

**2022 IEEE International
Conference on Bioinformatics
and Biomedicine (BIBM)**

Changsha Program Schedule

IEEE Computer Society
Central South University

December 7–8, 2022

Changsha, China

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Introduction

IEEE International Conference on Bioinformatics and Biomedicine (BIBM) has established itself as the premier research conference in bioinformatics and biomedicine. IEEE BIBM 2022 will be held in Las Vegas, Nevada, USA and Changsha, China on December 6-8 2022. IEEE BIBM 2022 provides a leading forum for disseminating the latest research in bioinformatics and health informatics. It brings together academic and industrial scientists from computer science, biology, chemistry, medicine, mathematics and statistics.

Organization Committee

Conference co-Chairs

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Hongdong Li, Associate Professor, Central South University, China

Program Schedule

TIME	Schedule	ROOM
December 7		
09:00-09:15	Opening Ceremony	705-535-276
Keynotes		
09:15-10:05	Chen, Huafu	705-535-276
10:05-10:55	Li, Min	
13:30-18:30	Session 1	785-424-752
	Session 2	419-886-034
	Session 3	739-177-385
	Session 4	187-821-247
	Session 5	353-305-961
	Session 6	512-773-074
	Poster	236-385-643
December 8		
08:00-12:00	Session 7	371-555-777
	Session 8	770-905-892
	Session 9	800-930-089
	Session 10	866-295-310
	Session 11	940-655-621
13:30-18:30	Session 12	654-748-497
	Session 13	844-683-532
	Session 14	138-909-655
	Session 15	479-230-892
	Session 16	859-982-067

Workshop Schedule

TIME	Schedule	ROOM
Dec 08 09:00-11:40 14:00-16:40	Workshop S03	538-416-092 pw: 120803
Dec 08 13:30-17:30	Workshop S06	544-263-677
Dec 08 13:30-16:10	Workshop S09	495-144-327
Dec 10 8:00-12:50	Workshop S10	926-705-429
Dec 08 14:00-17:00	Workshop S27	912-809-539 pw: 221208

Keynotes



Huafu Chen, PhD

Professor of School of Life Science and Technology

University of Electronic Science and Technology of China

Chengdu, China

Title: Brain imaging pattern recognition methods and imaging representation of mental disorders

Abstract: Mental and neurological diseases such as schizophrenia, depression, and autism have high morbidity and rates of misdiagnosis, but their imaging features are unapparent. At present, there are no objective indicators for early diagnosis, risk assessment, and treatment options. One reason is that imaging analysis of these brain illness involves complex artificial intelligence analysis models and methods. In this report, we will introduce 1) how to use MRI-based brain function and structure imaging information of diseases to characterize brain functional activity, static functional

network, dynamic functional and structural network, thereby revealing the neuroimaging mechanism of these diseases; 2) how to use multimodal network-based artificial intelligence pattern recognition methods to discover imaging biomarkers of neuropsychiatric diseases, to improve the classification accuracy, and finally offering data-driven reliable indicators for clinical diagnosis and assessment.

Dr. Huafu Chen is a Professor in MOE Key Laboratory for Neuroinformation, Clinical Hospital of Chengdu Brain Science Institute, University of Electronic Science and Technology of China. He is a Changjiang distinguished professor, a recipient of the national science fund for distinguished young scholars, Elsevier China Highly Cited Scholar (2020/ 2021) and top 2% of the world's neuroscience scientists of China. Currently, he is a director of the Chinese Society of Image and Graphics, deputy director of the Organization Construction Committee and Visual Cognition and Computing Professional Committee, deputy director of MOE Key Lab for Neuroinformation at University of Electronic Science and Technology of China, as well as executive deputy director of High-Field Magnetic Resonance Brain Imaging Key Laboratory of Sichuan Province.

Dr. Huafu Chen focuses his research on developing artificial intelligence and machine learning methods for pattern recognition of

magnetic resonance brain imaging data, uncovering neuroimaging mechanism of neurological and psychiatric diseases, detecting typical neuroimaging features of these diseases, and further providing imaging evidences for clinical diagnosis and assessment. Until now, he has leaded more than 20 scientific research projects: 4 key research projects including the National Natural Science Foundation of China and artificial intelligence 2030 research of the Ministry of Science and Technology, 863 and 973 projects and so on. As the corresponding author, he has published 300 papers in SCI journals such as PNAS, Science Advance, Nature Communications, Cell Reports, Molecular Psychiatry, Brain, Neurology, IEEE Transactions on Medical Imaging, etc., which have been cited more than 10,000 times by SCI papers, and won Sichuan Province scientific and technological progress first prize in natural Science category.



Min Li, PhD

Professor of School of Computer Science and Engineering

Central South University

Changsha, Hunan, China

Title: Computational solutions to explore genomic 3D organization

Abstract: In eukaryotes, chromatin folds into a complex three-dimensional structure that plays a critical role in gene expression, cell function, and biological development. Chromosome Conformation Capture (3C) based technologies, such as 3C, 4C, 5C, Hi-C, ChIA-PET and HiChIP, have characterized the architecture of 3D genome. However, limited by the expense and time cost of wet lab experiment, it is a great challenge to explore the chromosome contacts of unrecognized cell line or species. This talk will overview different technologies for 3D genome and present computational solutions to explore genomic 3D organization. This talk will also describe some of our recent work for calling targeted 3D chromatin

loops, evaluating targeted chromatin conformation capture-specific methodologies, and a new database to provide all the curated pathological variants and genomic disruptions for mining the putative pathological effects of any genetic mutation.

Dr. Min Li is currently a Professor and the vice dean at the School of Computer Science and Engineering, Central South University, P. R. China. She is a recipient of the National Science Fund for Distinguished Young Scholars and Elsevier China Highly Cited Scholar (2020/ 2021). Currently, she is a director of the Hunan Provincial Engineering Research Center for Intelligent Computing in Biology and Medicine, and deputy director of the Hunan Provincial Key Lab on Bioinformatics. She is serving as the Editorial Board Member of Big Data Mining and Analytics, International Journal of Data Mining and Bioinformatics, International Journal of Bioinformatics Research and Applications, and Interdisciplinary Sciences: Computational Life Sciences. Her research interests include Algorithms for Computational Biology and Bioinformatics, mainly focus on algorithms and tools in de novo genome assembly, 3D genome, biological network analysis and protein bioinformatics, etc. She has published more than 100 technical papers in refereed journals such as Genome Biology, Genome Research, Nucleic Acids Research, Bioinformatics, IEEE/ACM Transactions on Computational Biology

and Bioinformatics, and conference proceedings such as BIBM, GIW and ISBRA. According to Google scholar, her paper citations is more than 9000 and H-index is 49.

Dec 07: Morning Sessions
 (via Tencent Meeting, room number: 705-535-276)

Opening Ceremony

9:00 am - 9:15 am Prof. Jianxin Wang

Keynote Sessions

Chair: Prof. Fei Guo 9:15 am - 10:55 am	
Chen, Huaifu	Brain imaging pattern recognition methods and imaging representation of mental disorders
Li, Min	Computational solutions to explore genomic 3D organization

Dec 07: Afternoon Sessions

Session 1: Biomedical Image Analysis (1)
 (via Tencent Meeting, room number: 785-424-752)

Chair: Dr. Hulin Kuang hulinkuang@csu.edu.cn 1:30 pm - 4:10 pm	
R	B348 "Deep 3D Vessel Segmentation based on Cross Transformer Network" Chengwei Pan, Baolian Qi, Gangming Zhao, Jiaheng Liu, Chaowei Fang, Dingwen Zhang, and Jinpeng Li
R	B847 "DBT-UNETR: Double Branch Transformer with Cross Fusion for 3D Medical Image Segmentation" Haojie Tao, Keming Mao, and Yuhai Zhao
S	B301 "Semi-Supervised Cardiac Image Segmentation Using a Bicycle VAE with Cross Prior Attention" Shaojie Li, Yifan Zhang, and Xuan Yang
S	B307 "Knowledge Distillation with Active Exploration and Self-attention based Inter-Class Variation Transfer For Cardiac Image Segmentation" Yifan Zhang, Shaojie Li, and Xuan Yang
S	B390 "Prior U-net: Learning Shape Priors for Cardiac MR Image Segmentation" Hong Zheng, Lili Wang, Yucheng Chen, and Xiaoning Li
S	B442 "MDANet: Multi-Direction Attention Network for Curvilinear Structure Segmentation of Biomedical Images" Xiaojuan Chen, Tao Hu, and Song Guo
S	B481 "a Vision Flash based UNet for lung nodules segmentation task" Taoyu Chen, Fei Luo, Fu Zhou, Yunfei Zha, and Feng Liu
S	B541 "ImageALCAPA: A 3D Computed Tomography Image Dataset for Automatic Segmentation of Anomalous Left Coronary Artery from Pulmonary Artery" An Zeng, Chenxi Mi, Dan Pan, Qing Lu, and Xiaowei Xu
S	B583 "Symmetrical Supervision with Transformer for Few-shot Medical Image Segmentation" Yao Niu, Zhiming Luo, Sheng Lian, Lei Li, Shaozi Li, and Haixin Song
S	B846 "A Hybrid Cross-Scale Transformer Architecture for Robust Medical Image Segmentation"

	Yang Ning, Shouyi Zhang, Wei Zhong, Peide Liu, and Caiming Zhang
Break (5min)	
Chair: Dr. Liangliang Liu liangliu@henau.edu.cn 4:10 pm - 6:35 pm	
R	B385 "CM-MLP: Cascade Multi-scale MLP with Axial Context Relation Encoder for Edge Segmentation of Medical Image" Jinkai Lv, Yuyong Hu, Quanshui Fu, Zhiwang Zhang, Yuqiang Hu, Lin Lv, Guoqing Yang, Jinpeng Li, and Yi Zhao
R	B686 "DTSC-Net: Semi-supervised 3D Biomedical Image Segmentation through Dual-Teacher Simplified Consistency" xiaogen Zhou, Zhiqiang Li, and Tong Tong
R	B713 "Multi-scale Neighborhood Attention Transformer on U-Net for Medical Image Segmentation" Nanxing Zhang, Shiqiang Ma, Xuejian Li, Jiahui Zhang, Jijun Tang, and Fei Guo
R	B375 "MHSnet: Multi-head and Spatial Attention Network with False-Positive Reduction for Lung Nodule Detection" Juanyun Mai, Minghao Wang, Jiayin Zheng, Yanbo Shao, Zhaoqi Diao, Xinliang Fu, Yulong Chen, Jianyu Xiao, Jian You, Airu Yin, Yang Yang, Xiangcheng Qiu, Jinsheng Tao, Bo Wang, and Hua Ji
S	B727 "Joint Segmentation of Intima-Media Complex and Lumen in Carotid Ultrasound Images" Yanchao Yuan, Cancheng Li, Lu Xu, Shangming Zhu, Yang Hua, and Jicong Zhang
S	B757 "Multi-scale Prototype Constraints with Relation Aggregation for Semi-supervised Medical image segmentation" Jiashun Dong, Hongyan Quan, and Jun Han
S	B1001 "Deformable Attention U-Shaped Network with Progressively Supervised Learning for Subarachnoid Hemorrhage Image Segmentation" Hao Sun, Lianghao Jin, and Wei Xie
S	B222 "Acne Severity Grading on Face Images via Extraction and Guidance of Prior Knowledge" Yi Lin, Jingchi Jiang, Dongxin Chen, Zhaoyang Ma, Yi Guan, Xiguang Liu, Haiyan You, Jing Yang, and Xue Cheng

Session 2: Biomedical Image Analysis (2)
(via Tencent Meeting, room number: 419-886-034)

Chair: Dr. Shichao Kan kanshichao@csu.edu.cn 1:30 pm - 3:55 pm	
R	B717 "MEST: Multi-plane Embedding and Spatial-temporal Transformer for Parkinson's disease diagnosis" Jin Liu, Hao Du, Qian Bi, Haiyan Liao, and Yi Pan
R	B837 "An Interpretable Causal Approach for Bronchopulmonary Dysplasia Prediction" Siqu Sun, Wei Ji, Liangfeng Tang, Xiaobo Zhang, Yuejie Zhang, and Rui Feng
S	B470 "KdINet: Knowledge-driven Interpretable Network for Medical Imaging Diagnosis" Yiming Cao, Lizhen Cui, Lei Zhang, Fuqiang Yu, Zhen Li, Yonghui Xu, and Chunyan Miao
S	B479 "MFA-DSLNet: Multi-scale Fusion Attention Mechanism with Dual-threshold Self-paced Learning for Pediatric Pneumonia Diagnosis" Yibo Feng, Yudong Wang, Ruize Yu, Yiqing Shen, Shaokang Wang, Jiangfen Wu, and Weidao Chen
S	B500 "TCAM-Resnet: A convolutional neural network for screening DR and AMD based on OCT images" ShiJie Zhou, Deshui Yu, Yuhui Cai, Yujie Zhang, Bojun Li, and Wei Li
S	B524 "Uncertainty-based Fusion Network for Automatic Skin Lesion Diagnosis" Shubai Chen, Xiaodong Yang, Yiqiang Chen, and Hanchao Yu

S	B657 "DBANet: A Dual Branch Attention-Based Deep Neural Network for Biological Iris Recognition" Jun chen, Yangguang Cui, Fuke Shen, Jianhua Shen, and Tongquan Wei
S	B1062 "Learning Group-Disentangled Representation for Interpretable Thoracic Pathologic Prediction" Hao Li, Yirui Wu, Hexuan Hu, Hu Lu, and Shaohua Wan
S	B693 "Single-Modality Endoscopic Polyp Segmentation via Random Color Reversal Synthesis and Two-Branched Learning" Mingzhu Chen, Xiaotong Li, Jilan Xu, Runtian Yuan, Yuejie Zhang, Rui Feng, Tao Zhang, and Shang Gao
Break (15 min)	
Chair: Dr. Chengchao Shen scc.cs@csu.edu.cn 4:10 pm - 6:30 pm	
R	B584 "MedSeq: Semantic Segmentation for Medical Image Sequences" Runtian Yuan, Jilan Xu, Xiaotong Li, Yuejie Zhang, Rui Feng, Xiaobo Zhang, Tao Zhang, and Shang Gao
R	B621 "MGTUNet: An new UNet for colon nuclei instance segmentation and quantification" Liangrui Pan, Lian Wang, Mingting Liu, Zhujun Xu, Liwen Xu, and Shaoliang Peng
R	B1031 "A Regional Multiple Instance Learning Network for Whole Slide Image Segmentation" Hongmin Cai, Weiting Yi, Yucheng Li, Wenxiong Liao, and Jiangning Song
R	B319 "Cross-Field Transformer for Diabetic Retinopathy Grading on Two-field Fundus Images" Junlin Hou, Jilan Xu, Fan Xiao, Rui-Wei Zhao, Yuejie Zhang, Haidong Zou, Lina Lu, Wenwen Xue, and Rui Feng
S	B507 "Quantitative assessment of interstitial lung disease based on RDNet convolutional network" Fan Hou, Cai Zhao, Ningling Su, Jiening Wang, Linning E, and Wen Zheng
S	B791 "3D Reconstruction of Medical Images with Transformer" Hongyan Quan
S	B903 "Accelerating Deeply Cascaded Convolutional Networks for MRI Reconstruction via Pixel-Unshuffle Caused Feature Squeezing" Xiao-Xin Li, Zhi-Jie Chen, Tian-Yi Xing, Qianwei Zhou, and Haigen Hu
S	B635 "TransMixer: A Hybrid Transformer and CNN Architecture for Polyp Segmentation" Yanglin Huang, Donghui Tan, Yuan Zhang, Xuanya Li, and Kai Hu

Session 3: Computational Systems Biology
(via Tencent Meeting, room number: 739-177-385)

Chair: Dr. Lei Deng leideng@csu.edu.cn 1:30 pm - 3:50 pm	
R	B570 "IMRDriver: coding and non-coding cancer driver genes identification based on network propagation" Song Wang, Xiao-Tai Huang, Kei Hang Katie Chan, and Lin Gao
R	B769 "Discovering eQTL Regulatory Patterns Through eQTLMotif" Tao Wang, Hui Zhao, Yifu Xiao, Hanzi Yang, Xipeng Yin, Yongtian Wang, Bing Xiao, Xuequn Shang, and Jiajie Peng
R	B840 "Phenotype Prediction by Heterogeneous Molecular Network Embedding" Haojiang Tan, Jun Wang, Guoxian Yu, Wei Guo, and Maozu Guo
R	B914 "A Segmentation-aware Synergy Network for Single Particle Recognition in Cryo-EM"
S	B314 "Network Connectivity Analysis of Coding and Noncoding RNAs in Cancer" Bingbo Wang, Chao Han, and Xiujuan Ma
S	B663 "Inferring microbe-metabolite interactions by heterogeneous network fusion based on graph convolution network" Pei Li, Weizhong Zhao, Xingpeng Jing, and Xianjun Shen

S	B689 "Prediction of virus-receptor interactions based on linear optimization and similarities via multi-view learning" Lingzhi Zhu, Kai Zheng, Guihua Duan, and Jianxin Wang
S	B645 "A Transformer-based Model for Plant miRNA-lncRNA Interaction Prediction" Wenjian Zhou, Lu Ji, and Xiwei Tang
Break (20 min)	
Chair: Dr. Hongdong Li hongdong@csu.edu.cn 4:10 pm - 6:30 pm	
R	B482 "Integrating Prior Knowledge with Graph Encoder for Gene Regulatory Inference from Single-cell RNA-Seq Data" Jiawei Li, Fan Yang, Fang Wang, Yu Rong, Peilin Zhao, Shizhan Chen, Jianhua Yao, Jijun Tang, and Fei Guo
R	B676 "Purification of tumor methylomes through residual decomposition" Nana Wei, Yijing Zhu, Yating Nie, Shiyu Fan, Yuanchen Sun, and Xiaoqi Zheng
R	B321 "Predicting circRNA-disease associations using similarity assessing graph convolution from multi-source information networks" Yang Li, Xue-Gang Hu, Pei-Pei Li, Lei Wang, and Zhu-Hong You
R	B719 "iCircDA-ENR: identification of circRNA-disease associations based on ensemble network representation" Hang Wei, Xiayue Fan, and Shuai Wu
S	B495 "scSAGAN: A scRNA-seq data imputation method based on Semi-Supervised Learning and Probabilistic Latent Semantic Analysis" Xiong Zehao, Chen Xiangtao, Luo Jiawei, Shen Cong, and Xu Zhongyuan
S	B642 "SCdenoise: a reference-based scRNA-seq denoising method using semi-supervised learning" Fengqi Zhong, Yuansong Zeng, Yubao Liu, and Yuedong Yang
S	B710 "Identifying possible lncRNA-disease associations based on deep learning and positive-unlabeled learning" Peng Lihong, Huang Liangliang, Lu Yuankang, Liu Guangyi, Chen Min, and Han Guosheng
S	B843 "Prediction of exosomal piRNAs based on deep learning for sequence embedding with attention mechanism" Yajun Liu, Yulian Ding, Aimin Li, Rong Fei, Xie Gao, and FangXiang Wu

**Session 4: Cheminformatics and Pharmacogenomics
(via Tencent Meeting, room number: 187-821-247)**

Chair: Dr. Ruiqing Zheng rqzheng@csu.edu.cn 1:30 pm - 3:50 pm	
R	B317 "ViTRMSE: a three-dimensional RMSE scoring method for protein-ligand docking models based on Vision Transformer" Linyuan Guo and Jianxin Wang
R	B560 "Predicting drug transcriptional response similarity using Signed Graph Convolutional Network" Chenzhi Hong, Ziyang Wang, Xuan Liu, Zhankun Xiong, Feng Liu, and Wen Zhang
R	B631 "Predicting Compound-Protein Interaction by Deepening the Systemic Background via Molecular Network Feature Embedding" Han Wang, Hangxu Zhu, Wenhao Li, Ming Liu, Li Zhang, and Dong Xu
R	B754 "Graph-based Reaction Classification by Contrasting between Precursors and Products" Zhengwei Wang, Yuxiao Wang, Xuan Zhang, Zhaoxu Meng, Zhenghe Yang, Wei Zhao, and Xuefeng Cui
R	B767 "HS-DTI: Drug-target Interaction Prediction Based on Hierarchical Networks and Multi-order Sequence Effect" Xu Gong, Maotao Liu, Haichao Sun, and Qun Liu

R	B770 "RecurPocket: Recurrent Lmser Network with Gating Mechanism for Protein Binding Site Detection" Peiyong Li, Boheng Cao, Shikui Tu, and Lei Xu
R	B888 "CoAtGIN: Marrying Convolution and Attention for Graph-based Molecule Property Prediction" Xuan Zhang, Cheng Chen, Zhaoxu Meng, Zhenghe Yang, Haitao Jiang, and Xuefeng Cui
Break (25min)	
Chair: Dr. Min Zeng zengmin@csu.edu.cn 4:15 pm - 6:30 pm	
R	B995 "HelixMO: Sample-Efficient Molecular Optimization in Scene-Sensitive Latent Space" Zhiyuan Chen, Xiaomin Fang, Zixu Hua, Yueyang Huang, Fan Wang, and Hua Wu
R	B866 "Boosting Deep Learning-based Docking with Cross-attention and Centrality Embedding" Jingxuan Wang, Zongzhao Qiu, Xuan Zhang, Zhenghe Yang, Wei Zhao, and Xuefeng Cui
R	B270 "Glycan Immunogenicity Prediction with Efficient Automatic Graph Neural Network" Jiamin Chen, Zhenpeng Wu, Jianliang Gao, and Xiaohua Hu
R	B474 "Discriminative Graph Representation Learning with Distributed Sampling" Jinyong Wen and Yuhu Wang
R	B471 "ConformerDTI: Local Features Coupling Global Representations for Drug-Target Interaction Prediction" Tianyu Wang, Wenming Yang, Jie Chen, Yonghong Tian, and Dong-Qing Wei
R	B488 "A Novel Drug-Target Interaction Predication Model Via Singular Value Decomposition and Collaborative Filtering" Ying Zheng and Rui Zhang
S	B636 "HierMRL: Hierarchical Structure-Aware Molecular Representation Learning for Property Prediction" Maotao Liu, Yifan Yang, Xu Gong, Li Liu, and Qun Liu

Session 5: Data Mining, Machine Learning, and Artificial Intelligence of Disease (1)
(via Tencent Meeting, room number: 353-305-961)

Chair: Dr. Hao Wu haowu@sdu.edu.cn 1:30 pm - 4:05 pm	
R	B641 "Multi-view Unsupervised Feature Selection via Consensus Guided Low-rank Tensor Learning" Lianzhi Wang, Cheng Liang, Wenjiao Dong, and Wenlan Chen
R	B820 "Accurate Multi-view Clustering by Exploiting Within-view High-order Affinities through Tensor Self-representation" Haiyan Wang, Jiazhou Chen, Bin Zhang, and Hongmin Cai
R	B851 "Temporal Hypergraph for Personalized Clinical Pathway Recommendation" Fanglin Zhu, Shunyu Chen, Yonghui Xu, Fuqiang Yu, and Lizhen Cui
R	B239 "Invariant Content Synergistic Learning for Domain Generalization on Medical Image Segmentation" Yuxin Kang, Hansheng Li, Xuan Zhao, Xiaoshuang Shi, Feihong Liu, Qingguo Yan, Ying Guo, Lei Cui, Jun Feng, and Lin Yang
S	B417 "A Global-Local Cascade Network for Multi-bone Segmentation in Chest CT" Yanfeng Sun, Han Kang, Huan Zhang, Yu Wang, Hong Shen, and Pengxin Yu
S	B502 "Factoring 3D Convolutions for Medical Images by Depth-wise Dependencies-induced Adaptive Attention" Na Zeng, Jiansheng Fang, Xingyue Wang, Xiaoxi Lu, Jingqi Huang, Hanpei Miao, and Jiang Liu
S	B562 "Faint Features Tell: Automatic Vertebrae Fracture Screening Assisted by Contrastive Learning" Xin Wei, Huaiwei Cong, Zheng Zhang, Junran Peng, Guoping Chen, and Jinpeng Li

S	B659 "TSINet:Efficient Breast Lesion Segmentation with Three-Stream Interactive Neural Network on Magnetic Resonance Images" Liang Sun, Yunling Zhang, Hongwei Ge, Tang Liu, Yiping Zhao, Jian Sun, Juan Tian, and Xin Qi
S	B253 "More than Encoder: Introducing Transformer Decoder to Upsample" Yijiang Li, Wentian Cai, Ying Gao, Chengming Li, and Xiping Hu
Break (15 min)	
Chair: Dr. Han Wang wangh101@nenu.edu.cn 4:20 pm - 6:30 pm	
R	B460 "Artificial bee colony algorithm based on self-adjusting random grouping for high-order epistasis detection" Junliang Shang, Yijun Gu, Yan Sun, Feng Li, Jin-Xin Liu, and Boxin Guan
R	B576 "Kernel Mean Matching with Mahalanobis Distance for Causal Inference of Time-to-event Outcome" Qin Ma, Lin Zeng, Shikui Tu, and Lei Xu
R	B720 "Embracing Uniqueness: Generating Radiology Reports via a Transformer with Graph-based Distinctive Attention" Han Wang, Jianwei Niu, Xuefeng Liu, and Yong Wang
R	B765 "Selecting Reliable Instances from ImageNet for Medical Image Domain Adaptation" Ying Lv, Xiaodong Yue, Zhikang Xu, Yufei Chen, and Zihao Li
R	B229 "CCA4CTA: A Hybrid Attention Mechanism based Convolutional Network for Analysing Collateral Circulation via Multi-phase Cranial CTA" Duo Tan, Jingjie Wang, Rui Yao, Jiayang Liu, Jiajing Wu, Shiyu Zhu, Ye Yang, Shanxiong Chen, and Yongmei Li
S	B262 "A Random Feature Augmentation for Domain Generalization in Medical Image Segmentation" Xuan Zhao, Yuxin Kang, Hansheng Li, Jiayu Luo, Lei Cui, Jun Feng, and Lin Yang
S	B378 "Dive into Plane: Lightweight & Modular Linear Projection Cross-dimensional Network for Retinal Vessel Segmentation in OCTA Images" Yi Zhong, Mengqiu Xu, and Ming Wu

Session 6: Data Mining, Machine Learning, and Artificial Intelligence of Disease (2)
(via Tencent Meeting, room number: 512-773-074)

Chair: Dr. Wei Peng weipeng1980@126.com 1:30 pm - 3:55 pm	
R	B300 "Contrastive Meta-Learning for Drug-Target Binding Affinity Prediction" Mei Li, Sihan Xu, Xiangrui Cai, Zhong Zhang, and Hua Ji
R	B509 "BP-DDI: Drug-drug interaction prediction based on biological information and pharmacological text" Mingliang Dou, Han Han, Genlang Chen, Fei Guo, and Jijun Tang
R	B578 "MilGNet: A Multi-instance Learning-based Heterogeneous Graph Network for Drug repositioning" Yaowen Gu, Si Zheng, Bowen Zhang, Hongyu Kang, and Jiao Li
R	B688 "Prediction of Drug-Drug Interactions Based on Meta-path-based Fusion Mechanism in Heterogeneous Information Network" Xueling Yuan, Weizhong Zhao, Xianjun Shen, Xingpeng Jiang, and Tingting He
R	B692 "A Novel Drug Repositioning Model Based on Heterogeneous Graph Convolutional Network via Multi-task Learning" Shengwei Ye, Weizhong Zhao, Xianjun Shen, Xingpeng Jiang, and Tingting He
S	B1025 "Explainable Pulmonary Disease Diagnosis with Prompt-Based Knowledge Extraction" Haodi Zhang, Chenyu Xu, Jiahong Li, Peirou Liang, Xiangyu Zeng, Hao Ren, Weibin Cheng, and Kaishun Wu

S	B546 "A Simple Yet Effective Hand Pose Tremor Classification Algorithm To Diagnosis Parkinson's Disease" MingYa Zhang, Na Zhao, Yue Yu, YuQian Zhuang, QuanQiu Zhu, TianYuan Huang, and XianPing Tao
S	B700 "Contour Offset Map: A New Component Designed for Smooth and Robust Optic Disc and Cup Contour Detection" Yajie Yang, Gang Yang, Jianchun Zhao, and Dayong Ding
Break (15min)	
Chair: Dr. Wei Lan lanwei@gxu.edu.cn 4:10 pm - 6:30 pm	
R	B413 "An Offline Assistance Tool for Visually Impaired People Based on Image Captioning" Yu Guo, Yue Chen, Yuanyan Xie, Xiaojuan Ban, and Mohammad Obaidat
R	B644 "Patient Condition Change Network for Safe Medication Recommendation" Ruobing Li, Jian Wang, Hongfei Lin, Yuan Lin, Huiyi LU, and Zhihao Yang
R	B694 "MPGNN-DSA: A Meta-path-based Graph Neural Network for Drug-Side effect Associations Prediction" Wenjie Yao, Weizhong Zhao, Xianjun Shen, Xingpeng Jiang, and Tingting He
R	B935 "Learning Time-Series Images of Niacin Skin-Flushing Test for the Diagnosis of Schizophrenia and Affective Disorder" Yuyang Huang, Shiwen Dong, Dandan Wang, Chunling Wan, and Yang Yang
S	B559 "Brain Effective Connectivity Learning with Deep Reinforcement Learning" Yilin Lu, Jinduo Liu, Junzhong Ji, Han Lv, and Mengdi Huai
S	B582 "MERAS: A method for entity recognition, alignment, and structuration from Chinese electronic medical records" Xuehong Wu, Yifan Wu, and Min Li
S	B588 "Replay-Oriented Gradient Projection Memory for Continual Learning in Medical Scenarios" Kuang Shu, Heng Li, Jie Cheng, Qinghai Guo, Luziwei Leng, Jianxing Liao, Yan Hu, and Jiang Liu
S	B668 "Few-Shot Radiology Report Generation via Knowledge Transfer and Multi-modal Alignment" Xing Jia, Yun Xiong, Jiawei Zhang, Yao Zhang, Yangyong Zhu, and Philip S. Yu
S	B496 "A Knowledge-Enhanced Model with Dual-Channel Encoder for Joint Entity and Relation Extraction from Biomedical Literature" Lishuang Li, Shixian Jiang, and Beibei Zhang

Dec 08: Morning Sessions

Session 7: Bioinformatics and Computational Biology of Molecular Structure, Function and Evolution (via Tencent Meeting, room number: 371-555-777)

Chair: Dr. Cuixiang Lin lincxsu@csu.edu.cn 8:00 am - 10:05 am	
R	B216 "Kernel Risk Sensitive Loss-based Echo State Networks for Predicting Therapeutic Peptides with Sparse Learning" Xiaoyi Guo, Yuqing Qian, Prayag Tiwari, Quan Zou, and Yijie Ding
R	B394 "Fuzzy kernel-free support vector machine and applications in medicine" AI-bing Ji, Bo-wen Wei and Ye Ji
R	B781 "DeepFusionGO: Protein function prediction by fusing heterogeneous features through deep learning" Zhijian Huang, Rongtao Zheng, and Lei Deng
R	B871 "Pretraining Transformers for TCR-pMHC Binding Prediction"

	Jinsheng Shang, Qihong Jiao, Cheng Chen, Daming Zhu, and Xuefeng Cui
R	B933 "inACP: An integrated approach to the prediction of anticancer peptides" Guolun Zhong and Lei Deng
S	B326 "MSE-CapsPPISP: Spatial Hierarchical Protein-Protein Interaction Sites Prediction Using Squeeze-and-Excitation Capsule Networks" Weipeng Lv, Changkun Jiang, and Jianqiang Li
S	B444 "An integration of deep learning with feature fusion for protein-protein interaction prediction" Hoai-Nhan Tran, Phuc-Xuan-Quynh Nguyen, Xiaoqing Peng, and Jianxin Wang
S	B547 "Learning spatial structures and network correlations improves unknown protein-protein interaction prediction" Yangyue Fang, Chaojian Zhang, Yu Fu, Tao Xue, and Jianping Huang
Break (30 min)	
Chair: Dr. Xuan Lin jack_lin@xtu.edu.cn 10:35 am - 12:30 am	
R	B678 "scHiCSC: A Novel Single-Cell Hi-C Clustering Framework by Contact-Weight-Based Smoothing and Feature Fusion" Xiangfei Zhou, Zhenqi Shi, Yingfu Wu, Jin Zhao, and Hao Wu
R	B766 "Contrastive Self-Supervised Representation Learning for Protein Complexes Identification" Peixuan Zhou, Yijia Zhang, Fei Chen, Mingyu Lu, and Hongfei Lin
S	B237 "Sub-Loc: predicting protein sub-mitochondrial localization based on sequence embedding" Xiaoting Wang, Juan Wang, Haodong Bian, and Maozu Guo
S	B632 "Adaptive Multi-view Graph Convolutional Network for Gene Ontology Annotations of Proteins" Yingwen Zhao, Zhihao Yang, Yongkai Hong, Lei Wang, Yin Zhang, Hongfei Lin, and Jian Wang
S	B984 "Protein Subcellular Localization Prediction by Combining ProtBert and BiGRU" Wang zeyu, Lin Tao, and Yang Xiaoli
S	B802 "Protein Functional Family Classification Based on Multilevel Feature Information" Guokai Zhou and Weiting Chen
S	B805 "Longest k -tuple Common Sub-Strings" Tiantian Li, Daming Zhu, Haitao Jiang, Haodi Feng, and Xuefeng Cui

**Session 8: Biomedical Signal Analysis and Electronic Medical/Health Records
(via Tencent Meeting, room number: 770-905-892)**

Chair: Dr. Ying Zheng zhengying@csust.edu.cn 8:00 am - 10:10 am	
R	B236 "Greedy-mRMR: An emotion recognition algorithm based on EEG using greedy algorithm" Liyang Yang, Qingyang Zhang, Si Chao, Dunhui Liu, and Xiguo Yuan
R	B306 "Dual regularized feature extraction and adaptation for cross-subject motor imagery EEG classification" Tian-jian Luo
R	B633 "Automatic diagnostics of EEG pathology via capsule network with multi-level feature fusion" Tao Wu, Yunning Zhong, Yujie Fan, Xiangzeng Kong, and Lifei Chen
R	B695 "ECGNN: Enhancing Abnormal Recognition in 12-Lead ECG with Graph Neural Network" Xiongjun Zhao, Zhengyu Liu, and Shaoliang Peng
R	B895 "A Multi-Scale Multi-Hop Graph Convolution Network for Predicting Fluid Intelligence via Functional Connectivity" Qumei Cao, Daoqiang Zhang, and Xuyun Wen

S	B409 "Automatic Removal of Scalp EEG Artifacts Using an Interpretable Hybrid Deep Learning Method" Chenhao Bao, Zexuan Hao, and Weibei Dou
S	B734 "Multi-level translocation events analysis in solid-state nanopore current traces" Xinlong Liu, Zepeng Sun, Wei Liu, Feng Qiao, Li Cui, Jing Yang, Jingjie Sha, Jian Li, and Li-Qun Xu
Break (5 min)	
Chair: Dr. Minzhu Xie xieminzhu@hunnu.edu.cn 10:15 am - 12:40 am	
R	B505 "Compound Density Networks for Risk Prediction using Electronic Health Records" Yuxi Liu, Shaowen Qin, Zhenhao Zhang, and Wei Shao
R	B458 "Time and Time-Frequency Features Integrated CNN Model for Heart Sound Signals Detection" Zhimin Ren, Yuheng Qiao, Yuping Yuan, You Zhou, Yanchun Liang, and Xiaohu Shi
R	B763 "Combating Interference for Robust and Accurate Heart Rate Variability Monitoring via Millimeter-Wave Radar" Tao Li, Yu Zhou, Chenqi Shi, and Pengpeng Chen
R	B709 "Attention-based Memory Fusion Network for Clinical Outcome Prediction using Electronic Medical Records" Abdulrahman Al-Dailami, Hulin Kuang, and Jianxin Wang
R	B817 "VentSR: A Self-Rectifying Deep Learning Method for Extubation Readiness Prediction" Lin Zeng, Haoran Ma, Long Xiang, Shikui Tu, Ying Wang, Liebin Zhao, and Lei Xu
S	B311 "A novel method for diagnosing hypertension based on wrist pulse signals and constitution" Ruiling Yao, Lin Fan, Zhongming Wang, and Yan Li
S	B476 "Noncontact Doppler Radar-based Heart Rate Detection on the SVD and ANC" Qiuxia Shi, Fuze Tian, Qinglin Zhao, and Bin Hu
S	B978 "EHR2HG: Modeling of EHR Data Based on Hypergraphs for Disease Prediction" Ziyou Sun, Xiaohui Yang, Zhiquan Feng, Tao Xu, Xue Fan, and Jinglan Tian

Session 9: Biomedical Image Analysis (3)
(via Tencent Meeting, room number: 800-930-089)

Chair: Dr. ShiQiang Ma shiqiang@tju.edu.cn 8:00 am - 10:10 am	
R	B392 "Optic Disc Hemorrhage Detection via A Novel Position-Guided Attention Network with Small Samples on Fundus Images" Gang Yang, Yunfeng Du, Yajie Yang, Jianchun Zhao, Dayong Ding, Jingjing Xu, and Gangwei Cheng
R	B430 "MVSF: Multi-View Signature Fusion Network for Noninvasively Predicting Ki67 Status" Xinyu Li, Jianhong Cheng, Hulin Kuang, Jin Liu, Chengchao Shen, Pei Yang, and Jianxin Wang
R	B433 "Method for Preoperative Prediction of Microvascular Invasion of Hepatocellular Carcinoma" Chen Zhao, Tian Bai, Tongjia Chu, Feng Wei, and Fa Zhang
R	B434 "Multi-site MRI classification using Weighted federated learning based on Mixture of Experts domain adaptation" Tian Bai, Yingfang Zhang, Yuzhao Wang, Yanguo Qin, and Fa Zhang
R	B498 "Reassembling Consistent-Complementary Constraints in Triplet Network for Multi-view Learning of Medical Images" Xingyue Wang, Jiansheng Fang, Na Zeng, Jingqi Huang, Hanpei Miao, William Robert Kwapong, Ziyi Zhang, Shuting Zhang, and Jiang Liu
S	B475 "Few-Shot Knowledge Graph Completion based on Data Enhancement" Zepeng Li, Peilun Geng, Shuo Cao, and Bin Hu
S	B1052 "Enhanced CT Image Generation by GAN for Improving Thyroid Anatomy Detection"

Jianyu Shi, Xiaohong Liu, Guoxing Yang, and Guangyu Wang	
Break (10 min)	
Chair: Dr. Xuefeng Cui xf cui.uw@gmail.com 10:20 am - 12:30 am	
R	B615 "Predicting Tumor Mutation Burden of TNBC Based on Nuclei Scores of Histopathological Images" Yuqi Chen, Juan Liu, Peng Jiang, Yu Jin, and Baochuan Pang
R	B670 "Integrating Multi-scale Feature Representation and Ensemble Learning for Schizophrenia Diagnosis" Manna Xiao, Hulin Kuang, Jin Liu, Yan Zhang, Yizhen Xiang, and Jianxin Wang
R	B534 "UniMed: Multimodal Multitask Learning for Medical Predictions" Xiongjun Zhao, Xiang Wang, Fenglei Yu, and Shaoliang Peng
R	B726 "A high-concurrency blockchain model for large-scale medical cohort data storage and sharing" Xiaolin Song, Yuehan Su, Lanju Kong, Lizhen Cui, Wei Guo, and Qingzhong Li
R	B989 "A Complex-Valued Dual-Domain Dilated Convolution Neural Network for Brain MRI Reconstruction" Yihui Ren, Wen Jiang, and Ying Liu
S	B480 "Gaussian Decay Function-based Improved Moment Matching for Ocular Artifacts Removal" Hua Jiang, Qiuxia Shi, Siying Liu, Jiuying Zhang, Qinglin Zhao, and Bin Hu
S	B486 "A segmentation method of airway from chest CT image based on Vgg-Unet neural network" Wei Shao, Zhe Wang, Ziming Zhang, Qinghua Zhou, Ruoyu Wang, and Wenjun Tan

**Session 10: Information Retrieval, Ontologies, Natural Language Processing, and Text Mining
(via Tencent Meeting, room number: 866-295-310)**

Chair: Dr. Chengqian Lu chengqlu@xtu.edu.cn 8:00 am - 10:10 am	
R	B849 "MOVE: Integrating Multi-source Information for Predicting DTI via Cross-view Contrastive Learning" Yuening Qu, Chengxin He, Zhenjiang Zhao, Jingyu Chen, and Lei Duan
R	B439 "Location-Guided Token Pair Tagger for Joint Biomedical Entity and Relation Extraction" Yan Zhang, Zhihao Yang, Hongfei Lin, and Jian Wang
R	B804 "ASNet: An Adversarial Sparse Network for Multi-task Biomedical Named Entity Recognition" Junwen Duan, Huai Guo, Min Zeng, and Jianxin Wang
R	B844 "Unified Fine-Grained Biomedical Entity Recognition as a Combination of Boundary Detection and Sequence Generation" Xue Li, Yang Yang, Mingchen Ye, Yi Guan, Xuehui Yu, and Jingchi Jiang
R	B987 "Automated Extraction of ABAC Policies from Natural-Language Documents in Healthcare Systems" Yutang Xia, Shengfang Zhai, Qinting Wang, Huiting Hou, Zhonghai Wu, and Qingni Shen
S	B585 "BioNER-CFEM: Biomedical Named Entity Recognition Based on Character Feature Enhancement with Multimodal Method" Jinzhong Ning, Zhihao Yang, Yuanyuan Sun, Lei Wang, Yin Zhang, Hongfei Lin, and Jian Wang
S	B685 "Prompt Enhanced Generative MRC Framework for Pancreatic Cancer NER" ZhenDong Tan, Yan Yang, Bo Li, Beilei Wang, Gang Jin, Chengcai Chen, and Liang He
Break (15 min)	
Chair: Dr. Junwen Duan jwduan@csu.edu.cn 10:25 am - 12:30 am	
R	B514 "Intent-aware Prompt Learning for Medical Question Summarization"

	Leilei Zhang and Junfei Liu
R	B527 "Syntactic Type-aware Graph Attention Network for Drug-drug Interactions and their Adverse Effects Extraction" Peng Chen, Jian Wang, Hongfei Lin, Yichen Wang, Di Zhao, and Yijia Zhang
R	B625 "MHKD-MVQA: Multimodal Hierarchical Knowledge Distillation for Medical Visual Question Answering" Jianfeng Wang, Shuokang Huang, Huifang Du, Yu Qin, Haofeng Wang, and Wenqiang Zhang
R	B679 "Knowledge-Enhanced Dual Graph Neural Network for Robust Medicine Recommendation" Xingwang Li, Yijia Zhang, Jian Wang, Mingyu Lu, and Hongfei Lin
S	B344 "BioELM: Integrating Biomedical Knowledge into Language Model with Entity-Linking" Qing Li, Guanzhong Wu, and Tao You
S	B796 "S3AAL: Support Set Selection based on Adversarial Active Learning for Medical Few-Shot Relation Extraction" Qingyao Li and Buzhou Tang
S	B1023 "Semantic Reasoning with NLI for Assertion Detection in Medical Text" Zongxin Du, Xiaohong Liu, Jie Xu, Guoshun Nan, and Guangyu Wang

Session 11: Data Mining, Machine Learning, and Artificial Intelligence of Disease (3)
(via Tencent Meeting, room number: 940-655-621)

Chair: Dr. Xiangmao Meng mxmanhui@csu.edu.cn 8:00 am - 10:20 am	
R	B285 "EMDS: predicting essential miRNAs based on deep learning and sequences" Cheng Yan, Guihua Duan, and Fang-Xiang Wu
R	B398 "Predicting miRNA-disease associations via multi-channel graph convolutional networks" HaoRan Zheng, Qiu Xiao, and JianCheng Zhong
R	B467 "HSAELDA: Predicting lncRNA-disease associations based on heterogeneous networks and Stacked Autoencoder" Wenyu Xi, JinXing Liu, and Yinglian Gao
R	B589 "Prediction of miRNA and Disease Association based on Graph Convolution Network using Latent Feature Vector by Positive Samples" Jiancheng Zhong, Jiedong Kang, Xingran Song, Qiu Xiao, and Yi Pan
S	B658 "Predicting human microbe-disease associations based on multi-source heterogeneous graph representation learning model" Haodong Wang, Weizhong Zhao, Xingpeng Jiang, and Xianjun Shen
S	B219 "MBH-Net: Multi-branch Hybrid Network with Auxiliary Attention Guidance for Large Vessel Occlusion Detection" Rui Yao, Duo Tan, Ye Yang, Yongmei Li, Jiayang Liu, Jiajing Wu, Shanxiong Chen, and Jingjie Wang
S	B412 "CTT-Net: A Multi-view Cross-token Transformer for Cataract Postoperative Visual Acuity Prediction" Jinhong Wang, Jingwen Wang, Tingting Chen, Wenhao Zheng, Zhe Xu, Xingdi Wu, Wen Xu, Haochao Ying, Danny Chen, and Jian Wu
S	B665 "OSA-CCNN: Obstructive Sleep Apnea Detection Based on a Composite Deep Convolution Neural Network Model using Single-Lead ECG signal" Yu Zhou, Yinxian He, and Kyungtae Kang
Break (20 min)	
Chair: Dr. Xiwei Tang nuds_xiwei@126.com 10:40 am - 12:30 am	
R	B432 "Identification of personalized driver genes for individuals using graph convolution network" Wei Peng, Piaofang Yu, Wei Dai, Xiaodong Fu, Li Liu, and Yi Pan

R	B758 "Single-cell TF-DNA binding prediction and analysis based on transfer learning framework" Zixuan Wang, Yongqing Zhang, Yun Yu, Maocheng Wang, Yuhang Liu, and Quan Zou
R	B929 "deepDGA: Biomedical Heterogeneous Network-based Deep Learning Framework for Disease-Gene Association Predictions" Hong Wang, Xiaoqi Wang, Wenjuan Liu, and Shaoliang Peng
R	B1006 "DSHP: A Novel Sequence Based Deep Learning Prediction Model for HPV Integration Site" Xian Tan, Yiping Sun, Yanhe Wang, Jingbo Zhang, Pingping Sun, and Zhiqiang Ma
S	B309 "A Feature Weighting Particle Swarm Optimization Method to Identify Biomarker Genes" Xubin Wang and Weijia Jia
S	B446 "A dynamic multi-modal fusion network for ovarian tumor differentiation" Yang Li, Beiji Zou, Jing Wu, Yulan Dai, Harrison X. Bai, and Zhicheng Jiao

Dec 08: Afternoon Sessions

**Session 12: Next Generation Sequencing and High-throughput Method
(via Tencent Meeting, room number: 654-748-497)**

Chair: Dr. Xiaoqing Peng xqpeng@csu.edu.cn 1:30 pm - 3:55 pm	
R	B242 "A parametric model for clustering single-cell mutation data" Jiaqian Yan, Jianing Xi, and Zhenhua Yu
R	B535 "A Meta-learning based Graph-Hierarchical Clustering Method for Single Cell RNA-Seq Data" Zixiang Pan, Yuefan Lin, Haokun Zhang, Yuansong Zeng, Weijiang Yu, and Yuedong Yang
R	B729 "Comparison of the Nanopore and PacBio sequencing technologies for DNA 5-methylcytosine detection" Yadong Liu, Zhongyu Liu, Tao Jiang, Tianyi Zang, and Yadong Wang
R	B731 "scIAC: clustering scATAC-seq data based on Student's t-distribution similarity imputation and denoising autoencoder" Wei Lan, Xun Sun, Qingfeng Chen, Jin Ye, Xiaoshu Zhu, and Yi Pan
R	B554 "RabbitQCPlus: More Efficient Quality Control for Sequencing Data" Lifeng Yan, Zekun Yin, Hao Zhang, Zhan Zhao, Mingkai Wang, André Müller, Robin Kobus, Yanjie Wei, Beifang Niu, Bertil Schmidt, and Weiguo Liu
S	B322 "Feature Selection for Microarray Data via Community Detection Fusing Multiple Gene Relation Networks Information" Shoujia Zhang, Wei Li, Weidong Xie, and Linjie Wang
S	B648 "DLmeta: a deep learning method for metagenomic identification" Yu Zhang, Chenchen Li, Haodi Feng, and Daming Zhu
S	B718 "MSVF: Multi-task Structure Variation Filter with Transfer Learning in High-throughput Sequencing" Weiming Xiang, Yingbo Cui, Yaning Yang, Ang Zhang, Boya Ji, and Shaoliang Peng
Break (10min)	
Chair: Dr. Cheng Yan yancheng01@hnuucm.edu.cn 4:05 pm - 6:30 pm	
R	B329 "Genetic and phenotypic relationships between coronary atherosclerotic heart disease and electrocardiographic traits" Xinfeng Wang, Haoyang Zhang, Xuehao Xiu, Mengling Qi, Yuedong Yang, and Huiying Zhao
R	B779 "A Distributed Evolutionary Framework for Large-scale SNP-SNP Interaction Detection" Fangting Li, Yuhai Zhao, Boxin Guan, and Yuan Li
R	B561 "A single cell potency inference method based on the local cell-specific network entropy"

	Ziwei Xu, Ruiqing Zheng, Yuxuan Chen, Edwin Wang, and Min Li
R	B690 "BayesImpute: a Bayesian imputation method for single-cell RNA-seq data" Siqi Chen, Ruiqing Zheng, Luyi Tian, Fang-Xiang Wu, and Min Li
R	B826 "Hexagonal Convolutional Neural Network for Spatial Transcriptomics Classification" Jing Gao, Kai Hu, Fa Zhang, and Xuefeng Cui
S	B286 "A heterogeneous graph cross-omics attention model for single-cell representation learning" Yue Liu, Shulin Wang, Xiangxiang Zeng, Junfeng Zhang, Wei Zhang, and Chee Keong Kwoh
S	B841 "A deep learning-based unsupervised learning method for spatial transcriptomics analysis" Peng Lihong, He Xianzhi, Peng Xinhuai, Lu Yuankang, Li Zejun, and Chen Xing
S	B569 "Predicting the functional effects of human non-coding variants based on stacking ensemble learning" Zepeng Liu, Xiao-Tai Huang, Kei Hang Katie Chan, and Lin Gao

Session 13: Biomedical Image Analysis (4)
(via Tencent Meeting, room number: 844-683-532)

Chair: Dr. Cong Shen congshen@email.tjut.edu.cn 1:30 pm – 4:00 pm	
R	B811 "CLD-Net: Complement Local Detail For Medical Small-Object Segmentation" Rui Chen, Xiangfeng Wang, Bo Jin, Jiaqi Tu, Fengping Zhu, and Yuxin Li
R	B880 "Collaborative Transformer-CNN Learning For Semi-Supervised Medical Image Segmentation" Wei Li and Huihua Yang
R	B350 "MALUNet: A Muti-Attention and Light-weight UNet for Skin Lesion Segmentation" Jiacheng Ruan, Suncheng Xiang, Mingye Xie, Ting Liu, and Yuzhuo Fu
S	B537 "Clinically Coherent Radiology Report Generation with Imbalanced Chest X-rays" Hang Yu and Qingchen Zhang
S	B724 "Prediction of microsatellite instability of colorectal cancer using multi-scale pathological images based on deep learning" Ruifen Cao, Qingsong Gu, Dayu Tan, Pijing Wei, and Chunhou Zheng
S	B846 "A Hybrid Cross-Scale Transformer Architecture for Robust Medical Image Segmentation" Yang Ning, Shouyi Zhang, Wei Zhong, Peide Liu, and Caiming Zhang
S	B962 "CAANet: CAM-guided Adaptive Attention Network for Weakly Supervised Semantic Segmentation of Thyroid Nodules" Ruiguo Yu, Xianzhi Zhang, Jialin Zhu, Chenhan Wang, Ruixuan Zhang, and Mei Yu
S	B974 "Finding the Most Transferable Tasks for Medical Image Segmentation" Yicong Li, Yang Tan, Jingyun Yang, Yang Li, and Xiao-Ping Zhang
S	B1030 "Joint Feature Learning for Cell Segmentation Based on Multi-scale Convolutional U-Net" Zhichao Jin, Haigen Hu, Qianwei Zhou, Qiu Guan, Xiaoxin Li, and Qi Chen
Break (0min)	
Chair: Dr. Yijie Ding wuxi_dyj@163.com 4:00 pm - 6:40 pm	
R	B566 "Dual Gradient Alignment for Unsupervised Domain Adaptation on Optic Disc and Cup Segmentation" Rongchang Zhao and Yufeng Wang
R	B601 "Hard Exudate Segmentation Supplemented by Super-Resolution with Multi-scale Attention Fusion Module" Jiayi Zhang, Xiaoshan Chen, Zhongxi Qiu, Mingming Yang, Yan Hu, and Jiang Liu
R	B1067 "WDA-Net: Weakly-Supervised Domain Adaptive Segmentation of Electron Microscopy" Dafei Qiu, Jiajin Yi, and Jialin Peng

R	B529 "Rec-AUNet: Attentive UNet for Reconstruction of ECG from BCG" Peng Wang, Chuanqi Han, Fang Yu, Ye Zheng, Xi Huang, and Li Cui
R	B247 "Explainability-guided Mathematical Model-Based Segmentation of Transrectal Ultrasound Images for Prostate Brachytherapy" Tao Peng, Yiyun Wu, Jing Zhao, Bo Zhang, Jin Wang, and Jing Cai
S	B332 "Uncertainty-based Model Acceleration for Cancer Classification in Whole-Slide Images" Zeyu Gao, Anyu Mao, Jialun Wu, Yang Li, Chunbao Wang, Caixia Ding, Tieliang Gong, and Chen Li
S	B532 "Attention multiple instance learning with Transformer aggregation for breast cancer whole slide image classification" Jianxin Zhang, Cunqiao Hou, Wen Zhu, Mingli Zhang, Ying Zou, Lizhi Zhang, and Qiang Zhang
S	B827 "ConTenNet: Quantum Tensor-augmented Convolutional Representations for Breast Cancer Histopathological Image Classification" Jie Liu, Hong Lai, Jinshu Ma, and Shuchao Pang
S	B886 "Cross-Attention Based Multi-Scale Feature Fusion Vision Transformer For Breast Ultrasound Image Classification" Lele Li, Ziling Wu, Juan Liu, Lang Wang, Yu Jin, Peng Jiang, Wensi Duan, and Meng Wu

Session 14: Data Mining, Machine Learning, and Artificial Intelligence of Biomedical and Health Informatics (1)
(via Tencent Meeting, room number: 138-909-655)

Chair: Dr. Limin Jiang lm.jiang1@siat.ac.cn 1:30 pm - 3:55 pm	
R	B1016 "Multi-modal Dynamic Graph Network: Coupling Structural and Functional Connectome for Disease Diagnosis and Classification" Yanwu Yang, Xutao Guo, Zhikai Chang, Chenfei Ye, Yang Xiang, and Ting Ma
R	B1065 "Reinforced Sample Selection for Graph Neural Networks Transfer Learning" Bo Wu, Xun Liang, Xiangping Zheng, Jun Wang, and Xiaoping Zhou
R	B477 "Mutual Information Estimation-Based Disentangled Representation Network for Medical Image Fusion" Wanwan Huang, Han Zhang, Zeyuan Li, and Yanbin Yin
R	B299 "ICBNet: Iterative Context-Boundary Feedback Network for Polyp Segmentation" Yefan Xiao, Zhihao Chen, Liang Wan, Lequan Yu, and Lei Zhu
R	B904 "Temporal Correlation Network for Video Polyp Segmentation" Ziheng Xu, Dehui Qiu, Senlin Lin, Xinyue Zhang, Sheng Shi, Shengtao Zhu, Fa Zhang, and Xiaohua Wan
S	B334 "Long-term recurrence prediction models for NICE based on machine learning and China national stroke screening data" Haifeng Xu, Xuemeng Li, Jianfei Pang, Mei Li, Baohua Chao, and Dongsheng Zhao
S	B473 "Expert with Outlier Exposure for Continual Learning of New Diseases" Zhengjin Xu, Kanghao Chen, Weishi Zheng, and Ruixuan Wang
S	B831 "Generalizable deep clustering based on Bi-LSTM with applications to sepsis and acute kidney disease populations" Yongsen Tan, Jiahui Huang, Jinhu Zhuang, Yong Liu, Haofan Huang, Xiaxia Yu, and Fusheng Wang
Break (5min)	
Chair: Dr. Wenyin He hwying1234@hebut.edu.cn 4:00 pm - 6:40 pm	
R	B623 "Unsupervised Domain Adaptation with Dual U-DenseTransformer Generation" Dongfang Shen, Ming Wu, Song Zheng, Jianhui Chen, Yijiang Chen, Yinran Chen, and Xiongbiao Luo
R	B643 "Probability Connectivity-Based Multimodality Regression Analysis for Associating Disease-Specific Multimodal Brain Imaging Phenotypes with Genetic Risk Factors" Cui-Na Jiao, Chun-Hou Zheng, and Jin-Xing Liu

R	B671 "Reler: Relearning and Refining Controversial Regions to Accurate Nasopharyngeal Carcinoma Segmentation in MR Images" Guihua Tao, Haojiang Li, Dandan Lu, Ziqin Ling, Lizhi Liu, and Hongmin Cai
R	B1012 "Modeling Annotator Variation and Annotator Preference for Multiple Annotations Medical Image Segmentation" Xutao Guo, Shang Lu, Yanwu Yang, Pengcheng Shi, Chenfei Ye, Yang Xiang, and Ting Ma
R	B501 "ISTA-based Adaptive Sparse Sampling Network for Compressive Sensing MRI Reconstruction" Wenwei Huang, Chunhong Cao, Sixia Hong, and Xieping Gao
S	B594 "SQET: Squeeze and Excitation Transformer for High-accuracy Brain Age Estimation" Yixiao Hu, Haolin Wang, and Baobin Li
S	B708 "Feature-Guided Logical Perception Network for Health Risk Prediction" Fuqiang Yu, Lizhen Cui, Yiming Cao, Fanglin Zhu, Yonghui Xu, and Ning Liu
S	B829 "Sleep Respiration Monitoring Using Attention-reinforced Radar Signals" Siheng Li, Fusang Zhang, Zhi Wang, Beihong Jin, Xiaoyong Ren, and Haiqin Liu
S	B794 "Integrated Convolutional and Recurrent Neural Networks for Health Risk Prediction using Patient Journey Data with Many Missing Values" Yuxi Liu, Shaowen Qin, Antonio Jimeno Yepes, Wei Shao, Zhenhao Zhang, and Flora D. Salim

Session 15: Cross-Cutting Computational Methods and Bioinformatics of Disease
(via Tencent Meeting, room number: 479-230-892)

Chair: Dr. Ying Liu liu_ying@hnu.edu.cn 1:30 pm - 3:50 pm	
R	B370 "NeRV-3D-DC: A Nonlinear Dimensionality Reduction Visualization Method for 3D Chromosome Structure Reconstruction with High Resolution Hi-C Data" Haiyan Gong, Yang Yi, Xiaotong Zhang, Fuqiang Ma, Minghong Li, Zhengyuan Chen, Sichen Zhang, and Yang Chen
R	B431 "A Sparse Multi-task Contrastive and Discriminative Learning Method with Feature Selection for Brain Imaging Genetics" Jin Zhang, Muheng Shang, Qiang Xie, Minjianan Zhang, Duo Xi, Lei Guo, Junwei Han, and Lei Du
R	B466 "An Alzheimer's disease gene prediction method based on ensemble of genome-wide association study summary statistics" Jia-Hao Song, Cui-Xiang Lin, and Hong-Dong Li
R	B650 "A multi-source fusion method to identify biomarkers for breast cancer prognosis based on dual-layer heterogeneous network" Xingyi Li, Zhelin Zhao, Ju Xiang, Jialu Hu, and Xuequn Shang
S	B722 "Online 3D Reconstruction of Zebrafish Behavioral Trajectories within A Holistic Perspective" Zewei Wu, Wei Ke, Cui Wang, Wei Zhang, and Zhang Xiong
S	B790 "Lightweight CNN based on Non-rigid SFM for 3D Reconstruction of Medical Images" Hongyan Quan
S	B959 "GMFQP: An Ontology-mediated Gut Microbiota Federated Query Platform" Yuzhuo Dai, Shilong Zhang, Yue Tang, Wolfgang Mayer, Jixiang Li, Hongyu Li, Zhonghao Zhang, Haiqin Li, Ying Wang, Wen Zhang, Qin Jiang, Hong-Yu Zhang, Bing Li, and Zaiwen Feng
S	B1039 "Drug Repurposing Therapeutics Prediction using Hierarchical Graph Neural Network" Xiaotian Xiong, Qianshi Yuan, Yongcheng Zhang, Fangfang Li, and Xiaomei Wei
Break (5min)	
Chair: Dr. Jing Jiang jingjiang225@gmail.com 3:55 pm - 6:45 pm	

R	B281 "Predicting of microbe-drug associations via a pre-completion-based label propagation algorithm" Haochen Zhao, Guihua Duan, Botu Yang, Suning Li, and Jianxin Wang
R	B345 "RDDriver: A novel method based on multi-layer heterogeneous transcriptional regulation network for identifying pancreatic cancer biomarker" Yuting Lu, Yan Wang, Nan Sheng, Yuan Fu, and Yuan Tian
R	B353 "OmiTrans: Generative Adversarial Networks Based Omics-to-omics Translation Framework" Xiaoyu Zhang, Yike Guo
R	B382 "Analyses of cell-to-cell communication combining a heterogeneous deep ensemble framework and scoring approaches from sing-cell RNA sequencing data" Peng Lihong, Yuan Ruya, Tan Jingwei, Wang Zhao, Chen Min, and Chen Xing
R	B391 "An adaptive variational model for multireference alignment with mixed noise" Cuicui Zhao, Jun Liu, and Xinqi Gong
R	B553 "KL-RF: Predicting disease-gene associations with model fusion" Hai Liu and Hong-Dong Li
R	B775 "Predicting cell type-specific effects of variants on TF-DNA binding by meta-learning" Yongqing Zhang, Yuhang Liu, Zixuan Wang, Maocheng Wang, Shuwen Xiong, and Quan Zou
S	B355 "Identifying driver genes in cancer based on Pareto optimality consensus" Deng Zheng, Wu Jingli, Chen Xiaorong, and Li Gaoshi
S	B750 "A machine learning model for disease risk prediction by integrating genetic and non-genetic factors" Yu Xu, Chonghao Wang, Zeming Li, Yunpeng Cai, Ouzhou Young, Aiping Lyu, and Lu Zhang

Session 16: Data Mining, Machine Learning, and Artificial Intelligence of Biomedical and Health Informatics (2)
(via Tencent Meeting, room number: 859-982-067)

Chair: Dr. Junlin Xu xjl@hnu.edu.cn 1:30 pm - 3:50 pm	
R	B288 "Transferable Discriminative Learning for Medical Open-Set Domain Adaptation: Application to Pneumonia Classification" Wan Su, Fan Wang, Zhongyi Han, and Yilong Yin
R	B313 "Diagnosing Alzheimer's Disease with Bi-multitask Regularized Sparse Canonical Correlation Analysis and Logistic Regression" Tianru Wu, CuiNa Jiao, Xinchun Cui, and JinXing Liu
R	B367 "A Reliability-constrained Association Rule Mining Method for Explaining Machine Learning Predictions on Continuity of Asthma Care" Yao Tong, Yongli Wang, Qibin Zhang, Zhenxiang Zhang, and Gang Chen
R	B557 "MFCNet: Multi-feature Fusion Neural Network for Thoracic Disease Classification" Kai chen, Yu Liu, Xuqi Wang, Shanwen Zhang, and Chuan Zhang
S	B220 "An Attention-based AI-assisted Segmentation System for Osteosarcoma MRI Images" Fangfang Gou and Jia Wu
S	B264 "Image-to-Image Orthodontics Transfer Employing Gray Level CO-Occurrence Matrix Loss" Sanbi Luo
S	B221 "CGPG-GAN: An Acne Lesion Inpainting Model for Boosting Downstream Diagnosis" Yi Lin, Jingchi Jiang, Zhaoyang Ma, Dongxin Chen, Yi Guan, Xiguang Liu, Haiyan You, Jing Yang, and Xue Cheng
S	B761 "CFDA-M: Coarse-to-Fine Domain Adaptation for Mitochondria Segmentation via Patch-wise Image Alignment and Online Self-training" Yanchao Zhang, Jiazheng Liu, Zhenchen Li, Jinyue Guo, and Hua Han
Break (5min)	
Chair: Dr. Xiangzheng Fu fxz326@hnu.edu.cn 3:55 pm - 6:45 pm	

R	B551 "Research on Bidirectional Recurrent Imputation of Multivariate Time Series for Clinical Outcomes Prediction" Hao Gao, Runzhi Li, Jing Wang, Siyu Yan, and Lihong Ma
R	B597 "A Multi-View Learning-Based Rule Extraction Algorithm For Accurate Hepatotoxicity Prediction" Yuting Zhong, Bowei Yan, Kunhong Liu, Yong Xu, Song He, and Xiaochen Bo
R	B697 "Accurately Identifying Coronary Atherosclerotic Heart Disease through Merged Beats of Electrocardiogram" Xinfeng Wang, Mengling Qi, Chengzhi Dong, Haoyang Zhang, Yuedong Yang, and Huiying Zhao
R	B968 "Survival Prediction for Gastric Cancer by Multimodal Learning of Whole Slide Images and Gene Expression" Yuzhang Xie, Guoshuai Niu, Qian Da, Wentao Dai, and Yang Yang
S	B228 "An Efficient Temporal Network with Dual Self-Distillation for Electroencephalography Signal Classification" Zhiwen Xiao, Haoxi Zhang, Huagang Tong, and Xin Xu
S	B268 "Hybrid fusion model based on DBN and secondary classifier: Multimodal mild depression recognition using EEG and eye movement" Jing Zhu, Xiannian Xie, Changlin Yang, Shiqing Wei, Xiaowei Li, and Bin Hu
S	B624 "MSF-SleepNet: Multi-Stream Fusion Network with Contrastive Learning for Sleep Stage Classification" Jingrui Chen, Yujie Li, Jing Xiao, Ruiquan Ge, Wenjun Ma, and Xiaomao Fan
S	B441 "3D ARCNN: An Asymmetric Residual CNN for Decreasing False Positive Rate of Lung Nodules Detection" Bowen Liu, Hong Song, Qiang Li, Yucong Lin, and Jian Yang
S	B1036 "EEG Based Depression Recognition by Employing Static and Dynamic Network Metrics" Shuting Sun, Chang Yan, Juntong Lyu, Yueran Xin, Jieyuan Zheng, Zhaolong Yu, and Bin Hu
S	B1049 "A continuous glucose monitoring measurements forecasting approach via sporadic blood glucose monitoring" Yuting Xing, Hanguang Ye, Xiaoyu Zhang, Wei Cao, Shun Zheng, Jiang Bian, Yike Guo

Poster

(via Tencent Meeting, room number: 236-385-643)

Chair: Dr. Xiaoqing Peng xqpeng@csu.edu.cn Dec 07 2:00 pm – 4:40 pm	
P211	Ruiqi Jia, Wentao Xie, Baole Wei, Guanren Qiao, Zonglin Yang, Xiaoqing Lyu, and Zhi Tang, Molecular Formula Image Segmentation with Shape Constraint Loss and Data Augmentation Author Email(s): jiaruiqi@pku.edu.cn, wxie7@ualberta.ca, weibaole@stu.pku.edu.cn, 1743727220@bupt.edu.cn, yangzl_xx@outlook.com, lvxiaoqing@pku.edu.cn, tangzhi@pku.edu.cn Contact Person: Ruiqi Jia <jiaruiqi@pku.edu.cn>
P218	Bochao Zou, Dongyue Lv, and Xiangwen Lyu, Feature Signal Resampling for rPPG-based Remote Cardiac Pulse Measurement with Streaming Video Author Email(s): zoubochao@ustb.edu.cn, lvdongyue-nuaa@126.com, nuaalxw@126.com Contact Person: Bochao Zou <zoubochao@ustb.edu.cn>
P219	Jun Huang, He Xiao, Qingfeng Wang, Zhiqin Liu, Bo Chen, Yaobin Wang, Ping Zhang, and Ying Zhou, Local-Whole-Focus: Identifying Breast Masses and Calcified Clusters on Full-Size Mammograms Author Email(s): qfwangyy@mail.ustc.edu.cn, huangjuncs@swust.edu.cn Contact Person: Qingfeng Wang <qfwangyy@mail.ustc.edu.cn>

P223	Baole Wei, Ruiqi Jia, Shihan Fu, Xiaoqing Lyu, Liangcai Gao, and Zhi Tang, MIR: A Benchmark for Molecular Image Retrieval with a Cross-modal Pretraining Framework Author Email(s): weibaole@stu.pku.edu.cn, jiaruiqi@pku.edu.cn, lucifer_1412@bupt.edu.cn, lvxiaoqing@pku.edu.cn, gaoliangcai@pku.edu.cn, tangzhi@pku.edu.cn Contact Person: Baole Wei <weibaole@stu.pku.edu.cn>
P230	Guang Zheng, The Chinese Medicines of Integrated Therapies Against Rheumatoid Arthritis Retard Osteoporosis Author Email(s): forzhengguang@163.com Contact Person: Guang Zheng <forzhengguang@163.com>
P231	Hongbin Lu, Dingxin Song, Yu Zhu, and Lishuang Li, Drug-Drug Interaction Extraction Using Drug Knowledge Graph Author Email(s): lilishuang314@163.com, luhongbin-123@163.com Contact Person: Lishuang Li <lilishuang314@163.com>
P237	Zhan Tang, Xupeng Kou, Houwei Fen, Dejian Cui, Weie Jia, and Lin Li, Semi-Supervised Protein-Protein Interactions Extraction Method Based on Knowledge Distillation and Virtual Adversarial Training Author Email(s): tz_blues@163.com, xupengkou@foxmail.com, 13513510714@163.com, 418173531@qq.com, jiaweie123@163.com, lilincou@126.com Contact Person: Zhan Tang <tz_blues@163.com>
P238	Chaoran Zhang, Xiangfeng Yan, and Yong Liu, Pseudo-Siamese Neural Network Based Graph and Sequence Representation Learning for Molecular Property Prediction Author Email(s): 2010023@hlju.edu.cn, 2201786@s.hlju.edu.cn, 2201790@s.hlju.edu.cn Contact Person: Yong Liu <2010023@hlju.edu.cn>
P241	Qingxiang Wang and Ningyu Liu, Speech Detection of Depression Based on Multi-mlp Author Email(s): wangqx@qlu.edu.cn, 10431200601@stu.qlu.edu.cn Contact Person: Qingxiang Wang <wangqx@qlu.edu.cn>
P246	Min Fu, Lei Duan, Weipeng Jiang, and Yuening Qu, DEAL: Construction of a Disease-aware Human Cell Knowledge Graph from Biomedicine Literature Author Email(s): leidian@scu.edu.cn, fu_min@stu.scu.edu.cn, jabin_jiang@163.com, quyueing@stu.scu.edu.cn Contact Person: Lei Duan <leidian@scu.edu.cn>
P256	Liang Zhao, Yu Shao, Chaoran Jia, and Jiajun Ma, Time-series lung cancer CT dataset Author Email(s): liangzhao@dlut.edu.cn, dlut_sy@163.com, dlut_jcr@163.com, dlut_mjj@163.com Contact Person: Liang Zhao <liangzhao@dlut.edu.cn>
P260	Zihao Chen, Lei Duan, Chengxin He, Yuening Qu, and Yidan Zhang, Efficient Gene Community Search to Discover Similar Aspects for Similarity Explanation Author Email(s): leidian@scu.edu.cn, scuzhchen@163.com, 562575184@qq.com, quyueing@stu.scu.edu.cn, zhangyidan@stu.scu.edu.cn Contact Person: Lei Duan <leidian@scu.edu.cn>
P261	Kai xiang Sun and Chao Cong, Research On Chest Abnormality Detection Based On Improved YOLOv7 Algorithm Author Email(s): congchao@cqut.edu.cn, sunkaixiang@2020.cqut.edu.cn Contact Person: Chao Cong <congchao@cqut.edu.cn>
P265	Jie Chen, Tingbo Chen, Chenqiu Zhang, Lingyan Gu, Jia Wang, Yaoxing Wu, and Jianqiang Li, Capsulated Graph Neural Network for Ubiquitylation Sites Prediction Author Email(s): lij@szu.edu.cn, chenjie@szu.edu.cn, 675997890@qq.com, zhangchq26@mail2.sysu.edu.cn, 2110276253@email.szu.edu.cn, jia.wang@szu.edu.cn, wuyaox5@mail.sysu.edu.cn Contact Person: Jianqiang Li <lij@szu.edu.cn>
P266	Aiguo Wang, Jingyu Yan, and Zhongyu Luo, Evaluating Stability of Feature Selectors: Adjusted Measures Considering Feature Correlations Author Email(s): wangaiguo2546@163.com, yanjingyu163@163.com, zhongyu.jojo@outlook.com Contact Person: Aiguo Wang <wangaiguo2546@163.com>
P227	Qi Zhang, Jianhang Zhou, and Bob Zhang, Multi-feature representation for fatty liver disease detection with breath sample analysis

Author Email(s): yc07485@um.edu.mo, yc07424@um.edu.mo, bobzhang@um.edu.mo Contact Person: Bob Zhang <bobzhang@um.edu.mo>

Workshop #S03: Machine Learning for Biological and Medical Image Big Data (ML4BMI)
(via Tencent Meeting, room number: 538-416-092, password: 120803)

Morning Sessions

Chair: Prof. Fa Zhang Zhangfa@ict.ac.cn Dec 08 9:00 am - 11:40 am	
9:00 am-9:20 am	B680 “Pre-MocoDiagnosis: Few-shot Ophthalmic Diseases Recognition using Contrastive Learning” Anping Cai, Leiting Chen, Yongqi Chen, Jiahao Fang, Mengqi Sun, and Chuan Zhou
9:20 am-9:40 am	B429 “Facial StO2: A New Promising Biometric Identity ” Dairong Peng, Sirui Sun, Xinyu Liu, Ju Zhou, and Tong Chen
9:40 am-10:00 am	B550 “Flexible ConvNext Block Based Multi-task Learning Framework for Liver MRI Images Analysis” Dong Sui, Weifeng Liu, Maozu Guo, Yang Li, Lei Zhang, Gongning Luo, and Kuanquan Wang
10:00 am-10:20 am	B1050 “AMAT-Net: An Unbiased Network with High Performance for Metabolic Diseases Prediction Using Facial Images” Fajin Feng, Kai Wang, Xiaohong Liu, Qifeng Gu, and Guangyu Wang
10:20 am-10:40 am	B1037 “AIAT: Adaptive Iteration Adversarial Training for Robust Pulmonary Nodule Detection” Guoxing Yang, Xiaohong Liu, Jianyu Shi, Xianchao Zhang, and Guangyu Wang
10:40 am-11:00 am	B897 “DeepTracer-Denoising: Deep Learning for 3D Electron Density Map Denoising” Haowen Guan and Dong Si
11:00 am-11:20 am	B778 “SSGL1/2: An Improved SVM with Smooth GroupL1/2 for Predicting AD” Jinfeng Wang, Shuaihui Huang, Yong Liang, and Jing Qin
11:20 am-11:40 am	B520 “Multi-contrast High Quality MR Image Super-Resolution with Dual Domain Knowledge Fusion” Runhan Wang, Ruiwei Zhao, Weijia Fu, Xiaobo Zhang, Yuejie Zhang, and Rui Feng

Afternoon Sessions

Chair: Prof. Xuefeng Cui xf cui.uw@gmail.com Dec 08 2:00 pm - 4:40 pm	
2:00 pm-2:20 pm	S03207 “Tensor Robust PCA Based on Transformed Tensor Singular Value Decomposition for Cancer Genomic Data” Sheng-Nan Zhang, Yu-Lin Zhang, Jin-Xing Liu, Juan Wang, Junliang Shang, and Dao-Hui Ge
2:20 pm-2:40 pm	S03203 “A new method for predicting plant proteins function based on multi label classification algorithm” Shuai Chen, Juan Wang, and Maozu Guo
2:40 pm-3:00 pm	S03204 “CVD19-Net: An Automated Deep Learning Model for COVID-19 Screening using Chest CT Images” Sohaib Asif, Wenhui Yi, Jinhai Si, Zafran Waheed, Yueyang Yi, and Jin Hou
3:00 pm-3:20 pm	B980 “Inter-chain contact map prediction for protein complex based on graph attention network and triangular multiplication update” tong wu, he huang, jiashan li, and Xinqi Gong
3:20 pm-3:40 pm	B249 “EpiMCBN: A Kind of Epistasis Mining Approach Using MCMC Sampling Optimizing Bayesian Network” Xuan Yang, Keqin Li, Yang Zhang, Xi Yu, Junli Deng, and Jianxiao Liu
3:40 pm-4:00 pm	B682 “Mixed-Net: A Mixed Architecture for Medical Image Segmentation” Yu Liu, Guihe Qin, Kedi Lyu, and Yongping Huang

4:00 pm- 4:20 pm	B850 "LeFUNet: UNet with Learnable Feature Connections for Teeth Identification and Segmentation in Dental Panoramic X-ray Images" Yunbo Rao, Obed Tettey Nartey, Shaoning Zeng, Charles Roland Haruna, Kingsley Nketiah Acheampong, and Jianxun Sun
4:20 pm- 4:40 pm	S03205 "An integrated Extreme learning machine based on kernel risk-sensitive loss of q-Gaussian and voting mechanism for sample classification" Zhiyuan Li, YingLian Gao, Zhenxin Niu, Shasha Yuan, Chunhou Zheng, and JinXing Liu

**Workshop #S06: The 4th Artificial intelligence in pathology
(via Tencent Meeting, room number: 544-263-677)**

Chair: Prof. Chen Li, Dr. Jialun Wu, Dr. Zeyu Gao Email: cli@xjtu.edu.cn, jialunwu96@163.com, betpotti@gmail.com Dec 08 1:30 pm - 5:30 pm	
1:30 pm- 1:50 pm	B916 "Deep Learning Based Classification of Normal and Hepatic Fibrosis Mouse Model Using Digital Pathology Images" Mayo Clinic
1:50 pm- 2:10 pm	B774 "Local-Global Vision Transformer for Breast Cancer Histopathological Image Classification" Lang Wang, Juan Liu, Peng Jiang, Lele Li, Wensi Duan, Yu Jin, Dehua Cao, and Baochuan Pang,
2:10 pm- 2:30 pm	B771 "Masked-AP: Attention Pyramid Convolutional Neural Network with mask for Cervical Cells Classification" Yu Jin, Juan Liu, Hua Chen, Wensi Duan, Lele Li, Lang Wang, Dehua Cao, and Baochuan Pang,
2:30 pm- 2:50 pm	B424 "A Fast Texture-to-Stain Adversarial Stain Normalization Network for Histopathological Images" Qi Jia, Jing Guo, Fei Du, Peng Yang, and Yun Yang,
2:50 pm- 3:10 pm	B327 "A Context-Guided Attention Method for Integrating Features of Histopathological Patches" Yuqi Chen, Juan Liu, Peng Jiang, Jing Feng, Dehua Cao, and Baochuan Pang,
3:10 pm- 3:30 pm	B226 "Classifying Cervical Histopathological Whole Slide Images via Deep Multi-Instance Transfer Learning" Peng Jiang, Juan Liu, Lang Wang, Jing Feng, Dehua Cao, and Baochuan Pang,
3:30 pm- 3:50 pm	B543 "Drug Recommendation Network Based on the Dual-View Attention Mechanism" Weiheng Su, Jialun Wu, Anyu Mao, Zeyu Gao, Tieliang Gong, and Chen Li,
3:50 pm- 4:10 pm	S06205 "Uncertainty-guided Mutual Consistency Training for Semi-supervised Biomedical Relation Extraction" Bing Mao, Chang Jia, Yucheng Huang, Kai He, Jialun Wu, Tieliang Gong, and Chen Li,
4:10 pm- 4:30 pm	S06203 "Knowledge Enhanced Coreference Resolution via Gated Attention" Kai He, Bing Mao, Xiangyu Zhou, Yufei Li, Tieliang Gong, Chen Li, and Jialun Wu,
4:30 pm- 4:50 pm	S06204 "COVID-19 Impact on Mental Health Analysis based on Reddit Comments" Justin Chen, Kevin Qi, Aaron Zhang, Mikhail Shalaginov, and Tingying Helen Zeng,
4:50 pm- 5:10 pm	S06202 "CA-Net: Context Aggregation Network for Nuclei Classification in Histopathology Image" Shuomin Xiao, Aiping Qu, Penghui He, and Han Hong,
5:10 pm- 5:30 pm	S06201 "ClassAphasia: An Ensemble Machine Learning Network to Improve Aphasia Diagnosis and Determine Severity" Jagadeepam Maddipatla,

**Workshop #S09: Biological Ontologies and Knowledge Bases
(via Tencent Meeting, room number: 495-144-327)**

Chair: Dr. Yongtian Wang, Dr. Jin Chen, Dr. Jiajie Peng wangyt@nwpu.edu.cn, chenjin@gmail.com, jiajiepeng@nwpu.edu.cn Dec 08 1:30 pm - 4:10 pm	
1:30 pm- 1:50 pm	S09201 "The Regulation Networks of Chinese Medicines Against Rheumatoid Arthritis with Syndrome of Deficiency of Liver and Kidney" Guang Zheng

1:50 pm- 2:10 pm	S09202 "Identification of the expression, prognostic value and cancer immunity of Gasdermin E based on multi-omics data, machine learning and gene ontology" Shizheng Qiu, Ying Zhang, and Yang Hu
2:10 pm- 2:30 pm	S09203 "MTOR hypermethylation may associate with the susceptibility and survival of lung adenocarcinoma patients infected with SARS-Cov-2 based on multi-omics data and machine learning" Yu Guo, Minghao Li, Yang Hu, and Tianyi Zang
2:30 pm- 2:50 pm	S09204 "CircRNA-Disease Association Prediction based on Heterogeneous Graph Representation" Xinmeng Liu, Yuhe Zhang, Yewei Shen, Xuequn Shang, and Yongtian Wang
2:50 pm- 3:10pm	S09206 "The regulatory network analysis of single-cell RNA-seq and single-cell ATAC-seq data using differential equation models with perturbations" Ming Cao, Hang Mi, and Qinke Peng
3:10pm- 3:30pm	S09208 "Hypergraph-based Gene Ontology Embedding for Disease Gene Prediction" Tao Wang, Hengbo Xu, Ranye Zhang, Yifu Xiao, Jiajie Peng, and Xuequn Shang
3:30pm- 3:50pm	S09209 "Exploring genetic mechanisms underlying EEG endophenotypes via summary-data-based Mendelian randomization" Jing Chen, Pengfei Zhu, and Tao Wang
3:50pm- 4:10pm	B447 "An Ontology for the Social Determinants of Health Domain" Navya Martin Kollapally, Yan Chen, Julia Xu, and James Geller

Workshop #S10: The 3rd International Workshop on Deep Learning Techniques for Bioinformatics and Biomedicine (DLBIBM) (via Tencent Meeting, room number: 926-705-429)

Chair: Prof. Fuquan Zhang zfq@mju.edu.cn Dec 10 8:00 am - 12:50 pm	
8:10am- 8:30am	B416 "Accurate Real-time Polyp Detection in Videos from Concatenation of Latent Features Extracted from Consecutive Frames" Hemin Ali Qadir, Younghak Shin, Jacob Bergsland, and Ilanko Balasingham
8:30am- 8:50am	S10201 "Fusion Learning of Multimodal Neuroimaging with Weighted Graph AutoEncoder" Gen Shi, Yifan Zhu, Fuquan Zhang, Wenjin Liu, Yuxiang Yao, and Xuesong Li
8:50am- 9:10am	S10206 "5G-Enabled and Mobility Supported ICN Routing based on Ant Swarm Behavior" Jianhui Lv, Qing Li, and Bo Yi
9:10am- 9:30am	S10213 "Efficient Biomedical Ontology Meta-matching Based on Interpolation Model Based Hybrid Evolutionary Algorithm" Xingsi Xue, Qi Wu, Miao Ye, Hai Zhu, and Yikun Huang
9:30am- 9:50am	S10218 "PAMS-DP: Building a Unified Open PAMS Human Movement Data Platform" Mengfei Tang, Tianyu Huang, Jupeng Luo, and Xiangchen Li
9:50am- 10:10am	S10222 "Deep Transfer Learning with Graph Neural Network for Sensor-Based Human Activity Recognition" Tianzheng Liao, Jinjin Zhao, Yushi Liu, Kamen Ivanov, Jing Xiong, and Yan Yan
10:10am- 10:30am	S10227 "A Pupil Segmentation Framework with Masked Image Modeling Enhanced Swin-Transformer" Yongde Guo, Xudong Yan, Liang Ma, Luyu Tang, Yichun Huang, and Yan Yan
10:30am- 10:50am	S10228 "A Rehabilitation activity Monitoring method based on Shallow-CNN" Sisi Wu, Tianyu Huang, and Yihao Li
10:50am- 11:10am	S10229 "EEG emotion recognition via Identity based Multi-gate Mixture-of-Experts network" Liyang Yang, Dunhui Liu, Qingyang Zhang, Si Chao, Pei Ni, Qiang Wang, and Haoxuan Sun

**Workshop #S27: The 13th International Workshop on Information Technology for Chinese Medicine
(via Tencent Meeting, room number: 912-809-539, password: 221208)**

Chair: Prof. Guo-Zheng Li, Prof. Xue-Zhong Zhou, Dr Lei Zhang ieec_itcm@163.com Dec 08 2:00 pm - 5:00 pm	
2:00 pm- 2:20 pm	S27201 "Mechanism of Cold-Dampness Epidemic Prescription in the Treatment of Novel Coronavirus Pneumonia Based on Network Pharmacology" Zhiming Gao
2:20 pm- 2:40 pm	S27202 "Medication Rules and Mechanism of Action for the Treatment of Lung Abscess of Ancient Prescription Based on Data Mining and Network Pharmacology" Dongyang Suo
2:40 pm- 3:00 pm	S27203 "Data Mining and Analysis of The Medical Records of Chinese Medical Master Li Zhenhua in The Treatment of Spleen and Stomach Diseases" Teng Teng
3:00 pm- 3:20 pm	S27207 "TCM-SAS: A Semantic Annotation System and Knowledgebase of Traditional Chinese Medicine" Zhe Wang
3:20 pm- 3:40 pm	S27217 "The Mechanism of Action of Network Pharmacology Integrated with Molecular Docking to Explore Wumei Pills in Treating Gastric Cancer" Zhongwen Lu
3:40 pm- 4:00 pm	S27218 "Transcriptome Sequencing to Explore the Mechanism of Qiwei Baizhu San in Treating T2DM" Fei Teng
4:00 pm- 4:20 pm	S27219 "Medication Rule and Mechanism of Action for the Treatment of Mumps Based on Data Mining and Network Pharmacology" Xiaolan Zou
4:20 pm- 4:40 pm	S27222 "A Study on the English Translation of the Articles on Tremor Syndrome in Golden Chamber Synopsis from the Perspective of Polysystem Theory" Shuang Wu
4:40 pm- 5:00 pm	S27226 "Research and Implementation of Real World Traditional Chinese Medicine Clinical Scientific Research Information Electronic Medical Record Sharing System" Yu Tian

