**BIBM 2020 Accepted Paper list**

**1. Bioinformatics and Computational Biology of Molecular Structure, Function and Evolution**

Regular Papers:

B259 "Protein Ensemble Learning with Atrous Spatial Pyramid Networks for Secondary Structure Prediction"

Yuzhi Guo, Jiaxiang Wu, Hehuan Ma, Sheng Wang, and Junzhou Huang

B326 "Decoy Selection in Protein Structure Determination via Symmetric Non-negative Matrix Factorization"

Kazi Lutful Kabir, Gopinath Chennupati, Raviteja Vangara, Hristo Djidjev, Boian Alexandrov, and Amarda Shehu

B357 "Protein Decoy Generation via Adaptive Stochastic Optimization for Protein Structure Determination"

Ahmed Bin Zaman, Toki Tahmid Inan, and Amarda Shehu

B461 "GONET: A Deep Network to Annotate Proteins via Recurrent Convolution Networks"

Junyi Li, Lixin Wang, Xiaoshuai Zhang, Bo Liu, and Yadong Wang

B517 "Evolutionary Multi-objective Optimization Improves Phylogenomic Analyses"

Muhammad Ali Nayeem, Md. Shamsuzzoha Bayzid, Sakshar Chakravarty, Mohammad Saifur Rahman, and M. Sohel Rahman

B553 "Machine Learning Approach to Assign Protein Secondary Structure Elements from Cα Trace"

Mohammad Al Sallal, Wei Chen, and Kamal Al Nasr

B572 "Assessing the Use of Secondary Structure Fingerprints and Deep Learning to Classify RNA Sequences"

Kevin Sutanto and Marcel Turcotte

B575 "Predicting circRNA-disease associations using meta path-based representing learning on heterogenous network"

lei deng, Jing Yang, and Hui Liu

B625 "Predict the Protein-protein Interaction between Virus and Host through Hybrid Deep Neural Network"

lei deng, Jiaojiao Zhao, and Jingpu Zhang

B780 "An two-layer predictive model of ensemble classifier chain for detecting antimicrobial peptides"

Jinhao Zhang, Shuhao Li, Yijie Ding, Jijun Tang, and Fei Guo

Short Papers:

B289 "RPRes: A Novel end-to-end Method to Predict RNA Secondary Structure Profile Based on Bidirectional LSTM and Residual Neural Network"

Linyu Wang, Xiaodan Zhong, Hao Zhang, Shuo Wang, and Yuanning Liu

B380 "A novel spatial feature for predicting lysine malonylation sites using machine learning"

Yuan Liu and Changhui Yan

B419 "WeightAln: Weighted Homologous Alignment for Protein Structure Property Prediction"

Yuzhi Guo, Jiaxiang Wu, Hehuan Ma, Jinyu Yang, Xinliang Zhu, and Junzhou Huang

B516 "Dual Graph regularized PCA based on Different Norm Constraints for Bi-clustering Analysis on Single-cell RNA-seq Data"

Yu Song, Xiang-Zhen Kong, Jin-Xing Liu, Juan Wang, Sha-Sha Yuan, and Ling-Yun Dai

B529 "GenFooT: Genomic Footprint of mitochondrial sequence for Taxonomy classification"

Aritra Mahapatra and Jayanta Mukherjee

B627 "Phylogeny-RF: A new Phylogeny-driven Random Forest Classifier for classifying 16S rRNA Metagenomic Data"

Jyotsna Talreja Wassan, Huiru Jane Zheng, Haiying Wang, and Fiona Browne

B632 "A Stacked Ensemble Learning Framework with Heterogeneous Feature Combinations for Predicting ncRNA-Protein Interaction"

Qiguo Dai, Zhaowei Wang, Jinmiao Song, Xiaodong Duan, Maozu Guo, and Zhen Tian

B695 "Phylogenetic Manifold Regularization: A semi-supervised approach to predict transcription factor binding sites"

Faizy Ahsan, Alexandre Drouin, François Laviolette, Doina Precup, and Mathieu Blanchette

B710 "Efficient Cryo-Electron Tomogram Simulation of Macromolecular Crowding with Application to SARS-CoV-2"

Sinuo Liu, Yan Ma, Xiaojuan Ban, Xiangrui Zeng, Vamsi Nallapareddy, Ajinkya Chaudhari, and Min Xu

B713 "SeqTMPPI: Sequence-Based Transmembrane Protein Interaction Prediction"

Han Wang, Jiuhong Jiang, Qiufen Chen, Chunhua Zhang, Chang Lu, and Zhiqiang Ma

**2. Computational Systems Biology**

Regular Papers:

B264 "Locally Consistent Non-negative Matrix Factorization Model Based on Dark Knowledge for scRNA-seq Data clustering"

Chuan-Yuan Wang, Ying-Lian Gao, Cui-Na Jiao, Jin-Xing Liu, Chun-Hou Zheng, and Xiang-Zhen Kong

B493 "Differential gene expression prediction by deep fusing histone modification information"

Xin Li, Jun Wang, Lizhen Cui, and Maozu Guo

B548 "GRRFNet: Guided Regularized Random Forest-based Gene Regulatory Network Inference Using Data Integration"

Yongqing Zhang, Qingyuan Chen, Dongrui Gao, and Quan Zou

B624 "Multi-Class Metabolic Pathway Prediction by Graph Attention-Based Deep Learning Method"

Zhihui Yang, Juan Liu, Zeyu Wang, Yufan Wang, and Jing Feng

B666 "GPPIAL: A New Global PPI Network Aligner Based on Orthologs"

Yaoran Chen, Yuanyuan Zhu, Ming Zhong, Rong Peng, and Juan Liu

B733 "Identification of Cancer Development Related Pathways Based on Co-Expression Analyses"

Hongyang Jiang, Zhihang Wang, Chaoyi Yin, Peishuo Sun, Ying Xu, and Huiyan Sun

B759 "A robust single cell clustering method based on subspace learning and partial imputation"

Ruiqing Zheng, Zhenlan Liang, Xiangmao Meng, Yu Tian, and Min Li

B765 "Cooperative Driver Pathway Discovery byHierarchical Clustering and Link Prediction"

Sufang Li, Jun Wang, Maozu Guo, and Xiangliang Zhang

Short Papers:

B427 "Multi-Resolutional Collaborative Heterogeneous Graph Convolutional Auto-Encoder for Drug-Target Interaction Prediction"

Xu Jin, MingMing Liu, Lin Wang, WenQian He, YaLou Huang, and MaoQiang Xie

B540 "Deep Learning to Identify Transcription Start Sites from CAGE Data"

Hansi Zheng, Xiaoman Li, and Haiyan Hu

B702 "NECo: A node embedding algorithm for multiplex heterogeneous networks"

Cagatay Dursun, Jennifer R. Smith, G. Thomas Hayman, Anne E. Kwitek, and Serdar Bozdag

B707 "cTAP: A Framework for Predicting Target Genes of a Transcription Factor using a Cohort of Gene Expression Data Sets"

Honglin Wang and Dong-Guk Shin

B708 "BioMETA: A multiple specification parameter estimation system for stochastic biochemical models"

Arfeen Khalid

B731 "Identification of Key Biological Pathway Routes in Cancer Cohorts"

Pujan Joshi, Brent Basso, Honglin Wang, Seung-Hyun Hong, Charles Giardina, and Dong-Guk Shin

**3. Next Generation Sequencing and High-throughput Methods**

Regular Papers:

B269 "MotiMul: A significant discriminative sequence motif discovery algorithm with multiple testing correction"

Koichi Mori, Haruka Ozaki, and Tsukasa Fukunaga

B420 "scSNVIndel: accurate and efficient calling of SNVs and indels from single cell sequencing using integrated Bi-LSTM"

Lei Cai, Yufeng Wu, and Jingyang Gao

B611 "Epistasis Detection using Heterogeneous Bio-molecular Network"

Huiling Zhang, Jun Wang, Guoxian Yu, Lizhen Cui, and Maozu Guo

B639 "DeepARC: An Attention-based Hybrid Model for Predicting Transcription Factor Binding Sites from Positional Embedded DNA Sequence"

Jialong Chen and lei deng

B751 "Incomplete Multi-view Bi-clustering for Tumor Heterogeneity Analysis"

Yu Xu, Guoxian Yu, Lizhen Cui, Zhongming Yan, and Xiangliang Zhang

Short Papers:

B244 "Identification of Disease-Associated Genes Based on Differential Intron Retention"

Zhenpeng Wu, Jiantao Zheng, and Hong-Dong Li

B309 "VCFC: Structural and Semantic Compression and Indexing of Genetic Variant Data"

Kyle Ferriter, Frank Mueller, Amir Bahmani, and Cuiping Pan

B390 "AFS-DEA: An automatic feature selection platform for differential expression analysis"

Xudong Zhao, Weiqi Su, Hangyu Li, Tong Liu, Denan Kong, and Guohua Wang

B455 "Kmer2SNP: reference-free SNP calling from raw reads based on matching"

Yanbo Li, Hardip Patel, and Yu Lin

B475 "Variant Calling Parallelization on Processor-in-Memory Architecture"

Dominique Lavenier, Remy Cimadomo, and Romaric Jodin

B581 "Identifying prognostic subgroups of luminal-A breast cancer using a deep autoencoder"

Seunghyun Wang and Doheon Lee

B631 "Integration for single-cell RNA sequencing data based on the shared cell type assignment"

Yin Zhang

B671 "Using a Novel Unbiased Dataset and Deep Learning Architectures to Predict Protein-Protein Interactions"

Luís Silva, carlos Pereira, and Joel Arrais

B696 "A data denoising approach to optimize functional clustering of single cell RNA-sequencing data"

Changlin Wan, Dongya Jia, Yue Zhao, Wennan Chang, Sha Cao, Xiao Wang, and Chi Zhang

**4. Cheminformatics and pharmacogenomics**

Short Papers:

B223 "α-MOP: Molecule Optimization with α-divergence"

Tianfan Fu, Cao Xiao, Lucas Glass, and Jimeng Sun

**5. Cross-Cutting Computational Methods and Bioinformatics of Disease**

Regular Papers:

B255 "Mechanisms Underlying Sulfur Dioxide Pollution Induced Ventricular Arrhythmia: A Simulation Study"

Shugang Zhang, Weigang Lu, Zhen Li, Shuang Wang, Mingjian Jiang, Qing Yuan, Zhiqiang Wei, and Henggui Zhang

B293 "Multi-task Based Few-Shot Learning for Disease Similarity Measurement"

Jianliang Gao, Ling Tian, Yuxin Liu, Jianxin Wang, Zhao Li, and Xiaohua Hu

B331 "Drug Repositioning for SARS-CoV-2 Based on Graph Neural Network"

Haifeng Liu, Hongfei Lin, Chen Shen, Liang Yang, Yuan Lin, Bo Xu, Zhihao Yang, Jian Wang, and Yuanyuan Sun

B333 "Gated iterative capsule network for adverse drug reaction detection from social media"

Tongxuan Zhang, Hongfei Lin, Bo Xu, Yuqi Ren, Zhihao Yang, Jian Wang, and Xiaodong Duan

B391 "Symptom and Pathology Report Generation for Ophthalmic Diseases in Fundus Images"

Yang Wen, Leiting Chen, Lifeng Qiao, Deng Yu, Siying Dai, Junjing Chen, and Chuan Zhou

B394 "Use of “Internal Knowledge”: Biomedical Literature Search Liberated From External Resources"

Tianwen Jiang, Ning Zhang, Ming Liu, Meng Jiang, Ting Liu, and Bing Qin

B433 "A topological AUC-based biomarker ensemble method for the complex disease analysis"

Xingyi Li, Ju Xiang, Fang-Xiang Wu, and Min Li

B440 "Hierarchical Distillation Network for Biomedical Event Extraction"

Lishuang Li, Mengzuo Huang, and Beibei Zhang

B462 "Bayesian Multi-scale Convolutional Neural Network for Motif Occupancy Identification"

Wei Li, Qingqing Zhao, Han Zhang, Xiongwen Quan, Jing Xu, and Yanbin Yin

B463 "Toward high accuracy and visualization: A interpretable feature extraction method based on generic programming and non-overlap degree"

Zhuang Li, Jie He, Xiaotong Zhang, Huadong Fu, and Jingyan Qin

B473 "Predicting CRISPR-Cas9 Off-target with Self-supervised Neural Networks"

Dong Chen, Wenjie Shu, and Shaoliang Peng

B488 "An End-to-end Oxford Nanopore Basecaller Using Convolution-augmented Transformer"

Xuan Lv, Zhiguang Chen, yutong lu, and yuedong yang

B492 "Tensor Robust Principal Component Analysis with Low-Rank Weight Constraints for Sample Clustering"

YuYing Zhao, MaoLi Wang, Juan Wang, ShaSha Yuan, and Jinxing Liu

B532 "A multi-view approach for predicting microbe-disease associations by fusing the linear and nonlinear features"

Ming Liu, Wei Dai, Wei Peng, Yu Fu, and Yi Pan

B551 "Star-BiLSTM-LAN for Document-level MutationDisease Relation Extraction from Biomedical Literature"

Yuan Xu, Zhihao Yang, Yawen Song, Zhiheng Li, Lei Wang, and Yin Zhang

B556 "A Novel Algorithm for Training Hidden Markov Models with Positive and Negative Examples"

Jiefu Li, Jung-Youn Lee, and Li Liao

B562 "Anomaly Detection on Electroencephalography with Self-supervised Learning"

Junjie Xu, Yaojia Zheng, Yifan Mao, Ruixuan Wang, and Wei-shi Zheng

B582 "An Effective Framework for Document-level Chemical-induced Disease Relation Extraction via Fine-grained Interaction between Contexts"

Jinyong Zhang, Weizhong Zhao, Jincai Yang, Xingpeng Jiang, and Tingting He

B585 "MegaPath-Nano: Accurate Compositional Analysis and Drug-level Antimicrobial Resistance Detection Software for Oxford Nanopore Long-read Metagenomics"

Wui Wang Lui, Amy W. S. Leung, Henry C. M. Leung, Yan Xin, Jade L. L. Teng, Patrick C. Y. Woo, Tak-Wah Lam, and Ruibang Luo

B595 "A Novel Method for Multiple Biomedical Events Extraction with Reinforcement Learning and Knowledge Bases"

Weizhong Zhao, Yao Zhao, Xingpeng Jiang, Tingting He, Fan Liu, and Ning Li

B604 "Graph Convolution Networks Using Message Passing and Multi-Source Similarity Features for Predicting circRNA-Disease Association"

Thosini Bamunu Mudiyanselage, Xiujuan Lei, Nipuna Senanayake, Yanqing Zhang, and Yi Pan

B633 "Exploring Multi-level Mutual Information for Drug-target Interaction Prediction"

Jiatao Chen, Liang Zhang, Ke Cheng, Bo Jin, Xinjiang Lu, and Chao Che

B690 "Analysis of Meta-Learning Approaches for TCGA Pan-cancer Datasets"

Jingyuan Chou, Stefan Bekiranov, Chongzhi Zang, Mengdi Huai, and Aidong Zhang

B722 "DRAMA: Discovering Disease-related circRNA-miRNA-mRNA Axes from Disease-RNA Information Network"

Chengxin He, Lei Duan, Huiru Zheng, Jesse Li-Ling, and Longhai Li

B764 "MISSION: Multimodal-Information-Aided Similar Disease Detection Based on Disease Information Network"

Wuli Xu, Lei Duan, Huiru Zheng, Jesse Li-Ling, Weipeng Jiang, Menglin Huang, and Yidan Zhang

B768 "Knowledge-aware Few-shot Learning Framework for Biomedical Event Trigger Identification"

Shujuan Yin, Weizhong Zhao, Xingpeng Jiang, and Tingting He

B779 "Coronary Heart Disease Prediction Based on Combined Reinforcement Multitask Progressive Networks"

Wenqi Li, DeHua Chen, and Jiajin Le

Short Papers:

B203 "A multi-task learning method for analyzing microbiota as cancer immunotherapy signal"

Changzhi Jiang, Yousi Fu, Shuting Jin, Xiangrong Liu, Baishan Fang, and Xiangxiang Zeng

B250 "CLUE: Personalized Hospital Readmission Prediction Against Data Insufficiency under Imbalanced-Data Environment"

Qianwen Meng, Lizhen Cui, Guoxian Yu, Han Yu, Wei Guo, and Hui Li

B256 "Assessment of machine learning methods for classification in single cell ATAC-seq"

Zhe Cui, Liran Juan, Tao Jiang, Bo Liu, Tianyi Zang, and Yadong Wang

B274 "Vulnerability of Deep Learning Models in Analyzing Next Generation Sequencing Data"

Amiel Meiseles, Ishai Rosenberg, Yair Motro, Lior Rokach, and Jacob Moran-Gilad

B302 "RSGSA: a robust and stable gene selection algorithm"

Subrata Saha, Ahmed Soliman, and Sanguthevar Rajasekaran

B306 "Fine-Grained Named Entity Recognition with Distant Supervision in COVID-19 Literature"

Xuan Wang, Xiangchen Song, Bangzheng Li, Kang Zhou, Qi Li, and Jiawei Han

B313 "Chebyshev Accelerated Spectral Clustering with Automatic Number of Clusters Detection"

Tianyu Yu, Yonghua Zhao, Rongfeng Huang, Shifang Liu, and Xinyin Zhang

B371 "LPA-DL: A recurrent deep learning model for plant lncRNA-protein interaction and function prediction with feature optimization"

Jael Sanyanda Wekesa, Yushi Luan, and Jun Meng

B389 "Development and Validation of Molecular Evolution Based Feature Extraction for the Classification of G-protein-coupled Receptors"

Cheng Ling and Yitian Shen

B403 "OntoSem: an Ontology Semantic Representation Methodology for Biomedical Domain"

Lingling Zhao, Junjie Wang, Liang Cheng, and Chunyu Wang

B409 "Meta Ordinal Regression Forest For Learning with Unsure Lung Nodules"

Yiming Lei, Haiping Zhu, Junping Zhang, and Hongming Shan

B445 "Deep Multi-Instance Learning with Induced Self-Attention for Medical Image Classification"

Zhenliang Li, Liming Yuan, Haixia Xu, Rui Cheng, and Xianbin Wen

B472 "Predicting therapeutic outcomes in Rheumatoid Arthritis using real-world pharmacogenetic and clinical data"

Fabián Hernández and Luis Fernando Niño

B487 "Inferring Drug-Target Interactions Using Graph Isomorphic Network and Word Vector Matrix"

Minqi Xu, Xiaolong Zhang, and Xiaoli Lin

B512 "Accurately Clustering Single-cell RNA-seq data by Capturing Structural Relations between Cells through Graph Convolutional Network"

yuansong zeng, xiang zhou, jiahua rao, yutong lu, and yuedong yang

B525 "MetaG : a comprehensive visualization tool to explore metagenomes"

Uditha Maduranga, Kalana Wijegunarathna, Sadeep Weerasinghe, Indika Perera, and Anuradha Wickramarachchi

B549 "Generating Novel Compounds Targeting SARS-CoV-2 Main Protease Based On Imbalanced Dataset"

Fan Hu, Dongqi Wang, Yishen Hu, Jiaxin Jiang, and Peng Yin

B599 "Two-perspective Biomedical Named Entity Recognition with Weakly Labeled Data Correction"

Huiwei Zhou, Zhe Liu, Chengkun Lang, Yibin Xu, and Lei Du

B614 "Predicting Drugs for COVID-19/SARS-CoV-2 via Heterogeneous Graph Attention Networks"

Yahui Long, Yu Zhang, Min Wu, Shaoliang Peng, Chee Keong Kwoh, Jiawei Luo, and Xiaoli Li

B615 "Drug-target Interaction Prediction Via Multiple Output Deep Learning"

Qing Ye, Xiaolong Zhang, and Xiaoli Lin

B628 "A Text Mining Approach to Discovering COVID-19 Relevant Factors"

Javier Sastre, Ali Vahid, Caitlin McDonagh, and Paul Walsh

B659 "Biomedical named entity recognition using BERT in the machine reading comprehension framework"

Cong Sun, Zhihao Yang, Lei Wang, Yin Zhang, Hongfei Lin, and Jian Wang

B672 "MP3vec: A Reusable Machine-Constructed Feature Representation for Protein Sequences"

Sanket Rajan Gupte, Dharm Skandh Jain, Ashwin Srinivasan, and Raviprasad Aduri

B683 "A Hybrid neural Collaborative Filtering Model for Drug Repositioning"

Qianshi Yuan and Xiaomei Wei

B686 "Predicting Early Indicators of Cognitive Decline from Verbal Utterances"

Swati Padhee, Anurag Illendula, Megan Sadler, Valerie L. Shalin, Tanvi Banerjee, Krishnaprasad Thirunarayan, and William L. Romine

B725 "Extracting Protein-Protein Interactions Affected by Mutations via Auxiliary Task and Domain Pre-trained Model"

Yu Wang, Shaowu Zhang, Yijia Zhang, Jian Wang, and Hongfei Lin

B735 "A Predictive Model for Parkinson's Disease Reveals Candidate Gene Sets for Progression Subtype"

Saya Dennis, Tanya Simuni, and Yuan Luo

**6. Biomedical and Health Informatics**

Regular Papers:

B210 "On the Effective Transfer Learning Strategy for Medical Image Analysis in Deep Learning"

Yang Wen, Leiting Chen, Chuan Zhou, Deng Yu, Huiru Zeng, Shuo Xi, and Rui Guo

B211 "An Efficient Weakly-Supervised Learning Method for Optic Disc Segmentation"

Yang Wen, Leiting Chen, Lifeng Qiao, Chuan Zhou, Shuo Xi, Rui Guo, and Deng Yu

B231 "Multiview 3-D Echocardiography Image Fusion with Mutual Information Neural Estimation"

Juiwen Ting, Kumaradevan Punithakumar, and Nilanjan Ray

B237 "Mining High-order Multimodal Brain Image Associations via Sparse Tensor Canonical Correlation Analysis"

Lei Du, Jin Zhang, Kefei Liu, Fang Liu, Minjianan Zhang, Huiai Wang, Lei Guo, and Junwei Han

B271 "Predicting Prescriptions via DSCA-Dual Sequences with Cross Attention Network"

Wu Lee, Yuliang Shi, Lin Cheng, Yongqing Zheng, and Zhongmin Yan

B283 "Revealing Common and Rare Patterns for Peritoneal Dialysis Eligibility Decisions with Association Discovery and Disentanglement"

Peiyuan Zhou, Andrew K.C. Wong, George Michalopoulos, Helen H. Chen, Robert R. Quinn, Matthew J. Oliver, Yang Yang, and Zahid Butt

B287 "Flow-Mixup: Classifying Multi-labeled Medical Images with Corrupted Labels"

Jintai Chen, Hongyun Yu, Ruiwei Feng, Danny Chen, and Jian Wu

B295 "Constrained Multi-scale Dense Connections for Accurate Biomedical Image Segmentation"

Jiawei Zhang, Yanchun Zhang, Shanfeng Zhu, and Xiaowei Xu

B298 "Medical Big Data Mining: Joint Symptom Name Recognition and Severity Estimation"

Yang Deng, Dagang Li, Qiang Zhang, and Ying Shen

B305 "PERFECTO: Prediction of Extended Response and Growth Functions for Estimating Chemotherapy Outcomes in Breast Cancer"

Daria Kurz and Cristian Axenie

B311 "Sparse Longitudinal Representations of Electronic Health Record Data for the Early Detection of Chronic Kidney Disease in Diabetic Patients"

Jinghe Zhang, Kamran Kowsari, Mehdi Boukhechba, James Harrison, Jennifer Lobo, and Laura Barnes

B314 "Data-Efficient Histopathology Image Analysis with Deformation Representation Learning"

Jilan Xu, Junlin Hou, Yuejie Zhang, Rui Feng, Chunyang Ruan, Tao Zhang, and Weiguo Fan

B316 "EffiDiag: an Efficient Framework for Breast Cancer Diagnosis in Multi-Gigapixel Whole Slide Images"

Shuyan Liu, Junda Ren, Zhineng Chen, Kai Hu, Fen Xiao, Xuanya Li, and Xieping Gao

B332 "Towards Bootstrapping Biomedical Named Entity Recognition using Reinforcement Learning"

Dongsheng Wang, Hongjie Fan, and Junfei Liu

B334 "Cost-Quality Adaptive Active Learning for Chinese Clinical Named Entity Recognition"

Tingting Cai, Yangming Zhou, and Hong Zheng

B342 "A Network of Simultaneous Segmentation and Registration for Right Ventricle MRI"

Adan Lin and Xuan Yang

B344 "Coarse-to-fine Nasopharyngeal Carcinoma Segmentation in MRI via Multi-stage Rendering"

Yang Li, Hong Peng, Tingting Dan, Yu Hu, Guihua Tao, and Hongmin Cai

B349 "Automatic Psoriasis Lesion Segmentation from Raw Color Images using Deep Learning"

RITESH RAJ, Narendra Londhe, and Rajendra Sonawane

B354 "Texture and signal features from hippocampal T2 maps as biomarkers for MCI to AD progression"

Alejandro Trejo-Castro, Ricardo Caballero-Luna, José Garnica-López, Fernando Vega-Lara, Jose Celaya-Padilla, Jose Tamez-Pena, and Antonio Martinez-Torteya

B355 "Global Interpretation for Patient Similarity Learning"

Mengdi Huai, Chenglin Miao, Jinduo Liu, Di Wang, Jingyuan Chou, and Aidong Zhang

B365 "DCE-MRI based Breast Intratumor Heterogeneity Analysis via Dual Attention Deep Clustering Network and its Application in Molecular Typing"

Tianxu Lv, Xiang Pan, and Lihua Li

B366 "Spatial--temporal Joint Optimization Network on Covariance Manifolds of Electroencephalography for Fatigue Detection"

Xiaowei Zhang, Dawei Lu, Jian Shen, Jin Gao, Xiao Huang, and Manxi Wu

B377 "A Sequential Graph Convolutional Network with Frequency-domain Graph Representation of EEG Signals for Epilepsy Detection"

Jialin Wang, Shen Liang, DaKe He, Ye Wang, Yingpei Wu, and Yanchun Zhang

B378 "Chemical-protein Interaction Extraction via ChemicalBERT and Attention Guided Graph Convolutional Networks in Parallel"

Lei Qin, Gaocai Dong, and Jing Peng

B404 "Channel Selection based Similarity Measurement for Motor Imagery Classification"

Shiyi Chen, Yaoru Sun, Haoran Wang, and Zilong Pang

B423 "A Domain Adaption Multi-instance Learning for Diabetic Retinopathy Grading on Retinal Images"

Ruoxian Song and Peng Cao

B454 "Extracting biomedical relations via a multi-head attention based graph convolutional network"

Erniu Wang, Fan Wang, Zhihao Yang, Lei Wang, Yin Zhang, Hongfei Lin, and Jian Wang

B458 "DeepComp: Which Competing Event Will Hit the Patient First?"

Yingxue Li, Wenxiao Jia, Yashu Kang, Tiange Chen, Xiang Li, Xin Du, Jianzeng Dong, Changsheng Ma, Fei Wang, and Guotong Xie

B460 "Nuclei Segmentation in Histopathology Images Using Rotation Equivariant and Multi-level Feature Aggregation Neural Network"

Yiqi Chen, Xuanya Li, Kai Hu, Zhineng Chen, and Xieping Gao

B466 "Respiratory Sound Classification Based on BiGRU-Attention Network with XGBoost"

Xuesong Zhao, Yanbo Shao, Juanyun Mai, Airu Yin, and Sihan Xu

B469 "Machine Learning to Predict ICU Admission, ICU Mortality and Survivors’ Length of Stay among COVID-19 Patients: Toward Optimal Allocation of ICU Resources"

Tingting Dan, Yang Li, Ziwei Zhu, Xijie Chen, Wuxiu Quan, Yu Hu, Guihua Tao, Lei Zhu, Jijin Zhu, Yuyan Jin, Longgeng Li, Chaokai Liang, Hanchun Wen, and Hongmin Cai

B470 "Local Adaptive U-net for Medical Image Segmentation"

Ning Liu, Liangliang Liu, and Jianxin Wang

B477 "Identifying abstinent heroin addicts on the basis of single channel’s ERP and behavioral data in the gambling task"

Xiaozhe Liang, Yanrong Hao, Zhihao Xu, Na Li, and Qinglin Zhao

B478 "Attention U-net for Interpretable Classification on Chest X-ray Image"

Xuan Zhang and Ting Chen

B480 "Designing and Application of Wearable Fatigue Detection System Based on Multimodal Physiological Signals"

Xiaoxuan Qiu, Fuze Tian, Qiuxia Shi, Qinglin Zhao, and Bin Hu

B496 "A novel approach based on deep residual learning to predict drug’s anatomical therapeutic chemical code"

Haochen Zhao, Peng Ni, Cheng yan, Yaohang Li, and Jianxin Wang

B497 "A Diversified Supervised based U-shape Colorectal Lesion Segmentor with Meaningful Feature Supplement and Multi-Level Residual Attention Mechanism"

Jinjie Wang, Xiongwen Luo, Linsen Xie, and Ying Gao

B499 "Wheat Phenotype Extraction via Adaptive Supervoxel Segmentation"

Bo Wang, Chengde Lin, and Shengwu Xiong

B500 "Lymph Node Metastasis Classiﬁcation Based on Semi-Supervised Multi-View Network"

Yiwen Luo, Jingmin Xin, Sijie Liu, Junqin Feng, Litao Ruan, Wei Cui, and Nanning Zheng

B502 "MSDAN: Multi-Scale Self-Attention Unsupervised Domain Adaptation Network for Thyroid Ultrasound Images"

Xiang Ying, Yulin Zhang, Xi Wei, Mei Yu, Jialin Zhu, Jie Gao, Zhiqiang Liu, Xuewei Li, and Ruiguo Yu

B506 "Cross-Modal Self-Attention Distillation for Prostate Cancer Segmentation"

Guokai Zhang, Xiaoang Shen, Ye Luo, Jihao Luo, Zeju Wang, Weigang Wang, Binghui Zhao, and Jianwei Lu

B513 "Unlabeled Data Guided Semi-supervised Histopathology Image Segmentation"

Hongxiao Wang, Hao Zheng, Jianxu Chen, Lin Yang, Yizhe Zhang, and Danny Chen

B524 "Few-shot Radiology Report Generation for Rare Diseases"

Xing Jia, Yun Xiong, Jiawei Zhang, Yao Zhang, and Yangyong Zhu

B555 "Modeling Multivariate Time Series via Prototype Learning: a Multi-Level Attention-based Perspective"

Dengjuan Ma, Zhu Wang, Jia Xie, Zhiwen Yu, Bin Guo, and Xingshe Zhou

B563 "Multi-scale strategy based 3d dual-encoder brain tumor segmentation network with attention mechanism"

Yazhou Zhu, Xiang Pan, Jing Zhu, and Lihua Li

B573 "Enhancing Tiny Tissues Segmentation via Self-Distillation"

Chuan Zhou, Yuchu Chen, Minghao Fan, Yang Wen, Hang Chen, and Leiting Chen

B593 "Joint Learning of Primary and Secondary Labels based on Multi-scale Representation for Alzheimer's Disease Diagnosis"

Hong-Dong Li, Rui Guo, Junjian Li, Jianxin Wang, Yi Pan, and Jin Liu

B602 "NANet: Nuclei-Aware Network for Grading of Breast Cancer in HE Stained Pathological Images"

Rui Yan, Jintao Li, Xiaosong Rao, Zhilong Lv, Chunhou Zheng, Jinjin Dou, Xiaowen Wang, Fei Ren, and Fa Zhang

B605 "Tensor-based Low-rank and Graph regularized Representation Learning for Multi-view Clustering"

Haiyan Wang, Guoqiang Han, Bin Zhang, Yu Hu, Hong Peng, and Hongmin Cai

B622 "A Semi-supervised Approach for Early Identifying the Abnormal Carotid Arteries Using a Modified Variational Autoencoder"

Xiaoxiang Huang, Guosheng Cui, Dan Wu, and Ye Li

B635 "Multi-scale Generative Adversarial Network for Automatic Sublingual Vein Segmentation"

Qingyue Xiong, Xinlei Li, Dawei Yang, Wei Zhang, Ye Zhang, Yajie Kong, and Wenqiang Zhang

B636 "A Formative Usability Study to Improve Prescriptive Systems for Bioinformatics Big Data"

Kanupriya Singh, Shangman Li, Isa Jahnke, Ashish Pandey, Zhen Lyu, Trupti Joshi, and Prasad Calyam

B645 "Attention-Based Transformers for Instance Segmentation of Cells in Microstructures"

Tim Prangemeier, Christoph Reich, and Heinz Koeppl

B667 "Automatic Tongue Crack Extraction For Real-Time Diagnosis"

Jianqiang Peng, Xinlei Li, Dawei Yang, Wei Zhang, Ye Zhang, Yajie Kong, and Wenqiang Zhang

B682 "Imputing Growth Snapshot Similarity in Early Childhood Development: A Tensor Decomposition Approach"

Jennifer Schnur, Ryan Karl, Angelica Garcia-Martinez, Meng Jiang, and Nitesh Chawla

B688 "IB-M: A Flexible Framework to Align an Interpretable Model and a Black-box Model"

Mengze Li, Kun Kuang, Qiang Zhu, Xiaohong Chen, Qing Guo, and Fei Wu

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