MICCAI2025 Daejeon REPUBLIC OF KOREA

28th International Conference on Medical Image Computing and Computer Assisted Intervention
23-27 September 2025
Daejeon Convention Center

MICCAI

MICCAI 2025 PROGRAM OVERVIEW

	23 September, Tuesday (SE Day 1)	24 September, Wednesday					25 September, Thursday					26 September, Friday					27 September, Saturday (SE Day 2)
	DCC 1 - DCC 2 - IBS	DCC 1				DCC II	DCC 1				DCC II	DCC 1				DCC II	DCC 1 - DCC 2 - IBS
		Main Hall (201-202)	Dual Session (112)	(101-108)	(101-108, 111)		Main Hall (201-202)	Dual Session (112)	(101-108)	Room 301		Main Hall (201-202)	Dual Session (112)	(101-108)	Room 301		
8:00	SE session 1	Opening				Exhibition				CLINICCAI Session1	Exhibition					Exhibition	SE session 5
8.30							Oral 7	Oral 8				Oral 13	Oral 14				
9.00		Keynote 1 (JH Lee)															
9.30							Keynote 3 (X Zhao)					Keynote 4 (C Langlotz)					
10.00	Coffee Break @ DCC II	Coffee Break @ DCC II					Coffee Break @ DCC II					Coffee Break @ DCC II					Coffee Break @ DCC II
10.30	SE session 2	Oral 1	Oral 2			Exhibition				CLINICCAI poster	Poster 2					Poster 4	SE session 6
11.00																	
11.30																	
12.00		Lunch			(WIM)												
12.30	Lunch Break						Lunch		(MSB)			Lunch		(RISE)			Lunch Break
13.00																	
13.30	SE session 3	Keynote 2 (H Hong)				Exhibition	Board Candidates Lighthouse Challenge			Session 2	Exhibition	MICCAI2025 Theme Special Session 1			Open Data Initiative	Exhibition	SE session 7
14.00																	
14.30		Oral 3	Oral 4				Oral 9	Oral 10									
15.00												Coffee Break @ DCC II					
15.30	Coffee Break @ DCC II	Coffee Break @ DCC II				Poster 1 / PhD Consortium	Coffee Break @ DCC II			Session 3	Poster 3	MICCAI2025 Theme Special Session 2			Open Data Initiative	Poster 5	Coffee Break @ DCC II
16.00	SE session 4																SE session 8
16.30																	
17.00		Oral 5	Oral 6	MSB Panel	Panel 1	Exhibition	Oral 11	Oral 12		CLINICCAI Panel	Exhibition						
17.30												Awards / Closing					
18.00																	
18.30	Welcome Reception			MSB Networking													
19:00							Fellow Awards / Gala Dinner @Hanbit 7:00-11:00 PM										
19:30																	
20:00																	
20:30																	
21:00																	
22:00																	

MICCAI 2025: Main Conference Program

Last update: Aug 25, 2025

Oral and Spotlight Presentations

Oral & Spotlight Session 1: Augmented Reality and Video Generation Wednesday, September 24, 2025, 10:30 to 12:00 Main Hall - DCC1 Building - Room 201/202 **Session Chairs:** Ruogu Fang, University of Florida, United States Cheng Ouyang, University of Oxford, United Kingdom	**Oral & Spotlight Session 2: Language Models - Text and Images** Wednesday, September 24, 2025, 10:30 to 12:00 Dual Track Hall - DCC1 Building - Room 112 **Session Chairs:** Ke Zou, National University of Singapore, Singapore Keewon Shin, University of Ulsan, Asan Medical Center, Republic of Korea
Spotlight Presentations: **3D Dynamic Prediction of Missing Teeth in Diverse Patterns via Centroid-prompted Diffusion Model** ***Authors:*** *Zongrui Ji, Na Li, Peng Xue, Yi Dong, Lei Ma* ***Speaker:*** *Lei Ma, Tongji University, China* **Multi-expert collaboration and knowledge enhancement network for multimodal emotion recognition** ***Authors:*** *Kun Wang, Junyong Zhao, Liying Zhang, Qi Zhu, Daoqiang Zhang* ***Speaker:*** *Kun Wang, Nanjing University of Aeronautics and Astronautics, China* **MedGround-R1: Advancing Medical Image Grounding via Spatial-Semantic Rewarded Group Relative Policy Optimization** ***Authors:*** *Huihui Xu, Yuanpeng Nie, Hualiang Wang, Ying Chen, Wei Li, Junzhi Ning, Lihao Liu, Hongqiu Wang, Lei Zhu, Jiyao Liu, Xiaomeng Li, Junjun He* ***Speaker:*** *Huihui Xu, Shanghai AI Lab, China* **tHPM-LDM: Integrating Individual Historical Record with Population Memory in Latent Diffusion-based Glaucoma Forecasting** ***Authors:*** *Yuheng Fan, Jianyang Xie, Yimin Luo, Yanda Meng, Savita Madhusudhan, Gregory Y.H. Lip, Li Cheng, Yalin Zheng, He Zhao* ***Speaker:*** *Yuheng Fan, University of Liverpool, United Kingdom* **Lymphoma Prognosis with Lesion-Anatomy Context Fusion and Attention-Based Multi-Lesion Aggregation** ***Authors:*** *Song Zhang, Jiajin Zhang, Liheng Qiu, Wei Liu, Dakai Jin, Le Lu, Shenmiao Yang, Ke Yan* ***Speaker:*** *Ke Yan, DAMO Academy, Alibaba Group, China* **Occlusion-free 4D Gaussians for Open Surgery Videos Using Multi-Camera Shadowless Lamps** ***Authors:*** *Yuna Kato, Shohei Mori, Hideo Saito, Yoshifumi Takatsume, Hiroki Kajita, Mariko Isogawa* ***Speaker:*** *Mariko Isogawa, Keio University, Japan*	**Spotlight Presentations:** **DiffAtlas: GenAI-fying Atlas Segmentation via Image-Mask Diffusion** ***Authors:*** *Hantao Zhang, Yuhe Liu, Jiancheng Yang, Weidong Guo, Xinyuan Wang, Pascal Fua* ***Speaker:*** *Hantao Zhang, EPFL, Switzerland* **Guiding Registration with Emergent Similarity from Pre-Trained Diffusion Models** ***Authors:*** *Nurislam Tursynbek, Hastings Greer, Başar Demir, Marc Niethammer* ***Speaker:*** *Marc Niethammer, UCSD, United States* **Global and Local Vision-Language Alignment for Few-Shot Learning and Few-Shot OOD Detection** ***Authors:*** *Jie Yan, Xiaoyuan Guan, Wei-Shi Zheng, Hao Chen, Ruixuan Wang* ***Speaker:*** *Jie Yan, Sun Yat-sen University, China* **UniMRG: Refining Medical Semantic Understanding Across Modalities via LLM-Orchestrated Synergistic Evolution** ***Authors:*** *Hongyan Xu, Arcot Sowmya, Ian Katz, Dadong Wang* ***Speaker:*** *Hongyan Xu, University of New South Wales, Australia* **HyperPath: Knowledge-Guided Hyperbolic Semantic Hierarchy Modeling for WSI Analysis** ***Authors:*** *Peixiang Huang, Yanyan Huang, Weiqin Zhao, Junjun He, Lequan Yu* ***Speaker:*** *Peixiang Huang, The University of Hong Kong, Hong Kong SAR* **Towards Robust Medical Image Referring Segmentation with Incomplete Textual Prompts** ***Authors:*** *Qijie Wang, Xian Lin, Zengqiang Yan* ***Speaker:*** *Xian Lin, Huazhong University of Science and Technology, China*

Oral Presentations:

Intelligent Virtual Sonographer (IVS): Enhancing Physician-Robot-Patient Communication
Authors: *Tianyu Song, Feng Li, Yuan Bi, Angelos Karlas, Amir Yousefi, Daniela Branzan, Zhongliang Jiang, Ulrich Eck, Nassir Navab*
Speaker: *Tianyu Song, Technical University of Munich, Germany*

Ophora: A Large-Scale Data-Driven Text-Guided Ophthalmic Surgical Video Generation Model
Authors: *Wei Li, Ming Hu, Guoan Wang, Lihao Liu, Kaijing Zhou, Junzhi Ning, Xin Guo, Zongyuan Ge, Lixu Gu, Junjun He*
Speaker: *Wei Li, Shanghai Jiao Tong University, China*

HieraSurg: Hierarchy-Aware Diffusion Model for Surgical Video Generation
Authors: *Diego Biagini, Nassir Navab, Azade Farshad*
Speaker: *Diego Biagini, Technical University of Munich, Germany*

Unsupervised Cardiac Video Translation Via Motion Feature Guided Diffusion Model
Authors: *Swakshar Deb, Nian Wu, Frederick H. Epstein, Miaomiao Zhang*
Speaker: *Swakshar Deb, University of Virginia, United States*

HoloPointNet: A Deep Learning Framework for Efficient 3D Point Cloud Holography
Authors: *Ankit Amrutkar, Ahmet Nazlioglu, Björn Kampa, Volkmar Schulz, Johannes Stegmaier, Markus Rothermel, Dorit Merhof*
Speaker: *Ankit Amrutkar, RWTH Aachen University, Germany*

Augmented Reality-based Guidance with Deformable Registration in Head and Neck Tumor Resection
Authors: *Qingyun Yang, Fangjie Li, Jiayi Xu, Zixuan Liu, Sindhura Sridhar, Whitney Jin, Jennifer Du, Jon Heiselman, Michael Miga, Michael Topf, Jie Ying Wu*
Speaker: *Qingyun Yang, Vanderbilt University, United States*

Oral Presentations:

Historical Report Guided Bi-modal Concurrent Learning for Pathology Report Generation
Authors: *Ling Zhang, Boxiang Yun, Qingli Li, Yan Wang*
Speaker*: Ling Zhang, East China Normal University, China*

WSI-Agents: A Collaborative Multi-Agent System for Multi-Modal Whole Slide Image Analysis
Authors*: Xinheng Lyu, Yuci Liang, Wenting Chen, Meidan Ding, Jiaqi Yang, Guolin Huang, Daokun Zhang, Xiangjian He, Linlin Shen*
Speaker*: Xinheng Lyu, University of Nottingham Ningbo China, China*

RAPTOR: Generative AI for Parsing Colorectal Cancer Referrals to Streamline Faster Diagnostic Standard Pathways
Authors: *Sofiat Abioye, Shazad Ashraf, Junaid Qadir, Adam Byfield, Anusha Jose, William Poulett, Ben Wallace, Adil Butt, Colm Forde, Marcus Mottershead, Simon Fallis, Andrew Beggs, Aneel Bhangu, Lukman Akanbi, Muhammad Bilal*
Speaker: *Sofiat Abioye, Birmingham City University, United Kingdom*

TRRG: Towards Truthful Radiology Report Generation with Cross-modal Disease Clue Enhanced Large Language Models
Authors: *Yuhao Wang, Yue Sun, Tao Tan, Chao Hao, Yawen Cui, Xinqi Su, Weichen Xie, Linlin Shen, Zitong Yu*
Speaker: *Yuhao Wang, University of Science and Technology of China, China*

A Multimodal Contrastive Learning for Detecting Aortic Dissection on 3D Non-Contrast CT with Anatomy Simplification
Authors: *Duoer Zhang, Wenbo Xiao, Chen Jiang, Yuxuan Qiu, Zhan Feng, Hong Wang, Yefeng Zheng, Wentao Zhu*
Speaker: *Duoer Zhang, Zhejiang Lab, China*

LEAVS: An LLM-based Labeler for Abdominal CT Supervision
Authors: *Ricardo Bigolin Lanfredi, Yan Zhuang, Mark Finkelstein, Praveen Thoppey Srinivasan Balamuralikrishna, Luke Krembs, Brandon Khoury, Arthi Reddy, Pritam Mukherjee, Neil M. Rofsky, Ronald M. Summers*
Speaker: *Ricardo Bigolin Lanfredi, National Institutes of Health, United States*

Oral Session 3: Image Contextualization and Multimodal Fusion Wednesday, September 24, 2025, 14:30 to 15:30 Main Hall - DCC1 Building - Room 201/202 **Session Chairs:** Tanveer Syeda-Mahmood, IBM Research & Stanford University, United States Yutong Xie, MBZUAI, United Arab Emirates	**Oral Session 4: Detection, Segmentation, and Registration** Wednesday, September 24, 2025, 14:30 to 15:30 Dual Track Hall - DCC1 Building - Room 112 **Session Chairs:** Johannes C. Paetzold, Cornell University, United States Zhe Xu, The Chinese University of Hong Kong, Hong Kong SAR
Multimodal Fusion Network with Distribution-based Tumor-Marker Imputation for Multi-Origin Metastatic Cervical Lymphadenopathy Classification ***Authors:*** *Rui Li, Chunyan Li, Xi Lin, Jinfeng Xu, Fang Li, Yao Lu* ***Speaker:*** *Rui Li, Sun Yat-sen University, China* **A Holistic Time-Aware Classification Model for Multimodal Longitudinal Patient Data** ***Authors:*** *Tobias Susetzky, Huaqi Qiu, Rickmer Braren, Daniel Rueckert* ***Speaker:*** *Tobias Susetzky, Technical University of Munich, Germany* **Deep Association Multimodal Learning for Zero-shot Spatial Transcriptomics Prediction** ***Authors:*** *Yijing Zhou, Yadong Lu, Qingli Li, Xinxing Li, Yan Wang* ***Speaker:*** *Yijing Zhou, East China Normal University, China* **Blood Pressure Assisted Cerebral Microbleed Segmentation via Meta-matching** ***Authors:*** *Junmo Kwon, Jonghun Kim, Taehyeon Kim, Sang Won Seo, Hwan-ho Cho, Hyunjin Park* ***Speaker:*** *Junmo Kwon, Sungkyunkwan University, Republic of Korea* **FoundBioNet: A Foundation-Based Model for IDH Genotyping of Glioma from Multi-Parametric MRI** ***Authors:*** *Somayeh Farahani, Marjaneh Hejazi, Antonio Di Ieva, Sidong Liu* ***Speaker:*** *Somayeh Farahani, Macquarie University, Australia*	**Automated Characterization of Myocardial Scar Topological Patterns for Ventricular Tachycardia Screening** ***Authors:*** *Xicheng Sheng, Yang Zhang, Lei Li, Bailiang Chen, Freddy Odille, Xiahai Zhuang* ***Speaker:*** *Lei Li, National University of Singapore, Singapore* **Fit Pixels, Get Labels: Meta-Learned Implicit Networks for Image Segmentation** ***Authors:*** *Kushal Vyas, Ashok Veeraraghavan, Guha Balakrishnan* ***Speaker:*** *Kushal Vyas, Rice University, United States* **HybridMamba: A Dual-domain Mamba for 3D Medical Image Segmentation** ***Authors:*** *Weitong Wu, Zhaohu Xing, Jing Gong, Qin Peng, Lei Zhu* ***Speaker:*** *Weitong Wu, The Hong Kong University of Science and Technology (Guangzhou), China* **Abnormality-Driven Representation Learning for Radiology Imaging** ***Authors:*** *Marta Ligero, Tim Lenz, Georg Wölflein, Omar S. M. El Nahhas, Daniel Truhn, Jakob Nikolas Kather* ***Speaker:*** *Marta Ligero, EKFZ for Digital Health & TU Dresden, Germany* **MARSeg: Enhancing Medical Image Segmentation with MAR and Adaptive Feature Fusion** ***Authors:*** *Jeonghyun Hwang, Seungyeon Rhee, Minjeong Kim, Thanaporn Viriyasaranon, Jang-Hwan Choi* ***Speaker:*** *Jeonghyun Hwang, Ewha Womans University, Republic of Korea*

Oral & Spotlight Session 5: Navigation and Surgical Workflows

Wednesday, September 24, 2025, 17:00 to 18:30
Main Hall - DCC1 Building - Room 201/202

Session Chairs:
Yueming Jin, National University of Singapore, Singapore
Leo Joskowicz, The Hebrew University, Israel

Spotlight Presentations:

Towards Automated Pediatric Dental Development Staging: A Dataset and Model
Authors: *Peng Wang, Along He, Anli Wang, Zhenhuan Zhou, Xiaohang Guan, Tao Li*
Speaker: *Peng Wang, Nankai University, China*

Sequence-Independent Continual Test-Time Adaptation with Mixture of Incremental Experts for Cross-Domain Segmentation
Authors: *Dunyuan Xu, Yuchen Yuan, Donghao Zhou, Xikai Yang, Jingyang Zhang, Jinpeng Li, Pheng-Ann Heng*
Speaker: *Dunyuan Xu, The Chinese University of Hong Kong, Hong Kong SAR*

ProgreSpine: Inherently Explainable Prototypical Regression for Spine Age Estimation
Authors: *Roozbeh Bazargani, Saqib Basar, Sam Hashemi, Siavash Khallaghi*
Speaker: *Sam Hashemi, Prenuvo Inc, Canada*

MixStyleFlow: Domain Generalization in Medical Image Segmentation using Normalizing Flows
Authors: *Reza Safdari, Mohammad-Ali Nikouei Mahani, Mohamad Koohi-Moghadam, Kyongtae Tyler Bae*
Speaker: *Reza Safdari, The University of Hong Kong, Hong Kong SAR*

Deep Learning Framework for Managing Inter-Reader Variability in Background Parenchymal Enhancement Classification for Contrast-Enhanced Mammography
Authors: *Elodie Ripaud, Clément Jailin, Pablo Milioni de Carvalho, Laurence Vancamberg, Isabelle Bloch*
Speaker: *Elodie Ripaud, GE HealthCare, France*

FedCLAM: Client Adaptive Momentum with Foreground Intensity Matching for Federated Medical Image Segmentation
Authors: *Vasilis Siomos, Jonathan Passerat-Palmbach, Giacomo Tarroni*
Speaker: *Vasilis Siomos, City St. George's, University of London, United Kingdom*

Oral & Spotlight Session 6: Towards Deployment, Bias, Trustworthiness, and Privacy

Wednesday, September 24, 2025, 17:00 to 18:30
Dual Track Hall - DCC1 Building - Room 112

Session Chairs:
Hongwei Bran Li, National University of Singapore, Singapore
Qingjie Meng, University of Birmingham, United Kingdom

Spotlight Presentations:

VesselVerse: A Dataset and Collaborative Framework for Vessel Annotation
Authors: *Daniele Falcetta, Vincenzo Marciano, Kaiyuan Yang, Jon Cleary, Loïc Legris, Massimiliano Domenico Rizzaro, Ioannis Pitsiorlas, Hava Chaptoukaev, Benjamin Lemasson, Bjoern Menze, Maria A. Zuluaga*
Speaker: *Daniele Falcetta, EURECOM, France*

Query-Level Alignment for End-to-End Lesion Detection with Human Gaze
Authors: *Yan Kong, Zhixiang Peng, Yuan Yin, Yonghao Li, Jiangdong Cai, Sheng Wang, Qian Wang, Yuqi Fang, Caifeng Shan*
Speaker: *Yuqi Fang, Nanjing University, China*

Bias and Generalizability of Foundation Models across Datasets in Breast Mammography
Authors: *Elodie Germani, Ilayda Selin-Türk, Fatima Zeineddine, Charbel Mourad, Shadi Albarqouni*
Speaker: *Shadi Albarqouni, University of Bonn, Germany*

Training-free Test-time Improvement for Explainable Medical Image Classification
Authors: *Hangzhou He, Jiachen Tang, Lei Zhu, Kaiwen Li, Yanye Lu*
Speaker: *Hangzhou He, Peking University, China*

A flexible deep learning framework for survival analysis with medical data
Authors: *Gabriele Campanella, Ida Häggström, Lucas Kook, Torsten Hothorn, Thomas J. Fuchs*
Speaker: *Ida Häggström, Chalmers University of Technology, Sweden*

MELON: Multimodal Mixture-of-Experts with Spectral-Temporal Fusion for Long-Term MObility EstimatioN in Critical Care
Authors: *Jiaqing Zhang, Miguel Contreras, Jessica Sena, Andrea Davidson, Yuanfang Ren, Ziyuan Guan, Tezcan Ozrazgat-Baslanti, Tyler J. Loftus, Subhash Nerella, Azra Bihorac, Parisa Rashidi*
Speaker: *Subhash Nerella, University of Florida, United States*

Oral Presentations:

Towards Markerless Intraoperative Tracking of Deformable Spine Tissue
Authors: *Connor Daly, Elettra Marconi, Marco Riva, Jinendra Ekanayake, Daniel S. Elson, Ferdinando Rodriguez y Baena*
Speaker: *Connor Daly, Imperial College London, United Kingdom*

Multi-modal Representations for Fine-grained Multi-label Critical View of Safety Recognition
Authors: *Britty Baby, Vinkle Srivastav, Pooja P. Jain, Kun Yuan, Pietro Mascagni, Nicolas Padoy*
Speaker: *Britty Baby, University of Strasbourg, France*

MedAgentSim: Self-Evolving Multi-Agent Simulations for Realistic Clinical Interactions
Authors: *Mohammad Almansoori, Komal Kumar, Hisham Cholakkal*
Speaker: *Mohammad Almansoori, Mohamed bin Zayed University of Artificial Intelligence, United Arab Emirates*

EndoMamba: An Efficient Foundation Model for Endoscopic Videos via Hierarchical Pre-training
Authors: *Qingyao Tian, Huai Liao, Xinyan Huang, Bingyu Yang, Dongdong Lei, Sebastien Ourselin, Hongbin Liu*
Speaker: *Qingyao Tian, Institute of Automation, Chinese Academy of Sciences, China*

HalF-SAM: SAM-based Haustral Fold Detection In Colonoscopy with Debris Suppression and Temporal Consistency
Authors: *Mayank Golhar, Luojie Huang, Nicholas J. Durr*
Speaker: *Mayank Golhar, Johns Hopkins University, United States*

SAMSA: Segment Anything Model enhanced with Spectral Angles for Hyperspectral Interactive Medical Image Segmentation
Authors: *Alfie Roddan, Tobias Czempiel, Chi Xu, Daniel S. Elson, Stamatia Giannarou*
Speaker: *Alfie Roddan, Imperial College London, United Kingdom*

Oral Presentations:

Maverick: Collaboration-free Federated Unlearning for Medical Privacy
Authors: *Win Kent Ong, Chee Seng Chan*
Speaker: *Win Kent Ong, Universiti Malaya, Malaysia*

Variational Visible Layers: A Practical Framework for Uncertainty Estimation
Authors: *Zeinab Abboud, Herve Lombaert, Samuel Kadoury*
Speaker: *Zeinab Abboud, Polytechnique Montreal, Canada*

On the Interplay of Human-AI Alignment, Fairness, and Performance Trade-offs in Medical Imaging
Authors: *Haozhe Luo, Ziyu Zhou, Shelley Zixin Shu, Aurélie Pahud de Mortanges, Robert Berke, Mauricio Reyes*
Speaker: *Haozhe Luo, University of Bern, Switzerland*

Mutual Information Regularization for Fairness-aware Deep Imaging Representations
Authors: *Amir Reza Sadri, Thomas DeSilvio, Satish E. Viswanath*
Speaker: *Amir Reza Sadri, Case Western Reserve University, United States*

Adaptive Frame Selection for Gestational Age Estimation from Blind Sweep Fetal Ultrasound Videos
Authors: *Tanya Akumu, Marawan Elbatel, Victor M. Campello, Richard Osuala, Carlos Martin-Isla, Ignacio Valenzuela, Xiaomeng Li, Bishesh Khanal, Karim Lekadir*
Speaker: *Tanya Akumu, University of Barcelona, Spain*

Toward Medical Deepfake Detection: A Comprehensive Dataset and Novel Method
Authors: *Shuaibo Li, Zhaohu Xing, Hongqiu Wang, Pengfei Hao, Xingyu Li, Zekai Liu, Lei Zhu*
Speaker: *Shuaibo Li, The Hong Kong University of Science and Technology (Guangzhou), China*

Oral Session 7: Data Quality, Restoration, and Super-resolution Thursday, September 25, 2025, 8:30 to 9:30 Main Hall - DCC1 Building - Room 201/202 **Session Chairs:** Davood Karimi, Harvard Medical School, United States Kyung Sung, University of California, Los Angeles (UCLA), United States	**Oral Session 8: Explainability and Interpretability** Thursday, September 25, 2025, 8:30 to 9:30 Dual Track Hall - DCC1 Building - Room 112 **Session Chairs:** Hao Chen, Hong Kong University of Science and Technology, Hong Kong SAR Zulqarnain Gilani, Edith Cowan University, Australia
Directional Adaptive Shuffle-Based Visual State-Space Models for Medical Image Restoration ***Authors:*** *Simon C. K. Chan, Lulin Shi, Bingxin Huang, Terence T. W. Wong* ***Speaker:*** *Simon C. K. Chan, The Hong Kong University of Science and Technology, Hong Kong SAR* **Advancing Medical Representation Learning Through High-Quality Data** ***Authors:*** *Negin Baghbanzadeh, Adibvafa Fallahpour, Yasaman Parhizkar, Franklin Ogidi, Shuvendu Roy, Sajad Ashkezari, Vahid Reza Khazaie, Michael Colacci, Ali Etemad, Arash Afkanpour, Elham Dolatabadi* ***Speaker:*** *Negin Baghbanzadeh, York University, Canada* **BayeSMM: Robust Deep Combined Computing Tackling Heavy-tailed Distribution in Medical Images** ***Authors:*** *Yuanye Liu, Ruoxuan Zhen, Shangqi Gao, Xinzhe Luo, Xin Gao, Qingchao Chen, Xiahai Zhuang* ***Speaker:*** *Yuanye Liu, Fudan University, China* **TESLA: Test-time Reference-free Through-plane Super-resolution for Multi-contrast Brain MRI** ***Authors:*** *Yoonseok Choi, Sunyoung Jung, Mohammed A. Al-masni, Ming-Hsuan Yang, Dong-Hyun Kim* ***Speaker:*** *Yoonseok Choi, Yonsei University, Republic of Korea* **Robust Deep Learning for Myocardial Scar Segmentation in Cardiac MRI with Noisy Labels** ***Authors:*** *Aida Moafi, Danial Moafi, Evgeny M. Mirkes, Gerry P. McCann, Abbas S. Alatrany, Jayanth Ranjit Arnold, Mostafa Mehdipour Ghazi* ***Speaker:*** *Aida Moafi, University of Leicester, United Kingdom*	**An Anatomical Significance-Aware Architecture for Explainable Myocardial Infarction Prediction via Multi-Task Learning** ***Authors:*** *Jiachuan Peng, Marcel Beetz, Abhirup Banerjee, Min Chen, Vicente Grau* ***Speaker:*** *Jiachuan Peng, University of Oxford, United Kingdom* **Uncertainty-Supervised Interpretable and Robust Evidential Segmentation** ***Authors:*** *Yuzhu Li, An Sui, Fuping Wu, Xiahai Zhuang* ***Speaker:*** *An Sui, Fudan University, China* **Automated Detection of BK Virus in H&E Whole-Slide Images Using Weakly-Supervised Deep Learning and Interpretable Morphological Biomarkers** ***Authors:*** *Sharifa Sahai, Ana D. Ramos-Guerra, Cristina Almagro-Pérez, Guillaume Jaume, Andrew Zhang, Helmut Rennke, Astrid Weins, Juan E. Ortuño, Maria J. Ledesma-Carbayo, Faisal Mahmood* ***Speakers:*** *Sharifa Sahai, Harvard Medical School and Ana D. Ramos-Guerra, Universidad Politécnica de Madrid, Spain* **X-SiT: Inherently Interpretable Surface Vision Transformers for Dementia Diagnosis** ***Authors:*** *Fabian Bongratz, Tom Nuno Wolf, Jaume Gual Ramon, Christian Wachinger* ***Speaker:*** *Fabian Bongratz, Technical University of Munich, Germany* **Latent Motion Profiling for Annotation-free Cardiac Phase Detection in Adult and Fetal Echocardiography Videos** ***Authors:*** *Yingyu Yang, Qianye Yang, Kangning Cui, Can Peng, Elena D'Alberti, Netzahualcoyotl Hernandez-Cruz, Olga Patey, Aris T. Papageorghiou, J. Alison Noble* ***Speaker:*** *Yingyu Yang, University of Oxford, United Kingdom*

Oral Session 9: Generalizability and Adaptation Thursday, September 25, 2025, 14:30 to 15:30 Main Hall - DCC1 Building - Room 201/202 **Session Chairs:** Peirong Liu, Johns Hopkins University, United States Guotai Wang, University of Electronic Science and Technology of China, China	**Oral Session 10: Multimodal and Longitudinal Prediction** Thursday, September 25, 2025, 14:30 to 15:30 Dual Track Hall - DCC1 Building - Room 112 **Session Chairs:** Jang-Hwan Choi, Ewha Womans University, Republic of Korea Chenyu You, Stony Brook University, United States
tCURLoRA: Tensor CUR Decomposition Based Low-Rank Parameter Adaptation and Its Application in Medical Image Segmentation ***Authors:*** *Guanghua He, Wangang Cheng, Hancan Zhu, Xiaohao Cai, Gaohang Yu* ***Speaker:*** *Guanghua He, Shaoxing University, China* **Reverse Imaging for Wide-spectrum Generalization of Cardiac MRI Segmentation** ***Authors:*** *Yidong Zhao, Peter Kellman, Hui Xue, Tongyun Yang, Yi Zhang, Yuchi Han, Orlando Simonetti, Qian Tao* ***Speaker:*** *Yidong Zhao, Delft University of Technology, the Netherlands* **Frequency Strikes Back: Boosting Parameter-Efficient Foundation Model Adaptation for Medical Imaging** ***Authors:*** *Son T. Ly, Hien V. Nguyen* ***Speaker:*** *Son T. Ly, University of Houston, United States* **Tied Prototype Model for Few-Shot Medical Image Segmentation** ***Authors:*** *Hyeongji Kim, Stine Hansen, Michael Kampffmeyer* ***Speaker:*** *Hyeongji Kim, The Arctic University of Norway, Norway* **Sparsely Labeled fMRI Data Denoising with Meta-Learning-Based Semi-Supervised Domain Adaptation** ***Authors:*** *Keun-Soo Heo, Ji-Wung Han, Soyeon Bak, Minjoo Lim, Bogyeong Kang, Sang-Jun Park, Weili Lin, Han Zhang, Dinggang Shen, Tae-Eui Kam* ***Speaker:*** *Keun-Soo Heo, Korea University, Republic of Korea*	**Multi-scale Attention-based Multiple Instance Learning for Breast Cancer Diagnosis** ***Authors:*** *Mariana Mourão, Jacinto C. Nascimento, Carlos Santiago, Margarida Silveira* ***Speaker:*** *Mariana Mourão, Institute for Systems and Robotics, Instituto Superior Técnico, Portugal* **Parameterized Diffusion Optimization enabled Autoregressive Ordinal Regression for Diabetic Retinopathy Grading** ***Authors:*** *Qinkai Yu, Wei Zhou, Hantao Liu, Yanyu Xu, Meng Wang, Yitian Zhao, Huazhu Fu, Xujiong Ye, Yalin Zheng, Yanda Meng* ***Speaker:*** *Qinkai Yu, University of Exeter, United Kingdom* **Attention-Based Multimodal Deep Learning Model for Post-Stroke Motor Impairment Prediction** ***Authors:*** *Rukiye Karakis, Kali Gurkahraman, Georgios D. Mitsis, Marie-Hèléne Boudrias* ***Speaker:*** *Rukiye Karakis, Sivas Cumhuriyet University, Turkey* **DISCLOSE the Neurodegeneration Dynamics: Individualized ODE Discovery for Alzheimer's Disease Precision Medicine** ***Authors:*** *Wooseok Jung, Joonhyuk Park, Won Hwa Kim* ***Speaker:*** *Joonhyuk Park, Pohang University of Science and Technology, Republic of Korea* **From Pixels to Prognosis: A Multi-Modal Attention-based Framework for Visceral Adipose Tissue Estimation** ***Authors:*** *Arooba Maqsood, Afsah Saleem, Marc Sim, David Suter, Simone Radavelli-Bagatini, Jonathan M. Hodgson, Richard L. Prince, Kun Zhu, William D. Leslie, John T. Schousboe, Joshua R. Lewis, Syed Zulqarnain Gilani* ***Speaker:*** *Arooba Maqsood, Edith Cowan University, Australia*

Oral & Spotlight Session 11: Graphs - Learning and Data

Thursday, September 25, 2025, 17:00 to 18:30
Main Hall - DCC1 Building - Room 201/202

Session Chairs:
Angelica Aviles-Rivero, Tsinghua University, China
Jelmer Wolterink, University of Twente, the Netherlands

Spotlight Presentations:

PathVG: A New Benchmark and Dataset for Pathology Visual Grounding
Authors: *Chunlin Zhong, Shuang Hao, Junhua Wu, Xiaona Chang, Jiwei Jiang, Xiu Nie, He Tang, Xiang Bai*
Speaker: *Shuang Hao, Huazhong University of Science and Technology, China*

Endoscopic Artifact Inpainting for Improved Endoscopic Image Segmentation
Authors: *Zhangyuan Yu, Chenlin Du, Hongrui Liang, Xiuqi Zheng, Zeyao Ma, Mingjun Wu, Mingwu Ao, Qicheng Lao*
Speaker: *Qicheng Lao, Beijing University of Posts and Telecommunications, China*

DEFUSE-MS: Deformation Field-Guided Spatiotemporal Graph-Based Framework for Multiple Sclerosis New Lesion Detection
Authors: *Mostafa Salem, Salma Hassan, Vijay Ram Kumar Papineni, Ayman Elsayed, Mohammad Yaqub*
Speaker: *Mostafa Salem, Mohamed Bin Zayed University of Artificial Intelligence, United Arab Emirates*

Bipartite Patient-Modality Graph Learning with Event-Conditional Modelling of Censoring for Cancer Survival Prediction
Authors: *Hailin Yue, Hulin Kuang, Jin Liu, Junjian Li, Lanlan Wang, Mengshen He, Jianxin Wang*
Speaker: *Hailin Yue, Central South University, China*

Stronger Together: Registering Preoperative Imagery, LUS, and MIS Liver Images
Authors: *Mohammad Mahdi Kalantari, Erol Ozgur, Mohammad Alkhatib, Navid Rabbani, Yamid Espinel, Richard Modrzejewski, Bertrand Le Roy, Emmanuel Buc, Youcef Mezouar, Adrien Bartoli*
Speaker: *Mohammad Mahdi Kalantari, Clermont-Auvergne INP, France*

A Novel Streamline-based diffusion MRI Tractography Registration Method with Probabilistic Keypoint Detection
Authors: *Junyi Wang, Mubai Du, Ye Wu, Yijie Li, William M. Wells III, Lauren J. O'Donnell, Fan Zhang*
Speaker: *Junyi Wang, UESTC, China*

Oral & Spotlight Session 12: Reconstruction and Synthesis

Thursday, September 25, 2025, 17:00 to 18:30
Dual Track Hall - DCC1 Building - Room 112

Session Chairs:
Cosmin I. Bercea, Technical University of Munich, Germany
Chuyang Ye, Beijing Institute of Technology, China

Spotlight Presentations:

Cross-view Generalized Diffusion Model for Sparse-view CT Reconstruction
Authors: *Jixiang Chen, Yiqun Lin, Yi Qin, Hualiang Wang, Xiaomeng Li*
Speaker: *Jixiang Chen, The Hong Kong University of Science and Technology, Hong Kong SAR*

Hallucination-Aware Multimodal Benchmark for Gastrointestinal Image Analysis with Large Vision-Language Models
Authors: *Bidur Khanal, Sandesh Pokhrel, Sanjay Bhandari, Ramesh Rana, Nikesh Shrestha, Ram B. Gurung, Cristian Linte, Angus Watson, Yash R. Shrestha, Binod Bhattarai*
Speaker: *Binod Bhattarai, Nepal Applied Mathematics and Informatics Institute for Research, Nepal*

Veriserum: A dual-plane fluoroscopic dataset with knee implant phantoms for deep learning in medical imaging
Authors: *Jinhao Wang, Florian Vogl, Pascal Schütz, Saša Ćuković, William R. Taylor*
Speaker: *Jinhao Wang, ETH Zürich, Switzerland*

Unisyn: A Generative Foundation Model for Universal Medical Image Synthesis across MRI, CT and PET
Authors: *Yulin Wang, Honglin Xiong, Kaicong Sun, Jiameng Liu, Xin Lin, Ziyi Chen, Yuanzhe He, Qian Wang, Dinggang Shen*
Speaker: *Yulin Wang, ShanghaiTech University, China*

Inter-class separability loss for weakly supervised mutually exclusive multiclass segmentation of brain tumor lesions
Authors: *Vivek Dhamale, Vaanathi Sundaresan*
Speaker: *Vivek Dhamale, Indian Institute of Science, Bangalore, India*

Facial Appearance Prediction with Conditional Multi-scale Autoregressive Modeling for Orthognathic Surgical Planning
Authors: *Jungwook Lee, Xuanang Xu, Daeseung Kim, Tianshu Kuang, Hannah H. Deng, Xinrui Song, Yasmine Soubra, Rohan Dharia, Michael A.K. Liebschner, Jaime Gateno, Pingkun Yan*
Speaker: *Jungwook Lee, Rensselaer Polytechnic Institute, United States*

Oral Presentations:

Cerebrovascular Diseases Screening from Color Fundus Photography via Cross-View Fusion and Graph-Based Discrimination
Authors: *Congyu Tian, Shihao Zou, Xiangyun Liao, Cheng Chen, Chubin Ou, Jianping Lv, Shanshan Wang, Weixin Si*
Speaker: *Shihao Zou, Shenzhen Institutes of Advanced Technology, China*

Multi-Modal Graph-Based Machine Learning for Predicting Surgical Outcome in Epilepsy Patients
Authors: *Artur Arturi Aharonyan, Syeda Abeera Amir, Nunthasiri Wittayanakorn, Marius George Linguraru, Chima Oluigbo, Syed Muhammad Anwar*
Speaker: *Artur Arturi Aharonyan, Childrens National Hospital, United States*

SG2VID: Scene Graphs Enable Fine-Grained Control for Video Synthesis
Authors: *Ssharvien Kumar Sivakumar, Yannik Frisch, Ghazal Ghazaei, Anirban Mukhopadhyay*
Speaker: *Ssharvien Kumar Sivakumar, TU Darmstadt, Germany*

GLCP: Global-to-Local Connectivity Preservation for Tubular Structure Segmentation
Authors: *Feixiang Zhou, Zhuangzhi Gao, He Zhao, Jianyang Xie, Yanda Meng, Yitian Zhao, Gregory Y.H. Lip, Yalin Zheng*
Speaker: *Feixiang Zhou, University of Liverpool, United Kingdom*

pyOpenNFT: an Open-Source Python Framework for ML-based Real-time fMRI and EEG-fMRI Neurofeedback
Authors: *Ekaterina Antipushina, Nikita Davydov, Riccardo De Feo, Evgeny Prilepin, Artem Nikonorov, Yury Koush*
Speaker: *Ekaterina Antipushina, Skolkovo Institute of Science and Technology, Russia*

GPU Accelerated Modeling of Cortical Radial and Tangential Connectivity Changes in Neurodegeneration
Authors: *Hongbo Zhang, Xinyu Nie, Jiaxin Yue, Yuan Li, John Ringman, Yonggang Shi*
Speaker: *Hongbo Zhang, University of Southern California, United States*

Oral Presentations:

VesselGPT: Autoregressive Modeling of Vascular Geometry
Authors: *Paula Feldman, Martin Sinnona, Claudio Delrieux, Viviana Siless, Emmanuel Iarussi*
Speaker: *Paula Feldman, Universidad Torcuato Di Tella, Argentina*

ClipGS: Clippable Gaussian Splatting for Interactive Cinematic Visualization of Volumetric Medical Data
Authors: *Chengkun Li, Yuqi Tong, Kai Chen, Zhenya Yang, Ruiyang Li, Shi Qiu, Jason Ying-Kuen Chan, Pheng-Ann Heng, Qi Dou*
Speaker: *Chengkun Li, The Chinese University of Hong Kong, Hong Kong SAR*

InstructX2X: An Interpretable Local Editing Model for Counterfactual Medical Image Generation
Authors: *Hyungi Min, Taeseung You, Hangyeul Lee, Yeongjae Cho, Sungzoon Cho*
Speaker: *Hyungi Min, Seoul National University, Republic of Korea*

UFO-3: Unsupervised Three-Compartment Learning for Fiber Orientation Distribution Function Estimation
Authors: *Xueqing Gao, Rizhong Lin, Jianhui Feng, Yonggang Shi, Yuchuan Qiao*
Speaker: *Xueqing Gao, Tongji University, China*

3D Acetabular Surface Reconstruction from 2D Pre-operative X-ray Images using SRVF Elastic Registration and Deformation Graph
Authors: *Shuai Zhang, Jinliang Wang, Xu Wang, Sujith Konan, Danail Stoyanov, Evangelos B. Mazomenos*
Speaker: *Shuai Zhang, University College London, United Kingdom*

Speech Audio Generation from Dynamic MRI via a Knowledge Enhanced Conditional Variational Autoencoder
Authors: *Yaxuan Li, Han Jiang, Yifei Ma, Shihua Qin, Jonghye Woo, Fangxu Xing*
Speaker: *Yaxuan Li, The University of Hong Kong, Hong Kong SAR*

Oral Session 13: Surgical Data Science Friday, September 26, 2025, 8:30 to 9:30 Main Hall - DCC1 Building - Room 201/202 **Session Chairs:** Vinkle Srivastav, IHU Strasbourg, University of Strasbourg, France Mobarak I. Hoque, University of Manchester, United Kingdom	**Oral Session 14: Missing Data and Weak Supervision** Friday, September 26, 2025, 8:30 to 9:30 Dual Track Hall - DCC1 Building - Room 112 **Session Chairs:** Cheng Chen, The University of Hong Kong, Hong Kong SAR Dmitry Dylov, The Skolkovo Institute of Science and Technology, Russia
Endo-FASt3r: Endoscopic Foundation Model Adaptation for Structure from Motion ***Authors:*** *Mona Sheikh Zeinoddin, Mobarak I. Hoque, Zafer Tandogdu, Greg L. Shaw, Matthew J. Clarkson, Evangelos B. Mazomenos, Danail Stoyanov* ***Speaker:*** *Mona Sheikh Zeinoddin, UCL Hawkes Institute, University College London, United Kingdom* **RadGS-Reg: Registering Spine CT with Biplanar X-rays via Joint 3D Radiative Gaussians Reconstruction and 3D/3D Registration** ***Authors:*** *Ao Shen, Xueming Fu, Junfeng Jiang, Qiang Zeng, Ye Tang, Zhengming Chen, Luming Nong, Feng Wang, S. Kevin Zhou* ***Speaker:*** *Ao Shen, Hohai University, China* **Memory-Augmented SAM2 for Training-Free Surgical Video Segmentation** ***Authors:*** *Ming Yin, Fu Wang, Xujiong Ye, Yanda Meng, Zeyu Fu* ***Speaker:*** *Ming Yin, University of Exeter, United Kingdom* **Endo3R: Unified Online Reconstruction from Dynamic Monocular Endoscopic Video** ***Authors:*** *Jiaxin Guo, Wenzhen Dong, Tianyu Huang, Hao Ding, Ziyi Wang, Haomin Kuang, Qi Dou, Yun-Hui Liu* ***Speaker:*** *Jiaxin Guo, The Chinese University of Hong Kong, Hong Kong SAR* **Mamba Guided Boundary Prior Matters: A New Perspective for Generalized Polyp Segmentation** ***Authors:*** *Tapas K. Dutta, Snehashis Majhi, Deepak Ranjan Nayak, Debesh Jha* ***Speaker:*** *Deepak Ranjan Nayak, Malaviya National Institute of Technology Jaipur, India*	**ReCo-I2P: An Incomplete Supervised Lymph Node Segmentation Framework Based on Orthogonal Partial-instance Annotation** ***Authors:*** *Litingyu Wang, Ping Ye, Wenjun Liao, Shichuan Zhang, Shaoting Zhang, Guotai Wang* ***Speaker:*** *Litingyu Wang, University of Electronic Science and Technology of China, China* **Tree-based Semantic Losses: Application to Sparsely-supervised Large Multi-class Hyperspectral Segmentation** ***Authors:*** *Junwen Wang, Oscar Maccormac, William Rochford, Aaron Kujawa, Jonathan Shapey, Tom Vercauteren* ***Speaker:*** *Junwen Wang, King's College London, United Kingdom* **Towards Globally Predictable k-Space Interpolation: A White-box Transformer Approach** ***Authors:*** *Chen Luo, Qiyu Jin, Taofeng Xie, Xuemei Wang, Huayu Wang, Congcong Liu, Liming Tang, Guoqing Chen, Zhuo-Xu Cui, Dong Liang* ***Speaker:*** *Chen Luo, Inner Mongolia University, China* **Anatomical Graph-based Multilevel Distillation for Robust Alzheimer's Disease Diagnosis with Missing Modalities** ***Authors:*** *Fei Liu, Huabin Wang, Mohamed Hisham Jaward, Shiuan-Ni Liang, Huey Fang Ong, Jiayuan Cheng* ***Speaker:*** *Fei Liu, Monash University Malaysia, Malaysia* **DC-Seg: Disentangled Contrastive Learning for Brain Tumor Segmentation with Missing Modalities** ***Authors:*** *Haitao Li, Ziyu Li, Yiheng Mao, Zhengyao Ding, Zhengxing Huang* ***Speaker:*** *Haitao Li, Zhejiang University, China*

Poster Presentations

Poster Session 1: **Augmented Reality and Video Generation / Language Models - Text and Images / Image Contextualization and Multimodal Fusion**
Wednesday, September 24, 2025, 15:30 – 17:00
Poster Hall (DCC 2)

A1 (Wed-PM)
Paper Highlight
Intelligent Virtual Sonographer (IVS): Enhancing Physician-Robot-Patient Communication
Authors: Tianyu Song, Feng Li, Yuan Bi, Angelos Karlas, Amir Yousefi, Daniela Branzan, Zhongliang Jiang, Ulrich Eck, Nassir Navab
Presenters: Tianyu Song and Feng Li, Technical University of Munich, Germany

A6 (Wed-PM)
Paper Highlight
HoloPointNet: A Deep Learning Framework for Efficient 3D Point Cloud Holography
Authors: Ankit Amrutkar, Ahmet Nazlioglu, Björn Kampa, Volkmar Schulz, Johannes Stegmaier, Markus Rothermel, Dorit Merhof
Presenter: Ankit Amrutkar, RWTH Aachen University, Germany

A11 (Wed-PM)
Paper Highlight
HieraSurg: Hierarchy-Aware Diffusion Model for Surgical Video Generation
Authors: Diego Biagini, Nassir Navab, Azade Farshad
Presenter: Diego Biagini, Technical University of Munich, Germany

A16 (Wed-PM)
Paper Highlight
Occlusion-free 4D Gaussians for Open Surgery Videos Using Multi-Camera Shadowless Lamps
Authors: Yuna Kato, Shohei Mori, Hideo Saito, Yoshifumi Takatsume, Hiroki Kajita, Mariko Isogawa
Presenter: Mariko Isogawa, Keio University, Japan

A21 (Wed-PM)
ReSurgSAM2: Referring Segment Anything in Surgical Video via Credible Long-term Tracking
Authors: Haofeng Liu, Mingqi Gao, Xuxiao Luo, Ziyue Wang, Guanyi Qin, Junde Wu, Yueming Jin
Presenter: Haofeng Liu, National University of Singapore, Singapore

A26 (Wed-PM)
RT-GAN: Recurrent Temporal GAN for Adding Lightweight Temporal Consistency to Frame-Based Domain Translation Approaches
Authors: Shawn Mathew, Saad Nadeem, Arie Kaufman
Presenter: Saad Nadeem, Memorial Sloan Kettering Cancer Center, United States

A31 (Wed-PM)
Topology-Constrained Learning for Efficient Laparoscopic Liver Landmark Detection
Authors: Ruize Cui, Jiaan Zhang, Jialun Pei, Kai Wang, Pheng-Ann Heng, Jing Qin
Presenter: Ruize Cui, The Hong Kong Polytechnic University, Hong Kong SAR

A36 (Wed-PM)
PR-ENDO: Physically Based Relightable Gaussian Splatting for Endoscopy
Authors: Joanna Kaleta, Weronika Smolak-Dyżewska, Dawid Malarz, Diego Dall'Alba, Przemysław Korzeniowski, Przemysław Spurek
Presenters: Joanna Kaleta and Weronika Smolak-Dyżewska, Jagiellonian University, Poland

A41 (Wed-PM)
Hierarchical Feature Learning for Medical Point Clouds via State Space Model
Authors: Guoqing Zhang, Jingyun Yang, Yang Li
Presenter: Guoqing Zhang, Tsinghua Shenzhen International Graduate School, China

A46 (Wed-PM)
Two-Stage Generative Model for Intracranial Aneurysm Meshes with Morphological Marker Conditioning
Authors: Wenhao Ding, Kangjun Ji, Simão Castro, Yihao Luo, Dylan Roi, Choon Hwai Yap
Presenter: Wenhao Ding, Imperial College London, United Kingdom

A51 (Wed-PM)
EG-Net: An Edge-Guided Network for Rigid Registration of Laparoscopic Low-Overlap Point Clouds
Authors: Wenbin Wu, Yifan Gao, Yixiu Wang, Jiayi Zhang, Yiming Zhao, Xin Gao
Presenter: Wenbin Wu, University of Science and Technology of China, China

A56 (Wed-PM)
Paper Highlight
Noise-Controllable Complex-Valued Diffusion Model for k-Space Data of Hyperpolarized 129Xe Lung MRI Generation
Authors: Linxuan Han, Sa Xiao, Muhong Li, Jinghan Liu, Xin Zhou
Presenter: Linxuan Han, Huazhong University of Science and Technology, China

A61 (Wed-PM)
Reconstructing 3D Hand-Instrument Interaction from a Single 2D Image in Medical Scenes
Authors: Miao Xu, Xiangyu Zhu, Jinlin Wu, Ming Feng, Zelin Zang, Hongbin Liu, Zhen Lei
Presenter: Miao Xu, Hong Kong Institute of Science, China

A66 (Wed-PM)
LiteTracker: Leveraging Temporal Causality for Accurate Low-latency Tissue Tracking
Authors: Mert Asim Karaoglu, Wenbo Ji, Ahmed Abbas, Nassir Navab, Benjamin Busam, Alexander Ladikos
Presenter: Mert Asim Karaoglu, ImFusion GmbH and Technical University of Munich, Germany

A71 (Wed-PM) **SFPFR: Self-supervised Facial Paralysis Face Reconstruction Under Few Views**
Authors: Yaru Qiu, Xinru Wang, Jianfang Zhang, Bo Liu, Peng Bai, Yuanyuan Sun
Presenter: Jianfang Zhang, Qingdao University of Science and Technology, China

A76 (Wed-PM) **Hypergraph Tversky-Aware Domain Incremental Learning for Brain Tumor Segmentation with Missing Modalities**
Authors: Junze Wang, Lei Fan, Weipeng Jing, Donglin Di, Yang Song, Sidong Liu, Cong Cong
Presenter: Junze Wang, Northeast Forestry University, China

A81 (Wed-PM) **Real-Time SLAM-Based Correction and 3D Visualization for Fluorescence Lifetime Imaging**
Authors: Murali Krishnamoorthy, Haoyin Zhou, Katherine Frazee, Rahul Pal, Jayender Jagadeesan, Anand T. N. Kumar
Presenter: Anand Kumar, Mass Eye and Ear & Harvard Medical School, United States

A86 (Wed-PM) **Structure-Aware Cross-Modal Prompt Tuning for Autonomous Bronchoscopic Navigation**
Authors: Hao Fang, Zhuo Zeng, Jianwei Yang, Wenkang Fan, Xiongbiao Luo
Presenter: Hao Fang, Xiamen University, China

A91 (Wed-PM) **Sparsely Annotated Medical Image Segmentation via Cross-SAM of 3D and 2D Networks**
Authors: Huaqiang Su, Zaiyi Liu, Lisha Yao, Sunyun Li, Hun Lin, Guoliang Chen, Xin Chen, Haijun Lei, Baiying Lei
Presenter: Huaqiang Su, Shenzhen University, China

A96 (Wed-PM) **EndoPlanar: Deformable Planar-based Gaussian Splatting for Surgical Scene Reconstruction**
Authors: Thatphum Paonim, Chayapon Sasnarukkit, Natawut Nupairoj, Peerapon Vateekul
Presenter: Thatphum Paonim, Chulalongkorn University, Thailand

A101 (Wed-PM) **BridgeSplat: Bidirectionally Coupled CT and Non-Rigid Gaussian Splatting for Deformable Intraoperative Surgical Navigation**
Authors: Maximilian Fehrentz, Alexander Winkler, Thomas Heiliger, Nazim Haouchine, Christian Heiliger, Nassir Navab
Presenter: Maximilian Fehrentz, Technical University of Munich & Hospital of LMU Munich, Germany

A106 (Wed-PM) **From Sight to Skill: A Surgeon-Centered Augmented Reality System for Ureteroscopy Training**
Authors: Jumanh Atoum, Fangjie Li, Ayberk Acar, Nicholas L. Kavoussi, Jie Ying Wu
Presenter: Jumanh Atoum, Vanderbilt University, United States

A111 (Wed-PM) **NAVIUS: Navigated Augmented Reality Visualization for Ureteroscopic Surgery**
Authors: Ayberk Acar, Jumanh Atoum, Peter S. Connor, Clifford Pierre, Carisa N. Lynch, Nicholas L. Kavoussi, Jie Ying Wu
Presenter: Ayberk Acar, Vanderbilt University, United States

A116 (Wed-PM) **Augmented Reality-based Guidance with Deformable Registration in Head and Neck Tumor Resection**
Paper Highlight
Authors: Qingyun Yang, Fangjie Li, Jiayi Xu, Zixuan Liu, Sindhura Sridhar, Whitney Jin, Jennifer Du, Jon Heiselman, Michael Miga, Michael Topf, Jie Ying Wu
Presenter: Qingyun Yang, Vanderbilt University, United States

A121 (Wed-PM) **3D Dynamic Prediction of Missing Teeth in Diverse Patterns via Centroid-prompted Diffusion Model**
Paper Highlight
Authors: Zongrui Ji, Na Li, Peng Xue, Yi Dong, Lei Ma
Presenter: Lei Ma, Tongji University, China

A126 (Wed-PM) **Towards Patient-Specific Deformable Registration in Laparoscopic Surgery**
Authors: Alberto Neri, Nazim Haouchine, Veronica Penza, Leonardo S. Mattos
Presenter: Alberto Neri, Istituto Italiano di Tecnologia, Italy

A131 (Wed-PM) **F2PASeg: Feature Fusion for Pituitary Anatomy Segmentation in Endoscopic Surgery**
Authors: Lumin Chen, Zhiying Wu, Tianye Lei, Xuexue Bai, Ming Feng, Yuxi Wang, Gaofeng Meng, Zhen Lei, Hongbin Liu
Presenter: Zhiying Wu, Hong Kong Institute of Science & Innovation, Chinese Academy of Sciences, Hong Kong SAR

A136 (Wed-PM) **CSAP-Assist: Instrument-Agent Dialogue Empowered Vision-Language Models for Collaborative Surgical Action Planning**
Authors: Jie Zhang, Mengya Xu, Yiwei Wang, Qi Dou
Presenter: Mengya Xu, The Chinese University of Hong Kong, Hong Kong SAR

A141 (Wed-PM) **Unsupervised Cardiac Video Translation Via Motion Feature Guided Diffusion Model**

Paper Highlight
Authors: Swakshar Deb, Nian Wu, Frederick H. Epstein, Miaomiao Zhang
Presenter: Swakshar Deb, University of Virginia, United States

A146 (Wed-PM)
Temporal Differential Fields for 4D Motion Modeling via Image-to-Video Synthesis
Authors: Xin You, Minghui Zhang, Hanxiao Zhang, Jie Yang, Nassir Navab
Presenter: Xin You, Techinical University of Munich, Germany & Shanghai Jiao Tong University, China

A151 (Wed-PM)
FEAT: Full-Dimensional Efficient Attention Transformer for Medical Video Generation
Authors: Huihan Wang, Zhiwen Yang, Hui Zhang, Dan Zhao, Bingzheng Wei, Yan Xu
Presenter: Zhiwen Yang, Beihang University, China

A156 (Wed-PM)
Fairness-Aware vCDR-Controlled Generation for Glaucoma Diagnosis
Authors: Ziheng Wang, Shuran Yang, Wen Chen, Zhen Zhang, Mengyu Wang, Feixiang Zhou, Yu Tian, Meng Wang, Yitian Zhao, Yalin Zheng, Yanda Meng
Presenter: Ziheng Wang, University of Exeter, United Kingdom

A161 (Wed-PM)
CA-SAM2: SAM2-based Context-Aware Network with Auto-Prompting for Nuclei Instance Segmentation
Authors: Hanbin Huang, Hongliang He, Liying Xu, Xudong Zhu, Siwei Feng, Guohong Fu
Presenter: Hanbin Huang, Soochow University, China

A166 (Wed-PM)
Paper Highlight
Adaptation of Multi-modal Representation Models for Multi-task Surgical Computer Vision
Authors: Soham Walimbe, Britty Baby, Vinkle Srivastav, Nicolas Padoy
Presenter: Soham Walimbe, BITS Pilani Goa Campus, India

A171 (Wed-PM)
Paper Highlight
Ophora: A Large-Scale Data-Driven Text-Guided Ophthalmic Surgical Video Generation Model
Authors: Wei Li, Ming Hu, Guoan Wang, Lihao Liu, Kaijing Zhou, Junzhi Ning, Xin Guo, Zongyuan Ge, Lixu Gu, Junjun He
Presenter: Wei Li, Shanghai Jiao Tong University, China

A176 (Wed-PM)
BaMCo: Balanced Multimodal Contrastive Learning for Knowledge-Driven Medical VQA
Authors: Ziya Ata Yazıcı, Hazım Kemal Ekenel
Presenter: Ziya Ata Yazıcı, Istanbul Technical University, Turkey

A181 (Wed-PM)
Paper Highlight
Text-Guided Multi-Instance Learning for Scoliosis Screening via Gait Video Analysis
Authors: Haiqing Li, Yuzhi Guo, Feng Jiang, Thao M. Dang, Hehuan Ma, Qifeng Zhou, Jean Gao, Junzhou Huang
Presenter: Junzhou Huang, The University of Texas at Arlington, United States

A186 (Wed-PM)
RadAlign: Advancing Radiology Report Generation with Vision-Language Concept Alignment
Authors: Difei Gu, Yunhe Gao, Yang Zhou, Mu Zhou, Dimitris Metaxas
Presenter: Difei Gu, Rutgers University, United States

A191 (Wed-PM)
Dia-LLaMA: Towards Large Language Model-driven CT Report Generation
Authors: Zhixuan Chen, Luyang Luo, Yequan Bie, Hao Chen
Presenter: Zhixuan Chen, The Hong Kong University of Science and Technology, China

A196 (Wed-PM)
SPEC-CXR: Advancing Clinical Safety through Entity-Level Performance Evaluation of Chest X-ray Report Generation
Authors: Jung Oh Lee, Junwoo Cho, Junha Kim, Laurent Dillard, Tom van Sonsbeek, Arnaud A. A. Setio, Hyeonsoo Lee, Donggeun Yoo, Taesoo Kim
Presenter: Junwoo Cho, Lunit. Inc, Republic of Korea

A201 (Wed-PM)
Phrase-grounded Fact-checking for Automatically Generated Chest X-ray Reports
Authors: Razi Mahmood, Diego Machado-Reyes, Joy Wu, Parisa Kaviani, Ken C.L. Wong, Niharika D'Souza, Mannudeep Kalra, Ge Wang, Pingkun Yan, Tanveer Syeda-Mahmood
Presenter: Razi Mahmood, Rensselaer Polytechnic Institute, United States

A206 (Wed-PM)
Multi-Agent Collaboration for Integrating Echocardiography Expertise in Multi-Modal Large Language Models
Authors: Yi Qin, Dinusara Sasindu Gamage Nanayakkara, Xiaomeng Li
Presenter: Yi Qin, The Hong Kong University of Science and Technology, China

A211 (Wed-PM)
Thread the Needle: Genomics-guided Prompt-bridged Attention Model for Survival Prediction of Glioma based on MRI Images
Authors: Yi Zhong, Xubin Zheng, Xiongri Shen, Jiaqi Wang, Leilei Zhao, Zhenxi Song, Zhiguo Zhang
Presenter: Yi Zhong, Harbin Institute of Technology, China

A216 (Wed-PM)
Paper Highlight
Towards Robust Medical Image Referring Segmentation with Incomplete Textual Prompts
Authors: Qijie Wang, Xian Lin, Zengqiang Yan

Presenter: Xian Lin, Huazhong University of Science and Technology, China

A221 (Wed-PM)

OFF-CLIP: Improving Normal Detection Confidence in Radiology CLIP with Simple Off-Diagonal Term Auto-Adjustment
Authors: Junhyun Park, Chanyu Moon, Donghwan Lee, Kyungsu Kim, Minho Hwang
Presenter: Junhyun Park, Daegu Gyeongbuk Institute of Science and Technology, Republic of Korea

A226 (Wed-PM)

ViTexNet: Vision-Text Guided Dynamic Convolution Network for Medical Image Segmentation
Authors: Rahul Bhardwaj, Utkarsh Yashwant Tambe, Debanga Raj Neog
Presenter: Rahul Bhardwaj, Indian Institute of Technology Guwahati, India

A231 (Wed-PM)

More performant and scalable: Rethinking contrastive vision-language pre-training of radiology in the LLM era
Authors: Yingtai Li, Haoran Lai, Xiaoqian Zhou, Shuai Ming, Wenxin Ma, Wei Wei, S. Kevin Zhou
Presenter: Yingtai Li, University of Science and Technology of China, China

A236 (Wed-PM)

Longitudinal anatomical attention maps for recognizing diagnostic errors from radiologists' eye movements
Authors: Anna Anikina, Diliara Ibragimova, Tamerlan Mustafaev, Claudia Mello-Thoms, Bulat Ibragimov
Presenter: Anna Anikina, University of Copenhagen, Denmark

A241 (Wed-PM)

Diff-RRG: Longitudinal Disease-wise Patch Difference as Guidance for LLM-based Radiology Report Generation
Authors: Hannah Yun, Junyeong Maeng, Eunsong Kang, Heung-Il Suk
Presenter: Hannah Yun, Korea University, Republic of Korea

A246 (Wed-PM)

Vector-Quantization-Driven Active Learning for Efficient Multi-Modal Medical Segmentation with Cross-Modal Assistance
Authors: Xiaofei Du, Haoran Wang, Manning Wang, Zhijian Song
Presenter: Xiaofei Du, Fudan University, China

A251 (Wed-PM)

Multi-subject Orthogonal Sparse Matrix Decomposition Method for Extracting Individual Brain Functional Networks
Authors: Xingyu He, Vince D. Calhoun, Theo G. M. van Erp, Yuhui Du
Presenter: Xingyu He, Shanxi University, China

A256 (Wed-PM)
Paper Highlight

PathoPrompt: Cross-Granular Semantic Alignment for Medical Pathology Vision-Language Models
Authors: Runlin Huang, Haohui Liang, Hongmin Cai, Weipeng Zhuo, Wentao Fan, Weifeng Su
Presenter: Runlin Huang, Beijing Normal-Hong Kong Baptist University, China

A261 (Wed-PM)

Automated Detection of Abnormalities in Zebrafish Development
Authors: Sarath Sivaprasad, Hui-Po Wang, Anna-Lisa Jäckel, Jonas Baumann, Carole Baumann, Jennifer Herrmann, Mario Fritz
Presenter: Sarath Sivaprasad, CISPA Helmholtz Center for Information Security, Germany

A266 (Wed-PM)

Reducing Variability of Multiple Instance Learning Methods for Digital Pathology
Authors: Ali Mammadov, Loïc Le Folgoc, Guillaume Hocquet, Pietro Gori
Presenter: Ali Mammadov, LTCI, Télécom Paris, Institut Polytechnique De Paris, France

A271 (Wed-PM)

Enhancing Radiology Report Interpretation through Modality-Specific RadGraph Fine-Tuning
Authors: Haoyue Guan, Yuwei Dai, Shadi Afyouni, Alec Kain, Wen-Chi Hsu, Jiashu Cheng, Sophie Yao, Yuli Wang, Jing Wu, Rishitha Pulakhandam, Lin-mei Zhao, Chengzhang Zhu, Zhicheng Jiao, Craig Jones, Harrison Bai
Presenter: Harrison Bai, Johns Hopkins University, United States

A276 (Wed-PM)

Trustworthy Few-Shot Transfer of Medical VLMs through Split Conformal Prediction
Authors: Julio Silva-Rodríguez, Ismail Ben Ayed, Jose Dolz
Presenter: Julio Silva-Rodríguez, ÉTS Montréal, Canada

A281 (Wed-PM)

Exposing and Mitigating Calibration Biases and Demographic Unfairness in MLLM Few-Shot In-Context Learning for Medical Image Classification
Authors: Xing Shen, Justin Szeto, Mingyang Li, Hengguan Huang, Tal Arbel
Presenter: Tal Arbel, McGill University, Canada

A286 (Wed-PM)

Teaching pathology foundation models to accurately predict gene expression with parameter efficient knowledge transfer
Authors: Shi Pan, Jianan Chen, Maria Secrier
Presenter: Shi Pan, University College London, United Kingdom

A291 (Wed-PM)
PMIL: Prompt enhanced Multimodal Integrative analysis of fMRI combining functional connectivity and temporal Latency
Authors: Hyoungshin Choi, Jonghun Kim, Jiwon Chung, Bo-yong Park, Hyunjin Park
Presenter: Hyoungshin Choi, Sungkyunkwan University, Republic of Korea

A296 (Wed-PM)
Resolving the Overlap of Macrovascular and Microvascular Flow Components in Digital Subtraction Angiography for Cerebral Reperfusion Assessment
Authors: Chengchuan Wu, Catherine Davey, Gagan Sharma, Felix Ng
Presenter: Chengchuan Wu, The University of Melbourne, Australia

A301 (Wed-PM)
FluoroSAM: A Language-promptable Foundation Model for Flexible X-ray Image Segmentation
Authors: Benjamin D. Killeen, Liam J. Wang, Blanca Iñígo, Han Zhang, Mehran Armand, Russell H. Taylor, Greg Osgood, Mathias Unberath
Presenter: Benjamin Killeen, Johns Hopkins University, United States

A306 (Wed-PM)
Pathology-aware Virtual H&E Staining of Section-free Thick Tissues with Semantic Contrastive Guidance
Authors: Jintaek Oh, Lulin Shi, Terence T. W. Wong
Presenter: Jintaek Oh, The Hong Kong University of Science and Technology, Hong Kong SAR

A311 (Wed-PM)
Unleashing the Power of LLMs for Medical Video Answer Localization
Authors: Junbin Xiao, Qingyun Li, Yusen Yang, Liang Qiu, Angela Yao
Presenter: Junbin Xiao, National University of Singapore, Singapore

A316 (Wed-PM)
Refining Cervical Cell Classification with Cytological Knowledge and Optimal Attribute Descriptor Matching
Authors: Manman Fei, Zhenrong Shen, Mengjun Liu, Zhiyun Song, Yusong Sun, Xu Han, Zelin Liu, Haotian Jiang, Lu Bai, Qian Wang, Lichi Zhang
Presenter: Manman Fei, Shanghai Jiao Tong University, China

A321 (Wed-PM)
Paper Highlight
Med-BiasX: Robust Medical Visual Question Answering with Language Biases
Authors: Huanjia Zhu, Yishu Liu, Chengju Zhou, Guangming Lu, Bingzhi Chen
Presenter: Yishu Liu, Harbin Institute of Technology, China

A326 (Wed-PM)
Paper Highlight
HyperPath: Knowledge-Guided Hyperbolic Semantic Hierarchy Modeling for WSI Analysis
Authors: Peixiang Huang, Yanyan Huang, Weiqin Zhao, Junjun He, Lequan Yu
Presenter: Peixiang Huang, The University of Hong Kong, Hong Kong SAR

A331 (Wed-PM)
XOCT: Enhancing OCT to OCTA Translation via Cross-Dimensional Supervised Multi-Scale Feature Learning
Authors: Pooya Khosravi, Kun Han, Anthony T. Wu, Arghavan Rezvani, Zexin Feng, Xiaohui Xie
Presenter: Pooya Khosravi, University of California, Irvine, United States

A336 (Wed-PM)
MedVLM-R1: Incentivizing Medical Reasoning Capability of Vision-Language Models (VLMs) via Reinforcement Learning
Authors: Jiazhen Pan, Che Liu, Junde Wu, Fenglin Liu, Jiayuan Zhu, Hongwei Bran Li, Chen Chen, Cheng Ouyang, Daniel Rueckert
Presenter: Jiazhen Pan, Technical University of Munich, Germany

A341 (Wed-PM)
DualPrompt-MedCap: A Dual-Prompt Enhanced Approach for Medical Image Captioning
Authors: Yining Zhao, Mukesh Prasad, Ali Braytee
Presenter: Yining Zhao, The University of Technology Sydney, Australia

A346 (Wed-PM)
Surface-based Multi-Axis Longitudinal Disentanglement Using Contrastive Learning for Alzheimer's Disease
Authors: Jianwei Zhang, Yonggang Shi
Presenter: Yonggang Shi, University of Southern California, United States

A351 (Wed-PM)
BiasICL: In-Context Learning and Demographic Biases of Vision Language Models
Authors: Sonnet Xu, Joseph D. Janizek, Yixing Jiang, Roxana Daneshjou
Presenter: Sonnet Xu, Stanford University, United States

A356 (Wed-PM)
Paper Highlight
Meta-analysis guided multi-task graph transformer network for diagnosis of neurological disease and cognitive deficits
Authors: Jing Xia, Yi Hao Chan, Jagath C. Rajapakse
Presenter: Jing Xia, Nanyang Technological University, Singapore

B1 (Wed-PM)
Paper Highlight
Blood Pressure Assisted Cerebral Microbleed Segmentation via Meta-matching
Authors: Junmo Kwon, Jonghun Kim, Taehyeon Kim, Sang Won Seo, Hwan-ho Cho, Hyunjin Park
Presenter: Junmo Kwon, Sungkyunkwan University, Republic of Korea

B6 (Wed-PM)
Paper Highlight
A Holistic Time-Aware Classification Model for Multimodal Longitudinal Patient Data
Authors: Tobias Susetzky, Huaqi Qiu, Rickmer Braren, Daniel Rueckert
Presenter: Tobias Susetzky, Technical University of Munich, Germany

B11 (Wed-PM)
Paper Highlight
Multimodal Fusion Network with Distribution-based Tumor-Marker Imputation for Multi-Origin Metastatic Cervical Lymphadenopathy Classification
Authors: Rui Li, Chunyan Li, Xi Lin, Jinfeng Xu, Fang Li, Yao Lu
Presenter: Rui Li, Sun Yat-sen University, China

B16 (Wed-PM)
Paper Highlight
tHPM-LDM: Integrating Individual Historical Record with Population Memory in Latent Diffusion-based Glaucoma Forecasting
Authors: Yuheng Fan, Jianyang Xie, Yimin Luo, Yanda Meng, Savita Madhusudhan, Gregory Y.H. Lip, Li Cheng, Yalin Zheng, He Zhao
Presenter: Yuheng Fan, University of Liverpool, United Kingdom

B21 (Wed-PM)
Paper Highlight
Multi-expert collaboration and knowledge enhancement network for multimodal emotion recognition
Authors: Kun Wang, Junyong Zhao, Liying Zhang, Qi Zhu, Daoqiang Zhang
Presenter: Kun Wang, Nanjing University of Aeronautics and Astronautics, China

B26 (Wed-PM)
MrTrack: Register Mamba for Needle Tracking with Rapid Reciprocating Motion during Ultrasound-Guided Aspiration Biopsy
Authors: Yuelin Zhang, Qingpeng Ding, Long Lei, Yongxuan Feng, Raymond Shing-Yan Tang, Shing Shin Cheng
Presenter: Yuelin Zhang, The Chinese University of Hong Kong, Hong Kong SAR

B31 (Wed-PM)
Cycle Context Verification for In-Context Medical Image Segmentation
Authors: Shishuai Hu, Zehui Liao, Liangli Zhen, Huazhu Fu, Yong Xia
Presenter: Shishuai Hu, Northwestern Polytechnical University, China

B36 (Wed-PM)
Adaptive Spatial Transcriptomics Interpolation via Cross-modal Cross-slice Modeling
Authors: Ningfeng Que, Xiaofei Wang, Jingjing Chen, Yixuan Jiang, Chao Li
Presenter: Ningfeng Que, University of Dundee, United Kingdom

B41 (Wed-PM)
MNM: Multi-level Neuroimaging Meta-analysis with Hyperbolic Brain-Text Representations
Authors: Seunghun Baek, Jaejin Lee, Jaeyoon Sim, Minjae Jeong, Won Hwa Kim
Presenter: Seunghun Baek, Pohang University of Science and Technology, Republic of Korea

B46 (Wed-PM)
Dual Correlation-aware Mamba for Microvascular Obstruction Identification in Non-contrast Cine Cardiac Magnetic Resonance
Authors: Yige Yan, Jun Cheng, Xulei Yang, Shuang Leng, Ru San Tan, Liang Zhong, Jagath C. Rajapakse
Presenter: Yige Yan, Nanyang Technological Univerisity, Singapore

B51 (Wed-PM)
Paper Highlight
Multi-Agent Reasoning for Cardiovascular Imaging Phenotype Analysis
Authors: Weitong Zhang, Mengyun Qiao, Chengqi Zang, Steven Niederer, Paul M. Matthews, Wenjia Bai, Bernhard Kainz
Presenter: Weitong Zhang, Imperial College London, United Kingdom

B56 (Wed-PM)
PRETI: Patient-Aware Retinal Foundation Model via Metadata-Guided Representation Learning
Authors: Yeonkyung Lee, Woojung Han, Youngjun Jun, Hyeonmin Kim, Jungkyung Cho, Seong Jae Hwang
Presenter: Yeonkyung Lee, Yonsei University, Republic of Korea

B61 (Wed-PM)
MicroMIL: Graph-Based Multiple Instance Learning for Context-Aware Diagnosis with Microscopic Images
Authors: JongWoo Kim, Bryan Wong, Huazhu Fu, Willmer Rafell Quiñones Robles, Young Sin Ko, Mun Yong Yi
Presenter: Bryan Wong, Korea Advanced Institute of Science & Technology, Republic of Korea

B66 (Wed-PM)
High-Precision Mixed Feature Fusion Network Using Hypergraph Computation for Cervical Abnormal Cell Detection
Authors: Jincheng Li, Danyang Dong, Menglin Zheng, Jingbo Zhang, Yueqin Hang, Lichi Zhang, Lili Zhao
Presenter: Jincheng Li, Nantong University, China

B71 (Wed-PM)
Co-Seg: Mutual Prompt-Guided Collaborative Learning for Tissue and Nuclei Segmentation
Authors: Qing Xu, Wenting Duan, Zhen Chen
Presenter: Qing Xu, University of Nottingham, United Kingdom

B76 (Wed-PM)
MG-UNet: A Memory-Guided UNet for Lesion Segmentation in Chest Images
Authors: Shuaipeng Ding, Mingyong Li, Chao Wang
Presenter: Shuaipeng Ding, Chongqing Normal University, China

B81 (Wed-PM)
Hybrid-View Attention Network for Clinically Significant Prostate Cancer Classification in Transrectal Ultrasound
Authors: Zetian Feng, Juan Fu, Xuebin Zou, Hongsheng Ye, Hong Wu, Jianhua Zhou, Yi Wang
Presenter: Zetian Feng, Shenzhen University, China

B86 (Wed-PM)
Lymph Node Metastasis Classification with Prototype-guided Multiple Instance Aggregation and Heterogeneous Feature Fusion
Authors: Haoshen Li, Tashan Ai, Yirui Wang, Zhanghexuan Ji, Qinji Yu, Le Lu, Bin Dong, Li Zhang, Xianghua Ye, Kuaile Zhao, Dakai Jin
Presenter: Haoshen Li, Peking University, China

B91 (Wed-PM)
Global and Local Contrastive Learning for Joint Representations from Cardiac MRI and ECG
Authors: Alexander Selivanov, Philip Müller, Özgün Turgut, Nil Stolt-Ansó, Daniel Rueckert
Presenter: Alexander Selivanov, Technical University of Munich, Germany

B96 (Wed-PM)
EdgeANet: A Transformer-based Edge Representation Learning Network for Canine X-ray Verification
Authors: In-Gyu Lee, Jun-Young Oh, Hyewon Choi, Tae-Eui Kam, Namsoon Lee, Sang-Hwan Hyun, Euijong Lee, Ji-Hoon Jeong
Presenter: Jun-Young Oh, Chungbuk National University, Republic of Korea

B101 (Wed-PM)
Paper Highlight
Learning Concept-Driven Logical Rules for Interpretable and Generalizable Medical Image Classification
Authors: Yibo Gao, Hangqi Zhou, Zheyao Gao, Bomin Wang, Shangqi Gao, Sihan Wang, Xiahai Zhuang
Presenter: Yibo Gao, Fudan University, China

B106 (Wed-PM)
Paper Highlight
A Curvature-Guided Diffeomorphic Mesh Deformation Framework for Lifespan Brain Cortical Surface Reconstruction
Authors: Lin Teng, Shen Zhao, Feng Shi, Dinggang Shen
Presenter: Lin Teng, ShanghaiTech University, China

B111 (Wed-PM)
RadiomicsRetrieval: A Customizable Framework for Medical Image Retrieval Using Radiomics Features
Authors: Inye Na, Nejung Rue, Jiwon Chung, Hyunjin Park
Presenter: Inye Na, Sungkyunkwan University, Republic of Korea

B116 (Wed-PM)
DGMIR: Dual-Guided Multimodal Medical Image Registration based on Multi-view Augmentation and On-site Modality Removal
Authors: Gao Le, Yucheng Shu, Lihong Qiao, Lijian Yang, Bin Xiao, Weisheng Li, Xinbo Gao
Presenter: Gao Le, Chongqing University of Posts and Telecommunications, China

B121 (Wed-PM)
XFMamba: Cross-Fusion Mamba for Multi-View Medical Image Classification
Authors: Xiaoyu Zheng, Xu Chen, Shaogang Gong, Xavier Griffin, Greg Slabaugh
Presenter: Xiaoyu Zheng, Queen Mary University of London, United Kingdom

B126 (Wed-PM)
Accurate and Efficient Fetal Birth Weight Estimation from 3D Ultrasound
Authors: Jian Wang, Qiongying Ni, Hongkui Yu, Ruixuan Yao, Jinqiao Ying, Bin Zhang, Xingyi Yang, Jin Peng, Jiongquan Chen, Junxuan Yu, Wenlong Shi, Chaoyu Chen, Zhongnuo Yan, Mingyuan Luo, Gaocheng Cai, Dong Ni, Jing Lu, Xin Yang
Presenter: Qiongying Ni, Shenzhen University, China

B131 (Wed-PM)
HAGE: Hierarchical Alignment Gene-Enhanced Pathology Representation Learning with Spatial Transcriptomics
Authors: Thao M. Dang, Haiqing Li, Yuzhi Guo, Hehuan Ma, Feng Jiang, Yuwei Miao, Qifeng Zhou, Jean Gao, Junzhou Huang
Presenter: Thao M. Dang, The University of Texas at Arlington, United States

B136 (Wed-PM)
TemSAM: Temporal-aware Segment Anything Model for Cerebrovascular Segmentation in Digital Subtraction Angiography Sequences
Authors: Liang Zhang, Xixi Jiang, Xiaohuan Ding, Zihang Huang, Tianyu Zhao, Xin Yang
Presenter: Liang Zhang, Huazhong University of science and technology, China

B141 (Wed-PM)
C²MAOT: Cross-modal Complementary Masked Autoencoder with Optimal Transport for Cancer Segmentation in PET-CT Images
Authors: Jiaju Huang, Shaobin Chen, Xinglong Liang, Xiao Yang, Zhuoneng Zhang, Yue Sun, Ying Wang, Tao Tan

Presenter: Jiaju Huang, Macao Polytechnic University, China

B146 (Wed-PM) **Omni-Fusion of Spatial and Spectral for Hyperspectral Image Segmentation**
Authors: Qing Zhang, Guoquan Pei, Yan Wang
Presenter: Qing Zhang, East China Normal University, China

B151 (Wed-PM) **TMSE: Tri-Modal Survival Estimation with Context-aware Tissue Prototype and Attention-Entropy Interaction**
Authors: Ruofan Zhang, Mengjie Fang, Shengyuan Liu, Zipei Wang, Jie Tian, Di Dong
Presenter: Ruofan Zhang, CAS Key Laboratory of Molecular Imaging, Institute of Automation, Chinese Academy of Sciences, China

B156 (Wed-PM) **MiCo: Multiple Instance Learning with Context-Aware Clustering for Whole Slide Image Analysis**
Authors: Junjian Li, Jin Liu, Hulin Kuang, Hailin Yue, Mengshen He, Jianxin Wang
Presenter: Junjian Li, Central South University, China

B161 (Wed-PM) **Top-Down Attention-based Multiple Instance Learning for Whole Slide Image Analysis**
Authors: Daniel Reisenbüchler, Ruining Deng, Christian Matek, Friedrich Feuerhake, Dorit Merhof
Presenter: Daniel Reisenbüchler, University of Regensburg, Germany

B166 (Wed-PM) **MambaMER: Adaptive EEG-Guided Multimodal Emotion Recognition with Mamba**
Authors: Xiangle Ping, Wenhui Huang, Yuanjie Zheng
Presenter: Wenhui Huang, Shandong Normal University, China

B171 (Wed-PM) **Location-Aware Parameter Fine-Tuning for Multimodal Image Segmentation**
Authors: Sicong Gao, Maurice Pagnucco, Yang Song
Presenter: Yang Song, The University of New South Wales, Australia

B176 (Wed-PM) **SAMASK-CLTR : A spatial-aware mask guided learning model for benign and malignant tumor classification in ABUS**
Authors: Peirong Xu, Luoqian Zhu, Jingkun Chen, Xin Qian, Yue Sun, Lingyun Bao, Tao Tan
Presenter: Peirong Xu, Macao Polytechnic University, China

B181 (Wed-PM) **A Composite Alignment-Aware Framework for Myocardial Lesion Segmentation in Multi-sequence CMR Images**
Authors: Yifan Gao, Shaohao Rui, Haoyang Su, Jinyi Xiang, Lianming Wu, Xiaosong Wang
Presenter: Yifan Gao, University of Science and Technology of China, China

B186 (Wed-PM) **Small Lesions-aware Bidirectional Multimodal Multiscale Fusion Network for Lung Disease Classification**
Authors: Jianxun Yu, Ruiquan Ge, Zhipeng Wang, Cheng Yang, Chenyu Lin, Xianjun Fu, Jikui Liu, Ahmed Elazab, Changmiao Wang
Presenter: Jikui Liu, Shenzhen Polytechnic University, China

B191 (Wed-PM) **Knowledge Bridges the Intent Gap: Contextual Fusion in Medical Fine-Grained Segmentation**
Authors: Hengyuan Zhang, Peng Qiao, Wenyu Li, Yan Jia, Yong Dou
Presenter: Hengyuan Zhang, National University of Defense Technology, China

B196 (Wed-PM) **CENet: Context Enhancement Network for Medical Image Segmentation**
Authors: Afshin Bozorgpour, Sina Ghorbani Kolahi, Reza Azad, Ilker Hacihaliloglu, Dorit Merhof
Presenter: Afshin Bozorgpour, University of Regensburg, Germany

B201 (Wed-PM) **Predicting Femoral Head Collapse Risk in Osteonecrosis Using Label Tokenization: A Multi-Modality Survival Analysis Approach**
Authors: Ganping Li, Yoshito Otake, Yuito Kameda, Keisuke Uemura, Kazuma Takashima, Hirokazu Mae, Sotaro Kono, Hidetoshi Hamada, Seiji Okada, Nobuhiko Sugano, Yoshinobu Sato
Presenter: Yoshinobu Sato, Nara Medical University, Japan

B206 (Wed-PM) **Anatomy-Aware Frequency-Attention Transformer Networks for Liver Couinaud CT/MR Segmentation**
Authors: Wenkang Fan, Hao Fang, Rui Li, Yanduan Lin, Chao An, Xiongbiao Luo
Presenter: Wenkang Fan, Xiamen University, China

B211 (Wed-PM) **Self-Supervised Multiview Xray Matching**
Authors: Mohamad Dabboussi, Malo Huard, Yann Gousseau, Pietro Gori
Presenter: Mohamad Dabboussi, Milvue - Telecom Paris, France

B216 (Wed-PM) **Time-Contrastive Pretraining for In-Context Image and Video Segmentation**
Authors: Assefa Wahd, Jacob Jaremko, Abhilash Hareendranathan
Presenter: Assefa Wahd, University of Alberta, Canada

B221 (Wed-PM) **EEG-DINO: Learning EEG Foundation Models via Hierarchical Self-Distillation**
Authors: Xujia Wang, Xuhui Liu, Xi Liu, Qian Si, Zhaoliang Xu, Yang Li, Xiantong Zhen
Presenter: Xujia Wang, United Imaging Healthcare, Co., Ltd, China

B226 (Wed-PM) **Diffusion-based Virtual Staining from Polarimetric Mueller Matrix Imaging**
Authors: Xiaoyu Zheng, Jing Wen, Jiaxin Zhuang, Yao Du, Jing Cong, Limei Guo, Lin Luo, Chao He, Hao Chen
Presenter: Xiaoyu Zheng, Hong Kong University of Science and Technology, Hong Kong SAR

B231 (Wed-PM) **Meta-Learning Physics-Informed Neural Networks for Personalized Cardiac Modeling**
Authors: Maryam Toloubidokhti, Ryan Missel, Shichang Lian, Linwei Wang
Presenter: Linwei Wang, Rochester Institute of Technology, United States

B236 (Wed-PM) **Hierarchical Self-Supervised Adversarial Training for Robust Vision Models in Histopathology**
Authors: Hashmat Shadab Malik, Shahina Kunhimon, Muzammal Naseer, Fahad Shahbaz Khan, Salman Khan
Presenter: Hashmat Shadab Malik, Mohamed Bin Zayed University of Artificial Intelligence, United Arab Emirates

B241 (Wed-PM) **CATVis: Context-Aware Thought Visualization**
Paper Highlight
Authors: Tariq Mehmood, Hamza Ahmad, Muhammad Haroon Shakeel, Murtaza Taj
Presenter: Hamza Ahmad, Forman Christian College University, Pakistan

B246 (Wed-PM) **PDF-Net: Prototype-Aware Dynamic Fusion Network for Nasopharyngeal Carcinoma T-staging Classification with Epstein-Barr Virus DNA**
Authors: Wantong Lu, Xu Han, Yibo Wei, Zanting Ye, Lijun Lu
Presenter: Wantong Lu, Southern Medical University, China

B251 (Wed-PM) **Attention-Guided Vector Quantized Variational Autoencoder for Brain Tumor Segmentation**
Authors: Danish Ali, Ajmal Mian, Naveed Akhtar, Ghulam Mubashar Hassan
Presenter: Danish Ali, The University of Western Australia, Australia

B256 (Wed-PM) **Frequency-enhanced Multi-granularity Context Network for Efficient Vertebrae Segmentation**
Authors: Jian Shi, Tianqi You, Pingping Zhang, Hongli Zhang, Rui Xu, Haojie Li
Presenter: Jian Shi, Dalian University of Technology, China

B261 (Wed-PM) **IKAN: Interactive KAN with Modulation Fusion for Medical Image Segmentation**
Authors: Sihan Liu, Tonghua Wan, Yuxin Cai, Shengcai Chen, Bo Hu, Yan Wan, Wu Qiu
Presenter: Sihan Liu, Huazhong University of Science and Technology, China

B266 (Wed-PM) **Wavelet-driven Decoupling and Physics-informed Mapping Network for Accelerated Multi-parametric MR Imaging**
Authors: Ruilong Dan, Kaicong Sun, Yichen Zhou, Minqiang Jia, Yuxuan Liu, Han Zhang, Xiaopeng Zong, Dinggang Shen
Presenter: Ruilong Dan, ShanghaiTech University, China

B271 (Wed-PM) **Pre-to-Post Operative MRI Generation with Retrieval-based Visual In-Context Learning**
Authors: Bogyeong Kang, Sang-Jun Park, Minjoo Lim, Myeongkyun Kang, Keun-Soo Heo, Ji-Hye Oh, Hyun Jung Lee, Tae-Eui Kam
Presenter: Bogyeong Kang, Korea University, Republic of Korea

B276 (Wed-PM) **Physics-Informed Neural ODEs for Temporal Dynamics Modeling in Cardiac T1 Mapping**
Paper Highlight
Authors: Nuno Capitão, Yi Zhang, Yidong Zhao, Qian Tao
Presenter: Qian Tao, Delft University of Technology, The Netherlands

B281 (Wed-PM) **CBrain: Cross-Modal Learning for Brain Vigilance Detection in Resting-State fMRI**
Authors: Chang Li, Yamin Li, Haatef Pourmotabbed, Shengchao Zhang, Jorge A. Salas, Sarah E. Goodale, Roza G. Bayrak, Catie Chang
Presenter: Sarah E. Goodale, Vanderbilt University, United States

B286 (Wed-PM) **RegScore: Scoring Systems for Regression Tasks**
Authors: Michal K. Grzeszczyk, Tomasz Szczepański, Pawel Renc, Siyeop Yoon, Jerome Charton, Tomasz Trzciński, Arkadiusz Sitek
Presenter: Michal K. Grzeszczyk, Sano Centre for Computational Medicine, Poland

B291 (Wed-PM) **Surface Vision Mamba: Leveraging Bidirectional State Space Model for Efficient Spherical Manifold Representation**
Authors: Rongzhao He, Weihao Zheng, Leilei Zhao, Ying Wang, Dalin Zhu, Dan Wu, Bin Hu
Presenter: Rongzhao He, Lanzhou University, China

B296 (Wed-PM) **You Can Detect It: Fetal Biometric Estimation Using Ellipse Detection**
Authors: Hongyuan Zhang, Haoyu Xie, Tingting Ye, Songxiong Wu
Presenter: Hongyuan Zhang, Hong Kong Institute of Science & Innovation, Hong Kong SAR

B301 (Wed-PM) **Non-Invasive TB Detection using Acoustic and Semantic Features from Cough Sounds**
Authors: Yasmeena Akhter, Rishabh Ranjan, Bikash Dutta, Mayank Vatsa, Richa Singh
Presenter: Yasmeena Akhter, Indian Institute of Technology Jodhpur, India

B306 (Wed-PM) **MSGFlowNet: Learning Effective Connectivity Network based on Sparse Generative Flow Network from fMRI and EEG Data**
Authors: Zhihao Su, Jihao Zhai, Junzhong Ji, Jinduo Liu
Presenter: Jinduo Liu, Beijing University of Technology, China

B311 (Wed-PM) **RIFNet: Bridging Modalities for Accurate and Detailed Ocular Disease Analysis**
Authors: Yuqing Li, Qingshan Hou, Peng Cao, Jianguo Ju, Tianqi Wang, Meng Wang, Ke Zou, Yih Chung Tham, Huazhu Fu, Osmar R. Zaiane
Presenter: Osmar Zaiane, Northeastern University, China

B316 (Wed-PM) **DCKAN: A Dual-Coordinate KAN Framework for Fibrous Cap Segmentation on Carotid OCT**
Authors: Tonghua Wan, Sihan Liu, Yuxin Cai, Shengcai Chen, Yan Wan, Bo Hu, Wu Qiu
Presenter: Wu Qiu, Huazhong University of Science and Technology, China

B321 (Wed-PM) **A Multimodal Contrastive Learning for Detecting Aortic Dissection on 3D Non-Contrast CT with Anatomy Simplification**
Paper Highlight
Authors: Duoer Zhang, Wenbo Xiao, Chen Jiang, Yuxuan Qiu, Zhan Feng, Hong Wang, Yefeng Zheng, Wentao Zhu
Presenter: Duoer Zhang, Zhejiang Lab, China

B326 (Wed-PM) **MedGround-R1: Advancing Medical Image Grounding via Spatial-Semantic Rewarded Group Relative Policy Optimization**
Paper Highlight
Authors: Huihui Xu, Yuanpeng Nie, Hualiang Wang, Ying Chen, Wei Li, Junzhi Ning, Lihao Liu, Hongqiu Wang, Lei Zhu, Jiyao Liu, Xiaomeng Li, Junjun He
Presenter: Huihui Xu, Shanghai AI Lab, China

B331 (Wed-PM) **Adaptive Embedding for Long-Range High-Order Dependencies via Time-Varying Transformer on fMRI**
Authors: Rundong Xue, Xiangmin Han, Hao Hu, Zeyu Zhang, Shaoyi Du, Yue Gao
Presenter: Rundong Xue, Xi'an Jiaotong University, China

B336 (Wed-PM) **MM-DINOv2: Adapting Foundation Models for Multi-Modal Medical Image Analysis**
Authors: Daniel Scholz, Ayhan Can Erdur, Viktoria Ehm, Anke Meyer-Baese, Jan C. Peeken, Daniel Rueckert, Benedikt Wiestler
Presenter: Daniel Scholz, Technical University of Munich, Germany

C1 (Wed-PM) **WSI-Agents: A Collaborative Multi-Agent System for Multi-Modal Whole Slide Image Analysis**
Paper Highlight
Authors: Xinheng Lyu, Yuci Liang, Wenting Chen, Meidan Ding, Jiaqi Yang, Guolin Huang, Daokun Zhang, Xiangjian He, Linlin Shen
Presenter: Xinheng Lyu, University of Nottingham Ningbo China, China

C6 (Wed-PM) **Location-Guided Automated Lesion Captioning in Whole-body PET/CT Images**
Authors: Mingyang Yu, Yaozong Gao, Yiran Shu, Yanbo Chen, Jingyu Liu, Caiwen Jiang, Kaicong Sun, Zhiming Cui, Weifang Zhang, Yiqiang Zhan, Xiang Sean Zhou, Shaonan Zhong, Xinlu Wang, Meixin Zhao, Dinggang Shen
Presenter: Mingyang Yu, ShanghaiTech University, China

C11 (Wed-PM) **LesionDiffusion: Towards Text-controlled General Lesion Synthesis**
Authors: Wenhui Lei, Hengrui Tian, Linrui Dai, Hanyu Chen, Xiaofan Zhang
Presenter: Linrui Dai, National Institute of Informatics, Japan

C16 (Wed-PM) **DentEval: Fine-tuning-Free Expert-Aligned Assessment in Dental Education via LLM Agents**
Authors: Xinyu Deng, Vesna Miletic, Elvis Trinh, Jinlong Gao, Chang Xu, Daochang Liu
Presenter: Xinyu Deng, The University of Sydney, Australia

C21 (Wed-PM) **Explain Any Pathological Concept: Discovering Hierarchical Explanations for Pathology Foundation Models**
Authors: Shuting Xu, Junlin Hou, Hao Chen
Presenter: Shuting Xu, Nankai University, China

C26 (Wed-PM) **Knowledge Tree Driven Contextualized Instruction Tuning of Foundation Models for Epilepsy Drug Recommendation**

Authors: Duy Khoa Pham, Deval Mehta, Yiwen Jiang, Daniel Thom, Richard Shek-kwan Chang, Mohammad Nazem-Zadeh, Emma Foster, Timothy Fazio, Sarah Holper, Karin Verspoor, Jiahe Liu, Duong Nhu, Sarah Barnard, Terence O'Brien, Zhibin Chen, Jacqueline French, Patrick Kwan, Zongyuan Ge
Presenter: Duy Khoa Pham, Monash University, Australia

C31 (Wed-PM) **Restyled, Tuning, and Alignment: Taming VLMs for Federated Non-IID Medical Image Analysis**
Authors: Shengchao Chen, Ting Shu
Presenter: Ting Shu, Shenzhen University, China

C36 (Wed-PM) **Learning Segmentation from Radiology Reports**
Paper Highlight
Authors: Pedro R. A. S. Bassi, Wenxuan Li, Jieneng Chen, Zheren Zhu, Tianyu Lin, Sergio Decherchi, Andrea Cavalli, Kang Wang, Yang Yang, Alan L. Yuille, Zongwei Zhou
Presenter: Pedro R. A. S. Bassi, University of Bologna, Italy and Johns Hopkins University, United States

C41 (Wed-PM) **Vision-Amplified Semantic Entropy for Hallucination Detection in Medical Visual Question Answering**
Authors: Zehui Liao, Shishuai Hu, Ke Zou, Huazhu Fu, Liangli Zhen, Yong Xia
Presenter: Zehui Liao, Northwestern Polytechnical University, China

C46 (Wed-PM) **Cervical-RG: Automated Cervical Cancer Report Generation from 3D Multi-sequence MRI via CoT-guided Hierarchical Experts**
Paper Highlight
Authors: Hanwen Zhang, Yu Long, Yimeng Fan, Yu Wang, Zhaoyi Zhan, Sen Wang, Yuncheng Jiang, Rui Sun, Zheng Xing, Zhen Li, Xiaohui Duan, Weibing Zhao
Presenter: Hanwen Zhang, Beijing Institute of Technology, China

C51 (Wed-PM) **LEAVS: An LLM-based Labeler for Abdominal CT Supervision**
Paper Highlight
Authors: Ricardo Bigolin Lanfredi, Yan Zhuang, Mark Finkelstein, Praveen Thoppey Srinivasan Balamuralikrishna, Luke Krembs, Brandon Khoury, Arthi Reddy, Pritam Mukherjee, Neil M. Rofsky, Ronald M. Summers
Presenter: Ricardo Bigolin Lanfredi, National Institutes of Health, United States

C56 (Wed-PM) **MCA-RG: Enhancing LLMs with Medical Concept Alignment for Radiology Report Generation**
Authors: Qilong Xing, Zikai Song, Youjia Zhang, Na Feng, Junqing Yu, Wei Yang
Presenter: Qilong Xing, Huazhong University of Science and Technology, China

C61 (Wed-PM) **μ2 Tokenizer: Differentiable Multi-Scale Multi-Modal Tokenizer for Radiology Report Generation**
Authors: Siyou Li, Pengyao Qin, Huanan Wu, Dong Nie, Arun J. Thirunavukarasu, Juntao Yu, Le Zhang
Presenter: Siyou Li, Queen Mary University of London, United Kingdom

C66 (Wed-PM) **Text-driven Multiplanar Visual Interaction for Semi-supervised Medical Image Segmentation**
Authors: Kaiwen Huang, Yi Zhou, Huazhu Fu, Yizhe Zhang, Chen Gong, Tao Zhou
Presenter: Kaiwen Huang, Nanjing University of Science and Technology, China

C71 (Wed-PM) **CARE-VL: A Domain-Specialized Vision-Language Model for Early ASD Screening**
Authors: Cheol-Hwan Yoo, Jang-Hee Yoo, Jaeyoon Jang
Presenter: Cheol-Hwan Yoo, ETRI, Republic of Korea

C76 (Wed-PM) **Your other Left! Vision-Language Models Fail to Identify Relative Positions in Medical Images**
Authors: Daniel Wolf, Heiko Hillenhagen, Billurvan Taskin, Alex Bäuerle, Meinrad Beer, Michael Götz, Timo Ropinski
Presenter: Daniel Wolf, Ulm University, Germany

C81 (Wed-PM) **SimCroP: Radiograph Representation Learning with Similarity-driven Cross-granularity Pre-training**
Authors: Rongsheng Wang, Fenghe Tang, Qingsong Yao, Rui Yan, Xu Zhang, Zhen Huang, Haoran Lai, Zhiyang He, Xiaodong Tao, Zihang Jiang, S. Kevin Zhou
Presenter: Rongsheng Wang, University of Science and Technology of China, China

C86 (Wed-PM) **Configurable Platform for Biomedical Literature Mining via Multimodal-Driven Extraction**
Authors: Xinpan Yuan, Bozhao Li, Guihu Zhao, Yueming Wang, Liujie Hua, Junhua Kuang, Jianguo Chen, Shaomin Xie, Gan Li
Presenter: Bozhao Li, Hunan University of Technology, China

C91 (Wed-PM) **RetFiner: A Vision-Language Refinement Scheme for Retinal Foundation Models**
Authors: Ronald Fecso, José Morano, Ursula Schmidt-Erfurth, Hrvoje Bogunović
Presenter: Ronald Fecso, Medical University of Vienna, Austria

C96 (Wed-PM)
Unleashing Vision Foundation Models for Coronary Artery Segmentation: Parallel ViT-CNN Encoding and Variational Fusion
Authors: Caixia Dong, Duwei Dai, Xinyi Han, Fan Liu, Xu Yang, Zongfang Li, Songhua Xu
Presenter: Caixia Dong, The Second Affiliated Hospital of Xi'an Jiaotong University, China

C101 (Wed-PM)
Paper Highlight
Historical Report Guided Bi-modal Concurrent Learning for Pathology Report Generation
Authors: Ling Zhang, Boxiang Yun, Qingli Li, Yan Wang
Presenter: Ling Zhang, East China Normal University, China

C106 (Wed-PM)
Medical Large Vision Language Models with Multi-Image Visual Ability
Authors: Xikai Yang, Juzheng Miao, Yuchen Yuan, Jiaze Wang, Qi Dou, Jinpeng Li, Pheng-Ann Heng
Presenter: Xikai Yang, The Chinese University of Hong Kong, Hong Kong SAR

C111 (Wed-PM)
Delving into Out-of-Distribution Detection with Medical Vision-Language Models
Authors: Lie Ju, Sijin Zhou, Yukun Zhou, Huimin Lu, Zhuoting Zhu, Pearse A. Keane, Zongyuan Ge
Presenter: Lie Ju, Monash University, Australia

C116 (Wed-PM)
MVP-LLMs: Optimizing Intervention Timing and Subsequent Decision Support for Mechanical Ventilation Parameter Control Using Large Language Models
Authors: Teqi Hao, Xiaoyu Tan, Bin Li, Xuemin Wang, Chao Qu, Yinghui Xu, Xihe Qiu
Presenter: Teqi Hao, Shanghai University of Engineering Science, China

C121 (Wed-PM)
Continual Retinal Vision-Language Pre-training upon Incremental Imaging Modalities
Authors: Yuang Yao, Ruiqi Wu, Yi Zhou, Tao Zhou
Presenter: Yuang Yao, Southeast University, China

C126 (Wed-PM)
MAKE: Multi-Aspect Knowledge-Enhanced Vision-Language Pretraining for Zero-shot Dermatological Assessment
Authors: Siyuan Yan, Xieji Li, Ming Hu, Yiwen Jiang, Zhen Yu, Zongyuan Ge
Presenter: Siyuan Yan, Monash University, Australia

C131 (Wed-PM)
Hierarchical Vision-Language Learning for Medical Out-of-Distribution Detection
Authors: Runhe Lai, Xinhua Lu, Kanghao Chen, Qichao Chen, Wei-Shi Zheng, Ruixuan Wang
Presenter: Runhe Lai, Sun Yat-sen University, China

C136 (Wed-PM)
Fair-MoE: Medical Fairness-Oriented Mixture of Experts in Vision-Language Models
Authors: Peiran Wang, Linjie Tong, Jian Wu, Jiaxiang Liu, Zuozhu Liu
Presenter: Linjie Tong, University of Illinois Urbana-Champaign, United States

C141 (Wed-PM)
HiLa: Hierarchical Vision-Language Collaboration for Cancer Survival Prediction
Authors: Jiaqi Cui, Lu Wen, Yuchen Fei, Bo Liu, Luping Zhou, Dinggang Shen, Yan Wang
Presenter: Jiaqi Cui, Sichuan University, China

C146 (Wed-PM)
RadIR: A Scalable Framework for Multi-Grained Medical Image Retrieval via Radiology Report Mining
Authors: Tengfei Zhang, Ziheng Zhao, Chaoyi Wu, Xiao Zhou, Ya Zhang, Yanfeng Wang, Weidi Xie
Presenter: Ziheng Zhao, Shanghai Jiao Tong University, China

C151 (Wed-PM)
V2T-CoT: From Vision to Text Chain-of-Thought for Medical Reasoning and Diagnosis
Authors: Yuan Wang, Jiaxiang Liu, Shujian Gao, Bin Feng, Zhihang Tang, Xiaotang Gai, Jian Wu, Zuozhu Liu
Presenter: Yuan Wang, Zhejiang University, China

C156 (Wed-PM)
PromptReg: Universal Medical Image Registration via Task Prompt Learning and Domain Knowledge Transfer
Authors: Housheng Xie, Xiaoru Gao, Guoyan Zheng
Presenter: Housheng Xie, Shanghai Jiao Tong University, China

C161 (Wed-PM)
Paper Highlight
RAPTOR: Generative AI for Parsing Colorectal Cancer Referrals to Streamline Faster Diagnostic Standard Pathways
Authors: Sofiat Abioye, Shazad Ashraf, Junaid Qadir, Adam Byfield, Anusha Jose, William Poulett, Ben Wallace, Adil Butt, Colm Forde, Marcus Mottershead, Simon Fallis, Andrew Beggs, Aneel Bhangu, Lukman Akanbi, Muhammad Bilal
Presenter: Sofiat Abioye, Birmingham City University, United Kingdom

C166 (Wed-PM)
Paper Highlight
RRG-DPO: Direct Preference Optimization for Clinically Accurate Radiology Report Generation
Authors: Hong Liu, Dong Wei, Zhe Xu, Xian Wu, Yefeng Zheng, Liansheng Wang
Presenters: Hong Liu, Xiamen University, China and Zhe Liu, The Chinese University of Hong Kong, Hong Kong SAR

C171 (Wed-PM)
Interactive Segmentation and Report Generation for CT Images

Authors: Yannian Gu, Wenhui Lei, Hanyu Chen, Shaoting Zhang, Xiaofan Zhang
Presenter: Xiaofan Zhang, Shanghai Jiao Tong University, China

C176 (Wed-PM) **PedCLIP: A Vision-Language model for Pediatric X-rays with Mixture of Body part Experts**
Authors: Ta Duc Huy, Abin Shoby, Sen Tran, Yutong Xie, Qi Chen, Phi Le Nguyen, Akshay Gole, Lingqiao Liu, Antonios Perperidis, Mark Friswell, Rebecca Linke, Andrea Glynn, Minh-Son To, Anton van den Hengel, Johan Verjans, Zhibin Liao, Minh Hieu Phan
Presenter: Ta Duc Huy, The University of Adelaide, Australia

C181 (Wed-PM) **MAARTA:Multi-Agentic Adaptive Radiology Teaching Assistant**
Authors: Akash Awasthi, Brandon V. Chung, Anh M. Vu, Ngan Le, Rishi Agrawal, Zhigang Deng, Carol Wu, Hien V. Nguyen
Presenter: Akash Awasthi, University of Houston, United States

C186 (Wed-PM) **Adapting Vision Foundation Models for Real-time Ultrasound Image Segmentation**
Paper Highlight
Authors: Xiaoran Zhang, Eric Z. Chen, Lin Zhao, Xiao Chen, Yikang Liu, Boris Maihe, James S. Duncan, Terrence Chen, Shanhui Sun
Presenter: Shanhui Sun, United Imaging Intelligence, United States

C191 (Wed-PM) **OpenPath: Open-Set Active Learning for Pathology Image Classification via Pre-trained Vision-Language Models**
Authors: Lanfeng Zhong, Xin Liao, Shichuan Zhang, Shaoting Zhang, Guotai Wang
Presenter: Lanfeng Zhong, University of Electronic Science and Technology of China, China

C196 (Wed-PM) **ITAdaptor: Image-Tag Adapter Framework with Knowledge Enhancement for Radiology Report Generation**
Authors: Shuaipeng Ding, Mengnan Fan, Mingyong Li, Chao Wang
Presenter: Mengnan Fan, Chongqing Normal University, China

C201 (Wed-PM) **TRRG: Towards Truthful Radiology Report Generation With Cross-modal Disease Clue Enhanced Large Language Models**
Paper Highlight
Authors: Yuhao Wang, Yue Sun, Tao Tan, Chao Hao, Yawen Cui, Xinqi Su, Weichen Xie, Linlin Shen, Zitong Yu
Presenter: Yuhao Wang, University of Science and Technology of China, China

C206 (Wed-PM) **Contrastive Knowledge-Guided Large Language Models for Medical Report Generation**
Authors: Yuyang Sha, Hongxin Pan, Weiyu Meng, Kefeng Li
Presenter: Yuyang Sha, Macao Polytechnic University, Macao SAR

C211 (Wed-PM) **Confidence Calibration for Multimodal LLMs: An Empirical Study through Medical VQA**
Authors: Yuetian Du, Yucheng Wang, Ming Kong, Tian Liang, Qiang Long, Bingdi Chen, Qiang Zhu
Presenter: Yuetian Du, Zhejiang University, China

C216 (Wed-PM) **Exploring Text-enhanced Mixture-of-Experts for Semi-supervised Medical Image Segmentation with Composite Data**
Authors: Qingjie Zeng, Huan Luo, Xinke Ma, Zilin Lu, Yang Hu, Yong Xia
Presenter: Qingjie Zeng, Northwestern Polytechnical University, China

C221 (Wed-PM) **Robust Sleep Stage Prediction from Electroencephalogram with Label Noise Using Multimodal Large Language Models**
Authors: Xihe Qiu, Chen Zhan, Gengchen Ma, Jingjing Huang, Xiaoyu Tan
Presenter: Chen Zhan, Shanghai University of Engineering Science, China

C226 (Wed-PM) **Revisiting Automatic Data Curation for Vision Foundation Models in Digital Pathology**
Authors: Boqi Chen, Cédric Vincent-Cuaz, Lydia A. Schoenpflug, Manuel Madeira, Lisa Fournier, Vaishnavi Subramanian, Sonali Andani, Samuel Ruiperez-Campillo, Julia E. Vogt, Raphaëlle Luisier, Dorina Thanou, Viktor H. Koelzer, Pascal Frossard, Gabriele Campanella, Gunnar Rätsch
Presenter: Boqi Chen, ETH Zurich, Switzerland

C231 (Wed-PM) **ViTAL-CT: Vision Transformers for High-Risk Plaque Classification in Coronary CTA**
Authors: Anjie Le, Jin Zheng, Tan Gong, Quanlin Sun, Jonathan Weir-McCall, Declan P. O'Regan, Michelle C. Williams, David E. Newby, James H. F. Rudd, Yuan Huang
Presenter: Jin Zheng, Imperial College London, United Kingdom

C236 (Wed-PM) **AdFair-CLIP: Adversarial Fair Contrastive Language-Image Pre-training for Chest X-rays**
Authors: Chenlang Yi, Zizhan Xiong, Qi Qi, Xiyuan Wei, Girish Bathla, Ching-Long Lin, Bobak J. Mortazavi, Tianbao Yang
Presenter: Tianbao Yang, Associate Professor, United States

C241 (Wed-PM) **CLIP-DSA: Textual Knowledge-Guided Cerebrovascular Diseases Recognition in Multi-View Digital Subtraction Angiography**

Authors: Qihang Xie, Dan Zhang, Mengting Liu, Jianwei Zhang, Ruisheng Su, Caifeng Shan, Jiong Zhang
Presenter: Jiong Zhang, Ningbo Institute of Materials Technology & Engineering, Chinese Academy of Sciences, China

C246 (Wed-PM)

FunBench: Benchmarking Fundus Reading Skills of MLLMs
Authors: Qijie Wei, Kaiheng Qian, Xirong Li
Presenter: Qijie Wei, Renmin University of China, China

C251 (Wed-PM)

TextBraTS: Text-Guided Volumetric Brain Tumor Segmentation with Innovative Dataset Development and Fusion Module Exploration
Authors: Xiaoyu Shi, Rahul Kumar Jain, Yinhao Li, Ruibo Hou, Jingliang Cheng, Jie Bai, Guohua Zhao, Lanfen Lin, Rui Xu, Yen-wei Chen
Presenter: Xiaoyu Shi, Ritsumeikan University, Japan

C256 (Wed-PM)

CoCa-CXR: Contrastive Captioners Learn Strong Temporal Structures for Chest X-Ray Vision-Language Understanding
Authors: Yixiong Chen, Shawn Xu, Andrew Sellergren, Yossi Matias, Avinatan Hassidim, Shravya Shetty, Daniel Golden, Alan L. Yuille, Lin Yang
Presenter: Yixiong Chen, Johns Hopkins University, United States

C261 (Wed-PM)

Paper Highlight

UniMRG: Refining Medical Semantic Understanding Across Modalities via LLM-Orchestrated Synergistic Evolution
Authors: Hongyan Xu, Arcot Sowmya, Ian Katz, Dadong Wang
Presenter: Hongyan Xu, The University of New South Wales, Australia

C266 (Wed-PM)

Exploring the Design Space of 3D MLLMs for CT Report Generation
Authors: Mohammed Baharoon, Jun Ma, Congyu Fang, Augustin Toma, Bo Wang
Presenter: Mohammed Baharoon, Harvard University, United States

C271 (Wed-PM)

LTSE: Language-guided Tissue Referring Segmentation in Pathology Images with Adaptive Expert Mixture
Authors: Jiao Tang, Bo Qian, Peng Wan, Wei Shao, Daoqiang Zhang
Presenter: Jiao Tang, Nanjing University of Aeronautics and Astronautics, China

C276 (Wed-PM)

DGHFA: Dynamic Gradient and Hierarchical Feature Alignment for Robust Distillation of Medical VLMs
Authors: Boyi Xiao, Jianghao Wu, Lanfeng Zhong, Xiaoguang Zou, Yuanquan Wu, Guotai Wang, Shaoting Zhang
Presenter: Boyi Xiao, University of Science and Technology of China and Shanghai Artificial Intelligence Laboratory, China

C281 (Wed-PM)

Geometry-Guided Local Alignment for Multi-View Visual Language Pre-Training in Mammography
Authors: Yuexi Du, Lihui Chen, Nicha C. Dvornek
Presenter: Yuexi Du, Yale University, United States

C286 (Wed-PM)

Paper Highlight

PATE: Enhancing Few-Shot Pathological Image Classification via Prompt-Based Text-Image Embedding Adaptation
Authors: Shenghao Chen, Zhen Huang, Xiaoqian Zhou, Han Li, Chunjiang Wang, S. Kevin Zhou
Presenter: Zhen Huang, University of Science and Technology of China, China

C291 (Wed-PM)

Pathology Report Generation and Multimodal Representation Learning for Cutaneous Melanocytic Lesions
Authors: Ruben T. Lucassen, Sander P. J. Moonemans, Tijn van de Luijtgaarden, Gerben E. Breimer, Willeke A. M. Blokx, Mitko Veta
Presenter: Ruben Lucassen, University Medical Center Utrecht, The Netherlands

C296 (Wed-PM)

From Slices to Volumes: Multi-Scale Fusion of 2D and 3D Features for CT Scan Report Generation
Authors: Abdullah Hosseini, Ahmed Ibrahim, Ahmed Serag
Presenter: Abdullah Hosseini, Weill Cornell Medicine - Qatar, Qatar

C301 (Wed-PM)

Tumor Microenvironment-Guided Fine-Tuning of Pathology Foundation Models for Esophageal Squamous Cell Carcinoma Immunotherapy Response Prediction
Authors: Yixuan Lin, Weiping Lin, Chenxu Guo, Xinxin Yang, Hongxue Meng, Liansheng Wang
Presenter: Yixuan Lin, Xiamen University, China

C306 (Wed-PM)

MOTOR: Multimodal Optimal Transport via Grounded Retrieval in Medical Visual Question Answering
Authors: Mai A. Shaaban, Tausifa Jan Saleem, Vijay Ram Kumar Papineni, Mohammad Yaqub

Presenter: Mai A. Shaaban, Mohamed Bin Zayed University of Artificial Intelligence, United Arab Emirates

C311 (Wed-PM) **Med-LEGO: Editing and Adapting toward Generalist Medical Image Diagnosis**
Authors: Yitao Zhu, Yuan Yin, Jiaming Li, Mengjie Xu, Zihao Zhao, Honglin Xiong, Sheng Wang, Qian Wang
Presenter: Yitao Zhu, ShanghaiTech University, China

C316 (Wed-PM) **RetSTA: An LLM-Based Approach for Standardizing Clinical Fundus Image Reports**
Authors: Jiushen Cai, Weihang Zhang, Hanruo Liu, Ningli Wang, Huiqi Li
Presenter: Jiushen Cai, Beijing Institute of Technology, China

C321 (Wed-PM) **Eliminating Language Bias for Medical Visual Question Answering with Counterfactual Contrastive Training**
Authors: Xingyu Wan, Qiaoying Teng, Jun Chen, Yonghan Lu, Deqi Yuan, Zhe Liu
Presenter: Qiaoying Teng, Jiangsu University, China

C326 (Wed-PM) **Bridging Radiological Images and Factors with Vision-Language Model for Accurate Diagnosis of Proliferative Hepatocellular Carcinoma**
Authors: Yanyan Huang, Wanli Zhang, Peixiang Huang, Yu Fu, Ruimeng Yang, Lequan Yu
Presenter: Yanyan Huang, The University of Hong Kong, Hong Kong SAR

C331 (Wed-PM) **Radar-Based Imaging for Sign Language Recognition in Medical Communication**
Authors: Raffaele Mineo, Gaia Caligiore, Federica Proietto Salanitri, Isaak Kavasidis, Senya Polikovsky, Sabina Fontana, Egidio Ragonese, Concetto Spampinato, Simone Palazzo
Presenter: Raffaele Mineo, University of Catania, Italy

C336 (Wed-PM) **Semantic-Aware Chest X-ray Report Generation with Domain-Specific Lexicon and Diversity-Controlled Retrieval**
Authors: Baochang Zhang, Chen Jia, Shuting Liu, Heribert Schunkert, Nassir Navab
Presenter: Baochang Zhang, Technical University of Munich, Germany

Poster Session 2: Detection, Segmentation, and Registration / Explainability and Interpretability / Data Quality and Image Restoration

Thursday, September 25, 2025, 11:00 – 12:30
Poster Hall (DCC 2)

A2 (Thu-AM) Paper Highlight **X-SiT: Inherently Interpretable Surface Vision Transformers for Dementia Diagnosis**
Authors: Fabian Bongratz, Tom Nuno Wolf, Jaume Gual Ramon, Christian Wachinger
Presenter: Fabian Bongratz, Technical University of Munich, Germany

A7 (Thu-AM) **Explainable ADHD Diagnostic Framework Using Weakly-Supervised Action Recognition**
Authors: Ninghan Fan, Ming Kong, Jing Huang, Bingdi Chen, Qiang Zhu
Presenter: Ninghan Fan, Zhejiang University, China

A12 (Thu-AM) **CytoSAE: Interpretable Cell Embeddings for Hematology**
Authors: Muhammed Furkan Dasdelen, Hyesu Lim, Michele Buck, Katharina S. Götze, Carsten Marr, Steffen Schneider
Presenter: Muhammed Furkan Dasdelen, Helmholtz Munich, Germany

A17 (Thu-AM) **Fusing Radiomic Features with Deep Representations for Gestational Age Estimation in Fetal Ultrasound Images**
Authors: Fangyijie Wang, Yuan Liang, Sourav Bhattacharjee, Abey Campbell, Kathleen M. Curran, Guénolé Silvestre
Presenter: Fangyijie Wang, University College Dublin, Ireland

A22 (Thu-AM) **NeuroXVocal: Detection and Explanation of Alzheimer's Disease through Non-invasive Analysis of Picture-prompted Speech**
Authors: Nikolaos Ntampakis, Konstantinos Diamantaras, Ioanna Chouvarda, Magda Tsolaki, Panagiotis Sarigianndis, Vasileios Argyriou
Presenter: Nikolaos Ntampakis, International Hellenic University, Greece

A27 (Thu-AM) **IP-CRR: Information Pursuit for Interpretable Classification of Chest Radiology Reports**
Authors: Yuyan Ge, Kwan Ho Ryan Chan, Pablo Messina, René Vidal
Presenter: Pablo Messina, Pontifical Catholic University of Chile, Chile

A32 (Thu-AM) **Spatial regularisation for improved accuracy and interpretability in keypoint-based registration**
Authors: Benjamin Billot, Ramya Muthukrishnan, Esra Abaci Turk, P. Ellen Grant, Nicholas Ayache, Hervé Delingette, Polina Golland

Presenter: Benjamin Billot, Inria, Epione team, France

A37 (Thu-AM)

MAGNET-AD: Multitask Spatiotemporal GNN for Interpretable Prediction of PACC and Conversion Time in Preclinical Alzheimer
Authors: Salma Hassan, Mostafa Salem, Vijay Ram Kumar Papineni, Ayman Elsayed, Mohammad Yaqub
Presenter: Salma Hassan, Mohamed Bin Zayed University of Artificial Intelligence, United Arab Emirates

A42 (Thu-AM)

Prototype-Based Multiple Instance Learning for Gigapixel Whole Slide Image Classification
Authors: Susu Sun, Dominique van Midden, Geert Litjens, Christian F. Baumgartner
Presenter: Susu Sun, University of Tübingen, Germany

A47 (Thu-AM)
Paper Highlight

Training-free Test-time Improvement for Explainable Medical Image Classification
Authors: Hangzhou He, Jiachen Tang, Lei Zhu, Kaiwen Li, Yanye Lu
Presenter: Hangzhou He, Peking University, China

A52 (Thu-AM)

GeneMorphFormer: Transformer-Driven Cross-Scale Mapping from Gene Expression to Cortical Morphology
Authors: Xiao Li, Han Zhang, Qitai Sun, Chenjie Jia, Xiaowei He, Yudan Ren
Presenter: Xiao Li, Northwest University, China

A57 (Thu-AM)

CoPA: Hierarchical Concept Prompting and Aggregating Network for Explainable Diagnosis
Authors: Yiheng Dong, Yi Lin, Xin Yang
Presenter: Yiheng Dong, Huazhong University of Science and Technology, China

A62 (Thu-AM)

Interpretable fMRI Captioning via Contrastive Learning
Authors: Vyacheslav Shen, Kassymzhomart Kunanbayev, Donggon Jang, Daeshik Kim
Presenter: Kassymzhomart Kunanbayev, Korea Advanced Institute of Science & Technology, Republic of Korea

A67 (Thu-AM)

E-BayesSAM: Efficient Bayesian Adaptation of SAM with Self-Optimizing KAN-Based Interpretation for Uncertainty-Aware Ultrasonic Segmentation
Authors: Bin Huang, Zhong Liu, Huiying Wen, Bingsheng Huang, Xin Chen, Shuo Li
Presenter: Bin Huang, Shenzhen University, China

A72 (Thu-AM)
Paper Highlight

Latent Motion Profiling for Annotation-free Cardiac Phase Detection in Adult and Fetal Echocardiography Videos
Authors: Yingyu Yang, Qianye Yang, Kangning Cui, Can Peng, Elena D'Alberti, Netzahualcoyotl Hernandez-Cruz, Olga Patey, Aris T. Papageorghiou, J. Alison Noble
Presenter: Yingyu Yang, University of Oxford, United Kingdom

A77 (Thu-AM)

PolarDETR: Enhancing Interpretability in Multi-modal Methods for Jawbone Lesion Detection in CBCT
Authors: Yuxuan Yang, Chen Zhong, Xinyue Zhang, Ruohan Ma, Gang Li, Yong Guo, Jupeng Li
Presenter: Yuxuan Yang, Beijing Jiaotong University, China

A82 (Thu-AM)

Separable tissue representations for attributable risk prediction
Authors: Victor Wåhlstrand, Jennifer Alvén, Lisa Johansson, Kristian Axelsson, Mattias Lorentzon, Ida Häggström
Presenter: Victor Wåhlstrand, Chalmers University of Technology, Sweden

A87 (Thu-AM)

Unpaired Multi-Site Brain MRI Harmonization with Image Style-Guided Latent Diffusion
Authors: Mengqi Wu, Minhui Yu, Weili Lin, Pew-Thian Yap, Mingxia Liu
Presenter: Qianqian Wang, University of North Carolina at Chapel Hill, United States

A92 (Thu-AM)

Patient-specific radiomic feature selection with reconstructed healthy persona of knee MR images
Authors: Yaxi Chen, Simin Ni, Shaheer U. Saeed, Aleksandra Ivanova, Rikin Hargunani, Jie Huang, Chaozong Liu, Yipeng Hu
Presenter: Yaxi Chen, University College London, United Kingdom

A97 (Thu-AM)

Fine-tuning Vision Language Models with Graph-based Knowledge for Explainable Medical Image Analysis
Authors: Chenjun Li, Laurin Lux, Alexander H. Berger, Martin J. Menten, Mert R. Sabuncu, Johannes C. Paetzold
Presenter: Johannes Paetzold, Weill Cornell Medicine, United States

A102 (Thu-AM)

This EEG Looks Like These EEGs: Interpretable Interictal Epileptiform Discharge Detection With ProtoEEG-kNN

Authors: Dennis Tang, Jon Donnelly, Alina Jade Barnett, Lesia Semenova, Jin Jing, Peter Hadar, Ioannis Karakis, Olga Selioutski, Kehan Zhao, M. Brandon Westover, Cynthia Rudin
Presenter: Dennis Tang, Duke University, United States

A107 (Thu-AM) **Disentangled and Interpretable Multimodal Attention Fusion for Cancer Survival Prediction**
Authors: Aniek Eijpe, Soufyan Lakbir, Melis Erdal Cesur, Sara P. Oliveira, Sanne Abeln, Wilson Silva
Presenter: Aniek Eijpe, Utrecht University, The Netherlands

A112 (Thu-AM) **LLM-Powered Cross-Modal Alignment for Explainable Seizure Detection from EEG**
Authors: Maryam Riazi, Deeksha M. Shama, Archana Venkataraman
Presenter: Deeksha M. Shama, Johns Hopkins University, United States

A117 (Thu-AM) **One For All: A Unified Approach to Classification and Self-Explanation**
Authors: Mehdi Naouar, Yannick Vogt, Joschka Boedecker, Gabriel Kalweit, Maria Kalweit
Presenter: Mehdi Naouar, University of Freiburg, Germany

A122 (Thu-AM) **ProgreSpine: Inherently Explainable Prototypical Regression for Spine Age Estimation**
Paper Highlight
Authors: Roozbeh Bazargani, Saqib Basar, Sam Hashemi, Siavash Khallaghi
Presenter: Sam Hashemi, Prenuvo Inc., Canada

A127 (Thu-AM) **An Anatomical Significance-Aware Architecture for Explainable Myocardial Infarction Prediction via Multi-Task Learning**
Paper Highlight
Authors: Jiachuan Peng, Marcel Beetz, Abhirup Banerjee, Min Chen, Vicente Grau
Presenter: Jiachuan Peng, University of Oxford, United Kingdom

A132 (Thu-AM) **Uncertainty-Supervised Interpretable and Robust Evidential Segmentation**
Paper Highlight
Authors: Yuzhu Li, An Sui, Fuping Wu, Xiahai Zhuang
Presenter: An Sui, Fudan University, China

A137 (Thu-AM) **Flip Distribution Alignment VAE for Multi-Phase MRI Synthesis**
Authors: Xiaoyan Kui, Qianmu Xiao, Qinsong Li, Zexin Ji, Jielin Zhang, Beiji Zou
Presenter: Qianmu Xiao, Central South University, China

A142 (Thu-AM) **NIMOSEF: Neural implicit motion and segmentation functions**
Paper Highlight
Authors: Jaume Banus, Antoine Delaloye, Pedro M. Gordaliza, Costa Georgantas, Ruud B. van Heeswijk, Jonas Richiardi
Presenter: Jaume Banus, Lausanne University Hosptial, CHUV, Switzerland

A197 (Thu-AM) **LVPNet: A Latent-variable-based Prediction-driven End-to-end Framework for Lossless Compression of Medical Images**
Authors: Chenyue Song, Chen Hui, Qing Lin, Wei Zhang, Siqiao Li, Haiqi Zhu, Shengping Zhang, Zhixuan Li, Shaohui Liu, Feng Jiang, Xiang Li
Presenter: Chenyue Song, Harbin Institute of Technology, China

A202 (Thu-AM) **End-to-End 3D Tooth Landmark Detection with Fuzzy Tooth Localization**
Authors: Kaibo Shi, Hairong Jin, Youyi Zheng
Presenter: Kaibo Shi, Zhejiang University, China

A207 (Thu-AM) **Controllable Image Synthesis Workflow for Enhancing Cervical Cell Detection**
Authors: Yihuang Hu, Qi Chen, Linbo Liao, Weiping Lin, Huisi Wu, Liansheng Wang
Presenter: Yihuang Hu, Xiamen University, China

A212 (Thu-AM) **Register Anything: Estimating "Corresponding Prompts" for Segment Anything Model**
Authors: Shiqi Huang, Tingfa Xu, Wen Yan, Dean Barratt, Yipeng Hu
Presenter: Shiqi Huang, University College London, United Kingdom

A217 (Thu-AM) **RadSAM: Segmenting 3D radiological images with a 2D promptable model**
Authors: Julien Khlaut, Elodie Ferreres, Daniel Tordjman, Helene Philippe, Tom Boeken, Pierre Manceron, Corentin Dancette
Presenter: Julien Khlaut, Raidium, France

A222 (Thu-AM) **SafeClick: Error-Tolerant Interactive Segmentation of Any Medical Volumes via Hierarchical Expert Consensus**
Authors: Yifan Gao, Jiaxi Sheng, Wenbin Wu, Haoyue Li, Yaoxian Dong, Chaoyang Ge, Feng Yuan, Xin Gao
Presenter: Yifan Gao, University of Science and Technology of China, China

A227 (Thu-AM) **Spatial Prior-Guided Boundary and Region-Aware 2D Lesion Segmentation in Neonatal Hypoxic Ischemic Encephalopathy**
Authors: Amog Rao, Ananya Shukla, Jia Bhargava, Yangming Ou, Rina Bao
Presenters: Amog Rao and Ananya Shukla, Plaksha University, India

A232 (Thu-AM) **Deep Learning-based Alignment Measurement in Knee Radiographs**
Authors: Zhisen Hu, Dominic Cullen, Peter Thompson, David Johnson, Chang Bian, Aleksei Tiulpin, Timothy Cootes, Claudia Lindner
Presenter: Zhisen Hu, The University of Manchester, United Kingdom

A237 (Thu-AM) **Ambiguous Medical Image Segmentation Using Diffusion Schrödinger Bridge**
Authors: Lalith Bharadwaj Baru, Kamalaker Dadi, Tapabrata Chakraborti, Raju S. Bapi
Presenter: Lalith Bharadwaj Baru, International Institute of Information Technology - Hyderabad, India

A242 (Thu-AM) **EfficientMedNeXt: Multi-Receptive Dilated Convolutions for Medical Image Segmentation**
Paper Highlight
Authors: Md Mostafijur Rahman, Mustafa Munir, Radu Marculescu
Presenter: Md Mostafijur Rahman, The University of Texas at Austin, United States

A247 (Thu-AM) **Probabilistic Inverse Consistent Image Registration Using Sparse Bayesian Network**
Authors: Shenglong Yang, Kangrong Xu, Zefeng He, Tianchao Feng, Xuan Yang
Presenter: Shenglong Yang, Shenzhen University, China

A252 (Thu-AM) **Multimodal Prompt Sequence Learning for Interactive Segmentation of Vascular Structures**
Authors: Jongsoo Lim, Soochahn Lee
Presenter: Jongsoo Lim, Kookmin University, Republic of Korea

A257 (Thu-AM) **PDC-Net: Pattern Divide-and-Conquer Network for Pelvic Radiation Injury Segmentation**
Paper Highlight
Authors: Xinyu Xiong, Wuteng Cao, Zihuang Wu, Lei Zhang, Chong Gao, Guanbin Li, Qiyuan Qin
Presenter: Chong Gao, Sun Yat-sen University, China

A262 (Thu-AM) **Region-Based Text-Consistent Augmentation for Multimodal Medical Segmentation**
Authors: Kunyan Cai, Chenggang Yan, Min He, Liangqiong Qu, Shuai Wang, Tao Tan
Presenter: Kunyan Cai, Macao Polytechnic University, Macao SAR

A267 (Thu-AM) **PRAD: Periapical Radiograph Analysis Dataset and Benchmark Model Development**
Authors: Zhenhuan Zhou, Yuchen Zhang, Ruihong Xu, Xuansen Zhao, Tao Li
Presenter: Zhenhuan Zhou, Nankai University, China

A272 (Thu-AM) **ITMatch: Arch-Guided Semi-Supervised Tooth Arrangement via Iterative Confidence Evaluation**
Paper Highlight
Authors: Chengyuan Wang, Zhihui He, Li Chen, Shidong Yang, Guiyu Sun, Fan Duan, Shuo Wang, Yanheng Zhou
Presenter: Chengyuan Wang, Tsinghua University, China

A277 (Thu-AM) **Bowsher prior Enhanced Unsupervised PET image Denoising**
Authors: Zhongxue Wu, Jiankai Wu, Jianan Cui, Yuanjing Feng, Zan Chen
Presenter: Zhongxue Wu, Zhejiang University of Technology, China

A282 (Thu-AM) **STEAM: Self-supervised TEeth Analysis and Modeling for Point Cloud Segmentation**
Authors: Yifan Liu, Chen Yang, Weihao Yu, Xinyu Liu, Hui Chen, Max Q.-H. Meng, Yixuan Yuan
Presenter: Yifan Liu, The Chinese University of Hong Kong, China

A287 (Thu-AM) **CT-Based Hippocampus Segmentation with Dual-Decoder Network (HDD-Net)**
Authors: Wonjun Son, Ji Young Lee, Sung Jun Ahn, Hyunyeol Lee
Presenter: Wonjun Son, Kyungpook National University, Republic of Korea

A292 (Thu-AM) **Is Hyperbolic Space All You Need for Medical Anomaly Detection?**
Authors: Alvaro Gonzalez-Jimenez, Simone Lionetti, Ludovic Amruthalingam, Philippe Gottfrois, Fabian Gröger, Marc Pouly, Alexander A. Navarini
Presenter: Alvaro Gonzalez-Jimenez, University Hospital of Basel, Switzerland

A297 (Thu-AM) **Hierarchical Spatio-temporal Segmentation Network for Ejection Fraction Estimation in Echocardiography Videos**
Authors: Dongfang Wang, Jian Yang, Yizhe Zhang, Tao Zhou
Presenter: Dongfang Wang, Nanjing University of Science and Technology, China

A302 (Thu-AM) **Generative Unsupervised Anomaly Detection with Coarse-Fine Ensemble for Workload Reduction in 3D Non-contrast Brain CT of Emergency Room**
Authors: Jongjun Won, Jihwan Kim, Joonseo Oh, Yereen Yoo, Jieun Yum, Joonsang Lee, Joon Hyung Park, Wooyoung Jo, Yoojin Nam, Hyunki Lee, Gil-sun Hong, Namkug Kim
Presenter: Jongjun Won, Asan Medican Center, Republic of Korea

A307 (Thu-AM) **MoDiff: A Morphology-Emphasized Diffusion Model for Ambiguous Medical Image Segmentation**
Authors: Jung Su Ahn, Ki Hoon Kwak, Jung Woo Seo, Young-Rae Cho

Presenter: Ki Hoon Kwak, Yonsei University, Republic of Korea

A312 (Thu-AM) **Harnessing EHRs for Diffusion-based Anomaly Detection on Chest X-rays**
Authors: Harim Kim, Yuhan Wang, Minkyu Ahn, Heeyoul Choi, Yuyin Zhou, Charmgil Hong
Presenter: Harim Kim, Handong Global University, Republic of Korea

A317 (Thu-AM) **Aorta Multi-class Segmentation via Anatomically Constrained Plane Detection**
Authors: Jonghoon An, Dong Hyun Lee, So Hyun Kim, Taejin Moon, Minyoung Chung
Presenter: Jonghoon An, Soongsil University, Republic of Korea

A322 (Thu-AM) **MTCNet: Motion and Topology Consistency Guided Learning for Mitral Valve Segmentation in 4D Ultrasound**
Authors: Rusi Chen, Yuanting Yang, Jiezhi Yao, Hongning Song, Ji Zhang, Yongsong Zhou, Yuhao Huang, Ronghao Yang, Dan Jia, Yuhan Zhang, Xing Tao, Haoran Dou, Qing Zhou, Xin Yang, Dong Ni
Presenter: Rusi Chen, Shenzhen University, China

A327 (Thu-AM) **PFESA: FFT-based Parameter-Free Edge and Structure Attention for Medical Image Segmentation**
Authors: Mingqian Li, Zhiqian Yan, Miaoning Yan, Yaodong Liang, Qingmao Zhang, Qiongxiong Ma
Presenter: Mingqian Li, South China Normal University, China

A332 (Thu-AM) **Gaussian Primitive Optimized Deformable Retinal Image Registration**
Authors: Xin Tian, Jiazheng Wang, Yuxi Zhang, Xiang Chen, Renjiu Hu, Gaolei Li, Min Liu, Hang Zhang
Presenter: Xin Tian, University of Oxford, United Kingdom

A364 (Thu-AM) Paper Highlight **Conformal Prediction for Image Segmentation Using Morphological Prediction Sets**
Authors: Luca Mossina, Corentin Friedrich
Presenter: Luca Mossina, IRT Saint Exupéry, France

A371 (Thu-AM) **Edge-Aware Token Halting for Efficient and Accurate Medical Image Segmentation**
Authors: Yuhao Guo, Bo Song, Heng Fan, Erkang Cheng
Presenter: Yuhao Guo, Hefei Institutes of Physical Science, Chinese Academy of Sciences, China

A377 (Thu-AM) **Structure-Preserve Expansion for Medical Image Registration with Minimal Overlap**
Authors: Zaiyuan Liu, Yongsheng Pan, Yong Xia
Presenter: Zaiyuan Liu, Northwestern Polytechnical University, China

B2 (Thu-AM) Paper Highlight **Directional Adaptive Shuffle-Based Visual State-Space Models for Medical Image Restoration**
Authors: Simon C. K. Chan, Lulin Shi, Bingxin Huang, Terence T. W. Wong
Presenter: Simon C. K. Chan, The Hong Kong University of Science and Technology, Hong Kong SAR

B7 (Thu-AM) **BME2: A Plug-and-Play Bridge-Based Module for Misalignment Estimation and Elimination in Multi-Scan Image Restoration**
Authors: Wenxuan Chen, Caiwen Jiang, Xiaolei Song, Dinggang Shen
Presenter: Wenxuan Chen, Tsinghua University, China

B12 (Thu-AM) **HyperSORT: Self-Organising Robust Training with hyper-networks**
Authors: Samuel Joutard, Marijn Stollenga, Marc Balle Sanchez, Mohammad Farid Azampour, Raphael Prevost
Presenter: Samuel Joutard, ImFusion GmbH, Germany

B17 (Thu-AM) **A Hybrid Contrastive Ordinal Regression Method for Advancing Disease Severity Assessment in Imbalanced Medical Datasets**
Authors: Afsah Saleem, Joshua R. Lewis, Syed Zulqarnain Gilani
Presenter: Afsah Saleem, Edith Cowan University, Australia

B22 (Thu-AM) Paper Highlight **DiffOSeg: Omni Medical Image Segmentation via Multi-Expert Collaboration Diffusion Model**
Authors: Han Zhang, Xiangde Luo, Yong Chen, Kang Li
Presenter: Han Zhang, Sichuan University, China

B27 (Thu-AM) Paper Highlight **Towards Automated Pediatric Dental Development Staging: A Dataset and Model**
Authors: Peng Wang, Along He, Anli Wang, Zhenhuan Zhou, Xiaohang Guan, Tao Li
Presenter: Peng Wang, Nankai University, China

B32 (Thu-AM) **MAGO-SP: Detection and Correction of Water-Fat Swaps in Magnitude-Only VIBE MRI**

Authors: Robert Graf, Hendrik Möller, Sophie Starck, Matan Atad, Philipp Braun, Jonathan Stelter, Annette Peters, Lilian Krist, Stefan N. Willich, Henry Völzke, Robin Bülow, Tobias Pischon, Thoralf Niendorf, Johannes C. Paetzold, Dimitrios Karampinos, Daniel Rueckert, Jan Kirschke
Presenter: Robert Graf, TUM University Hospital, Germany

B37 (Thu-AM)

Self is the Best Learner: CT-free Ultra-Low-Dose PET Organ Segmentation via Collaborating Denoising and Segmentation Learning
Authors: Zanting Ye, Xiaolong Niu, Xu Han, Xuanbin Wu, Wantong Lu, Yijun Lu, Hao Sun, Yanchao Huang, Hubing Wu, Lijun Lu
Presenter: Zanting Ye, Southern Medical University, China

B42 (Thu-AM)

VisNet: A Human Visual System Inspired Lightweight Dual-Path Network for Medical Images Denoising
Authors: Hailin Yue, Hulin Kuang, Lei Ma, Jin Liu, Junjian Li, Jianhong Cheng, Jianxin Wang
Presenter: Hailin Yue, Central South University, China

B47 (Thu-AM)

D2MAE: Diffusional Deblurring MAE for Ultrasound Image Pre-training
Authors: Qingbo Kang, Jun Gao, Hongkai Zhao, Zhu He, Kang Li, Qicheng Lao
Presenter: Qingbo Kang, West China Hospital of Sichuan University, China

B52 (Thu-AM)

Finer Disentanglement of Aleatoric Uncertainty Can Accelerate Chemical Histopathology Imaging
Authors: Ji-Hun Oh, Kianoush Falahkheirkhah, Rohit Bhargava
Presenter: Ji-Hun Oh, University of Illinois Urbana-Champaign, United States

B57 (Thu-AM)

Paper Highlight

Metastatic Lymph Node Station Classification in Esophageal Cancer via Prior-guided Supervision and Station-Aware Mixture-of-Experts
Authors: Haoshen Li, Yirui Wang, Qinji Yu, Jie Zhu, Ke Yan, Dazhou Guo, Le Lu, Bin Dong, Li Zhang, Xianghua Ye, Qifeng Wang, Dakai Jin
Presenter: Haoshen Li, Peking University, China

B62 (Thu-AM)

NQNN: Noise-aware Quantum Neural Networks for Medical Image Classification
Authors: Maqsudur Rahman, Jun Zhuang
Presenter: Maqsudur Rahman, Boise State University, United States

B67 (Thu-AM)

MRI Motion Artifact Correction via Frequency-Assisted Artifact Disentanglement and Confidence-Guided Knowledge Distillation
Authors: Jiazhen Wang, Heran Yang, Yizhe Yang, Jian Sun
Presenter: Jiazhen Wang, Xi'an Jiaotong University, China

B72 (Thu-AM)

Paper Highlight

BayeSMM: Robust Deep Combined Computing Tackling Heavy-tailed Distribution in Medical Images
Authors: Yuanye Liu, Ruoxuan Zhen, Shangqi Gao, Xinzhe Luo, Xin Gao, Qingchao Chen, Xiahai Zhuang
Presenter: Yuanye Liu, Fudan University, China

B77 (Thu-AM)

Path Signature Features Revealed SSRI-Induced White Matter Morphological Reorganization in Depressions
Authors: Jiaolong Qin, Weihong Dong, Huangjing Ni, Zhijian Yao, Qing Lu, Ye Wu
Presenter: Ye Wu, Nanjing University of Science and Technology, China

B82 (Thu-AM)

Paper Highlight

MorphoBoost: Morphology-Driven Boundary Enhancement Model for Accurate Segmentation of Langerhans Cells in Corneal Confocal Microscopy Images
Authors: Hongshuo Li, Ankai Dong, Tiande Zhang, Shijia Zhou, Yalin Zheng, Lei Mou, Yitian Zhao
Presenter: Hongshuo Li, Ningbo Institute of Materials Technology & Engineering, Chinese Academy of Sciences, China

B87 (Thu-AM)

Structure and Smoothness Constrained Dual Networks for MR Bias Field Correction
Authors: Dong Liang, Xingyu Qiu, Yuzhen Li, Wei Wang, Kuanquan Wang, Suyu Dong, Gongning Luo
Presenter: Gongning Luo, Harbin Institute of Technology, China

B92 (Thu-AM)

MoMIL: Mixture of Multi-Instance Learners for Modeling Multiple Compound Activities in High Content Imaging
Authors: Pushpak Pati, Hsiu-Chi Cheng, Steffen Jaensch, Walid M. Abdelmoula, Krishna Chaitanya, Michiel Van Dyck, Tomé Albuquerque, Samantha Allen, Litao Zhang, Tommaso Mansi, Rui Liao, Zhoubing Xu
Presenter: Pushpak Pati, Johnson & Johnson, Switzerland

B97 (Thu-AM)

Weighted Stratification in Multi-Label Contrastive Learning for Long-Tailed Medical Image Classification

Authors: Ying-Chih Lin, Yong-Sheng Chen
Presenter: Ying-Chih Lin, National Yang Ming Chiao Tung University, Taiwan

B102 (Thu-AM)
FIND-Net – Fourier-Integrated Network with Dictionary Kernels for Metal Artifact Reduction
Authors: Farid Tasharofi, Fuxin Fan, Melika Qahqaie, Mareike Thies, Andreas Maier
Presenter: Farid Tasharofi, Friedrich-Alexander-Universität Erlangen, Germany

B107 (Thu-AM)
SAMed-2: Selective Memory Enhanced Medical Segment Anything Model
Authors: Zhiling Yan, Sifan Song, Dingjie Song, Yiwei Li, Rong Zhou, Weixiang Sun, Zhennong Chen, Sekeun Kim, Hui Ren, Tianming Liu, Quanzheng Li, Xiang Li, Lifang He, Lichao Sun
Presenter: Quanzheng Li, Massachusetts General Hospital and Harvard Medical School, United States

B112 (Thu-AM)
SIMPLE: Simultaneous Multi-plane Self-supervised Learning for Isotropic MRI Restoration from Anisotropic Data
Authors: Rotem Benisty, Yevgenia Shteynman, Moshe Porat, Anat Ilivitzki, Moti Freiman
Presenter: Rotem Benisty, Technion - Israel Institute of Technology, Israel

B117 (Thu-AM)
Meta-Learning-Driven CT Morphology Disentangled Diffusion Model for Multi-Region SPECT Attenuation Correction
Authors: Haoran Yang, Jiansong Fan, Lihua Li, Xiang Pan
Presenter: Haoran Yang, Jiangnan University, China

B122 (Thu-AM)
Paper Highlight
Inferring Super-Resolved Gene Expression by Integrating Histology Images and Spatial Transcriptomics with HISTEX
Authors: Shuailin Xue, Changmiao Wang, Xiaomao Fan, Wenwen Min
Presenter: Changmiao Wang, Yunnan University, China

B127 (Thu-AM)
A Frequency-Aware Self-Supervised Learning for Ultra-Wide-Field Image Enhancement
Authors: Weicheng Liao, Zan Chen, Jianyang Xie, Yalin Zheng, Yuhui Ma, Yitian Zhao
Presenter: Weicheng Liao, Ningbo Institute of Materials Technology & Engineering, Chinese Academy of Sciences, China

B132 (Thu-AM)
DiffStain: Conditioned Diffusion-Based Semantic Virtual Staining with Mask Guidance
Authors: Yikai Han, Jimao Jiang, Yuru Pei
Presenter: Yikai Han, Beihang University, China

B137 (Thu-AM)
Paper Highlight
Multi-Tracer Uptake Correction for PET-MR via Aligned-Feature Guidance and Multi-scale Pixel-adaptive Routing
Authors: Aocheng Zhong, Haolin Huang, Jing Wang, Zhenrong Shen, Haiyu Song, Junlei Wu, Yuhua Zhu, Yang Liu, Chuantao Zuo, Qian Wang
Presenter: Aocheng Zhong, ShanghaiTech University, China

B142 (Thu-AM)
MedIQA: A Scalable Foundation Model for Prompt-Driven Medical Image Quality Assessment
Authors: Siyi Xun, Yue Sun, Jingkun Chen, Zitong Yu, Tong Tong, Xiaohong Liu, Mingxiang Wu, Tao Tan
Presenter: Siyi Xun, Macao Polytechnic University, China

B147 (Thu-AM)
MS-IQA: A Multi-Scale Feature Fusion Network for PET/CT Image Quality Assessment
Authors: Siqiao Li, Chen Hui, Wei Zhang, Rui Liang, Chenyue Song, Feng Jiang, Haiqi Zhu, Zhixuan Li, Hong Huang, Xiang Li
Presenter: Siqiao Li, Harbin Institute of Technology, China

B152 (Thu-AM)
Background-Invariant Independence-Guided Multi-head Attention Network for Skin Lesion Classification
Authors: Debasmit Roy, Srinjoy Dutta, Soham Bose, Friedhelm Schwenker, Ram Sarkar
Presenter: Debasmit Roy, Jadavpur University, India

B157 (Thu-AM)
Paper Highlight
High-Res Brain Source Imaging of MEG using a Vector Bayesian Beamformer with Noise learning
Authors: Tianyu Gao, Kunye Liu, Weikai Ma, Yang Gao, Xiaolin Ning
Presenter: Tianyu Gao, Beihang University, China

B162 (Thu-AM)
Noisy Label Refinement Based on Discrete Diffusion Process in 3D Ossicle Segmentation
Authors: Linqian Fan, Mengshi Zhang, Yonghao Wang, Wenkai Lu, Hongxia Yin
Presenter: Linqian Fan, Tsinghua university, China

B167 (Thu-AM)
Cost-effective Active Learning for Nucleus Detection Using Crowdsourced Annotations with Dynamic Weighting Adjustment
Authors: Jiao Tang, Yuankun Zu, Qi Zhu, Peng Wan, Daoqiang Zhang, Wei Shao
Presenter: Jiao Tang, Nanjing University of Aeronautics and Astronautics, China

B172 (Thu-AM)
Paper Highlight
Advancing Medical Representation Learning Through High-Quality Data
Authors: Negin Baghbanzadeh, Adibvafa Fallahpour, Yasaman Parhizkar, Franklin Ogidi, Shuvendu Roy, Sajad Ashkezari, Vahid Reza Khazaie, Michael Colacci, Ali Etemad, Arash Afkanpour, Elham Dolatabadi
Presenter: Negin Baghbanzadeh, York University, Canada

B177 (Thu-AM)
Improving Motor Imagery EEG Signal Quality with Dynamic Visual Cues: An Innovative Paradigm and Dataset
Authors: Chenxi Yue, Huawen Hu, Qilong Yuan, Enze Shi, Jiaqi Wang, Kui Zhao, Xuhui Wang, Shu Zhang
Presenter: Shu Zhang, Northwestern Polytechnical University, China

B182 (Thu-AM)
Diffusing Boundaries: CBCT-to-CT Translation with Extended Field of View
Authors: Quentin Spinat, Audrey Duran, Olivier Teboul, Nikos Paragios, Nikos Komodakis
Presenter: Nikos Paragios, Therapanacea, France

B187 (Thu-AM)
Lightweight Data-Free Denoising for Detail-Preserving Biomedical Image Restoration
Authors: Tomáš Chobola, Julia A. Schnabel, Tingying Peng
Presenter: Tomáš Chobola, Helmholtz Munich, Germany

B192 (Thu-AM)
Difficulty Estimation for Image-Specific Medical Image Segmentation Quality Control
Authors: Joris Fournel, Axel Bartoli, Baptiste Marchi, Arnaud Maurin, Siavash Arjomand Bigdeli, Alexis Jacquier, Aasa Feragen
Presenter: Joris Fournel, Technical University of Denmark, Denmark

B197 (Thu-AM)
Beyond Shadows: Learning Physics-inspired Ultrasound Confidence Maps from Sparse Annotations
Authors: Matteo Ronchetti, Rüdiger Göbl, Bugra Yesilkaynak, Oliver Zettinig, Nassir Navab
Presenter: Matteo Ronchetti, ImFusion GmbH, Germany

B202 (Thu-AM)
EchoViewCLIP: Advancing Video Quality Control through High-performance View Recognition of Echocardiography
Authors: Shanshan Song, Yi Qin, Honglong Yang, Taoran Huang, Hongwen Fei, Xiaomeng Li
Presenter: Shanshan Song, The Hong Kong University of Science and Technology, Hong Kong SAR

B207 (Thu-AM)
Pretraining on Chronic Lung Inflammatory Disease Datasets to Enhance Indeterminant Lung Cancer Classification using Masked Autoencoders
Authors: Axel H.P. Masquelin, Raúl San José Estépar
Presenter: Axel Masquelin, Brigham and Women's Hospital, United States

B212 (Thu-AM)
Fetuses Made Simple: Modeling and Tracking of Fetal Shape and Pose
Authors: Yingcheng Liu, Peiqi Wang, Sebastian Diaz, Esra Abaci Turk, Benjamin Billot, P. Ellen Grant, Polina Golland
Presenter: Yingcheng Liu, Massachusetts Institute of Technology, United States

B217 (Thu-AM)
Unsupervised Learning-Based Susceptibility Artifact Correction for Diffusion-Weighted MRI in Multiple Organs
Authors: Shihan Qiu, Radu Miron, Yahang Li, Cornelius Eichner, Thorsten Feiweier, Nirmal Janardhanan, Bryan Clifford, Omar Darwish, Mahmoud Mostapha, Mariappan S. Nadar
Presenter: Radu Miron, Siemens Industry Software România, Romania

B222 (Thu-AM)
Paper Highlight
Robust Deep Learning for Myocardial Scar Segmentation in Cardiac MRI with Noisy Labels
Authors: Aida Moafi, Danial Moafi, Evgeny M. Mirkes, Gerry P. McCann, Abbas S. Alatrany, Jayanth Ranjit Arnold, Mostafa Mehdipour Ghazi
Presenter: Aida Moafi, University of Leicester, United Kingdom

B227 (Thu-AM)
Paper Highlight
From Variability To Accuracy: Conditional Bernoulli Diffusion Models with Consensus-Driven Correction for Thin Structure Segmentation
Authors: Jinseo An, Min Jin Lee, Kyu Won Shim, Helen Hong
Presenter: Jinseo An, Seoul Women's University, Republic of Korea

B232 (Thu-AM)
Harnessing Side Information for Highly Accelerated MRI
Authors: Arda Atalık, Sumit Chopra, Daniel K. Sodickson
Presenter: Arda Atalık, New York University, United States

B237 (Thu-AM)
Uncertainty-Aware Multi-Expert Knowledge Distillation for Imbalanced Disease Grading
Authors: Shuo Tong, Shangde Gao, Ke Liu, Zihang Huang, Hongxia Xu, Haochao Ying, Jian Wu
Presenter: Shuo Tong, Zhejiang University, China

B242 (Thu-AM)
GRASP-PsONet: Gradient-based Removal of Spurious Patterns for PsOriasis Severity Classification
Authors: Basudha Pal, Sharif Amit Kamran, Brendon Lutnick, Molly Lucas, Chaitanya Parmar, Asha Patel Shah, David Apfel, Steven Fakharzadeh, Lloyd Miller, Gabriela Cula, Kristopher Standish
Presenter: Basudha Pal, Johns Hopkins University, United States

B247 (Thu-AM)
GL-LCM: Global-Local Latent Consistency Models for Fast High-Resolution Bone Suppression in Chest X-Ray Images
Authors: Yifei Sun, Zhanghao Chen, Hao Zheng, Yuqing Lu, Lixin Duan, Fenglei Fan, Ahmed Elazab, Xiang Wan, Changmiao Wang, Ruiquan Ge
Presenter: Yifei Sun, Hangzhou Dianzi University, China

B252 (Thu-AM)
CardioInterp: Generative Modeling for Cardiovascular OCT Interpolation with Anatomical Continuity and Fidelity
Authors: Linyuan Li, Bing Yang, Minqing Zhang, Mengxian He, Wu Yuan
Presenter: Linyuan Li, The Chinese University of Hong Kong, China

B257 (Thu-AM)
Non-Salient Object Segmentation in Medical Images via Pre-trained Multi-Granularity Masked Autoencoders
Authors: Bin Zhang, Dongsheng Ruan, Ronghui Qi, Chenchu Xu, Yanping Zhang, Chengjin Yu, Lei Xu, Rui Wang
Presenter: Bin Zhang, Anhui University, China

B262 (Thu-AM)
EchoCardMAE: Video Masked Auto-Encoders Customized for Echocardiography
Authors: Xuan Yang, Rui Xu, Xinchen Ye, Zhihui Wang, Miao Zhang, Yi Wang, Xin Fan, Hongkai Wang, Qingxiong Yue, Xiangjian He, Yen-Wei Chen
Presenter: Rui Xu, Dalian University of Technology, China

B267 (Thu-AM)
Mono-Modalizing Extremely Heterogeneous Multi-Modal Medical Image Registration
Authors: Kyobin Choo, Hyunkyung Han, Jinyeong Kim, Chanyong Yoon, Seong Jae Hwang
Presenter: Kyobin Choo, Yonsei University, Republic of Korea

B272 (Thu-AM)
Paper Highlight
TESLA: Test-time Reference-free Through-plane Super-resolution for Multi-contrast Brain MRI
Authors: Yoonseok Choi, Sunyoung Jung, Mohammed A. Al-masni, Ming-Hsuan Yang, Dong-Hyun Kim
Presenter: Yoonseok Choi, Yonsei University, Republic of Korea

B277 (Thu-AM)
Paper Highlight
Query-Level Alignment for End-to-End Lesion Detection with Human Gaze
Authors: Yan Kong, Zhixiang Peng, Yuan Yin, Yonghao Li, Jiangdong Cai, Sheng Wang, Qian Wang, Yuqi Fang, Caifeng Shan
Presenter: Yan Kong, Nanjing University, China

B282 (Thu-AM)
Paper Highlight
VesselVerse: A Dataset and Collaborative Framework for Vessel Annotation
Authors: Daniele Falcetta, Vincenzo Marciano, Kaiyuan Yang, Jon Cleary, Loïc Legris, Massimiliano Domenico Rizzaro, Ioannis Pitsiorlas, Hava Chaptoukaev, Benjamin Lemasson, Bjoern Menze, Maria A. Zuluaga
Presenter: Daniele Falcetta, EURECOM, France

B287 (Thu-AM)
UDPET: Ultra-low Dose PET Imaging Challenge Dataset
Authors: Song Xue, Hanzhong Wang, Yizhou Chen, Fanxuan Liu, Hong Zhu, Marco Viscione, Rui Guo, Axel Rominger, Biao Li, Kuangyu Shi
Presenter: Yizhou Chen, University of Bern, Switzerland

B292 (Thu-AM)
Pose as Clinical Prior: Learning Dual Representations for Scoliosis Screening
Authors: Zirui Zhou, Zizhao Peng, Dongyang Jin, Chao Fan, Fengwei An, Shiqi Yu
Presenter: Zirui Zhou, Southern University of Science and Technology, China

B297 (Thu-AM)
T2WI-BCMIC: Non-Fat Saturated T2-Weighted Imaging Dataset for Bladder Cancer Muscle Invasion Classification
Authors: Han Huang, Weiyi Chen, Qiuxia Wu, Huanjun Wang, Qian Cai, Yan Guo
Presenter: Qiuxia Wu, South China University of Technology, China

B302 (Thu-AM)
Training state-of-the-art pathology foundation models with orders of magnitude less data
Authors: Mikhail Karasikov, Joost van Doorn, Nicolas Känzig, Melis Erdal Cesur, Hugo Mark Horlings, Robert Berke, Fei Tang, Sebastian Otálora
Presenter: Juan Sebastian Otálora Montenegro, kaiko.ai, Switzerland

B307 (Thu-AM)
The Missing Piece: A Case for Pre-Training in 3D Medical Object Detection
Authors: Katharina Eckstein, Constantin Ulrich, Michael Baumgartner, Jessica Kächele, Dimitrios Bounias, Tassilo Wald, Ralf Floca, Klaus H. Maier-Hein

Presenter: Katharina Eckstein, German Cancer Research Center (DKFZ), Germany

B312 (Thu-AM)

Trexplorer Super: Topologically Correct Centerline Tree Tracking of Tubular Objects in CT Volumes
Authors: Roman Naeem, David Hagerman, Jennifer Alvén, Lennart Svensson, Fredrik Kahl
Presenter: Roman Naeem, Chalmers University of Technology, Sweden

B317 (Thu-AM)

Neural Proteomics Fields for Super-resolved Spatial Proteomics Prediction
Authors: Bokai Zhao, Weiyang Shi, Hanqing Chao, Zijiang Yang, Yiyang Zhang, Ming Song, Tianzi Jiang
Presenter: Bokai Zhao, Institute of Automation, Chinese Academy of Sciences, China

B322 (Thu-AM)

VBCD: A Voxel-Based Framework for Personalized Dental Crown Design
Authors: Linda Wei, Chang Liu, Wenran Zhang, Zengji Zhang, Shaoting Zhang, Hongsheng Li
Presenter: Linda Wei, The Chinese University of Hong Kong, Hong Kong, SAR

B327 (Thu-AM)

A Uniform Multi-mode Fused Framework for Velocity Field Estimation in Ultrasound Imaging
Authors: Hailong Li, Liansheng Wang, Yinran Chen
Presenter: Hailong Li, Xiamen University, China

B332 (Thu-AM)

VoxelOpt: Voxel-Adaptive Message Passing for Discrete Optimization in Deformable Abdominal CT Registration
Authors: Hang Zhang, Yuxi Zhang, Jiazheng Wang, Xiang Chen, Renjiu Hu, Xin Tian, Gaolei Li, Min Liu
Presenter: Hang Zhang, Cornell University, United States

B335 (Thu-AM)

Coronary Artery Calcification segmentation by using cross-frequency conditioner and geometric priors Learning
Authors: Weili Jiang, Yiming Li, Gadeng Luosang, Gang Peng, Yong Peng, Yijun Yao, Zhang Yi, Jianyong Wang, Mao Chen
Presenter: Weili Jiang, Southwest Jiaotong University, China

C2 (Thu-AM)

Paper Highlight

Sequence-Independent Continual Test-Time Adaptation with Mixture of Incremental Experts for Cross-Domain Segmentation
Authors: Dunyuan Xu, Yuchen Yuan, Donghao Zhou, Xikai Yang, Jingyang Zhang, Jinpeng Li, Pheng-Ann Heng
Presenter: Dunyuan Xu, The Chinese University of Hong Kong, Hong Kong SAR

C7 (Thu-AM)

Paper Highlight

MixStyleFlow: Domain Generalization in Medical Image Segmentation using Normalizing Flows
Authors: Reza Safdari, Mohammad-Ali Nikouei Mahani, Mohamad Koohi-Moghadam, Kyongtae Tyler Bae
Presenter: Mohamad Koohi-Moghadam, The University of Hong Kong, Hong Kong SAR

C12 (Thu-AM)

SUGFW: A SAM-based Uncertainty-guided Feature Weighting Framework for Cold Start Active Learning
Authors: Xiaochuan Ma, Jia Fu, Lanfeng Zhong, Ning Zhu, Guotai Wang
Presenter: Xiaochuan Ma, University of Electronic Science and Technology of China, China

C17 (Thu-AM)

From Generalist to Specialist: Distilling a Mixture of Foundation Models for Domain-specific Medical Image Segmentation
Authors: Qing Li, Yizhe Zhang, Shengxiao Yang, Qirong Li, Zian Wang, Junhong Liu, Haoyang Zhang, Shuo Wang, Chengyan Wang
Presenter: Qing Li, Fudan University, China

C22 (Thu-AM)

Minuscule Cell Detection in AS-OCT Images with Progressive Field-of-View Focusing
Authors: Boyu Chen, Ameenat Solebo, Daqian Shi, Jinge Wu, Paul Taylor
Presenter: Boyu Chen, University College London, United Kingdom

C27 (Thu-AM)

Paper Highlight

Towards Accurate Tumor Budding Detection: A Benchmark Dataset and A Detection Approach Based on Implicit Annotation Standardization and Positive-Negative Feature Coupling
Authors: Rui-Qing Sun, Zeng Fan, Boyang Dai, Yiyan Su, Qun Hao, Chuyang Ye, Shaohui Zhang
Presenter: Shaohui Zhang, Beijing Institute of Technology, China

C32 (Thu-AM)

MammoTracker: Mask-Guided Lesion Tracking in Temporal Mammograms
Authors: Xuan Liu, Yinhao Ren, Marc D. Ryser, Lars J. Grimm, Joseph Y. Lo
Presenter: Joseph Lo, Duke University, United States

C37 (Thu-AM)

Segmenting Vessels Encapsulating Tumor Clusters via Fine-Grained Visual Prompt
Authors: Jiahui Yu, Tianyu Ma, Shenjian Gu, Yuping Guo, Feng Chen, Xiaoxiao Li, Yingke Xu
Presenter: Jiahui Yu, Zhejiang University, Hangzhou

C42 (Thu-AM)
Paper Highlight
Automated Characterization of Myocardial Scar Topological Patterns for Ventricular Tachycardia Screening
Authors: Xicheng Sheng, Yang Zhang, Lei Li, Bailiang Chen, Freddy Odille, Xiahai Zhuang
Presenter: Lei Li, National University of Singapore, Singapore

C47 (Thu-AM)
Paper Highlight
HybridMamba: A Dual-domain Mamba for 3D Medical Image Segmentation
Authors: Weitong Wu, Zhaohu Xing, Jing Gong, Qin Peng, Lei Zhu
Presenter: Weitong Wu, The Hong Kong University of Science and Technology (Guangzhou), China

C52 (Thu-AM)
Paper Highlight
Fit Pixels, Get Labels: Meta-Learned Implicit Networks for Image Segmentation
Authors: Kushal Vyas, Ashok Veeraraghavan, Guha Balakrishnan
Presenter: Kushal Vyas, Rice University, United States

C57 (Thu-AM)
Paper Highlight
Abnormality-Driven Representation Learning for Radiology Imaging
Authors: Marta Ligero, Tim Lenz, Georg Wölflein, Omar S. M. El Nahhas, Daniel Truhn, Jakob Nikolas Kather
Presenter: Tim Lenz, EKFZ for Digital Health, TU Dresden, Germany

C62 (Thu-AM)
Paper Highlight
MARSeg: Enhancing Medical Image Segmentation with MAR and Adaptive Feature Fusion
Authors: Jeonghyun Hwang, Seungyeon Rhee, Minjeong Kim, Thanaporn Viriyasaranon, Jang-Hwan Choi
Presenters: Seungyeon Rhee and Minjeong Kim, Ewha Womans University, Republic of Korea

C67 (Thu-AM)
Paper Highlight
PerioDet: Large-Scale Panoramic Radiograph Benchmark for Clinical-Oriented Apical Periodontitis Detection
Authors: Xiaocheng Fang, Jieyi Cai, Huanyu Liu, Chengju Zhou, Minhua Lu, Bingzhi Chen
Presenter: Bingzhi Chen, Beijing Institute of Technology, China

C72 (Thu-AM)
Paper Highlight
Guiding Registration with Emergent Similarity from Pre-Trained Diffusion Models
Authors: Nurislam Tursynbek, Hastings Greer, Başar Demir, Marc Niethammer
Presenter: Marc Niethammer, University of California San Diego, United States

C77 (Thu-AM)
Paper Highlight
DiffAtlas: GenAI-fying Atlas Segmentation via Image-Mask Diffusion
Authors: Hantao Zhang, Yuhe Liu, Jiancheng Yang, Weidong Guo, Xinyuan Wang, Pascal Fua
Presenter: Hantao Zhang, The École Polytechnique Fédérale de Lausanne, Switzerland

C82 (Thu-AM)
Spatiotemporal-Sensitive Network for Microvascular Obstruction Segmentation from Cine Cardiac Magnetic Resonance
Authors: Yang Yu, Christopher Kok, Jiahao Wang, Jun Cheng, Shuang Leng, Ru San Tan, Liang Zhong, Xulei Yang
*Presenter: Jun Cheng, Institute for Infocomm Research (I2R), Agency for Science, Technology and Research (A*STAR), Singapore*

C87 (Thu-AM)
Pairwise-Constrained Implicit Functions for 3D Human Heart Modeling
Authors: Hieu Le, Jingyi Xu, Nicolas Talabot, Jiancheng Yang, Pascal Fua
Presenter: Nicolas Talabot, The École Polytechnique Fédérale de Lausanne, Switzerland

C92 (Thu-AM)
Learning with Explicit Topological Priors for Chest X-ray Rib Segmentation
Authors: Xiaowei Zhao, Chenglong Li, Jin Tang, Chuanfu Li
Presenter: Xiaowei Zhao, Anhui University, China

C97 (Thu-AM)
EFFDNet: A Scribble-Supervised Medical Image Segmentation Method with Enhanced Foreground Feature Discrimination
Authors: Jinhua Liu, Shu Yun Tan, Xulei Yang, Yanwu Xu, Si Yong Yeo
Presenter: Jinhua Liu, Lee Kong Chian School of Medicine, Nanyang Technological University, Singapore

C102 (Thu-AM)
MAST-Pro: Dynamic Mixture-of-Experts for Adaptive Segmentation of Pan-Tumors with Knowledge-Driven Prompts
Authors: Runqi Meng, Sifan Song, Pengfei Jin, Lin Teng, Yulin Wang, Yiqun Sun, Ling Chen, Yujin Oh, Xiang Li, Quanzheng Li, Ning Guo, Dinggang Shen
Presenter: Runqi Meng, ShanghaiTech University, China

C107 (Thu-AM)
TransSino: Prior Sinogram Pattern-Based Transformer for Limited-Angle CT Image Segmentation
Authors: Jae Hyun Yoon, Yeong Jong Lee, Seok Bong Yoo
Presenter: Yeong Jong Lee, Chonnam National University, Republic of Korea

C112 (Thu-AM)
MatchGen: Detecting Medical Abnormal Region by Generating Matched Normal Regions
Authors: Xinyu Ma, Jinhui Ma, Shiqi He, Xin Che, Hon Yiu So, Lingyang Chu
Presenter: Xinyu Ma, McMaster University, Canada

C117 (Thu-AM)
SpurBreast: A Curated Dataset for Investigating Spurious Correlations in Real-world Breast MRI Classification
Authors: Jong Bum Won, Wesley De Neve, Joris Vankerschaver, Utku Ozbulak
Presenter: Utku Ozbulak, Ghent University Global Campus, Republic of Korea

C122 (Thu-AM)
No More Sliding Window: Efficient 3D Medical Image Segmentation with Differentiable Top-K Patch Sampling
Authors: Young Seok Jeon, Hongfei Yang, Huazhu Fu, Yeshe Kway, Mengling Feng
Presenter: Young Seok Jeon, Emory University, United States

C127 (Thu-AM)
Vascular Photoacoustic Volume Registration via 2D Feature Matching with Reverse Mapping Based on Maximum Intensity Projection
Authors: Junda Liao, Chu Zhou, Yuta Asano, Yushi Suzuki, Ryoma Bise, Nobuaki Imanishi, Kazuo Kishi, Sadakazu Aiso, Imari Sato
Presenter: Junda Liao, The University of Tokyo; National Institute of Informatics, Japan

C132 (Thu-AM)
BraTS-UMamba: Adaptive Mamba UNet with Dual-Band Frequency based Feature Enhancement for Brain Tumor Segmentation
Authors: Haoran Yao, Hao Xiong, Dong Liu, Hualei Shen, Shlomo Berkovsky
Presenter: Haoran Yao, Henan Normal University, China

C137 (Thu-AM)
RefineSeg: Dual Coarse-to-Fine Learning for Medical Image Segmentation
Authors: Anghong Du, Nay Aung, Theodoros N. Arvanitis, Stefan K. Piechnik, Joao A. C. Lima, Steffen E. Petersen, Le Zhang
Presenter: Anghong Du, University of Birmingham, United Kingdom

C142 (Thu-AM)
AdvMIM: Adversarial Masked Image Modeling for Semi-Supervised Medical Image Segmentation
Authors: Lei Zhu, Jun Zhou, Rick Siow Mong Goh, Yong Liu
*Presenter: Huazhu Fu, Institute of High Performance Computing (IHPC), Agency for Science, Technology and Research (A*STAR), Singapore*

C147 (Thu-AM)
Improving Medical Image Segmentation with Implicit Representation and Noisy Label Robustness
Authors: Suruchi Kumari, Harshdeep Singh, Pravendra Singh
Presenter: Suruchi Kumari, Indian Institute of Technology Roorkee, India

C152 (Thu-AM)
New Multiple Sclerosis Lesion Segmentation via Calibrated Inter-patch Blending
Authors: Jin Ye, Son Duy Dao, Yicheng Wu, Yasmeen George, Thanh Nguyen-Duc, Daniel F. Schmidt, Hengcan Shi, Winston Chong, Jianfei Cai
Presenter: Jin Ye, Monash University, Australia

C157 (Thu-AM)
U-Net Transplant: The Role of Pre-training for Model Merging in 3D Medical Segmentation
Authors: Luca Lumetti, Giacomo Capitani, Elisa Ficarra, Simone Calderara, Costantino Grana, Angelo Porrello, Federico Bolelli
Presenter: Luca Lumetti, University of Modena and Reggio Emilia, Italy

C162 (Thu-AM)
A Boundary-aware Cold-Diffusion Model for Electron Microscopy Segmentation
Authors: Muge Qi, Ruohua Shi, Yu Cai, Liuyuan He, Wenyao Wang, Lei Ma
Presenter: Muge Qi, Peking University, China

C167 (Thu-AM)
Paper Highlight
RSAD: Region-Specific Anomaly Detection in fMRI for Disease Diagnosis
Authors: Yusong Sun, Dongdong Chen, Mengjun Liu, Zhenrong Shen, Zhiyun Song, Yuqi Hu, Manman Fei, Xu Han, Zelin Liu, Xingkai Fang, Lu Bai, Lichi Zhang
Presenter: Yusong Sun, Shanghai Jiao Tong University, China

C172 (Thu-AM)
A Virtual Domain Collaborative Learning Framework for Semi-supervised Microscopic Hyperspectral Image Segmentation
Authors: Geng Qin, Huan Liu, Wei Li, Haihao Zhang, Yuxing Guo
Presenter: Geng Qin, Beijing Institute of Technology, China

C177 (Thu-AM)
Compact Training-free NAS with Alternating Evolution Game for Medical Image Segmentation
Authors: Xiaoxue Sun, Hongpeng Wang, Pei-Cheng Song
Presenter: Xiaoxue Sun, Nankai University, China

C182 (Thu-AM)
UniOCTSeg: Towards Universal OCT Retinal Layer Segmentation via Hierarchical Prompting and Progressive Consistency Learning
Authors: Jian Zhong, Li Lin, Chaoran Miao, Kenneth K. Y. Wong, Xiaoying Tang
Presenter: Jian Zhong, Southern University of Science and Technology, China

C187 (Thu-AM) **Spherical Diffusion Process for Score-Guided Cortical Correspondence via Spectral Attention**
Authors: Seungeun Lee, Sergey Pyatkovskiy, Jaejun Yoo, Ilwoo Lyu
Presenter: Seungeun Lee, Klleon, Republic of Korea

C192 (Thu-AM) **EUReg: End-to-end Framework for Efficient 2D-3D Ultrasound Registration**
Authors: Haiqiao Wang, Yi Wang
Presenter: Haiqiao Wang, Shenzhen University, China

C197 (Thu-AM) **MoE-SAM: Enhancing SAM for Medical Image Segmentation with Mixture-of-Experts**
Authors: Ruocheng Li, Lei Wu, Jingjun Gu, Qi Xu, Wanyi Chen, Xiaoxu Cai, Jiajun Bu
Presenter: Ruocheng Li, Zhejiang University, China

C202 (Thu-AM) **M3HL: Mutual Mask Mix with High-Low Level Feature Consistency for Semi-Supervised Medical Image Segmentation**
Authors: Yajun Liu, Zenghui Zhang, Jiang Yue, Weiwei Guo, Dongying Li
Presenter: Yajun Liu, Shanghai Jiao Tong University, China

C207 (Thu-AM) **Leveraging Semantic Asymmetry for Accurate Gross Tumor Volume Segmentation of Nasopharyngeal Carcinoma in Planning CT**
Authors: Zi Li, Ying Chen, Zeli Chen, Yanzhou Su, Tai Ma, Tony C. W. Mok, Yan-Jie Zhou, Yunhao Bai, Zhilin Zheng, Le Lu, Yirui Wang, Jia Ge, Senxiang Yan, Xianghua Ye, Dakai Jin
Presenter: Zeli Chen, DAMO Academy, Alibaba Group, China

C212 (Thu-AM) **SlimFormer-3D: A Layer-Adaptive Lightweight Transformer for Efficient 3D Medical Image Segmentation**
Authors: Yang Hong, Lei Zhang, Xujiong Ye, Jianqing Mo
Presenter: Yang Hong, Guangdong University of Technology, China

C217 (Thu-AM) **BenchReAD: A systematic benchmark for retinal anomaly detection**
Authors: Chenyu Lian, Hong-Yu Zhou, Zhanli Hu, Jing Qin
Presenter: Chenyu Lian, The Hong Kong Polytechnic University, China

C222 (Thu-AM) **Improved Baselines with Synchronized Encoding for Universal Medical Image Segmentation**
Authors: Sihan Yang, Jiadong Feng, Xuande Mi, Haixia Bi, Hai Zhang, Jian Sun
Presenter: Sihan Yang, Xi'an Jiaotong University, China

C227 (Thu-AM) **New Multimodal Similarity Measure for Image Registration via Modeling Local Functional Dependence with Linear Combination of Learned Basis Functions**
Authors: Joel Honkamaa, Pekka Marttinen
Presenter: Joel Honkamaa, Aalto University, Finland

C232 (Thu-AM) **Towards Robust Retinal Vessel Segmentation via Reducing Open-set Label Noises from SAM-generated Masks**
Authors: Minqing Zhang, Mengxian He, Wu Yuan
Presenter: Minqing Zhang, The Chinese University of Hong Kong, China

C237 (Thu-AM) **Spline refinement with differentiable rendering**
Authors: Frans Zdyb, Albert Alonso, Julius B. Kirkegaard
Presenter: Frans Zdyb, University of Copenhagen, Denmark

C242 (Thu-AM) **GEPAR3D: Geometry Prior-Assisted Learning for 3D Tooth Segmentation**
Authors: Tomasz Szczepański, Szymon Płotka, Michal K. Grzeszczyk, Arleta Adamowicz, Piotr Fudalej, Przemysław Korzeniowski, Tomasz Trzciński, Arkadiusz Sitek
Presenter: Michal K. Grzeszczyk, Sano Centre for Computational Personalized Medicine, Poland

C247 (Thu-AM) **Autoregressive Medical Image Segmentation via Next-Scale Mask Prediction**
Authors: Tao Chen, Chenhui Wang, Zhihao Chen, Hongming Shan
Presenter: Tao Chen, Fudan University, China

C252 (Thu-AM) **UniSegDiff: Boosting Unified Lesion Segmentation via a Staged Diffusion Model**
Authors: Yilong Hu, Shijie Chang, Lihe Zhang, Feng Tian, Weibing Sun, Huchuan Lu
Presenter: Yilong Hu, Dalian University of Technology, China

C257 (Thu-AM) **Spatial-Temporal Memory Filtering SAM for Lesion Segmentation in Breast Ultrasound Videos**
Authors: Zhengzheng Tu, Liang Zong, Bo Jiang, Haowen Wang, Kunpeng Wang, Chaoxue Zhang
Presenter: Liang Zong, Anhui University, China

C262 (Thu-AM) **Tumor Segmentation with Heterogeneity Clustering in Non-contrast Breast MRI**
Authors: Xinyu Xie, Luyi Han, Yonghao Li, Yaofei Duan, Yue Sun, Muzhen He, Tao Tan, Dinggang Shen
Presenter: Xinyu Xie, Macao Polytechnic University, China

C267 (Thu-AM)
Hybrid Local-Window-Attention–Assisted U-Net Model for Multimodal Medical-Image Segmentation
Authors: Jiwon Kim, Seyong Jin, Yeonwoo Noh, Hyeonjoon Moon, Minwoo Lee, Wonjong Noh
Presenter: Jiwon Kim, Sejong University, Republic of Korea

C272 (Thu-AM)
VesselSDF: Distance Field Priors for Vascular Network Reconstruction
Authors: Salvatore Esposito, Daniel Rebain, Arno Onken, Changjian Li, Oisin Mac Aodha
Presenter: Salvatore Esposito, University of Edinburgh, United Kingdom

C277 (Thu-AM)
MSWAL: 3D Multi-class Segmentation of Whole Abdominal Lesions Dataset
Authors: Zhaodong Wu, Qiaochu Zhao, Ming Hu, Yulong Li, Haochen Xue, Zhengyong Jiang, Angelos Stefanidis, Qiufeng Wang, Imran Razzak, Zongyuan Ge, Junjun He, Yu Qiao, Zhong Zheng, Feilong Tang, Kang Dang, Jionglong Su
Presenter: Zhaodong Wu, Xi'an Jiaotong-Liverpool University, China

C282 (Thu-AM)
Phenotype Representation and Analysis via Discriminative Atypicality (PRADA) to capture the structural heterogeneity of Autism Spectrum Disorder
Authors: Emre Onemli, Ahsan Mahmood, Omar Azrak, Dea Garic, Meghan R. Swanson, Rebecca Grzadzinski, Kattia Mata, Mark D. Shen, Jessica B. Girault, Tanya St. John, Juhi Pandey, Lonnie Zwaigenbaum, Annette M. Estes, Audrey M. Shen, Stephen R. Dager, Robert T. Schultz, Kelly N. Botteron, Alan C. Evans, Jed T. Elison, Essa Yacoub, Sun Hyung Kim, Robert C. McKinstry, Guido Gerig, Heather C. Hazlett, Natasha Marrus, Joseph Piven, John R. Pruett Jr., Martin Styner
Presenter: Martin Styner, University of North Carolina, United States

C287 (Thu-AM)
StyleGAN-based Brain MRI Anomaly Detection via Latent Code Retrieval and Partial Swap
Authors: Jie Wei, Xiaofei Hu, Shaoting Zhang, Guotai Wang
Presenter: Guotai Wang, University of Electronic Science and Technology of China, China

C292 (Thu-AM)
Paper Highlight
MultiTransAD: Cross-Sequence Translation-Driven Anomaly Detection in Multi-Sequence Brain MRI
Authors: Qi Zhang, Yibo Hu, Jianqi Sun
Presenter: Qi Zhang, Shanghai Jiaotong University, China

C297 (Thu-AM)
Paper Highlight
CSAL-3D: Cold-start Active Learning for 3D Medical Image Segmentation via SSL-driven Uncertainty-Reinforced Diversity Sampling
Authors: Ning Zhu, Ping Ye, Lanfeng Zhong, Qiang Yue, Shaoting Zhang, Guotai Wang
Presenter: Ning Zhu, University of Electronic Science and Technology of China, China

C302 (Thu-AM)
Medical-Knowledge Driven Multiple Instance Learning for Classifying Severe Abdominal Anomalies on Prenatal Ultrasound
Authors: Huanwen Liang, Jingxian Xu, Yuanji Zhang, Yuhao Huang, Yuhan Zhang, Xin Yang, Ran Li, Xuedong Deng, Yanjun Liu, Guowei Tao, Yun Wu, Sheng Zhao, Xinru Gao, Dong Ni
Presenter: Huanwen Liang, Shenzhen University, China

C307 (Thu-AM)
AffinityUMamba: Uncertainty-Aware Medical Image Segmentation via Probabilistic Weak Supervision Beyond Gold-Standard Annotations
Authors: Yukun Zhang, Guisheng Wang, William Henry Nailon, Kun Cheng
Presenter: Yukun Zhang, Beijing University of Posts and Telecommunications, China

C312 (Thu-AM)
Anomaly Detection by Clustering DINO Embeddings using a Dirichlet Process Mixture
Authors: Nico Schulthess, Ender Konukoglu
Presenter: Nico Schulthess, ETH Zürich, Switzerland

C317 (Thu-AM)
CS^{2}C: Collaborative Spatial and Spectral Neural Clustering for Organelle Segmentation from Volumetric Electron Microscopy
Authors: Jimao Jiang, Yuru Pei
Presenter: Jimao Jiang, Peking University, China

C322 (Thu-AM)
SMF-Net: Unlocking Multimodal Insights for Enhanced Stroke Lesion Segmentation
Authors: Meklit Atlaw, Geng Chen, Haotian Jiang, Xuyun Wen, Hengfei Cui, Yong Xia
Presenter: Meklit Atlaw, Northwestern Polytechnical University, China

C327 (Thu-AM)
Bridging Classical and Learning-based Iterative Registration through Deep Equilibrium Models
Authors: Yi Zhang, Yidong Zhao, Qian Tao
Presenter: Yi Zhang, Delft University of Technology, The Netherlands

C332 (Thu-AM)
Paper Highlight
GLM-SFNet: Global-Local Vision-Mamba with Semantic Fusion for Medical Image Segmentation
Authors: Jiahui Chen, Fei Qi, Chengyuan Chang, Qinjie Hu, Kaiwen Fu, Xiaotian Wang, Kun Liu
Presenter: Jiahui Chen, Xidian University, China

Poster Session 3: Prediction / Generalizability and Adaptation / Reconstruction and Synthesis in Ultrasound, Microscopy, and Photography

Thursday, September 25, 2025, 15:30 – 17:00
Poster Hall (DCC 2)

A3 (Thu-PM)
DPGS-Net: Dual Prior-Guided Cross-Domain Adaptive Framework for Ultrasound Image Segmentation
Authors: Weijie Zhang, Lingfeng Xie, Kun Zeng, Xiaonan Luo, Yongyi Gong
Presenter: Weijie Zhang, Guangdong University of Foreign Studies, China

A8 (Thu-PM)
Distilling foundation models for robust and efficient models in digital pathology
Authors: Alexandre Filiot, Nicolas Dop, Oussama Tchita, Auriane Riou, Rémy Dubois, Thomas Peeters, Daria Valter, Marin Scalbert, Charlie Saillard, Geneviève Robin, Antoine Olivier
Presenter: Alexandre Filiot, Owkin, France

A13 (Thu-PM)
PSAT: Pediatric Segmentation Approaches via Adult Augmentations and Transfer Learning
Authors: Tristan Kirscher, Sylvain Faisan, Xavier Coubez, Loris Barrier, Philippe Meyer
Presenter: Tristan Kirscher, ICUBE IMAGeS - ICANS, France

A18 (Thu-PM)
PathoCellBench: A Comprehensive Benchmark for Cell Phenotyping
Authors: Jérôme Lüscher, Nora Koreuber, Jannik Franzen, Fabian H. Reith, Claudia Winklmayr, Elias Baumann, Christian M. Schürch, Dagmar Kainmüller, Josef Lorenz Rumberger
Presenter: Claudia Winklmayr, Max Delbrück Center, Germany

A23 (Thu-PM)
General Methods Make Great Domain-specific Foundation Models: A Case-study on Fetal Ultrasound
Authors: Jakob Ambsdorf, Asbjørn Munk, Sebastian Llambias, Anders N. Christensen, Kamil Mikolaj, Randall Balestriero, Martin G. Tolsgaard, Aasa Feragen, Mads Nielsen
Presenter: Jakob Ambsdorf, University of Copenhagen, Denmark

A28 (Thu-PM)
OralSAM: One-shot Segmentation for Intraoral Ultrasound Videos with Adaptive Feature Correlation and Self-prompting Strategy
Authors: Logiraj Kumaralingam, Anparasy Sivaanpu, Manh-Hai Hoang, Javaneh Alavi, Kim-Cuong T. Nguyen, Kumaradevan Punithakumar, Edmond H. M. Lou, Paul Major, Lawrence H. Le
Presenter: Anparasy Sivaanpu, University of Alberta, Canada

A33 (Thu-PM)
Automatic dataset shift identification to support safe deployment of medical imaging AI
Authors: Mélanie Roschewitz, Raghav Mehta, Charles Jones, Ben Glocker
Presenter: Ben Glocker, Imperial College London, United Kingdom

A38 (Thu-PM)
Paper Highlight
Adaptive Stain Normalization for Cross-Domain Medical Histology
Authors: Tianyue Xu, Yanlin Wu, Abhai K. Tripathi, Matthew M. Ippolito, Benjamin D. Haeffele
Presenter: Yanlin Wu, Johns Hopkins University, United States

A43 (Thu-PM)
Paper Highlight
Physics-guided deep image prior network for general zero-shot stain deconvolution
Authors: Jianan Chen, Lydia Y. Liu, Wenchao Han, Alison Cheung, Hubert Tsui, Anne L. Martel
Presenter: Jianan Chen, University College London, United Kingdom

A48 (Thu-PM)
Regularized Low-Rank Adaptation for Few-Shot Organ Segmentation
Authors: Ghassen Baklouti, Julio Silva-Rodríguez, Jose Dolz, Houda Bahig, Ismail Ben Ayed
Presenter: Ghassen Baklouti, ÉTS Montréal & Centre de Recherche du Centre Hospitalier de l'Université de Montréal, Canada

A53 (Thu-PM)
Self-supervised Normality Learning and Divergence Vector-guided Model Merging for Zero-shot Congenital Heart Disease Detection in Fetal Ultrasound Videos
Authors: Pramit Saha, Divyanshu Mishra, Netzahualcoyotl Hernandez-Cruz, Olga Patey, Aris T. Papageorghiou, Yuki M. Asano, J. Alison Noble
Presenter: Divyanshu Mishra, University of Oxford, United Kingdom

A58 (Thu-PM)
Solving Medical Multi-Label Domain Adaptation via Wasserstein Adversarial Learning with Class-Level Alignment
Authors: Wenjie Liu, Fuyou Miao, Xu Wang
Presenter: Wenjie Liu, University of Science and Technology of China, China

A63 (Thu-PM)
Domain-Adaptive Diagnosis of Lewy Body Disease with Transferability Aware Transformer
Authors: Xiaowei Yu, Jing Zhang, Tong Chen, Yan Zhuang, Minheng Chen, Chao Cao, Yanjun Lyu, Lu Zhang, Li Su, Tianming Liu, Dajiang Zhu
Presenter: Tong Chen, University of Texas at Arlington, United States

A68 (Thu-PM)
AEM: Attention Entropy Maximization for Multiple Instance Learning based Whole Slide Image Classification
Authors: Yunlong Zhang, Honglin Li, Yuxuan Sun, Zhongyi Shui, Jingxiong Li, Chenglu Zhu, Lin Yang
Presenter: Yunlong Zhang, Westlake University, China

A73 (Thu-PM)
Contour Makes It Stronger: Cross-Domain Cephalometric Landmark Detection Based on Contour Priors
Authors: Xinyue Liang, Runnan Chen, Guangshun Wei, Shaojie Zhuang, Yuanfeng Zhou
Presenter: Yuanfeng Zhou, Shandong University, China

A78 (Thu-PM)
Paper Highlight
Deep Association Multimodal Learning for Zero-shot Spatial Transcriptomics Prediction
Authors: Yijing Zhou, Yadong Lu, Qingli Li, Xinxing Li, Yan Wang
Presenter: Yijing Zhou, East China Normal University, China

A83 (Thu-PM)
Pathology Image Compression with Pre-trained Autoencoders
Authors: Srikar Yellapragada, Alexandros Graikos, Kostas Triaridis, Zilinghan Li, Tarak Nath Nandi, Ravi K Madduri, Prateek Prasanna, Joel Saltz, Dimitris Samaras
Presenter: Srikar Yellapragada, Stony Brook University, United States

A88 (Thu-PM)
CLIMD: A Curriculum Learning Framework for Imbalanced Multimodal Diagnosis
Authors: Kai Han, Chongwen Lyu, Lele Ma, Chengxuan Qian, Siqi Ma, Zheng Pang, Jun Chen, Zhe Liu
Presenter: Kai Han, Jiangsu University, China

A93 (Thu-PM)
Regression-assisted Classification for CT-based Portal Hypertension Diagnosis
Authors: Wuque Cai, Jiayi He, Xu Guo, Hongze Sun, Huan Tong, Bo Wei, Hao Wu, Dezhong Yao, Daqing Guo
Presenter: Jiayi He, University of Electronic Science and Technology of China, China

A98 (Thu-PM)
MIBF-Net: Multi-modal Information Balanced Fusion Network for Clinical Diagnosis via Patient Narratives and Lesion Image
Authors: Zixuan Tang, Bai Sun, Shidan He, Yuan Hong, Dongdong Yu, Zhenzhong Liu, Mengtang Li, Bin Chen, Shen Zhao
Presenter: Zixuan Tang, Sun Yat-Sen University, China

A103 (Thu-PM)
Risk Estimation of Knee Osteoarthritis Progression via Predictive Multi-task Modelling from Efficient Diffusion Model using X-ray Images
Authors: David Butler, Adrian Hilton, Gustavo Carneiro
Presenter: David Butler, University of Surrey, United Kingdom

A108 (Thu-PM)
Unraveling Brainstem Deformations in Joubert Syndrome: A Statistical Shape Analysis of MRI-Derived Structures
Authors: Francesca Maccarone, Giorgio Longari, Filippo Arrigoni, Denis Peruzzo, Simone Melzi
Presenter: Francesca Maccarone, University of Milano-Bicocca, Italy

A113 (Thu-PM)
Time-Lapse Video-Based Embryo Grading via Complementary Spatial-Temporal Pattern Mining
Authors: Yong Sun, Yipeng Wang, Junyu Shi, Zhiyuan Zhang, Yanmei Xiao, Lei Zhu, Manxi Jiang, Qiang Nie
Presenter: Yong Sun, The Hong Kong University of Science and Technology (Guangzhou), China

A118 (Thu-PM)
Paper Highlight
FoundBioNet: A Foundation-Based Model for IDH Genotyping of Glioma from Multi-Parametric MRI
Authors: Somayeh Farahani, Marjaneh Hejazi, Antonio Di Ieva, Sidong Liu
Presenter: Somayeh Farahani, Macquarie University, Australia

A123 (Thu-PM)
Paper Highlight
P2INR-FWI: an Implicit Neural Representation Method for Speed of Sound Image Reconstruction in Ultrasound Computed Tomography
Authors: Zesong Wang, Weicheng Yan, Zhaohui Liu, Ming Yuchi, Wu Qiu
Presenter: Zesong Wang, Huazhong University of Science and Technology, China

A128 (Thu-PM)
All-in-One Medical Image Restoration with Latent Diffusion-Enhanced Vector-Quantized Codebook Prior
Authors: Haowei Chen, Zhiwen Yang, Haotian Hou, Hui Zhang, Bingzheng Wei, Gang Zhou, Yan Xu
Presenter: Haowei Chen, Beihang University, China

A133 (Thu-PM)
Paper Highlight
SABPI-Net: A Novel Structure-Aware Network for Accurate and Domain-Invariant Retinopathy of Prematurity Diagnosis
Authors: Shaobin Chen, Xinyu Zhao, Huazhu Fu, Tao Tan, Jiaju Huang, Xiangyu Xiong, Zhenquan Wu, Behdad Dashtbozorg, Baiying Lei, Guoming Zhang, Yue Sun
Presenter: Jiaju Huang, Macao Polytechnic University, China

A138 (Thu-PM)
Paper Highlight
Aβ-PET Pattern Prediction via Graph Reconstruction-Aware Fusion (GRAF) of Functional and Structural Networks
Authors: Haoyue Yuan, Yuxiao Liu, Feihong Liu, Dinggang Shen
Presenter: Haoyue Yuan, ShanghaiTech University, China

A143 (Thu-PM)
Focus on Texture: Rethinking Pre-training in Masked Autoencoders for Medical Image Classification
Authors: Chetan Madan, Aarjav Satia, Soumen Basu, Pankaj Gupta, Usha Dutta, Chetan Arora
Presenter: Chetan Madan, Indian Institute of Technology Delhi, India

A148 (Thu-PM)
BrainAlign: EEG-Vision Alignment via Frequency-Aware Temporal Encoder and Differentiable Cluster Assigner
Authors: Enze Shi, Huawen Hu, Qilong Yuan, Kui Zhao, Sigang Yu, Shu Zhang
Presenter: Enze Shi, Northwestern Polytechnical University, China

A153 (Thu-PM)
Physiological neural representation for personalised tracer kinetic parameter estimation from dynamic PET
Authors: Kartikay Tehlan, Thomas Wendler
Presenter: Kartikay Tehlan, Technical University of Munich, Germany

A158 (Thu-PM)
A Non-contrast Head CT Foundation Model for Comprehensive Neuro-Trauma Triage
Authors: Youngjin Yoo, Bogdan Georgescu, Yanbo Zhang, Sasa Grbic, Han Liu, Gabriela D. Aldea, Thomas J. Re, Jyotipriya Das, Poikavila Ullaskrishnan, Eva Eibenberger, Andrei Chekkoury, Uttam K. Bodanapally, Savvas Nicolaou, Pina C. Sanelli, Thomas J. Schroeppel, Yvonne W. Lui, Eli Gibson
Presenter: Youngjin Yoo, Siemens Healthineers, United States

A163 (Thu-PM)
R2B-WFC Ultrasound Reconstruction: Wavelet Fourier Convolution-based Reconstruction from Radio Frequency to Image
Authors: Hyunsu Jeong, Chiho Yoon, Minsik Sung, Kiduk Kim, Dougho Park, Chulhong Kim
Presenter: Hyunsu Jeong, Pohang University of Science and Technology, Republic of Korea

A168 (Thu-PM)
Revisiting Masked Image Modeling with Standardized Color Space for Domain Generalized Fundus Photography Classification
Authors: Eojin Jang, Myeongkyun Kang, Soopil Kim, Min Sagong, Sang Hyun Park
Presenter: Soopil Kim, Daegu Gyeongbuk Institute of Science and Technology, Republic of Korea

A173 (Thu-PM)
Out-of-Distribution Nuclei Segmentation in Histology Imaging via Liquid Neural Networks with Modern Hopfield Layer
Authors: Bishal Ranjan Swain, Kyung Joo Cheoi, Jaepil Ko
Presenter: Bishal Ranjan Swain, Kumoh National Institute of Technology, Republic of Korea

A178 (Thu-PM)
Prototype-Guided and Lightweight Adapters for Inherent Interpretation and Generalisation in Federated Learning
Authors: Samuel Ofosu Mensah, Kerol Djoumessi, Philipp Berens
Presenter: Samuel Ofosu Mensah, Hertie Institute for AI in Brain Health, Germany

A183 (Thu-PM)
Paper Highlight
Deep Learning Framework for Managing Inter-Reader Variability in Background Parenchymal Enhancement Classification for Contrast-Enhanced Mammography
Authors: Elodie Ripaud, Clément Jailin, Pablo Milioni de Carvalho, Laurence Vancamberg, Isabelle Bloch
Presenter: Elodie Ripaud, GE HealthCare, France

A188 (Thu-PM)
Influence of Classification Task and Distribution Shift Type on OOD Detection in Fetal Ultrasound
Authors: Chun Kit Wong, Anders N. Christensen, Cosmin I. Bercea, Julia A. Schnabel, Martin G. Tolsgaard, Aasa Feragen
Presenter: Chun Kit Wong, Technical University of Denmark, Denmark

A193 (Thu-PM)
PathoPainter: Augmenting Histopathology Segmentation via Tumor-aware Inpainting
Authors: Hong Liu, Haosen Yang, Evi M. C. Huijben, Mark Schuiveling, Ruisheng Su, Josien P. W. Pluim, Mitko Veta
Presenter: Hong Liu, Eindhoven University of Technology, The Netherlands

A198 (Thu-PM)
Exploring the feasibility of zero-shot super-resolution in preclinical imaging
Authors: Omar A. M. Gharib, Samuel W. Remedios, Blake E. Dewey, Jerry L. Prince, Aaron Carass
Presenter: Samuel Remedios, Johns Hopkins University, United States

A203 (Thu-PM)
Synthesis of Pathological Dual-Channel Color Doppler Echocardiograms for Equitable Diagnosis of Heart Diseases

Authors: Pooneh Roshanitabrizi, Pengfei Guo, Artur Arturi Aharonyan, Kelsey Brown, Taylor Gloria Broudy, Abhijeet Parida, Austin Tapp, Zhifan Jiang, Alison Tompsett, Joselyn Rwebembera, Emmy Okello, Andrea Beaton, Holger R. Roth, Daguang Xu, Syed Muhammad Anwar, Craig A. Sable, Marius George Linguraru
Presenter: Pooneh Roshanitabrizi, Children's National Hospital, United States

A208 (Thu-PM)
PD-UniST: Prompt-Driven Universal Model for Unpaired H&E-to-IHC Stain Translation
Authors: Chujie Zhang, Yangyang Xie, Yinhao Li, Xiao Liang, Lanfen Lin, Yen-Wei Chen
Presenter: Chujie Zhang, Ritsumeikan University, China

A213 (Thu-PM)
Parameter-Efficient 12-Lead ECG Reconstruction from a Single Lead
Authors: Junseok Lee, Yeonho Yoo, Jinkyu Kim, Dosun Lim, Gyeongsik Yang, Chuck Yoo
Presenter: Junseok Lee, Korea University, Republic of Korea

A218 (Thu-PM)
UltraRay: Introducing Full-Path Ray Tracing in Physics-Based Ultrasound Simulation
Authors: Felix Duelmer, Mohammad Farid Azampour, Magdalena Wysocki, Nassir Navab
Presenter: Felix Duelmer, Technical University of Munich, Germany

A223 (Thu-PM)
Paper Highlight
Lymphoma Prognosis with Lesion-Anatomy Context Fusion and Attention-Based Multi-Lesion Aggregation
Authors: Song Zhang, Jiajin Zhang, Liheng Qiu, Wei Liu, Dakai Jin, Le Lu, Shenmiao Yang, Ke Yan
Presenter: Ke Yan, DAMO Academy, Alibaba Group, China

A228 (Thu-PM)
Pathology-Informed Latent Diffusion Model for Anomaly Detection in Lymph Node Metastasis
Authors: Jiamu Wang, Keunho Byeon, Jinsol Song, Anh Nguyen, Sangjeong Ahn, Sung Hak Lee, Jin Tae Kwak
Presenter: Jiamu Wang, Korea University, Republic of Korea

A233 (Thu-PM)
Paper Highlight
IMREPET: Implicit Neural Representation for Unsupervised Dynamic PET Reconstruction
Authors: Kailong Fan, Yubo Ye, Huafeng Liu, Linwei Wang
Presenter: Kailong Fan, Zhejiang University, China

A238 (Thu-PM)
MDAA-Diff: CT-Guided Multi-Dose Adaptive Attention Diffusion Model for PET Denoising
Authors: Xiaolong Niu, Zanting Ye, Xu Han, Yanchao Huang, Hao Sun, Hubing Wu, Lijun Lu
Presenter: Xiaolong Niu, Southern Medical University, China

A243 (Thu-PM)
ODES: Online Domain Adaptation with Expert Guidance for Medical Image Segmentation
Authors: Md Shazid Islam, Sayak Nag, Arindam Dutta, Sk Miraj Ahmed, Fahim Faisal Niloy, Shreyangshu Bera, Amit K. Roy-Chowdhury
Presenter: Md Shazid Islam, University of California Riverside, United States

A248 (Thu-PM)
Contrastive Disentanglement Learning Framework for Multi-lead Wearable ECG Denoising
Authors: Yue Zhang, Chenyu Zhao, Wen Zhang, Jinliang Wang, Jun Guo, Wei Yang, Qianjin Feng
Presenter: Yue Zhang, Southern Medical University, China

A253 (Thu-PM)
Blind Restoration of High-Resolution Ultrasound Video
Authors: Chu Chen, Kangning Cui, Pasquale Cascarano, Wei Tang, Elena Loli Piccolomini, Raymond H. Chan
Presenter: Chu Chen, City University of Hong Kong, Hong Kong SAR

A258 (Thu-PM)
Paper Highlight
Multi-Level Gated U-Net for Denoising TMR Sensor-Based MCG Signals
Authors: Zeyu Xing, Hao Li, Hao Dou, Zhong Zheng, Jingguo Dai, Chen Wang, Jian Cui, Xin Zhang, Tianzi Jiang
Presenter: Zhong Zheng, Institute of Automation, Chinese Academy of Sciences, China

A263 (Thu-PM)
PD-INR: Prior-Driven Implicit Neural Representations for TOF-PET Reconstruction
Authors: Yuxuan Long, Yulin Zhang, Hong Wang, Xiaodong Kuang, Hailiang Huang, Fan Rao, Huafeng Liu, Yefeng Zheng, Wentao Zhu
Presenter: Yulin Zhang, Zhejiang University, China

A268 (Thu-PM)
RedDino: A foundation model for red blood cell analysis
Authors: Luca Zedda, Andrea Loddo, Cecilia Di Ruberto, Carsten Marr
Presenter: Andrea Loddo, Helmholtz Zentrum München, Germany

A273 (Thu-PM)
Paper Highlight
Global and Local Vision-Language Alignment for Few-Shot Learning and Few-Shot OOD Detection
Authors: Jie Yan, Xiaoyuan Guan, Wei-Shi Zheng, Hao Chen, Ruixuan Wang
Presenter: Jie Yan, Sun Yat-sen University, China

A278 (Thu-PM)
RL4Med-DDPO: Reinforcement Learning for Controlled Guidance Towards Diverse Medical Image Generation using Vision-Language Foundation Models

Authors: Parham Saremi, Amar Kumar, Mohamed Mohamed, Zahra TehraniNasab, Tal Arbel
Presenter: Parham Saremi, McGill University, Canada

A283 (Thu-PM)
Language of Stains: Tokenization Enhances Multiplex Immunofluorescence and Histology Image Synthesis
Authors: Zachary Sims, Sandhya Govindarajan, Gordon B. Mills, Ece Eksi, Young Hwan Chang
Presenter: Zachary Sims, Oregon Health & Science University, United States

A288 (Thu-PM)
Sparse3Diff: A Diffusion Framework for 3D Reconstruction from Sparse 2D Slices in Volumetric Optical Imaging
Authors: Hyun Jung Lee, Eunjung Jo, Minjoo Lim, Young-Han Son, Bogyeong Kang, Hyeonyeong Nam, Ji-Hoon Jeong, Dong-Hee Shin, Tae-Eui Kam
Presenter: Hyun Jung Lee, Korea University, Republic of Korea

A293 (Thu-PM)
Uncertainty-aware Diffusion and Reinforcement Learning for Joint Plane Localization and Anomaly Diagnosis in 3D Ultrasound
Authors: Yuhao Huang, Yueyue Xu, Haoran Dou, Jiaxiao Deng, Xin Yang, Hongyu Zheng, Dong Ni
Presenter: Yuhao Huang, Shenzhen University, China

A298 (Thu-PM)
SSPNet: Towards Feasible Spatio-Spectral Portraits-Based Deep Learning Framework for Neurodegenerative Disease Multi-Classification
Authors: Ho-Jung Kim, Dogeun Park, Jeong-Woo Jang, Young-Gi Ju, Dong-Ok Won
Presenter: Dogeun Park, Cerebrovascular Disease Research Center, Hallym University, Republic of Korea

A303 (Thu-PM)
Conservative-Radical Complementary Learning for Class-incremental Medical Image Analysis with Pre-trained Foundation Models
Authors: Xinyao Wu, Zhe Xu, Donghuan Lu, Jinghan Sun, Hong Liu, Sadia Shakil, Jiawei Ma, Yefeng Zheng, Raymond Kai-yu Tong
Presenters: Xinyao Wu and Zhe Xu, The Chinese University of Hong Kong, Hong Kong SAR

A308 (Thu-PM)
Paper Highlight
Predicting Longitudinal Brain Development via Implicit Neural Representations
Authors: Maik Dannecker, Daniel Rueckert
Presenter: Maik Dannecker, Technical University of Munich, Germany

A313 (Thu-PM)
CXR-CML: Improved zero-shot classification of long-tailed multi-label diseases in Chest X-Rays
Authors: Rajesh Madhipati, Sheethal Bhat, Lukas Buess, Andreas Maier
Presenter: Rajesh Madhipati, Friedrich-Alexander University Erlangen-Nuremberg, Germany

A318 (Thu-PM)
CXR-TFT: Multi-Modal Temporal Fusion Transformer for Predicting Chest X-ray Trajectories
Authors: Mehak Arora, Ayman Ali, Kaiyuan Wu, Carolyn Davis, Takashi Shimazui, Mahmoud Alwakeel, Victor Moas, Philip Yang, Annette Esper, Rishikesan Kamaleswaran
Presenter: Mehak Arora, Duke University, United States

A323 (Thu-PM)
RetinaLogos: Fine-Grained Synthesis of High-Resolution Retinal Images Through Captions
Authors: Junzhi Ning, Cheng Tang, Kaijing Zhou, Diping Song, Lihao Liu, Ming Hu, Wei Li, Huihui Xu, Yanzhou Su, Tianbin Li, Jiyao Liu, Jin Ye, Sheng Zhang, Yuanfeng Ji, Junjun He
Presenter: Junzhi Ning, Shanghai Artificial Intelligence Laboratory, China

A328 (Thu-PM)
ADAptation: Reconstruction-based Unsupervised Active Learning for Breast Ultrasound Diagnosis
Authors: Yaofei Duan, Yuhao Huang, Xin Yang, Luyi Han, Xinyu Xie, Zhiyuan Zhu, Ping He, Ka-Hou Chan, Ligang Cui, Sio-Kei Im, Dong Ni, Tao Tan
Presenter: Yaofei Duan, Macao Polytechnic University, China

A333 (Thu-PM)
Paper Highlight
Bias and Generalizability of Foundation Models across Datasets in Breast Mammography
Authors: Elodie Germani, Ilayda Selin-Türk, Fatima Zeineddine, Charbel Mourad, Shadi Albarqouni
Presenter: Shadi Albarqouni, University of Bonn, Germany

A338 (Thu-PM)
TAT: Task-Adaptive Transformer for All-in-One Medical Image Restoration
Authors: Zhiwen Yang, Jiaju Zhang, Yang Yi, Jian Liang, Bingzheng Wei, Yan Xu
Presenter: Zhiwen Yang, Beihang University, China

A343 (Thu-PM)
Controllable Skin Synthesis via Lesion-Focused Vector Autoregression Model
Authors: Jiajun Sun, Zhen Yu, Siyuan Yan, Jason J. Ong, Zongyuan Ge, Lei Zhang
Presenter: Jiajun Sun, Monash University, Australia

A348 (Thu-PM)
Reconsidering Explicit Longitudinal Mammography Alignment for Enhanced Breast Cancer Risk Prediction
Authors: Solveig Thrun, Stine Hansen, Zijun Sun, Nele Blum, Suaiba A. Salahuddin, Kristoffer Wickstrøm, Elisabeth Wetzer, Robert Jenssen, Maik Stille, Michael Kampffmeyer

Presenter: Solveig Thrun, UiT The Arctic University of Norway, Norway

A353 (Thu-PM)

Confidence in Angle Predictions for Clinical Decision Support
Authors: Allison Clement, James Willoughby, Irina Voiculescu
Presenter: Allison Clement, Oxford University, United Kingdom

A358 (Thu-PM)

Calibration in Multiple Instance Learning: Evaluating Aggregation Methods for Ultrasound-Based Diagnosis
Authors: Axel Geysels, Ben Van Calster, Bart De Moor, Wouter Froyman, Dirk Timmerman
Presenter: Axel Geysels, KU Leuven, Belgium

A363 (Thu-PM)
Paper Highlight

Multi-Modal Progressive Fusion for ASD Screening Using Smartphone Video
Authors: Wenqi Zhong, Bohan Li, Chen Xia, Kuan Li, Dingwen Zhang
Presenter: Chen Xia, Northwestern Polytechnical University, China

A368 (Thu-PM)

Neuro-AMS: Neuro-informed Age-aware and Medical Knowledge-integrated Strategy for Diagnosis of Multiple Brain Disorders
Authors: Zhenguo Zhang, Lin Teng, Nan Zhao, Yuxiao Liu, Zhaoyu Qiu, Zehao Weng, Jinwei Kong, Feng Shi, Dinggang Shen
Presenter: Zhenguo Zhang, ShanghaiTech University, China

A375 (Thu-PM)
Paper Highlight

Towards Multi-Scenario Generalization: Text-Guided Unified Framework for Low-Dose CT and Total-Body PET Reconstruction
Authors: Weitao Wang, Yanyan Huang, Shunjie Dong, Le Xue, Kuangyu Shi, Yu Fu
Presenter: Weitao Wang, Lanzhou University, China

B3 (Thu-PM)
Paper Highlight

tCURLoRA: Tensor CUR Decomposition Based Low-Rank Parameter Adaptation and Its Application in Medical Image Segmentation
Authors: Guanghua He, Wangang Cheng, Hancan Zhu, Xiaohao Cai, Gaohang Yu
Presenter: Guanghua He, Shaoxing University, China

B8 (Thu-PM)

Source-Free Domain Adaptation for Cross-Modality Cardiac Image Segmentation with Contrastive Class Relationship Consistency
Authors: Ao Ma, Qingpeng Zhu, Jingjing Li, Mads Nielsen, Xu Chen
Presenter: Ao Ma, Southwestern University of Finance and Economics, China

B13 (Thu-PM)

MedPro-DG: Domain-Aware Masked Contrastive Prompt Learning of Institution Generalization for Outcome Prediction
Authors: Rongfang Wang, JiaSheng Chen, Xinlong Zhang, Jing Wang, Hui Liu, Zhiguo Zhou, Kai Wang
Presenter: Rongfang Wang, Xidian University, China

B18 (Thu-PM)

Bio2Vol: Adapting 2D Biomedical Foundation Models for Volumetric Medical Image Segmentation
Authors: Jiaxin Zhuang, Linshan Wu, Xuefeng Ni, Xi Wang, Liansheng Wang, Hao Chen
Presenter: Jiaxin Zhuang, The Hong Kong University of Science and Technology, Hong Kong SAR

B23 (Thu-PM)

One-shot active learning for vessel segmentation
Authors: Daniele Falcetta, Hava Chaptoukaev, Francesco Galati, Maria A. Zuluaga
Presenter: Daniele Falcetta, EURECOM, France

B28 (Thu-PM)

MedGCD: Generalized Category Discovery in Medical Imaging
Authors: Ankit Das, Chandan Gautam, Pritee Agrawal, Feng Yang, Yong Liu, Ramasamy Savitha
*Presenter: Ramasamy Savitha, Institute for Infocomm Research (I2R), Agency for Science, Technology and Research (A*STAR), Singapore*

B33 (Thu-PM)

Improving OCTA Imaging through Cross-Domain Adaptation: A Noise-Guided Framework Using Intralipid-Enhanced Rat Data
Authors: Bingyu Yang, Bingyao Tan, Zaiwang Gu, Leopold Schmetterer, Huiqi Li, Jun Cheng
*Presenter: Jun Cheng, Institute for Infocomm Research (I2R), Agency for Science, Technology and Research (A*STAR), Singapore*

B38 (Thu-PM)

CardiacCLIP: Video-based CLIP Adaptation for LVEF Prediction in a Few-shot Manner
Authors: Yao Du, Jiarong Guo, Xiaomeng Li
Presenter: Yao Du, The Hong Kong University of Science and Technology, Hong Kong SAR

B43 (Thu-PM)

Geometric-Guided Few-Shot Dental Landmark Detection with Human-Centric Foundation Model
Authors: Anbang Wang, Marawan Elbatel, Keyuan Liu, Lizhuo Lin, Meng Lan, Yanqi Yang, Xiaomeng Li
Presenter: Anbang Wang, The Hong Kong University of Science and Technology, Hong Kong SAR

B48 (Thu-PM)
MOC: Meta-Optimized Classifier for Few-Shot Whole Slide Image Classification
Authors: Tianqi Xiang, Yi Li, Qixiang Zhang, Xiaomeng Li
Presenter: Tianqi Xiang, The Hong Kong University of Science and Technology, Hong Kong SAR

B53 (Thu-PM)
SPENet: Self-guided Prototype Enhancement Network for Few-shot Medical Image Segmentation
Authors: Chao Fan, Xibin Jia, Anqi Xiao, Hongyuan Yu, Zhenghan Yang, Dawei Yang, Hui Xu, Yan Huang, Liang Wang
Presenter: Chao Fan, Beijing University of Technology, China

B58 (Thu-PM)
Treat: A Unified Text-guided Conditioned Deep Learning Model for Generalized Radiotherapy Treatment Planning
Authors: Sangwook Kim, Yuan Gao, Thomas G. Purdie, Chris McIntosh
Presenter: Sangwook Kim, University of Toronto, Canada

B63 (Thu-PM)
EchoingECG: An Electrocardiogram Cross-Modal Model for Echocardiogram Tasks
Authors: Yuan Gao, Sangwook Kim, Chris McIntosh
Presenter: Yuan Gao, University Health Network, Canada

B68 (Thu-PM)
ConStyX: Content Style Augmentation for Generalizable Medical Image Segmentation
Authors: Xi Chen, Zhiqiang Shen, Peng Cao, Jinzhu Yang, Osmar R. Zaiane
Presenter: Osmar Zaiane, Northeastern University, China

B73 (Thu-PM)
Paper Highlight
Anatomical Structure Few-Shot Detection Utilizing Enhanced Human Anatomy Knowledge in Ultrasound Images
Authors: Ying Zhu, Bocheng Liang, Ningshu Li, Lei Zhao, Xi Li, Hao Li, Fengwei Yang, Bin Pu
Presenter: Ying Zhu, Yunnan University, China

B78 (Thu-PM)
HyDA: Hypernetworks for Test Time Domain Adaptation in Medical Imaging Analysis
Authors: Doron Serebro, Tammy Riklin-Raviv
Presenter: Doron Serebro, Ben Gurion University, Israel

B83 (Thu-PM)
Paper Highlight
Reverse Imaging for Wide-spectrum Generalization of Cardiac MRI Segmentation
Authors: Yidong Zhao, Peter Kellman, Hui Xue, Tongyun Yang, Yi Zhang, Yuchi Han, Orlando Simonetti, Qian Tao
Presenter: Yidong Zhao, Delft University of Technology, The Netherlands

B88 (Thu-PM)
Dynamic Gradient Sparsification Training for Few-Shot Fine-tuning of CT Lymph Node Segmentation Foundation Model
Authors: Zihao Luo, Zijun Gao, Wenjun Liao, Shichuan Zhang, Guotai Wang, Xiangde Luo
Presenter: Zihao Luo, University of Electronic Science and Technology of China, China

B93 (Thu-PM)
Neighborhood-Consistent Binary Transformation for Domain-Invariant Chest X-ray Diagnosis
Authors: Zelong Liu, Huachao Zhu, Zhichao Sun, Yuda Zou, Yuliang Gu, Bo Du, Yongchao Xu
Presenter: Zelong Liu, Wuhan University, China

B98 (Thu-PM)
A Multi-Branch Framework for Cross-Domain Vessel Segmentation via the Few-Shot Paradigm
Authors: Zihang Huang, Tianyu Zhao, Liang Zhang, Xin Yang
Presenter: Zihang Huang, Huazhong University of Science and Technology, China

B103 (Thu-PM)
Learning Foundation Models from Multi-Organ Medical Images by Capturing Consistency and Diversity of Anatomical Structures
Authors: Mohammad Reza Hosseinzadeh Taher, Junpyo Hong, Ravi Soni, Gopal Avinash
Presenter: Junpyo Hong, GE HealthCare, United States

B108 (Thu-PM)
D-CAM: Learning Generalizable Weakly-Supervised Medical Image Segmentation from Domain-invariant CAM
Authors: Jingjun Yi, Qi Bi, Hao Zheng, Haolan Zhan, Wei Ji, Huimin Huang, Yuexiang Li, Shaoxin Li, Xian Wu, Yefeng Zheng, Feiyue Huang
Presenter: Yefeng Zheng, Westlake University, China

B113 (Thu-PM)
CellStyle: Improved Zero-Shot Cell Segmentation via Style Transfer
Authors: Rüveyda Yilmaz, Zhu Chen, Yuli Wu, Johannes Stegmaier
Presenter: Rüveyda Yilmaz, RWTH Aachen University, Germany

B118 (Thu-PM)
Noise-Robust Tuning of SAM for Domain Generalized Ultrasound Image Segmentation
Authors: Zhikai Wei, Chao Wu, Hanyu Du, Rui Yu, Bo Du, Yongchao Xu
Presenter: Zhikai Wei, Wuhan University, China

B123 (Thu-PM)
Multi-Tube-Voltage vBMD Measurement via Dual-Branch Frequency Balancing and Asymmetric Channel Attention
Authors: Mengze Zhang, Yali Li, HuiShu Yuan, Zhen Qian
Presenter: Mengze Zhang, United Imaging Healthcare, Co., Ltd, China

B128 (Thu-PM)
Paper Highlight
Tied Prototype Model for Few-Shot Medical Image Segmentation
Authors: Hyeongji Kim, Stine Hansen, Michael Kampffmeyer
Presenter: Hyeongji Kim, UiT - The Arctic University of Norway, Norway

B133 (Thu-PM)
UltraAD: Fine-Grained Ultrasound Anomaly Classification via Few-Shot CLIP Adaptation
Authors: Yue Zhou, Yuan Bi, Wenjuan Tong, Wei Wang, Nassir Navab, Zhongliang Jiang
Presenter: Yue Zhou, Technical University of Munich, Germany

B138 (Thu-PM)
Learning Disease State from Noisy Ordinal Disease Progression Labels
Authors: Gustav Schmidt, Holger Heidrich, Philipp Berens, Sarah Müller
Presenter: Gustav Schmidt, University of Tübingen, Germany

B143 (Thu-PM)
Leveraging Diffusion Models for Continual Test-Time Adaptation in Fundus Image Classification
Authors: Mingsi Liu, Xiang Li, Mengxiang Guo, Lixin Duan, Huihui Fang, Yanwu Xu
Presenter: Mingsi Liu, University of Electronic Science and Technology of China, China

B148 (Thu-PM)
SynPo: Boosting Training-Free Few-Shot Medical Segmentation via High-Quality Negative Prompts
Authors: Yufei Liu, Haoke Xiao, Jiaxing Chai, Yongcun Zhang, Rong Wang, Zijie Meng, Zhiming Luo
Presenter: Yufei Liu, Xiamen University, China

B153 (Thu-PM)
Prompt-DAS: Annotation-Efficient Prompt Learning for Domain Adaptive Semantic Segmentation of Electron Microscopy Images
Authors: Jiabao Chen, Shan Xiong, Jialin Peng
Presenter: Jiabao Chen, Huaqiao University, China

B158 (Thu-PM)
DSFC: Deformation-Aware Learning Strategy via Self-sustaining Feedback Cycle for Medical Vision Foundation Model Domain Adaptation
Authors: Jie Lin, Hengyi Jiang, Hong Liu, Liansheng Wang
Presenter: Jie Lin, Xiamen University, China

B163 (Thu-PM)
Domain Generalization for Pulmonary Nodule Detection via Distributionally-Regularized Mamba
Authors: Tianzhong Lan, Nan Chen, Zhang Yi, Xiuyuan Xu, Min Zhu
Presenter: Tianzhong Lan, Sichuan University, China

B168 (Thu-PM)
MadCLIP: Few-shot Medical Anomaly Detection with CLIP
Authors: Mahshid Shiri, Cigdem Beyan, Vittorio Murino
Presenter: Cigdem Beyan, University of Verona, Italy

B173 (Thu-PM)
Paper Highlight
Dual Knowledge-Aware Guidance for Source-Free Domain Adaptive Fundus Image Segmentation
Authors: Yu Chen, Hailing Wang, Chunwei Wu, Guitao Cao
Presenter: Yu Chen, East China Normal University, China

B178 (Thu-PM)
Paper Highlight
Frequency Strikes Back: Boosting Parameter-Efficient Foundation Model Adaptation for Medical Imaging
Authors: Son T. Ly, Hien V. Nguyen
Presenter: Son Ly, University of Houston, United States

B183 (Thu-PM)
CAUDA-MI: Cross Attention-Guided Unsupervised Domain Adaptation with Mutual Information for Cardiac MRI Segmentation
Authors: Dianrong Du, Hengfei Cui, Jiatong Li, Fan Zheng, Yong Xia
Presenter: Dianrong Du, Northwestern Polytechnical University, China

B188 (Thu-PM)
Contrastive Anatomy-Contrast Disentanglement: A Domain-General MRI Harmonization Method
Authors: Daniel Scholz, Ayhan Can Erdur, Robbie Holland, Viktoria Ehm, Jan C. Peeken, Benedikt Wiestler, Daniel Rueckert
Presenter: Daniel Scholz, Technical University of Munich, Germany

B193 (Thu-PM)
Clinical Prior-Guided Tumor Generation for Breast Ultrasound with Cross Domain Adaptation
Authors: Haoyu Pan, Junyang Mo, Hongxin Lin, Chu Zhang, Zijian Wu, Yi Wang, Qingqing Zheng
Presenter: Haoyu Pan, Shenzhen University, China

B198 (Thu-PM) **HARP: Harmonization and Adaptive Refinement of Pseudo-Labels for Cross-Domain Medical Image Segmentation**
Authors: Yulong Liu, Wenqing Ye, Hui Liu, Ziyi Chen, Peilin Li, Ronald X. Xu, Mingzhai Sun
Presenter: Yulong Liu, University of Science and Technology of China, China

B203 (Thu-PM) **HASD: Hierarchical Adaption for Pathology Slide-Level Domain-Shift**
Authors: Jingsong Liu, Han Li, Chen Yang, Michael Deutges, Ario Sadafi, Xin You, Katharina Breininger, Nassir Navab, Peter J. Schüffler
Presenter: Jingsong Liu, Technical University of Munich, Germany

B208 (Thu-PM) **Exemplar Med-DETR: Toward Generalized and Robust Lesion Detection in Mammogram Images and Beyond**
Authors: Sheethal Bhat, Bogdan Georgescu, Adarsh Bhandary Panambur, Mathias Zinnen, Tri-Thien Nguyen, Awais Mansoor, Karim Khalifa Elbarbary, Siming Bayer, Florin-Cristian Ghesu, Sasa Grbic, Andreas Maier
Presenter: Sheethal Bhat, Friedrich Alexander Universität, Germany

B213 (Thu-PM) **Selective Alignment Transfer for Domain Adaptation in Skin Lesion Analysis**
Authors: Nurjahan Sultana, Wenqi Lu, Xinqi Fan, Moi Hoon Yap
Presenter: Nurjahan Sultana, Manchester Metropolitan University, United Kingdom

B218 (Thu-PM) **Fusing Dual Encoders: Single-source Domain Generalization with Extremely Few Annotations**
Authors: Ruofan Wang, Jintao Guo, Jian Zhang, Lei Qi, Yinghuan Shi
Presenter: Jian Zhang, Nanjing University, China

B223 (Thu-PM) **TEGDA: Test-time Evaluation-Guided Dynamic Adaptation for Medical Image Segmentation**
Authors: Yubo Zhou, Jianghao Wu, Wenjun Liao, Shichuan Zhang, Shaoting Zhang, Guotai Wang
Presenter: Yubo Zhou, University of Electronic Science and Technology of China, China

B228 (Thu-PM) **Sparsely Labeled fMRI Data Denoising with Meta-Learning-Based Semi-Supervised Domain Adaptation**
Paper Highlight
Authors: Keun-Soo Heo, Ji-Wung Han, Soyeon Bak, Minjoo Lim, Bogyeong Kang, Sang-Jun Park, Weili Lin, Han Zhang, Dinggang Shen, Tae-Eui Kam
Presenter: Keun-Soo Heo, Korea University, Republic of Korea

B233 (Thu-PM) **Iterative Deployment Exposure for Unsupervised Out-of-Distribution Detection**
Authors: Lars Doorenbos, Raphael Sznitman, Pablo Márquez-Neila
Presenter: Lars Doorenbos, University of Bonn, Germany

B238 (Thu-PM) **Cross-Modality Supervised Prostate Segmentation on CBCT for Adaptive Radiotherapy**
Authors: Balint Kovacs, Goran Stanic, Fabian Weykamp, Florian Ebert, Dimitrios Bounias, Bouchra Tawk, Martin Niklas, Jakob Liermann, Oliver Jäkel, Klaus H. Maier-Hein, Ralf Floca, Kristina Giske
Presenter: Balint Kovacs, German Cancer Research Center (DKFZ) Heidelberg, Germany

B243 (Thu-PM) **DpDNet: An Dual-Prompt-Driven Network for Universal PET-CT Segmentation**
Authors: Xinglong Liang, Jiaju Huang, Luyi Han, Tianyu Zhang, Xin Wang, Yuan Gao, Chunyao Lu, Lishan Cai, Tao Tan, Ritse Mann
Presenter: Xinglong Liang, The Netherlands Cancer Institute, The Netherlands

B248 (Thu-PM) **MedNNS: Supernet-based Medical Task-Adaptive Neural Network Search**
Authors: Lotfi Abdelkrim Mecharbat, Ibrahim Almakky, Martin Takac, Mohammad Yaqub
Presenter: Lotfi Abdelkrim Mecharbat, Mohamed Bin Zayed University of Artificial Intelligence, United Arab Emirates

B253 (Thu-PM) **SAM2-ProMem: Enhancing Zero-Shot 3D Segmentation with Stochastic Propagation and Memory Search**
Authors: Yujie Wang, Juntao Huang, Dazhu Liang, Fangzhou Liao, Jie Chen, Boan Chen
Presenter: Yujie Wang, Shukun Technology & Shanghai Jiaotong University, China

B258 (Thu-PM) **LKA: Large Kernel Adapter for Enhanced Medical Image Classification**
Authors: Ziquan Zhu, Si-Yuan Lu, Tianjin Huang, Lu Liu, Zhe Liu
Presenter: Ziquan Zhu, University of Leicester, United Kingdom

B263 (Thu-PM) **Single Image Test-Time Adaptation via Multi-View Co-Training**
Authors: Smriti Joshi, Richard Osuala, Lidia Garrucho, Kaisar Kushibar, Dimitri Kessler, Oliver Diaz, Karim Lekadir
Presenter: Smriti Joshi, Universitat de Barcelona, Spain

B268 (Thu-PM) **LEAF: Latent Diffusion with Efficient Encoder Distillation for Aligned Features in Medical Image Segmentation**
Authors: Qilin Huang, Tianyu Lin, Zhiguang Chen, Fudan Zheng

Presenter: Qilin Huang, Sun Yat-sen University, China

B273 (Thu-PM)

Robust sensitivity control in digital pathology via tile score distribution matching
Authors: Arthur Pignet, John Klein, Geneviève Robin, Antoine Olivier
Presenter: Antoine Olivier, Owkin, France

B278 (Thu-PM)

Paper Highlight

FedCLAM: Client Adaptive Momentum with Foreground Intensity Matching for Federated Medical Image Segmentation
Authors: Vasilis Siomos, Jonathan Passerat-Palmbach, Giacomo Tarroni
Presenter: Vasilis Siomos, City St. George's, University of London, United Kingdom

B283 (Thu-PM)

HA-SAM: Hierarchically Adapting SAM for Nerve Segmentation in Ultrasound Images
Authors: Zihao Peng, Susu Kang, Xuping Huang, Xucheng Xiang, Gengyu He, Tianzhu Liu, Wei Mei, Shan Tan
Presenter: Shan Tan, Huazhong University of Science and Technology, China

B288 (Thu-PM)

Active Source-Free Cross-Domain and Cross-Modality Adaptation for Volumetric Medical Image Segmentation by Image Sensitivity and Organ Heterogeneity Sampling
Authors: Jin Yang, Xiaobing Yu, Peijie Qiu, Daniel Marcus, Aristeidis Sotiras
Presenter: Aristeidis Sotiras, Washington University School of Medicine in St. Louis, United States

B293 (Thu-PM)

Unleashing SAM for Few-Shot Medical Image Segmentation with Dual-Encoder and Automated Prompting
Authors: Cuong M. Pham, Phi Le Nguyen, Thanh Trung Nguyen, Minh Hieu Phan, Binh P. Nguyen
Presenter: Binh Nguyen, Victoria University of Wellington, New Zealand

B298 (Thu-PM)

Bayesian Transformers and Higher-Order Graph Matching for Cell Tracking in Serial Tissue Sections
Authors: Mostafa Karami, Sahand Hamzehei, David Arce, Gianna Raimondi, Linnaea Ostroff, Sheida Nabavi
Presenter: Sheida Nabavi, University of Connecticut, United States

B303 (Thu-PM)

Test-Time Training with Local Contrast- Preserving Copy-Pasted Image for Domain Generalization in Retinal Vessel Segmentation
Authors: Yuliang Gu, Zhichao Sun, Zelong Liu, Yongchao Xu
Presenter: Yuliang Gu, Wuhan University, China

B308 (Thu-PM)

Robust Fetal Pose Estimation across Gestational Ages via Cross-Population Augmentation
Authors: Sebastian Diaz, Benjamin Billot, Neel Dey, Molin Zhang, Esra Abaci Turk, P. Ellen Grant, Polina Golland, Elfar Adalsteinsson
Presenter: Sebastian Diaz, Massachusetts Institute of Technology, United States

B313 (Thu-PM)

Domain Generalization for Mammogram Classification by Suppressing Domain-Specific Features
Authors: Jiqun Chen, Luhao Sun, Wenzong Jiang, Weifeng Liu, Chao Li, Zhiyong Yu, Baodi Liu
Presenter: Jiqun Chen, China University of Petroleum (East China), China

B318 (Thu-PM)

ISAC: Redefining the Vascular Segmentation Paradigm through Mask Completion for Cross-Domain Generalization
Authors: Tianyu Zhao, Zihang Huang, Xixi Jiang, Liang Zhang, Xiaohuan Ding, Xin Yang
Presenter: Tianyu Zhao, Huazhong University of Science and Technology, China

B323 (Thu-PM)

MAUP: Training-free Multi-center Adaptive Uncertainty-aware Prompting for Cross-domain Few-shot Medical Image Segmentation
Authors: Yazhou Zhu, Haofeng Zhang
Presenter: Yazhou Zhu, Nanjing University of Science and Technology, China

B328 (Thu-PM)

Addressing Label Scarcity and Domain Shift in Medical Image Segmentation
Authors: Suruchi Kumari, Pravendra Singh
Presenter: Suruchi Kumari, Indian Institute of Technology Roorkee, India

B333 (Thu-PM)

DetectDiffuse: Aggregation- and Attention-driven Universal Lesion Detection with Multi-scale Diffusion Model
Authors: Xinyu Li, Danni Ai, Jingfan Fan, Tianyu Fu, Hong Song, Deqiang Xiao, Jian Yang
Presenter: Xinyu Li, Beijing Institute of Technology, China

C3 (Thu-PM)

Paper Highlight

Parameterized Diffusion Optimization enabled Autoregressive Ordinal Regression for Diabetic Retinopathy Grading
Authors: Qinkai Yu, Wei Zhou, Hantao Liu, Yanyu Xu, Meng Wang, Yitian Zhao, Huazhu Fu, Xujiong Ye, Yalin Zheng, Yanda Meng
Presenter: Qinkai Yu, University of Exeter, United Kingdom

C8 (Thu-PM)
Few-Shot, Now for Real: Medical VLMs Adaptation without Balanced Sets or Validation
Authors: Julio Silva-Rodríguez, Fereshteh Shakeri, Houda Bahig, Jose Dolz, Ismail Ben Ayed
Presenter: Julio Silva-Rodríguez, ÉTS Montréal, Canada

C13 (Thu-PM)
Enhancing WSI-Based Survival Analysis with Report-Auxiliary Self-Distillation
Authors: Zheng Wang, Hong Liu, Zheng Wang, Danyi Li, Min Cen, Baptiste Magnier, Li Liang, Liansheng Wang
Presenter: Liansheng Wang, Xiamen University, China

C18 (Thu-PM)
Learning Contrastive Multimodal Fusion with Improved Modality Dropout for Disease Detection and Prediction
Authors: Yi Gu, Kuniaki Saito, Jiaxin Ma
Presenter: Yi Gu, Nara Institute of Science and Technology, Japan

C23 (Thu-PM)
Longitudinal MRI-Clinical Multimodal Fusion for pCR Prediction in Breast Cancer
Authors: Dingrui Ma, Jiawei Cao, Hao Cheng, Dan Zhou, Jianping Liu, Xiaofeng Zhang, Kaijie Wu, Chaochen Gu, Xinping Guan
Presenter: Dingrui Ma, Shanghai Jiao Tong University, China

C28 (Thu-PM)
Predicting Alzheimer's Disease Progression Using a Regression-based Survival Model with Longitudinal Data
Authors: Ling Dai, Yiqun Sun, Jincheng Gu, Qinsen Bao, Feihong Liu, Dinggang Shen
Presenter: Ling Dai, ShanghaiTech University, China

C33 (Thu-PM)
Contrastive Masked Video Modeling for Coronary Angiography Diagnosis
Authors: Zhiming Shao, Yingqian Zhang, Zechen Wei, Yong Ge, Chen Wang, Guodong Ding, Lei Gao, Liwei Zhang, Yundai Chen, Jie Tian, Hui Hui
Presenter: Zhiming Shao, Key Laboratory of Molecular Imaging, Institute of Automation, Chinese Academy of Sciences, China

C38 (Thu-PM)
Dynamic Function-Structure Connectivity Coupling for Predicting Progression Trajectories in Neurocognitive Decline
Authors: Qianqian Wang, Wei Wang, Hong-Jun Li, Weili Lin, Mingxia Liu
Presenter: Qianqian Wang, The University of North Carolina at Chapel Hill, United States

C43 (Thu-PM)
MurreNet: Modeling Holistic Multimodal Interactions Between Histopathology and Genomic Profiles for Survival Prediction
Authors: Mingxin Liu, Chengfei Cai, Jun Li, Pengbo Xu, Jinze Li, Jiquan Ma, Jun Xu
Presenter: Mingxin Liu, Nanjing University of Information Science and Technology, China

C48 (Thu-PM)
Opportunistic Osteoporosis Diagnosis via Texture-Preserving Self-Supervision, Mixture of Experts and Multi-Task Integration
Authors: Jiaxing Huang, Heng Guo, Le Lu, Fan Yang, Minfeng Xu, Ge Yang, Wei Luo
Presenter: Jiaxing Huang, Institute of Automation, Chinese Academy of Sciences, China

C53 (Thu-PM)
Multi-modal Knowledge Decomposition based Online Distillation for Biomarker Prediction in Breast Cancer Histopathology
Authors: Qibin Zhang, Xinyu Hao, Qiao Chen, Rui Xu, Fengyu Cong, Cheng Lu, Hongming Xu
Presenter: Hongming Xu, Dalian University of Technology, China

C58 (Thu-PM)
Cross-Modality Masked Learning for Survival Prediction in ICI Treated NSCLC Patients
Authors: Qilong Xing, Zikai Song, Bingxin Gong, Lian Yang, Junqing Yu, Wei Yang
Presenter: Qilong Xing, Huazhong University of Science and Technology, China

C63 (Thu-PM)
Paper Highlight
MedSoft-Diffusion: Medical Semantic-Guided Diffusion Model with Soft Mask Conditioning for Vertebral Disease Diagnosis
Authors: Shidan He, Enyuan Hu, Zixuan Tang, Bin Chen, Dongdong Yu, Yuan Hong, Zhenzhong Liu, Mengtang Li, Lei Liu, Shen Zhao
Presenter: Shidan He, Sun Yat-sen University, China

C68 (Thu-PM)
Dual Selective Gleason Pattern-Aware Multiple Instance Learning for Grade Group Prediction in Histopathology Images
Authors: Xinyu Hao, Hongming Xu, Qibin Zhang, Qi Xu, Ilkka Polonen, Fengyu Cong
Presenter: Xinyu Hao, Dalian University of Technology, China

C73 (Thu-PM)
MvHo-IB: Multi-View Higher-Order Information Bottleneck for Brain Disorder Diagnosis
Authors: Kunyu Zhang, Qiang Li, Shujian Yu
Presenter: Kunyu Zhang, Zhengzhou University, China

C78 (Thu-PM)
CoC: Chain-of-Cancer based on Cross-Modal Autoregressive Traction for Survival Prediction

Authors: Haipeng Zhou, Sicheng Yang, Sihan Yang, Jing Qin, Lei Chen, Lei Zhu
Presenter: Haipeng Zhou, The Hong Kong University of Science and Technology (Guangzhou), China

C83 (Thu-PM)

Clinical Prior Guided Cross-Modal Hierarchical Fusion for Histological Subtyping of Lung Cancer in CT Scans
Authors: Chenchen Fan, Ahmed Elazab, Songqi Zhang, Yuxuan Wang, Qinghua Liang, Danna Li, Yongquan Zhang, Ying Xiang, Bo Liu, Changmiao Wang
Presenter: Chenchen Fan, Zhejiang University of Finance and Economics, China

C88 (Thu-PM)
Paper Highlight

DISCLOSE the Neurodegeneration Dynamics: Individualized ODE Discovery for Alzheimer's Disease Precision Medicine
Authors: Wooseok Jung, Joonhyuk Park, Won Hwa Kim
Presenter: Joonhyuk Park, Pohang University of Science and Technology, Republic of Korea

C93 (Thu-PM)

GrInAdapt: Source-free Multi-Target Domain Adaptation for Retinal Vessel Segmentation
Authors: Zixuan Liu, Aaron Honjaya, Yuekai Xu, Yi Zhang, Hefu Pan, Xin Wang, Linda G. Shapiro, Sheng Wang, Ruikang K. Wang
Presenters: Aaron Honjaya and Yuekai Xu, University of Washington, United States

C98 (Thu-PM)

LNODE: Uncovering the Latent Dynamics of Aβ in Alzheimer's Disease
Authors: Zheyu Wen, George Biros
Presenter: George Biros, The University of Texas at Austin, United States

C103 (Thu-PM)

Clinical Data-Driven Retrieval-Augmented Model for Lung Nodule Malignancy Prediction
Authors: Ruibo Hou, Shurong Chai, Rahul Kumar Jain, Yinhao Li, Jiaqing Liu, Shiyu Teng, Xiaoyu Shi, Lanfen Lin, Yen-Wei Chen
Presenter: Ruibo Hou, Ritsumeikan University, Japan

C108 (Thu-PM)

Prior-guided Prototype Aggregation Learning for Alzheimer's Disease Diagnosis
Authors: Yueqin Diao, Huihui Fang, Hanyi Yu, Yuning Wang, Yaling Tao, Ziyan Huang, Si Yong Yeo, Yanwu Xu
Presenter: Yueqin Diao, South China University of Technology, China

C113 (Thu-PM)

Collateral Circulation guided Multi-modality Fusion Network for Postoperative Infarct Prediction
Authors: Yichen Guo, Xinyi Zhao, Lisong Dai, Heming Dong, Lai Jiang, Mai Xu, Shengxi Li
Presenter: Lai Jiang, Beihang University, China

C118 (Thu-PM)

Temporal Atlas-Guided Generation of Longitudinal Data via Geometric Latent Embeddings
Authors: Shaoju Wu, Jian Wang, Sila Kurugol, Andy Tsai
Presenter: Sila Kurugol, Boston Children's Hospital and Harvard Medical School, United States

C123 (Thu-PM)

Reliable and Interpretable Visual Field Progression Prediction with Diffusion Models and Conformal Risk Control
Authors: Wenwen Si, Vivian Lin, Bo Sun, Kuk Jin Jang, Rubo Xing, Almiqdad Saeed, Rina Nagatani, Oleg Sokolsky, Insup Lee, Lama Al-Aswad
Presenter: Vivian Lin, University of Pennsylvania, United States

C128 (Thu-PM)

Fine-Grained Rib Fracture Diagnosis with Hyperbolic Embeddings: A Detailed Annotation Framework and Multi-Label Classification Model
Authors: Shripad Pate, Aiman Farooq, Suvrankar Datta, Musadiq Aadil Sheikh, Atin Kumar, Deepak Mishra
Presenter: Aiman Farooq, Indian Institute of Technology Jodhpur, India

C133 (Thu-PM)
Paper Highlight

From Pixels to Prognosis: A Multi-Modal Attention-based Framework for Visceral Adipose Tissue Estimation
Authors: Arooba Maqsood, Afsah Saleem, Marc Sim, David Suter, Simone Radavelli-Bagatini, Jonathan M. Hodgson, Richard L. Prince, Kun Zhu, William D. Leslie, John T. Schousboe, Joshua R. Lewis, Syed Zulqarnain Gilani
Presenter: Arooba Maqsood, Edith Cowan University, Australia

C138 (Thu-PM)

VMRA-MaR: An Asymmetry-Aware Temporal Framework for Longitudinal Breast Cancer Risk Prediction
Authors: Zijun Sun, Solveig Thrun, Michael Kampffmeyer
Presenter: Zijun Sun, University of Bologna, Italy

C143 (Thu-PM)

OTSurv: A Novel Multiple Instance Learning Framework for Survival Prediction with Heterogeneity-aware Optimal Transport
Authors: Qin Ren, Yifan Wang, Ruogu Fang, Haibin Ling, Chenyu You
Presenter: Chenyu You, Stony Brook University, United States

C148 (Thu-PM)
Flexibly Distilled 3D Rectified Flow with Anatomical Constraints for Developmental Infant Brain MRI Prediction
Authors: Haifeng Wang, Zehua Ren, Heng Chang, Xinmei Qiu, Fan Wang, Chunfeng Lian, Jianhua Ma
Presenter: Chunfeng Lian, Xi'an Jiaotong University, China

C153 (Thu-PM)
Foundation-Model-Boosted Multimodal Learning for fMRI-based Neuropathic Pain Drug Response Prediction
Authors: Wenrui Fan, L. M. Riza Rizky, Jiayang Zhang, Chen Chen, Haiping Lu, Kevin Teh, Dinesh Selvarajah, Shuo Zhou
Presenter: Wenrui Fan, The University of Sheffield, United Kingdom

C158 (Thu-PM)
RANDose: A Region-aware Attention Network for Accurate Radiation Dose Prediction
Authors: G. Jignesh Chowdary, Tiezhi Zhang, Xin Qian, Zhaozheng Yin
Presenter: G. Jignesh Chowdary, Stony Brook University, United States

C163 (Thu-PM)
PLUS: Plug-and-Play Enhanced Liver Lesion Diagnosis Model on Non-Contrast CT Scans
Authors: Jiacheng Hao, Xiaoming Zhang, Wei Liu, Xiaoli Yin, Yuan Gao, Chunli Li, Ling Zhang, Le Lu, Yu Shi, Xu Han, Ke Yan
Presenter: Jiacheng Hao, Tsinghua University, China

C168 (Thu-PM)
Asynchronous Multi-Modal Learning for Dynamic Risk Monitoring of Acute Respiratory Distress Syndrome in Intensive Care Units
Authors: Yidan Feng, Bohan Zhang, Sen Deng, Zhanli Hu, Jing Qin
Presenter: Yidan Feng, The Hong Kong Polytechnic University, China

C173 (Thu-PM)
Paper Highlight
VT-SNN: Variable Time-step Spiking Neural Network Based on Uncertainty Measure and Its Application in Brain Disease Diagnosis
Authors: Haonan Rao, Shaolong Wei, Shu Jiang, Mingliang Wang, Weiping Ding, Jiashuang Huang
Presenter: Haonan Rao, Nantong University, China

C178 (Thu-PM)
ThyroidXL: Advancing Thyroid Nodule Diagnosis with an Expert-Labeled, Pathology-Validated Dataset
Authors: Hung Duong Viet, Huan Vu, Duong Phan Huong, Quyen Nguyen Duc, Hao Pham Duc, Toan Le Quang, Sy Nguyen Ba, Dung Do Tien, Sang Dinh Viet, Cuong Nguyen Tien, Hoang Pham Huy, Hy Ngo Dien
Presenter: Cuong Nguyen, VNPT, Vietnam

C183 (Thu-PM)
Paper Highlight
Multi-scale Attention-based Multiple Instance Learning for Breast Cancer Diagnosis
Authors: Mariana Mourão, Jacinto C. Nascimento, Carlos Santiago, Margarida Silveira
Presenter: Mariana Mourão, Instituto Superior Técnico, Portugal

C188 (Thu-PM)
Paper Highlight
Multistage Alignment and Fusion for Multimodal Multiclass Alzheimer's Disease Diagnosis
Authors: Shuo Huang, Lujia Zhong, Yonggang Shi
Presenter: Yonggang Shi, University of Southern California, United States

C193 (Thu-PM)
Lesion-centered vision transformer for stroke outcome prediction from image and clinical data
Authors: Mingtian Liu, Nima Hatami, Laura Mechtouff, Tae-Hee Cho, Carole Lartizien, Carole Frindel
Presenter: Mingtian Liu, CREATIS, France

C198 (Thu-PM)
Hard Sample Mining-based Tongue Diagnosis for Fatty Liver Disease Severity Classification
Authors: Tao Chen, Jie Gao, Yong Xu, Weihong Qiu, Yijie Wu, Weimin Ye, Kunhong Liu
Presenter: Tao Chen, Zhejiang University, China

C203 (Thu-PM)
Leveraging Visual Prompt with Diffusion Adversarial Network for Radiotherapy Dose Prediction
Authors: Zhenghao Feng, Lu Wen, Jiaqi Cui, Xi Wu, Jianghong Xiao, Xingchen Peng, Dinggang Shen, Yan Wang
Presenter: Yan Wang, Sichuan University, China

C208 (Thu-PM)
RadKAM: Attention-Driven Kolmogorov-Arnold Model for Automatic Radiation-Induced Lymphopenia Prediction by Multimodal Learning
Authors: Rongchang Zhao, Zhangyue Wu, Jian Zhang, Zijian Zhang, Shuo Li
Presenter: Rongchang Zhao, Central South University, China

C213 (Thu-PM)
UniCross: Balanced Multimodal Learning for Alzheimer's Disease Diagnosis by Uni-modal Separation and Metadata-guided Cross-modal Interaction
Authors: Lisong Yin, Chuyang Ye, Tiantian Liu, Jinglong Wu, Tianyi Yan
Presenter: Lisong Yin, Beijing Institute of Technology, China

C218 (Thu-PM)
Integrate Semantic Radiomics as Prior Evidence into Evidential Deep Learning for Pelvic Lipomatosis Diagnosis
Authors: Zheran Zhang, Xiaodong Yue, Maoyu Wang, Zhikang Xu, Yufei Chen, Zhipeng Wei
Presenter: Zheran Zhang, Shanghai University, China

C223 (Thu-PM)
MT-WilmsNet: A Multi-Level Transformer Fusion Network for Wilms' Tumor Segmentation and Metastasis Prediction
Authors: Zhu Zhu, Wenjing Yu, Xiaohui Ma, Shuai Liu, Jie Dong, Yuxin Du, Changmiao Wang, Gang Yu
Presenter: Zhu Zhu, Zhejiang University, China

C228 (Thu-PM)
Prototype-Guided Cross-Modal Knowledge Enhancement for Adaptive Survival Prediction
Authors: Fengchun Liu, Linghan Cai, Zhikang Wang, Zhiyuan Fan, Jin-gang Yu, Hao Chen, Yongbing Zhang
Presenter: Fengchun Liu, Harbin Institute of Technology (Shenzhen), China

C233 (Thu-PM)
Paper Highlight
Attention-Based Multimodal Deep Learning Model for Post-Stroke Motor Impairment Prediction
Authors: Rukiye Karakis, Kali Gurkahraman, Georgios D. Mitsis, Marie-Hèléne Boudrias
Presenter: Rukiye Karakis, Sivas Cumhuriyet University, Turkey

C238 (Thu-PM)
Uncertainty-Aware Multimodal MRI Fusion for HIV-Associated Asymptomatic Neurocognitive Impairment Prediction
Authors: Zige Chen, Haonan Qin, Wei Wang, Zhongkai Zhou, Chen Zhao, Yuqi Fang, Caifeng Shan
Presenter: Zige Chen, Nanjing University, China

C243 (Thu-PM)
CTSL: Codebook-based Temporal-Spatial Learning for Accurate Non-Contrast Cardiac Risk Prediction Using Cine MRIs
Authors: Haoyang Su, Shaohao Rui, Jinyi Xiang, Lianming Wu, Xiaosong Wang
Presenter: Haoyang Su, Fudan University, China

C248 (Thu-PM)
Paper Highlight
Boosting Generalizability in NPC ART Prediction via Multi-Omics Feature Mapping
Authors: Jiabao Sheng, Zhe Li, Jiang Zhang, Saikit Lam, Zhi Chen, Lei Xing, Jing Cai
Presenter: Jiabao Sheng, The Hong Kong Polytechnic University, Hong Kong SAR

C253 (Thu-PM)
Brain-Heart-Gut Guided Multi-Constraint Knowledge Distillation for Early Alzheimer's Disease Diagnosis
Authors: Fan Li, Shilun Zhao, Shuwei Bai, Yuxiao Liu, Kai Zhang, Yin Xu, Ya Zhang, Kaicong Sun, Dinggang Shen
Presenter: Fan Li, ShanghaiTech University, China

C258 (Thu-PM)
Feature Copy-Paste Network for Lung Cancer EGFR Mutation Status Prediction in CT images
Authors: Xingyu Huang, Shuo Wang, Chengcai Liu, Haolin Sang, Yi Wu, Jie Tian
Presenter: Xingyu Huang, Beihang University, China

C263 (Thu-PM)
Conditional Latent Diffusion Models for Irregularly Spaced Longitudinal Radiological Data
Authors: Nabil Mouadden, Othmane Laousy, Rafael Marini, Valentin Ong, Marie-Pierre Revel, Guillaume Chassagnon, Stergios Christodoulidis, Maria Vakalopoulou
Presenter: Maria Vakalopoulou, Centrale Supelec, University Paris Saclay, France

C268 (Thu-PM)
Paper Highlight
Self-Propagative Multi-Task Learning for Predicting Cardiometabolic Risk Factors
Authors: Seonghyeon Ko, Huigyu Yang, Junghyun Bum, Duc-Tai Le, Hyunseung Choo
Presenter: Seonghyeon Ko, Sungkyunkwan University, Republic of Korea

C273 (Thu-PM)
Spatially Gene Expression Prediction using Dual-Scale Contrastive Learning
Authors: Mingcheng Qu, Yuncong Wu, Donglin Di, Yue Gao, Tonghua Su, Yang Song, Lei Fan
Presenter: Mingcheng Qu, Harbin Institute of Technology, China

C278 (Thu-PM)
Multiview Feature Fusion and Contrastive Learning for Drug-Target Interaction Prediction
Authors: Xiaoting Zeng, Li Li, Yu Liang, Weilin Chen, Baiying Lei
Presenter: Xiaoting Zeng, Shenzhen University, China

C283 (Thu-PM)
Paper Highlight
A flexible deep learning framework for survival analysis with medical data
Authors: Gabriele Campanella, Ida Häggström, Lucas Kook, Torsten Hothorn, Thomas J. Fuchs
Presenter: Ida Häggström, Chalmers University of Technology, Sweden

C288 (Thu-PM)
Progression-Aware Generative Model Enhancing Baseline Visit Prediction of Early Alzheimer's Disease
Authors: Xingyu Gao, Runyi Guo, Zhe Zhao
Presenter: Xingyu Gao, Donghua University, China

C293 (Thu-PM)
Adaptive Adversarial Data Augmentation with Trajectory Constraint for Alzheimer's Disease Conversion Prediction
Authors: Hyuna Cho, Hayoung Ahn, Guorong Wu, Won Hwa Kim
Presenter: Hyuna Cho, Pohang University of Science and Technology, Republic of Korea

C298 (Thu-PM)
MReg: A Novel Regression Model with MoE-based Video Feature Mining for Mitral Regurgitation Diagnosis
Authors: Zhe Liu, Yuhao Huang, Lian Liu, Chengrui Zhang, Haotian Lin, Tong Han, Zhiyuan Zhu, Yanlin Chen, Ruiyue Chen, Dong Ni, Zhongshan Gou, Xin Yang
Presenter: Zhe Liu, Shenzhen University, China

C303 (Thu-PM)
PTCMIL: Multiple Instance Learning via Prompt Token Clustering for Whole Slide Image Analysis
Authors: Beidi Zhao, SangMook Kim, Hao Chen, Chen Zhou, Zu-hua Gao, Gang Wang, Xiaoxiao Li
Presenter: Beidi Zhao, The University of British Columbia, Canada

C308 (Thu-PM)
Cross-Modal CXR-CTPA Knowledge Distillation using latent diffusion priors towards CXR Pulmonary Embolism Diagnosis
Authors: Noa Cahan, Meshi Sizikov, Hayit Greenspan
Presenter: Noa Cahan, Tel Aviv University, Israel

C313 (Thu-PM)
Temporal Representation Learning of Phenotype Trajectories for pCR Prediction in Breast Cancer
Authors: Ivana Janíčková, Yen Y. Tan, Thomas H. Helbich, Konstantin Miloserdov, Zsuzsanna Bago-Horvath, Ulrike Heber, Georg Langs
Presenter: Ivana Janíčková, Medical University of Vienna, Austria

C318 (Thu-PM)
Investigating Voxel-level Brain Age Prediction as a Pretext Task for Brain MRI Segmentation
Authors: Tasneem Nasser, Roberto Souza, Naser El-Sheimy
Presenter: Tasneem Nasser, University of Calgary, Canada

C323 (Thu-PM)
VAMPIRE: Uncovering Vessel Directional and Morphological Information from OCTA Images for Cardiovascular Disease Risk Factor Prediction
Authors: Lehan Wang, Hualiang Wang, Chubin Ou, Lushi Chen, Yunyi Liang, Xiaomeng Li
Presenter: Lehan Wang, The Hong Kong University of Science and Technology, Hong Kong SAR

C328 (Thu-PM)
Deep Knowledge-Infused Transformer for NSCLC Lymph Node Station Metastasis Prediction: Development of an AI-Powered Intraoperative Decision System
Authors: Jie Zhao, Zifan Chen, Guangzhengao Yang, Yijiang He, Li Zhang, Bin Dong
Presenter: Jie Zhao, Peking University, China

C333 (Thu-PM)
Paper Highlight
MELON: Multimodal Mixture-of-Experts with Spectral-Temporal Fusion for Long-Term MObility EstimatioN in Critical Care
Authors: Jiaqing Zhang, Miguel Contreras, Jessica Sena, Andrea Davidson, Yuanfang Ren, Ziyuan Guan, Tezcan Ozrazgat-Baslanti, Tyler J. Loftus, Subhash Nerella, Azra Bihorac, Parisa Rashidi
Presenter: Subhash Nerella, University of Florida, United States

Poster Session 4: Deployment, Trustworthiness, and Privacy / Surgical Navigation / Reconstruction and Synthesis in MRI and CT/X-Ray

Friday, September 26, 2025, 11:00 – 12:30

Poster Hall (DCC 2)

A4 (Fri-AM) Paper Highlight
Maverick: Collaboration-free Federated Unlearning for Medical Privacy
Authors: Win Kent Ong, Chee Seng Chan
Presenter: Win Kent Ong, Universiti Malaya, Malaysia

A9 (Fri-AM)
MeDi: Metadata-Guided Diffusion Models for Mitigating Biases in Tumor Classification
Authors: David Jacob Drexlin, Jonas Dippel, Julius Hense, Niklas Prenißl, Grégoire Montavon, Frederick Klauschen, Klaus-Robert Müller
Presenter: Jonas Dippel, TU Berlin, Germany

A14 (Fri-AM)
FOCUS: Feature Replay with Optimized Channel-Consistent Dropout for U-Net Skip-Connections
Authors: Simon Johannes Joham, Franz Thaler, Arnela Hadzic, Martin Urschler
Presenter: Simon Joham, Medical University of Graz, Austria

A19 (Fri-AM)
Temporal Model-Based Federated Active Medical Image Classification
Authors: Yunlu Yan, Chun-Mei Feng, Yuexiang Li, Jinheng Xie, Jun Chen, Mohamed Elhoseiny, Ming Hu, Kaishun Wu, Lei Zhu
Presenter: Yunlu Yan, The Hong Kong University of Science and Technology (Guangzhou), China

A24 (Fri-AM)
PRECISE-AS: Personalized Reinforcement Learning for Efficient Point-of-Care Echocardiography in Aortic Stenosis Diagnosis
Authors: Armin Saadat, Nima Hashemi, Hooman Vaseli, Michael Y. Tsang, Christina Luong, Michiel Van de Panne, Teresa S. M. Tsang, Purang Abolmaesumi
Presenter: Armin Saadat, University of British Columbia, Canada

A29 (Fri-AM)
Shuffle-Diversity Collaborative Federated Learning for Imbalanced Medical Image Analysis
Authors: Wenpeng Gao, Liantao Lan, Yumeng Liu, Ruxin Wang, Xiaomao Fan
Presenter: Xiaomao Fan, Shenzhen Technology University, China

A34 (Fri-AM)
GoCa: Trustworthy Multi-Modal RAG with Explicit Thinking Distillation for Reliable Decision-Making in Med-LVLMs
Authors: Pengyu Dai, Yafei Ou, Yuqiao Yang, Ze Jin, Kenji Suzuki
Presenter: Pengyu Dai, Institute of Science Tokyo, Japan

A39 (Fri-AM)
Subgroup Performance Analysis in Hidden Stratifications
Authors: Alceu Bissoto, Trung-Dung Hoang, Tim Flühmann, Susu Sun, Christian F. Baumgartner, Lisa M. Koch
Presenter: Alceu Bissoto, University of Bern, Switzerland

A44 (Fri-AM) Paper Highlight
On the Interplay of Human-AI Alignment, Fairness, and Performance Trade-offs in Medical Imaging
Authors: Haozhe Luo, Ziyu Zhou, Shelley Zixin Shu, Aurélie Pahud de Mortanges, Robert Berke, Mauricio Reyes
Presenter: Haozhe Luo, University of Bern, Switzerland

A49 (Fri-AM)
DeepAf: One-Shot Spatiospectral Auto-Focus Model for Digital Pathology
Authors: Yousef Yeganeh, Maximilian Frantzen, Michael Lee, Kun Hsing-Yu, Nassir Navab, Azade Farshad
Presenter: Yousef Yeganeh, Technical University of Munich, Germany

A54 (Fri-AM)
Personalized Federated Side-Tuning for Medical Image Classification
Authors: Jiayi Chen, Benteng Ma, Yongsheng Pan, Bin Pu, Hengfei Cui, Yong Xia
Presenter: Yong Xia, Northwestern Polytechnical University, China

A59 (Fri-AM)
Privacy Preserving Chest X-ray Classification in Latent Space with Homomorphically Encrypted Neural Inference
Authors: Jonghun Kim, Gyeongdeok Jo, Sinyoung Ra, Hyunjin Park
Presenter: Jonghun Kim, Sungkyunkwan University, Republic of Korea

A64 (Fri-AM)
Embedding-Based Federated Data Sharing via Differentially Private Conditional VAEs
Authors: Francesco Di Salvo, Hanh Huyen My Nguyen, Christian Ledig
Presenter: Francesco Di Salvo, University of Bamberg, Germany

A69 (Fri-AM)
Incorporating Rather Than Eliminating: Achieving Fairness for Skin Disease Diagnosis Through Group-Specific Experts
Authors: Gelei Xu, Yuying Duan, Zheyuan Liu, Xueyang Li, Meng Jiang, Michael Lemmon, Wei Jin, Yiyu Shi

Presenter: Gelei Xu, University of Notre Dame, United States

A74 (Fri-AM)
Seeing Beyond the Surface: Retinal Thickness Prediction from Color Fundus Photography for DME Management
Authors: Wenquan Cheng, Yihua Sun, Jinyuan Wang, Jia Guo, Zihan Li, Zhuhao Wang, Guochen Ning, Yingfeng Zheng, Hongen Liao, Tien Yin Wong, Su Jeong Song
Presenter: Wenquan Cheng, Tsinghua University, China

A79 (Fri-AM)
GradInvDiff: Stealing Medical Privacy in Federated Learning via Diffusion-Based Gradient Inversion
Authors: Zhiyuan Wang, Daisong Gan, Wenzhuo Fang, Yuliang Zhu, Kun Liu
Presenter: Daisong Gan, University of Chinese Academy of Sciences, China

A84 (Fri-AM)
RadioFormer: Integrating Radiologist Inductive Bias for Tumor Classification on Multi-Sequence MR Images
Authors: Xiaoyu Bai, Yong Xia
Presenter: Xiaoyu Bai, Northwestern Polytechnical University, China

A89 (Fri-AM)
Paper Highlight
Mutual Information Regularization for Fairness-aware Deep Imaging Representations
Authors: Amir Reza Sadri, Thomas DeSilvio, Satish E. Viswanath
Presenter: Amir Reza Sadri, Case Western Reserve University, United States

A94 (Fri-AM)
Multi-task Screening for Cervical Diseases via Feature Routing and Asymmetric Distillation
Authors: Haotian Jiang, Haolin Huang, Jiangdong Cai, Mengjie Xu, Zhenrong Shen, Manman Fei, Xinyu Wang, Lichi Zhang, Qian Wang
Presenter: Haotian Jiang, ShanghaiTech University, China

A99 (Fri-AM)
FedWSIDD: Federated Whole Slide Image Classification via Dataset Distillation
Authors: Haolong Jin, Shenglin Liu, Cong Cong, Qingmin Feng, Yongzhi Liu, Lina Huang, Yingzi Hu
Presenter: Haolong Jin, Huazhong University of Science and Technology, China

A104 (Fri-AM)
Decentralized Noise Handling in Medical Imaging: Encoder-Decoder Based Federated Imputation for Robust Training
Authors: Yunyoung Chang, Yeonwoo Noh, Sang-Woong Lee, Minwoo Lee, Wonjong Noh
Presenter: Yunyoung Chang, Gachon University, Republic of Korea

A109 (Fri-AM)
Paper Highlight
Variational Visible Layers: A Practical Framework for Uncertainty Estimation
Authors: Zeinab Abboud, Herve Lombaert, Samuel Kadoury
Presenter: Zeinab Abboud, Polytechnique Montreal, Canada

A114 (Fri-AM)
Conformal Risk Control for Semantic Uncertainty Quantification in Computed Tomography
Authors: Jacopo Teneggi, J. Webster Stayman, Jeremias Sulam
Presenter: Jacopo Teneggi, Johns Hopkins University, United States

A119 (Fri-AM)
Enhancing AI-assisted Stroke Emergency Triage with Adaptive Uncertainty Estimation
Authors: Shuhua Yang, Tongan Cai, Haomiao Ni, Wenchao Ma, Yuan Xue, Kelvin Wong, John Volpi, James Z. Wang, Sharon X. Huang, Stephen T. C. Wong
Presenter: Sharon Huang, The Pennsylvania State University, United States

A124 (Fri-AM)
PRADA: Protecting and Detecting Dataset Abuse for Open-source Medical Dataset
Authors: Jinhyeok Jang, Hong Joo Lee, Nassir Navab, Seong Tae Kim
Presenter: Hong Joo Lee, Technical University of Munich, Germany

A129 (Fri-AM)
Equitable Federated Learning with NCA
Authors: Nick Lemke, Mirko Konstantin, Henry John Krumb, John Kalkhof, Jonathan Stieber, Anirban Mukhopadhyay
Presenter: Nick Lemke, Technische Universität Darmstadt, Germany

A134 (Fri-AM)
Bridging Knowledge Discrepancy in Retinal Image Analysis through Federated Multi-Task Learning
Authors: Jing Yang, Yuxi Ma, Jin-Gang Yu, Feng Gao, Shuting Yang, Du Cai, Jiacheng Wang, Liansheng Wang
Presenter: Jing Yang, National Institute for Data Science in Health and Medicine & Xiamen University, China

A139 (Fri-AM)
Enhancing Soft Tissue Sarcoma Classification by Mitigating Patient-Specific Bias in Whole Slide Images
Authors: Weiping Lin, Runchen Zhu, Wentai Hou, Jiacheng Wang, Yixuan Lin, Rui Chen, Na Ta, Liansheng Wang
Presenter: Weiping Lin, Xiamen University, China

A144 (Fri-AM)
High-Order Progressive Trajectory Matching for Medical Image Dataset Distillation

Authors: Le Dong, Jinghao Bian, Jingyang Hou, Jingliang Hu, Yilei Shi, Weisheng Dong, Xiao Xiang Zhu, Lichao Mou
Presenter: Le Dong, Xidian University, China

A149 (Fri-AM) **Revisit the Stability of Vanilla Federated Learning Under Diverse Conditions**
Authors: Youngjoon Lee, Jinu Gong, Sun Choi, Joonhyuk Kang
Presenter: Youngjoon Lee, Korea Advanced Institute of Science & Technology, Republic of Korea

A154 (Fri-AM) **Adaptive Frame Selection for Gestational Age Estimation from Blind Sweep Fetal Ultrasound Videos**
Paper Highlight
Authors: Tanya Akumu, Marawan Elbatel, Victor M. Campello, Richard Osuala, Carlos Martin-Isla, Ignacio Valenzuela, Xiaomeng Li, Bishesh Khanal, Karim Lekadir
Presenter: Tanya Akumu, University of Barcelona, Spain

A159 (Fri-AM) **LHU-Net: a Lean Hybrid U-Net for Cost-efficient, High-performance Volumetric Segmentation**
Authors: Yousef Sadegheih, Afshin Bozorgpour, Pratibha Kumari, Reza Azad, Dorit Merhof
Presenter: Yousef Sadegheih, University of Regensburg, Germany

A164 (Fri-AM) **Feeling the Stakes: Realism and Ecological Validity in User Research for Computer-Assisted Interventions**
Authors: Sue Min Cho, Winnie Wu, Ethan Kilmer, Russell H. Taylor, Mathias Unberath
Presenter: Sue Min Cho, Johns Hopkins University, United States

A169 (Fri-AM) **WaveFormer: A 3D Transformer with Wavelet-Driven Feature Representation for Efficient Medical Image Segmentation**
Authors: Md Mahfuz Al Hasan, Mahdi Zaman, Abdul Jawad, Alberto Santamaria-Pang, Ho Hin Lee, Ivan Tarapov, Kyle B. See, Md Shah Imran, Antika Roy, Yaser Pourmohammadi Fallah, Navid Asadizanjani, Reza Forghani
Presenter: Kyle See, University of Florida, United States

A174 (Fri-AM) **Toward Medical Deepfake Detection: A Comprehensive Dataset and Novel Method**
Paper Highlight
Authors: Shuaibo Li, Zhaohu Xing, Hongqiu Wang, Pengfei Hao, Xingyu Li, Zekai Liu, Lei Zhu
Presenter: Shuaibo Li, The Hong Kong University of Science and Technology (Guangzhou), China

A179 (Fri-AM) **SV-DRR: High-Fidelity Novel View X-Ray Synthesis Using Diffusion Model**
Authors: Chun Xie, Yuichi Yoshii, Itaru Kitahara
Presenter: Chun Xie, University of Tsukuba, Japan

A184 (Fri-AM) **Direct Inversion Formula of the Multi-coil MR Operator under Arbitrary Trajectories**
Authors: Junzhou Chen, Anthony G. Christodoulou, Zhaoyang Fan
Presenter: Junzhou Chen, Cedars-Sinai Medical Center, United States

A189 (Fri-AM) **Reflect: Rectified Flows for Efficient Brain Anomaly Correction Transport.**
Authors: Farzad Beizaee, Sina Hajimiri, Ismail Ben Ayed, Gregory Lodygensky, Christian Desrosiers, Jose Dolz
Presenter: Farzad Beizaee, École de technologie supérieure, Canada

A194 (Fri-AM) **Hierarchical Anatomy-Aware Guidance for Brain Tissue Microstructure Reconstruction from T1-weighted MRI**
Authors: Yuxing Li, Chuyang Ye
Presenter: Chuyang Ye, Beijing Institute of Technology, China

A199 (Fri-AM) **T2I-Diff: fMRI Signal Generation via Time-Frequency Image Transform and Classifier-Free Denoising Diffusion Models**
Authors: Hwa Hui Tew, Junn Yong Loo, Yee-Fan Tan, Xinyu Tang, Hernando Ombao, Fuad Noman, Raphaël C.-W. Phan, Chee-Ming Ting
Presenter: Hwa Hui Tew, Monash University Malaysia, Malaysia

A204 (Fri-AM) **Instrument-Splatting: Controllable Photorealistic Reconstruction of Surgical Instruments Using Gaussian Splatting**
Authors: Shuojue Yang, Zijian Wu, Mingxuan Hong, Qian Li, Daiyun Shen, Septimiu E. Salcudean, Yueming Jin
Presenter: Shuojue Yang, National University of Singapore, Singapore

A209 (Fri-AM) **Cascaded 3D Diffusion Models for Whole-body 3D 18-F FDG PET/CT synthesis from Demographics**
Authors: Siyeop Yoon, Sifan Song, Pengfei Jin, Matthew Tivnan, Yujin Oh, Sekeun Kim, Dufan Wu, Xiang Li, Quanzheng Li
Presenter: Siyeop Yoon, Harvard Medical School, United States

A214 (Fri-AM) **Physics-Informed Implicit Neural Representations for Joint B0 Estimation and Echo Planar Imaging**

Authors: Wenqi Huang, Nan Wang, Congyu Liao, Yimeng Lin, Mengze Gao, Daniel Rueckert, Kawin Setsompop
Presenter: Wenqi Huang, Technical University of Munich, Germany

A219 (Fri-AM)

Real Super-Resolution for Proximal Femur: Enhanced Computation of Structural Bone Metrics from Clinical CTs
Authors: Niklas C. Koser, Marten J. Finck, Felix N. von Brackel, Benjamin Ondruschka, Sören Pirk, Claus-C. Glüer
Presenter: Niklas C. Koser, Kiel University and University Hospital Schleswig-Holstein, Germany

A224 (Fri-AM)
Paper Highlight

Multifrequency Neural Network-based Wave Inversion in MR Elastography
Authors: Héloïse Bustin, Tom Meyer, Jakob Jordan, Lars Walczak, Heiko Tzschätzsch, Ingolf Sack, Anja Hennemuth
Presenter: Héloïse Bustin, Charité - Universitätsmedizin Berlin, Germany

A229 (Fri-AM)

LDDMEm: Large Deformation Diffeomorphic Metric Embedding Decoupling Shape Analysis from Image Registration
Authors: Greg M. Fleishman, P. Thomas Fletcher
Presenter: Greg M. Fleishman, Howard Hughes Medical Institute, Janelia Research Campus, United States

A234 (Fri-AM)
Paper Highlight

OsteoOpt: A Bayesian Optimization Framework for Enhancing Bone Union Likelihood in Mandibular Reconstruction Surgery
Authors: Hamidreza Aftabi, John E. Lloyd, Amanda Ding, Benedikt Sagl, Eitan Prisman, Antony Hodgson, Sidney Fels
Presenter: Hamidreza Aftabi, University of British Columbia, Canada

A239 (Fri-AM)

EFMS-Net: Efficient Frequency-Enhanced Multi-Scale Network for Ischemic Stroke Segmentation
Authors: Jie Yang, Shaowei Shen, Xuwei Fan, Ning Chen, Zhibin Gao, Lianfen Huang, Yihong Zhan
Presenter: Jie Yang, Xiamen University, China

A244 (Fri-AM)
Paper Highlight

Q-space Guided Collaborative Attention Translation Network for Flexible Diffusion-Weighted Images Synthesis
Authors: Pengli Zhu, Yingji Fu, Nanguang Chen, Anqi Qiu
Presenter: Pengli Zhu, Hong Kong Polytechnic University, Hong Kong SAR

A249 (Fri-AM)

A Unified Continuous Staging Framework for Alzheimer's Disease and Lewy Body Dementia via Hierarchical Anatomical Features
Authors: Tong Chen, Minheng Chen, Jing Zhang, Yan Zhuang, Chao Cao, Xiaowei Yu, Yanjun Lyu, Lu Zhang, Li Su, Tianming Liu, Dajiang Zhu
Presenter: Tong Chen, University of Texas at Arlington, United States

A254 (Fri-AM)

ReSeg-UNet: A Reconstruction-Guided Optimization Framework for Enhanced Medical Image Segmentation
Authors: Lin Li, Dong Tang, Xiaowen Chu, Xiaofei Yang, Fei Yu
Presenter: Lin Li, Guangzhou University, China

A259 (Fri-AM)

MGG-Net: A Multi-Modal Feature Extraction and Global-Aware Feature Graph-Based Deep Learning Network for MGMT Status Classification in Glioma
Authors: Haoyang Liu, Yuwen Zeng, Xiaoyong Zhang, Wentong Zhou, Arata Nagai, Masayuki Kanamori, Hidenori Endo, Noriyasu Homma
Presenter: Haoyang Liu, Tohoku University, Japan

A264 (Fri-AM)

Forget-MI: Machine Unlearning for Forgetting Multimodal Information in Healthcare Settings
Authors: Shahad Hardan, Darya Taratynova, Abdelmajid Essofi, Karthik Nandakumar, Mohammad Yaqub
Presenter: Shahad Hardan, Mohamed Bin Zayed University of Artificial Intelligence, United Arab Emirates

A269 (Fri-AM)

TRACE: Temporally Reliable Anatomically-Conditioned 3D CT Generation with Enhanced Efficiency
Authors: Minye Shao, Xingyu Miao, Haoran Duan, Zeyu Wang, Jingkun Chen, Yawen Huang, Xian Wu, Jingjing Deng, Yang Long, Yefeng Zheng
Presenter: Minye Shao, Durham University, United Kingdom

A274 (Fri-AM)

Physics-driven Signal Regularization in Diffusion Models for Multi-contrast MR Image Synthesis
Authors: Yejee Shin, Yunsu Byeon, Geonhui Son, Hanbyol Jang, Dosik Hwang, Sewon Kim
Presenter: Yejee Shin, Yonsei University, Republic of Korea

A279 (Fri-AM)

Parameter-Efficient Fine-Tuning of 3D DDPM for MRI Image Generation Using Tensor Networks
Authors: Binghua Li, Ziqing Chang, Tong Liang, Chao Li, Toshihisa Tanaka, Shigeki Aoki, Qibin Zhao, Zhe Sun

Presenter: Binghua Li, Tokyo University of Agriculture and Technology, Japan

A284 (Fri-AM) **SOFA: Deep Learning Framework for Simulating and Optimizing Atrial Fibrillation Ablation**
Authors: Yunsung Chung, Chanho Lim, Ghassan Bidaoui, Christian Massad, Nassir Marrouche, Jihun Hamm
Presenter: Yunsung Chung, Tulane University, United States

A289 (Fri-AM) **DIGS: Dynamic CBCT Reconstruction using Deformation-Informed 4D Gaussian Splatting and a Low-Rank Free-Form Deformation Model**
Authors: Yuliang Huang, Imraj Singh, Thomas Joyce, Kris Thielemans, Jamie R. McClelland
Presenter: Yuliang Huang, University College London, United Kingdom

A294 (Fri-AM) **MSDG-StyleNet: Multi-source Unsupervised Domain-Generalized CBCT-to-CT Translation with Style-Consistent Disentangled Representations**
Authors: Xin Long, Xinrui Liu, Fan Gan
Presenter: Xin Long, Nanchang University, China

A299 (Fri-AM) **Temporal Neural Cellular Automata: Application to modeling of contrast enhancement in breast MRI**
Authors: Daniel M. Lang, Richard Osuala, Veronika Spieker, Karim Lekadir, Rickmer Braren, Julia A. Schnabel
Presenter: Daniel Lang, Helmholtz Munich, Germany

A304 (Fri-AM) **Faster, Self-Supervised Super-Resolution for Anisotropic Multi-View MRI Using a Sparse Coordinate Loss**
Authors: Maja Schlereth, Moritz Schillinger, Katharina Breininger
Presenter: Maja Schlereth, Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany

A309 (Fri-AM) **FDF-VQVAE: A Frequency Disentanglement and Fusion Learning Framework for Multi-Sequence MRI Enhancement**
Authors: Xinghe Xie, Luyi Han, Yue Sun, Chi Kin Lam, Jian Zheng, Tong Tong, Wei Ke, Chan-Tong Lam, Tao Tan
Presenter: Xinghe Xie, Macao Polytechnic University, China

A314 (Fri-AM) **Causality-driven Spatio-temporal Generator for Multi-phase Contrast-enhanced CT Synthesis**
Authors: Qikui Zhu, Hao Wu, Yanyan Zhang, Shuo Li
Presenter: Qikui Zhu, Case Western Reserve University, United States

A319 (Fri-AM) **Anatomy-Conserving Unpaired CBCT-to-CT Translation via Schrödinger Bridge**
Authors: Ke Shi, Song Ouyang, Gang Liu, Yong Luo, Kehua Su, Zhiwen Liang, Bo Du
Presenter: Ke Shi, Wuhan University, China

A324 (Fri-AM) **MedDiff-FT: Data-Efficient Diffusion Model Fine-tuning with Structural Guidance for Controllable Medical Image Synthesis**
Authors: Jianhao Xie, Ziang Zhang, Zhenyu Weng, Yuesheng Zhu, Guibo Luo
Presenter: Jianhao Xie, Peking University, China

A329 (Fri-AM) **Dynamic-Aware Spatio-temporal Representation Learning for Dynamic MRI Reconstruction**
Authors: Dayoung Baik, Jaejun Yoo
Presenter: Dayoung Baik, Ulsan National Institute of Science and Technology, Republic of Korea

A334 (Fri-AM) **Oblique Genomics Mixture of Experts: Prediction of Brain Disorder With Aging-Related Changes of Brain's Structural Connectivity Under Genomic Influences**
Authors: Yanjun Lyu, Jing Zhang, Lu Zhang, Wei Ruan, Tianming Liu, Dajiang Zhu
Presenter: Dajiang Zhu, University of Texas at Arlington, United States

A339 (Fri-AM) **Accelerated Free-Breathing 5D Multi-Echo Respiratory Motion-Resolved R2*, PDFF, and QSM Using Novel Composite Total Variation**
Authors: MungSoo Kang, Or Alus, Youngwook Kee
Presenter: Youngwook Kee, Stony Brook University, United States

A344 (Fri-AM) **DisDiff: Disentanglement Diffusion Network for MR Imaging Translation**
Authors: Yipin Zhang, Ziqi Yu, Xiange Zhang, Shengjie Zhang, Xiang Chen, Haibo Yang, Xiao-Yong Zhang
Presenter: Yipin Zhang, Fudan University, China

A349 (Fri-AM) **MOST: MR reconstruction Optimization for multiple downStream Tasks via continual learning**
Authors: Hwihun Jeong, Se Young Chun, Jongho Lee
Presenter: Hwihun Jeong, Seoul National University, Republic of Korea

A354 (Fri-AM)
4D CardioSynth: Synthesising Dynamic Virtual Heart Populations through Spatiotemporal Disentanglement
Authors: Haoran Dou, Jinghan Huang, Arezoo Zakeri, Zherui Zhou, Tingting Mu, Jinming Duan, Alejandro F. Frangi
Presenter: Haoran Dou, University of Manchester, United Kingdom

A359 (Fri-AM)
Paper Highlight
Cross-view Generalized Diffusion Model for Sparse-view CT Reconstruction
Authors: Jixiang Chen, Yiqun Lin, Yi Qin, Hualiang Wang, Xiaomeng Li
Presenter: Jixiang Chen, The Hong Kong University of Science and Technology, Hong Kong SAR

A361 (Fri-AM)
Sim-to-Real Transformer-Based Shape Reconstruction for Automated Orthopedic Fracture Reduction Planning
Authors: Sutuke Yibulayimu, Yanzhen Liu, Yudi Sang, Gang Zhu, Hui Li, Hao Lu, Chunpeng Zhao, Xinbao Wu, Yu Wang
Presenter: Yanzhen Liu, Beihang University, China

A366 (Fri-AM)
Steerable Anatomical Shape Synthesis with Implicit Neural Representations
Authors: Bram de Wilde, Max T. Rietberg, Guillaume Lajoinie, Jelmer M. Wolterink
Presenter: Jelmer Wolterink, University of Twente, The Netherlands

A373 (Fri-AM)
Coarse-to-Fine Medical Image Translation by Incorporating Deterministic Guidance and Probabilistic Refinement
Authors: Hongnian Tian, Tianxu Lv, Jiansong Fan, Delin Pan, Lihua Li, Xiang Pan
Presenter: Hongnian Tian, Jiangnan University, China

A378 (Fri-AM)
Paper Highlight
PathVG: A New Benchmark and Dataset for Pathology Visual Grounding
Authors: Chunlin Zhong, Shuang Hao, Junhua Wu, Xiaona Chang, Jiwei Jiang, Xiu Nie, He Tang, Xiang Bai
Presenters: Chunlin Zhong and Shuang Hao, Huazhong University of Science and Technology, China

B4 (Fri-AM)
Paper Highlight
Towards Markerless Intraoperative Tracking of Deformable Spine Tissue
Authors: Connor Daly, Elettra Marconi, Marco Riva, Jinendra Ekanayake, Daniel S. Elson, Ferdinando Rodriguez y Baena
Presenter: Connor Daly, Imperial College London, United Kingdom

B9 (Fri-AM)
Automatic Deep Deformable Registration using Domain Adaptation and Run-Time Optimisation
Authors: Emilien Gadoux, Adrien Bartoli
Presenter: Emilien Gadoux, Institut Pascal, France

B14 (Fri-AM)
Paper Highlight
ClipGS: Clippable Gaussian Splatting for Interactive Cinematic Visualization of Volumetric Medical Data
Authors: Chengkun Li, Yuqi Tong, Kai Chen, Zhenya Yang, Ruiyang Li, Shi Qiu, Jason Ying-Kuen Chan, Pheng-Ann Heng, Qi Dou
Presenter: Chengkun Li, The Chinese University of Hong Kong, Hong Kong SAR

B19 (Fri-AM)
Conformal forecasting for surgical instrument trajectory
Authors: Sara Sangalli, Gary Sarwin, Ertunc Erdil, Carlo Serra, Alessandro Carretta, Victor Staartjes, Ender Konukoglu
Presenter: Sara Sangalli, ETH Zürich, Switzerland

B24 (Fri-AM)
Surgical Action Planning with Large Language Models
Authors: Mengya Xu, Zhongzhen Huang, Jie Zhang, Xiaofan Zhang, Qi Dou
Presenter: Mengya Xu, The Chinese University of Hong Kong, Hong Kong SAR

B29 (Fri-AM)
Paper Highlight
Endo-FASt3r: Endoscopic Foundation model Adaptation for Structure from motion
Authors: Mona Sheikh Zeinoddin, Mobarak I. Hoque, Zafer Tandogdu, Greg L. Shaw, Matthew J. Clarkson, Evangelos B. Mazomenos, Danail Stoyanov
Presenter: Mona Sheikh Zeinoddin, University College London, United Kingdom

B34 (Fri-AM)
CurConMix: A Curriculum Contrastive Learning Framework for Enhancing Surgical Action Triplet Recognition
Authors: Yongjun Jeon, Jongmin Shin, Seonmin Park, Bogeun Kim, Kanggil Park, Namkee Oh, Kyu-Hwan Jung
Presenter: Yongjun Jeon, Sungkyunkwan University, Republic of Korea

B39 (Fri-AM)
Motion-Boundary-Driven Unsupervised Surgical Instrument Segmentation in Low-Quality Optical Flow
Authors: Yang Liu, Peiran Wu, Jiayu Huo, Gongyu Zhang, Zhen Yuan, Christos Bergeles, Rachel Sparks, Prokar Dasgupta, Alejandro Granados, Sebastien Ourselin
Presenter: Yang Liu, King's College London, United Kingdom

B44 (Fri-AM)
Enforcing Geometric Constraints of Surface Normal and Pose for Self-supervised Monocular Depth Estimation on Laparoscopic Images
Authors: Wenda Li, Yuichiro Hayashi, Masahiro Oda, Takayuki Kitasaka, Kazunari Misawa, Kensaku Mori
Presenter: Wenda Li, Naogya University, Japan

B49 (Fri-AM)
Paper Highlight
RadGS-Reg: Registering Spine CT with Biplanar X-rays via Joint 3D Radiative Gaussians Reconstruction and 3D/3D Registration
Authors: Ao Shen, Xueming Fu, Junfeng Jiang, Qiang Zeng, Ye Tang, Zhengming Chen, Luming Nong, Feng Wang, S. Kevin Zhou
Presenter: Ao Shen, Hohai University, China

B54 (Fri-AM)
Smarter Self-Distillation: Optimizing the Teacher for Surgical Video Applications
Authors: Amine Yamlahi, Piotr Kalinowski, Patrick Godau, Rayan Younis, Martin Wagner, Beat Müller, Lena Maier-Hein
Presenter: Amine Yamlahi, German Cancer Research Center (DKFZ), Germany

B59 (Fri-AM)
Paper Highlight
SurgTPGS: Semantic 3D Surgical Scene Understanding with Text Promptable Gaussian Splatting
Authors: Yiming Huang, Long Bai, Beilei Cui, Kun Yuan, Guankun Wang, Mobarak I. Hoque, Nicolas Padoy, Nassir Navab, Hongliang Ren
Presenter: Yiming Huang, The Chinese University of Hong Kong, Hong Kong SAR

B64 (Fri-AM)
EndoDAV: Depth Any Video in Endoscopy with Spatiotemporal Accuracy
Authors: Zanwei Zhou, Chen Yang, Piao Yang, Xiaokang Yang, Wei Shen
Presenter: Zanwei Zhou, Shanghai Jiao Tong University, China

B69 (Fri-AM)
Paper Highlight
Pattern-Anchored Adaptive Prototype Learning for Gastroscopic Lesion Detection and Beyond
Authors: Xuanye Zhang, Xiaoqing Hu, Guanbin Li, Si-Qi Liu, Xiang Wan, Yuanhuan Xiong
Presenter: Xuanye Zhang, Shenzhen Research Institute of Big Data, CUHK-Shenzhen, China

B74 (Fri-AM)
Recognizing Surgical Phases Anywhere: Few-Shot Test-time Adaptation and Task-graph Guided Refinement
Authors: Kun Yuan, Tingxuan Chen, Shi Li, Joël L. Lavanchy, Christian Heiliger, Ege Özsoy, Yiming Huang, Long Bai, Nassir Navab, Vinkle Srivastav, Hongliang Ren, Nicolas Padoy
Presenter: Kun Yuan, University of Strasbourg, France & Technical University of Munich, Germany

B79 (Fri-AM)
Paper Highlight
MedAgentSim: Self-Evolving Multi-Agent Simulations for Realistic Clinical Interactions
Authors: Mohammad Almansoori, Komal Kumar, Hisham Cholakkal
Presenter: Mohammad Almansoori, Mohamed bin Zayed University of Artificial Intelligence, United Arab Emirates

B84 (Fri-AM)
D4Recon: Dual-stage Deformation and Dual-scale Depth Guidance for Endoscopic Reconstruction
Authors: Hritam Basak, Zhaozheng Yin
Presenter: Hritam Basak, Stony Brook University, United States

B89 (Fri-AM)
Endo-GSMT: Endoscopic Monocular Scene Reconstruction with Dynamic Gaussian Splatting and Motion Tracking
Authors: Hao Gou, Changmiao Wang, Jiahao Yang, Yaoqun Liu, Fucang Jia, Deqiang Xiao, Feiwei Qin, Huoling Luo
Presenter: Hao Gou, Hangzhou Dianzi University, China

B94 (Fri-AM)
CAT-SG: A Large Dynamic Scene Graph Dataset for Fine-Grained Understanding of Cataract Surgery
Authors: Felix Holm, Gözde Ünver, Ghazal Ghazaei, Nassir Navab
Presenter: Felix Holm, Technical University of Munich, Germany

B99 (Fri-AM)
Marker-less Head Pose Tracking for Image-guided Cerebral Artery Navigation
Authors: Qiuying Wang, Pandeng Zhang, Dewei Chen, Hao Tang, Chang Liu, Jia Liu
Presenter: Qiuying Wang, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, China

B104 (Fri-AM)
Phase-Informed Tool Segmentation for Manual Small-Incision Cataract Surgery
Authors: Bhuvan Sachdeva, Naren Akash, Tajamul Ashraf, Simon Müller, Thomas Schultz, Maximilian W. M. Wintergerst, Niharika Singri, Kaushik Murali, Mohit Jain
Presenter: Thomas Schultz, University of Bonn, Germany

B109 (Fri-AM)
Paper Highlight
SG2VID: Scene Graphs Enable Fine-Grained Control for Video Synthesis
Authors: Ssharvien Kumar Sivakumar, Yannik Frisch, Ghazal Ghazaei, Anirban Mukhopadhyay
Presenter: Ssharvien Kumar Sivakumar, Technische Universität Darmstadt, Germany

B114 (Fri-AM) **Weakly-Supervised 2D/3D Image Registration via Differentiable X-ray Rendering and ROI Segmentation**
Authors: Yuxin Cui, Max Q.-H. Meng, Zhe Min
Presenter: Zhe Min, Shandong University, China

B119 (Fri-AM) **Operating Room Workflow Analysis via Reasoning Segmentation over Digital Twins**
Authors: Yiqing Shen, Chenjia Li, Bohan Liu, Cheng-Yi Li, Tito Porras, Mathias Unberath
Presenter: Mathias Unberath, Johns Hopkins University, United States

B124 (Fri-AM) **Self-adaptive Vision-Language Model for 3D Segmentation of Pulmonary Artery and Vein**
Authors: Xiaotong Guo, Deqian Yang, Dan Wang, Ying Zhu, Haochen Zhao, Yuan Li, Zhilin Sui, Tao Zhou, Lijun Zhang, Hui Meng, Yanda Meng
Presenter: Yanda Meng, University of Exeter, United Kingdom

B129 (Fri-AM) **FSA-Net: Fractal-driven Synergistic Anatomy-aware Network for Segmenting White Line of Toldt in Laparoscopic Images**
Authors: Kecheng Wu, Zhaohu Xing, Zerong Cai, Feng Gao, Wenxue Li, Lei Zhu
Presenter: Kecheng Wu, The Hong Kong University of Science and Technology (Guangzhou), China

B134 (Fri-AM) **Frequency-domain Multi-modal Fusion for Language-guided Medical Image Segmentation**
Authors: Bo Yu, Jianhua Yang, Zetao Du, Yan Huang, Chenglong Li, Liang Wang
Presenter: Bo Yu, Anhui University, China

B139 (Fri-AM) **BREA-Depth: Bronchoscopy Realistic Airway-geometric Depth Estimation**
Authors: Francis Xiatian Zhang, Emile Mackute, Mohammadreza Kasaei, Kevin Dhaliwal, Robert Thomson, Mohsen Khadem
Presenter: Francis Xiatian Zhang, The University of Edinburgh, United Kingdom

B144 (Fri-AM) **Towards Holistic Surgical Scene Graph**
Authors: Jongmin Shin, Enki Cho, Ka Young Kim, Jung Yong Kim, Seong Tae Kim, Namkee Oh
Presenter: Jongmin Shin, Samsung Medical Center, Republic of Korea

B149 (Fri-AM) **Localization Lens for Improving Medical Vision-Language Models**
Authors: Hasan Farooq, Murtaza Taj, Mehwish Nasim, Arif Mahmood
Presenter: Hasan Farooq, Lahore University of Management Sciences, Pakistan

B154 (Fri-AM) **World Model for AI Autonomous Navigation in Mechanical Thrombectomy**
Authors: Harry Robertshaw, Han-Ru Wu, Alejandro Granados, Thomas C. Booth
Presenter: Harry Robertshaw, King's College London, United Kingdom

B159 (Fri-AM) **Semantic Scene Graph for Ultrasound Image Explanation and Scanning Guidance**
Authors: Xuesong Li, Dianye Huang, Yameng Zhang, Nassir Navab, Zhongliang Jiang
Presenter: Xuesong Li, Technical University of Munich, Germany

B164 (Fri-AM) **Towards Globally Predictable k-Space Interpolation: A White-box Transformer Approach**
Paper Highlight
Authors: Chen Luo, Qiyu Jin, Taofeng Xie, Xuemei Wang, Huayu Wang, Congcong Liu, Liming Tang, Guoqing Chen, Zhuo-Xu Cui, Dong Liang
Presenter: Chen Luo, Inner Mongolia University, China

B169 (Fri-AM) **EndoFlow-SLAM: Real-Time Endoscopic SLAM with Flow-Constrained Gaussian Splatting**
Authors: Taoyu Wu, Yiyi Miao, Zhuoxiao Li, Haocheng Zhao, Kang Dang, Jionglong Su, Limin Yu, Haoang Li
Presenter: Taoyu Wu, Xi'an Jiaotong-Liverpool Unversity, China

B174 (Fri-AM) **EndoMamba: An Efficient Foundation Model for Endoscopic Videos via Hierarchical Pre-training**
Paper Highlight
Authors: Qingyao Tian, Huai Liao, Xinyan Huang, Bingyu Yang, Dongdong Lei, Sebastien Ourselin, Hongbin Liu
Presenter: Qingyao Tian, Institute of Automation, Chinese Academy of Sciences, China

B179 (Fri-AM) **Asymmetric Matching in Abdominal Lymph Nodes of Follow-up CT Scans**
Authors: Yiji Mao, Yi Zhang, Xinyu Zou, Yuling Zheng, Hao Huang, Haixian Zhang
Presenter: Haixian Zhang, Sichuan University, China

B184 (Fri-AM) **Navigational Bronchoscopy in Critical Care via End-to-End Pose Regression**
Authors: Emile Mackute, Francis Xiatian Zhang, Kevin Dhaliwal, Mohsen Khadem
Presenter: Emile Mackute, The University of Edinburgh, United Kingdom

B189 (Fri-AM) **6D Object Pose Tracking for Orthopedic Surgical Training using Visual-Inertial Sensor Fusion**
Authors: Maarten Hogenkamp, Tobias Stauffer, Quentin Lohmeyer, Mirko Meboldt
Presenter: Maarten Hogenkamp, ETH Zürich, Switzerland

B194 (Fri-AM) **Automated Integration of Surgical Implants into Digital Twins for Trauma Surgery**
Authors: Tobias Stauffer, Manuel Reber, Léon Fellmann, Reto Babst, Mirko Meboldt, Quentin Lohmeyer
Presenter: Tobias Stauffer, ETH Zürich, Switzerland

B199 (Fri-AM) Paper Highlight **Multi-modal Representations for Fine-grained Multi-label Critical View of Safety Recognition**
Authors: Britty Baby, Vinkle Srivastav, Pooja P. Jain, Kun Yuan, Pietro Mascagni, Nicolas Padoy
Presenter: Britty Baby, University of Strasbourg, France

B204 (Fri-AM) **ICE-PoGO: Improving Dynamic Panoramic Reconstruction of 4D ICE Imaging through Pose Graph Optimization**
Authors: Sebastian Herz, Magdalena Wysocki, Felix Tristram, Julia Hickler, Lydia Neary-Zajiczek, Christoph Hennersperger, Nassir Navab, Stefan Wörz
Presenter: Sebastian Herz, LUMA Vision, Germany

B209 (Fri-AM) **CholecMamba: A Mamba-based Multimodal Reasoning Model for Cholecystectomy Surgery**
Authors: Zipei Wang, Sitian Pan, Mengjie Fang, Ruofan Zhang, Jie Tian, Di Dong
Presenter: Zipei Wang, Key Laboratory of Molecular Imaging, Institute of Automation, Chinese Academy of Sciences, China

B214 (Fri-AM) Paper Highlight **A Novel Framework for Integrating 3D Ultrasound into Percutaneous Liver Tumour Ablation**
Authors: Shuwei Xing, Derek W. Cool, David Tessier, Elvis C.S. Chen, Terry M. Peters, Aaron Fenster
Presenter: Shuwei Xing, Robarts Research Institute & Western University, Canada

B219 (Fri-AM) **Sparse-XM: Spine Pose Adjustment with RGB-D Bone Segmentation via Cross-Modality Label Transfer**
Authors: William R. Warner, Indrani Bhattacharya, Linton T. Evans, Sohail K. Mirza, Keith D. Paulsen, Xiaoyao Fan
Presenter: William Warner, Dartmouth College, United States

B224 (Fri-AM) **Unsupervised Structure-Geometric Consistency for Monocular Endoscopic Depth Overestimation**
Authors: Wenkang Fan, Enqi Qiu, Hongzhi Xu, Xiongbiao Luo
Presenter: Wenkang Fan, Xiamen University, China

B229 (Fri-AM) **T2GS: Comprehensive Reconstruction of Dynamic Surgical Scenes with Gaussian Splatting**
Authors: Jinjing Xu, Chenyang Li, Peng Liu, Micha Pfeiffer, Liwen Liu, Reuben Docea, Martin Wagner, Stefanie Speidel
Presenter: Jinjing Xu, NCT, Dresden, Germany

B234 (Fri-AM) **Surgical-MambaLLM: Mamba2-enhanced Multimodal Large Language Model for VQLA in Robotic Surgery**
Authors: Pengfei Hao, Hongqiu Wang, Shuaibo Li, Zhaohu Xing, Guang Yang, Kaishun Wu, Lei Zhu
Presenter: Pengfei Hao, The Hong Kong University of Science and Technology (Guangzhou), China

B239 (Fri-AM) **StepAL: Step-aware Active Learning for Cataract Surgical Videos**
Authors: Nisarg A. Shah, Bardia Safaei, Shameema Sikder, S. Swaroop Vedula, Vishal M. Patel
Presenter: Patel Vishal, Johns Hopkins University, United States

B244 (Fri-AM) **Untangling Vascular Trees for Surgery and Interventional Radiology**
Authors: Guillaume Houry, Tom Boeken, Stéphanie Allassonnière, Jean Feydy
Presenter: Guillaume Houry, Inria Paris, France

B249 (Fri-AM) Paper Highlight **Endoscopic Artifact Inpainting for Improved Endoscopic Image Segmentation**
Authors: Zhangyuan Yu, Chenlin Du, Hongrui Liang, Xiuqi Zheng, Zeyao Ma, Mingjun Wu, Mingwu Ao, Qicheng Lao
Presenter: Qicheng Lao, Beijing University of Posts and Telecommunications, China

B254 (Fri-AM) **Synthesizing Delayed-Phase Contrast-Enhanced Breast MR Images from Early-Phase Images Using an Iterative Deep Network**
Authors: Woojin Chung, Junghwa Kang, Ga Eun Park, Sung Hun Kim, Yoonho Nam
Presenter: Woojin Chung, Hankuk University of Foreign Studies, Republic of Korea

B259 (Fri-AM) **Indepth Integration of Multi-granularity Features from Dual-modal for Disease Classification**
Authors: Yeli Wu, Xiaocai Zhang, Weiwen Wu, Haiteng Jiang, Chao An, Jianjia Zhang
Presenter: Yeli Wu, Shenzhen Campus of Sun Yat-sen University, China

B264 (Fri-AM) **C-NCA : Chained Neural Cellular Automata for Fast and Accurate Thermal Ablation Estimation**
Authors: Jonas Mehtali, Juan Manuel Verde, Caroline Essert
Presenter: Jonas Mehtali, University of Strasbourg, France

B269 (Fri-AM)
Paper Highlight
Veriserum: A dual-plane fluoroscopic dataset with knee implant phantoms for deep learning in medical imaging
Authors: Jinhao Wang, Florian Vogl, Pascal Schütz, Saša Ćuković, William R. Taylor
Presenter: Jinhao Wang, ETH Zürich, Switzerland

B274 (Fri-AM)
Paired Image Generation with Diffusion-Guided Diffusion Models
Authors: Haoxuan Zhang, Wenju Cui, Yuzhu Cao, Tao Tan, Jie Liu, Yunsong Peng, Jian Zheng
Presenter: Wenju Cui, University of Science and Technology of China, China

B279 (Fri-AM)
Class-Conditioned Image Synthesis with Diffusion for Imbalanced Diabetic Retinopathy Grading
Authors: Haochen Zhang, Anna Heinke, Ines D. Nagel, Dirk-Uwe G. Bartsch, William R. Freeman, Truong Q. Nguyen, Cheolhong An
Presenter: Truong Nguyen, University of California San Diego, United States

B284 (Fri-AM)
Supervised Diffusion-Model-Based PET Image Reconstruction
Authors: George Webber, Alexander Hammers, Andrew P. King, Andrew J. Reader
Presenter: George Webber, King's College London, United Kingdom

B289 (Fri-AM)
Paper Highlight
Domain-Agnostic Stroke Lesion Segmentation Using Physics-Constrained Synthetic Data
Authors: Liam Chalcroft, Jenny Crinion, Cathy J. Price, John Ashburner
Presenter: Liam Chalcroft, University College London, United Kingdom

B294 (Fri-AM)
Distribution-Guided Multi-Tracer Brain PET Synthesis from Structural MRI with Class-Conditioned Weighted Diffusion
Authors: Minhui Yu, David S. Lalush, Derek C. Monroe, Kelly S. Giovanello, Weili Lin, Pew-Thian Yap, Jason P. Mihalik, Mingxia Liu
Presenter: Qianqian Wang, The University of North Carolina at Chapel Hill, United States

B299 (Fri-AM)
Super-resolution and segmentation of 4D Flow MRI using Deep learning and Weighted Mean Frequencies
Authors: Simon Perrin, Sébastien Levilly, Harold Mouchère, Jean-Michel Serfaty
Presenter: Simon Perrin, Nantes Université / LS2N, France

B304 (Fri-AM)
Tackling Hallucination from Conditional Models for Medical Image Reconstruction with DynamicDPS
Authors: Seunghoi Kim, Henry F. J. Tregidgo, Matteo Figini, Chen Jin, Sarang Joshi, Daniel C. Alexander
Presenter: Seunghoi Kim, University College London, United Kingdom

B309 (Fri-AM)
Paper Highlight
GLCP: Global-to-Local Connectivity Preservation for Tubular Structure Segmentation
Authors: Feixiang Zhou, Zhuangzhi Gao, He Zhao, Jianyang Xie, Yanda Meng, Yitian Zhao, Gregory Y.H. Lip, Yalin Zheng
Presenter: Feixiang Zhou, University of Liverpool, United Kingdom

B314 (Fri-AM)
Analysis of Image-and-Text Uncertainty Propagation in Multimodal Large Language Models with Cardiac MR-Based Applications
Authors: Yucheng Tang, Yunguan Fu, Weixi Yi, Yipei Wang, Daniel C. Alexander, Rhodri Davies, Yipeng Hu
Presenter: Yucheng Tang, University College London, United Kingdom

B319 (Fri-AM)
Improving Autism Detection with Multimodal Behavioral Analysis
Authors: William Saakyan, Matthias Norden, Lola Eversmann, Simon Kirsch, Muyu Lin, Simon Guendelman, Isabel Dziobek, Hanna Drimalla
Presenter: William Saakyan, Bielefeld University, Germany

B324 (Fri-AM)
Contrast Flow Pattern and Cross-Phase Specificity-Aware Diffusion Model for NCCT-to-Multiphase CECT Synthesis
Authors: Kaiyi Zheng, Mu Huang, Xinming Li, Jianhua Ma, Qianjin Feng, Wei Yang, Liming Zhong
Presenter: Kaiyi Zheng, Southern Medical University, China

B329 (Fri-AM)
Unsupervised OCT image interpolation using deformable registration and generative models
Authors: Shuwen Wei, Samuel W. Remedios, Zhangxing Bian, Shimeng Wang, Junyu Chen, Yihao Liu, Bruno Jedynak, Tin Y. A. Liu, Shiv Saidha, Peter A. Calabresi, Jerry L. Prince, Aaron Carass
Presenter: Samuel Remedios, Johns Hopkins University, United States

B334 (Fri-AM)
Probabilistic Prior-Guided Anatomical Alignment for MRI Super-Resolution
Authors: Yiwen Luo, Xiaoying Tang, Yixuan Yuan
Presenter: Yiwen Luo, CIty University of Hong Kong, China

C4 (Fri-AM)
Blaze3DM: Integrating Triplane Representation with Diffusion for Solving 3D Inverse Problems in Medical Imaging

Authors: Jia He, Bonan Li, Ge Yang, Ziwen Liu
Presenter: Jia He, Institute of Automation, Chinese Academy of Sciences, China

C9 (Fri-AM) **Diffusion-based Multi-modal MR Fusion for TOF-MRA Image Synthesis**
Authors: Tianen Yu, Xinyu Song, Lei Xiang, Tao Zhou
Presenter: Tianen Yu, Nanjing University of Science and Technology, China

C14 (Fri-AM) **High-Fidelity Unified One-to-Many Medical Image Synthesis via Text-Conditioned Latent Diffusion**
Authors: Youjian Zhang, Jian Huang, Jie Wang, Zezhou Li, Zhongya Wang, Guanqun Zhou, Zhicheng Zhang, Gang Yu
Presenter: Youjian Zhang, JancsiLab, JancsiTech, Hong Kong SAR

C19 (Fri-AM) **RetiDiff: Diffusion-based Synthesis of Retinal OCT Images for Enhanced Segmentation**
Authors: Sicheng Li, Mai Dan, Yuhui Chu, Jiahui Yu, Yunpeng Zhao, Pengpeng Zhao
Presenter: Sicheng Li, Binjiang Institute of Zhejiang University, China

C24 (Fri-AM) **Segmentor-guided Counterfactual Fine-Tuning for Locally Coherent and Targeted Image Synthesis**
Authors: Tian Xia, Matthew Sinclair, Andreas Schuh, Fabio De Sousa Ribeiro, Raghav Mehta, Rajat Rasal, Esther Puyol-Antón, Samuel Gerber, Kersten Petersen, Michiel Schaap, Ben Glocker
Presenter: Tian Xia, Imperial College London, United Kingdom

C29 (Fri-AM) **MDPG: Multi-domain Diffusion Prior Guidance for MRI Reconstruction**
Authors: Lingtong Zhang, Mengdie Song, Xiaohan Hao, Huayu Mai, Bensheng Qiu
Presenter: Lingtong Zhang, University of Science and Technology of China, China

C34 (Fri-AM) **Semi-Supervised Deformation-Free Image-to-Image Translation for Realistic CT Synthesis from CBCT**
Authors: Ji Yong Han, Su Yang, Sujeong Kim, Sunjung Kim, Sang-Heon Lim, Heejin Yun, Dahee Kim, Won-Jin Yi
Presenter: Ji Yong Han, Seoul National University, Republic of Korea

C39 (Fri-AM) **Adapting Foundation Model for Dental Caries Detection with Dual-View Co-Training**
Authors: Tao Luo, Han Wu, Tong Yang, Dinggang Shen, Zhiming Cui
Presenter: Tao Luo, ShanghaiTech University, China

C44 (Fri-AM) **Physics informed guided diffusion for accelerated multi-parametric MRI reconstruction**
Authors: Perla Mayo, Carolin M. Pirkl, Alin Achim, Bjoern Menze, Mohammad Golbabaee
Presenter: Perla Mayo, University of Bristol, United Kingdom

C49 (Fri-AM) **Mesh4D: A Motion-Aware Multi-View Variational Autoencoder for 3D+t Mesh Reconstruction**
Authors: Mengyun Qiao, Jin Zheng, Weitong Zhang, Qiang Ma, Liu Li, Bernhard Kainz, Declan P. O'Regan, Paul M. Matthews, Steven Niederer, Wenjia Bai
Presenter: Mengyun Qiao, University College London, United Kingdom

C54 (Fri-AM) **UNSURF: Uncertainty Quantification for Cortical Surface Reconstruction of Clinical Brain MRIs**
Authors: Karthik Gopinath, Raghav Mehta, Ben Glocker, Juan Eugenio Iglesias
Presenter: Raghav Mehta, Imperial College London, United Kingdom

C59 (Fri-AM) **Sparse Reconstruction of Optical Doppler Tomography with Alternative State Space Model and Attention**
Authors: Zhenghong Li, Jiaxiang Ren, Wensheng Cheng, Yanzuo Liu, Congwu Du, Yingtian Pan, Haibin Ling
Presenter: Haibin Ling, Stony Brook University, United States

C64 (Fri-AM) **Single-spoke Motion-compensated Dynamic 3D MRI Reconstruction via Neural Representation**
Authors: Lixuan Chen, James M. Balter, Liyue Shen, Jeong Joon Park
Presenter: Lixuan Chen, University of Michigan, United States

C69 (Fri-AM) **Pathology-Aware Adaptive Watermarking for Text-Driven Medical Image Synthesis**
Authors: Chanyoung Kim, Dayun Ju, Jinyeong Kim, Woojung Han, Roberto Alcover-Couso, Seong Jae Hwang
Presenter: Chanyoung Kim, Yonsei University, Republic of Korea

C74 (Fri-AM) **Predicting Radiation Therapy Response based on Dynamic Temporal Feature Difference Fusion from Longitudinal MRI**
Authors: Xinyu Hao, Hongming Xu, Qibin Zhang, Qi Xu, Xiaofeng Wang, Ilkka Polonen, Fengyu Cong
Presenter: Xinyu Hao, Dalian University of Technology, China

C79 (Fri-AM) **WiD-PET: PET Image Reconstruction from Low-Dose Data Using a Wavelet-Informed Diffusion Model with Fast Inference**
Authors: Qingcheng Lyu, Tong Chen, Yiran Wang, Erjian Guo, Luping Zhou

Presenter: Luping Zhou, The University of Sydney, Australia

C84 (Fri-AM)
VQ-SCD: Vector Quantization Meets Unknown Scan Condition Self-supervised Low-Dose CT Denoising
Authors: Bo Su, Jiabo Xu, Xiangyun Hu, Kai Deng, Jiancheng Li, Zhouxian Lu
Presenter: Bo Su, Wuhan University, China

C89 (Fri-AM)
Paper Highlight
VesselGPT: Autoregressive Modeling of Vascular Geometry
Authors: Paula Feldman, Martin Sinnona, Claudio Delrieux, Viviana Siless, Emmanuel Iarussi
Presenter: Paula Feldman, Universidad Torcuato Di Tella, Argentina

C94 (Fri-AM)
AVDM: Controllable Adversarial Diffusion Model for Vessel-to-Volume Synthesis
Authors: Jian Dai, Wanchen Liu, Honghao Cui, Xiao Liu, Jiajun Wang, Zhiji Zheng, Daoying Geng
Presenter: Jian Dai, Fudan University, China

C99 (Fri-AM)
Guiding Quantitative MRI Reconstruction with Phase-wise Uncertainty
Authors: Haozhong Sun, Zhongsen Li, Chenlin Du, Haokun Li, Yajie Wang, Huijun Chen
Presenter: Haozhong Sun, Tsinghua University, China

C104 (Fri-AM)
UltraTwin: Towards Cardiac Anatomical Twin Generation from Multi-view 2D Ultrasound
Authors: Junxuan Yu, Yaofei Duan, Yuhao Huang, Yu Wang, Rongbo Ling, Weihao Luo, Ang Zhang, Jingxian Xu, Qiongying Ni, Yongsong Zhou, Binghan Li, Haoran Dou, Liping Liu, Yanfen Chu, Feng Geng, Zhe Sheng, Zhifeng Ding, Dingxin Zhang, Rui Huang, Yuhang Zhang, Xiaowei Xu, Tao Tan, Dong Ni, Zhongshan Gou, Xin Yang
Presenter: Junxuan Yu, Shenzhen University, China

C109 (Fri-AM)
Paper Highlight
Ultra-Low-Field MRI Enhancement via INR-Based Style Transfer
Authors: Kh Tohidul Islam, Mevan Ekanayake, Zhaolin Chen
Presenter: Zhaolin Chen, Monash University, Australia

C114 (Fri-AM)
Flow Matching for Medical Image Synthesis: Bridging the Gap Between Speed and Quality
Authors: Milad Yazdani, Yasamin Medghalchi, Pooria Ashrafian, Ilker Hacihaliloglu, Dena Shahriari
Presenter: Milad Yazdani, The University of British Columbia, Canada

C119 (Fri-AM)
NeRF-based CBCT Reconstruction needs Normalization and Initialization
Authors: Zhuowei Xu, Han Li, Dai Sun, Zhicheng Li, Yujia Li, Qingpeng Kong, Zhiwei Cheng, Nassir Navab, S. Kevin Zhou
Presenter: Zhuowei Xu, University of Science and Technology of China, China

C124 (Fri-AM)
Controllable Flow Matching for 3D Contrast-Enhanced Brain MRI Synthesis from Non-Contrast Scans
Authors: Heng Chang, Yu Shang, Haifeng Wang, Yuxia Liang, Haoyu Wang, Fan Wang, Chen Niu, Chunfeng Lian
Presenter: Chunfeng Lian, Xi'an Jiaotong University, China

C129 (Fri-AM)
Paper Highlight
DC-Seg: Disentangled Contrastive Learning for Brain Tumor Segmentation with Missing Modalities
Authors: Haitao Li, Ziyu Li, Yiheng Mao, Zhengyao Ding, Zhengxing Huang
Presenter: Haitao Li, Zhejiang University, China

C134 (Fri-AM)
DuoDent: Tooth Generation using Dual-Stream Diffusion with Normal Consistency
Authors: Doeyoung Kwon, Seongjun Kim, In-Seok Song, Seung Jun Baek
Presenter: Doeyoung Kwon, Korea University, Republic of Korea

C139 (Fri-AM)
Paper Highlight
InstructX2X: An Interpretable Local Editing Model for Counterfactual Medical Image Generation
Authors: Hyungi Min, Taeseung You, Hangyeul Lee, Yeongjae Cho, Sungzoon Cho
Presenter: Hyungi Min, Seoul National University, Republic of Korea

C144 (Fri-AM)
Paper Highlight
Unisyn: A Generative Foundation Model for Universal Medical Image Synthesis across MRI, CT and PET
Authors: Yulin Wang, Honglin Xiong, Kaicong Sun, Jiameng Liu, Xin Lin, Ziyi Chen, Yuanzhe He, Qian Wang, Dinggang Shen
Presenter: Yulin Wang, ShanghaiTech University, China

C149 (Fri-AM)
FilterDiff: Noise-free Frequency-domain Diffusion Models for Accelerated MRI Reconstruction
Authors: Tao Song, Fang Nie, Yi Guo, Feng Xu, Shaoting Zhang
Presenter: Tao Song, Fudan University, China

C154 (Fri-AM)
Structure-aware MRI Translation: Multi-Modal Latent Diffusion Model with Arbitrary Missing Modalities
Authors: Xinzhe Zhang, Junjie Liang, Peng Cao, Jinzhu Yang, Osmar R. Zaiane
Presenter: Osmar Zaiane, Northeastern University, China

C159 (Fri-AM)
FMM-Diff: A Feature Mapping and Merging Diffusion Model for MRI Generation with Missing Modality
Authors: Wenjin Zhong, Cong Cong, Zihan Wang, Zeya Yan, Antonio Di Ieva, Sidong Liu
Presenter: Wenjin Zhong, Macquarie University, Australia

C164 (Fri-AM)
D3M: Deformation-Driven Diffusion Model for Synthesis of Contrast-Enhanced MRI with Brain Tumors
Authors: Haowen Pang, Peng Zhang, Xiaoming Hong, Shannan Chen, Chuyang Ye
Presenter: Haowen Pang, Beijing Institute of Technology, China

C169 (Fri-AM)
Paper Highlight
CardiacFlow: 3D+t Four-Chamber Cardiac Shape Completion and Generation via Flow Matching
Authors: Qiang Ma, Qingjie Meng, Mengyun Qiao, Paul M. Matthews, Declan P. O'Regan, Wenjia Bai
Presenter: Qiang Ma, Imperial College London, United Kingdom

C174 (Fri-AM)
CortexGen: A Geometric Generative Framework for Realistic Cortical Surface Generation Using Latent Flow Matching
Authors: Yuanzhuo Zhu, Kehan Li, Jianhua Ma, Chunfeng Lian, Fan Wang
Presenter: Yuanzhuo Zhu, Xi'an Jiaotong University, China

C179 (Fri-AM)
Lifespan Cortical Surface Reconstruction from Thick-Slice Clinical MRI
Authors: Xiuyu Dong, Kaibo Tang, Dan Hu, Zhengwang Wu, Li Wang, Weili Lin, Gang Li
Presenter: Xiuyu Dong, The University of North Carolina at Chapel Hill, United States

C184 (Fri-AM)
DGM: Disentangled Generative Model for Detecting AD Individualized Pathological Changes via Pseudo-Healthy Synthesis
Authors: Zhuangzhuang Li, Kun Zhao, Dong Wang, Yong Liu
Presenter: Zhuangzhuang Li, Beijing University of Posts and Telecommunications, China

C189 (Fri-AM)
Paper Highlight
3D Acetabular Surface Reconstruction from 2D Pre-operative X-ray Images using SRVF Elastic Registration and Deformation Graph
Authors: Shuai Zhang, Jinliang Wang, Xu Wang, Sujith Konan, Danail Stoyanov, Evangelos B. Mazomenos
Presenter: Shuai Zhang, University College London, United Kingdom

C194 (Fri-AM)
Mask2Surface: Motion Correction and Super-Resolution for Cardiac Surface Reconstruction Using Latent Diffusion
Authors: Zichen Zhang, Zhentao Liu, Zeng Zhang, Zhiming Cui
Presenter: Zichen Zhang, ShanghaiTech University, China

C199 (Fri-AM)
Hybrid State-Space Models and Denoising Training for Unpaired Medical Image Synthesis
Authors: Junming Zhang, Shancheng Jiang
Presenter: Junming Zhang, Sun Yat-sen University, China

C204 (Fri-AM)
Mind the Detail: Uncovering Clinically Relevant Image Details in Accelerated MRI with Semantically Diverse Reconstructions
Authors: Jan Nikolas Morshuis, Christian Schlarmann, Thomas Küstner, Christian F. Baumgartner, Matthias Hein
Presenter: Jan Nikolas Morshuis, University of Tübingen, Germany

C209 (Fri-AM)
Phenotype-Guided Generative Model for High-Fidelity Cardiac MRI Synthesis: Advancing Pretraining and Clinical Applications
Authors: Ziyu Li, Yujian Hu, Zhengyao Ding, Yiheng Mao, Haitao Li, Fan Yi, Hongkun Zhang, Zhengxing Huang
Presenter: Ziyu Li, Zhejiang University, China

C214 (Fri-AM)
Implicit Deformable Medical Image Registration with Learnable Kernels
Authors: Stefano Fogarollo, Gregor Laimer, Reto Bale, Matthias Harders
Presenter: Stefano Fogarollo, University of Innsbruck, Austria

C219 (Fri-AM)
BiMSRec: A Progressive Image Reconstruction Framework for Medical Image Fusion Guided by Multi-Scale Deformation Fields
Authors: Nuoer Long, Kaiwen Yang, Xinyu Xie, Zitong Yu, Tao Tan, Yue Sun
Presenter: Kaiwen Yang, Macao Polytechnic University, Macao SAR

C224 (Fri-AM)
MAK-GAN: Multi-level Adaptive Convolutional Kernels for Asymmetric Multi-modal PET Reconstruction
Authors: Xinyi Zeng, Pinxian Zeng, Yan Wang, Jiaqi Cui, Luping Zhou, Caiwen Jiang, Han Zhang, Dinggang Shen
Presenter: Xinyi Zeng, Sichuan University, China

C229 (Fri-AM) **Towards Interpretable Counterfactual Generation via Multimodal Autoregression**
Authors: Chenglong Ma, Yuanfeng Ji, Jin Ye, Lu Zhang, Ying Chen, Tianbin Li, Mingjie Li, Junjun He, Hongming Shan
Presenter: Chenglong Ma, Fudan University, China

C234 (Fri-AM) **ResMAP: Restoring MRIs of Mixed Artifacts by Prompt Cascading Retrieval**
Authors: Yuxian Tang, Feng Li, Feng Shi, Qian Wang
Presenter: Yuxian Tang, ShanghaiTech University, China

C239 (Fri-AM) **Speech Audio Generation from Dynamic MRI via a Knowledge Enhanced Conditional Variational Autoencoder**
Paper Highlight
Authors: Yaxuan Li, Han Jiang, Yifei Ma, Shihua Qin, Jonghye Woo, Fangxu Xing
Presenter: Yaxuan Li, The University of Hong Kong, Hong Kong SAR

C244 (Fri-AM) **Controllable latent diffusion model to evaluate the performance of cardiac segmentation methods**
Authors: Romain Deleat-besson, Celia Goujat, Olivier Bernard, Pierre Croisille, Magalie Viallon, Nicolas Duchateau
Presenter: Romain Deleat-besson, Universite Claude Bernard Lyon 1, France

C249 (Fri-AM) **WASABI: A Metric for Evaluating Morphometric Plausibility of Synthetic Brain MRIs**
Authors: Bahram Jafrasteh, Wei Peng, Cheng Wan, Yimin Luo, Ehsan Adeli, Qingyu Zhao
Presenter: Qingyu Zhao, Weill Cornell Medicine, United States

C254 (Fri-AM) **A Large-scale Neural Model Inversion Framework for Effective Connectivity Estimation**
Authors: Guoshi Li, Pew-Thian Yap
Presenter: Guoshi Li, University of North Carolina at Chapel Hill, United States

C259 (Fri-AM) **Intra- and Cross-View Enhancement for OCTA Imaging**
Authors: Jingbo Zeng, Bingyao Tan, Zaiwang Gu, Shenghua Gao, Leopold Schmetterer, Jun Cheng
*Presenter: Jun Cheng, Agency for Science, Technology and Research (A*STAR), Singapore*

C264 (Fri-AM) **Generating Novel Brain Morphology by Deforming Learned Templates**
Paper Highlight
Authors: Alan Q. Wang, Fangrui Huang, Bailey Trang, Wei Peng, Mohammad Abbasi, Kilian Pohl, Mert R. Sabuncu, Ehsan Adeli
Presenter: Alan Wang, Stanford University, United States

C269 (Fri-AM) **D2Diff: A Dual-Domain Diffusion Model for Accurate Multi-Contrast MRI Synthesis**
Authors: Sanuwani Dayarathna, Himashi Peiris, Kh Tohidul Islam, Tien-Tsin Wong, Zhaolin Chen
Presenter: Sanuwani Dayarathna, Monash University, Australia

C274 (Fri-AM) **Boosting 3D Liver Shape Datasets with Diffusion Models and Implicit Neural Representations**
Authors: Khoa Tuan Nguyen, Francesca Tozzi, Wouter Willaert, Joris Vankerschaver, Niki Rashidian, Wesley De Neve
Presenter: Khoa Tuan Nguyen, Ghent University Global Campus; Ghent University, Republic of Korea

C279 (Fri-AM) **Boosting Medical Image Synthesis via Registration-guided Consistency and Disentanglement Learning**
Authors: Chuanpu Li, Zeli Chen, Yiwen Zhang, Liming Zhong, Wei Yang
Presenter: Chuanpu Li, Southern Medical University, China

C284 (Fri-AM) **Target Prior-enriched Implicit 3D CT Reconstruction with Adaptive Ray Sampling**
Authors: Qinglei Cao, Ziyao Tang, Xiaoqin Tang
Presenter: Xiaoqin Tang, Southwest University, China

C289 (Fri-AM) **UFO-3: Unsupervised Three-Compartment Learning for Fiber Orientation Distribution Function Estimation**
Paper Highlight
Authors: Xueqing Gao, Rizhong Lin, Jianhui Feng, Yonggang Shi, Yuchuan Qiao
Presenter: Xueqing Gao, Tongji University, China

C294 (Fri-AM) **Anatomy-Aware Low-Dose CT Denoising via Pretrained Vision Models and Semantic-Guided Contrastive Learning**
Authors: Runze Wang, Zeli Chen, Zhiyun Song, Wei Fang, Jiajin Zhang, Danyang Tu, Yuxing Tang, Minfeng Xu, Xianghua Ye, Le Lu, Dakai Jin
Presenter: Runze Wang, DAMO Academy, Alibaba Group, China

C299 (Fri-AM) **Dyna3DGR: 4D Cardiac Motion Tracking with Dynamic 3D Gaussian Representation**
Authors: Xueming Fu, Pei Wu, Yingtai Li, Xin Luo, Zihang Jiang, Junhao Mei, Jian Lu, Gao-Jun Teng, S. Kevin Zhou
Presenter: Xueming Fu, University of Science and Technology of China, China

C304 (Fri-AM)
Lesion-Aware Post-Training of Latent Diffusion Models for Synthesizing Diffusion MRI from CT Perfusion
Authors: Junhyeok Lee, Hyunwoong Kim, Hyungjin Chung, Heeseong Eom, Joon Jang, Chul-Ho Sohn, Kyu Sung Choi
Presenter: Junhyeok Lee, Seoul National University, Republic of Korea

C309 (Fri-AM)
Paper Highlight
RDMR: Recursive Inference and Representation Disentanglement for Multimodal Large Deformation Registration
Authors: Yibo Hu, Ziqi Zhao, Qi Zhang, Lisa X. Xu, Jianqi Sun
Presenter: Yibo Hu, Shanghai JiaoTong University, China

C314 (Fri-AM)
IFRFNet: Iterative Frequency Restoration-Fusion Network for Fast System Matrix Calibration on Magnetic Particle Image
Authors: Weixin Xu, Penghua Zhai, Jie Tian, Wei Mu
Presenter: Weixin Xu, Beihang University, China

C319 (Fri-AM)
Hierarchical Part-based Generative Model for Realistic 3D Blood Vessel
Authors: Siqi Chen, Guoqing Zhang, Jiahao Lai, Bingzhi Shen, Sihong Zhang, Caixia Dong, Xuejin Chen, Yang Li
Presenter: Siqi Chen, Tsinghua University, China

C324 (Fri-AM)
Spatio-temporal Pre-trained Foundation Model for Neural Decoding with Fine-grained Optimization
Authors: Ziyu Li, Zhiyuan Zhu, Yang Bai, Qing Li, Xia Wu
Presenter: Ziyu Li, Beijing Institute of Technology, China

C329 (Fri-AM)
DCT-Net: Dual-branch CT Reconstruction from Orthogonal X-rays with Diffusion Model and Contrastive Learning
Authors: Zhiyu Zhang, Cong Shen, Jijun Tang, Zhijun Liao
Presenter: Zhiyu Zhang, Tianjin University of Technology, China

C334 (Fri-PM)
WDNet: A Novel Wavelet-guided Hierarchical Diffusion Network for Multi-Target Segmentation in Colonoscopy Images
Authors: Dongdong He, Fang Ma, Ziteng Liu, Xunhai Yin, Hao Liu, Wenpeng Gao, Chenghong Zhang, Yili Fu
Presenter: Dongdong He, Harbin Institute of Technology, China

Poster Session 5: **Surgical Data Science / Graphs / Missing Data and Weak Supervision**
Friday, September 26, 2025, 15:30 – 17:00
Poster Hall (DCC 2)

A5 (Fri-PM)
Paper Highlight
Automated Detection of BK Virus in H&E Whole-Slide Images Using Weakly-Supervised Deep Learning and Interpretable Morphological Biomarkers
Authors: Sharifa Sahai, Ana D. Ramos-Guerra, Cristina Almagro-Pérez, Guillaume Jaume, Andrew Zhang, Helmut Rennke, Astrid Weins, Juan E. Ortuño, Maria J. Ledesma-Carbayo, Faisal Mahmood
Presenters: Sharifa Sahai, Harvard Medical School, United States and Ana D. Ramos-Guerra, Universidad Politécnica de Madrid, Spain

A10 (Fri-PM)
SAGCNet: Spatial-Aware Graph Completion Network for Missing Slice Imputation in Population CMR Imaging
Authors: Junkai Liu, Nay Aung, Theodoros N. Arvanitis, Stefan K. Piechnik, Joao A. C. Lima, Steffen E. Petersen, Le Zhang
Presenter: Junkai Liu, University of Birmingham, United Kingdom

A15 (Fri-PM)
FDAS: Foundation Model Distillation and Anatomic Structure-aware Multi-task Learning for Self-Supervised Medical Image Segmentation
Authors: Xiaoran Qi, Guoning Zhang, Jianghao Wu, Shaoting Zhang, Xiaorong Hou, Guotai Wang
Presenter: Xiaoran Qi, University of Electronic Science and Technology of China, China

A20 (Fri-PM)
Synergy-Guided Regional Supervision of Pseudo Labels for Semi-Supervised Medical Image Segmentation
Authors: Tao Wang, Xinlin Zhang, Yuanbin Chen, Yuanbo Zhou, Longxuan Zhao, Tao Tan, Tong Tong
Presenter: Tao Wang, Fuzhou University, China

A25 (Fri-PM)
Multi-Masked Querying Network for Robust Emotion Recognition from Incomplete Multi-Modal Physiological Signals
Authors: Geng-Xin Xu, Xiang Zuo, Ye Li
Presenter: Geng-Xin Xu, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, China

A30 (Fri-PM)
Iterative Foundation-Dedicated Learning: Optimized Key Frames, Prompts and Memories for Semi-Supervised Segmentation
Authors: Ziman Yin, Dong Nie, Shuo Li, Junjun Pan, Zhenyu Tang
Presenter: Ziman Yin, Beihang University, China

A35 (Fri-PM)
Paper Highlight
Tree-based Semantic Losses: Application to Sparsely-supervised Large Multi-class Hyperspectral Segmentation
Authors: Junwen Wang, Oscar Maccormac, William Rochford, Aaron Kujawa, Jonathan Shapey, Tom Vercauteren
Presenter: Junwen Wang, King's College London, United Kingdom

A40 (Fri-PM)
MAMBA-Based Weakly Supervised Medical Image Segmentation with Cross-Modal Textual Information
Authors: Zhen Pan, Wenhui Huang, Yuanjie Zheng
Presenter: Wenhui Huang, Shandong Normal University, China

A45 (Fri-PM)
Robust Multimodal Learning for Ophthalmic Disease Grading via Disentangled Representation
Authors: Xinkun Wang, Yifang Wang, Senwei Liang, Feilong Tang, Chengzhi Liu, Ming Hu, Chao Hu, Junjun He, Zongyuan Ge, Imran Razzak
Presenter: Feilong Tang, Monash University, Australia

A50 (Fri-PM)
Multi-modal MRI Translation via Evidential Regression and Distribution Calibration
Authors: Jiyao Liu, Shangqi Gao, Yuxin Li, Lihao Liu, Xin Gao, Zhaohu Xing, Junzhi Ning, Yanzhou Su, Xiao-Yong Zhang, Junjun He, Ningsheng Xu, Xiahai Zhuang
Presenter: Jiyao Liu, Fudan University, China

A55 (Fri-PM)
A Semi-Supervised Knowledge Distillation Framework for Left Ventricle Segmentation and Landmark Detection in Echocardiograms
Authors: Haoyuan Chen, Yonghao Li, Long Yang, Han Wu, Lin Zhou, Kaicong Sun, Dinggang Shen
Presenter: Haoyuan Chen, ShanghaiTech University, China

A60 (Fri-PM)
Weakly Semi-Supervised Cervical Lesion Cell Detection via Twin-Memory Augmented Multiple Instance Learning
Authors: Manman Fei, Zhiyun Song, Zhenrong Shen, Mengjun Liu, Qian Wang, Lichi Zhang
Presenter: Manman Fei, Shanghai Jiao Tong University, China

A65 (Fri-PM)
Spatial Aggregation for Semi-supervised Active Learning in 3D Medical Image Segmentation
Authors: Siteng Ma, Honghui Du, Dairui Liu, Kathleen M. Curran, Aonghus Lawlor, Ruihai Dong
Presenter: Siteng Ma, University College Dublin, Ireland

A70 (Fri-PM)
Self-Supervised Distillation of Legacy Rule-Based Methods for Enhanced EEG-Based Decision-Making
Authors: Yipeng Zhang, Yuanyi Ding, Chenda Duan, Atsuro Daida, Hiroki Nariai, Vwani Roychowdhury
Presenter: Yipeng Zhang, University of California, Los Angeles, United States

A75 (Fri-PM)
Paper Highlight
Inter-class separability loss for weakly supervised mutually exclusive multiclass segmentation of brain tumor lesions
Authors: Vivek Dhamale, Vaanathi Sundaresan
Presenter: Vivek Dhamale, Indian Institute of Science, Bangalore, India

A80 (Fri-PM)
Temporal Modulated Multi-Scale Deformation Fusion via Knowledge Distillation for 4D Medical Image Interpolation
Authors: Jiaju Zhang, Danni Ai, Zhikun Gan, Tianyu Fu, Jingfan Fan, Hong Song, Deqiang Xiao, Jian Yang
Presenter: Jiaju Zhang, Beijing Institute of Technology, China

A85 (Fri-PM)
A Unified Missing Modality Imputation Model with Inter-Modality Contrastive and Consistent Learning
Authors: Liangce Qi, Yusi Liu, Yuqin Li, Weili Shi, Guanyuan Feng, Zhengang Jiang
Presenter: Liangce Qi, Changchun University of Science and Technology, China

A90 (Fri-PM)
Last Layer Laplacian Pseudocoresets for Robust Medical Image Analysis
Authors: Franciskus Xaverius Erick, Johanna Paula Müller, Zhe Li, Bernhard Kainz
Presenter: Franciskus Xaverius Erick, Friedrich-Alexander University Erlangen-Nürnberg, Germany

A95 (Fri-PM)
Multimodal Imputation of Imaging-derived Phenotypes from Genomic and Blood-based Biomarkers Enhances Common Disease Discovery
Authors: Haoyang Zhang, Yan Li, Junhong Liu, Lizhen Lan, Zian Wang, Longyu Sun, Yuntong Lv, Shengxiao Yang, Qing Li, Mengting Sun, Yajing Zhang, Binghua Chen, Xionghui Zhou, Lianming Wu, Chengyan Wang

Presenter: Haoyang Zhang, Fudan University, China

A100 (Fri-PM)

UM-SAM: Unsupervised Medical Image Segmentation using Knowledge Distillation from Segment Anything Model
Authors: Jia Fu, He Li, Tao Lu, Shaoting Zhang, Guotai Wang
Presenter: Jia Fu, University of Electronic Science and Technology of China, China

A105 (Fri-PM)

Edge-semantic Synergy Fusion and Adaptive Noise-aware for Weakly Supervised Pathological Tissue Segmentation
Authors: Hualong Zhang, Siyang Feng, Zihan Huan, Huadeng Wang, Zhenbing Liu, Rushi Lan, Xipeng Pan
Presenter: Hualong Zhang, Guilin university of Electronic Technology, China

A110 (Fri-PM)

Bridging the Gap in Missing Modalities: Leveraging Knowledge Distillation and Style Matching for Brain Tumor Segmentation
Authors: Shenghao Zhu, Yifei Chen, Weihong Chen, Yuanhan Wang, Chang Liu, Shuo Jiang, Feiwei Qin, Changmiao Wang
Presenter: Shenghao Zhu, Hangzhou Dianzi University, China

A115 (Fri-PM)

Paper Highlight

Anatomical Graph-based Multilevel Distillation for Robust Alzheimer's Disease Diagnosis with Missing Modalities
Authors: Fei Liu, Huabin Wang, Mohamed Hisham Jaward, Shiuan-Ni Liang, Huey Fang Ong, Jiayuan Cheng
Presenter: Fei Liu, Monash University Malaysia, Malaysia

A120 (Fri-PM)

UltrON: Ultrasound Occupancy Networks
Authors: Magdalena Wysocki, Felix Duelmer, Ananya Bal, Nassir Navab, Mohammad Farid Azampour
Presenter: Magdalena Wysocki, Technical University of Munich, Germany

A125 (Fri-PM)

Semi-Supervised Multi-Modal Medical Image Segmentation for Complex Situations
Authors: Dongdong Meng, Sheng Li, Hao Wu, Guoping Wang, Xueqing Yan
Presenter: Dongdong Meng, Peking University, China

A130 (Fri-PM)

Diffusion-Based User-Guided Data Augmentation for Coronary Stenosis Detection
Authors: Sumin Seo, In Kyu Lee, Hyun-Woo Kim, Jaesik Min, Chung-Hwan Jung
Presenter: Sumin Seo, Medipixel, Inc., Republic of Korea

A135 (Fri-PM)

PCR-MIL: Phenotype Clustering Reinforced Multiple Instance Learning for Whole Slide Image Classification
Authors: Jingjiao Lou, Qingtao Pan, Qing Yang, Bing Ji
Presenter: Jingjiao Lou, Shandong University, China

A140 (Fri-PM)

A Learning Framework for Predicting CT-based PRM Biomarker from MRI Sequences in COPD
Authors: Yiling Xu, Simon M. F. Triphan, Julian Grolig, Hanyi Zhang, Jürgen Biederer, Craig J. Galbán, Hans-Ulrich Kauczor, Mark O. Wielpütz, Oliver Weinheimer
Presenter: Yiling Xu, Heidelberg Universiy Hospital, Germany

A145 (Fri-PM)

Revisiting 3D Medical Scribble Supervision: Benchmarking Beyond Cardiac Segmentation
Authors: Karol Gotkowski, Klaus H. Maier-Hein, Fabian Isensee
Presenter: Karol Gotkowski, German Cancer Research Center, Germany

A150 (Fri-PM)

FedAMM: Federated Learning for Brain Tumor Segmentation with Arbitrary Missing Modalities
Authors: Yukun Shi, Meiting Xue, Yan Zeng, Jilin Zhang, Jian Wan, Ye Zhou
Presenter: Yukun Shi, Hangzhou Dianzi University, China

A155 (Fri-PM)

Scalp Diagnostic System With Label-Free Segmentation and Training-Free Image Translation
Authors: Youngmin Kim, Saejin Kim, Hoyeon Moon, Youngjae Yu, Junhyug Noh
Presenter: Youngmin Kim, Yonsei University, Republic of Korea

A160 (Fri-PM)

GA-SAM: Geometry-Aware SAM Adaptation with Sparse Annotation-Driven Point Cloud Completion
Authors: Shumeng Li, Jian Zhang, Lei Qi, Yinghuan Shi
Presenter: Shumeng Li, Nanjing University, China

A165 (Fri-PM)

ProTeUS: A Spatio-Temporal Enhanced Ultrasound-Based Framework for Prostate Cancer Detection
Authors: Tarek Elghareb, Mohamed Harmanani, Minh Nguyen Nhat To, Paul Wilson, Amoon Jamzad, Fahimeh Fooladgar, Baraa Abdelsamad, Obed Dzikunu, Samira Sojoudi, Gabrielle Reznik, Michael Leveridge, Robert Siemens, Silvia Chang, Peter Black, Parvin Mousavi, Purang Abolmaesumi
Presenter: Tarek Elghareb, University of British Columbia, Canada

A170 (Fri-PM) **ReCo-I2P: An Incomplete Supervised Lymph Node Segmentation Framework Based on Orthogonal Partial-instance Annotation**
Paper Highlight
Authors: Litingyu Wang, Ping Ye, Wenjun Liao, Shichuan Zhang, Shaoting Zhang, Guotai Wang
Presenter: Litingyu Wang, University of Electronic Science and Technology of China, China

A175 (Fri-PM) **Hierarchical Corpus-View-Category Refinement for Carotid Plaque Risk Grading in Ultrasound**
Authors: Zhiyuan Zhu, Jian Wang, Yong Jiang, Tong Han, Yuhao Huang, Ang Zhang, Kaiwen Yang, Mingyuan Luo, Zhe Liu, Yaofei Duan, Dong Ni, Tianhong Tang, Xin Yang
Presenter: Zhiyuan Zhu, Shenzhen University, China

A180 (Fri-PM) **Masked Contrastive Language-Image Modeling For Brain Segmentation**
Authors: Jianwen Liang, Junyan Lyu, Yixuan Yuan, Xiaoying Tang
Presenter: Jianwen Liang, Southern University of Science and Technology, China

A185 (Fri-PM) **Subtyping Breast Lesions via Generative Augmentation based Long-tailed Recognition in Ultrasound**
Authors: Shijing Chen, Xinrui Zhou, Yuhao Wang, Yuhao Huang, Ao Chang, Dong Ni, Ruobing Huang
Presenter: Shijing Chen, Shenzhen University, China

A190 (Fri-PM) **IM-Fuse: A Mamba-based Fusion Block for Brain Tumor Segmentation with Incomplete Modalities**
Authors: Vittorio Pipoli, Alessia Saporita, Kevin Marchesini, Costantino Grana, Elisa Ficarra, Federico Bolelli
Presenter: Kevin Marchesini, University of Modena and Reggio Emilia, Italy

A195 (Fri-PM) **Hallucination-Aware Multimodal Benchmark for Gastrointestinal Image Analysis with Large Vision-Language Models**
Paper Highlight
Authors: Bidur Khanal, Sandesh Pokhrel, Sanjay Bhandari, Ramesh Rana, Nikesh Shrestha, Ram B. Gurung, Cristian Linte, Angus Watson, Yash R. Shrestha, Binod Bhattarai
Presenter: Binod Bhattarai, Nepal Applied Mathematics and Informatics Institute for Research, Nepal

A200 (Fri-PM) **Endo-CLIP: Progressive Self-Supervised Pre-training on Raw Colonoscopy Records**
Authors: Yili He, Yan Zhu, Peiyao Fu, Ruijie Yang, Tianyi Chen, Zhihua Wang, Quanlin Li, Pinghong Zhou, Xian Yang, Shuo Wang
Presenter: Yili He, University College London, United Kingdom

A205 (Fri-PM) **ESPNet: Edge-Aware Feature Shrinkage Pyramid for Polyp Segmentation**
Authors: Raneem Toman, Venkataraman Subramanian, Sharib Ali
Presenter: Raneem Toman, University of Leeds, United Kingdom

A210 (Fri-PM) **SurgicalGS: Dynamic 3D Gaussian Splatting for Accurate Robotic-Assisted Surgical Scene Reconstruction**
Authors: Jialei Chen, Xin Zhang, Mobarak I. Hoque, Francisco Vasconcelos, Danail Stoyanov, Daniel S. Elson, Baoru Huang
Presenter: Jialei Chen, Imperial College London, United Kingdom

A215 (Fri-PM) **Clinically-guided Data Synthesis for Laryngeal Lesion Detection**
Authors: Chiara Baldini, Kaisar Kushibar, Richard Osuala, Simone Balocco, Oliver Diaz, Karim Lekadir, Leonardo S. Mattos
Presenter: Chiara Baldini, Istituto Italiano di Tecnologia, Italy

A220 (Fri-PM) **Future Slot Prediction for Unsupervised Object Discovery in Surgical Video**
Authors: Guiqiu Liao, Matjaz Jogan, Marcel Hussing, Edward Zhang, Eric Eaton, Daniel A. Hashimoto
Presenter: Matjaz Jogan, University of Pennsylvania, United States

A225 (Fri-PM) **VAP-Diffusion: Enriching Descriptions with MLLMs for Enhanced Medical Image Generation**
Authors: Peng Huang, Junhu Fu, Bowen Guo, Zeju Li, Yuanyuan Wang, Yi Guo
Presenter: Junhu Fu, Fudan University, China

A230 (Fri-PM) **FPN-in-FPN: A Nested Multi-Scale Aggregation Network for Polyp Segmentation**
Authors: Jin Ye, Yanzhou Su, Yicheng Wu, Junjun He, Bohan Zhuang, Zhaolin Chen, Jianfei Cai
Presenter: Jin Ye, Monash University, Australia

A235 (Fri-PM) **Feature Mixing Approach for Detecting Intraoperative Adverse Events in Laparoscopic Roux-en-Y Gastric Bypass Surgery**
Authors: Rupak Bose, Chinedu Innocent Nwoye, Jorge F. Lazo, Joël L. Lavanchy, Nicolas Padoy
Presenter: Chinedu Innocent Nwoye, Intuitive Surgical, United States

A240 (Fri-PM) **Synchronous Inhibition and Activation for Weakly Supervised Semantic Segmentation of Pathology Images**

Authors: Jiansong Fan, Yicheng Di, Jiayu Bao, Lihua Li, Xiang Pan
Presenter: Jiansong Fan, Jiangnan University, China

A245 (Fri-PM) **Estimating Bone Mineral Density and Muscle Mass from EOS Low Dose X-ray Imaging System**
Authors: Kazuki Suehara, Yi Gu, Yoshito Otake, Keisuke Uemura, Masashi Okamoto, Kunihiko Tokunaga, Hugues Talbot, Yoshinobu Sato
Presenter: Yoshito Otake, Nara Institute of Science and Technology, Japan

A250 (Fri-PM) **Improved Tumor Segmentation using Selective Synthetic Augmentation for Enhanced Surgical Planning in Breast MRI**
Authors: Miguel Luna, John Baek, Won Hwa Kim, Wan Gyu Son, Kwang Min Lee, Hye Jung Kim, Jaeil Kim
Presenter: Miguel Luna, BeamWorks, Republic of Korea

A255 (Fri-PM) **MedICL: In-Context Learning for Semantically Enhanced AKI Prediction in Cardiac Surgery**
Authors: Chenyang Su, Yishun Wang, Boqiang Xu, Rong Feng, Lei Du, Hongbin Liu, Gaofeng Meng
Presenter: Chenyang Su, CIty University of Hong Kong, China

A260 (Fri-PM) **A Prior-Driven Lightweight Network for Endoscopic Exposure Correction**
Authors: Zhijian Wu, Hong Wang, Yuxuan Shi, Dingjiang Huang, Yefeng Zheng
Presenter: Zhijian Wu, Westlake University, China

A265 (Fri-PM) **PolypSegTrack: Unified Foundation Model for Colonoscopy Video Analysis**
Authors: Anwesa Choudhuri, Zhongpai Gao, Meng Zheng, Benjamin Planche, Terrence Chen, Ziyan Wu
Presenter: Anwesa Choudhuri, United Imaging Intelligence, United States

A270 (Fri-PM) **Endplate3D-QCT: A High-Resolution Dataset and Benchmark for Automated 3D Segmentation of Lumbar Vertebral Endplates in QCT**
Paper Highlight
Authors: Zixun Yin, Da Zou, Yi Zhao, Chenbin Zhang, Weishi Li, Minghui Wu, Kun Yan, Ping Wang
Presenter: Zixun Yin, Peking University, China

A275 (Fri-PM) **Facial Appearance Prediction with Conditional Multi-scale Autoregressive Modeling for Orthognathic Surgical Planning**
Paper Highlight
Authors: Jungwook Lee, Xuanang Xu, Daeseung Kim, Tianshu Kuang, Hannah H. Deng, Xinrui Song, Yasmine Soubra, Rohan Dharia, Michael A.K. Liebschner, Jaime Gateno, Pingkun Yan
Presenter: Jungwook Lee, Rensselaer Polytechnic Institute, United States

A280 (Fri-PM) **KidneyDepth: A Synthetic Kidney Dataset for Metric Depth Estimation in Ureteroscopy**
Authors: Laura Oliva-Maza, Florian Steidle, Julian Klodmann, Klaus Strobl, Arkadiusz Miernik, Rudolph Triebel
Presenter: Laura Oliva-Maza, German Aeroespace Center (DLR), Germany

A285 (Fri-PM) **HalF-SAM: SAM-based Haustral Fold Detection In Colonoscopy with Debris Suppression and Temporal Consistency**
Paper Highlight
Authors: Mayank Golhar, Luojie Huang, Nicholas J. Durr
Presenter: Mayank Golhar, Johns Hopkins University, United States

A290 (Fri-PM) **Endo3R: Unified Online Reconstruction from Dynamic Monocular Endoscopic Video**
Paper Highlight
Authors: Jiaxin Guo, Wenzhen Dong, Tianyu Huang, Hao Ding, Ziyi Wang, Haomin Kuang, Qi Dou, Yun-Hui Liu
Presenter: Jiaxin Guo, The Chinese University of Hong Kong, Hong Kong SAR

A295 (Fri-PM) **SAMSA: Segment Anything Model enhanced with Spectral Angles for Hyperspectral Interactive Medical Image Segmentation**
Paper Highlight
Authors: Alfie Roddan, Tobias Czempiel, Chi Xu, Daniel S. Elson, Stamatia Giannarou
Presenter: Alfie Roddan, Imperial College London, United Kingdom

A300 (Fri-PM) **BrainMT: A Hybrid Mamba-Transformer Architecture for Modeling Long-Range Dependencies in Functional MRI Data**
Authors: Arunkumar Kannan, Martin A. Lindquist, Brian Caffo
Presenter: Arunkumar Kannan, Johns Hopkins University, United States

A305 (Fri-PM) **Learning 3D Medical Image Models From Brain Functional Connectivity Network Supervision For Mental Disorder Diagnosis**
Authors: Xingcan Hu, Wei Wang, Li Xiao
Presenter: Xingcan Hu, University of Science and Technology of China, China

A310 (Fri-PM) **Alzheimer's Disease Recognition Based on Adaptive Graph Normalization Flow for Incomplete Multimodal Data Fusion**
Authors: Yaqin Li, Yihong Dong, Yanan Wu, Haihao Yan, Linlin Gao

Presenter: Yaqin Li, Ningbo University, China

A315 (Fri-PM) **A Causal-holistic Adaptive Intervention Network for Tailoring Automated Coronary Artery Disease Diagnosis to Individual Patients**
Authors: Xinghua Ma, Xingyu Qiu, Yuetan Chu, Kuanquan Wang, Zhaowen Qiu, Gongning Luo, Xin Gao
Presenter: Xinghua Ma, Harbin Institute of Technology, China

A320 (Fri-PM) **Rethinking Multi-view Mammogram Representation Learning via Counterfactual Reasoning with Kolmogorov-Arnold Theorem**
Authors: Guoli Wang, Benzheng Wei, Shuo Li
Presenter: Shuo Li, Case Western Reserve University, United States

A325 (Fri-PM) **A Causality-Inspired Model for Intima-Media Thickening Assessment in Ultrasound Videos**
Authors: Shuo Gao, Meng Yang, Jun Xue, Yang Chen, Jingyang Zhang, Guangquan Zhou
Presenter: Shuo Gao, Southeast University, China

A330 (Fri-PM) **R1Seg-3D: Rethinking Reasoning Segmentation for Medical 3D CTs**
Authors: Qin Hao, Long Yu, Shengwei Tian, Xujiong Ye, Lei Zhang
Presenter: Qin Hao, Xinjiang University, China

A335 (Fri-PM) **Synthetic Ground Truth Counterfactuals for Comprehensive Evaluation of Causal Generative Models in Medical Imaging**
Authors: Emma A. M. Stanley, Vibujithan Vigneshwaran, Erik Y. Ohara, Finn G. Vamosi, Nils D. Forkert, Matthias Wilms
Presenter: Emma Stanley, University of Calgary, Canada

A340 (Fri-PM) **MOSCARD - Multimodal Opportunistic Screening for Cardiovascular Adverse events with Causal Reasoning and De-confounding**
Authors: Jialu Pi, Juan Maria Farina, Rimita Lahiri, Jiwoong Jeong, Archana Gurudu, Hyung-Bok Park, Chieh-Ju Chao, Chadi Ayoub, Reza Arsanjani, Imon Banerjee
Presenter: Jialu Pi, Arizona State University, United States

A345 (Fri-PM) **Multi-Spatial Granger Causality Features Fusion Network for Alzheimer's Disease Classification**
Authors: Zhiwei Song, Jingming Li, Hu Yu, Xiaojuan Guo
Presenter: Zhiwei Song, Beijing Normal University, China

A350 (Fri-PM) **Information Bottleneck-based Causal Attention for Multi-label Medical Image Recognition**
Authors: Xiaoxiao Cui, Yiran Li, Kai He, Shanzhi Jiang, Mengli Xue, Wentao Li, Junhong Leng, Zhi Liu, Lizhen Cui, Shuo Li
Presenter: Xiaoxiao Cui, Shandong University, China

A355 (Fri-PM) **CF-Seg: Counterfactuals meet Segmentation**
Authors: Raghav Mehta, Fabio De Sousa Ribeiro, Tian Xia, Mélanie Roschewitz, Ainkaran Santhirasekaram, Dominic C. Marshall, Ben Glocker
Presenter: Raghav Mehta, Imperial College London, United Kingdom

A360 (Fri-PM) **Mission Balance: Generating Under-represented Class Samples using Video Diffusion Models**
Authors: Danush Kumar Venkatesh, Isabel Funke, Micha Pfeiffer, Fiona Kolbinger, Hanna Maria Schmeiser, Marius Distler, Jürgen Weitz, Stefanie Speidel
Presenter: Danush Kumar Venkatesh, National Centre for Tumor Diseases, Germany

A365 (Fri-PM) **Learning from Sparse Point Labels for Dense Carcinosis Localization in Advanced Ovarian Cancer Assessment**
Authors: Farahdiba Zarin, Riccardo Oliva, Vinkle Srivastav, Armine Vardazaryan, Andrea Rosati, Alice Zampolini Faustini, Giovanni Scambia, Anna Fagotti, Pietro Mascagni, Nicolas Padoy
Presenter: Farahdiba Zarin, University of Strasbourg, France

A372 (Fri-PM) **DiDGen: Diffusion-based Dual-task Synthesis for Dermoscopic Data Generation**
Authors: Junjie Shentu, Matthew Watson, Noura Al Moubayed
Presenter: Junjie Shentu, Durham University, United Kingdom

B5 (Fri-PM) **Cerebrovascular Diseases Screening from Color Fundus Photography via Cross-View Fusion and Graph-Based Discrimination**

Paper Highlight

Authors: Congyu Tian, Shihao Zou, Xiangyun Liao, Cheng Chen, Chubin Ou, Jianping Lv, Shanshan Wang, Weixin Si
Presenter: Shihao Zou, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, China

B10 (Fri-PM) **BrainPrompt: Domain Adaptation with Prompt Learning for Multi-site Brain Network Analysis**
Authors: Liuzeng Zhang, Lanting Li, Peng Cao, Jinzhu Yang, Osmar R. Zaiane

Presenter: Osmar Zaiane, Northeastern University, China

B15 (Fri-PM) **Multi-view Graph Contrastive Learning with Dynamic Self-aware and Cross-sample Topology Augmentation for Brain Disorder Diagnosis**
Authors: Hao Zhang, Xiaoyun Liu, Shuo Huang, Yonggui Yuan, Daoqiang Zhang, Li Zhang
Presenter: Hao Zhang, Nanjing Forestry University, China

B20 (Fri-PM) **Graph Disentanglement Learning for fMRI Analysis: Decoupling Disease, Covariates, and Individual Variability**
Authors: Shengjie Zhang, Zhuangzhuang Jiang, Xin Shen, Ziqi Yu, Xiang Chen, Xiao-Yong Zhang, Yuan Zhou
Presenter: Shengjie Zhang, Shanghai Jiao Tong University School of Medicine, China

B25 (Fri-PM) **Conditional Graph Diffusion with Topological Constraints for Brain Network Generation**
Authors: Joonhyuk Park, Donghyun Lee, Guorong Wu, Won Hwa Kim
Presenter: Joonhyuk Park, Pohang University of Science and Technology, Republic of Korea

B30 (Fri-PM) **ShareLink: Neuro-Inspired EEG-based Cross-Subject Emotion Recognition via Shared Bi-hemisphere**
Authors: Zixuan Huang, Lingyao Kong, Licheng Ao, Shiyi Yao, An Xiang, Fen Miao
Presenter: Zixuan Huang, Shenzhen institutes of Advanced Technology, Chinese Academy of Sciences, China

B35 (Fri-PM) **Robust Topographical Representation for Longitudinal Propagation of Tau Pathology**
Authors: Jiaxin Yue, Jianwei Zhang, Xinkai Wang, Yonggang Shi
Presenter: Jiaxin Yue, University of Southern California, United States

B40 (Fri-PM) **Hierarchical Characterization of Brain Dynamics via State Space-based Vector Quantization**
Authors: Yanwu Yang, Thomas Wolfers
Presenter: Yanwu Yang, University of Tübingen, Germany

B45 (Fri-PM) **A novel Fourier Adjacency Transformer for advanced EEG emotion recognition**
Authors: Jinfeng Wang, Yanhao Huang, Sifan Song, Boqian Wang, Jionglong Su, Jiaman Ding
Presenter: Jinfeng Wang, Kunming University of Science and Technology, China

B50 (Fri-PM) **Concept-induced Graph Perception Model for Interpretable Diagnosis**
Authors: Lei Zhao, Changjian Chen, Bin Pu, Xiaoming Qi, Fengfeng Peng, Chunlian Wang, Kenli Li, Guanghua Tan
Presenter: Lei Zhao, Hunan University, China

B55 (Fri-PM) **PRGNN: Pyramidal Region Graph Neural Network for Region-Based Brain PET Classification**
Authors: Daesung Kim, Seungbeom Seo, Boosung Kim, Kyobin Choo, Youngjun Jun, Mijin Yun
Presenter: Seungbeom Seo, Yonsei University, Republic of Korea

B60 (Fri-PM) **Knowledge-guided Multi-scale Graph Mamba for Whole Slide Image Classification**
Authors: Minghong Duan, Zhiwei Yang, Yingfan Ma, Manning Wang, Zhijian Song
Presenter: Minghong Duan, Fudan University, China

B65 (Fri-PM) **Endo-4DGX: Robust Endoscopic Scene Reconstruction and Illumination Correction with Gaussian Splatting**
Authors: Yiming Huang, Long Bai, Beilei Cui, Yanheng Li, Tong Chen, Jie Wang, Jinlin Wu, Zhen Lei, Hongbin Liu, Hongliang Ren
Presenter: Yiming Huang, The Chinese University of Hong Kong, Hong Kong SAR

B70 (Fri-PM) **Core-Periphery Principle Guided State Space Model for Functional Connectome Classification**
Authors: Minheng Chen, Xiaowei Yu, Jing Zhang, Tong Chen, Chao Cao, Yan Zhuang, Yanjun Lyu, Lu Zhang, Tianming Liu, Dajiang Zhu
Presenter: Minheng Chen, University of Texas at Arlington, United States

B75 (Fri-PM) **Cross-Modal Brain Graph Transformer via Function-Structure Connectivity Network for Brain Disease Diagnosis**
Authors: Jingxi Feng, Heming Xu, Junhao Cai, Yujie Chang, Dong Zhang, Shaoyi Du, Juan Wang
Presenter: Jingxi Feng, Xi'an Jiaotong University, China

B80 (Fri-PM) **Explainable Classifier for Malignant Lymphoma Subtyping via Cell Graph and Image Fusion**
Authors: Daiki Nishiyama, Hiroaki Miyoshi, Noriaki Hashimoto, Koichi Ohshima, Hidekata Hontani, Ichiro Takeuchi, Jun Sakuma
Presenter: Daiki Nishiyama, Institute of Science Tokyo / RIKEN AIP, Japan

B85 (Fri-PM) **Multiscale Graph and Multi-Step Cross-Frame Mamba for Myocarditis Lesion Segmentation**
Authors: Chengjin Yu, Hao Zhang, Yuanting Yan, Dong Zhang, Sangyin Lv, Cailing Pu

Presenter: Hao Zhang, Anhui University, China

B90 (Fri-PM)
Unsupervised Anomaly Detection on Preclinical Liver H&E Whole Slide Images using Graph based Feature Distillation
Authors: Lin Li, Lillie Shelton, Thomas Forest, Kyathanahalli Janardhan, Tiffany Jenkins, Michael J. Napolitano, Roujia Wang, David Leigh, Tosha Shah, Grady Earl Carlson, Rajath Soans, Antong Chen
Presenter: Lin Li, Merck & Co., Inc., United States

B95 (Fri-PM)
Heterogeneous Masked Attention-Guided Path Convolution for Functional Brain Network Analysis
Authors: Jiakun Xu, Xin Zhang, Tong Xiong, Shengxian Chen, Xiaofen Xing, Jindou Hao, Xiangmin Xu
Presenter: Jiakun Xu, South China University of Technology, China

B100 (Fri-PM)
Paper Highlight
GPU Accelerated Modeling of Cortical Radial and Tangential Connectivity Changes in Neurodegeneration
Authors: Hongbo Zhang, Xinyu Nie, Jiaxin Yue, Yuan Li, John Ringman, Yonggang Shi
Presenter: Hongbo Zhang, University of Southern California, United States

B105 (Fri-PM)
DHGFormer: Dynamic Hierarchical Graph Transformer for Disorder Brain Disease Diagnosis
Authors: Rundong Xue, Hao Hu, Zeyu Zhang, Xiangmin Han, Juan Wang, Yue Gao, Shaoyi Du
Presenter: Rundong Xue, Xi'an Jiaotong University, China

B110 (Fri-PM)
Multimodal Hypergraph Guide Learning for Non-Invasive ccRCC Survival Prediction
Authors: Jielong Yan, Xiangmin Han, Jieyi Zhao, Yue Gao
Presenter: Jielong Yan, Tsinghua University, China

B115 (Fri-PM)
Brain activation mapping based on Regional Synchronization of fMRI signals embedded in Graph Eigenmodes
Authors: Zhenyu Tang, Yu Zhao, Yang Yang, Xiaoyu Liu, Jingyong Su
Presenter: Jingyong Su, Harbin Institute of Technology, China

B120 (Fri-PM)
Dual-Stream Multi-Band Fusion Network for Dynamic Functional Connectivity Analysis in Brain Disorder Classification
Authors: Ling Wu, Hexi Li, Zhengyuan Lyu, Zhiwei Song, Hu Yu, Xiaojuan Guo
Presenter: Ling Wu, Beijing Normal University, China

B125 (Fri-PM)
T&F-DFC FusionNet: Time&Frequency-Dynamic Functional Connectivity Fusion Network for ADHD Diagnosis in Children based on fNIRS
Authors: Mengxiang Chu, Yunxiang Ma, Xiaowei He, Xiao Li, Jiaojiao Ren, Zhengyu Zhong, Jingjing Yu, Hongbo Guo
Presenter: Mengxiang Chu, Northwest University, China

B130 (Fri-PM)
Probabilistic Integration of Renal Cancer Radiology and Pathology Using Graph Neural Networks
Authors: Shangqi Gao, Shangde Gao, Ines Machado, Mireia Crispin-Ortuzar
Presenter: Shangqi Gao, University of Cambridge, United Kingdom

B135 (Fri-PM)
Cross-Modal Graph Learning for Perivascular Spaces Segmentation
Authors: Tao Chen, Dan Zhang, Xi Long, Marcel Breeuwer, Sveta Zinger, Peiyu Huang, Jiong Zhang
Presenter: Dan Zhang, Ningbo University of Technology, China

B140 (Fri-PM)
Ada-FCN: Adaptive Frequency-Coupled Network for fMRI-Based Brain Disorder Classification
Authors: Yue Xun, Jiaxing Xu, Wenbo Gao, Chen Yang, Shujun Wang
Presenter: Yue Xun, Hong Kong Polytechnic University, Hong Kong SAR

B145 (Fri-PM)
Brain-Environment Cross-Attention (BECA) Meta-Matching: A New Perspective of Brain Connectome Zero-Shot Learning
Authors: Ziquan Wei, Tingting Dan, Guorong Wu
Presenter: Ziquan Wei, University of North Carolina at Chapel Hill, United States

B150 (Fri-PM)
Paper Highlight
pyOpenNFT: an open-source Python framework for ML-based real-time fMRI and EEG-fMRI neurofeedback
Authors: Ekaterina Antipushina, Nikita Davydov, Riccardo De Feo, Evgeny Prilepin, Artem Nikonorov, Yury Koush
Presenter: Ekaterina Antipushina, Skolkovo Institute of Science and Technology, Russia

B155 (Fri-PM)
Explainable Integrative Bipartite Graph Convolutional Neural Network for Predicting Ejection Fraction in Echocardiography
Authors: Seungeun Lee, Jaeyoung Kim, Kyungtae Kang, Mingon Kang
Presenter: Seungeun Lee, Hanyang University, Republic of Korea

B160 (Fri-PM)
BrainPrompt: Multi-Level Brain Prompt Enhancement for Neurological Condition Identification

Authors: Jiaxing Xu, Kai He, Yue Tang, Wei Li, Mengcheng Lan, Xia Dong, Yiping Ke, Mengling Feng
Presenter: Kai He, National University of Singapore, Singapore

B165 (Fri-PM) **Integrating meta-analysis in multi-modal brain studies with graph-based attention transformer**
Authors: Hyoungshin Choi, Sunghun Kim, Jong-eun Lee, Bo-yong Park, Hyunjin Park
Presenter: Hyoungshin Choi, Sungkyunkwan University, Republic of Korea

B170 (Fri-PM) **MoST-IG: Morphology-Guided Spatial Transcriptomics Integration via Visual-Genomic Graph Optimal Transport**
Authors: Liting Yu, Tao Ma, Weiqin Zhao, Zhuo Liang, Lequan Yu
Presenter: Liting Yu, The University of Hong Kong, China

B175 (Fri-PM) **Various Attention Mechanism Graph Convolutional Network with Multi-Source Domain Adaptation for Cross-Subject EEG Emotion Recognition**
Authors: Shuo Shi, Xulei Zheng, Taiyi Wu, Xiaoke Hao
Presenter: Xiaoke Hao, Hebei University of Technology, China

B180 (Fri-PM) **Multi-Sensory Cognitive Computing for Learning Population-level Brain Connectivity**
Authors: Mayssa Soussia, Mohamed Ali Mahjoub, Islem Rekik
Presenter: Mayssa Soussia, ENISO, Tunisia

B185 (Fri-PM) **LG-DBGL: Lateralization-Guided Dissociative Brain Graph Learning for Alzheimer's Disease Identification**
Authors: Jiazhen Ye, Manman Yuan, Junlin Li, Weiming Jia, Jiacheng Wang, Jiapei Li
Presenter: Jiazhen Ye, Inner Mongolia University, China

B190 (Fri-PM) **Anatomy-Guided Multimodal Graph Networks for Alzheimer's Disease: Integrative Analysis of Cross-Modal Brain Connectivity Signatures**
Authors: Wenzheng Hu, Zhenghua Guan, Peng Yang, Jiaqiang Li, Yi Liu, Shushen Gan, Tuo Cai, Ao Zhang, Tengda Zhang, Junlong Qu, Shaolong Wang, Gege Cai, Xiang Dong, Tianfu Wang, Baiying Lei
Presenter: Wenzheng Hu, Shenshen University, China

B195 (Fri-PM) **Multi-Modal Graph-Based Machine Learning for Predicting Surgical Outcome in Epilepsy Patients**
Paper Highlight
Authors: Artur Arturi Aharonyan, Syeda Abeera Amir, Nunthasiri Wittayanakorn, Marius George Linguraru, Chima Oluigbo, Syed Muhammad Anwar
Presenter: Abeera Amir, Childrens National Hospital, United States

B200 (Fri-PM) **Does Connectome Harmonic Analysis pass the Spin Test?**
Authors: Raphaël Vock, Antoine Grigis, Benoît Dufumier, Edouard Duchesnay
Presenter: Raphaël Vock, CEA, NeuroSpin, Université Paris-Saclay, France

B205 (Fri-PM) **Hyperbolic Kernel GCN with Structure-Function Connectivity Coupling for Neurocognitive Impairment Analysis**
Authors: Meimei Yang, Yongheng Sun, Qianqian Wang, Wei Wang, Hong-Jun Li, Mingxia Liu
Presenter: Qianqian Wang, University of North Carolina at Chapel Hill, United States

B210 (Fri-PM) **Robust Incomplete-Modality Alignment for Ophthalmic Disease Grading and Diagnosis via Labeled Optimal Transport**
Paper Highlight
Authors: Qinkai Yu, Jianyang Xie, Yitian Zhao, Cheng Chen, Lijun Zhang, Liming Chen, Jun Cheng, Lu Liu, Yalin Zheng, Yanda Meng
Presenter: Qinkai Yu, University of Exeter, United Kingdom

B215 (Fri-PM) **MMBNA: Masked Multiview Brain Network Analysis via Disentangling for Alzheimer's Early Diagnosis with fMRI**
Authors: Dequan Meng, Jie Guo, Junze Wang, Xiaoming Xi, Lishan Qiao, Limei Zhang, Mingxia Liu
Presenter: Dequan Meng, Shandong Jianzhu University, China

B220 (Fri-PM) **The Refining of Brain Connectivity Features on Residual Posterior Patterns**
Authors: Xinbei Zha, Jiaming Zhang, Jin Gu
Presenter: Xinbei Zha, Southwest Jiaotong University, China

B225 (Fri-PM) **Graph-based Neighbor-Aware Network for Gaze-Supervised Medical Image Segmentation**
Authors: Shaoxuan Wu, Jingkun Chen, Zhuo Jin, Peilin Zhang, Zhizezhang Gao, Jun Feng, Xiao Zhang, Dinggang Shen
Presenter: Shaoxuan Wu, Northwest University, China

B230 (Fri-PM) **Graph-PAVNet: A Graph-Based Learning Framework for Pulmonary Artery and Vein Separation Using Multimodal Feature Sampling**
Authors: Qingya Li, Ye Yuan, Lu Liu, Nan Bao, Lisheng Xu, Wenjun Tan
Presenter: Qingya Li, Northeastern University, China

B235 (Fri-PM)
Knowledge-Enhanced Complementary Information Fusion with Temporal Heterogeneous Graph Learning for Disease Prediction
Authors: Zongbao Yang, Shihuan He, Zhichen Chen, Hao Zhang, Ruxin Wang
Presenter: Zongbao Yang, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, China

B240 (Fri-PM)
Semantically Consistent Discrete Diffusion for 3D Biological Graph Modeling
Authors: Chinmay Prabhakar, Suprosanna Shit, Tamaz Amiranashvili, Hongwei Bran Li, Bjoern Menze
Presenter: Chinmay Prabhakar, University of Zurich, Switzerland

B245 (Fri-PM)
Paper Highlight
DEFUSE-MS: Deformation Field-Guided Spatiotemporal Graph-Based Framework for Multiple Sclerosis New Lesion Detection
Authors: Mostafa Salem, Salma Hassan, Vijay Ram Kumar Papineni, Ayman Elsayed, Mohammad Yaqub
Presenter: Mostafa Salem, Mohamed Bin Zayed University of Artificial Intelligence, United Arab Emirates

B250 (Fri-PM)
Brain Wiring Knowledge Graph Reasoning: A Region Embedding Approach for Logical Neuronal Relation Inference
Authors: Zhengyun Zhou, Guojia Wan, Fei Liao, Wenbin Hu, Minghui Liao, Junchao Qiu, Xinyuan Li, Bo Du
Presenter: Zhengyun Zhou, Wuhan University, China

B255 (Fri-PM)
Task-aligned fMRI Generation Model for Brain Disorder Diagnosis
Authors: Yifan Li, Xiaotong Wu, Xiaocai Zhang, Haiteng Jiang, Weiwen Wu, Dinggang Shen, Jianjia Zhang
Presenter: Yifan Li, Shenzhen Campus of Sun Yat-sen University, China

B260 (Fri-PM)
CAPE: Connectivity-Aware Path Enforcement Loss for Curvilinear Structure Delineation
Authors: Elyar Esmaeilzadeh, Ehsan Garaaghaji, Farzad Hallaji Azad, Doruk Oner
Presenter: Doruk Oner, Bilkent University, Turkey

B265 (Fri-PM)
TReND: Transformer derived features and Regularized NMF for neonatal functional network Delineation
Authors: Sovesh Mohapatra, Minhui Ouyang, Shufang Tan, Jianlin Guo, Lianglong Sun, Yong He, Hao Huang
Presenter: Sovesh Mohapatra, University of Pennsylvania, United States

B270 (Fri-PM)
Adaptive Graph Learning with Multi-Graph Convolutions for Brain Disorder Classification
Authors: Fuad Noman, Raphaël C.-W. Phan, Hernando Ombao, Chee-Ming Ting
Presenter: Fuad Noman, Monash University Malaysia, Malaysia

B275 (Fri-PM)
BiSCoT: Behavior-Informed Subgroup-Consistent Connectome Template for Interpretable Brain Network Analysis
Authors: Zijian Chen, Stefen Beeler-Duden, Sophie Lawson, Zachary Jacokes, John Darrell Van Horn, Kevin A. Pelphrey, Archana Venkataraman
Presenter: Zijian Chen, Boston University, United States

B280 (Fri-PM)
Edge-Aware Hierarchical Graph Transformer to Decode Brain Arterial Network
Authors: Kaiyu Zhang, Li Chen, Wenjin Liu, Taewon Kim, Xin Wang, Yin Guo, Zhiwei Tan, Zhensen Chen, Angie Tang, Xihai Zhao, Thomas S. Hatsukami, Mahmud Mossa-Basha, Niranjan Balu, Chun Yuan
Presenter: Zhiwei Tan, University of Washington, United States

B285 (Fri-PM)
SPromptGL: Semantic Prompt Guided Graph Learning for Multi-modal Brain Disease
Authors: Xixi Wan, Bo Jiang, Shihao Li, Aihua Zheng
Presenter: Xixi Wan, Anhui University, China

B290 (Fri-PM)
Paper Highlight
Bipartite Patient-Modality Graph Learning with Event-Conditional Modelling of Censoring for Cancer Survival Prediction
Authors: Hailin Yue, Hulin Kuang, Jin Liu, Junjian Li, Lanlan Wang, Mengshen He, Jianxin Wang
Presenter: Hailin Yue, Central South University, China

B295 (Fri-PM)
ClinGRAD: Clinically-Guided Genomics and Radiomics Interpretable GNN for Dementia Diagnosis
Authors: Salma Hassan, Mostafa Salem, Vijay Ram Kumar Papineni, Ayman Elsayed, Mohammad Yaqub
Presenter: Salma Hassan, Mohamed Bin Zayed University of Artificial Intelligence, United Arab Emirates

B300 (Fri-PM)
Graph Laplacian Transformer with Progressive Sampling for Prostate Cancer Grading
Authors: Masum Shah Junayed, John Derek Van Vessem, Qian Wan, Gahie Nam, Sheida Nabavi

Presenter: Sheida Nabavi, University of Connecticut, United States

B305 (Fri-PM) **MindLink: Subject-agnostic Cross-Subject Brain Decoding Framework**
Authors: Sungyoon Jung, Donghyun Lee, Won Hwa Kim
Presenter: Won Hwa Kim, Pohang University of Science and Technology, Republic of Korea

B310 (Fri-PM) **A Model Order-Free Method for Stable States Extraction in Dynamic Functional Connectivity**
Authors: Songke Fang, Vince D. Calhoun, Godfrey Pearlson, Peter Kochunov, Theo G.M. van Erp, Yuhui Du
Presenter: Songke Fang, Shanxi University, China

B315 (Fri-PM) **Causality-Inspired Graph Neural Network for Interpretable Strabismus Subtype Classification**
Authors: Jiawen Zheng, Li Luo, Jiafan Zhuang, Peiwei Wei, Lihao Zhong, Xiaoling Xie, Jinming Guo, Meng Xie, Xiaoli Kang, Jie Cen, Lingyan Dong, Ce Zheng, Zhun Fan
Presenter: Jiawen Zheng, Shantou University, China

B320 (Fri-PM) **A Novel Streamline-based diffusion MRI Tractography Registration Method with Probabilistic Keypoint Detection**
Paper Highlight
Authors: Junyi Wang, Mubai Du, Ye Wu, Yijie Li, William M. Wells III, Lauren J. O'Donnell, Fan Zhang
Presenter: Junyi Wang, University of Electronic Science and Technology of China, China

B325 (Fri-PM) **MedGNN: General Medical Image Recognition Network via GNN Visual Representations**
Authors: Jiayu Ye, An Zeng, Dan Pan, Junhao Chen, Guanwei Cheng
Presenter: An Zeng, Guangdong University of Technology, China

C5 (Fri-PM) **Mamba Guided Boundary Prior Matters: A New Perspective for Generalized Polyp Segmentation**
Paper Highlight
Authors: Tapas K. Dutta, Snehashis Majhi, Deepak Ranjan Nayak, Debesh Jha
Presenter: Deepak Ranjan Nayak, Malaviya National Institute of Technology Jaipur, India

C10 (Fri-PM) **Guided Augmentation for Monocular Depth Estimation in Cell Microscopy**
Authors: Abhishek Viswanathan, Rajagopalan A.N., Nikhil Yelamarthy, Ankit Rai, Pradeep Ramachandran
Presenter: Abhishek Viswanathan, KLA Corporation, India

C15 (Fri-PM) **Unsupervised Quality Control and Enhancement of Polyp Segmentation in Colonoscopy Videos using Spatiotemporal Consistency**
Authors: Yujia Li, Tao Zhou, Ruixuan Wang, Shuo Wang, Yizhe Zhang
Presenter: Yujia Li, Nanjing University of Science and Technology, China

C20 (Fri-PM) **Anatomy-based Self-supervised Pre-training for Scale-robust Hierarchical Representations in Chest X-rays**
Paper Highlight
Authors: Surong Chu, Yan Qiang, Guohua Ji, Xueting Ren, Lijing Zhang, Baoping Jia, Yangyang Wei, Juanjuan Zhao, Shuo Li
Presenter: Surong Chu, Taiyuan University of Technology, China

C25 (Fri-PM) **SAMUSA: Segment Anything Model 2 for UltraSound Annotation**
Authors: Baptiste Podvin, Toby Collins, Güinther Saibro, Chiara Innocenzi, Yuchuan Yang, Flavio Milana, Yvonne Keeza, Grace Ufitinema, Florien Ujemurwego, Guido Torzilli, Jacques Marescaux, Daniel George, Alexandre Hostettler,
Presenter: Baptiste Podvin, IRCAD France, France

C30 (Fri-PM) **ADA: An Adaptive Augmentation Framework for Single-Source Domain Generalization in Medical Image Segmentation**
Authors: Runlin Huang, Hongmin Cai, Weipeng Zhuo, Shangyan Cai, Haowei Lin, Wentao Fan, Weifeng Su
Presenter: Runlin Huang, Beijing Normal-Hong Kong Baptist University, China

C35 (Fri-PM) **DINO Adapted to X-Ray (DAX): Foundation Models for Intraoperative X-Ray Imaging**
Authors: Joshua Scheuplein, Maximilian Rohleder, Andreas Maier, Björn Kreher
Presenter: Joshua Scheuplein, Friedrich-Alexander-Universität Erlangen-Nürnberg & Siemens Healthineers AG, Germany

C40 (Fri-PM) **A Two-Stage Method for Specular Highlight Detection and Removal in Medical Images**
Authors: Zefeng Li, Mingyue Cui, Daosong Hu, Jin Gong, Jingchong Weng, Zeyu Zhang, Lele Tian, Mengran Li, Kai Huang
Presenter: Zefeng Li, Sun Yat-sen University, China

C45 (Fri-PM) **HARM3-Fusion: Hierarchical Attentional Representation Learning of Multi-Modal, Multi-Temporal, and Multi-Sequence Fusion for Pathological Complete Response Prediction of Head and Neck Squamous Cell Carcinoma**

Authors: Jianye Wang, Xinyue Liu, Zhiying Gong, Lingjie Yang, Hanwen Zhang, Yu Long, Yimeng Fan, Yuncheng Jiang, Xiaohui Duan, Weibing Zhao
Presenter: Jianye Wang, Shenzhen MSU-BIT University, China

C50 (Fri-PM) **Pre-Trained LLM is a Semantic-Aware and Generalizable Segmentation Booster**
Authors: Fenghe Tang, Wenxin Ma, Zhiyang He, Xiaodong Tao, Zihang Jiang, S. Kevin Zhou
Presenter: Fenghe Tang, University of Science and Technology of China, China

C55 (Fri-PM) **A Novel ED Triage Framework Using Conditional Imputation, Multi-Scale Semantic Learning, and Cross-Modal Fusion**
Authors: Yi Xiao, Jun Zhang, Cheng Chi, Chunyu Wang
Presenter: Yi Xiao, Southeast University, China

C60 (Fri-PM) **Temporally-Aware Supervised Contrastive Learning for Polyp Counting in Colonoscopy**
Authors: Luca Parolari, Andrea Cherubini, Lamberto Ballan, Carlo Biffi
Presenter: Luca Parolari, University of Padova, Italy

C65 (Fri-PM) **Source-Free Active Domain Adaptation for Efficient Medical Video Polyp Segmentation**
Authors: Jialu Li, Hongqiu Wang, Weiming Wang, Jing Qin, Qiong Wang, Lei Zhu
Presenter: Jialu Li, The Hong Kong University of Science and Technology (Guangzhou), China

C70 (Fri-PM) **BioD2C: A Dual-level Semantic Consistency Constraint Framework for Biomedical VQA**
Authors: Zhengyang Ji, Shang Gao, Li Liu, Yifan Jia, Yutao Yue
Presenter: Zhengyang Ji, Shandong University, China

C75 (Fri-PM) **NERO: Explainable Out-of-Distribution Detection with Neuron-level Relevance in Gastrointestinal Imaging**
Authors: Anju Chhetri, Jari Korhonen, Prashnna Gyawali, Binod Bhattarai
Presenter: Anju Chhetri, NepAl Applied Mathematics and Informatics Institute for research, Nepal

C80 (Fri-PM) **SurgSora: Object-Aware Diffusion Model for Controllable Surgical Video Generation**
Authors: Tong Chen, Shuya Yang, Junyi Wang, Long Bai, Hongliang Ren, Luping Zhou
Presenter: Tong Chen, The University of Sydney, Australia

C85 (Fri-PM) **TGSAM-2: Text-Guided Medical Image Segmentation using Segment Anything Model 2**
Authors: Runtian Yuan, Ling Zhou, Jilan Xu, Qingqiu Li, Mohan Chen, Yuejie Zhang, Rui Feng, Tao Zhang, Shang Gao
Presenter: Runtian Yuan, Fudan University, China

C90 (Fri-PM) **HRVVS: A High-resolution Video Vasculature Segmentation Network via Hierarchical Autoregressive Residual Priors**
Authors: Xincheng Yao, Yijun Yang, Kangwei Guo, Ruiqiang Xiao, Haipeng Zhou, Haisu Tao, Jian Yang, Lei Zhu
Presenter: Xincheng Yao, The Hong Kong University of Science and Technology (Guangzhou), China

C95 (Fri-PM) **EndoGen: Conditional Autoregressive Endoscopic Video Generation**
Authors: Xinyu Liu, Hengyu Liu, Cheng Wang, Tianming Liu, Yixuan Yuan
Presenter: Yixuan Yuan, The Chinese University of Hong Kong, Hong Kong SAR

C100 (Fri-PM) Paper Highlight **Memory-Augmented SAM2 for Training-Free Surgical Video Segmentation**
Authors: Ming Yin, Fu Wang, Xujiong Ye, Yanda Meng, Zeyu Fu
Presenter: Ming Yin, University of Exeter, United Kingdom

C105 (Fri-PM) **Enjoying Information Dividend: Gaze Track-based Medical Weakly Supervised Segmentation**
Authors: Zhisong Wang, Yiwen Ye, Ziyang Chen, Yong Xia
Presenter: Zhisong Wang, Northwestern Polytechnical University, China

C110 (Fri-PM) **Hybrid Graph Mamba: Unlocking Non-Euclidean Potential for Accurate Polyp Segmentation**
Authors: Yueyue Zhu, Haolin Lv, Geng Chen, Zhonghao Zhang, Haotian Jiang, Yong Xia
Presenter: Yueyue Zhu, Northwestern Polytechnical University, China

C115 (Fri-PM) **UWT-Net: Mining low-frequency feature information for medical image segmentation**
Authors: Pengcheng Zhang, Xiaocao Ouyang, Ran Peng
Presenter: Pengcheng Zhang, Sichuan Agricultural University, China

C120 (Fri-PM) **BCRNet: Enhancing Landmark Detection in Laparoscopic Liver Surgery via Bezier Curve Refinement**
Authors: Qian Li, Feng Liu, Shuojue Yang, Daiyun Shen, Yueming Jin
Presenter: Qian Li, National University of Singapore, Singapore

C125 (Fri-PM)
Tetra-orientated Mamba with T2-FLAIR Mismatch Features for Glioma Segmentation, IDH Genotyping, and Grading
Authors: Xinyu Li, Jin Liu, Hulin Kuang, Yuanzhuo Wang, Jianxin Wang
Presenter: Xinyu Li, Central South University, China

C130 (Fri-PM)
EndoMetric: Near-Light Monocular Metric Scale Estimation in Endoscopy
Authors: Raúl Iranzo, Víctor M. Batlle, Juan D. Tardós, José M. M. Montiel
Presenter: Raúl Iranzo, I3A. Universidad de Zaragoza, Spain

C135 (Fri-PM)
Adaptively Distilled ControlNet: Accelerated Training and Superior Sampling for Medical Image Synthesis
Authors: Kunpeng Qiu, Zhiying Zhou, Yongxin Guo
Presenter: Kunpeng Qiu, National University of Singapore, Singapore

C140 (Fri-PM)
SemiVT-Surge: Semi-Supervised Video Transformer for Surgical Phase Recognition
Authors: Yiping Li, Ronald de Jong, Sahar Nasirihaghighi, Tim Jaspers, Romy van Jaarsveld, Gino Kuiper, Richard van Hillegersberg, Fons van der Sommen, Jelle Ruurda, Marcel Breeuwer, Yasmina Al Khalil
Presenter: Yiping Li, Eindhoven University of Technology, The Netherlands

C145 (Fri-PM)
KMUNet: A novel medical image segmentation model based on KAN and Mamba
Authors: Hongsheng Zhang, Yuting Duan, Ting Liu, Weifeng Zhang, Hongzhong Tang
Presenter: Hongzhong Tang, Xiangtan University, China

C150 (Fri-PM)
Paper Highlight
Stronger Together: Registering Preoperative Imagery, LUS, and MIS Liver Images
Authors: Mohammad Mahdi Kalantari, Erol Ozgur, Mohammad Alkhatib, Navid Rabbani, Yamid Espinel, Richard Modrzejewski, Bertrand Le Roy, Emmanuel Buc, Youcef Mezouar, Adrien Bartoli
Presenter: Mohammad Mahdi Kalantari, Clermont-Auvergne INP, France

C155 (Fri-PM)
SR-SAM: Subspace Regularization for Domain Generalization of Segment Anything Model
Authors: Xixi Jiang, Chen Yang, Liang Zhang, Tim Kwang-Ting Cheng, Xin Yang
Presenter: Xixi Jiang, The Hong Kong University of Science and Technology, Hong Kong SAR

C160 (Fri-PM)
Dual-Branch Dynamic Coupling Weakly Supervised Learning for Class-Incremental Histopathological Region Segmentation
Authors: Xiaoyan Hong, Jiansong Fan, Zhaohong Deng, Xiang Pan
Presenter: Xiaoyan Hong, Jiangnan University, China

C165 (Fri-PM)
CD-PolypNet: Cross-Domain Polyp Segmentation Network with Internal Feature Distillation and Dual-Stream Boundary Focus via Large Vision Model
Authors: Changpeng Yue, Jianxiang Zhao, Chao Wang, Xinglun Zhao, Axiu Mao, Jia Hou, Chenggang Yan, Kai Zhao, Shuai Wang
Presenter: Changpeng Yue, Hangzhou Dianzi University, China

C170 (Fri-PM)
Accurate Boundary Alignment and Realism Enhancement for Colonoscopic Polyp Image-Mask Pair Generation
Authors: Riyu Qiu, Kun Xia, Feng Gao, Shuting Yang, Du Cai, Jiacheng Wang, Yinran Chen, Liansheng Wang
Presenter: Riyu Qiu, Xiamen University, China

C175 (Fri-PM)
Think as Cardiac Sonographers: Marrying SAM with Left Ventricular Indicators Measurements According to Clinical Guidelines
Authors: Tuo Liu, Qinghan Yang, Yu Zhang, Rongjun Ge, Yang Chen, Guangquan Zhou
Presenter: Tuo Liu, Southeast University, China

C180 (Fri-PM)
Prolog-Driven Rule-Based Diagnostics with Large Language Models for Precise Clinical Decision Support
Authors: Xiaoyu Tan, Bin Li, Weidi Xu, Chao Qu, Wei Chu, Yinghui Xu, Yuan Qi, Xihe Qiu
Presenter: Bin Li, Shanghai University of Engineering Science, China

C185 (Fri-PM)
Clinical Validation of Deep Learning for Real-Time Tissue Oxygenation Estimation Using Spectral Imaging
Authors: Jens De Winne, Siri Willems, Siri Luthman, Danilo Babin, Hiep Luong, Wim Ceelen
Presenter: Jens De Winne, Ghent University, Belgium

C190 (Fri-PM)
Self-supervised Axial Super-Resolution for Volume Microscopy via Diffusion-Guided Structure Distillation
Authors: Bohao Chen, Yanchao Zhang, Yanan Lv, Hua Han, Xi Chen
Presenter: Bohao Chen, School of Advanced Interdisciplinary Sciences, University of Chinese Academy of Sciences, China

C200 (Fri-PM)
Paper Highlight
A Diffusion-Driven Temporal Super-Resolution and Spatial Consistency Enhancement Framework for 4D MRI imaging
Authors: Xuanru Zhou, Jiarun Liu, Shoujun Yu, Hao Yang, Cheng Li, Tao Tan, Shanshan Wang
Presenter: Xuanru Zhou, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, China

C205 (Fri-PM)
SurgX: Neuron-Concept Association for Explainable Surgical Phase Recognition
Authors: Ka Young Kim, Hyeon Bae Kim, Seong Tae Kim
Presenter: Ka Young Kim, Kyung Hee University, Republic of Korea

C210 (Fri-PM)
Physics-Informed Neural Operators for Tissue Elasticity Reconstruction
Authors: Youjin Kim, Jae Yong Lee, Junseok Kwon
Presenter: Youjin Kim, Chung-Ang University, Republic of Korea

C215 (Fri-PM)
Memory-Augmented Incomplete Multimodal Survival Prediction via Cross-Slide and Gene-Attentive Hypergraph Learning
Authors: Mingcheng Qu, Guang Yang, Donglin Di, Yue Gao, Tonghua Su, Yang Song, Lei Fan
Presenter: Guang Yang, Harbin Institute of Technology, China

C220 (Fri-PM)
Paper Highlight
Hypergraph-Guided Federated Distillation Learning for Efficient and Robust Multi-Center fMRI Data Analysis
Authors: Tao Jin, Yidan Xu, Yuhan Gao, Xichun Sheng, Chenggang Yan, Yaoqi Sun, Xiangmin Han, Yue Gao
Presenter: Yidan Xu, Hangzhou Dianzi University, China

C225 (Fri-PM)
DIY Challenge Blueprint: From Organization to Technical Realization in Biomedical Image Analysis
Authors: Leonard Klausmann, Tobias Rueckert, David Rauber, Raphaela Maerkl, Suemeyye R. Yildiran, Max Gutbrod, Christoph Palm
Presenter: Leonard Klausmann, OTH Regensburg, Germany

C230 (Fri-PM)
U-RWKV: Lightweight medical image segmentation with direction-adaptive RWKV
Authors: Hongbo Ye, Fenghe Tang, Peiang Zhao, Zhen Huang, Dexin Zhao, Minghao Bian, S. Kevin Zhou
Presenter: Hongbo Ye, University of Science and Technology of China, China

C235 (Fri-PM)
Implicit U-KAN2.0: Dynamic, Efficient and Interpretable Medical Image Segmentation
Authors: Chun-Wun Cheng, Yining Zhao, Yanqi Cheng, Javier A. Montoya-Zegarra, Carola-Bibiane Schönlieb, Angelica I. Aviles-Rivero
Presenter: Chun-Wun Cheng, University of Cambridge, United Kingdom

C240 (Fri-PM)
A New Paradigm for Low-dose PET/CT Reconstruction with Mamba-powered Progressive Network and Physics-informed Consistency
Authors: Zixin Tang, Caiwen Jiang, Zhiming Cui, Dinggang Shen
Presenter: Zixin Tang, ShanghaiTech University, China

C245 (Fri-PM)
Holistic White-light Polyp Classification via Alignment-free Dense Distillation of Auxiliary Optical Chromoendoscopy
Authors: Qiang Hu, Qimei Wang, Jia Chen, Xuantao Ji, Mei Liu, Qiang Li, Zhiwei Wang
Presenter: Qiang Hu, Huazhong University of Science and Technology, China

C250 (Fri-PM)
Multi-Linear 3D Craniofacial Infant Shape Model
Authors: Till N. Schnabel, Yoriko Lill, Benito K. Benitez, Gaspard Krief, Sebastián Tapia Corón, Friederike Prüfer, Philipp Metzler, Andreas A. Mueller, Markus Gross, Barbara Solenthaler
Presenter: Till Schnabel, ETH Zurich, Switzerland

C255 (Fri-PM)
Targeted False Positive Synthesis via Detector-guided Adversarial Diffusion Attacker for Robust Polyp Detection
Authors: Quan Zhou, Gan Luo, Qiang Hu, Qingyong Zhang, Jinhua Zhang, Yinjiao Tian, Qiang Li, Zhiwei Wang
Presenter: Gan Luo, Wuhan University of Technology, China

C260 (Fri-PM)
Learning Explainable Imaging-Genetics Associations Related to a Neurological Disorder
Authors: Jueqi Wang, Zachary Jacokes, John Darrell Van Horn, Michael C. Schatz, Kevin A. Pelphrey, Archana Venkataraman
Presenter: Jueqi Wang, Boston University, United States

C265 (Fri-PM)
Semantic Interpolative Diffusion Model: Bridging the Interpolation to Masks and Colonoscopy Image Synthesis for Robust Generalization
Authors: Chanyeong Heo, Jaehee Jung
Presenter: Chanyeong Heo, Myongji University, Republic of Korea

C270 (Fri-PM) **Automated Auditing of Upper Endoscopy Procedure Times: A Temporal Multiclass Analysis**
Authors: Diego Bravo, Josué Ruano, Martín Gómez, Fabio A. Gónzalez, Eduardo Romero
Presenter: Diego Bravo, Universidad Nacional de Colombia, Colombia

C275 (Fri-PM) **FViM: Frequency Vision Mamba for Label-Free Cell Death Pathway Prediction in Lung Cancer Chemotherapy**
Authors: Zhaoyi Ye, Shubin Wei, Liye Mei, Yueyun Weng, Qing Geng, Du Wang, Cheng Lei
Presenter: Zhaoyi Ye, Wuhan University, China

C280 (Fri-PM) **RefineNet: Elevating Medical Foundation Models through Quality-Centric Data Curation by MLLM-Annotated Proxy Distillation**
Authors: Ningyi Zhang, Yuan Gao, Xin Wang, Ka-Hou Chan, Jian Wu, Chan-Tong Lam, Shanshan Wang, Yue Sun, Sio-Kei Im, Tao Tan
Presenter: Ningyi Zhang, Macao Polytechnic University, Macao SAR

C285 (Fri-PM) **STMDiff: Spatiotemporal Matching Diffusion Model for Dual-Time-Point Total-body PET/CT Imaging via Contrastive Learning**
Authors: Wenbo Li, Zhenxing Huang, Lianghua Li, Chunyan Yang, Yihan Wang, Wenjian Qin, Na Zhang, Hairong Zheng, Dong Liang, Jianjun Liu, Zhanli Hu
Presenter: Wenjian Qin, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, China

C290 (Fri-PM) **GE2Hist: Generating Histology Images from Single-cell Gene Expression via Cross-modal Generative Network**
Authors: Hongmin Cai, Boan Ji, Shangyan Cai, Yi Liao, Jiazhou Chen, Weitian Huang
Presenter: Hongmin Cai, South China University of Technology, China

C295 (Fri-PM) **HWA-UNETR: Hierarchical Window Aggregate UNETR for 3D Multimodal Gastric Lesion Segmentation**
Authors: Jiaming Liang, Lihuan Dai, Xiaoqi Sheng, Xiangguang Chen, Chun Yao, Guihua Tao, Qibin Leng, Hongmin Cai, Xi Zhong
Presenter: Jiaming Liang, South China University of Technology, China

C300 (Fri-PM) **LIP-CAR: a learned inverse problem approach for medical imaging with contrast agent reduction**
Authors: Davide Evangelista, Elena Morotti, Sonia Colombo Serra, Pengpeng Luo, Giovanni Valbusa, Davide Bianchi
Presenter: Elena Morotti, University of Bologna, Italy

C305 (Fri-PM) **DyMAS-Net: Dynamic Multi-Scale Adaptive Sampling Network for Efficient Medical Image Segmentation**
Authors: Siqi Wang, Qingxue Zhao, Di Wu, Jiakang Gao, Jun Tian
Presenter: Jun Tian, Nankai University, China

C310 (Fri-PM) **Endoscopic Depth-of-Field Expansion via Cascaded Network with Two-streamed Multi-scale Fusion**
Authors: Xiang Deng, Xing Liu, Tian Xu, Xiaoyue Liu, Tianyuan Gan, Chen Lu, Congcong Zhou, Peng Wang, Yong Lei, Xuesong Ye
Presenter: Xiang Deng, Zhejiang University, China

C315 (Fri-PM) **PolyMamba: Spatial-prior Guided Mamba for Polyp Segmentation with High-Frequency Enhancement**
Authors: Renyu Fu, Shurui Hu, Xiao Zheng, Chang Tang, Xinwang Liu
Presenter: Renyu Fu, China University of Geosciences, China

C320 (Fri-PM) **Medical Contrastive Learning of Positive and Negative Mentions**
Authors: WeiLong Wu, Jingzhi Yang, Xun Zhu, Xiao Zhang, ZiYu Liu, Miao Li, Ji Wu
Presenters: Miao Li and WeiLong Wu, Tsinghua University, China

C325 (Fri-PM) **Knowing or Guessing? Robust Medical Visual Question Answering via Joint Consistency and Contrastive Learning**
Authors: Songtao Jiang, Yuxi Chen, Sibo Song, Yan Zhang, Yeying Jin, Yang Feng, Jian Wu, Zuozhu Liu
Presenter: Songtao Jiang, Zhejiang University, China

C330 (Fri-PM) **Unsupervised Discovery of Spatiotypes and Context-Aware Graph Neural Networks for Modeling Clinical Endpoints**
Authors: Muhammad Dawood, Emily Thomas, Rosalin Cooper, Carlo Pescia, Anna Sozanska, Hosuk Ryou, Daniel Royston, Jens Rittscher
Presenter: Jens Rittscher, University of Oxford & Oxford Big Data Institute, United Kingdom

C335 (Fri-PM) **Cross-Modal Contrastive Learning for Emotion Recognition: Aligning ECG with EEG-Derived Features**

Authors: Yi Wu, Yuhang Chen, Jiahao Cui, Jiaji Liu, Lin Liang, Shuai Li
Presenter: Yuhang Chen, Beihang University, China