Emir Konuk, Robert Welch, Filip Christiansen, Elisabeth Epstein, Kevin Smith
- W-AM-007 **A Large-scale Multi Domain Leukemia Dataset for the White Blood Cells Detection with Morphological Attributes for Explainability**
Abdul Rehman, Talha Meraj, Aiman Mahmood Minhas, Ayisha Imran, Mohsen Ali, Waqas Sultani
- W-AM-009 **A Multi-Information Dual-Layer Cross-Attention Model for Esophageal Fistula Prognosis**
Jianqiao Zhang, Hao Xiong, Qiangguo Jin, Tian Feng, Jiquan Ma, Ping Xuan, Peng Cheng, Zhiyuan Ning, Zhiyu Ning, Changyang Li, Linlin Wang, Hui Cui
- W-AM-011 **A Unified Model for Longitudinal Multi-Modal Multi-View Prediction with Missingness**
Boqi Chen, Junier Oliva, Marc Niethammer
- W-AM-013 **Adaptive Curriculum Query Strategy for Active Learning in Medical Image Classification**
Siteng Ma, Honghui Du, Kathleen M. Curran, Aonghus Lawlor, Ruihai Dong
- W-AM-015 **Advancing Brain Imaging Analysis Step-by-step via Progressive Self-paced Learning**
Yanwu Yang, Hairui Chen, Jiesi Hu, Xutao Guo, Ting Ma
- W-AM-017 **Aligning and Restoring Imperfect ssEM images for Continuity Reconstruction**
Yanan Lv, Haoze Jia, Xi Chen, Haiyang Yan, Hua Han
- W-AM-019 **An Organism Starts with a Single Pix-Cell: A Neural Cellular Diffusion for High-Resolution Image Synthesis**
Marawan Elbatel, Konstantinos Kamnitsas, Xiaomeng Li
- W-AM-021 **Anatomic-constrained Medical Image Synthesis via Physiological Density Sampling**
Yuetan Chu, Changchun Yang, Gongning Luo, Zhaowen Qiu, Xin Gao
- W-AM-023 **Are We Ready for Out-of-Distribution Detection in Digital Pathology?**
Ji-Hun Oh, Kianoush Falahkheirkhah, Rohit Bhargava
- W-AM-025 **Attention-Enhanced Fusion of Structural and Functional MRI for Analyzing HIV-Associated Asymptomatic Neurocognitive Impairment**
Yuqi Fang, Wei Wang, Qianqian Wang, Hong-Jun Li, Mingxia Liu

- W-AM-027 **BiasPruner: Debaised Continual Learning for Medical Image Classification**
Nourhan Bayasi, Jamil Fayyad, Alceu Bissoto, Ghassan Hamarneh, Rafeef Garbi
- W-AM-029 **Biomechanics-informed Non-rigid Medical Image Registration and its Inverse Material Property Estimation with Linear and Nonlinear Elasticity**
Zhe Min, Zachary M. C. Baum, Shaheer U. Saeed, Mark Emberton, Dean C. Barratt, Zeike A. Taylor, Yipeng Hu
- W-AM-031 **BrainWaveNet: Wavelet-based Transformer for Autism Spectrum Disorder Diagnosis**
Ah-Yeong Jeong, Da-Woon Heo, Eunsong Kang, Heung-Il Suk
- W-AM-033 **CardioSpectrum: Comprehensive Myocardium Motion Analysis with 3D Deep Learning and Geometric Insights**
Shahar Zuler, Shai Tejman-Yarden, Dan Raviv
- W-AM-035 **CausCLIP: Causality-Adapting Visual Scoring of Visual Language Models for Few-Shot Learning in Portable Echocardiography Quality Assessment**
Yiran Li, Xiaoxiao Cui, Yankun Cao, Yuezong Zhang, Huihui Wang, Lizhen Cui, Zhi Liu, Shuo Li
- W-AM-037 **Cephalometric Landmark Detection across Ages with Prototypical Network**
Han Wu, Chong Wang, Lanzhuju Mei, Tong Yang, Min Zhu, Dinggang Shen, Zhiming Cui
- W-AM-039 **CheXtriev: Anatomy-Centered Representation for Case-Based Retrieval of Chest Radiographs**
Naren Akash R J, Arihanth Tadanki, Jayanthi Sivaswamy
- W-AM-041 **CINA: Conditional Implicit Neural Atlas for Spatio-Temporal Representation of Fetal Brains**
Maik Dannecker, Vanessa Kyriakopoulou, Lucilio Cordero-Grande, Anthony N. Price, Joseph V. Hajnal, Daniel Rueckert
- W-AM-043 **Class-Balancing Deep Active Learning with Auto-Feature Mixing and Minority Push-Pull Sampling**
Hongxin Lin, Chu Zhang, Mingyu Wang, Bin Huang, Jingjing Shao, Jinxiang Zhang, Zhenhua Gao, Xianfen Diao, Bingsheng Huang
- W-AM-045 **Clinical-grade Multi-Organ Pathology Report Generation for Multi-scale Whole Slide Images via a Semantically Guided Medical Text Foundation Model**
Jing Wei Tan, SeungKyu Kim, Eunsu Kim, Sung Hak Lee, Sangjeong Ahn, Won-Ki Jeong
- W-AM-047 **Continually Tuning a Large Language Model for Multi-domain Radiology Report Generation**
Yihua Sun, Hee Guan Khor, Yuanzheng Wang, Zhuhao Wang, Hongliang Zhao, Yu Zhang, Longfei Ma, Zhuozhao Zheng, Hongen Liao
- W-AM-049 **Controllable and Efficient Multi-Class Pathology Nuclei Data Augmentation using Text-Conditioned Diffusion Models**
Hyun-Jic Oh, Won-Ki Jeong
- W-AM-051 **Correlation-adaptive Multi-view CEUS Fusion for Liver Cancer Diagnosis**
Peng Wan, Shukang Zhang, Wei Shao, Junyong Zhao, Yinkai Yang, Wentao Kong, Haiyan Xue, Daoqiang Zhang
- W-AM-053 **Cross-Slice Attention and Evidential Critical Loss for Uncertainty-Aware Prostate Cancer Detection**
Alex Ling Yu Hung, Haoxin Zheng, Kai Zhao, Kaifeng Pang, Demetri Terzopoulos, Kyunghyun Sung
- W-AM-055 **Data-Driven Tissue- and Subject-Specific Elastic Regularization for Medical Image Registration**
Anna Reithmeir, Lina Felsner, Rickmer Braren, Julia A. Schnabel, Veronika A. Zimmer
- W-AM-057 **Decoding the visual attention of pathologists to reveal their level of expertise**
Souradeep Chakraborty, Rajarsi Gupta, Oksana Yaskiv, Constantin Friedman, Natallia Sheuka, Dana Perez, Paul Friedman, Gregory Zelinsky, Joel Saltz, Dimitris Samaras
- W-AM-059 **Deep-learning-based groupwise registration for motion correction of cardiac T1 mapping**
Yi Zhang, Yidong Zhao, Lu Huang, Liming Xia, Qian Tao
- W-AM-061 **DermaVQA: A Multilingual Visual Question Answering Dataset for Dermatology**
Wen-wai Yim, Yujuan Fu, Zhaoyi Sun, Asma Ben Abacha, Meliha Yetisgen, Fei Xia

- W-AM-063 **Detecting noisy labels with repeated cross-validations**
Jianan Chen, Vishwesh Ramanathan, Tony Xu, Anne L. Martel
- W-AM-065 **DiffExplainer: Unveiling Black Box Models Via Counterfactual Generation**
Yingying Fang, Shuang Wu, Zihao Jin, Shiyi Wang, Caiwen Xu, Simon Walsh, Guang Yang
- W-AM-067 **DiffuseReg: Denoising Diffusion Model for Obtaining Deformation Fields in Unsupervised Deformable Image Registration**
Yongtai Zhuo, Yiqing Shen
- W-AM-069 **Diffusion Models with Implicit Guidance for Medical Anomaly Detection**
Cosmin I. Bercea, Benedikt Wiestler, Daniel Rueckert, Julia A. Schnabel
- W-AM-071 **DINO-Reg: General Purpose Image Encoder for Training-free Multi-modal Deformable Medical Image Registration**
Xinrui Song, Xuanang Xu, Pingkun Yan
- W-AM-073 **Disentangled Attention Graph Neural Network for Alzheimer’s Disease Diagnosis**
Gurur Gamgam, Alkan Kabakcioglu, Demet Yüksel Dal, Burak Acar
- W-AM-075 **Domain Adaptation for Unsupervised Cancer Detection: An application for skin Whole Slides Images from an interhospital dataset**
Natalia P. García-de-la-Puente, Miguel López-Pérez, Laëtitia Launet, Valery Naranjo
- W-AM-077 **DRIM: Learning Disentangled Representations from Incomplete Multimodal Healthcare Data**
Lucas Robinet, Ahmad Berjaoui, Ziad Kheil, Elizabeth Cohen-Jonathan Moyal
- W-AM-079 **DSCENet: Dynamic Screening and Clinical-Enhanced Multimodal Fusion for MPNs Subtype Classification**
Yuan Zhang, Yaolei Qi, Xiaoming Qi, Yongyue Wei, Guanyu Yang
- W-AM-081 **EchoNarrator: Generating natural text explanations for ejection fraction predictions**
Sarina Thomas, Qing Cao, Anna Novikova, Daria Kulikova, Guy Ben-Yosef
- W-AM-083 **EchoTracker: Advancing Myocardial Point Tracking in Echocardiography**
Md Abulkalam Azad, Artem Chernyshov, John Nyberg, Ingrid Tveten, Lasse Lovstakken, Håvard Dalen, Bjørnar Grenne, Andreas Østvik
- W-AM-085 **Eddeep: Fast eddy-current distortion correction for diffusion MRI with deep learning**
Antoine Legouhy, Ross Callaghan, Whitney Stee, Philippe Peigneux, Hojjat Azadbakht, Hui Zhang
- W-AM-087 **Efficient and Gender-adaptive Graph Vision Mamba for Pediatric Bone Age Assessment**
Lingyu Zhou, Zhang Yi, Kai Zhou, Xiuyuan Xu
- W-AM-089 **Embryo Graphs: Predicting Human Embryo Viability from 3D Morphology**
Chloe He, Neringa Karpavičiūtė, Rishabh Hariharan, Céline Jacques, Jérôme Chambost, Jonas Malmsten, Nikica Zaninovic, Koen Wouters, Thomas Fréour, Cristina Hickman, Francisco Vasconcelos
- W-AM-091 **Enhancing Gene Expression Prediction from Histology Images with Spatial Transcriptomics Completion**
Gabriel Mejia, Daniela Ruiz, Paula Cárdenas, Leonardo Manrique, Daniela Vega, Pablo Arbeláez
- W-AM-093 **Ensemble of Prior-guided Expert Graph Models for Survival Prediction in Digital Pathology**
Vishwesh Ramanathan, Pushpak Pati, Matthew McNeil, Anne L. Martel
- W-AM-095 **Estimation and Analysis of Slice Propagation Uncertainty in 3D Anatomy Segmentation**
Rachael Nihalaani, Tushar Kataria, Jadie Adams, Shireen Y. Elhabian
- W-AM-097 **FALFormer: Feature-aware Landmarks self-attention for Whole-slide Image Classification**
Doanh C. Bui, Trinh Thi Le Vuong, Jin Tae Kwak
- W-AM-099 **Feature Selection Gates with Gradient Routing for Endoscopic Image Computing**
Giorgio Roffo, Carlo Biffi, Pietro Salvagnini, Andrea Cherubini

- W-AM-101 **FedEvi: Improving Federated Medical Image Segmentation via Evidential Weight Aggregation**
Jiayi Chen, Benteng Ma, Hengfei Cui, Yong Xia
- W-AM-103 **Fine-grained Prompt Tuning: A Parameter and Memory Efficient Transfer Learning Method for High-resolution Medical Image Classification**
Yijin Huang, Pujin Cheng, Roger Tam, Xiaoying Tang
- W-AM-105 **Follow the Radiologist: Clinically Relevant Multi-View Cues for Breast Cancer Detection from Mammograms**
Kshitiz Jain, Krithika Rangarajan, Chetan Arora
- W-AM-107 **Forecasting Disease Progression with Parallel Hyperplanes in Longitudinal Retinal OCT**
Arunava Chakravarty, Taha Emre, Dmitrii Lachinov, Antoine Rivail, Hendrik Scholl, Lars Fritsche, Sobha Sivaprasad, Daniel Rueckert, Andrew Lotery, Ursula Schmidt-Erfurth, Hrvoje Bogunovic
- W-AM-109 **GCAN: Generative Counterfactual Attention-guided Network for Explainable Cognitive Decline Diagnostics based on fMRI Functional Connectivity**
Xiongri Shen, Zhenxi Song, Zhiguo Zhang
- W-AM-111 **Geometric Transformation Uncertainty for Improving 3D Fetal Brain Pose Prediction from Freehand 2D Ultrasound Videos**
Jayroop Ramesh, Nicola Dinsdale, Pak-Hei Yeung, Ana I.L. Namburete
- W-AM-113 **GMM-CoRegNet: A Multimodal Groupwise Registration Framework Based on Gaussian Mixture Model**
Zhenyu Li, Fan Yu, Jie Lu, Zhen Qian
- W-AM-115 **Groupwise Deformable Registration of Diffusion Tensor Cardiovascular Magnetic Resonance: Disentangling Diffusion Contrast, Respiratory and Cardiac Motions**
Fanwen Wang, Yihao Luo, Ke Wen, Jiahao Huang, Pedro F. Ferreira, Yaqing Luo, Yinzhe Wu, Camila Munoz, Dudley J. Pennell, Andrew D. Scott, Sonia Nielles-Vallespin, Guang Yang
- W-AM-117 **Heteroscedastic Uncertainty Estimation Framework for Unsupervised Registration**
Xiaoran Zhang, Daniel H. Pak, Shawn S. Ahn, Xiaoxiao Li, Chenyu You, Lawrence H. Staib, Albert J. Sinusas, Alex Wong, James S. Duncan
- W-AM-119 **Hierarchical Symmetric Normalization Registration using Deformation-Inverse Network**
Qingrui Sha, Kaicong Sun, Mingze Xu, Yonghao Li, Zhong Xue, Xiaohuan Cao, Dinggang Shen
- W-AM-121 **HistGen: Histopathology Report Generation via Local-Global Feature Encoding and Cross-modal Context Interaction**
Zhengrui Guo, Jiabo Ma, Yingxue Xu, Yihui Wang, Liansheng Wang, Hao Chen
- W-AM-123 **HoG-Net: Hierarchical Multi-Organ Graph Network for Head and Neck Cancer Recurrence Prediction from CT Images**
Joseph Bae, Saarthak Kapse, Lei Zhou, Kartik Mani, Prateek Prasanna
- W-AM-125 **HuLP: Human-in-the-Loop for Prognosis**
Muhammad Ridzuan, Mai A. Shaaban, Numan Saeed, Ikboljon Sobirov, Mohammad Yaqub
- W-AM-127 **IarCAC: Instance-aware Representation for Coronary Artery Calcification Segmentation in Cardiac CT angiography**
Weili Jiang, Yiming Li, Zhang Yi, Jianyong Wang, Mao Chen
- W-AM-129 **IMG-GCN: Interpretable Modularity-Guided Structure-Function Interactions Learning for Brain Cognition and Disorder Analysis**
Jing Xia, Yi Hao Chan, Deepank Girish, Jagath C. Rajapakse
- W-AM-131 **IM-MoCo: Self-supervised MRI Motion Correction using Motion-Guided Implicit Neural Representations**
Ziad Al-Haj Hemidi, Christian Weihsbach, Mattias P. Heinrich

- W-AM-133 **Improved Classification Learning from Highly Imbalanced Multi-Label Datasets of Inflamed Joints in [99mTc]Maraciclalide Imaging of Arthritic Patients by Natural Image and Diffusion Model Augmentation**
Robert Cobb, Gary J.R. Cook, Andrew J. Reader
- W-AM-135 **Improved Esophageal Varices Assessment from Non-Contrast CT Scans**
Chunli Li, Xiaoming Zhang, Yuan Gao, Xiaoli Yin, Le Lu, Ling Zhang, Ke Yan, Yu Shi
- W-AM-137 **Improving Neoadjuvant Therapy Response Prediction by Integrating Longitudinal Mammogram Generation with Cross-Modal Radiological Reports: A Vision-Language Alignment-guided Model**
Yuan Gao, Hong-Yu Zhou, Xin Wang, Tianyu Zhang, Luyi Han, Chunyao Lu, Xinglong Liang, Jonas Teuwen, Regina Beets-Tan, Tao Tan, Ritse Mann
- W-AM-139 **Incorporating Clinical Guidelines through Adapting Multi-modal Large Language Model for Prostate Cancer PI-RADS Scoring**
Tiantian Zhang, Manxi Lin, Hongda Guo, Xiaofan Zhang, Ka Fung Peter Chiu, Aasa Feragen, Qi Dou
- W-AM-141 **Interpretable Representation Learning of Cardiac MRI via Attribute Regularization**
Maxime Di Folco, Cosmin I. Bercea, Emily Chan, Julia A. Schnabel
- W-AM-143 **Interpretable-by-design Deep Survival Analysis for Disease Progression Modeling**
Julius Gervelmeyer, Sarah Müller, Kerol Djoumessi, David Merle, Simon J. Clark, Lisa Koch, Philipp Berens
- W-AM-145 **Iterative Online Image Synthesis via Diffusion Model for Imbalanced Classification**
Shuhan Li, Yi Lin, Hao Chen, Kwang-Ting Cheng
- W-AM-147 **KARGEN: Knowledge-enhanced Automated Radiology Report Generation Using Large Language Models**
Yingshu Li, Zhanyu Wang, Yunyi Liu, Lei Wang, Lingqiao Liu, Luping Zhou
- W-AM-149 **Large-Scale 3D Infant Face Model**
Till N. Schnabel, Yoriko Lill, Benito K. Benitez, Prasad Nalabothu, Philipp Metzler, Andreas A. Mueller, Markus Gross, Baran Gözcü, Barbara Solenthaler
- W-AM-151 **LaTiM: Longitudinal representation learning in continuous-time models to predict disease progression**
Rachid Zeglache, Pierre-Henri Conze, Mostafa El Habib Daho, Yihao Li, Hugo Le Boité, Ramin Tadayoni, Pascale Massin, Béatrice Cochener, Alireza Rezaei, Ikram Brahim, Gwenolé Quéllec, Mathieu Lamard
- W-AM-153 **Learning a Clinically-Relevant Concept Bottleneck for Lesion Detection in Breast Ultrasound**
Arianna Bunnell, Yannik Glaser, Dustin Valdez, Thomas Wolfgruber, Aleen Altamirano, Carol Zamora González, Brenda Y. Hernandez, Peter Sadowski, John A. Shepherd
- W-AM-155 **Learning Temporally Equivariance for Degenerative Disease Progression in OCT by Predicting Future Representations**
Taha Emre, Arunava Chakravarty, Dmitrii Lachinov, Antoine Rivail, Ursula Schmidt-Erfurth, Hrvoje Bogunović
- W-AM-157 **Leveraging Coarse-to-Fine Grained Representations in Contrastive Learning for Differential Medical Visual Question Answering**
Xiao Liang, Yin Wang, Di Wang, Zhicheng Jiao, Haodi Zhong, Mengyu Yang, Quan Wang
- W-AM-159 **Location embedding based pairwise distance learning for fine-grained diagnosis of urinary stones**
Qiangguo Jin, Jiapeng Huang, Changming Sun, Hui Cui, Ping Xuan, Ran Su, Leyi Wei, Yu-Jie Wu, Chia-An Wu, Henry B.L. Duh, Yueh-Hsun Lu
- W-AM-161 **Longitudinal Mammogram Risk Prediction**
Batuhan K. Karaman, Katerina Dodelzon, Gozde B. Akar, Mert R. Sabuncu
- W-AM-163 **Longitudinally Consistent Individualized Prediction of Infant Cortical Morphological Development**
Xinrui Yuan, Jiale Cheng, Dan Hu, Zhengwang Wu, Li Wang, Weili Lin, Gang Li

- W-AM-165 **M2Fusion: Multi-time Multimodal Fusion for Prediction of Pathological Complete Response in Breast Cancer**
Song Zhang, Siyao Du, Caixia Sun, Bao Li, Lizhi Shao, Lina Zhang, Kun Wang, Zhenyu Liu, Jie Tian
- W-AM-167 **MambaMIL: Enhancing Long Sequence Modeling with Sequence Reordering in Computational Pathology**
Shu Yang, Yihui Wang, Hao Chen
- W-AM-169 **Mammo-CLIP: A Vision Language Foundation Model to Enhance Data Efficiency and Robustness in Mammography**
Shantanu Ghosh, Clare B. Poynton, Shyam Visweswaran, Kayhan Batmanghelich
- W-AM-171 **Mask-Free Neuron Concept Annotation for Interpreting Neural Networks in Medical Domain**
Hyeon Bae Kim, Yong Hyun Ahn, Seong Tae Kim
- W-AM-173 **MedCLIP-SAM: Bridging Text and Image Towards Universal Medical Image Segmentation**
Taha Koleilat, Hojat Asgariandehkordi, Hassan Rivaz, Yiming Xiao
- W-AM-175 **MediCLIP: Adapting CLIP for Few-shot Medical Image Anomaly Detection**
Ximiao Zhang, Min Xu, Dehui Qiu, Ruixin Yan, Ning Lang, Xiuzhuang Zhou
- W-AM-177 **MMBCD: Multimodal Breast Cancer Detection from Mammograms with Clinical History**
Kshitiz Jain, Aditya Bansal, Krithika Rangarajan, Chetan Arora
- W-AM-179 **MoME: Mixture of Multimodal Experts for Cancer Survival Prediction**
Conghao Xiong, Hao Chen, Hao Zheng, Dong Wei, Yefeng Zheng, Joseph J. Y. Sung, Irwin King
- W-AM-181 **MPMNet: Modal Prior Mutual-support Network for Age-related Macular Degeneration Classification**
Yuanyuan Li, Huaying Hao, Dan Zhang, Huazhu Fu, Mengting Liu, Caifeng Shan, Yitian Zhao, Jiong Zhang
- W-AM-183 **Multi-modal Data Binding for Survival Analysis Modeling with Incomplete Data and Annotations**
Linhao Qu, Dan Huang, Shaoting Zhang, Xiaosong Wang
- W-AM-185 **Multi-Modal Data Fusion with Missing Data Handling for Mild Cognitive Impairment Progression Prediction**
Shuting Liu, Baochang Zhang, Veronika A. Zimmer, Daniel Rueckert
- W-AM-187 **Multi-Modal Graph Neural Network with Transformer-Guided Adaptive Diffusion for Preclinical Alzheimer Classification**
Jaeyoon Sim, Minjae Lee, Guorong Wu, Won Hwa Kim
- W-AM-189 **Multimodal Learning for Embryo Viability Prediction in Clinical IVF**
Junsik Kim, Zhiyi Shi, Davin Jeong, Johannes Knittel, Helen Y. Yang, Yonghyun Song, Wanhua Li, Yicong Li, Dalit Ben-Yosef, Daniel Needleman, Hanspeter Pfister
- W-AM-191 **Multivariate Cooperative Game for Image-Report Pairs: Hierarchical Semantic Alignment for Medical Report Generation**
Zhihong Zhu, Xuxin Cheng, Yunyan Zhang, Zhaorun Chen, Qingqing Long, Hongxiang Li, Zhiqi Huang, Xian Wu, Yefeng Zheng
- W-AM-193 **NODER: Image Sequence Regression Based on Neural Ordinary Differential Equations**
Hao Bai, Yi Hong
- W-AM-195 **Noise Removed Inconsistency Activation Map for Unsupervised Registration of Brain Tumor MRI between Pre-operative and Follow-up Phases**
Chongwei Wu, Xiaoyu Zeng, Hao Wang, Xu Zhang, Wei Fang, Qiang Li, Zhiwei Wang
- W-AM-197 **Novelty Detection Based Discriminative Multiple Instance Feature Mining to Classify NSCLC PD-L1 Status on HE-Stained Histopathological Images**
Rui Xu, Dan Yu, Xuan Yang, Xinchen Ye, Zhihui Wang, Yi Wang, Hongkai Wang, Haojie Li, Dingpin Huang, Fangyi Xu, Yi Gan, Yuan Tu, Hongjie Hu

- W-AM-199 **On predicting 3D bone locations inside the human body**
Abdelmouttaleb Dakri, Vaibhav Arora, Léo Challier, Marilyn Keller, Michael J. Black, Sergi Pujades
- W-AM-201 **One registration is worth two segmentations**
Shiqi Huang, Tingfa Xu, Ziyi Shen, Shaheer Ullah Saeed, Wen Yan, Dean Barratt, Yipeng Hu
- W-AM-203 **Online learning in motion modeling for intra-interventional image sequences**
Niklas Gunnarsson, Jens Sjölund, Peter Kimstrand, Thomas B. Schön
- W-AM-205 **On-the-Fly Guidance Training for Medical Image Registration**
Yuelin Xin, Yicheng Chen, Shengxiang Ji, Kun Han, Xiaohui Xie
- W-AM-207 **ORCGT: Ollivier-Ricci Curvature-based Graph Model for Lung STAS Prediction**
Min Cen, Zheng Wang, Zhenfeng Zhuang, Hong Zhang, Dan Su, Zhen Bao, Weiwei Wei, Baptiste Magnier, Lequan Yu, Liansheng Wang
- W-AM-209 **Poisson Ordinal Network for Gleason Group Estimation Using Bi-Parametric MRI**
Yinsong Xu, Yipei Wang, Ziyi Shen, Iani J.M.B. Gayo, Natasha Thorley, Shonit Punwani, Aidong Men, Dean Barratt, Qingchao Chen, Yipeng Hu
- W-AM-211 **Pose-GuideNet: Automatic Scanning Guidance for Fetal Head Ultrasound from Pose Estimation**
Qianhui Men, Xiaoqing Guo, Aris T. Papageorghiou, J. Alison Noble
- W-AM-213 **Position-Guided Prompt Learning for Anomaly Detection in Chest X-Rays**
Zhichao Sun, Yuliang Gu, Yepeng Liu, Zerui Zhang, Zhou Zhao, Yongchao Xu
- W-AM-215 **Probabilistic Temporal Prediction of Continuous Disease Trajectories and Treatment Effects Using Neural SDEs**
Joshua Durso-Finley, Berardino Barile, Jean-Pierre Falet, Douglas L. Arnold, Nick Pawlowski, Tal Arbel
- W-AM-217 **PULPo: Probabilistic Unsupervised Laplacian Pyramid Registration**
Leonard Siegert, Paul Fischer, Mattias P. Heinrich, Christian F. Baumgartner
- W-AM-219 **Quality-Aware Fuzzy Min-Max Neural Networks for Dynamic Brain Network Analysis**
Tao Hou, Jiashuang Huang, Shu Jiang, Weiping Ding
- W-AM-221 **Refining Intraocular Lens Power Calculation: A Multi-modal Framework Using Cross-layer Attention and Effective Channel Attention**
Qian Zhou, Hua Zou, Zhongyuan Wang, Haifeng Jiang, Yong Wang
- W-AM-223 **Region-Specific Retrieval Augmentation for Longitudinal Visual Question Answering: A Mix-and-Match Paradigm**
Ka-Wai Yung, Jayaram Sivaraj, Danail Stoyanov, Stavros Loukogeorgakis, Evangelos B. Mazomenos
- W-AM-225 **SaSaMIM: Synthetic Anatomical Semantics-Aware Masked Image Modeling for Colon Tumor Segmentation in Non-contrast Abdominal Computed Tomography**
Pengyu Dai, Yafei Ou, Yuqiao Yang, Dichao Liu, Masahiro Hashimoto, Masahiro Jinzaki, Mototaka Miyake, Kenji Suzuki
- W-AM-227 **Seeing the Invisible: On Aortic Valve Reconstruction in Non-Contrast CT**
Mariusz Bujny, Katarzyna Jesionek, Jakub Nalepa, Tomasz Bartczak, Karol Miszalski-Jamka, Marcin Kostur
- W-AM-229 **Semi-Supervised Contrastive VAE for Disentanglement of Digital Pathology Images**
Mahmudul Hasan, Xiaoling Hu, Shahira Abousamra, Prateek Prasanna, Joel Saltz, Chao Chen
- W-AM-231 **Semi-supervised Lymph Node Metastasis Classification with Pathology-guided Label Sharpening and Two-streamed Multi-scale Fusion**
Haoshen Li, Yirui Wang, Jie Zhu, Dazhou Guo, Qinji Yu, Ke Yan, Le Lu, Xianghua Ye, Li Zhang, Qifeng Wang, Dakai Jin
- W-AM-233 **Semi-supervised Segmentation through Rival Networks Collaboration with Saliency Map in Diabetic Retinopathy**
Eunjin Kim, Gitaek Kwon, Jaeyoung Kim, Hyunjin Park

- W-AM-235 **Slice-Consistent Lymph Nodes Detection Transformer in CT Scans via Cross-slice Query Contrastive Learning**
Qinji Yu, Yirui Wang, Ke Yan, Le Lu, Na Shen, Xianghua Ye, Xiaowei Ding, Dakai Jin
- W-AM-237 **Sparse Bayesian Networks: Efficient Uncertainty Quantification in Medical Image Analysis**
Zeinab Abboud, Herve Lombaert, Samuel Kadoury
- W-AM-239 **Sparsity- and Hybridity-Inspired Visual Parameter-Efficient Fine-Tuning for Medical Diagnosis**
Mingyuan Liu, Lu Xu, Shengnan Liu, Jicong Zhang
- W-AM-241 **Spatial-aware Attention Generative Adversarial Network for Semi-supervised Anomaly Detection in Medical Image**
Zerui Zhang, Zhichao Sun, Zelong Liu, Zhou Zhao, Rui Yu, Bo Du, Yongchao Xu
- W-AM-243 **Spatio-temporal Contrast Network for Data-efficient Learning of Coronary Artery Disease in Coronary CT Angiography**
Xinghua Ma, Mingye Zou, Xinyan Fang, Yang Liu, Gongning Luo, Wei Wang, Kuanquan Wang, Zhaowen Qiu, Xin Gao, Shuo Li
- W-AM-245 **Spot the Difference: Difference Visual Question Answering with Residual Alignment**
Zilin Lu, Yutong Xie, Qingjie Zeng, Mengkang Lu, Qi Wu, Yong Xia
- W-AM-247 **Stealing Knowledge from Pre-trained Language Models for Federated Classifier Debiasing**
Meilu Zhu, Qiushi Yang, Zhifan Gao, Jun Liu, Yixuan Yuan
- W-AM-249 **Subgroup-Specific Risk-Controlled Dose Estimation in Radiotherapy**
Paul Fischer, Hannah Willms, Moritz Schneider, Daniela Thorwarth, Michael Muehlebach, Christian F. Baumgartner
- W-AM-251 **Symptom Disentanglement in Chest X-ray Images for Fine-Grained Progression Learning**
Ye Zhu, Jingwen Xu, Fei Lyu, Pong C. Yuen
- W-AM-253 **TabMixer: Noninvasive Estimation of the Mean Pulmonary Artery Pressure via Imaging and Tabular Data Mixing**
Michal K. Grzeszczyk, Przemysław Korzeniowski, Samer Alabed, Andrew J. Swift, Tomasz Trzciński, Arkadiusz Sitek
- W-AM-255 **Temporal Neighboring Multi-Modal Transformer with Missingness-Aware Prompt for Hepatocellular Carcinoma Prediction**
Jingwen Xu, Ye Zhu, Fei Lyu, Grace Lai-Hung Wong, Pong C. Yuen
- W-AM-257 **Textual Inversion and Self-supervised Refinement for Radiology Report Generation**
Yuanjiang Luo, Hongxiang Li, Xuan Wu, Meng Cao, Xiaoshuang Huang, Zhihong Zhu, Peixi Liao, Hu Chen, Yi Zhang
- W-AM-259 **This actually looks like that: Proto-BagNets for local and global interpretability-by-design**
Kerol Djoumessi, Bubacarr Bah, Laura Kühlewein, Philipp Berens, Lisa Koch
- W-AM-261 **TLRN: Temporal Latent Residual Networks For Large Deformation Image Registration**
Nian Wu, Jiarui Xing, Miaomiao Zhang
- W-AM-263 **Toward Universal Medical Image Registration via Sharpness-Aware Meta-Continual Learning**
Bomin Wang, Xinzhe Luo, Xiahai Zhuang
- W-AM-265 **Towards a Benchmark for Colorectal Cancer Segmentation in Endorectal Ultrasound Videos: Dataset and Model Development**
Yuncheng Jiang, Yiwen Hu, Zixun Zhang, Jun Wei, Chun-Mei Feng, Xuemei Tang, Xiang Wan, Yong Liu, Shuguang Cui, Zhen Li
- W-AM-267 **Towards a Deeper insight into Face Detection in Neonatal wards**
Yisheng Zhao, Huaiyu Zhu, Qi Shu, Ruohong Huan, Shuohui Chen, Yun Pan
- W-AM-269 **Towards Integrating Epistemic Uncertainty Estimation into the Radiotherapy Workflow**

Marvin Tom Teichmann, Manasi Datar, Lisa Kratzke, Fernando Vega, Florin C. Ghesu

- W-AM-271 **Uncertainty-aware Diffusion-based Adversarial Attack for Realistic Colonoscopy Image Synthesis**
Minjae Jeong, Hyuna Cho, Sungyoon Jung, Won Hwa Kim
- W-AM-273 **Uncertainty-Aware Multi-View Learning for Prostate Cancer Grading with DWI**
Zhicheng Dong, Xiaodong Yue, Yufei Chen, Xujing Zhou, Jiye Liang
- W-AM-275 **Unified Multi-Modal Learning for Any Modality Combinations in Alzheimer’s Disease Diagnosis**
Yidan Feng, Bingchen Gao, Sen Deng, Anqi Qiu, Jing Qin
- W-AM-277 **uniGradICON: A Foundation Model for Medical Image Registration**
Lin Tian, Hastings Greer, Roland Kwitt, François-Xavier Vialard, Raúl San José Estépar, Sylvain Bouix, Richard Rushmore, Marc Niethammer
- W-AM-279 **Vessel-aware aneurysm detection using multi-scale deformable 3D attention**
Alberto M. Ceballos-Arroyo, Hieu T. Nguyen, Fangrui Zhu, Shrikanth M. Yadav, Jisoo Kim, Lei Qin, Geoffrey Young, Huaizu Jiang
- W-AM-281 **WiNet: Wavelet-based Incremental Learning for Efficient Medical Image Registration**
Xinxing Cheng, Xi Jia, Wenqi Lu, Qiufu Li, Linlin Shen, Alexander Krull, Jinming Duan
- W-AM-283 **XCoOp: Explainable Prompt Learning for Computer-Aided Diagnosis via Concept-guided Context Optimization**
Yequan Bie, Luyang Luo, Zhixuan Chen, Hao Chen
- W-AM-285 **XTranPrune: eXplainability-aware Transformer Pruning for Bias Mitigation in Dermatological Disease Classification**
Ali Ghadiri, Maurice Pagnucco, Yang Song

Poster Session 6: Computer Assisted Interventions and Surgery, Image Formation and Reconstruction 2, and Clinical Translation

Wednesday, October 9, 2024, 15:00 to 16:30

- W-PM-002 **3DDX: Bone Surface Reconstruction from a Single Standard-Geometry Radiograph via Dual-Face Depth Estimation**
Yi Gu, Yoshito Otake, Keisuke Uemura, Masaki Takao, Mazen Soufi, Seiji Okada, Nobuhiko Sugano, Hugues Talbot, Yoshinobu Sato
- W-PM-004 **3DGR-CAR: Coronary artery reconstruction from ultra-sparse 2D X-ray views with a 3D Gaussians representation**
Xueming Fu, Yingtai Li, Fenghe Tang, Jun Li, Mingyue Zhao, Gao-Jun Teng, S. Kevin Zhou
- W-PM-006 **3DPX: Progressive 2D-to-3D Oral Image Reconstruction with Hybrid MLP-CNN Networks**
Xiaoshuang Li, Mingyuan Meng, Zimo Huang, Lei Bi, Eduardo Delamare, Dagan Feng, Bin Sheng, Jinman Kim
- W-PM-008 **A Deep Learning Approach for Placing Magnetic Resonance Spectroscopy Voxels in Brain Tumors**
Sangyoon Lee, Francesca Branzoli, Thanh Nguyen, Ovidiu Andronesi, Alexander Lin, Roberto Liserre, Gerd Melkus, Clark Chen, Małgorzata Marjańska, Patrick J. Bolan
- W-PM-010 **A Graph-Embedded Latent Space Learning and Clustering Framework for Incomplete Multimodal Multiclass Alzheimer’s Disease Diagnosis**
Zaixin Ou, Caiwen Jiang, Yuxiao Liu, Yuanwang Zhang, Zhiming Cui, Dinggang Shen
- W-PM-012 **A New Non-Invasive AI-Based Diagnostic System for Automated Diagnosis of Acute Renal Rejection in Kidney Transplantation: Analysis of ADC Maps Extracted from Matched 3D Iso-Regions of the Transplanted Kidney**
Ibrahim Abdelhalim, Mohamed Abou El-Ghar, Amy Dwyer, Rosemary Ouseph, Sohail Contractor, Ayman El-Baz
- W-PM-014 **A Novel Tracking Framework for Devices in X-ray Leveraging Supplementary Cue-Driven Self-Supervised Features**
Saahil Islam, Venkatesh N. Murthy, Dominik Neumann, Serkan Cimen, Puneet Sharma, Andreas Maier, Dorin Comaniciu, Florin C. Ghesu

- W-PM-016 **A Patient-Specific Framework for Autonomous Spinal Fixation via a Steerable Drilling Robot**
Susheela Sharma, Sarah Go, Zeynep Yakay, Yash Kulkarni, Siddhartha Kapuria, Jordan P. Amadio, Reza Rajebi, Mohsen Khadem, Nassir Navab, Farshid Alambeigi
- W-PM-018 **Accelerated Multi-Contrast MRI Reconstruction via Frequency and Spatial Mutual Learning**
Qi Chen, Xiaohan Xing, Zhen Chen, Zhiwei Xiong
- W-PM-020 **All-In-One Medical Image Restoration via Task-Adaptive Routing**
Zhiwen Yang, Haowei Chen, Ziniu Qian, Yang Yi, Hui Zhang, Dan Zhao, Bingzheng Wei, Yan Xu
- W-PM-022 **An Evaluation of State-of-the-Art Projectors in the Presence of Noise and Nonlinearity in the Beer-Lambert Law**
Shiyu Xie, Kai Zhang, Alireza Entezari
- W-PM-024 **Anatomically-Controllable Medical Image Generation with Segmentation-Guided Diffusion Models**
Nicholas Konz, Yuwen Chen, Haoyu Dong, Maciej A. Mazurowski
- W-PM-026 **Anatomically-Guided Segmentation of Cerebral Microbleeds in T1-weighted and T2*-weighted MRI**
Junmo Kwon, Sang Won Seo, Hyunjin Park
- W-PM-028 **Automated Spinal MRI Labelling from Reports Using a Large Language Model**
Robin Y. Park, Rhydian Windsor, Amir Jamaludin, Andrew Zisserman
- W-PM-030 **Auxiliary Input in Training: Incorporating Catheter Features into Deep Learning Models for ECG-Free Dynamic Coronary Roadmapping**
Yikang Liu, Lin Zhao, Eric Z. Chen, Xiao Chen, Terrence Chen, Shanhui Sun
- W-PM-032 **Baikal: Unpaired Denoising of Fluorescence Microscopy Images using Diffusion Models**
Shivesh Chaudhary, Sivaramakrishnan Sankarapandian, Matt Sooknah, Joy Pai, Caroline McCue, Zhenghao Chen, Jun Xu
- W-PM-034 **Best of Both Modalities: Fusing CBCT and Intraoral Scan Data into a Single Tooth Image**
SaeHyun Kim, Yongjin Choi, Jincheol Na, In-Seok Song, You-Sun Lee, Bo-Yeon Hwang, Ho-Kyung Lim, Seung Jun Baek
- W-PM-036 **Blind Proximal Diffusion Model for Joint Image and Sensitivity Estimation in Parallel MRI**
Xing Li, Yan Yang, Hairong Zheng, Zongben Xu
- W-PM-038 **Brain Cortical Functional Gradients Predict Cortical Folding Patterns via Attention Mesh Convolution**
Li Yang, Zhibin He, Tianyang Zhong, Changhe Li, Dajiang Zhu, Junwei Han, Tianming Liu, Tuo Zhang
- W-PM-040 **Brain-Shift: Unsupervised Pseudo-Healthy Brain Synthesis for Novel Biomarker Extraction in Chronic Subdural Hematoma**
Baris Imre, Elina Thibeau-Sutre, Jorieke Reimer, Kuan Kho, Jelmer M. Wolterink
- W-PM-042 **Can Crowdsourced Annotations Improve AI-based Congestion Scoring For Bedside Lung Ultrasound?**
Ameneh Asgari-Targhi, Tamas Ungi, Mike Jin, Nicholas Harrison, Nicole Duggan, Erik Duhaime, Andrew Goldsmith, Tina Kapur
- W-PM-044 **Car-Dcros: A Dataset and Benchmark for Enhancing Cardiovascular Artery Segmentation through Disconnected Components Repair and Open Curve Snake**
Yuli Wang, Wen-Chi Hsu, Victoria Shi, Gigin Lin, Cheng Ting Lin, Xue Feng, Harrison Bai
- W-PM-046 **Cardiac Physiology Knowledge-driven Diffusion Model for Contrast-free Synthesis Myocardial Infarction Enhancement**
Ronghui Qi, Xiaohu Li, Lei Xu, Jie Zhang, Yanping Zhang, Chenchu Xu
- W-PM-048 **CAVM: Conditional Autoregressive Vision Model for Contrast-Enhanced Brain Tumor MRI Synthesis**
Lujun Gui, Chuyang Ye, Tianyi Yan
- W-PM-050 **Coarse-Grained Mask Regularization for Microvascular Obstruction Identification from non-contrast Cardiac Magnetic Resonance**
Yige Yan, Jun Cheng, Xulei Yang, Zaiwang Gu, Shuang Leng, Ru San Tan, Liang Zhong, Jagath C. Rajapakse

- W-PM-052 **Coarse-to-Fine Latent Diffusion Model for Glaucoma Forecast on Sequential Fundus Images**
Yuhan Zhang, Kun Huang, Xikai Yang, Xiao Ma, Jian Wu, Ningli Wang, Xi Wang, Pheng-Ann Heng
- W-PM-054 **Conditional 4D Motion Diffusion Models with Masked Observations to Forecast Deformations**
Sylvain Thibeault, Liset Vazquez Romaguera, Samuel Kadoury
- W-PM-056 **Convolutional Implicit Neural Representation of pathology whole-slide images**
DongEon Lee, Chunsu Park, SeonYeong Lee, SiYeoul Lee, MinWoo Kim
- W-PM-058 **Cortical Surface Reconstruction from 2D MRI with Segmentation-Constrained Super-Resolution and Representation Learning**
Wenxuan Wu, Ruowen Qu, Dongzi Shi, Tong Xiong, Xiangmin Xu, Xiaofen Xing, Xin Zhang
- W-PM-060 **Cross-conditioned Diffusion Model for Medical Image to Image Translation**
Zhaohu Xing, Sicheng Yang, Sixiang Chen, Tian Ye, Yijun Yang, Jing Qin, Lei Zhu
- W-PM-062 **Cross-Phase Mutual Learning Framework for Pulmonary Embolism Identification on Non-Contrast CT Scans**
Bizhe Bai, Yan-Jie Zhou, Yujian Hu, Tony C. W. Mok, Yilang Xiang, Le Lu, Hongkun Zhang, Minfeng Xu
- W-PM-064 **Customized Relationship Graph Neural Network for Brain Disorder Identification**
Zhengwang Xia, Huan Wang, Tao Zhou, Zhuqing Jiao, Jianfeng Lu
- W-PM-066 **Data Augmentation with Multi-armed Bandit on Image Deformations Improves Fluorescence Glioma Boundary Recognition**
Anqi Xiao, Keyi Han, Xiaojing Shi, Jie Tian, Zhenhua Hu
- W-PM-068 **DCrownFormer: Morphology-aware Point-to-Mesh Generation Transformer for Dental Crown Prosthesis from 3D Scan Data of Antagonist and Preparation Teeth**
Su Yang, Jiyong Han, Sang-Heon Lim, Ji-Yong Yoo, SuJeong Kim, Dahyun Song, Sunjung Kim, Jun-Min Kim, Won-Jin Yi
- W-PM-070 **Death by Retrospective Undersampling - Caveats and Solutions for Learning-Based MRI Reconstructions**
Junaid R. Rajput, Simon Weinmueller, Jonathan Endres, Peter Dawood, Florian Knoll, Andreas Maier, Moritz Zaiss
- W-PM-072 **Deep intra-operative illumination calibration of hyperspectral cameras**
Alexander Baumann, Leonardo Ayala, Alexander Studier-Fischer, Jan Sellner, Berkin Özdemir, Karl-Friedrich Kowalewski, Slobodan Ilic, Silvia Seidlitz, Lena Maier-Hein
- W-PM-074 **Deep Volume Reconstruction from Multi-focus Microscopic Images**
Caio Azevedo, Sanchayan Santra, Sudhakar Kumawat, Hajime Nagahara, Ken'ichi Morooka
- W-PM-076 **Development of Effective Connectome from Infancy to Adolescence**
Guoshi Li, Kim-Han Thung, Hoyt Taylor, Zhengwang Wu, Gang Li, Li Wang, Weili Lin, Sahar Ahmad, Pew-Thian Yap
- W-PM-078 **Differentiable Score-Based Likelihoods: Learning CT Motion Compensation From Clean Images**
Mareike Thies, Noah Maul, Siyuan Mei, Laura Pfaff, Nastassia Vysotskaya, Mingxuan Gu, Jonas Utz, Dennis Possart, Lukas Folle, Fabian Wagner, Andreas Maier
- W-PM-080 **Diffusion-based Generative Image Outpainting for Recovery of FOV-Truncated CT Images**
Michelle Espranita Liman, Daniel Rueckert, Florian J. Fintelmann, Philip Müller
- W-PM-082 **DiRecT: Diagnosis and Reconstruction Transformer for Mandibular Deformity Assessment**
Xuanang Xu, Jungwook Lee, Nathan Lampen, Daeseung Kim, Tianshu Kuang, Hannah H. Deng, Michael A. K. Liebschner, Jaime Gateno, Pingkun Yan
- W-PM-084 **D-MASTER: Mask Annealed Transformer for Unsupervised Domain Adaptation in Breast Cancer Detection from Mammograms**
Tajamul Ashraf, Krithika Rangarajan, Mohit Gambhir, Richa Gauba, Chetan Arora

- W-PM-086 **Dual-Modality Watershed Fusion Network for Thyroid Nodule Classification of Dual-View CEUS Video**
Rui Li, Jingliang Ruan, Yao Lu
- W-PM-088 **Dynamic Single-Pixel Imaging on an Extended Field of View without Warping the Patterns**
Thomas Maitre, Elie Bretin, Romain Phan, Nicolas Ducros, Michaël Sdika
- W-PM-090 **EchoNet-Synthetic: Privacy-preserving Video Generation for Safe Medical Data Sharing**
Hadrien Reynaud, Qingjie Meng, Mischa Dombrowski, Arijit Ghosh, Thomas Day, Alberto Gomez, Paul Leeson, Bernhard Kainz
- W-PM-092 **EndoFinder: Online Image Retrieval for Explainable Colorectal Polyp Diagnosis**
Ruijie Yang, Yan Zhu, Peiyao Fu, Yizhe Zhang, Zhihua Wang, Quanlin Li, Pinghong Zhou, Xian Yang, Shuo Wang
- W-PM-094 **EndoSelf: Self-Supervised Monocular 3D Scene Reconstruction of Deformable Tissues with Neural Radiance Fields on Endoscopic Videos**
Wenda Li, Yuichiro Hayashi, Masahiro Oda, Takayuki Kitasaka, Kazunari Misawa, Kensaku Mori
- W-PM-096 **EndoSparse: Real-Time Sparse View Synthesis of Endoscopic Scenes using Gaussian Splatting**
Chenxin Li, Brandon Y. Feng, Yifan Liu, Hengyu Liu, Cheng Wang, Weihao Yu, Yixuan Yuan
- W-PM-098 **Enhanced-quickDWI: Achieving equivalent clinical quality by denoising heavily sub-sampled diffusion-weighted imaging data**
Konstantinos Zormpas-Petridis, Antonio Candito, Christina Messiou, Dow-Mu Koh, Matthew D. Blackledge
- W-PM-100 **Enhancing Gait Video Analysis in Neurodegenerative Diseases by Knowledge Augmentation in Vision Language Model**
Diwei Wang, Kun Yuan, Candice Muller, Frédéric Blanc, Nicolas Padoy, Hyewon Seo
- W-PM-102 **Enhancing Model Generalisability through Sampling Diverse and Balanced Retinal Images**
Tianfeng Zhou, Yukun Zhou
- W-PM-104 **Enhancing Spatiotemporal Disease Progression Models via Latent Diffusion and Prior Knowledge**
Lemuel Puglisi, Daniel C. Alexander, Daniele Ravi
- W-PM-106 **Epicardium Prompt-guided Real-time Cardiac Ultrasound Frame-to-volume Registration**
Long Lei, Jun Zhou, Jialun Pei, Baoliang Zhao, Yueming Jin, Yuen-Chun Jeremy Teoh, Jing Qin, Pheng-Ann Heng
- W-PM-108 **Estimating Neural Orientation Distribution Fields on High Resolution Diffusion MRI Scans**
Mohammed Munzer Dwedari, William Consagra, Philip Müller, Özgün Turgut, Daniel Rueckert, Yogesh Rathi
- W-PM-110 **Evaluating the Quality of Brain MRI Generators**
Jiaqi Wu, Wei Peng, Bin Xu Li, Yu Zhang, Kilian M. Pohl
- W-PM-112 **Explanation-driven Cyclic Learning for High-Quality Brain MRI Reconstruction from Unknown Degradation**
Ning Jiang, Zhengyong Huang, Yao Sui
- W-PM-114 **FACMIC: Federated Adaptive CLIP Model for Medical Image Classification**
Yihang Wu, Christian Desrosiers, Ahmad Chaddad
- W-PM-116 **Fetal MRI Reconstruction by Global Diffusion and Consistent Implicit Representation**
Junpeng Tan, Xin Zhang, Chunmei Qing, Chaoxiang Yang, He Zhang, Gang Li, Xiangmin Xu
- W-PM-118 **Fine-grained Context and Multi-modal Alignment for Freehand 3D Ultrasound Reconstruction**
Zhongnuo Yan, Xin Yang, Mingyuan Luo, Jiongquan Chen, Rusi Chen, Lian Liu, Dong Ni
- W-PM-120 **From Static to Dynamic Diagnostics: Boosting Medical Image Analysis via Motion-Informed Generative Videos**
Wuyang Li, Xinyu Liu, Qiushi Yang, Yixuan Yuan

- W-PM-122 **Fundus2Video: Cross-Modal Angiography Video Generation from Static Fundus Photography with Clinical Knowledge Guidance**
Weiyi Zhang, Siyu Huang, Jiancheng Yang, Ruoyu Chen, Zongyuan Ge, Yingfeng Zheng, Danli Shi, Mingguang He
- W-PM-124 **Gaze-DETR: Using Expert Gaze to Reduce False Positives in Vulvovaginal Candidiasis Screening**
Yan Kong, Sheng Wang, Jiangdong Cai, Zihao Zhao, Zhenrong Shen, Yonghao Li, Manman Fei, Qian Wang
- W-PM-126 **Glioblastoma segmentation from early post-operative MRI: challenges and clinical impact**
Ragnhild Holden Helland, David Bouget, Roelant S. Eijgelaar, Philip C. De Witt Hamer, Frederik Barkhof, Ole Solheim, Ingerid Reinertsen
- W-PM-128 **Hybrid-Structure-Oriented Transformer for Arm Musculoskeletal Ultrasound Segmentation**
Lingyu Chen, Yue Wang, Zhe Zhao, Hongen Liao, Daoqiang Zhang, Haojie Han, Fang Chen
- W-PM-130 **IHRB-DINO: Identifying High-Risk Regions of Breast Masses in Mammogram Images Using Data-Driven Instance Noise (DINO)**
Mahmoud SalahEldin Kasem, Abdelrahman Abdallah, Ibrahim Abdelhalim, Norah Saleh Alghamdi, Sohail Contractor, Ayman El-Baz
- W-PM-132 **Immune-guided AI for Reproducible Regions of Interest Selection in Multiplex Immunofluorescence Pathology Imaging**
Tanishq Gautam, Karina P. Gonzalez, Maria E. Salvatierra, Alejandra Serrano, Pingjun Chen, Xiaoxi Pan, Yasin Shokrollahi, Sara Ranjbar, Leticia Rodriguez, Patient Mosaic Team, Luisa Solis-Soto, Yinyin Yuan, Simon P. Castillo
- W-PM-134 **Improving cone-beam CT Image Quality with Knowledge Distillation-Enhanced Diffusion Model in Imbalanced Data Settings**
Joonil Hwang, Sangjoon Park, NaHyeon Park, Seungryong Cho, Jin Sung Kim
- W-PM-136 **Inject Backdoor in Measured Data to Jeopardize Full-Stack Medical Image Analysis System**
Ziyuan Yang, Yingyu Chen, Mengyu Sun, Yi Zhang
- W-PM-138 **Joint EM Image Denoising and Segmentation with Instance-aware Interaction**
Zhicheng Wang, Jiacheng Li, Yinda Chen, Jiateng Shou, Shiyu Deng, Wei Huang, Zhiwei Xiong
- W-PM-140 **Joint multi-task learning improves weakly-supervised biomarker prediction in computational pathology**
Omar S. M. El Nahhas, Georg Wölflein, Marta Ligerio, Tim Lenz, Marko van Treeck, Firas Khader, Daniel Truhn, Jakob Nikolas Kather
- W-PM-142 **Keypoint Matching for Instrument-Free 3D Registration in Video-based Surgical Navigation**
Tânia Baptista, Carolina Raposo, Miguel Marques, Michel Antunes, Joao P. Barreto
- W-PM-144 **Knowledge-Guided Prompt Learning for Lifespan Brain MR Image Segmentation**
Lin Teng, Zihao Zhao, Jiawei Huang, Zehong Cao, Runqi Meng, Feng Shi, Dinggang Shen
- W-PM-146 **Label-guided Teacher for Surgical Phase Recognition via Knowledge Distillation**
Jiale Guan, Xiaoyang Zou, Rong Tao, Guoyan Zheng
- W-PM-148 **Learning 3D Gaussians for Extremely Sparse-View Cone-Beam CT Reconstruction**
Yiqun Lin, Hualiang Wang, Jixiang Chen, Xiaomeng Li
- W-PM-150 **Learning to Segment Multiple Organs from Multimodal Partially Labeled Datasets**
Hong Liu, Dong Wei, Donghuan Lu, Jinghan Sun, Hao Zheng, Yefeng Zheng, Liansheng Wang
- W-PM-152 **LIBR+: Improving Intraoperative Liver Registration by Learning the Residual of Biomechanics-Based Deformable Registration**
Dingrong Wang, Soheil Azadvar, Jon Heiselman, Xiajun Jiang, Michael Miga, Linwei Wang
- W-PM-154 **LighTDiff: Surgical Endoscopic Image Low-Light Enhancement with T-Diffusion**

Tong Chen, Qingcheng Lyu, Long Bai, Erjian Guo, Huxin Gao, Xiaoxiao Yang, Hongliang Ren, Luping Zhou

- W-PM-156 **LiverUSRecon: Automatic 3D Reconstruction and Volumetry of the Liver with a Few Partial Ultrasound Scans**
Kaushalya Sivayogaraj, Sahan I. T. Guruge, Udari A. Liyanage, Jeevani J. Udupihille, Saroj Jayasinghe, Gerard M. X. Fernando, Ranga Rodrigo, Rukshani Liyanaarachchi
- W-PM-158 **Lobar Lung Density Embeddings with a Transformer encoder (LobTe) to predict emphysema progression in COPD**
Ariel H. Curiale, Raúl San José Estépar
- W-PM-160 **LSSNet: A Method for Colon Polyp Segmentation Based on Local Feature Supplementation and Shallow Feature Supplementation**
Wei Wang, Huiying Sun, Xin Wang
- W-PM-162 **Material Decomposition in Photon-Counting CT: A Deep Learning Approach Driven by Detector Physics and ASIC Modeling**
Xiaopeng Yu, Qianyu Wu, Wenhui Qin, Tao Zhong, Mengqing Su, Jinglu Ma, Yikun Zhang, Xu Ji, Guotao Quan, Yang Chen, Yanfeng Du, Xiaochun Lai
- W-PM-164 **Medical Image Segmentation via Single-Source Domain Generalization with Random Amplitude Spectrum Synthesis**
Qiang Qiao, Wenyu Wang, Meixia Qu, Kun Su, Bin Jiang, Qiang Guo
- W-PM-166 **Memory-efficient High-resolution OCT Volume Synthesis with Cascaded Amortized Latent Diffusion Models**
Kun Huang, Xiao Ma, Yuhan Zhang, Na Su, Songtao Yuan, Yong Liu, Qiang Chen, Huazhu Fu
- W-PM-168 **MeshBrush: Painting the Anatomical Mesh with Neural Stylization for Endoscopy**
John J. Han, Ayberk Acar, Nicholas Kavoussi, Jie Ying Wu
- W-PM-170 **MiHATP:A Multi-Hybrid Attention Super-Resolution Network for Pathological Image Based on Transformation Pool Contrastive Learning**
Zhufeng Xu, Jiaxin Qin, Chenhao Li, Dechao Bu, Yi Zhao
- W-PM-172 **Misaligned 3D Texture Optimization in MIS Utilizing Generative Framework**
Jieyu Zheng, Xiaojian Li, Hangjie Mo, Ling Li, Xiang Ma
- W-PM-174 **Misjudging the Machine: Gaze May Forecast Human-Machine Team Performance in Surgery**
Sue Min Cho, Russell H. Taylor, Mathias Unberath
- W-PM-176 **MoCo-Diff: Adaptive Conditional Prior on Diffusion Network for MRI Motion Correction**
Feng Li, Zijian Zhou, Yu Fang, Jiangdong Cai, Qian Wang
- W-PM-178 **Modeling and Understanding Uncertainty in Medical Image Classification**
Aobo Chen, Yangyi Li, Wei Qian, Kathryn Morse, Chenglin Miao, Mengdi Huai
- W-PM-180 **mQSM: Multitask Learning-based Quantitative Susceptibility Mapping for Iron Analysis in Brain**
Junjie He, Bangkang Fu, Zhenliang Xiong, Yunsong Peng, Rongpin Wang
- W-PM-182 **Noise Level Adaptive Diffusion Model for Robust Reconstruction of Accelerated MRI**
Shoujin Huang, Guanxiong Luo, Xi Wang, Ziran Chen, Yuwan Wang, Huaishui Yang, Pheng-Ann Heng, Lingyan Zhang, Mengye Lyu
- W-PM-184 **Non-Adversarial Learning: Vector-Quantized Common Latent Space for Multi-Sequence MRI**
Luyi Han, Tao Tan, Tianyu Zhang, Xin Wang, Yuan Gao, Chunyao Lu, Xinglong Liang, Haoran Dou, Yunzhi Huang, Ritse Mann
- W-PM-186 **Nonrigid Reconstruction of Freehand Ultrasound without a Tracker**
Qi Li, Ziyi Shen, Qianye Yang, Dean C. Barratt, Matthew J. Clarkson, Tom Vercauteren, Yipeng Hu
- W-PM-188 **ORacle: Large Vision-Language Models for Knowledge-Guided Holistic OR Domain Modeling**
Ege Özsoy, Chantal Pellegrini, Matthias Keicher, Nassir Navab

- W-PM-190 **PANS: Probabilistic Airway Navigation System for Real-time Robust Bronchoscope Localization**
Qingyao Tian, Zhen Chen, Huai Liao, Xinyan Huang, Bingyu Yang, Lujie Li, Hongbin Liu
- W-PM-192 **Parameter Efficient Fine Tuning for Multi-scanner PET to PET Reconstruction**
Yumin Kim, Gayoon Choi, Seong Jae Hwang
- W-PM-194 **PASTA: Pathology-Aware MRI to PET CroSs-modal TrAnslation with Diffusion Models**
Yitong Li, Igor Yakushev, Dennis M. Hedderich, Christian Wachinger
- W-PM-196 **Pathological Semantics-Preserving Learning for H&E-to-IHC Virtual Staining**
Fuqiang Chen, Ranran Zhang, Boyun Zheng, Yiwen Sun, Jiahui He, Wenjian Qin
- W-PM-198 **PathoTune: Adapting Visual Foundation Model to Pathological Specialists**
Jiaxuan Lu, Fang Yan, Xiaofan Zhang, Yue Gao, Shaoting Zhang
- W-PM-200 **PhenDiff: Revealing Subtle Phenotypes with Diffusion Models in Real Images**
Anis Bourou, Thomas Boyer, Marzieh Gheisari, Kévin Daupin, Véronique Dubreuil, Aurélie De Thonel, Valérie Mezger, Auguste Genovesio
- W-PM-202 **Phy-Diff: Physics-guided Hourglass Diffusion Model for Diffusion MRI Synthesis**
Juanhua Zhang, Ruodan Yan, Alessandro Perelli, Xi Chen, Chao Li
- W-PM-204 **Physical-priors-guided Aortic Dissection Detection using Non-Contrast-Enhanced CT images**
Zhengyao Ding, Yujian Hu, Hongkun Zhang, Fei Wu, Shifeng Yang, Xiaolong Du, Yilang Xiang, Tian Li, Xuesen Chu, Zhengxing Huang
- W-PM-206 **Physics-Informed Deep Learning for Motion-Corrected Reconstruction of Quantitative Brain MRI**
Hannah Eichhorn, Veronika Spieker, Kerstin Hammernik, Elisa Saks, Kilian Weiss, Christine Preibisch, Julia A. Schnabel
- W-PM-208 **PitVQA: Image-grounded Text Embedding LLM for Visual Question Answering in Pituitary Surgery**
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- W-PM-210 **Prior Activation Map Guided Cervical OCT Image Classification**
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