

# IEEE/ACM IWQoS 2020 program

Day 1, June 15 <sup>th</sup>	
<b>IEEE/ACM IWQoS Opening and Keynote 1</b> Yunhao Liu (Michigan State and Tsinghua, USA)	9:00am-10:30am
<b>Session 1A: Cloud Computing and Data Center</b>	10:45am-12:05pm
<b>Revisiting Multipath Congestion Control for Virtualized Cloud Environments</b> Chi Xu, Jia Zhao and Jiangchuan Liu (Simon Fraser University, Canada); Fei Chen (Qingdao University, China)	
<b>Leveraging Stragglers in Coded Computing with Heterogeneous Servers</b> Xiaodi Fan and Pedro Soto (Florida International University, USA); Xiaomei Zhong (East China Jiaotong University, China); Dan Xi (Florida International University, USA); Yan Wang (Fudan University & East China Jiaotong University, China); Jun Li (Florida International University, USA)	
<b>Towards Lightweight Serverless Computing via Unikernel as a Function</b> Bo Tan and Haikun Liu (Huazhong University of Science and Technology, China); Jia Rao (The University of Texas at Arlington, USA); Xiaofei Liao, Hai Jin and Yu Zhang (Huazhong University of Science and Technology, China)	
<b>GeoClone: Online Task Replication and Scheduling for Geo-Distributed Analytics under Uncertainties</b> Tiantian Wang and Zhuzhong Qian (Nanjing University, China); Lei Jiao (University of Oregon, USA); Xin Li (Nanjing University of Aeronautics and Astronautics, China); Sanglu Lu (Nanjing University, China)	
<b>Session 1B: Blockchain</b>	13:30pm-14:50pm
<b>Preventing Spread of Spam Transactions in Blockchain by Reputation</b> Jiarui Zhang (Stony Brook University, USA); Yukun Cheng (Suzhou University of Science and Technology, China); Xiaotie Deng (Peking University, China); Bo Wang and Jan Xie (Cryptape Technology Co., Ltd., China); Yuanyuan Yang (Stony Brook University, USA); Mengqian Zhang (Shanghai Jiao Tong University, China)	
<b>PFcrowd: Privacy-Preserving and Federated Crowdsourcing Framework by Using Blockchain</b> Chen Zhang and Yu Guo (City University of Hong Kong, Hong Kong); Hongwei Du (Harbin Institute of Technology, Shenzhen, China); Xiaohua Jia (City University of Hong Kong, Hong Kong)	
<b>Uncontrolled Randomness in Blockchains: Covert Bulletin Board for Illicit Activity</b> Nasser Alsalmi (Lancaster University, United Kingdom (Great Britain)); Bingsheng Zhang (Zhejiang University, China)	

<p><b>Age-aware Fairness in Blockchain Transaction Ordering</b> Yaakov Sokolik and Ori Rottenstreich (Technion, Israel)</p>	
<p><b>Session 1C: Routing and Packets</b></p>	
<p><b>Supporting Multi-dimensional and Arbitrary Numbers of Ranks for Software Packet Scheduling</b> Jiaqi Zheng, Ya-nan Jiang, Bingchuan Tian, Huaping Zhou and Chen Tian (Nanjing University, China); Guihai Chen (Shanghai Jiao Tong University, China); Wanchun Dou (Nanjing University, China)</p>	<p><b>15:10pm-16:30pm</b></p>
<p><b>Incorporating Intra-flow Dependencies and Inter-flow Correlations for Traffic Matrix Prediction</b> Kaihui Gao and Dan Li (Tsinghua University, China); Li Chen (Huawei, Hong Kong); Jinkun Geng (Tsinghua University, China); Fei Gui (University of XiangTan, China); Yang Cheng and Yue Gu (Tsinghua University, China)</p>	
<p><b>Towards the Construction of Global IPv6 Hitlist and Efficient Probing of IPv6 Address Space</b> Guanglei Song, Lin He, Zhiliang Wang and Jiahai Yang (Tsinghua University, China); Tao Jin (Tsinghua Shenzhen International Graduate School, China); Jieliang Liu and Guo Li (Tsinghua University, China)</p>	
<p><b>I Know If the Journey Changes: Flexible Source and Path Validation</b> Fan Yang, Ke Xu and Qi Li (Tsinghua University, China); Rongxing Lu (University of New Brunswick, Canada); Bo Wu (Huawei Technologies, China); Tong Zhang (Nanjing University of Aeronautics and Astronautics, China); Yi Zhao (Tsinghua University, China); Meng Shen (Beijing Institute of Technology, China)</p>	
<p><b>Session 1D: Sensing for Human</b></p>	
<p><b>Mag-Barcode: Magnet Barcode Scanning for Indoor Pedestrian Tracking</b> Zefan Ge and Lei Xie (Nanjing University, China); Shuangquan Wang (College of William &amp; Mary, USA); Xinran Lu and Chuyu Wang (Nanjing University, China); Gang Zhou (William &amp; Mary, USA); Sanglu Lu (Nanjing University, China)</p>	<p><b>16:50pm-18:10pm</b></p>
<p><b>GroupCoach: Compressed Sensing Based Group Activity Monitoring and Correction</b> Yutong Liu, Linghe Kong, Fan Wu and Guihai Chen (Shanghai Jiao Tong University, China)</p>	
<p><b>PE-HEALTH: Enabling Fully Encrypted CNN for Health Monitor with Optimized Communication</b> Yang Liu, Yilong Yang and Zhuo Ma (Xidian University, China); Ximeng Liu (Fuzhou University, China); Zhuzhu Wang (Xidian University, China); Siqi Ma (Commonwealth Scientific and Industrial Research Organisation, Australia)</p>	

<p><b>Back-Guard: Wireless Backscattering based User Activity Recognition and Identification with Parallel Attention Model</b></p> <p>Man Jiang Yin, Xiang-Yang Li, Yanyong Zhang and Panlong Yang (University of Science and Technology of China, China); Chengchen Wan (University of Science and Technology of China, China)</p>	
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Day 2, June 16 <sup>th</sup>	
<p><b>IEEE/ACM IWQoS Keynote 2</b></p> <p>Jaideep Vaidya (Rutgers, USA)</p>	8:30am-9:30am
<p><b>IEEE/ACM IWQoS Keynote 3</b></p> <p>Kai Chen (Hong Kong UST, Hong Kong)</p>	9:30am-10:30am
<p><b>Session 2A: NFV &amp; SDN</b></p>	
<p><b>Improving the Path Programmability for Software-Defined WANs under Multiple Controller Failures</b></p> <p>Zehua Guo and Songshi Dou (Beijing Institute of Technology, China); Wenchao Jiang (University of Minnesota, USA)</p>	10:45am-12:05pm
<p><b>Joint Switch-Controller Association and Control Devolution for SDN Systems: An Integration of Online Control and Online Learning</b></p> <p>Xi Huang, Yinxu Tang, Ziyu Shao and Yang Yang (ShanghaiTech University, China); Hong Xu (City University of Hong Kong, Hong Kong)</p>	
<p><b>Greening Reliability of Virtual Network Functions via Online Optimization</b></p> <p>Xiaojun Shang, Yu Liu, Yingling Mao, Zhenhua Liu and Yuanyuan Yang (Stony Brook University, USA)</p>	
<p><b>Serpens: A High-Performance Serverless Platform for NFV</b></p> <p>Junxian Shen, Heng Yu and Zhilong Zheng (Tsinghua University, China); Chen Sun (Alibaba Group &amp; Tsinghua University, China); Mingwei Xu and Jilong Wang (Tsinghua University, China)</p>	
<p><b>Session 2B: Wireless Network</b></p>	
<p><b>Decimeter-Level WiFi Tracking in Real-Time</b></p> <p>Zheng Yang and Wei Gong (University of Science and Technology of China, China)</p>	13:30pm-14:50pm
<p><b>Exploiting Rateless Codes and Cross-Layer Optimization for Low-Power Wide-Area Networks</b></p> <p>Gonglong Chen, Jiamei Lv and Wei Dong (Zhejiang University, China)</p>	
<p><b>i5GAccess: Nash Q-learning Based Multi-Service Edge Users Access in 5G Heterogeneous Networks</b></p> <p>Anqi Zhu (Southwest University, China); Songtao Guo (Chongqing University, China); Mingfang Ma (Southwest University, China)</p>	

<p><b>Online Distributed Edge Caching for Mobile Data Offloading in 5G Networks</b> Yiming Zeng, Yaodong Huang, Zhenhua Liu and Yuanyuan Yang (Stony Brook University, USA)</p>	
<p><b>Session 2C: Videos</b></p>	
<p><b>High-quality Activity-Level Video Advertising</b> Mu Yuan, Lan Zhang, Zhengtao Wu and Daren Zheng (University of Science and Technology of China, China)</p>	
<p><b>DeepQoE: Real-time Measurement of Video QoE from Encrypted Traffic with Deep Learning</b> Meng Shen (Beijing Institute of Technology, China); Jinpeng Zhang (Beijing Institute of Technology, China); Ke Xu (Tsinghua University, China); Liehuang Zhu (Beijing Institute of Technology, China); Jiangchuan Liu (Simon Fraser University, Canada); Xiaojiang Du (Temple University, USA)</p>	
<p><b>Tag Pollution Detection in Web Videos via Cross-Modal Relevance Estimation</b> YiXin Chen (National University of Defense Technology, China); Xinye Lin (National Key Laboratory of Science and Technology on Blind Signal Processing, China); Keshi Ge (National University of Defense Technology, China); Wenbo He (McMaster University, Canada); Dongsheng Li (School of Computer, National University of Defense Technology, China)</p>	<p><b>15:10pm-16:30pm</b></p>
<p><b>MPTCP+: Enhancing Adaptive HTTP Video Streaming over Multipath</b> Jia Zhao and Jiangchuan Liu (Simon Fraser University, Canada); Cong Zhang (University of Science and Technology of China, China); Yong Cui (Tsinghua University, China); Yong Jiang (Graduate School at Shenzhen, Tsinghua University, China); Wei Gong (University of Science and Technology of China, China)</p>	
<p><b>Session 2D: Sensing and Wireless</b></p>	
<p><b>RLL: Accurate Relative Localization of RFID Tags with Low Latency</b> Xuan Liu and Quan Yang (Hunan University, China); Shigeng Zhang (Central South University, China); Bin Xiao (The Hong Kong Polytechnic University, Hong Kong)</p>	
<p><b>GuardRider: Reliable WiFi Backscatter Using Reed-Solomon Codes With QoS Guarantee</b> Xin He (University of Science and Technology of China &amp; Anhui Normal University, China); Weiwei Jiang (The University of Melbourne, Australia); Meng Cheng (Japan Advanced Institute of Science and Technology, Japan); Xiaobo Zhou (Tianjin University, China); Panlong Yang (University of Science and Technology of China, China); Brian Michael Kurkoski (Japan Advanced Institute of Science and Technology (JAIST), Japan)</p>	<p><b>16:50pm-18:10pm</b></p>

<p><b>A general approach to robust QR codes decoding</b></p> <p>Jiamei Lv, Yuxuan Zhang, Wei Dong, Yi Gao and Chun Chen (Zhejiang University, China)</p>	
<p><b>BioDraw: Reliable Multi-Factor User Authentication with One Single Finger Swipe</b></p> <p>Jianwei Liu (Zhejiang University &amp; Xi'an Jiaotong University, China); Xiang Zou (Zhejiang University, China); Jinsong Han (Zhejiang University &amp; Institute of Cyber Security Research, China); Feng Lin and Kui Ren (Zhejiang University, China)</p>	

Day 3, June 17 <sup>th</sup>	
<p><b>IEEE/ACM IWQoS Keynote 4</b></p> <p>Xiangyang Li (USTC, China)</p>	9:00am-10:00am
<p><b>Session 3A: Edge Computing</b></p>	10:15am-11:35pm
<p><b>A Deep Reinforcement Learning Approach for Online Computation Offloading in Mobile Edge Computing</b></p> <p>Yameng Zhang and Tong Liu (Shanghai University, China); Yanmin Zhu (Shanghai Jiao Tong University, China); Yuanyuan Yang (Stony Brook University, USA)</p>	
<p><b>Decode-and-Compare: An Efficient Verification Scheme for Coded Edge Computing</b></p> <p>Mingjia Fu (Soochow University, China); Jin Wang (Soochow University &amp; City University of Hong Kong, China); Jianping Wang (City University of Hong Kong, Hong Kong); Kejie Lu (University of Puerto Rico at Mayaguez, Puerto Rico); Admela Jukan (Technische Universität Carolo-Wilhelmina zu Braunschweig, Germany); Fei Gu (Soochow University, China)</p>	
<p><b>Finedge: A Dynamic Cost-efficient Edge Resource Management Platform for NFV Network</b></p> <p>Miao Li, Qixia Zhang and Fangming Liu (Huazhong University of Science and Technology, China)</p>	
<p><b>Incentive Assignment in PoW and PoS Hybrid Blockchain in Pervasive Edge Environments</b></p> <p>Yaodong Huang, Yiming Zeng, Fan Ye and Yuanyuan Yang (Stony Brook University, USA)</p>	
<p><b>Best paper award &amp;Announcement of IWQoS 2021</b></p>	11:40am-12:10pm
<p><b>Session 3B: Multimedia</b></p>	13:10pm - 14:30pm

<p><b>Delay-sensitive Computation Partitioning for Mobile Augmented Reality Applications</b></p> <p>Chaokun Zhang (Tianjin University, China); Rong Zheng (McMaster University, Canada); Yong Cui (Tsinghua University, China); Chenhe Li (McMaster University, Canada); Jianping Wu (Tsinghua University, China)</p>	
<p><b>Modeling and Analyzing Live Streaming Performance</b></p> <p>Tong Zhang (Nanjing University of Aeronautics and Astronautics, China); Fengyuan Ren and Bo Wang (Tsinghua University, China)</p>	
<p><b>Generative Adversarial Networks-based Privacy-Preserving for 3D Reconstruction</b></p> <p>Qinya Li (Shanghai Jiaotong University, China); Zhenzhe Zheng, Fan Wu and Guihai Chen (Shanghai Jiao Tong University, China)</p>	
<p><b>PQA-CNN: Towards Perceptual Quality Assured Single-Image Super-Resolution in Remote Sensing</b></p> <p>Yang Zhang, Xiangyu Dong, Md Tahmid Rashid, Lanyu Shang, Jun Han, Daniel Zhang and Dong Wang (University of Notre Dame, USA)</p>	
<p><b>Session 3C: Security</b></p>	
<p><b>Network-based Malware Detection with a Two-tier Architecture for Online Incremental Update</b></p> <p>Anli Yan and Zhenxiang Chen (University of Jinan, China); Riccardo Spolaor (University of Oxford, United Kingdom (Great Britain)); Shuaishuai Tan (Huawei Technologies, China); Chuan Zhao, Lizhi Peng and Bo Yang (University of Jinan, China)</p>	<p><b>14:50pm-16:10pm</b></p>
<p><b>Application-Layer DDoS Defense with Reinforcement Learning</b></p> <p>Yebo Feng, Jun Li and Thanh Nguyen (University of Oregon, USA)</p>	
<p><b>Localizing Failure Root Causes in a Microservice through Causality Inference</b></p> <p>Yuan Meng (Tsinghua University, China); Shenglin Zhang and Yongqian Sun (Nankai University, China); Ruru Zhang (NanKai University, China); Zhilong Hu (Nankai University, China); Yiyin Zhang, Chenyang Jia and Zhaogang Wang (Alibaba Group, China); Dan Pei (Tsinghua University, China)</p>	
<p><b>LogSayer: Log Pattern-driven Cloud Component Anomaly Diagnosis with Machine Learning</b></p> <p>Pengpeng Zhou, Yang Wang and Zhenyu Li (Institute of Computing Technology, Chinese Academy of Sciences, China); Xin Wang (Stony Brook University, USA); Gareth Tyson (Queen Mary, University of London, United Kingdom (Great Britain)); Gaogang Xie (Institute of Computing Technology, Chinese Academy of Sciences, China)</p>	
<p><b>Session 3D: Network optimization and Network intelligence</b></p>	
<p><b>Taming the Wildcards: Towards Dependency-free Rule Caching with FreeCache</b></p> <p>Rui Li, Bohan Zhao, Ruixin Chen and Jin Zhao (Fudan University, China)</p>	<p><b>16:30pm-18:10pm</b></p>

<p><b>Additive and Subtractive Cuckoo Filters</b></p> <p>Kun Huang (Southern University of Science and Technology &amp; Peng Cheng Laboratory, China); Tong Yang (Peking University, China)</p>	
<p><b>Adaptive and Robust Network Routing Based on Deep Reinforcement Learning with Lyapunov Optimization</b></p> <p>Zirui Zhuang, Jingyu Wang, Qi Qi and Jianxin Liao (Beijing University of Posts and Telecommunications, China); Zhu Han (University of Houston, USA)</p>	
<p><b>Multi-layer Coordination for High-Performance Energy-Efficient Federated Learning</b></p> <p>Li Li (Shenzhen Institutes Of Advanced Technology Chinese Academy Of Sciences, China); Jun Wang (FutureWei Technology, USA); Xu Chen (Sun Yat-sen University, China); Cheng-Zhong Xu (University of Macau, China)</p>	
<p><b>Private Deep Neural Network Models Publishing for Machine Learning as a Service</b></p> <p>Yunlong Mao, Boyu Zhu, Wenbo Hong, Zhifei Zhu, Yuan Zhang and Sheng Zhong (Nanjing University, China)</p>	