

Schedule (September 22nd, 2022)

*All in the SGT time zone

8:00-8:10 **Welcome notes and opening remarks**

8:10-8:50 **Invited talk, speaker: Prof. Arman Rahmim, University of British Columbia, "Towards Digital Twins for Precision Medicine"**

8:50-9:30 **Long oral session, Part I**

Vessel Segmentation via Link Prediction of Graph Neural Networks

Hao Yu, Jie Zhao, and Li Zhang

Gabor Filter-Embedded U-Net with Transformer-based Encoding for Biomedical Image Segmentation

Abel Reyes Angulo, Sidike Paheding, Michel Audette, and Makarand Deo

9:30-10:00 **Coffee break**

10:00-10:40 **Long oral session, Part II**

Coordinate Translator for Learning Deformable Medical Image Registration

Yihao Liu, Lianrui Zuo, Shuo Han, Yuan Xue, Jerry Prince, and Aaron Carass

Improve Multi-modal Patch Based Lymphoma Segmentation with Negative Sample Augmentation and Label Guidance on PET/CT Scans

Liangchen Liu, Jianfei Liu, Manas Nag, Navid Hasani, Seungyeon Shin, Sriram Paravastu, Jing Xiao, Lingyun Huang, Babak Saboury, and Ronald Summers

10:40-11:20 **Short oral session**

M²F: Multi-modal and Multi-task Fusion Network for Glioma Diagnosis and Prognosis

Zilin Lu, Mengkang Lu, and Yong Xia

Visual Modalities based Multimodal Fusion for Surgical Phase Recognition

Bogyu Park, Hyeongyu Chi, Bokyung Park, Jiwon Lee, Sunghyun Park, Woo Jin Hyung, and Min-Kook Choi

II

Cross-scale Attention Guided Multi-instance Learning for Crohn's Disease Diagnosis with Pathological Images

Ruining Deng, Can Cui, Lucas Remedios, Shunxing Bao, R. Michael Womick, Sophie Chiron, Li Jia, Joseph Roland, Ken Lau, Qi Liu, Keith Wilson, Yaohong Wang, Lori Coburn, Bennett Landman, and Yuankai Huo

A Bagging Strategy-Based Multi-Scale Texture GLCM-CNN Model for Differentiating Malignant from Benign Lesions Using Small Pathologically Proven Dataset

Shu Zhang, **Jinru Wu**, Sigang Yu, Ruoyang Wang, Enze Shi, Yongfeng Gao, and Jerome Liang

Liver Segmentation Quality Control in Multi-Sequence MR Studies

Yi-Qing Wang, Giovanni Palma

Pattern Analysis of Substantia Nigra in Parkinson Disease by Fifth-Order Tensor Decomposition and Multi-sequence MRI

Hayato Itoh, Tao Hu, Masahiro Oda, Shinji Saiki, Koji Kamagata, Nobutaka Hattori, Shigeki Aoki, and Kensaku Mori

Learning-based Detection of MYCN Amplification in Clinical Neuroblastoma Patients: A Pilot Study

Xiang Xiang, Zihan Zhang, Xuehua Peng, and Jianbo Shao

Towards Optimal Patch Size in Vision Transformers for Tumor Segmentation

Ramtin Mojtahedi, Mohammad Hamghalam, Richard Do, and Amber Simpson

11:20-11:25 **Concluding remarks**