

Time	Level 2 - Regency I	Level 2 - Regency II	Level 2 - Regency III	Level 3 - Events I-a	Level 3 - Events I-b	Level 3 - Events II	Level 3 - Events III	Level 3 - Events V	Level 3 - Events VI
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Monday, August 12

08:30-09:00	Opening Ceremony								
09:00-09:45	Keynote 1: <i>Intelligent Wireless Resource Management: Learning and Optimization (Zhi-Quan (Tom) Luo)</i>								
09:46-10:30	Keynote 2: <i>The 5G Journey and the Next Frontiers (Peiyang Zhu)</i>								
11:00-11:45	Keynote 3: <i>Deep Learning in Physical Layer Communications (Geoffrey Ye Li)</i>								
11:46-12:30	Keynote 4: <i>Deep Learning in Network Traffic Control (Nei Kato)</i>								
14:00-15:30	Panel 1: <i>Wireless 2030</i>	IP1: <i>Invited Papers 1</i>	IP2: <i>Invited Papers 2</i>	CT1: <i>Communications Theory 1</i>	IOT1: <i>Internet of Things 1</i>	IOT2: <i>Internet of Things 2</i>	NGNI1: <i>Next Generation Networks and Internet 1</i>	OCS: <i>Optical Communications and Systems</i>	Security1: <i>Security 1</i>
16:00-17:30	Panel 2: <i>Driving into 5G and beyond: Vehicular Communications and Networking</i>	IP3: <i>Invited Papers 3</i>	IP4: <i>Invited Papers 4</i>	SPC1: <i>Signal Processing for Communications 1</i>	NGNI2: <i>Next Generation Networks and Internet 2</i>	Security2: <i>Security 2</i>	SPC2: <i>Signal Processing for Communications 2</i>	WCS1: <i>Wireless Communications 1</i>	WN1: <i>Wireless Networking 1</i>

Tuesday, August 13

09:00-09:45	Keynote 5: <i>Future Wireless Network Architecture for the Machines of Artificial Intelligence (Kwang-Cheng Chen)</i>								
09:46-10:30	Keynote 6: <i>Three Stories on IoT (Internet-of-Things) Connectivity: Ultra-Reliability, Massiveness, and Blockchains (Petar Popovski)</i>								
11:00-12:30				CT2: <i>Communications Theory 2</i>	IOT3: <i>Internet of Things 3</i>	NGNI3: <i>Next Generation Networks and Internet 3</i>	WCS2: <i>Wireless Communications 2</i>	SPC3: <i>Signal Processing for Communications 3</i>	NGNI4: <i>Next Generation Networks and Internet 4</i>
14:00-15:30	WCS3: <i>Wireless Communications 3</i>	WCS4: <i>Wireless Communications 4</i>	WCS5: <i>Wireless Communications 5</i>	Security3: <i>Security 3</i>	WCS6: <i>Wireless Communications 6</i>	WCS7: <i>Wireless Communications 7</i>	WN2: <i>Wireless Networking 2</i>	SPC4: <i>Signal Processing for Communications 4</i>	WCS8: <i>Wireless Communications 8</i>
16:00-17:30				WCS9: <i>Wireless Communications 9</i>	WN3: <i>Wireless Networking 3</i>	WCS10: <i>Wireless Communications 10</i>	WN4: <i>Wireless Networking 4</i>	WCS11: <i>Wireless Communications 11</i>	WN5: <i>Wireless Networking 5</i>

Monday, August 12

Monday, August 12 8:30 - 9:00

Opening Ceremony 

Rooms: Level 2 - Regency I, Level 2 - Regency II, Level 2 - Regency III

Monday, August 12 9:00 - 9:45

Keynote 1: Intelligent Wireless Resource Management: Learning and Optimization (Zhi-Quan (Tom) Luo) 

Zhi-Quan (Tom) Luo

Rooms: Level 2 - Regency I, Level 2 - Regency II, Level 2 - Regency III

Monday, August 12 9:46 - 10:30

Keynote 2: The 5G Journey and the Next Frontiers (Peiyong Zhu) 

Peiyong Zhu

Rooms: Level 2 - Regency I, Level 2 - Regency II, Level 2 - Regency III

Monday, August 12 11:00 - 11:45

Keynote 3: Deep Learning in Physical Layer Communications (Geoffrey Ye Li) 

Geoffrey Ye Li

Rooms: Level 2 - Regency I, Level 2 - Regency II, Level 2 - Regency III

Monday, August 12 11:46 - 12:30

Keynote 4: Deep Learning in Network Traffic Control (Nei Kato) 

Nei Kato

Rooms: Level 2 - Regency I, Level 2 - Regency II, Level 2 - Regency III

Monday, August 12 14:00 - 15:30

Panel 1: Wireless 2030 

Klaus Moessner, Chin Lin I, John Thompson, Zhinong Ying, Andrew Lambert

Room: Level 2 - Regency I

Chair: Zhisheng Niu (Tsinghua University, P.R. China)

IP1: Invited Papers 1 

Room: Level 2 - Regency II

Chair: Sheng Zhou (Tsinghua University, P.R. China)

Distributed Downloading Strategy for Multi-Source Data Fusion in Edge-Enabled Vehicular Network

Yue Yu and Jun Wu (Southeast University, P.R. China); Xiao Tang (Northwestern Polytechnical University, P.R. China); Tiecheng Song (National Mobile Communications Research Laboratory, Southeast University, P.R. China); BaekGyu Kim (Toyota Motor North America, Inc., USA); Zhu Han (University of Houston, USA)

Tunable Reflectors Enabled Environment Augmentation for Better mmWave WLANs

Lan Zhang (University of Florida, USA); Li Yan (Southwest JiaoTong University, P.R. China); Bin Lin (Dalian Maritime

University, P.R. China); Yuguang Fang (University of Florida, USA); Xuming Fang (Southwest Jiaotong University, P.R. China)

Towards a Blockchain-Based Healthcare Information System

Vojislav B. Mišić and Jelena Mišić (Ryerson University, Canada); Xiaolin Chang (Beijing Jiaotong University, P.R. China)

Deep Learning based Beamforming for FD-MIMO Downlink Transmission

Yu Xiaoxiang, Xi Yang, Xiao Li and Shi Jin (Southeast University, P.R. China)

IP2: Invited Papers 2

Room: Level 2 - Regency III

Chair: Teng Joon Lim (National University of Singapore, Singapore)

Network Beamforming in Energy-Harvesting Relay Networks

Dexin Wang (Department of Electrical and Computer Engineering, Colorado State University, Fort Collins, CO 80523, USA); Rongqing Zhang (Tongji University, P.R. China); Xiang Cheng (Peking University, P.R. China); Liuqing Yang (Colorado State University, USA)

Joint Resource Allocation and Secrecy Capacity Optimization in V2V Communications

Xuewen Luo (Harbin Institute of Technology, P.R. China); Hsiao-Hwa Chen (National Cheng Kung University); Weixiao Meng (Harbin Institute of Technology, P.R. China)

A Predictive On-Demand Placement of UAV Base Stations Using Echo State Network

Haoran Peng, Chao Chen, Chuan-Chi Lai and Li-Chun Wang (National Chiao Tung University); Zhu Han (University of Houston, USA)

Detecting RSU Misbehavior in Vehicular Edge Computing

Venkata Abhishek Nalam, Teng Joon Lim and Biplab Sikdar (National University of Singapore, Singapore); Ben Liang (University of Toronto, Canada)

CT1: Communications Theory 1

Room: Level 3 - Events I-a

Chair: Zhenyu Xiao (Beihang University, P.R. China)

Secure Communication with a SWIPT-based Energy Harvesting Eavesdropper

Qun Li and Ding Xu (Nanjing University of Posts and Telecommunications, P.R. China)

A Double-CNN BP Decoder on Fast Fading Channels Using Correlation Information

Jun Li and Xiwei Zhao (Nanjing University of Science and Technology, P.R. China); Jihao Fan (School of Computer Science and Engineering, Southeast University & Nanjing Institute of Technology, P.R. China); Feng Shu (Nanjing University of Science and Technology, P.R. China); Shi Jin (Southeast University, P.R. China); Yu wen Qian (Nanjing University of Science and Technology, P.R. China)

High-Accuracy Localization Using Single-Anchor Ultra-Wide Bandwidth Systems

Tianyu Wang, Hanying Zhao and Yuan Shen (Tsinghua University, P.R. China)

Sparsity Learning Based Blind Signal Detection for Massive MIMO with Generalized Spatial Modulation

Xiaoyan Kuai, Xiaojun Yuan and Wenjing Yan (University of Electronic Science and Technology of China, P.R. China); Hang Liu and Ying Jun (Angela) Zhang (The Chinese University of Hong Kong)

Single-Letterization of Supporting Hyperplanes to Outer Bounds for Broadcast Channels

Yanlin Geng (State Key Lab. of ISN, Xidian University, P.R. China)

IOT1: Internet of Things 1

Room: Level 3 - Events I-b

Chair: Lin Bai (Beihang University, P.R. China)

Performance of 3D Massive MIMO with Transceiver Impairments for K Composite Fading Channel

Haojin Li and Haijun Zhang (University of Science and Technology Beijing, P.R. China); Chunxiao Jiang (Tsinghua University, Beijing, P.R. China); Arumugam Nallanathan (Queen Mary University of London, United Kingdom (Great

Britain))

Secure Transmission in Multicarrier Time-Switching Wireless Powered Communication Networks with Full-duplex Receivers

Qun Li and Ding Xu (Nanjing University of Posts and Telecommunications, P.R. China)

Reinforcement Learning Approaches for IoT Networks with Energy Harvesting

Xiaolan Liu and Yue Gao (Queen Mary University of London, United Kingdom (Great Britain))

Machine Learning and Location Verification in Vehicular Networks

Ullah Ihsan and Robert Malaney (University of New South Wales, Australia); Shihao Yan (Macquarie University, Australia)

Clustering-Aid Sparse Representation Classification

Liangkun Xu, Wenbo Xu and Yifei Dang (Beijing University of Posts and Telecommunications, P.R. China); Xiaolin Wang (Beijing Institute of Control and Electronic Technology, P.R. China)

IOT2: Internet of Things 2

Room: Level 3 - Events II

Chair: Jun Zhang (The Hong Kong Polytechnic University)

Compressive Classification Based on One-Bit Measurements

Qihang Liu (Beijing University of Posts and Telecommunications & Key Laboratory of Universal Wireless Communication, Ministry of Education, P.R. China); Wenbo Xu and Yifei Dang (Beijing University of Posts and Telecommunications, P.R. China); Xiaolin Wang (Beijing Institute of Control and Electronic Technology, P.R. China)

Adaptive Data Storage System for Mobile Satellite-Terrestrial IoT

Niannian Wang and Ye Wang (Harbin Institute of Technology (Shenzhen), P.R. China); Shushi Gu (Harbin Institute of Technology, Shenzhen, P.R. China); Qinyu Zhang (Shenzhen Graduate School, Harbin Institute of Technology, P.R. China); Wei Xiang (James Cook University, Australia)

An Integrated Design of Cooperative Localization and Motion Control

Xiaoxiang Li, Kai Ma, Jian Wang and Yuan Shen (Tsinghua University, P.R. China)

Energy Efficient Fuzzy Time Slot Scheduling Scheme For Massive Connections

Xiaorui Tang (Southeast University, P.R. China); Zaichen Zhang (National Mobile Communications Research Laboratory, Southeast University, P.R. China); Liang Wu (Southeast University, P.R. China); Jian Dang (Southeast University & National Mobile Communications Research Laboratory, P.R. China)

Execution Latency and Energy Consumption Tradeoff in Mobile-Edge Computing Systems (Invited Paper)

Xiaolong Lan (Southwest Jiaotong University, P.R. China); Lin Cai (University of Victoria, Canada); Qingchun Chen (Guangzhou University, P.R. China)

NGNI1: Next Generation Networks and Internet 1

Room: Level 3 - Events III

Chair: Qinghe Du (Xi'an Jiaotong University, P.R. China)

Quality of Service Assisted Mapping Strategy in Virtualization Environment

Haotong Cao, Shengchen Wu, Yao Zhang, Meng Zhou, Longxiang Yang and Hongbo Zhu (Nanjing University of Posts and Telecommunications, P.R. China)

Deep Reinforcement Learning for Edge Caching and Content Delivery in Internet of Vehicles

Yueyue Dai and Du Xu (University of Electronic Science and Technology of China, P.R. China); Yunlong Lu (Beijing University of Posts and Telecommunications, P.R. China); Sabita Maharjan (Simula Research Laboratory, Norway); Yan Zhang (University of Oslo, Norway)

Performance Analysis of an Intelligent Association Scheme in Ultra-Dense Networks Using Matern Cluster Process

Qiao Zhu (JiLin University, P.R. China); Xue Wang, Zhihong Qian and Chunsheng Tian (Jilin University, P.R. China)

Codebook Design based on Self-organizing Map Clustering for Limited Feedback MIMO Systems

Jing Jiang (Xi'an University of Posts and Telecommunications, P.R. China); Danping Lu (Xi'an University of Posts and Telecommunications, P.R. China); Li Zhen (Xi'an University of Posts and Telecommunications, P.R. China)

Scheduling and Resource Allocation Over LAA-WLAN Co-sited Networks

Wenyan Ding, Pinyi Ren and Qinghe Du (Xi'an Jiaotong University, P.R. China)

OCS: Optical Communications and Systems

Room: Level 3 - Events V

Chair: Chen Gong (USTC, P.R. China)

Indoor Visible Light Sensing with Sight Blockage

Jia Zeng (University of Science and Technology of China, P.R. China); Chen Gong (USTC, P.R. China); Shuping Hu and Zhengyuan Xu (University of Science and Technology of China, P.R. China)

Pulse-laser Based Long-range NLOS Ultraviolet Communication: Pulse Response Position Estimation and Frame Synchronization Optimization

Ruixiong Xu (University of Science and Technology of China, P.R. China); Chen Gong (USTC, P.R. China); Zhengyuan Xu (University of Science and Technology of China, P.R. China)

A 427.5Mbps Automotive Headlight Visible Light Communication System Utilizing 64QAM-DMT Modulation with Software Pre-equalization

Siqi Han, Chaofan Wang, Guoqiang Li and Nan Chi (Fudan University, P.R. China)

Enhanced Performance of a Phosphorescent White LED CAP 64QAM VLC system utilizing Deep Neural Network (DNN) Post Equalization

Guoqiang Li, Fangchen Hu, Yiheng Zhao and Nan Chi (Fudan University, P.R. China)

The Structure Determined of Low Ill-condition Structure Constraint Spatial Modulation for Massive Multi-Color MIMO-VLC

Yumeng Zhang (Information Engineering University, P.R. China); Yijun Zhu (National Digital Switching System Engineering and Technological R&D Center, P.R. China); Yan-Yu Zhang (National Digital Switching System Engineering & Technological Research Center (NDSC) of China, P.R. China); Chao Wang (National Digital Switching System Engineering and Technological R&D Center Zhengzhou China, P.R. China); Yu Mu (Information Engineering University, P.R. China)

Security1: Security 1

Room: Level 3 - Events VI

Chair: Kaigui Bian (Peking University, P.R. China)

A Neural Attack Model for Cracking Passwords in Adversarial Environments

Yushuo Guan (Peking University, P.R. China); Yuanxing Zhang (School of EECS, Peking University, P.R. China); Lin Chen (Yale University, USA); Kaigui Bian (Peking University, P.R. China)

Optimal Strategy in Covert Communication based on Game Theory

Jianquan Wang (University of Electronic Science and Technology of China, P.R. China); WanBin Tang (University of Electronic Science & Technology of China, P.R. China); Xiaoping Li and Shaoqian Li (University of Electronic Science and Technology of China, P.R. China)

Two-Factor Authentication Protocol Using Physical Unclonable Function for IoV

Qi Jiang and Xin Zhang (Xidian University, P.R. China); Ning Zhang (Texas A&M University-Corpus Christi, USA); Youliang Tian (Guizhou University, P.R. China); Xindi Ma and Jianfeng Ma (Xidian University, P.R. China)

On Secure UAV Communication Systems with Randomly Located Eavesdroppers

Hongjiang Lei and Wang Di (Chongqing University of Posts and Telecommunications, P.R. China); Ki-Hong Park (King Abdullah University of Science and Technology (KAUST), Saudi Arabia); Imran Shafique Ansari (University of Glasgow, United Kingdom (Great Britain)); Gaofeng Pan (Beijing Institute of Technology, P.R. China); Mohamed-Slim Alouini (King Abdullah University of Science and Technology (KAUST), Saudi Arabia)

A Novel Cache Replacement Scheme against Cache Pollution Attack in Content-Centric Networks

Ying Liu and Ting Zhi (Beijing Jiaotong University, P.R. China); Haidong Xi (Cisco System (China) Research and Development, P.R. China); Wei Quan and Hongke Zhang (Beijing Jiaotong University, P.R. China)

Monday, August 12 16:00 - 17:30

Panel 2: Driving into 5G and beyond: Vehicular Communications and Networking

Shanzhi Chen, Hui Zhang, Min Liu, Hongwei Gao, Liuqing Yang

Room: Level 2 - Regency I

Chair: Xiang Cheng (Peking University, P.R. China)

IP3: Invited Papers 3

Room: Level 2 - Regency II

Chair: Wanjiun Liao (National Taiwan University)

Distributed MIMO Cooperative Transmission Technique and Its Performance

Fumiyuki Adachi (Tohoku University, Japan); Amnart Boonkajay (Institute for Infocomm Research, Singapore); Tomoyuki Saito (Tohoku University, Japan); Yuta Seki (Panasonic Corporation & Core Element Technology Development Center, Japan)

Network Analysis of Collaborative Cyber-Physical Multi-Agent Smart Manufacturing Systems

Jen-Hao Hsiao (Graduate Institute of Communication Engineering, National Taiwan University); Kwang-Cheng Chen (University of South Florida, USA)

Efficient Caching for 360-Degree Videos with Dynamic View Selection

Mengsi Yeh (National Taiwan University); Chih-Hang Wang and De-Nian Yang (Academia Sinica); Wanjiun Liao (National Taiwan University)

Off-Grid Angle-Doppler Estimation for Space-Time Adaptive Processing: A Sequential Approach

Lei Lu, Chengwei Zhou, Zhiguo Shi and Jiming Chen (Zhejiang University, P.R. China)

IP4: Invited Papers 4

Room: Level 2 - Regency III

Chair: Wei Yu (University of Toronto, Canada)

Power Control for Interference Management via Ensembling Deep Neural Networks

Fei Liang (University of Science and Technology of China, P.R. China); Cong Shen (University of Virginia, USA); Wei Yu (University of Toronto, Canada); Feng Wu (University of Science and Technology of China, P.R. China)

Robust Resource Allocation in NOMA based Cognitive Radio Networks

Yongjun Xu (Chongqing University of Posts and Telecommunications, P.R. China); Fanyi Shu (Chongqing University of Posts and Telecommunications & University of Electronic Science and Technology of China, P.R. China); Rose Qingyang Hu (Utah State University, USA); Ying-Chang Liang (University of Electronic Science and Technology of China, P.R. China)

Accelerated Deep Reinforcement Learning For Wireless Coded Caching

Zhe Zhang and Meixia Tao (Shanghai Jiao Tong University, P.R. China)

Invited Paper: Grain Pile Temperature Forecasting from Weather Factors: A Support Vector Regression Approach

Shanshan Duan and Weidong Yang (Henan University of Technology, P.R. China); Xuyu Wang (California State University, Sacramento, USA); Shiwen Mao (Auburn University, USA); Yuan Zhang (Henan University of Technology, P.R. China)

SPC1: Signal Processing for Communications 1

Room: Level 3 - Events I-a

Chair: Ya-Feng Liu (Chinese Academy of Sciences, P.R. China)

A Receiver Design for Molecule Shift Keying Modulation in Diffusion-Based Molecular Communications

Qingchao Li and Hui Li (University of Science and Technology of China, P.R. China)

A Novel Wavelet Denoising Pre-processing Algorithm for TDOA Localization

Wenping Zhu, Shujuan Hou and Yuan Yuan (Beijing Institute of Technology, P.R. China)

Outage Analysis for Full-Duplex Cooperative Networks with Optimal Relay Selection

Xuan Wang (Xidian University, P.R. China); Danyang Yu, Yi Liu and Tiantian Chen (Xidian University, P.R. China)

Learning Spatial-Channel Attention for Visual Tracking

Yingsen Zeng, Haiying Wang and Ting Lu (Beijing University of Posts and Telecommunications, P.R. China)

Robust Adaptive Beamforming Based on Covariance Matrix Reconstruction Against Steering Vector Mismatch

Xue Zhang, Jr., Shuai Liu, Feng-Gang Yan, Ming Jin and Jun Wang (Harbin Institute of Technology(Weihai), P.R. China)

NGNI2: Next Generation Networks and Internet 2

Room: Level 3 - Events I-b

Chair: Ning Zhang (Texas A&M University, USA)

Age-Constrained Content Access Strategy in D2D-Assisted Wireless Caching Networks

Shuonan Li, Xiaoqi Qin, Yunzheng Tao and Baoling Liu (Beijing University of Posts and Telecommunications, P.R. China); Ping Zhang (WTI-BUPT, P.R. China)

On the Performance of Cell-Free Massive MIMO with One-Bit ADCs and DACs

Yao Zhang, Haotong Cao, Meng Zhou, Xu Qiao and Longxiang Yang (Nanjing University of Posts and Telecommunications, P.R. China)

Expedited Eviction of Invalid Flow Entries for SDN-Based EPC Networks

Ruolan Ying, Wen-Kang Jia and Chunlan Luo (Fujian Normal University, P.R. China); Yi Wu (Fujian normal university, P.R. China)

Adaptive Consistency Protocol Based on Grouping Multi-Paxos

Yizhen Wang (Harbin Institute of Technology(Shenzhen), P.R. China); Ye Wang (Harbin Institute of Technology (Shenzhen), P.R. China); Shushi Gu (Harbin Institute of Technology, Shenzhen, P.R. China); Qinyu Zhang (Shenzhen Graduate School, Harbin Institute of Technology, P.R. China); Ning Zhang (Texas A&M University-Corpus Christi, USA)

A Dual Decomposition Method for Hierarchical Traffic Control in Inter-DC WANS

Qian Gao (State Key Laboratory of Networking and Switching Technology & Beijing University of Posts and Telecommunications, P.R. China); Jiang Liu (Beijing University of Posts and Telecommunications, P.R. China); Ningjie Gao (State Key Laboratory of Networking and Switching & Beijing University of Posts and Telecommunications, P.R. China); Tao Huang (Beijing University of Posts and Telecommunications, P.R. China)

Security2: Security 2

Room: Level 3 - Events II

Chair: Cheng Li (Memorial University of Newfoundland, Canada)

SCOD: A Novel Semi-supervised Outlier Detection Framework

Shentai Liu, Zhida Qin and Xiaoying Gan (Shanghai Jiao Tong University, P.R. China); Zhen Wang (The Third Research Institute Of The Ministry Of Public Security, P.R. China)

Uplink Secrecy Rate for Artificial Noise Aided Full-Duplex VLC System

Baoying Huang, Xuefen Chi, Linlin Zhao, Lei Qian and Wenxiao Shi (Jilin University, P.R. China)

Joint PHY/MAC Layer AN-Assisted Security Scheme in SVD-Based MIMO HARQ system

Huiyun Xia and Shuai Han (Harbin Institute of Technology, P.R. China); Cheng Li (Memorial University of Newfoundland, Canada); Weixiao Meng (Harbin Institute of Technology, P.R. China)

A Trust-based Real-time Map Updating Scheme

Chengzhe Lai (Xi'an University of Posts and Telecommunications, P.R. China); Yangyang Du and Jiawei Men (Xi'an University of Posts and Telecommunications, P.R. China); Dong Zheng (Xi'an University of Posts & Telecommunications, P.R. China)

A Secure Blockchain-Based Group Mobility Management Scheme in VANETs

Chengzhe Lai (Xi'an University of Posts and Telecommunications, P.R. China); Yuhang Ding (Xi'an University of Posts and Telecommunications, P.R. China)

SPC2: Signal Processing for Communications 2

Room: Level 3 - Events III

Chair: Weizheng Zhang (University of New South Wales, Australia)

Pedestrian detection based on improved Faster RCNN algorithm

Xiaoqian Yu, Yujuan Si and Liangliang Li (Jilin University, P.R. China)

Statistical assessment of MIMO cooperative networks with selective OFDMA relaying

Yi Liu, Bo Li, Fu Gang Sun, Teng Ma, Hai Rui Yu and Kai Feng Guo (Systems Engineering Research Institute, P.R. China)

Outage Performance of Millimeter-Wave Band NOMA Downlink System in Satellite-based IoT

Yizhi He (Harbin Institute of Technology, P.R. China); Jian Jiao (Harbin Institute of Technology - Shenzhen, P.R. China); Liang Xiao (Harbin Institute of Technology (Shenzhen), P.R. China); Shaohua Wu (Harbin Institute of Technology, P.R. China); Ye Wang (Harbin Institute of Technology (Shenzhen), P.R. China); Qinyu Zhang (Shenzhen Graduate School, Harbin Institute of Technology, P.R. China)

Zero-Forcing Based Limited Feedback Hybrid Precoding in mmWave Communications

Shijian Gao (Colorado State University, USA); Xiang Cheng (Peking University, P.R. China); Liuqing Yang (Colorado State University, USA); Rongqing Zhang (Tongji University, P.R. China)

Design and Demonstration of Target Detection in the Ultraviolet Spectrum

Chen Gong (USTC, P.R. China); Zhengyuan Xu and Hao Qiao (University of Science and Technology of China, P.R. China)

WCS1: Wireless Communications 1 

Room: Level 3 - Events V

Chair: Wenchi Cheng (Xidian University, P.R. China)

Outage Minimized Joint Power Splitting and Resource Allocation Optimization for Multiuser OFDM Systems with SWIPT

Qun Li and Ding Xu (Nanjing University of Posts and Telecommunications, P.R. China)

Clustered Block Diagonal Digital Precoding for BDMA Downlink Transmissions

Guanchong Niu, Qi Cao and Man-On Pun (The Chinese University of Hong Kong, Shenzhen, P.R. China)

Improved Preamble Detection and Round-Trip Delay Estimation for Random Access in High-Mobility Airborne Communication Systems

Songkang Huang, Lei Zhao and Ming Jiang (Sun Yat-sen University, P.R. China); Wei Liu (The 7th Research Institute of China Electronics Technology Group Corporation, P.R. China)

Achievable Rate Optimization for WET Enabled mmWave D2D Communication Systems

Xiaoyan Ma, Xiaotian Zhou, Haixia Zhang, Guannan Dong and Dongfeng Yuan (Shandong University, P.R. China)

Enhanced Sensing-Based Resource Scheduling Algorithm for 5G V2V Communications

Xiaoran Wen (Beijing University of Posts and Telecommunications, P.R. China); Mugen Peng (Beijing University of Posts & Telecommunications, P.R. China); Xinran Zhang, Shi Yan and Yong Li (Beijing University of Posts and Telecommunications, P.R. China)

WN1: Wireless Networking 1 

Room: Level 3 - Events VI

Chair: Zhiqing Wei (Beijing University of Posts and Telecommunications, P.R. China)

Price-Based Resource Allocation in Cooperative Cognitive Wireless Powered Communication Networks

Li Wang and Ding Xu (Nanjing University of Posts and Telecommunications, P.R. China)

Stackelberg Differential Game based Resource Allocation in Wireless Networks with Fog Computing

Bingjie Liu, Haitao Xu and Xianwei Zhou (University of Science and Technology Beijing, P.R. China); Zhu Han (University of Houston, USA)

Spectrum Sharing for High Altitude Platform Networks

Zhan Gao, Zhiqing Wei, Ziyu Wang, Jialin Zhu, Gang Deng and Zhiyong Feng (Beijing University of Posts and Telecommunications, P.R. China)

Streaming Transfer Model and Forward Scheme for Satellite Opportunistic Network

Guoqing Chen and Shushi Gu (Harbin Institute of Technology, Shenzhen, P.R. China); Ye Wang (Harbin Institute of

Technology (Shenzhen), P.R. China); Qinyu Zhang (Shenzhen Graduate School, Harbin Institute of Technology, P.R. China); Ning Zhang (Texas A&M University-Corpus Christi, USA)

An Energy-aware Anchor Point Selection Strategy for Wireless Rechargeable Sensor Networks

Fang Liu (Beijing University of Posts and Telecom, P.R. China); Shuaishuai Lu (Beijing University of Posts and Telecommunications, P.R. China)

Tuesday, August 13

Tuesday, August 13 9:00 - 9:45

Keynote 5: Future Wireless Network Architecture for the Machines of Artificial Intelligence (Kwang-Cheng Chen) 

Kwang-Cheng Chen

Rooms: Level 2 - Regency I, Level 2 - Regency II, Level 2 - Regency III

Tuesday, August 13 9:46 - 10:30

Keynote 6: Three Stories on IoT (Internet-of-Things) Connectivity: Ultra-Reliability, Massiveness, and Blockchains (Petar Popovski) 

Petar Popovski

Rooms: Level 2 - Regency I, Level 2 - Regency II, Level 2 - Regency III

Tuesday, August 13 11:00 - 12:30

CT2: Communications Theory 2 

Room: Level 3 - Events I-a

Chair: Weizheng Zhang (University of New South Wales, Australia)

Tandem Spreading Multiple Access with Successive Interference Cancellation

Zichao Wei, Fanggang Wang and Guoyu Ma (Beijing Jiaotong University, P.R. China); Bo Ai (Beijing Jiaotong University & State Key Lab of Rail Traffic Control and Safety, P.R. China); Zhangdui Zhong (Beijing Jiaotong University, P.R. China)

User Association for Cache Enabled Millimeter Wave Ultra Dense Downlink Networks

Hongxin Lin, Cheng Zhang and Yongming Huang (Southeast University, P.R. China); Rui Zhao (National Huaqiao University, P.R. China); Luxi Yang (Southeast University, P.R. China)

LDPC-Coded Generalised Spatial Modulation Systems with Arbitrary Transmit Antenna Combinations

Dan Feng, Mengmeng Liu and Baoming Bai (Xidian University, P.R. China)

An Algorithm for Transmitting VR Video Based on Adaptive Modulation

Jie Feng, Yongpeng Wu, Guangtao Zhai, Ning Liu and Wenjun Zhang (Shanghai Jiao Tong University, P.R. China)

Adaptive Construction and Decoding of Random Convolutional Network Error-correction Coding

Mingye Liu (School of Telecommunications Engineering Xidian University, P.R. China); Wangmei Guo (Xidian University, P.R. China)

IOT3: Internet of Things 3 

Room: Level 3 - Events I-b

Chair: Sheng Zhou (Tsinghua University, P.R. China)

A Distributed User Association Method for LTE-U by Enabling Q-Learning in Minority Game

Yunjia Wang and Guanding Yu (Zhejiang University, P.R. China); Rui Yin (Zhejiang University City, P.R. China & KwaZulu-Natal University, South Africa)

Unequal Recovery Time Random Access Protocol for Massive MIMO IoT System

Liang Xu (Harbin Institute of Technology (Shenzhen), P.R. China); Jian Jiao (Harbin Institute of Technology - Shenzhen, P.R. China); Xiaoyu Suo (Harbin Institute of Technology Shenzhen, P.R. China); Shaohua Wu (Harbin Institute of Technology, P.R. China); Ye Wang (Harbin Institute of Technology (Shenzhen), P.R. China); Qinyu Zhang (Shenzhen Graduate School, Harbin Institute of Technology, P.R. China)

A High Accuracy Integrated Bagging-Fuzzy-GBDT Prediction Algorithm for Heart Disease Diagnosis

Xiaoming Yuan, Xue Wang, Jianchao Han, Jiemin Liu and Haiyan Chen (Northeastern University, P.R. China); Kuan Zhang (University of Nebraska-Lincoln, USA); Qiang Ye (University of Waterloo, Canada)

Priority-Based Massive Random Access of M2M Communications in LTE Networks: Throughput Analysis and Optimization

Changwei Zhang (Nanjing University of Posts and Telecommunications, P.R. China); Xinghua Sun (Sun Yat-sen University, P.R. China); Jun Zhang (Nanjing University of Posts and Telecommunications, P.R. China); Hongbo Zhu (Nanjing University of Post and Telecommunications, P.R. China)

AP Deployment Optimization for WLAN: a fruit fly Optimization Approach

Peng Liu, Xin Meng, Jianghong Wu, Mengqian Yao and Zhenzhou Tang (Wenzhou University, P.R. China)

NGNI3: Next Generation Networks and Internet 3

Room: Level 3 - Events II

Chair: Hongzi Zhu (Shanghai Jiao Tong University, P.R. China)

Learning-Based Content Caching with Update Strategy for Fog Radio Access Networks

Fan Jiang (Xian University of Posts and Telecommunications, P.R. China); Zeng Yuan (Xi'an University of Posts and Telecommunications, P.R. China); Changyin Sun (College of Xi'an Post and Communication, P.R. China); Yuan Ren and Junxuan Wang (Xi'an University of Posts and Telecommunications, P.R. China)

Exact Performance Analysis for Mixed κ - μ Shadowed and Exponentiated Weibull Distributed Dual-Hop RF/FSO Systems

Yamin Wang and Peng Yue (Xidian University, P.R. China); Xiang Yi (State Key Laboratory on ISN, Xidian University, P.R. China); Cong Shen (Xidian University, P.R. China)

Transmit Antenna Selection in Massive MIMO Systems: An Online Learning Framework

Zhenran Kuai, Tianyu Wang and Shaowei Wang (Nanjing University, P.R. China)

Throughput Analysis of WPT Network Over Two-Way Log-Normal Fading Channels

Yingting Liu, Zhengwei Pan, Ruyi Xiao and Hongwu Yang (Northwest Normal University, P.R. China); Chun-man Yan (Xidian University & Institute of Intelligent Control and Image Engineering, P.R. China)

An Area-based Offloading Policy for Computing Offloading in MEC-assisted Wireless Mesh Network

Wenxiao Shi, Jiadong Zhang, Ruidong Zhang and Kegang Hu (Jilin University, P.R. China)

WCS2: Wireless Communications 2

Room: Level 3 - Events III

Chair: Shuai Han (Harbin Institute of Technology, P.R. China)

Physical-Layer Security of Visible Light Communications with Jamming

Dinghui Tian and Wensheng Zhang (Shandong University, P.R. China); Jian Sun (ShanDong University, P.R. China); Cheng-Xiang Wang (Southeast University & Heriot-Watt University, P.R. China)

Slotted ALOHA Game for Medium Access Control in Satellite Networks

Bo Zhao (Xidian University); Guangliang Ren and Huining Zhang (Xidian University, P.R. China)

Robust Beamforming Design for SWIPT in Cellular Internet of Things

Qiao Qi (ZheJiang University, P.R. China); Xiaoming Chen (Zhejiang University, P.R. China); Derrick Wing Kwan Ng (University of New South Wales, Australia); Caijun Zhong and Zhaoyang Zhang (Zhejiang University, P.R. China)

A Scalable Implementation for Real-Time Phased Antenna Array mmWave Testbeds

Xi Yang (Southeast University, P.R. China); Jing Zhang (Southeast University & National Mobile Communications Research Lab, P.R. China); Binqi Yang (State Key Laboratory of Millimeter Waves, Southeast University, P.R. China); Kang

Wang (National Mobile Communications Research Laboratory, Southeast University, P.R. China); Xiao Li and Shi Jin (Southeast University, P.R. China)

A Two-Sided Matching Approach for Distributed Edge Computation Offloading

Hongyi Bao and Yuan Liu (South China University of Technology, P.R. China)

SPC3: Signal Processing for Communications 3

Room: Level 3 - Events V

Chair: Rui Wang (Tongji University, P.R. China)

Fingerprinting-based Indoor Localization with Relation Learning Network

Lingyan Zhang and Hongyu Wang (Dalian University of Technology, P.R. China)

Automatic Brain Tumor Segmentation Using Cascaded FCN with DenseCRF and Kmeans

Lizhu Yang, Weinan Jiang, Hongkun Ji, Zijun Zhao, Xukang Zhu and Alin Hou (Changchun University of Technology, P.R. China)

Sequence Set Design With Min-Max Criterion using Majorization-Minimization

Zhiyu Zhou, Shengjie Zhao, Qingjiang Shi and Rongqing Zhang (Tongji University, P.R. China)

Speeding up LDPC Decoder by Inter-Frame Pipeline for Wireless Laser Communications

Jipeng Zhang (Xidian University, P.R. China); Zhongyang Yu (Xidian University & State Key Laboratory of Integrated Service Networks, P.R. China); Ji Zhang and Baoming Bai (Xidian University, P.R. China); Chao Chen (Xi'dian, P.R. China); Fuwei Huang (Xidian University, P.R. China)

Research on Feature Selection and Classification Algorithm of Medical Optical Tomography Images

Hongkun Ji, Kaiwen Guo, Lizhu Yang, Weinan Jiang, Zijun Zhao, Xukang Zhu and Alin Hou (Changchun University of Technology, P.R. China)

NGNI4: Next Generation Networks and Internet 4

Room: Level 3 - Events VI

Chair: Ning Zhang (Texas A&M University-Corpus Christi, USA)

A Study of Disparity Map Based on Improved Dynamic Programming Algorithm

Ziwei Zhao, Yan Piao and Che Liu (Changchun University of Science and Technology, P.R. China)

Reinforcement Learning Based VNF Scheduling with End-to-End Delay Guarantee

Junling Li and Weisen Shi (University of Waterloo, Canada); Ning Zhang (Texas A&M University-Corpus Christi, USA); Sherman Shen (University of Waterloo, Canada)

Reducing Redundant Control Messaging for Fast Response in SDN

Gang Wu, Peng Yang and Jingjing Luo (Huazhong University of Science and Technology, P.R. China); Li Yu (Huazhong University of Science & Technology, P.R. China)

IPTV User QoE Prediction based on Broad Learning System

Liqiu Xu, Xin Wei, Yun Gao and Jiali Mao (Nanjing University of Posts and Telecommunications, P.R. China)

Energy Minimization for Fog Computing-Enabled Hierarchical Networks with Dynamic TDD

Qi Zhang, Haina Zheng, Zhangdui Zhong and Siqi Mu (Beijing Jiaotong University, P.R. China)

Tuesday, August 13 14:00 - 15:30

WCS3: Wireless Communications 3

Room: Level 2 - Regency I

Chair: Zan Li (Jilin University, P.R. China)

Full-Duplex Relay Assisted Secure Transmission for NOMA Networks

Yang Cao (Dalian University of Technology, P.R. China); Jie Tang (South China University of Technology, P.R. China); Nan Zhao (Dalian University of Technology, P.R. China); Yunfei Chen (University of Warwick, United Kingdom (Great Britain));

Xiuyin Zhang (South China University of Technology, P.R. China); Minglu Jin (Dalian University of Technology, P.R. China); Mohamed-Slim Alouini (King Abdullah University of Science and Technology (KAUST), Saudi Arabia)

Cancellation Symbol Insertion Technique for Sidelobe Suppression in OFDM Pilot Waveform

Wei-Chang Chen (National Taipei University of Technology); Jia-Ling Jiang and Char-Dir Chung (National Taiwan University)

Optimal Altitude of UAV-BS for Minimum Boundary Outage Probability with Imperfect Channel State Information

Bo Wang and Jian Ouyang (Nanjing University of Posts and Telecommunications, P.R. China); Wei-Ping Zhu (Concordia University, Canada); Min Lin (Nanjing University of Posts and Telecommunications, P.R. China)

Coupled or Uncoupled? Multi-path TCP Congestion Control for High-Speed Railway Networks

Chengxiao Yu and Wei Quan (Beijing Jiaotong University, P.R. China); Nan Cheng (University of Waterloo, Canada); Shihua Chen and Hongke Zhang (Beijing Jiaotong University, P.R. China)

Crowd-sourcing and Model-driven based Online Dictionary Learning for FDD Massive MIMO Systems

Tong Yue (Army Engineering University, P.R. China); Aijun Liu (PLA University of Science and Technology, P.R. China); Kui Xu (Army Engineering University of PLA, P.R. China)

WCS4: Wireless Communications 4

Room: Level 2 - Regency II

Chair: Jie Xu (Guangdong University of Technology, P.R. China)

Non-Orthogonal Coded Access Based Uplink Grant-Free Transmission for URLLC

Mingshan Zhang and Mengting Lou (Beijing Jiaotong University, P.R. China); Hong Zhou and Yuantao Zhang (Nokia Bell Labs, P.R. China); Ming Liu (Beijing Jiaotong University & Beijing Key Lab of Transportation Data Analysis and Mining, P.R. China); Zhangdui Zhong (Beijing Jiaotong University, P.R. China)

Capacity Characterization of UAV-Enabled Multiple Access Channel with Trajectory Optimization

Peiming Li and Jie Xu (Guangdong University of Technology, P.R. China)

A New Low-Resolution Min-Sum Decoder Based on Dynamic Clipping for LDPC Codes

Huanyu He and Lei Chu (Shanghai Jiaotong University, P.R. China); Robert Caiming Qiu (Tennessee Tech University, USA)

Reinforcement Learning-Based User Scheduling and Resource Allocation for Massive MU-MIMO System

Gaojing Bu and Jing Jiang (Xi'an University of Posts and Telecommunications, P.R. China)

Frequency Offset Estimation for 5G Based LEO Satellite Communication Systems

Ding Tian, Yue Zhao and Tong Jianfei (Beijing University of Posts and Telecommunications, P.R. China); Gaofeng Cui and Weidong Wang (Beijing University of Posts and Telecommunications, P.R. China)

WCS5: Wireless Communications 5

Room: Level 2 - Regency III

Chair: Xi Yang (Southeast University, P.R. China)

Improved ComNet Based on Expectation Propagation for CP-Free OFDM System

Jing Zhang (Southeast University & National Mobile Communications Research Lab, P.R. China); Xi Yang (Southeast University, P.R. China); Chao-Kai Wen (National Sun Yat-sen University); Xiao Li and Shi Jin (Southeast University, P.R. China)

Capacity Analysis and Scheduling for Distributed LIS-aided Large-Scale Antenna Systems

Fan Cao, Yu Han and Qi Liu (Southeast University, P.R. China); Chao-Kai Wen (National Sun Yat-sen University); Shi Jin (Southeast University, P.R. China)

Effective Capacity Analysis for VR-HARQ Systems

Zheng Shi and Theodoros Tsiftsis (Jinan University, P.R. China); Weiqiang Tan (Guangzhou University, P.R. China); Guanghua Yang (Jinan University, P.R. China); Shaodan Ma (University of Macau, P.R. China); Mohamed-Slim Alouini (King Abdullah University of Science and Technology (KAUST), Saudi Arabia)

Distortion-aware Virtual Environments Transmission Scheme over a Bandwidth-limited Network

Jingfeng Guo (Beijing University of Posts and Telecommunications, P.R. China); Yitong Liu (Beijing University of Post and

Telecommunications, P.R. China); Lin Sang and Hongwen Yang (Beijing University of Posts and Telecommunications, P.R. China)

Deep Learning Method of Polar Codes under Colored Noise

Danqiu Xiong and Bin Tian (Xidian University, P.R. China)

Security3: Security 3

Room: Level 3 - Events I-a

Chair: Tingting Zhang (Harbin Institute of Technology, Shenzhen Graduate School, P.R. China)

Shape-unconstrained Privacy-preserving Range Query for Fog Computing Supported Vehicular Networks Using Image

Haoran Liang and Jun Wu (Shanghai Jiao Tong University, P.R. China); Zhi Liu (Shizuoka University, Japan); Jianhua Li (Shanghai Jiao Tong University, P.R. China)

Cooperative Two-Key Generation in Source-Type Model With Partial-Trusted Helpers

Shixun Gong (Beijing University of Posts and Telecommunications, Xitu Cheng Road 10, P.R. China); Na Li, Huici Wu and Xiaofeng Tao (Beijing University of Posts and Telecommunications, P.R. China)

Location Privacy Preservation Based Incentive Scheme for Crowd Sensing Networks

Minghui Dai, Zhou Su and Qichao Xu (Shanghai University, P.R. China)

Secrecy Performance Analysis of Cognitive Radio Networks with Full-duplex Relaying

Zhihui Shang (Army Engineering University of PLA, P.R. China); Tao Zhang and Yongxiang Liu (The Sixty-third Research Institute, National University of Defense Technology, P.R. China); Yueming Cai and Weiwei Yang (Army Engineering University of PLA, P.R. China)

Protecting Access Privacy for Bitcoin Lightweight Client Using Trusted Hardware

Xudong Li, Zhe Yang, Lingbo Wei and Chi Zhang (University of Science and Technology of China, P.R. China)

WCS6: Wireless Communications 6

Room: Level 3 - Events I-b

Chair: Xianghao Yu (Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany)

Link data optimization based on PSO algorithm in Ethernet protocol

Hongzhi Wang, Hao Wang and Hongwu Lyu (Changchun University of Technology, P.R. China)

Research on Power Allocation of Cognitive Radio Based on Robust Cooperative Relay

Mingyue Zhou, Tianyuan Cai and Hongzhi Wang (Changchun University of Technology, P.R. China)

An LLR-Based Segmented Flipped SCL Decoding Algorithm for Polar Codes

Anqi Cao, Li Zhang, Jian Qiao and Yejun He (Shenzhen University, P.R. China)

An Efficient Piecewise Nonlinear Companding Transform for PAPR Reduction in UFMC Systems

Kaiming Liu and Yaning Ge (Beijing University of Posts and Telecommunications, P.R. China); Yuanan Liu (Beijing University of Posts and Telecom, P.R. China)

MISO Wireless Communication Systems via Intelligent Reflecting Surfaces (Invited Paper)

Xianghao Yu (Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany); Dongfang Xu (University of Erlangen-Nuremberg, Germany); Robert Schober (Friedrich-Alexander University Erlangen-Nuremberg, Germany)

WCS7: Wireless Communications 7

Room: Level 3 - Events II

Chair: Shengli Zhang (Shenzhen University, P.R. China)

Outage Analysis and Optimization of NOMA-based Integrated Satellite-Terrestrial System with an AF Relay

Silin Xie, Bangning Zhang, Daoxing Guo and Kongzhe Yang (Army Engineering University of PLA, P.R. China)

Impact of Prediction Uncertainty of Popularity Distribution on Proactive Caching

Pengyu Cong, Kaiqiang Qi and Chenyang Yang (Beihang University, P.R. China)

Performance of Joint Radar and Communication Enabled Cooperative Detection

Zixi Fang, Zhiqing Wei, Zhiyong Feng, Xu Chen and Zijun Guo (Beijing University of Posts and Telecommunications, P.R. China)

Joint Computing and Radio Resource Allocation in C-RAN Systems Under Imperfect CSI

Kangkang Wang, Ying Wang and Runcong Su (Beijing University of Posts and Telecommunications, P.R. China)

A 3-Dimensional Matching Method for Resource Allocation in D2D-Assisted Indoor Wireless Communications

Chenglin Li, Zhi Zhang and Baoling Liu (Beijing University of Posts and Telecommunications, P.R. China)

WN2: Wireless Networking 2

Room: Level 3 - Events III

Chair: Tingting Yang (Dalian Maritime University, P.R. China)

Throughput Analysis of MRT-ZF Wireless Body Area Network with Multi-Antenna AP

Zhi Mao (Jilin University, Jilin, P.R. China); Fengye Hu and He Liu (Jilin University, P.R. China); Zhuang Ling (JiLin University, P.R. China)

Range-free Localization Based on Adaptive Anchor Selection for Wireless Sensor Networks

Wenjie Ji (Sun Yat-sen University, P.R. China); Xingcheng Liu (Sun Yat-sen University & Xinhua College of SYSU, P.R. China); En Zou (Xinhua College of SYSU, P.R. China)

Design and Analysis of Bidirectional Relaying NCed-HARQ Transmission Scheme for S-IoT

Zilin Ni (Harbin Institute of Technology, P.R. China); Jian Jiao (Harbin Institute of Technology - Shenzhen, P.R. China); Xiaoxin Li (Harbin Institute of Technology (Shenzhen), P.R. China); Shaohua Wu (Harbin Institute of Technology, P.R. China); Ye Wang (Harbin Institute of Technology (Shenzhen), P.R. China); Qinyu Zhang (Shenzhen Graduate School, Harbin Institute of Technology, P.R. China)

Intelligent Maritime Communications Enabled by Deep Reinforcement Learning

Jiabo Li, Tingting Yang and Hailong Feng (Dalian Maritime University, P.R. China)

Predictive Service Placement in Mobile Edge Computing

Huirong Ma, Zhi Zhou and Xu Chen (Sun Yat-sen University, P.R. China)

SPC4: Signal Processing for Communications 4

Room: Level 3 - Events V

Chair: Sangtae Kim (Seoul National University, Korea)

Automotive Radar Signal Classification Using Bypass Recurrent Convolutional Networks

Sangtae Kim and Kwangjin Lee (Seoul National University, Korea); Seungho Doo (Hyundai Mobis, Korea); Byonghyo Shim (Seoul National University, Korea)

Object-aware Image Compression with Adversarial Learning

Yunfei Du and Nan Zhao (Xidian University, P.R. China); Yiping Duan and Chaoyi Han (Tsinghua University, P.R. China)

Location Information Based Beam Training for UAV mmWave System

Weizheng Zhang (University of New South Wales, Australia); Wei Zhang (The University of New South Wales, Australia); Shengli Zhang (Shenzhen University, P.R. China)

A Near-Optimal Condition for Exact Sparse Recovery with Orthogonal Least Squares

Junhan Kim and Byonghyo Shim (Seoul National University, Korea)

QAM Constellation Division Based User Grouping Transmission for Massive MIMO Uplink Systems

Jingjie Zong, Gangtao Han and Dalong Zhang (Zhengzhou University, P.R. China); Di Zhang (Zhengzhou University, P.R. China & Seoul National University, Korea); Xiaomin Mu (Zhengzhou University, P.R. China)

WCS8: Wireless Communications 8

Room: Level 3 - Events VI

Chair: Shiyang Han (Nankai University, P.R. China)

Optimal Precoding Design for Uniform Linear Antenna Arrays with the Spherical-Wave Model

Lei Yang and Xumin Pu (Chongqing University of Posts and Telecommunications, P.R. China); Jide Yuan (Queen's University Belfast & Institute of Electronics, Communications and Information Technology, United Kingdom (Great Britain)); Shi Jin (Southeast University, P.R. China); Qianbin Chen (Chongqing University of Posts and Telecommunications, P.R. China)

Comparison of OTFS Diversity Performance over Slow and Fast Fading Channels

Hongyang Zhang (University of Technology Sydney, Australia); Xiaojing Huang (University of Technology, Sydney, Australia); J. Andrew Zhang (University of Technology Sydney, Australia)

CSI Feedback Based on Spatial and Frequency Domains Compression for 5G Multi-User Massive MIMO Systems

Zhengxuan Liu (China Academy of Telecommunications Technology, P.R. China); Shaohui Sun, Qubing Gao and Hui Li (China Academy of Telecommunications Technology (CATT), P.R. China)

Demonstration of DCSK-aided OFDM Design for Cognitive Radio System via USRP

Zuwei Chen and Lin Zhang (Sun Yat-sen University, P.R. China); Zhiqiang Wu (Wright State University, USA)

A Low Complexity Multiuser Detection Scheme with Dynamic Factor Graph for Uplink SCMA Systems

Jiansong Miao, Xuejia Hu and Zhenmin Zhao (Beijing University of Posts and Telecommunications, P.R. China)

Tuesday, August 13 16:00 - 17:30

WCS9: Wireless Communications 9 

Room: Level 3 - Events I-a

Chair: Rui Wang (Tongji University, P.R. China)

Joint Downlink-Uplink Throughput Optimization in Wireless Powered Communication Networks

Syam M. S., Yueling Che, Sheng Luo and Kaishun Wu (Shenzhen University, P.R. China)

Diversity-Achieving Secure Scheme for SIMO-MBM Systems

Shaozhuang Bai, Zhenzhen Gao and Xuewen Liao (Xi'an Jiaotong University, P.R. China)

Multi-factor based Dynamic Offloading with Coalitional Game in Mobile Cloud Computing

Shan Guo, Ying Wang and Hong Wang (Beijing University of Posts and Telecommunications, P.R. China)

Slice-Aware Resource Management in SDN Enabled Heterogeneous Cellular Networks

Jinliang Ma, Chunyu Pan and Changchuan Yin (Beijing University of Posts and Telecommunications, P.R. China); Xuehua Li (BITI, P.R. China)

Popularity Tracking for Proactive Content Caching with Dynamic Factor Analysis

Sajad Mehrizi (Khaje Nasir Toosi, Iran); Anestis Tsakmalis (University of Luxembourg, Luxembourg); Shahram ShahbazPanahi (University of Ontario Institute of Technology, Canada); Symeon Chatzinotas (University of Luxembourg, Luxembourg); Björn Ottersten (University of Luxembourg, Luxembourg)

WN3: Wireless Networking 3 

Room: Level 3 - Events I-b

Chair: Hao Ma (Beijing University of Posts and Telecommunications, P.R. China)

Optimization of Joint Load Balancing and Bandwidth Allocation in Space Information Networks

Siyang Liu (Shanghai Jiao Tong University, P.R. China); Jingchao Wang (Institute of China Electronic System Engineering Corporation, P.R. China); Shentai Liu and Xiaoying Gan (Shanghai Jiao Tong University, P.R. China)

Performance Analysis of Joint Radar and Communication Enabled Vehicular Ad Hoc Network

Hao Ma, Zhiqing Wei, Xu Chen, Zixi Fang, Yunfeng Liu, Fan Ning and Zhiyong Feng (Beijing University of Posts and Telecommunications, P.R. China)

Fingerprint Similarity Indoor Localization: An AP Selection Based Approach

Chengyi Zhou, Junyu Liu, Min Sheng, Linlin Peng, Danni Hou and Jiandong Li (Xidian University, P.R. China)

Delay Outage Probability of Multi-relay Selection for Mobile Relay Edge Computing System

Jie Liang, Zhiyong Chen, Cheng Li and Bin Xia (Shanghai Jiao Tong University, P.R. China)

Optimal Bandwidth Allocation with Edge Computing for Wireless VR Delivery

Tanyue Xu and Yaping Sun (Shanghai Jiao Tong University, P.R. China); Shijia Xia (Shanghai Heng Neng Tai Enterprise Management Co., Ltd., P.R. China); Hua Li (Shineenergy Co., Ltd, P.R. China); Ling Luo (Electric Power Research Institute, SMEPC, State Grid, P.R. China); Zhiyong Chen (Shanghai Jiao Tong University, P.R. China)

WCS10: Wireless Communications 10

Room: Level 3 - Events II

Chair: Yi Chen (The Chinese University of Hong Kong)

the analysis of mobility performance in mmWave-microwave heterogeneous networks

Fangchao Du, Guangji Chen and Ling Qiu (University of Science and Technology of China, P.R. China)

Uplink Spectral Efficiency Analysis in Vehicle-to-Infrastructure Massive MIMO systems

Yuanxue Xin (Hohai University, P.R. China); Rongqing Zhang (Tongji University, P.R. China); Pengfei Shi and Xuewu Zhang (Hohai University, P.R. China); Lei Zhang (Jiangsu University of Technology, P.R. China)

Optimal Power Allocation with a Cooperative Relay in Multi-point WBAN

Shuang Li, Fengye Hu, Jingjing Yu and Ziqiu Huang (Jilin University, P.R. China)

Proactive Proportional Fair: A Novel Scheduling Algorithm Based on Future Channel Information in OFDMA Systems

Linzhi Shen, Tianyu Wang and Shaowei Wang (Nanjing University, P.R. China)

CRT Sequences for Medium Access Control

Yi Chen (The Chinese University of Hong Kong); Kenneth W. Shum (Institute of Network Coding); Wing Shing Wong (The Chinese University of Hong Kong, P.R. China)

WN4: Wireless Networking 4

Room: Level 3 - Events III

Chair: Tingting Yang (Dalian Maritime University, P.R. China)

Task-oriented and Disruption-tolerant Traffic Steering in UAV Networks

Taiheng Ge and Chi Zhang (University of Science and Technology of China, P.R. China); Miao Pan (University of Houston, USA)

Maritime Opportunistic Transmission: When and How Much Can DTN Node Deliver?

Lingzheng Kong and Tingting Yang (Dalian Maritime University, P.R. China); Nan Zhao (Dalian University of Technology, P.R. China)

Statistical Priority Control for Ad Hoc Networks with Different Communication Ranges

Junzhi Hao (Shanghai Jiao Tong University, P.R. China); Yuan Cao (Naval Research Academy, P.R. China); Lianghui Ding and Liang Qian (Shanghai Jiao Tong University, P.R. China); Feng Yang (Shanghai Jiaotong University, P.R. China); Yunfeng Guan (Shanghai Jiao Tong University, P.R. China)

Joint Power and Channel Allocation Based on Caching with User Preferences in D2D HetNets

Xinpeng Lyu, Ying Wang, Man Liu, Zhendong Li, Zixuan Fei and Weichen Ning (Beijing University of Posts and Telecommunications, P.R. China)

A Distributed Bi-connectivity Maintenance Mechanism for Flying Ad hoc Network Topology

Xiaohan Qi (Communication Engineering Research Center, Harbin Institute of Technology Shenzhen Graduate School, P.R. China); Haojie Jin and Qinyu Zhang (Harbin Institute of Technology Shenzhen Graduate School, P.R. China); Zhihua Yang (Harbin Institute of Technology, P.R. China)

WCS11: Wireless Communications 11

Room: Level 3 - Events V

Chair: Rui Yin (Zhejiang University City, P.R. China & KwaZulu-Natal University, South Africa)

A 3D GBSM for Ship-to-land Communications

Yubei He, Hengtai Chang, Yu Liu and Wensheng Zhang (Shandong University, P.R. China); Jian Sun (ShanDong

University, P.R. China); Cheng-Xiang Wang (Southeast University & Heriot-Watt University, P.R. China)

Energy Efficient Prediction Based D2D-Assisted Pushing in Heterogeneous Ultra-dense Networks

Rui Liu (Beijing University of Posts and Telecommunications, P.R. China); Xiaodong Xu (Beijing University of Posts and Telecommunications & Wireless Technology Innovation Institute, P.R. China); Wenwan Chen (Rice University, America); Mengying Sun and Xiaofeng Tao (Beijing University of Posts and Telecommunications, P.R. China)

Performance Analysis for the Coexistence of Radar and Communication in VANETs

Bingqi Jia, Zhiqing Wei, Baoling Liu and Zhiyong Feng (Beijing University of Posts and Telecommunications, P.R. China)

Reinforcement Learning Based Matching for Computation Offloading in D2D Communications

Bingxin Tian, Li Wang, Yutong Ai and Aiguo Fei (Beijing University of Posts and Telecommunications, P.R. China)

Reliable Rotation Transform Aided MIMO Scheme for Underwater Visible Light Communication

Guixun Huang and Lin Zhang (Sun Yat-sen University, P.R. China)

WN5: Wireless Networking 5

Room: Level 3 - Events VI

Chair: Zan Li (Jilin University, P.R. China)

Explore adaptive dropout deep computing and reinforcement learning to large-scale tasks processing for big data

Jia Zhao (Changchun Institute of Technology & Jilin University, P.R. China); Ming Hu and Yan Ding (Changchun Institute of Technology, P.R. China); Gaochao Xu (Jilin University, P.R. China); Chunyi Wu (Changchun Institute of Technology & Jilin University, P.R. China)

Secure Transmission in NOMA-based mMTC Networks under Statistical Delay QoS Guarantees

Suyu Lv and Shujun Han (Beijing University of Posts and Telecommunications, P.R. China); Xiaodong Xu (Beijing University of Posts and Telecommunications & Wireless Technology Innovation Institute, P.R. China); Xiaofeng Tao (Beijing University of Posts and Telecommunications, P.R. China)

A Privacy-preserving Ethereum Lightweight Client Using PIR

Yankai Xie, Chi Zhang, Lingbo Wei, Yukun Niu and Faxing Wang (University of Science and Technology of China, P.R. China); Jianqing Liu (University of Alabama in Huntsville, USA)

Smart Cyber Forensics of Rear-End Collision based on Multi-Access Edge Computing

Xianwei Wang, Yi Zhou and Xiaoyong Ma (Henan University, P.R. China); Ning Lu (Thompson Rivers University, Canada); Nan Cheng (University of Waterloo, Canada); Kuan Zhang (University of Nebraska-Lincoln, USA)

Data Compression Optimization Strategy based on Piecewise Fitting and Matrix Completion for WSNs

Shuang Zhai (JiLin University, P.R. China); Zhihong Qian (Jilin University, P.R. China); Xin Wang (JiLin University, P.R. China); Xue Wang (Jilin University, P.R. China)