IWQoS 2024 Conference Schedule

DAY 1   19 June 2024, Wednesday

09:00-09:10   **Openning Remark**
Venue: Lecture Hall C, HKUST(GZ)

Prof. Bo Li
The Hong Kong University of Science and Technology, Hong Kong, China

09:10-10:10   **Keynote**
Venue: Lecture Hall C, HKUST(GZ)

Prof. Qian Zhang
The Hong Kong University of Science and Technology, Hong Kong, China

10:10-10:30   **Coffee Break | Poster Session I**
Venue: Walkway outside Lecture Hall C, HKUST(GZ)

10:30-11:20   **Session 1 - IoT and Edge Intelligence**
Venue: Lecture Hall C, HKUST(GZ)

Chair: **Prof. Jiahui Hou**
University of Science and Technology of China, China

1570997908 | FedCarbon: Carbon-Efficient Federated Learning with Double Flexible Controls for Green Edge AI
Yousheng Li, Tao Ouyang, Xu Chen and Xinyuan Cao (Sun Yat-sen University, China)

1570996557 | FedMG: A Federated Multi-Global Optimization Framework for Autonomous Driving Control
Jialiang Ma, Chunlin Tian, Li Li and Cheng-Zhong Xu (University of Macau, Macau, China)

1570991957 | CPM: A Cross-layer Power Management Facility to Enable Highly-efficient Real-time AIoT Systems
Xiaofeng Hou (Shanghai Jiao Tong University & Hong Kong University of Science and Technology, China); Peng Tang, Tongqiao Xu, Cheng Xu, Chao Li and Minyi Guo (Shanghai Jiao Tong University, China)

1570998724 | Identifying Key Tag Distribution in Large-Scale RFID Systems
Yanyan Wang (Hohai University, China); Jia Liu (Nanjing University, China); Shen-Huan Lyu, Zhihao Qu and Bin Tang (Hohai University, China); Baoliu Ye (Nanjing University, China)

1570997890 | Hebo: FPGA-based Transfer Time Planning for Volatile Traffic in TSN
Xuyan Jiang (National University of Defense Technology, China); Zitong Wang (Tongji University, China); Xiangrui Yang, Yihao Jiao, Tianci Yu, Xinyue Wang, Wenwen Fu, Yinhan Sun and Zhi-gang Sun (National University of Defense Technology, China)

11:20-11:30   **Short Break**

IWQoS 2024 Conference Schedule

DAY 1 — 19 June 2024, Wednesday

11:30-12:00

Session 2 - Short Paper I-A
Venue: Lecture Hall C, HKUST(GZ)

Chair: **Prof. Ruiting Zhou**
Southeast University, China

1570998129 | Nexus: Efficient and Conflict-Equivalent DAG-Based Permissioned Blockchain Sharding
Yuchao Zhang, Xiaotian Wang and Xiaofeng He (Beijing University of Posts and Telecommunications, China)

1570995753 | Hierarchical Sketch: An Efficient, Scalable and Latency-aware Content Caching Design for Content Delivery Networks
Huifeng Xing, Yuyan Ding, Huiru Huang, Zixuan Chen and Sen Liu (Fudan University, China); Zehua Guo (Beijing Institute of Technology, China); Muath Al-Hasan (Al Ain University, United Arab Emirates); Mohamed Adel Serhani (University of Sharjah, United Arab Emirates); Yang Xu (Fudan University, China)

1570998752 | DSO: A GPU Energy Efficiency Optimizer by Fusing Dynamic and Static Information
Qiang Wang and Laiyi Li (Harbin Institute of Technology, Shenzhen, China); Weile Luo (The Hong Kong University of Science and Technology (Guangzhou), China); Yijia Zhang and BingQiang Wang (Peng Cheng Laboratory, China)

Session 2 - Short Paper I-B
Venue: E1-1F-101, HKUST(GZ)

Chair: **Prof. Rongfei Zeng**
Northeastern University, China

1570997940 | BBQ: Dynamic-Buffer-Driven Automatic ECN Tuning in Datacenter
Yucheng Zhang, Yu Fan, Yao Xiao, Haoyang Chen, Pengjin Xie, Liang Liu and Huadong Ma (Beijing University of Posts and Telecommunications, China)

1570998133 | Scheduling Generative-AI Job DAGs with Model Serving in Data Centers
Ying Zheng (Fudan University, China); Lei Jiao (University of Oregon, USA); Yuedong Xu (Fudan University, China); Bo An (School of Computer Engineering, Nanyang Technological University, Singapore); Xin Wang (Fudan University, China); Zongpeng Li (Tsinghua University, China)

1570997314 | Toward Determined Service for Distributed Machine Learning
Haowen Zhu (Beijing Institute of Technology, China); Minghao Ye (New York University, USA); Zehua Guo (Beijing Institute of Technology, China)

1570997915 | SGC: Similarity-Guided Gradient Compression for Distributed Deep Learning
Jingling Liu, Jiawei Huang, Yijun Li and Zhaoyi Li (Central South University, China); Wenjun Lyu (Rutgers University, USA); Wenchao Jiang (Singapore University of Technology and Design, Singapore); Jianxin Wang (Central South University, China)

IWQoS 2024 Conference Schedule

11:30-12:00

Session 2 - Short Paper I-A Venue: Lecture Hall C, HKUST(GZ)	**Session 2 - Short Paper I-B** Venue: E1-1F-101, HKUST(GZ)
Chair: **Prof. Ruiting Zhou** Southeast University, China	Chair: **Prof. Rongfei Zeng** Northeastern University, China

Session 2 - Short Paper I-A
Venue: Lecture Hall C, HKUST(GZ)

Chair: **Prof. Ruiting Zhou**
Southeast University, China

1570997831 | Can You Do Both? Balancing Order Serving and Crowdsensing for Ride-Hailing Vehicles
Bo Rao, Xiaoxi Zhang, Tianxiang Zhu, Yufei You and Yihong Li (Sun Yat-sen University, China); Jingpu Duan (Peng Cheng Laboratory, China); Zhi Zhou and Xu Chen (Sun Yat-sen University, China)

1570997277 | Incentive Temperature Control for Green Colocation Data Centers via Reinforcement Learning
Rongrong Wang and Duc Van Le (Nanyang Technological University, Singapore); Jikun Kang (McGill, Canada & Samsung AI Center Montreal, Canada); Rui Tan (Nanyang Technological University, Singapore); Xue Liu (McGill University, Canada)

Session 2 - Short Paper I-B
Venue: E1-1F-101, HKUST(GZ)

Chair: **Prof. Rongfei Zeng**
Northeastern University, China

1570991732 | Toward Collaborative Low-Latency Interdomain Traffic Engineering via Edge Peering
Yuxin Wang, Haoyu Liu, Haohao Song and Siyong Huang (Xiamen University, China); Shaoxiang Qin (McGill University, Canada); Yutong Liu (Shanghai Jiao Tong University, China); Qiao Xiang (Xiamen University, China); Linghe Kong (Shanghai Jiao Tong University, China); Geng Li (Huawei Techonology, China); Jiwu Shu (Xiamen University, China); Xue Liu (McGill University, Canada)

12:00-13:30   **Lunch | Poster Session I**
Venue: C6-3F | Walkway outside Lecture Hall C, HKUST(GZ)

IWQoS 2024 Conference Schedule

DAY 1	19 June 2024, Wednesday

13:30-14:20 **Session 3 - Network Measurement and Analysis**
Venue: Lecture Hall C, HKUST(GZ)

Chair: **Prof. Jinbin Hu**
Changsha University of Science & Technology, Hong Kong University of Science & Technology, China

1570996257 | ExpMD: an Explainable Framework for Traffic Identification Based on Multi-Domain Features
Luming Yang, Yongjun Wang, Lin Liu, Junjie Huang and Shaojing Fu (National University of Defense Technology, China)

1570991277 | Enabling Network Diagnostics in Time-Sensitive Networking: Protocol, Algorithm, and Hardware
Zeyu Wang, Xiaowu He, Xiangwen Zhuge, Shen Xu, Fan Dang, Jingao Xu and Zheng Yang (Tsinghua University, China)

1570996971 | Advancing Sketch-based Network Measurement: A General, Fine-Grained, Bit-Adaptive Sliding Window Framework
Kejun Guo and Fuliang Li (Northeastern University, China); Jiaxing Shen (Lingnan University, Hong Kong, China); Xingwei Wang (Northeastern University, China)

1570998044 | A Horizontal Study on the Mixed IPID Assignment Vulnerability in the Linux Ecosystem
Ao Wang (Southeast University, China); Xuewei Feng, Qi Li, Yuxiang Yang and Ke Xu (Tsinghua University, China)

1570997336 | Analysis and Improvement of PowerTCP
Wanchun Jiang, Yujie Hu, Haoyang Li, Kai Wang, Jiawei Huang and Jianxin Wang (Central South University, China)

14:20-14:30 **Short Break**

IWQoS 2024 Conference Schedule

DAY 1   19 June 2024, Wednesday

14:30-15:30

Session 4 - Data Center Network
Venue: Lecture Hall C, HKUST(GZ)

Chair: **Prof. Xiangrui Yang**
National University of Defense Technology, China

1570990827 | Leaf: Improving QoS for Reconfigurable Datacenters with Multiple Optical Circuit Switches
Jingzhou Wang, Gongming Zhao and Hongli Xu (University of Science and Technology of China, China); Haibo Wang (University of Kentucky, USA)

1570992680 | Rethinking and Optimizing Workload Redistribution in Large-scale Internet Data Centers
Yi Zhao (Beijing Institute of Technology, China); Liang Lv (Tsinghua University, China); Yusen Li (Nankai University, China); Meng Shen and Liehuang Zhu (Beijing Institute of Technology, China); Ke Xu (Tsinghua University, China)

1570995707 | LSCC: Link-Segmented Congestion Control for RDMA in Cross-Datacenter Networks
Minfei Long, Jiangping Han, Wentao Wang, Jiayu Yang and Kaiping Xue (University of Science and Technology of China, China)

1570996492 | Iphicles: Tuning Parameters of Data Center Networks with Differentiable Performance Model
Sijiang Huang (Tsinghua University, China); Mowei Wang, Yashe Liu and Zhenhua Liu (Huawei Technologies, China); Yong Cui (Tsinghua University, China)

1570997741 | LHCC: Low-Latency and Hi-Precision Congestion Control in RDMA Datacenter Networks
Bodong Yan, Yangming Zhao, Sun Xu, Jianchun Liu and Hongli Xu (University of Science and Technology of China, China)

1570999683 | FCC: Fast Source Congestion Control for Ultra-Low Latency in Data Center Networks
Haodong Chen, Jiajia Zhou and Xinyang Chen (Fuzhou University, China); Jiayi Cai and Longlong Zhu (Fuzhou University & Quan Cheng Laboratory, China); Hongyan Liu (Zhejiang University, China); Dong Zhang (Fuzhou University & Quan Cheng Laboratory, China); Chunming Wu (College of Computer Science, Zhejiang University, China)

15:30-15:50   **Coffee Break | Poster Session I**
Venue: Walkway outside Lecture Hall C, HKUST(GZ)

IWQoS 2024 Conference Schedule

DAY 1   19 June 2024, Wednesday

15:50–16:50   **Session 5 - Edge Computing**
Venue: Lecture Hall C, HKUST(GZ)

Chair: **Prof. Yifei Zhu**
Shanghai Jiao Tong University, China

1570995627 | Efficient Online DNN Inference with Continuous Learning in Edge Computing
Yifan Zeng (Wuhan University, China); Ruiting Zhou (Southeast University, China); Lei Jiao (University of Oregon, USA); Ziyi Han and Jieling Yu (Wuhan University, China); Yue Ma (Southeast University, China)

1570996206 | WebAssembly or Container? Joint Optimization of Microservice Consolidation and Deployment towards Cost Efficient Edge-End Consortium
Zhexiong Li, Deze Zeng and RanZhao Chen (China University of Geosciences, China)

1570998257 | Incorporating Startup Delay into Collaborative Edge Computing for Superior Task Efficiency
Changfu Xu (BNU-HKBU United International College, China); Jianxiong Guo and Jiandian Zeng (Beijing Normal University, China); Yupeng Li (Hong Kong Baptist University, Hong Kong, China); Tian Wang (Beijing Normal University & UIC, China); Jiannong Cao (Hong Kong Polytechnic University, Hong Kong, China)

1570994861 | Edge-feature Modeling-based Topological Graph Neural Networks for Phishing Scams Detection on Ethereum
Shuhui Fan, Shaojing Fu, Haoran Xu, Ming Xu and Yuchuan Luo (National University of Defense Technology, China)

1570999729 | Semi-Asynchronous Federated Learning with Trajectory Prediction for Vehicular Edge Computing
Yuxuan Deng and Xiuhua Li (Chongqing University, China); Chuan Sun (Nanyang Technological University, Singapore); Qilin Fan (Chongqing University, China); Xiaofei Wang (Tianjin University, China); Victor C.M. Leung (Shenzhen University, China & The University of British Columbia, Canada)

1570997015 | Congestion Control as a Service: Towards Low Latency Mobile Uploading
Heng Xu (Beijing Jiaotong University, China); Letian Li (Chinese University of Hong Kong, Hong Kong, China); Liang Wang and Fei Song (Beijing Jiaotong University, China)

16:50–17:00   **Short Break**

IWQoS 2024 Conference Schedule

17:00-18:00

Session 6 - Cloud Computing I
Venue: Lecture Hall C, HKUST(GZ)

Chair: **Prof. Qiang Wang**
Harbin Institute of Technology, Shenzhen, China

1570997995 | SMART: Dual-channel Southbound Message Delivery in Clouds with Rate Estimation
Luyao Luo, Gongming Zhao and Hongli Xu (University of Science and Technology of China, China); Chun-Jen Chung (Huawei Vancouver Research Center, Canada); Liguang Xie (Virginia Tech, USA)

1570998459 | TaLB: Tensor-aware Load Balancing for Distributed DNN Training Acceleration
Jinbin Hu, Yi He and Wangqing Luo (Changsha University of Science and Technology, China); Jiawei Huang and Jianxin Wang (Central South University, China); Jin Wang (Hunan University of Science and Technology, China)

1570998045 | HarmonyBatch: Batching multi-SLO DNN Inference with Heterogeneous Serverless Functions
Jiabin Chen, Fei Xu and Yikun Gu (East China Normal University, China); Li Chen (University of Louisiana at Lafayette, USA); Fangming Liu (Huazhong University of Science and Technology, China); Zhi Zhou (Sun Yat-sen University, China)

1570997352 | Scheduling Deep Learning Jobs in Multi-Tenant GPU Clusters via Wise Resource Sharing
YiZhou Luo, Qiang Wang, Shaohuai Shi, Jiaxin Lai, Shuhan Qi and Jiajia Zhang (Harbin Institute of Technology, Shenzhen, China); Xuan Wang (Harbin Institute of Technology Shenzhen Graduate School, China)

1570997643 | LoWAR: Enhancing RDMA over Lossy WANs with Transparent Error Correction
Tianyu Zuo (University of Chinese Academy of Sciences & Institute of Computing Technology, Chinese Academy of Sciences, China); Tao Sun (China Mobile Research Institute, China); Shuyong Zhu and Wenxiao Li (Institute of Computing Technology, Chinese Academy of Sciences, China); Lu Lu and Zongpeng Du (China Mobile Research Institute, China); Yujun Zhang (Institute of Computing Technology, Chinese Academy of Sciences, China)

1570996723 | SCALM: Towards Semantic Caching for Automated Chat Services with Large Language Models
Jiaxing Li and Chi Xu (Simon Fraser University, Canada); Feng Wang (University of Mississippi, USA); Isaac M von Riedemann (Simon Fraser University, Canada); Cong Zhang (The University of Hong Kong, Hong Kong, China); Jiangchuan Liu (Simon Fraser University, Canada)

19:00-20:30 **Reception**
Venue: Guangzhou Marriott Hotel Nansha

IWQoS 2024 Conference Schedule

DAY 2   20 June 2024, Thursday

09:00–10:00   **Keynote**
Venue: Lecture Hall C, HKUST(GZ)

Prof. Yunhao Liu
Tsinghua University, China

10:00–10:20   **Coffee Break | Poster Session II**
Venue: Walkway outside Lecture Hall C, HKUST(GZ)

10:20–11:20   **Session 7 - Federated Learning I**
Venue: Lecture Hall C, HKUST(GZ)

Chair: **Prof. Shaohuai Shi**
Harbin Institute of Technology, Shenzhen, China

1570990942 | Towards Communication-Efficient Federated Graph Learning: An Adaptive Client Selection Perspective
Xianjun Gao, Jianchun Liu and Hongli Xu (University of Science and Technology of China, China); Qianpiao Ma (Purple Mountain Laboratories, China); Lun Wang (University of Science and Technology of China, China)

1570996588 | Heterogeneity-Aware Memory Efficient Federated Learning via Progressive Layer Freezing
Yebo Wu, Li Li and Chunlin Tian (University of Macau, Macau, China); Tao Chang (National University of Defense Technology, China); Chi Lin (Dalian University of Technology, China); Cong Wang (Zhejiang University, China); Cheng-Zhong Xu (University of Macau, Macau, China)

1570996590 | Heterogeneity-Aware Coordination for Federated Learning via Stitching Pre-trained blocks
Shichen Zhan, Yebo Wu and Chunlin Tian (University of Macau, Macau, China); Yan Zhao (Bytedance Inc., USA); Li Li (University of Macau, Macau, China)

1570996845 | PAS: Towards Accurate and Efficient Federated Learning with Parameter-Adaptive Synchronization
Zuo Gan, Chen Chen and Jiayi Zhang (Shanghai Jiao Tong University, China); Gaoxiong Zeng (Huawei Technologies, China); Yifei Zhu, Jieru Zhao, Quan Chen and Minyi Guo (Shanghai Jiao Tong University, China)

1570996982 | CP^{2}GFed: Cross-granular and Personalized Prompt-based Green Federated Tuning for Giant Models
Fei Gao, Yunfeng Zhao, Chao Qiu and Xiaofei Wang (Tianjin University, China); Haipeng Yao (Beijing University of Posts and Telecommunications, China); Qinghua Hu (Tianjin University, China)

1570997755 | AdaDP-CFL: Cluster Federated Learning with Adaptive Clip Threshold Differential Privacy
Tao Yang and XueBin Ma (Inner Mongolia University, China)

IWQoS 2024 Conference Schedule

11:20-11:30	**Short Break**

11:30-12:00

Session 8 - Short Paper II-A
Venue: Lecture Hall C, HKUST(GZ)
Chair: **Prof. Chengjian Liu**
Shenzhen Technology University, China

1570992102 | MobiShare: Efficient Decentralized Data Sharing for Mobile Devices
Long Chen (Simon Fraser University, Canada); Feilong Tang and Xu Li (Shanghai Jiao Tong University, China); Jiacheng Liu (The Chinese University of Hong Kong & Shanghai Jiao Tong University, China); Yu Yichuan (Huawei, China); Yanqin Yang (East China Normal University, China); Jie Liu (UCloud Technology Co. Ltd., China); Wenchao Xu (East China Normal University, China); Han Yu (Shanghai Jiao Tong University, China); Hengzhi Wang (Shenzhen University, China)

1570997930 | Efficient Request Scheduling in Cross-Regional Edge Collaboration via Digital Twin Networks
Yuzhu Liang, Guo Li and Jianxiong Guo (Beijing Normal University, China); Qin Liu (Hunan University, China); Xi Zheng (Macquarie University & School of Computing, Australia); Tian Wang (Beijing Normal University & UIC, China)

1570999860 | QUIC meets ICN: A Versatile Wireless Transport Strategy in Multi-access Edge Environments
Yaodong Huang, Changkang Mo, Tianhang Liu, Biying Kong and Lei Zhang (Shenzhen University, China); Yukun Yuan (University of Tennessee at Chattanooga, USA); Laizhong Cui (Shenzhen University, China)

Session 8 - Short Paper II-B
Venue: E1-1F-101, HKUST(GZ)
Chair: **Prof. Chen Chen**
Shanghai Jiao Tong University, China

1570990837 | Blade: Pushing the Performance Envelope of Asynchronous Federated Learning
Chen Ying and Baochun Li (University of Toronto, Canada); Bo Li (Hong Kong University of Science and Technology, Hong Kong, China)

1570996833 | PFed-DBA: Distribution Bias Aware Personalized Federated Learning for Data Heterogeneity
Meihan Wu (National University of Defense Technology, China); Li Li (University of Macau, Macau, China); Tao Chang and Jie Zhou (National University of Defense Technology, China); Eric Rigall (Ocean University of China, China); Cui Miao and Xiaodong Wang (National University of Defense Technology, China); Cheng-Zhong Xu (University of Macau, Macau, China)

1570997769 | Adaptive Personalized Federated Learning for Non-IID Data with Continual Distribution Shift
Sisi Chen (The Chinese University of Hong Kong, Hong Kong, China); Weijie Liu and Xiaoxi Zhang (Sun Yat-sen University, China); Hong Xu (The Chinese University of Hong Kong, Hong Kong, China); Wanyu Lin (The Hong Kong Polytechnic University, Hong Kong, China); Xu Chen (Sun Yat-sen University, China)

IWQoS 2024 Conference Schedule

DAY 2 — 20 June 2024, Thursday

11:30-12:00

Session 8 - Short Paper II-A
Venue: Lecture Hall C, HKUST(GZ)

Chair: **Prof. Chengjian Liu**
Shenzhen Technology University, China

1570998081 | ENSIOT: A Stacking Ensemble Learning Approach for IoT Device Identification
Kangli Niu (Huazhong University of Science and Technology, China); Shenghao Liu (Huazhong University of Science and Technology (HUST), China); Lingzhi Yi (Zhongnan University of Economics and Law, China); Xianjun Deng and Suning Chen (Huazhong University of Science and Technology, China); Laurence T. Yang (St. Francis Xavier University, Canada); Minmin Cheng (Huazhong University of Science and Technology, China)

1570996766 | GazeFed: Privacy-Aware Personalized Gaze Prediction for Virtual Reality
Jiang Wu, Xuezheng Liu and Miao Hu (Sun Yat-Sen University, China); Hongxu Lin (School of Information and Communication Engineering, China); Min Chen (Huazhong University of Science and Technology, China); Yipeng Zhou (Macquarie University, Australia); Di Wu (Sun Yat-Sen University, China)

Session 8 - Short Paper II-B
Venue: E1-1F-101, HKUST(GZ)

Chair: **Prof. Chen Chen**
Shanghai Jiao Tong University, China

1570999709 | Relic: Federated Conditional Textual Inversion with Prototype Alignment
Sijia Chen, Ningxin Su and Baochun Li (University of Toronto, Canada)

1570996466 | SGSM: A Foundation-model-like Semi-generalist Sensing Model
Tianjian Yang, Hao Zhou, Shuo Liu, Kaiwen Guo and Yiwen Hou (University of Science and Technology of China, China); Haohua Du (Beihang University, China); Zhi Liu (The University of Electro-Communications, Japan); Xiang-Yang Li (University of Science and Technology of China, China)

12:00-13:30

Lunch | Poster Session II
Venue: C6-3F | Walkway outside Lecture Hall C, HKUST(GZ)

IWQoS 2024 Conference Schedule

DAY 2   20 June 2024, Thursday

13:30-14:20   **Session 9 - 5G and Wireless Networks**
Venue: Lecture Hall C, HKUST(GZ)

Chair: **Prof. Yaodong Huang**
Shenzhen Univeristy, China

1570997394 | ElaSe: Enabling Real-time Elastic Sensing Resource Scheduling in 5G vRAN
Yulong Chen (Tsinghua University, China); Junchen Guo (Alibaba Group, China); Yimiao Sun and Yuan He (Tsinghua University, China); Haipeng Yao (Beijing University of Posts and Telecommunications, China); Yunhao Liu (Tsinghua University & The Hong Kong University of Science and Technology, China)

1570999854 | Multi-Agent Reinforcement Learning Based Resource Allocation for Efficient Message Dissemination in C-V2X Networks
Bingyi Liu and Jingxiang Hao (Wuhan University of Technology, China); Enshu Wang (Wuhan University, China); Dongyao Jia (Xi'an Jiaotong Liverpool University, China); Weizhen Han (Wuhan University of Technology, China); Libing Wu (Wuhan University, China); Shengwu Xiong (Wuhan University of Technology, China)

1570997882 | Manipulating Semantic Communication by Adding Adversarial Perturbations to Wireless Channel
Jianwei Liu (Zhejiang University, China); Yinghui He (Nanyang Technological University, Singapore); Weiye Xu (Zhejiang University, China); Yifan Xie (The High School Attached to Zhejiang University, China); Jinsong Han (Zhejiang University & School of Cyber Science and Technology, China)

1570997903 | iPatrol: Illegal Roadside Parking Detection Leveraging On-road Vehicle Crowdsensing
Ruixue Huang and Lianghua Cheng (Chongqing University, China); Zhenghan Li (Ritsumeikan University, Japan); Chaocan Xiang (Chongqing University, China); Yulan Guo (National University of Defense Technology & The University of Western Australia, China)

1570995218 | The Sky is Not the Limit: Unveiling Operational 5G Potentials in the Sky
Yanbing Liu, Jingqi Huang and Chunyi Peng (Purdue University, USA)

14:20-14:30   **Short Break**

IWQoS 2024 Conference Schedule

14:30-15:30   **Panel - AI and QoS: Opportunities and Challenges**
Venue: Lecture Hall C, HKUST(GZ)

Chair:
Prof. Edith C.H. Ngai
The University of Hong Kong, Hong Kong, China

Panelists:
Prof. Baochun Li
University of Toronto, Canada

Prof. Mo Li
The Hong Kong University of Science and Technology, Hong Kong, China

Prof. Jiangchun Liu
Simon Fraser University, Canada

Prof. John C.S. Lui
The Chinese University of Hong Kong, Hong Kong, China

Prof. Dapeng Wu
City University of Hong Kong, Hong Kong, China

15:30-15:50   **Coffee Break | Poster Session II**
Venue: Walkway outside Lecture Hall C, HKUST(GZ)

15:50-16:50   **Session 10 - Federated Learning II**
Venue: Lecture Hall C, HKUST(GZ)

Chair: **Prof. Yi Zhao**
School of Cyberspace Science and Technology, Beijing Institute of
Technology, China

1570997781 | Efficient Multi-Task Asynchronous Federated Learning in Edge
Computing
Xinyuan Cao, Tao Ouyang, Kongyange Zhao, Yousheng Li and Xu Chen (Sun Yat-sen University, China)

1570998028 | Leave No One Behind: Unleashing Stragglers' Potential for
Accurate and Realtime Asynchronous Federated Learning
Chuyi Chen, Zhe Zhang and Yanchao Zhao (Nanjing University of Aeronautics and Astronautics, China)

1570998223 | FedTrojan: Corrupting Federated Learning via Zero-Knowledge
Federated Trojan Attacks
Shan Chang, Ye Liu and Zhijian Lin (Donghua University, China); Hongzi Zhu (Shanghai Jiao Tong University, China); Bingzhu Zhu (Donghua University, China); Cong Wang (City University of Hong Kong, Hong Kong, China)

IWQoS 2024 Conference Schedule

DAY 2   20 June 2024, Thursday

15:50-16:50

Session 10 - Federated Learning II
Venue: Lecture Hall C, HKUST(GZ)

Chair: **Prof. Yi Zhao**
School of Cyberspace Science and Technology, Beijing Institute of Technology, China

1570998224 | Fed-CAD: Federated Learning with Correlation-aware Adaptive Local Differential Privacy
Bingzhu Zhu, Shan Chang and Guanghao Liang (Donghua University, China); Hongzi Zhu (Shanghai Jiao Tong University, China); Jie Xu (Donghua University, China)

1570991208 | Orchestrating Sustainable and Service-Differentiable Satellite Networking: A Federated Cross-Orbit Approach
Yi Ching Chou and Long Chen (Simon Fraser University, Canada); Feng Wang (University of Mississippi, USA); Hengzhi Wang (Shenzhen University, China); Xiaoqiang Ma (Douglas College, Canada); Sami Ma and Jiangchuan Liu (Simon Fraser University, Canada)

1570996839 | FedEKT: Ensemble Knowledge Transfer for Model-Heterogeneous Federated Learning
Meihan Wu (National University of Defense Technology, China); Li Li (University of Macau, Macau, China); Tao Chang, Peng Qiao, Cui Miao, Jie Zhou and Jingnan Wang (National University of Defense Technology, China); Xiaodong Wang (National University of Defense Technology, China)

16:50-17:00   **Short Break**

IWQoS 2024 Conference Schedule

DAY 2   20 June 2024, Thursday

17:00–18:00

Session 11 - QoS I
Venue: Lecture Hall C, HKUST(GZ)

Chair: **Prof. Guoming Tang**
National Univeristy of Defense Technology, China

1570992755 | SyncIntellects: Orchestrating LLM Inference with Progressive Prediction and QoS-Friendly Control
Xue Lin, Zhibo Zhang, HaoRan Li and Jin Zhang (Nankai University, China); Peining Yue (State Grid Tianjin Electronic Power Company, China); Baoyu Fan (Nankai University, China); Huayou Su (National University of Defense Technology, China); Xiaoli Gong (Nankai University, China)

1570998011 | Lins: Reducing Communication Overhead of ZeRO for Efficient LLM Training
Qiaoling Chen (Nanyang Technology University & Shanghai AI Lab, Singapore); Qinghao Hu (Nanyang Technological University, Singapore); Guoteng Wang and Yingtong Xiong (Shanghai AI Lab, China); Ting Huang and Xun Chen (SenseTime, China); Yang Gao (Shanghai Artificial Intelligence Laboratory, China); Hang Yan (Shanghai AI Laboratory, Hong Kong); Yonggang Wen and Tianwei Zhang (Nanyang Technological University, Singapore); Peng Sun (Sensetime Group & Shanghai AI Laboratory, China)

1570999530 | Efficient and Reliable Partitioning for Permissioned Blockchain: Two Multi-group Collaborative Storage Mechanisms
Lin Qiu, Kaimin Zhang, Bo Yi and Xingwei Wang (Northeastern University, China); Yanpeng Qu (Dalian Maritime University, China); Min Huang (Northeastern University, China)

1570995464 | Optimizing Inference Quality with SmartNIC for Recommendation System
Ruixin Shi, Ming Yan and Jie Wu (Fudan University, China)

1570992557 | Quantifying the Merits of Network-Assist Online Learning in Optimizing Network Protocols
Xiangxiang Dai and Zhiyong Wang (The Chinese University of Hong Kong, Hong Kong, China); Jiancheng Ye (The University of Hong Kong, Hong Kong, China); John Chi Shing Lui (Chinese University of Hong Kong, Hong Kong, China)

1570997770 | Learning-Based Transport Control Adapted to Non-Stationarity for Real-Time Communication
Jingshun Du, Chaokun Zhang, Tao Tang and Wenyu Qu (Tianjin University, China)

19:00–21:00

Banquet
Venue: Guangzhou Marriott Hotel Nansha

IWQoS 2024 Conference Schedule

DAY 3	21 June 2024, Friday

09:00-10:00 **Keynote**
Venue: Lecture Hall C, HKUST(GZ)

Prof. Baochun Li
University of Toronto, Canada

10:00-10:20 **Coffee Break | Poster Session III**
Venue: Walkway outside Lecture Hall C, HKUST(GZ)

10:20-11:20 **Session 12 - SDN and Routing**
Venue: Lecture Hall C, HKUST(GZ)

Chair: **Prof. Hai Xue**
University of Shanghai for Science and Technology, China

1570997939 | Mitigating Intra-host Network Congestion with SmartNIC
Yukai Huang, Lulu Chen, Chunpu Huang and Rui Zhang (Fudan University, China); Yiren Zhou (University of California, San Diego, USA); Ming Yan and Jie Wu (Fudan University, China)

1570997839 | InGo: In-Network Aggregation Routing with Batch Size Adjustment for Distributed Training
Jianfeng Bao, Gongming Zhao and Hongli Xu (University of Science and Technology of China, China); Haibo Wang (University of Kentucky, USA); Peng Yang (University of Science and Technology of China, China)

1570997883 | MAEON: An Efficient Weather-Aware Ocean Network Routing Scheme based on Multi-Agent Reinforcement Learning
Shu Yang, Yaofeng Liu and Laizhong Cui (Shenzhen University, China); Runsu Zhu (Shenzhen Smart City Technology Development Group Co Ltd, China)

1570992705 | TCAMVisor: High-throughput TCAM Virtualization for Multi-tenant Software Defined Networking
Ruoshi Sun, Hao Mei, Ruyi Yao and Hao Wang (Fudan University, China); Yiren Zhou (University of California, San Diego, USA); Zixuan Chen, Sen Liu and Yang Xu (Fudan University, China)

1570990539 | TupleRadar: Accelerating Tuple Space Search in Packet Classification by Learned Index
Longlong Zhu, Jiashuo Yu, Long Huang and Hang Lin (Fuzhou University & Quan Cheng Laboratory, China); Kaiwei Huang (Fuzhou University, China); Zhengyan Zhou (Zhejiang University, China); Dong Zhang (Fuzhou University & Quan Cheng Laboratory, China); Xiang Chen (Zhejiang University, China); Chunming Wu (College of Computer Science, Zhejiang University, China)

1570997871 | Reducing Write Tail Latency of Distributed Key-Value Stores Using In-Network Chasing
Jinghui Jiang, Xiwen Fan, Zhenpei Huang, Kairui Zhou, Qiao Xiang, Lu Tang, Qiang Li and Jiwu Shu (Xiamen University, China)

IWQoS 2024 Conference Schedule

DAY 3	21 June 2024, Friday

11:20-11:30	**Short Break**

11:30-12:00

Session 13 - Short Paper III-A
Venue: Lecture Hall C, HKUST(GZ)
Chair: **Prof. Xingwei Wang**
Northeastern University, China

1570991210 | TASRI: Toward Traffic-Aware, Sustainable and Reliable ISL Provisioning for LEO Satellite Constellation Networking
Long Chen and Yi Ching Chou (Simon Fraser University, Canada); Hengzhi Wang (Shenzhen University, China); Feng Wang (University of Mississippi, USA); Haoyuan Zhao, Hao Fang and Sami Ma (Simon Fraser University, Canada); Feilong Tang and Linghe Kong (Shanghai Jiao Tong University, China); Jiangchuan Liu (Simon Fraser University, Canada)

1570998218 | Quality of Surveillance Analysis of LEO Satellite Constellations for Orbital Edge Computing in Precision Agriculture and Climate Monitoring
Charles Cao, Jie Zhuang, Joshua Fu and Wenjun Zhou (University of Tennessee, USA)

1570999458 | TransPortal: Keeping Applications Enjoying Tailored Transport Effortlessly
Jie Zhang, Xt Zuo and Xiaohui Xie (Tsinghua University, China); Wei Wang (Huawei, China); Yong Cui (Tsinghua University, China)

1570995538 | Exploiting Dependency-Aware Priority Adjustment for Mixed-Criticality TSN Flow Scheduling
Miao Guo, Yifei Sun, Chaojie Gu, Shibo He and Zhiguo Shi (Zhejiang University, China)

Session 13 - Short Paper III-B
Venue: E1-1F-101, HKUST(GZ)
Chair: **Prof. Xiaoxi Zhang**
Sun Yat-sen University, China

1570997041 | An MTD-driven Hybrid Defense Method Against DDoS Based on Markov Game in Multi-controller SDN-enabled IoT Networks
Yuming Feng and Weizhe Zhang (Harbin Institute of Technology, Shenzhen, China & Peng Cheng Laboratory, China); Zijun Feng (Harbin Institute of Technology, China); Xiaoxiong Zhong and Fangming Liu (Peng Cheng Laboratory, China)

1570995984 | ReND: Toward Reasoning-based BLE Neighbor Discovery by Integrating with Wi-Fi Fingerprints
Ziwei Li (Tsinghua University, China); Zhaoqi Yang, Bowen Hu and Tong Li (Renmin University of China, China); Bo Wu (Tencent Technologies, China); Yukuan Ding (Delft University of Technology, The Netherlands); Duling Xu (Renmin University of China, China); Ke Xu (Tsinghua University, China)

1570992158 | FreAuth: Novel Frequency Feature-Based Device Authentication for Magnetic Wireless Charging
ShenYao Jiang, Wangqiu Zhou, Hao Zhou and Jialin Deng (University of Science and Technology of China, China); Zhi Liu (The University of Electro-Communications, Japan); Haisheng Tan (University of Science and Technology of China, China); Zhenjiang Li (City University of Hong Kong, Hong Kong, China)

IWQoS 2024 Conference Schedule

DAY 3   21 June 2024, Friday

11:30-12:00

Session 13 - Short Paper III-A
Venue: Lecture Hall C, HKUST(GZ)

Chair: **Prof. Xingwei Wang**
Northeastern University, China

1570999296 | RobustTSN: A Framework for Protecting Time-Sensitive Networking against Unexpected Delays
Xingbo Feng (City University of Hong Kong, Hong Kong, China); Yi Wang and Jiashuo Lin (Southern University of Science and Technology, China); Weichao Li and Shuangping Zhan (Peng Cheng Laboratory, China); Yan Liu (Anhui University of Technology, China); Jin Zhang (Southern University of Science and Technology, China); Jianping Wang (City University of Hong Kong, Hong Kong, China)

Session 13 - Short Paper III-B
Venue: E1-1F-101, HKUST(GZ)

Chair: **Prof. Xiaoxi Zhang**
Sun Yat-sen University, China

1570999542 | Routing over Best Links is not necessarily Better in Wireless Multi-hop Networks
Shutao Lu, Wuyungerile Li and Yintu Bao (Inner Mongolia University, China); Alvin C Valera and Winston K.G. Seah (Victoria University of Wellington, New Zealand); Baoqi Huang (Inner Mongolia University, China)

12:00-13:30   **Lunch | Poster Session III**
Venue: C6-3F | Walkway outside Lecture Hall C, HKUST(GZ)

13:30-14:30

Session 14 - Security
Venue: Lecture Hall C, HKUST(GZ)

Chair: **Prof. Liyao Xiang**
Shanghai Jiaotong University, China

1570997948 | STARMAZE: Ring-based Attack in Satellite Internet Constellations
Yikun Wang, Hewu Li, Zeqi Lai and Jihao Li (Tsinghua University, China)

1570994962 | Guardian of the Resiliency: Detecting Erroneous Software Changes Before They Make Your Microservice System Less Fault-Resilient
Guanglei He (Tsinghua University, China); Xiaohui Nie (Computer Network Information Center, Chinese Academy of Sciences, China); Ruming Tang (BizSeer Technology, China); Kun Wang and Zhaoyang Yu (Tsinghua University, China); Xidao Wen (BizSeer, China); Kanglin Yin and Dan Pei (Tsinghua University, China)

1570996686 | NetSentry: Scalable Volumetric DDoS Detection with Programmable Switches
Junchen Pan and Kunpeng He (Tsinghua University, China); Lei Zhang (Zhongguancun Laboratory, China); Zhuotao Liu (Tsinghua University, China); Xinggong Zhang (Peking University, China); Yong Cui (Tsinghua University, China)

1570997123 | Towards Key-Escrow Free Attribute-Based Encryption for Self-Sovereign Identity Systems
Zhengxi Zhong, Hongyang Yan, Arthur Sandor Voundi Koe, Weichu Deng and Junyang Li (Guangzhou University, China)

1570998146 | Enhancing Fraud Transaction Detection via Unlabeled Suspicious Records
Ye Wang and Yunpeng Liu (Tsinghua University, China); Ningtao Wang (Ant Group, China); Peiyang Li (Tsinghua University, China); Jiahao Hu and Xing Fu (Ant Group, China); Weiqiang Wang (Ant Group Inc., China); Kun Sun (George Mason University, USA); Qi Li and Ke Xu (Tsinghua University, China)

1570997906 | WristPass: Secure Wearable Continuous Authentication via Ultrasonic Sensing
Xinyue Fang, Jianwei Liu, Yike Chen and Xian Xu (Zhejiang University, China); Jinsong Han (Zhejiang University & School of Cyber Science and Technology, China)

14:30-14:40   **Short Break**

IWQoS 2024 Conference Schedule

DAY 3   21 June 2024, Friday

14:40-15:40   **Session 15 - Video streaming and Management**
Venue: Lecture Hall C, HKUST(GZ)

Chair: **Prof. Fangxin Wang**
The Chinese University of Hong Kong, Shenzhen, China

1570997258 | OAVS: Efficient Online Learning of Streaming Policies for Drone-sourced Live Video Analytics
Zekai Li (Shanghai Jiao Tong University, China); Miao Zhang (Simon Fraser University, Canada); Yifei Zhu (Shanghai Jiao Tong University, China)

1570997888 | PPL-enc: A Personalized Pixel-Level Scheme for Video Privacy Protection
Ruiqi Li, Jiahui Hou, Haikuo Yu and Xiang-Yang Li (University of Science and Technology of China, China)

1570996801 | Efficient Object-grained Video Inpainting with Personalized Recovery and Permission Control
Haikuo Yu, Jiahui Hou, Lan Zhang, Suyuan Liu and Xiang-Yang Li (University of Science and Technology of China, China)

1570995963 | Adaptive Streaming Continuous Learning System for Video Analytics
Tianyu Li (Tsinghua University, China); Qing Li (Peng Cheng Laboratory, China); Mei Zhang (Tsinghua University, China); Zhenhui Yuan (University of Warwick, United Kingdom (Great Britain)); Yong Jiang (Graduate School at Shenzhen, Tsinghua University, China)

1570996956 | Low-Latency Video Conferencing via Optimized Packet Routing and Reordering
Yao Xiao (Shenzhen University, China); Amelie chi Zhou (Hong Kong Baptist University, Hong Kong, China); Sitian Chen (Shenzhen University, China); Shuhao Zhang (Nanyang Technological University, Singapore); Yi Wang, Rui Mao and Xuan Yang (Shenzhen University, China)

1570997944 | Achieving QoE Fairness in Video Streaming over Heterogeneous Congestion Control Protocols
Qichen Su and Jiawei Huang (Central South University, China); Weihe Li (University of Edinburgh, United Kingdom (Great Britain)); Zhaoyi Li (Central South University, China); Tao Zhang (Changsha University, China); Wanchun Jiang and Jianxin Wang (Central South University, China)

15:40-16:00   **Coffee Break | Poster Session III**
Venue: Walkway outside Lecture Hall C, HKUST(GZ)

IWQoS 2024 Conference Schedule

DAY 3	21 June 2024, Friday

16:00–17:00

Session 16 - WiFi Networks
Venue: Lecture Hall C, HKUST(GZ)

Chair: **Prof. Shan Chang**
Donghua University, China

1570990691 | CQP-RFFI: Injecting a Communication-Quality Preserving RF Fingerprint for Wi-Fi Device Identification
Xiaolin Gu, Wenjia Wu, Yusen Zhou, Aibo Song, Ming Yang, Zhen Ling and Junzhou Luo (Southeast University, China)

1570996670 | Slickscatter: Help WiFi Backscatter Signal Survive from the Unknown Interferences
Shanyue Wang, Feiyu Han, Yubo Yan, Yuxin Ding, Panlong Yang and Xiang-Yang Li (University of Science and Technology of China, China)

1570997670 | WiB-MAC: Collision-Avoidance Multiple Access for Wi-Fi Backscatter Networks
Yujie Chen, Yuxin Ding, Shanyue Wang and Yubo Yan (University of Science and Technology of China, China)

1570995959 | Performant TCP over Wi-Fi Direct
Hanlin Huang, Ke Xu and Xinle Du (Tsinghua University, China); Yiyang Shao and Jie Li (Huawei, China); Xiangyu Gao (Tsinghua University, China); Tong Li (Renmin University of China, China)

1570996355 | Improving Cooperative Wi-Fi Broadcast with Fine-Grained Channel Estimation
Lizhao You, ShuoLing Liu and Wenjun Xie (Xiamen University, China); Zhaorui Wang (The Chinese University of Hong Kong, Shenzhen, China); Yihua Tan and Soung Chang Liew (The Chinese University of Hong Kong, Hong Kong, China)

1570999682 | Anteumbler: Non-Invasive Antenna Orientation Error Measurement for WiFi APs
Dawei Yan (University of Science and Technology of China, China); Panlong Yang (Nanjing University of Information Science and Technology, China); Fei Shang, Nikolaos M. Freris and Yubo Yan (University of Science and Technology of China, China)

17:00–17:10 | **Short Break**

IWQoS 2024 Conference Schedule

17:10-18:10

Session 17 - QoS II
Venue: Lecture Hall C, HKUST(GZ)

Chair: **Prof. Zhe Peng**
The Hong Kong Polytechnic University, Hong Kong, China

1570997852 | R-PFC: Enhancing RDMA Network With Restricted And Fine-grained PFC
Xinyi Li, Minglin Li, Xin Ai, Yongbo Gao, Jiang Shao, Zixuan Chen, Sen Liu and Yang Xu (Fudan University, China)

1570997856 | Greedy Transfer Planning Search For Improving Repair Throughput of RDP-like Coded Storage Clusters
JueHao Chen, Shiyi Li, Wen Xia, Shuaipeng Zhang, Qicong Lin and Haojun Hu (Harbin Institute of Technology, Shenzhen, China)

1570997918 | Guidelines for Parameter Selection in Traffic Light Control Methods Using Reinforcement Learning: Insights from Empirical Studies
Lang Qian (Fudan University, China); Peng Sun (Duke Kunshan University, China); Kun Yang and Jingyv Zhang (Fudan University, China); Azzedine Boukerche (University of Ottawa, Canada); Liang Song (Fudan University, China)

1570997943 | Beyond Throughput-Optimal: Second-Order Smooth Backpressure Algorithm for Reducing Jitter and Delay
Yuexi Yin, Zirui Zhuang, Jingyu Wang, Qi Qi, Haifeng Sun, Xiaoyuan Fu and Jianxin Liao (Beijing University of Posts and Telecommunications, China)

1570998183 | COS: Cross-Processor Operator Scheduling for Multi-Tenant Deep Learning Inference
Changyao Lin and Jie Liu (Harbin Institute of Technology, China)

1570996540 | Towards High-performance Distributed Quantum Computing with Qubit Placement and Provisioning
Furong Zhan and Yangming Zhao (University of Science and Technology of China, China); Chunming Qiao (University at Buffalo, USA)

Closing