



## WCSP 2012 Technical Program

October 25-27, 2012

### Communication Theory Symposium

#### CTS-01: Coding and Decoding

Date: Oct. 25, 2012

Time: 14:00pm – 15:30pm

Room: Xuesong Hall (雪松厅)

Chair: Hosoya Gou, Tokyo University of Science, Japan

- 1. Polar Code with Block-Length  $N=3^n$**   
[Liang Zhang](#) (Zhejiang University, P.R. China); [Zhaoyang Zhang](#) (Zhejiang University, P.R. China); [Xianbin Wang](#) (Zhejiang University, P.R. China)
- 2. Novel LT Coding Scheme with Limited Feedback in Broadcast Systems**  
[Jiaqi Yu](#) (Zhejiang University, P.R. China); [Jie Zhong](#) (Zhejiang University, P.R. China); [Minjian Zhao](#) (Zhejiang University, P.R. China); [Yunlong Cai](#) (Zhejiang University, P.R. China); [Jie Wu](#) (Zhejiang University, P.R. China)
- 3. Multiple Candidates Successive-Cancellation Decoding of Polar Codes**  
[Zhiliang Huang](#) (Southeast University, P.R. China); [Chunjuan Diao](#) (Southeast University, P.R. China); [Ming Chen](#) (Southeast University, P.R. China)
- 4. On the Analysis of Multiplicative-Repetition Code and Polar Code over Binary Erasure Channels**  
[Xiaofu Wu](#) (Nanjing University of Posts & Telecommunications, P.R. China)
- 5. LLR Calculation for Iterative Decoding on Fading Channels Using Pad'e Approximation**  
[Hosoya Gou](#) (Tokyo University of Science, Japan); [Mikio Hasegawa](#) (Tokyo University of Science, Japan); [Hiroyuki Yashima](#) (Tokyo University of Science, Japan)

6. **An Efficient OSD-aided Iterative Decoding Algorithm for LTE Turbo Codes**  
Yijia Xu (Southeast University, P.R. China); Ming Jiang (Southeast University, P.R. China);  
Ding Meiling (ZTE, P.R. China); Yushan Yang (Southeast University, P.R. China)

### CTS-02: LDPC codes

Date: Oct. 25, 2012

Time: 16:00pm – 17:30pm

Room: Xuesong Hall (雪松厅)

Chair: Xiaofu Wu, Nanjing University of Posts & Telecommunications, P.R. China

1. **Construction of QC-LDPC Codes with Girth Larger Than Eight Based on GPU**  
Yejun He (Shenzhen University, P.R. China); Jie Yang (Shenzhen University, P.R. China)
2. **In Praise of Nontrivial Redundant Rows of Algebraic LDPC Codes**  
Qin Huang (Beihang University, P.R. China); Mu Zhang (Beihang, P.R. China); Xujing Guo (Beihang University, Beijing, P.R. China); Zulin Wang (Beihang University, P.R. China)
3. **Improved Weighted Bit Flip Voting Decoding Algorithm for Generalized LDPC**  
Yibin Yang (Shanghai Jiao Tong University, P.R. China); Jintao Li (Shanghai Jiao Tong University, P.R. China); Hui Yu (Shanghai Jiao Tong University, P.R. China); Youyun Xu (PLA University of Science and Technology, P.R. China)
4. **Combined Modified Weighted Bit-Flipping Decoding of Low-Density Parity-Check Codes**  
Haiyi Huang (South China University of Technology, P.R. China); Yige Wang (South China University of Technology, P.R. China); Gang Wei (South China University of Technology, P.R. China)
5. **Efficient Simulation of QC LDPC Decoding on GPU Platform by CUDA**  
Bing Jiang (Hangzhou Dianzi University, P.R. China); Jianrong Bao (Hangzhou Dianzi University, P.R. China); Xiaorong Xu (Hangzhou Dianzi University, P.R. China)
6. **LDPC Coded Modulation for Rayleigh Fading Channels**  
Jintao Li (Shanghai Jiao Tong University, P.R. China); Yibin Yang (Shanghai Jiao Tong University, P.R. China); Hui Yu (Shanghai Jiao Tong University, P.R. China); Yunfeng Guan (Shanghai Jiao Tong University, P.R. China)

### CTS-03: Network Coding

Date: Oct. 26, 2012

Time: 14:00pm – 15:30pm

Room: Xuesong Hall (雪松厅)

Chair: Wen Chen, Shanghai Jiao Tong University, P.R. China

1. **Network Coding in Wireless Cooperative Networks with Multiple Antenna**

## Relays

[Lili Wei](#) (Shanghai Jiao Tong University, P.R. China); [Wen Chen](#) (Shanghai Jiao Tong University, P.R. China)

### 2. **Joint LDPC and Physical-Layer Network Coding for Two-way Relay Channels with Different Carrier Frequency Offsets**

[Wenwen Liang](#) (PLA University of Science and Technology, P.R. China); [Chen Yande](#) (PLA Nanjing Army Command College, P.R. China); [Kui Xu](#) (PLA University of Science and Technology, P.R. China); [Hua Tian](#) (PLA University of Science and Technology, P.R. China); [Youyun Xu](#) (PLA University of Science & Technology, P.R. China)

### 3. **On the Design of Network Coding for the Downlink of Single-Relay Multi-Users Two-Way Networks**

[Xiaoxi Guo](#) (Beijing University of Posts and Telecommunications, P.R. China); [Jianjun Hao](#) (Beijing University of Posts and Telecommunications, P.R. China); [Yijun Guo](#) (Beijing University of Post and Telecommunication, P.R. China)

### 4. **Asymmetric Network Coding for Two-Way OFDM Relay System with Power Allocation**

[Fengyue Gao](#) (PLA University of Science and Technology, P.R. China); [Kui Xu](#) (PLA University of Science and Technology, P.R. China); [Chen Yande](#) (PLA University of Science and Technology, Nanjing, P.R. China); [Ma Wenfeng](#) (PLA University of Science & Technology, P.R. China); [Youyun Xu](#) (PLA University of Science & Technology, P.R. China)

### 5. **Outage Probability Analysis of a Space-time Block Coding Physical-Layer Network Coding**

[Long Kong](#) (Xiamen University, P.R. China); [Pingping Chen](#) (Xiamen University, P.R. China); [Lin Wang](#) (Xiamen University, P.R. China)

### 6. **Adaptive Modulation and Coding over Network Coded Multiple Access Relay Channel**

[Fang Bowen](#) (Zhejiang University, P.R. China); [Wei Wang](#) (Zhejiang University, P.R. China); [Yu Zhang](#) (Zhejiang University, P.R. China); [Zhaoyang Zhang](#) (Zhejiang University, P.R. China)

## **CTS-04: Detection and Interference Suppression**

Date: Oct. 26, 2012

Time: 16:00pm – 17:30pm

Room: Xuesong Hall (雪松厅)

Chair: Defeng Huang, The University of Western Australia, Australia

### 1. **A Soft-in Soft-Out Detection Approach Using Partial Gaussian Approximation**

[Qinghua Guo](#) (The University of Western Australia, Australia); [Licai Fang](#) (The University of Western Australia, Australia); [Defeng Huang](#) (The University of Western Australia, Australia); [Nordholm Sven](#) (Curtin University of Technology, Australia)

2. **Distributed Bayesian Compressive Sensing Using Gibbs Sampler**  
[Hua Ai](#) (Beijing University of Posts and Telecommunications, P.R. China); [Yang Lu](#) (Beijing University of Posts and Telecommunications, P.R. China); [Wenbin Guo](#) (Beijing University of Posts and Telecommunications, P.R. China)
3. **Second-Order Differential Based Matching Pursuit Method for Compressive Sensing Signal Recovery**  
[Weikai Chen](#) (Tianjin University, P.R. China); [Yunhui Chen](#) (Tianjin University, P.R. China)
4. **Two Novel Iterative Algorithms for Interference Alignment with Symbol Extensions in the MIMO Interference Channel**  
[Chao Wang](#) (Xi'an Jiaotong University, P.R. China); [Ke Deng](#) (Xi'an Jiaotong University, P.R. China); [Yubo Li](#) (Xi'an Jiaotong University, P.R. China)
5. **A Family of 16-QAM Periodic Complementary Sequence Mates for Suppressing Multiple Access Interference in CDMA Communication Systems**  
[Fanxin Zeng](#) (Chongqing Communication Institute, P.R. China); [Xiaoping Zeng](#) (Chongqing Communication Institute, P.R. China); [Xiangyong Zeng](#) (Hubei University, P.R. China); [Zhenyu Zhang](#) (Chongqing Communication Institute, P.R. China); [Guixin Xuan](#) (Chongqing Communication Institute, P.R. China)

### **CTS-05: Channel Capacity**

Date: Oct. 27, 2012

Time: 8:45am – 10:15am

Room: Xuesong Hall (雪松厅)

Chair: Yongming Huang, Southeast University, P.R. China

1. **Capacity Analysis of Dual-Hop Amplify-and-Forward MIMO Multiple-Access Channels**  
[Symeon Chatzinotas](#) (University of Luxembourg, Luxembourg); [Björn Ottersten](#) (KTH Royal Institute of Technology, Sweden)
2. **SER and SINR Analysis of Optimum Combining in Rayleigh-Product Fading Channels**  
[Yongpeng Wu](#) (Southeast University, P.R. China); [Shi Jin](#) (Southeast University, P.R. China); [Xiqi Gao](#) (Southeast University, P.R. China); [Kai Kit Wong](#) (University College London, United Kingdom)
3. **On the Capacity of CPM over Rayleigh Fading Channels**  
[Rongting Chen](#) (Xidian University, P.R. China); [Fan Wei](#) (Xidian University, P.R. China); [Mengyu Huang](#) (University of New South Wales, Australia); [Li Bing](#) (Xidian University, P.R. China); [Bao-Ming Bai](#) (Xidian University, P.R. China)
4. **MAC Gaussian Channels with Arbitrary Inputs: Optimal Precoding and Power Allocation**

[Samah A. M. Ghanem](#) (University of Porto, Institute of Telecommunications, Portugal)

5. **Adaptive Modulation and Coding Based on Virtual HARQ for Satellite Wireless Communications**

[Jingjing Zhao](#) (Southeast University, P.R. China); [Shi Jin](#) (Southeast University, P.R. China); [Xiao Li](#) (Southeast University, P.R. China); [Yongming Huang](#) (Southeast University, P.R. China); [Xiqi Gao](#) (Southeast University, P.R. China)

## Signal Processing Symposium

### SPS-01: TOA, DOA, and DFO Estimation

Date: Oct. 25, 2012

Time: 14:00pm – 15:30pm

Room: Heisong (黑松厅)

Chair: Tan-Jan Ho, Chung-Yuan Christian University, Taiwan

1. **Analysis of TOA Estimation Using the Received Signal Characteristics in IR UWB Ranging with Energy Detection Receiver**

[Wen-Yan Liu](#) (National University of Defense Technology, P.R. China); [Hong Ding](#) (National University of Defense Technology, P.R. China); [Xiaotao Huang](#) (National University of Defense Technology, P.R. China); [Zelong Liu](#) (National University of Defense Technology, P.R. China)

2. **Covariance Differencing Technique Based DOA Estimation Method Under Hermitian Symmetric Toeplitz Noise**

[Yan Guo](#) (Nanjing Institute of Communications Engineering, P.R. China); [Ning Li](#) (Nanjing Institute of Communications Engineering, P.R. China); [Chang Tian](#) (Institute of Communication Engineering, Algeria); [Xue-Liang Liu](#) (Institute of Science, P.R. China)

3. **A Novel 2-D DOA Estimation for Coherent Signals Based on L-Shaped Array**

[Qiao Cheng](#) (Xidian University, P.R. China); [Yimin Zhao](#) (Xidian University, P.R. China); [Jing Yang](#) (Xidian University, P.R. China)

4. **DOA Estimation Using Virtual Array Technique for Noncircular Signals**

[Min Lin](#) (Nanjing Telecommunication Technology Institute, P.R. China); [Ling-Ling Cao](#) (Nanjing University of Aeronautics and Astronautics, P.R. China); [Ouyang Jian](#) (Nanjing University of Aeronautics and Astronautics, P.R. China); [Kang An](#) (Institute of Communication Engineering PLA University of Science and Technology, P.R. China)

5. **Doppler Frequency Offsets Estimation and Diversity Reception Scheme of High Speed Railway with Multiple Antennas on Separated Carriages**

[Yaoqing Yang](#) (Tsinghua University, P.R. China); [Ping-Yi Fan](#) (Tsinghua University, P.R. China); [Yongming Huang](#) (Southeast University, P.R. China)

## SPS-02: Speech, Image, and Video Processing (I)

Date: Oct. 25, 2012

Time: 16:00pm -17:30pm

Room: Heisong (黑松厅)

Chair: Lisheng Fan, Shantou University, P. R. China

### 1. Model Adaptation Based on Improved Variance Estimation for Robust Speech Recognition

[Yong Lü](#) (Hohai University, P.R. China); [Lin Zhou](#) (Southeast University, P.R. China); [Zongyu Xu](#) (Hohai University, P.R. China); [Qin Yan](#) (Hohai University, P.R. China)

### 2. Image Retrieval Method Using Visual Query Suggestion and Relevance Feedback

[Jing Zhang](#) (Beijing University of Technology, P.R. China); [Yuncong Yang](#) (Beijing University of Technology, P.R. China); [Li Zhuo](#) (Beijing University of Technology, P.R. China); [Mengmeng Diao](#) (Beijing University of Technology, P.R. China)

### 3. Estimation of the Rotation Angle by Phase Slope for ISAR Imaging

[Yao Wei](#) (Nanjing University, P.R. China); [Lan Tang](#) (Nanjing University, P.R. China); [Yechao Bai](#) (Nanjing University, P.R. China); [Xinggan Zhang](#) (Nanjing University, P.R. China)

### 4. Spatial Correlation and Texture-Based Fast Adaptive Loop Filter for HEVC

[Yongfei Zhang](#) (Beihang University, P.R. China); [Yunzhao Tang](#) (Beihang University, P.R. China); [Bo Li](#) (Beihang University, P.R. China)

## SPS-03: Speech, Image, and Video Processing (II)

Date: Oct. 26, 2012

Time: 14:00pm – 15:30pm

Room: Heisong (黑松厅)

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

### 1. A Novel Speech Denoising Algorithm via Data Field Modeling

[Jianjun Huang](#) (PLA University of Science and Technology, P.R. China); [Xiongwei Zhang](#) (PLA University of Science and Technology, P.R. China); [Yafei Zhang](#) (PLA University of Science and Technology, P.R. China); [Wenyan Gan](#) (PLA University of Science and Technology, P.R. China); [Xia Zou](#) (PLA University of Science and Technology, P.R. China)

### 2. A New Speech Enhancement Algorithm with Generalized Gamma Speech Model

[Gaihua Zhao](#) (PLA University of Science and Technology, P.R. China); [Bin Zhou](#) (PLA University of Science and Technology, P.R. China); [Xiongwei Zhang](#) (PLA University of Science & Technology, P.R. China); [Lu-Ying Sui](#) (PLA University of Science & Technology, P.R. China)

3. **Video De-interlacing Method Based-on Optical Flow**  
[Chong Wang](#) (Jiangsu Electric Power Information & Telecommunication Company, P.R. China);  
[Rong Huang](#) (Nanjing Telecom, P.R. China); [Weiwei Miao](#) (Jiangsu Electric Power Information  
& Telecommunication Company, P.R. China); [Junfeng Zhao](#) (Jiangsu Electric Power  
Information & Telecommunication Company, P.R. China); [Jinling He](#) (Jiangsu Electric Power  
Information & Telecommunication Company, P.R. China)
4. **A Content-Based Encryption Scheme for Wireless H.264 Compressed Videos**  
[Yingdi Zhao](#) (Beijing University of Technology, P.R. China); [Li Zhuo](#) (Beijing University of  
Technology, P.R. China)
5. **Improved and Robust Eyelash and Eyelid Location Method**  
[Ting Wang](#) (Shandong University, P.R. China); [Min Han](#) (Shandong University, P.R. China);  
[Honglin Wan](#) (Shandong Normal University, P.R. China)

### **SPS-04: Radar Imaging**

Date: Oct. 26, 2012

Time: 16:00pm – 17:30pm

Room: Heisong (黑松厅)

Chair: Feifei Gao, Tsinghua University, P. R. China

1. **Sparsity-Driven High Resolution FDLFM-MIMO Radar Imaging**  
[Li Ding](#) (University of Science and Technology of China, P.R. China); [Changchang Liu](#)  
(University of Science and Technology of China, P.R. China); [Weidong Chen](#) (University of Science  
and Technology of China, P.R. China); [Wenyi Zhang](#) (University of Science and Technology of  
China, P.R. China)
2. **Accuracy Analysis of SISAR Imaging Algorithm in Forward Scatter Radar**  
[Chao Zhou](#) (Soochow University, P.R. China); [Canyan Zhu](#) (Soochow University, P.R. China);  
[Cheng Hu](#) (Beijing Institute of Technology, P.R. China); [Tao Zeng](#) (Beijing institute of  
Technology, P.R. China)
3. **Sparse Imaging for Passive Radar System Based on Digital Video Broadcasting  
Satellites**  
[Changchang Liu](#) (University of Science and Technology of China, P.R. China); [Tianyun Wang](#)  
(University of Science and Technology of China, P.R. China); [Li Ding](#) (University of Science and  
Technology of China, P.R. China); [Weidong Chen](#) (University of Science and Technology of China,  
P.R. China);
4. **Discontinuous Spectra MCPC Signal Processing in HF Radar**  
[Yang Qiang](#) (Harbin Institute of Technology, P.R. China); [Zhou Shenghui](#) (Harbin Institute of  
Technology, P.R. China)
5. **Building Recognition with Partial 3D-Information Collected by Airborne  
Sensors at Limited Angles**

[Yan Yiming](#) (Harbin Institute of Technology, P.R. China); [Gao Fengjiao](#) (Institute of Automation of Heilongjiang Academy of Science, P.R. China)

### **SPS-05: Detection and Detector**

Date: Oct. 27, 2012

Time: 8:45am – 10:15am

Room: Heisong (黑松厅)

Chair: Yabo Li, Zhejiang University, P. R. China

1. **A Pedestrian Detection System Based on Binocular Stereo**  
[Xiaohui Liu](#) (Tianjin University, P.R. China); [Zhigang Jin](#) (Tianjin University, P.R. China)
2. **Antenna Gain Imbalance Detection Method Using Particle Swarm Algorithm for MIMO Systems**  
[Xiaohui Li](#) (Xidian University, P.R. China); [Xin Zhang](#) (Xidian University, P.R. China);  
[Yongqiang Hei](#) (Xidian University, P.R. China)
3. **Chinese Skin Detection in Different Color Spaces**  
[Wei Xiong](#) (Hubei University of Technology, P.R. China); [Qingquan Li](#) (Wuhan University, P.R. China)
4. **Integrated MAP Detector with Statistical Channel Information for Vector OFDM Systems**  
[Qinghua Huang](#) (Zhejiang University, P.R. China); [Yabo Li](#) (Zhejiang University, P.R. China);  
[Xiang-Gen Xia](#) (University of Delaware, USA); [Zhaoyang Zhang](#) (Zhejiang University, P.R. China)
5. **The Simulation Study of Entropy-Based Signal Detector over Fading Channel**  
[Zhu Yong-Gang](#) (Nanjing Telecommunication Research Institute, P.R. China)

### **SPS-06: Estimation, Positioning, and Separation**

Date: Oct. 27, 2012

Time: 10:45am – 12:15pm

Room: Xuesong Hall (雪松厅)

Chair: Hang Zhang, PLA University of Science & Technology, P.R. China

1. **Estimation of Window Length for LFM Signal**  
[Qingbo Yin](#) (Dalian Maritime University, P.R. China); [Liran Shen](#) (Dalian Maritime University, P.R. China); [Mingyu Lu](#) (Dalian Maritime University, P.R. China); [Zhi Liu](#) (Dalian Maritime University, P.R. China); [Guo Lili](#) (Harbin Engineering University, P.R. China); [Tian'en Shen](#) (Dalian Ocean University, P.R. China)
2. **Mobile Location Estimation in Urban Areas Using Fuzzy-Tuned IMM Algorithm**  
[Tan-Jan Ho](#) (Chung-Yuan Christian University, Taiwan); [Zhi-Hau Chen](#) (Chung-Yuan Christian University, Taiwan)



3. **A Novel Positioning Scheme of Unknown Radio Interference Source in Cellular Networks**

[Leyuan Pan](#) (Southeast University, P.R. China); [Yongyu Dai](#) (Southeast University, P.R. China); [Hua Zhang](#) (Southeast University, P.R. China); [Wei Xu](#) (Southeast University, P.R. China); [Ping Zhou](#) (Huawei Technology Corporation, P.R. China); [Guotian Ma](#) (Huawei Technology Corporation, P.R. China)

4. **Indoor Multi-Resolution Subarea Localization Based on Received Signal Strength Fingerprint**

[Shengliang Zhou](#) (Huazhong University of Science and Technology, P.R. China); [Bang Wang](#) (Huazhong University of Science and Technology, P.R. China); [Yijun Mo](#) (Huazhong University of Science and Technology, P.R. China); [Wenyu Liu](#) (Huazhong University of Science and Technology, P.R. China)

5. **Tracking an Asynchronous Sensor with Kalman Filters**

[Yiyin Wang](#) (Georgia Institute of Technology, USA); [Geert Leus](#) (Delft University of Technology, The Netherlands); [Xiaoli Ma](#) (Georgia Institute of Technology, USA)

6. **A Novel Algorithm of Blind Separation for Delayed Sources**

[Jiang Zhang](#) (PLA University of Science and Technology, P.R. China); [Hang Zhang](#) (PLA University of Science & Technology, P.R. China)

**SPS-07: Filter, Equalizer, and Receiver Design**

Date: Oct. 27, 2012

Time: 10:45am – 12:15pm

Room: Heisong (黑松厅)

Chair: Nan Wu, Beijing Institute of Technology, P. R. China

1. **A 100 MHz Gm-C BandPass Filter Chip Design for Wireless Application**

[Jhin-Fang Huang](#) (Taiwan University of Science and Technology, Taiwan); [Wen-Cheng Lai](#) (Taiwan University of Science and Technology, Taiwan); [Yan-Cheng Lai](#) (Taiwan University of Science and Technology, Taiwan)

2. **Comparative Study of Heuristic Search Algorithm in Digital FIR Filter Design**

[Dongmei Gu](#) (Zhejiang University of Technology, P.R. China); [Jingyu Hua](#) (Zhejiang University of Technology, P.R. China); [Wangkun Kuang](#) (Zhejiang University of Technology, P.R. China); [Jingshan Wang](#) (Zhejiang University of Technology, P.R. China); [Bin Sheng](#) (Zhejiang University of Technology, P.R. China)

3. **Improved Residual Resampling Algorithm and Hardware Implementation for Particle Filters**

[Shaohua Hong](#) (Xiamen University, P.R. China); [Jianxing Jiang](#) (Xiamen University, P.R. China); [Lin Wang](#) (Xiamen University, P.R. China)

4. **A 6.25Gbps Feed-forward Equalizer in 0.18 $\mu$ m CMOS Technology for SerDes**  
[Jian Gao](#) (Southeast University, P.R. China); [Qingsheng Hu](#) (Southeast University, P.R. China)
5. **A Novel ICA Based Frequency Hopping Receiver with Correlated Jamming Suppression**  
[Miao Yu](#) (Nanjing Telecommunication Technology Institute, P.R. China); [Yuehai Wang](#) (Zhejiang University, P.R. China); [Guofu Wang](#) (PLA University of Science and Technology, P.R. China)
6. **Particle Swarm Enhanced Graph-Based Iterative Receiver with Phase Noise and Frequency Offset**  
[Hongjie Zhao](#) (Beijing Institute of Technology, P.R. China); [Nan Wu](#) (Beijing Institute of Technology, P.R. China); [Hua Wang](#) (Beijing Institute of Technology, P.R. China); [Jingming Kuang](#) (Beijing Institute of Technology, P.R. China)

### **SPS-08: Power Control and Transmission**

Date: Oct. 27, 2012

Time: 14:00pm – 15:30pm

Room: Xuesong Hall (雪松厅)

Chair: Hui-Ming Wang, Xi'an Jiaotong University, P. R. China

1. **Power Control and Resource Allocation for Capacity Improvement in Picocell Downlinks**  
[Dongrun Qin](#) (Southeast University, P.R. China); [Wei Xu](#) (Southeast University, P.R. China); [Zhi Ding](#) (University of California at Davis, USA)
2. **Fairness-Guaranteed Pricing and Power Allocation with a Friendly Jammer Against Eavesdropping**  
[Jianting Yue](#) (Shanghai Jiao Tong University, P.R. China); [Bo Yang](#) (Shanghai Jiao Tong University, P.R. China); [Xinping Guan](#) (Shanghai Jiao Tong University, P.R. China)
3. **Adaptive Transmission Scheme for OFDM Systems**  
[Fang Xin](#) (Hangzhou dianzi University, P.R. China); [Xutao Yu](#) (Southeast University, P.R. China); [Ying Na](#) (Hangzhou Dianzi University, P.R. China)
4. **A Novel Joint Data Partition and Forwarding Scheme for D2D Communications**  
[Xiao Liu](#) (Nanjing University of Post and Telecommunications, P.R. China); [Feng Sun](#) (University of Florida, P.R. China); [Zheng Li](#) (Southeast University, P.R. China); [Longxiang Yang](#) (Nanjing University of Posts and Telecommunications, P.R. China)
5. **Hybrid Relaying and Jamming for Secure Two-Way Relay Networks with Per-Node Power Constraint**  
[Hui-Ming Wang](#) (Xi'an Jiaotong University, P.R. China); [Miao Luo](#) (Xi'an Jiaotong University, P.R. China); [Qinye Yin](#) (Xi'an Jiaotong University, P.R. China)

6. **Delay Calibration of Transmitter for Inter-Satellite Link Using Sub-Sampling and Partial Correlation**

[Xiao-Zhun Cui](#) (China Academy of Space Engineering, P.R. China)

**SPS-09: Beamforming and MIMO**

Date: Oct. 27, 2012

Time: 14:00pm – 15:30pm

Room: Heisong (黑松厅)

Chair: [Chengwen Xing](#), Beijing Institute of Technology, P. R. China

1. **Low-Complexity Zero-Forcing Coordinated Beamforming by Adaptive-Perturbation for Multi-Cell MIMO Networks**

[Guochen Liu](#) (University of Electronic Science and Technology of China, P.R. China); [Gang Wu](#) (University of Electronic Science and Technology of China, P.R. China); [Xiuhong Su](#) (University of Electronic Science and Technology, P.R. China); [Shaoqian Li](#) (University of Electronic Science and Technology of China, Taiwan)

2. **A Unified Linear MSE Minimization MIMO Beamforming Design Based on Quadratic Matrix Programming**

[Chengwen Xing](#) (Beijing Institute of Technology, P.R. China); [Zesong Fei](#) (Beijing Institute of Technology, P.R. China); [Shaodan Ma](#) (University of Macau, P.R. China); [Jingming Kuang](#) (Beijing Institute of Technology, P.R. China); [Yik-Chung Wu](#) (The University of Hong Kong, Hong Kong)

3. **Robust QoS-Based Transmit Beamforming Design in MISO Wiretap Channels**

[Hui Ma](#) (Shandong University, P.R. China); [Piming Ma](#) (Shandong University, P.R. China)

4. **Joint Beamforming and Scheduling in Multicell Interference Channel: Second Order Statistics Perspective**

[Maha Al Odeh](#) (Interdisciplinary Centre for Security, Reliability and Trust, Luxemburg)

5. **Linear Transceiver and Receiver Design Methods for Multiuser MIMO Channels**

[Lili Wei](#) (Shanghai Jiao Tong University, P.R. China); [Wen Chen](#) (Shanghai Jiao Tong University, P.R. China); [Yuejun Wei](#) (Huawei, P.R. China)

6. **Dynamic Selection on the Number of Antennas for Cooperative MISO in WSNs**

[Xinren Gong](#) (Sun Yat-sen University, P.R. China); [Xingcheng Liu](#) (Sun Yat-sen University, P.R. China); [Pingyuan Liang](#) (Sun Yat-sen University, P.R. China); [Siyang Wu](#) (Sun Yat-sen University, P.R. China)

**SPS-10: Miscellaneous Topics in Signal Processing**

Date: Oct. 27, 2012

Time: 16:00pm – 17:30pm

Room: Heisong (黑松厅)

Chair: Wei Xu, Southeast University, P. R. China

1. **A High-Speed and Low-Power Up/Down Counter in 0.18- $\mu$ m CMOS Technology**  
Tangbiao Zhang (Southeast University, P.R. China); Qingsheng Hu (Southeast University, P.R. China)
2. **A Jacobi-Based Parallel Algorithm for Matrix Inverse Computations**  
Tian Zhou (Southeast University, P.R. China); Shuai Fang (Southeast University, P.R. China); Xi Yang (Southeast University, P.R. China); Zheng Li (Southeast University, P.R. China); Qin Guo (Southeast University, P.R. China); Bin Jiang (Southeast University, P.R. China)
3. **Analysis of False CSI Attack by a Malicious User in OFDMA Networks**  
Xiaowei Wang (Shanghai Jiao Tong University, P.R. China); Meixia Tao (Shanghai Jiao Tong University, P.R. China); Youyun Xu (Shanghai Jiao Tong University, P.R. China)
4. **LRD Network Traffic Predicting Based on SRD Model**  
Bo Gao (Harbin Institute of Technology, P.R. China); Qinyu Zhang (Shenzhen Graduate School, Harbin Institute of Technology, P.R. China); Yongsheng Liang (Shenzhen Institute of Information Technology, P.R. China); Naitong Zhang (Harbin Institute of Technology, P.R. China)
5. **Context-Aware Complex Event Processing for Event Cloud in Internet of Things**  
Yongheng Wang (Hunan University, P.R. China); Kening Cao (Hunan University, P.R. China)
6. **Depth Propagation Based on Depth Consistency**  
Dichangsheng Wang (Shandong University, P.R. China); Ju Liu (Shandong University, P.R. China); Yannan Ren (Shandong University, P.R. China); Chuan Ge (Shandong University, P.R. China); Wei Liu (Hisense State Key Laboratory of Digital Multi-Media Technology, P.R. China); Yujun Li (Hisense State Key Laboratory of Digital Multi-Media Technology, P.R. China)

## Wireless Communications Symposium

### WCS-01: Beamforming and Precoding

Date: Oct. 25, 2012

Time: 14:00pm – 15:30pm

Room: Cuisong (翠松厅)

Chair: Lingyang Song, Peking University, P.R. China

1. **Study on Feedback Reduction Techniques in MIMO-OFDM Beamforming Systems**  
Laili Wang (Southeast University, P.R. China); Bin Sheng (Southeast University, P.R. China); Chunlong He (Southeast University, P.R. China)
2. **Outage Analysis of Vehicle-Roadside Relay-Vehicle Beamforming in**

## **Cooperative Communications**

[Dae-Kyo Jeong](#) (Hanyang University, Korea); [Dongwoo Kim](#) (Hanyang University, Korea)

### **3. Joint Receiver-and-Collaborative Beamforming for the Multi-User Relay Network in the Uplink**

[Chao Wang](#) (Shandong University, P.R. China); [Ju Liu](#) (Shandong University, P.R. China); [Hongji Xu](#) (Shandong University, P.R. China); [Lina Zheng](#) (Shandong University, P.R. China)

### **4. A Rank Adaptive Beamforming Scheme for TDD LTE System with Imperfect CSI**

[Li Zhang](#) (Beijing University of Posts and Telecommunications, P.R. China); [Xiaodong Ji](#) (Beijing University of Posts and Telecommunications, P.R. China); [Mugen Peng](#) (Beijing University of posts & Telecommunications, P.R. China)

### **5. Joint MMSE Precoding Design in Multi-Hop Bi-Directional MIMO Relay Systems**

[Jian Huang](#) (Shanghai Jiao Tong University, P.R. China); [Cheng Qian](#) (Shanghai Jiao Tong University, P.R. China); [Meng Zhang](#) (Shanghai Jiao Tong University, P.R. China); [Hanwen Luo](#) (Shanghai Jiao Tong University, P.R. China); [Hui Yu](#) (Shanghai Jiao Tong University, P.R. China)

### **6. Joint Source and Relay Precoder Design for MIMO Relay Systems with Direct Link**

[Nan Wang](#) (Southeast University, P.R. China); [Ming Chen](#) (Southeast University, P.R. China)

## **WCS-02: Spectrum Sensing in Cognitive Radio Networks (I)**

Date: Oct. 25, 2012

Time: 14:00pm – 15:30pm

Room: Qingsong (青松厅)

Chair: [Huifang Chen](#), Zhejiang University, P.R. China

### **1. A Communication-Overhead-Aware Cooperative Spectrum Sensing Scheme in Cognitive Radio Networks**

[Nannan Zhang](#) (Zhejiang University, P.R. China); [Huifang Chen](#) (Zhejiang University, P.R. China); [Lei Xie](#) (Zhejiang University, P.R. China)

### **2. Joint Spectrum Sensing and User Selection Strategy for Cognitive Radio Networks**

[Xiaohui Li](#) (Xidian University, P.R. China); [Wenlong Li](#) (Xidian University, P.R. China); [Yongqiang Hei](#) (Xidian University, P.R. China)

### **3. A Joint Design of Spectrum Sharing and Admission Control in Cognitive Radio Networks**

[Li Gao](#) (Zhengzhou University, P.R. China); [Haifeng Zhao](#) (Zhengzhou University, P.R. China); [Xiaomin Mu](#) (Zhengzhou University, P.R. China); [Yanhui Lu](#) (Zhengzhou University, P.R. China)

### **4. Finite-Sample Size Multiple Antennas Spectrum Sensing**

[Saeid Sedighi](#) (Qazvin International University, Iran); [Abbas Taherpour](#) (Imam Khomeini International University, Iran); [Tamer Khattab](#) (Qatar University, Qatar)

### **WCS-03: Cooperative Communication and Distributed Antenna Systems**

Date: Oct. 25, 2012

Time: 16:00pm – 17:30pm

Room: Cuisong (翠松厅)

Chair: Dongwoo Kim, Hanyang University, Korea

1. **Performance Analysis of a New Topology of Distributed Antenna Systems (Invited)**

[Qinyi Xu](#) (Southeast University, P.R. China); [Jun Zhang](#) (Southeast University, P.R. China); [Chao He](#) (Southeast University, P.R. China); [Shi Jin](#) (Southeast University, P.R. China); [Kai Kit Wong](#) (University College London, United Kingdom); [Hongguang Guan](#) (Huawei Technologies Co., Ltd.)

2. **A Timing Synchronization Scheme in Coordinated Base-Station Cooperative Communications**

[Ahmed M. Hamza](#) (University of Waterloo, Canada); [Jon Mark](#) (University of Waterloo, Canada)

3. **Coordinated Multi-Cell Downlink Transmission Utilizing Transmit Antenna Geometry**

[Shi Jin](#) (Southeast University, P.R. China); [Jun Zhang](#) (Southeast University, P.R. China); [Xiqi Gao](#) (Southeast University, P.R. China); [Kai-Kit Wong](#) (University College London, United Kingdom)

4. **Downlink Performance of Alamouti Space-Time Transmission in Practical Distributed Antenna Systems**

[Wei Feng](#) (Tsinghua University, P.R. China); [Yanmin Wang](#) (Tsinghua University, P.R. China); [Jianhua Lu](#) (Tsinghua University, P.R. China)

5. **System Outage Probability Analysis of Distributed Antenna Systems Over Shadowed Generalized-Gamma Composite Channels**

[Jin-Yuan Wang](#) (Southeast University, P.R. China); [Ming Chen](#) (Southeast University, P.R. China); [Qing-Song Hu](#) (Nanjing University of Aeronautics and Astronautics, P.R. China)

### **WCS-04: Free-Space Optical Communication**

Date: Oct. 25, 2012

Time: 16:00pm – 17:30pm

Room: Qingsong (青松厅)

Chair: Tiffany Jing Li, Lehigh University, USA

1. **Comparison of Optical OFDM-IDMA and Optical OFDMA for Uplink Visible Light Communications**

[Jian Dang](#) (Southeast University, P.R. China); [Zaichen Zhang](#) (Southeast University, P.R. China)

2. **Dual-Pulse PPM (DPPM) for Deep Space Optical Communications: Performance and Practicality Analysis**

[Tiffany Jing Li](#) (Lehigh University, USA); [Alan Hylton](#) (NASA, USA); [James Budinger](#) (NASA Glenn Research Center, USA); [Jennifer Nappier](#) (NASA Glenn Research Center, USA); [Joseph Downey](#) (NASA Glenn Research Center, USA); [Daniel E. Raible](#) (NASA John H. Glenn Research Center, USA)

3. **An SLVA-Aided Turbo Decoding Scheme for Free-Space Optical Communications**

[Huang Zhou](#) (Southeast University, P.R. China); [Ming Jiang](#) (Southeast University, P.R. China); [Yijia Xu](#) (Southeast University, P.R. China); [Ding Meiling](#) (ZTE, P.R. China)

4. **BER Performance of Free-space Optical Communication in Strong Turbulence with Pointing Errors**

[Ling-Ling Cao](#) (Nanjing University of Aeronautics and Astronautics, P.R. China); [Ming Sheng](#) (Nanjing University of Aeronautics and Astronautics, P.R. China); [Min Feng](#) (Nanjing University of Aeronautics and Astronautics, P.R. China); [Xiu-Xiu Xie](#) (Nanjing University of Aeronautics and Astronautics, P.R. China)

5. **On the Information Rate of Different SDMT Modulations**

[Chengcheng Pei](#) (Southeast University, P.R. China); [Zaichen Zhang](#) (Southeast University, P.R. China)

## **WCS-05: Diversity and Equalization**

Date: Oct. 26, 2012

Time: 14:00pm – 15:30pm

Room: Cuisong (翠松厅)

Chair: Shaodan Ma, University of Macau, P.R. China

1. **Multiuser Diversity with Capture in OFDMA Systems with Clustered Feedback**

[Hang Li](#) (University of Western Australia, Australia); [Qinghua Guo](#) (University of Western Australia, Australia); [Licai Fang](#) (the University of Western Australia, Australia); [Defeng Huang](#) (University of Western Australia, Australia)

2. **Finite-SNR Diversity-Multiplexing Tradeoff Analysis of Relay Network with Two Antennas at the Source in Rayleigh Fading Channels**

[Wujiang Fang](#) (PLA University of Science and Technology, P.R. China); [Yuanyuan Gao](#) (PLA University of Science and Technology, P.R. China); [Kun Xu](#) (PLA University of Science and Technology, P.R. China); [Guozhen Zang](#) (PLA University of Science and Technology, P.R. China); [Tianming Jiang](#) (PLA University of Science and Technology, P.R. China)

3. **Affine Projection Decoders in Uplink of MU-MIMO System and Their**

## Performances

[Haiquan Wang](#) (Hangzhou Dianzi University, P.R. China); [Linlin Hou](#) (Hangzhou Dianzi University, P.R. China); [Luping Ma](#) (Hangzhou Dianzi University, P.R. China); [Lei Shen](#) (Hangzhou Dianzi University, P.R. China)

### 4. Diversity-Multiplexing Tradeoff of Coded Cooperation with Incremental Relaying

[Kun Xu](#) (PLA University of Science and Technology, P.R. China); [Yuanyuan Gao](#) (PLA University of Science and Technology, P.R. China); [Youyun Xu](#) (PLA University of Science and Technology, P.R. China); [Xiao Yi](#) (PLA University of Science and Technology, P.R. China)

### 5. Low Complexity Frequency Domain Decision Feedback Turbo Equalization with Optimized Symbol Mapping

[Zhengfa Liang](#) (National University of Defense Technology, P.R. China); [Hengzhu Liu](#) (National University of Defense Technology, P.R. China); [Dongpei Liu](#) (National University of Defense Technology, P.R. China); [Liyong Zhang](#) (National University of Defense Technology, P.R. China)

## WCS-06: Power Control and Resource Allocation

Date: Oct. 26, 2012

Time: 14:00pm – 15:30pm

Room: Qingsong (青松厅)

Chair: Pengcheng Zhu, Southeast University, P.R. China

### 1. Multiuser Power Control with Competitive Market Equilibrium

[Ming Zhao](#) (Beijing University of Posts and Telecommunications, P.R. China); [Tao Luo](#) (BUPT, P.R. China); [Guang-Xin Yue](#) (BUPT, P.R. China); [Xiao-Jun Wang](#) (DCU, Ireland)

### 2. Joint Power Control and Subchannel Allocation for OFDMA Femtocell Networks Using Distributed Auction Game

[Jun Deng](#) (Peking University, P.R. China); [Rongqing Zhang](#) (Peking University, P.R. China); [Lingyang Song](#) (Peking University, P.R. China); [Zhu Han](#) (University of Houston, USA); [Guang Yang](#) (ZTE Cooperation, P.R. China); [Bingli Jiao](#) (Peking University, P.R. China)

### 3. Partition Function Game for Rate Optimization in Random Interference Networks

[Chen Wang](#) (Shanghai Jiao Tong University, P.R. China); [Meixia Tao](#) (Shanghai Jiao Tong University, P.R. China); [Zhu Han](#) (University of Houston, USA)

### 4. Bit Allocation Strategy Among Users in Coordinated Multi-cell Systems with Limited Feedback

[Jiamei Qin](#) (Shanghai Jiao Tong University, P.R. China); [Meng Zhang](#) (Shanghai Jiao Tong University, P.R. China); [Hanwen Luo](#) (Shanghai Jiao Tong University, P.R. China); [Hui Yu](#) (Shanghai Jiao Tong University, P.R. China)



5. **Closed-Form Solutions to the Pareto Boundary and Optimal Distributed Strategy for the Two-User MISO Interference Channel**

[Jiamin Li](#) (Southeast University, P.R. China); [Dongming Wang](#) (Southeast University, P.R. China); [Pengcheng Zhu](#) (Southeast University, P.R. China); [Lan Tang](#) (Nanjing University, P.R. China); [Xiaohu You](#) (Southeast University, P.R. China)

6. **Spectrum Leasing and Relay Selection for Cooperative Cognitive Radio Network Using Potential Game**

[Wei Xie](#) (PLA University of Science and Technology, P.R. China); [Ma Wenfeng](#) (PLA University of Science & Technology, P.R. China); [Peng Han](#) (PLA University of Science and Technology, P.R. China); [Wei Zhong](#) (PLA University of Science and Technology, P.R. China); [Hua Tian](#) (PLA University of Science and Technology, P.R. China)

**WCS-07: Coding for Cooperative Communication and Multiple Access**

Date: Oct. 26, 2012

Time: 14:00pm – 15:30pm

Room: Baisong (白松厅)

Chair: [Tiffany Jing Li](#), Lehigh University, USA

1. **Soft Message Relaying Through Chaotic Analog Coding**

[Xuanxuan Lu](#) (Lehigh University, USA); [Tiffany Jing Li](#) (Lehigh University, USA); [Yang Liu](#) (Lehigh University, USA); [Xingkai Bao](#) (Alcatel-Lucent, USA)

2. **The Application of Network Coding and Cooperative Diversity in Asymmetric Two-Way Relay Channel**

[Xinsheng Chi](#) (Nanjing University of Posts and Telecommunications, P.R. China); [Baoyu Zheng](#) (Nanjing University of Posts and Telecommunications, P.R. China)

3. **Wireless Space Network Coding for Cooperative Communications**

[Dapeng Li](#) (Nanjing University of Posts and Telecommunications, P.R. China); [Haitao Zhao](#) (Nanjing University of Posts and Telecommunications, P.R. China); [Bo Huang](#) (Nanjing University of Posts and Telecommunications, P.R. China); [Nanjie Liu](#) (Nanjing University of Posts and Telecommunications, P.R. China)

4. **On Forward Error Correction with Hamming Code for Multi-path Communications**

[Junfeng Xu](#) (China Information Technology Security Evaluation Center, P.R. China); [Tao Zhang](#) (China Information Technology Security Evaluation Center, P.R. China); [Zhongding Dong](#) (Beijing Jiaotong University, P.R. China)

5. **Non-Coded Rateless Multiple Access**

[Zhaoyang Zhang](#) (Zhejiang University, P.R. China); [Shaolei Chen](#) (Zhejiang University, P.R. China); [Kedi Wu](#) (Zhejiang University, P.R. China)

## **WCS-08: LTE and LTE-Advanced**

Date: Oct. 26, 2012

Time: 16:00pm – 17:30pm

Room: Cuisong (翠松厅)

Chair: Shaodan Ma, University of Macau, P.R. China

1. **System-Level Performance of Coordinated Multi-Point Transmission for Heterogeneous Networks in LTE-Advanced Systems**

[Xiaohan Lin](#) (Southeast University, P.R. China); [Shi Jin](#) (Southeast University, P.R. China); [Xiao Li](#) (Southeast University, P.R. China); [Xiqi Gao](#) (Southeast University, P.R. China)

2. **A Novel Cell Selection Strategy with Load Balancing for Both Idle and RRC-Connected Users in 3GPP LTE Network**

[Cen Qian](#) (University of Science and Technology of China, P.R. China); [Sihai Zhang](#) (University of Science and Technology of China, P.R. China); [Wuyang Zhou](#) (University of Science and Technology of China, P.R. China)

3. **A Novel Dynamic Soft Frequency Reuse Combined with Power Re-allocation in LTE Uplinks**

[Shui Xincui](#) (University of Science and Technology of China, P.R. China); [Zhao Ming](#) (University of Science and Technology of China, P.R. China); [Peng Dong](#) (China Mobile Research Institute, P.R. China); [Jia Kong](#) (China Mobile Research Institute, P.R. China)

4. **A Practical HARQ Scheme with Network Coding for LTE-A Broadcasting System**

[Zhenxing Lu](#) (PLA University of Science and Technology, P.R. China); [Kui Xu](#) (PLA University of Science and Technology, P.R. China); [Youyun Xu](#) (PLA University of Science & Technology, P.R. China)

5. **An Efficient Resource Allocation Algorithm with Carrier Aggregation in LTE Advanced Systems**

[Zanjie Huang](#) (University of Science and Technology of China, P.R. China); [Yusheng Ji](#) (National Institute of Informatics, Japan); [Baohua Zhao](#) (University of Science and Technology of China, P.R. China)

6. **Cross Entropy Based Component Carrier Allocation in LTE-Advanced Wireless Communication System**

[Wang Ye](#) (Harbin institute of Technology Shenzhen Graduate School, P.R. China); [Peipei Chen](#) (Harbin Institute of Technology Shenzhen Graduate School, P.R. China); [Qinyu Zhang](#) (Shenzhen Graduate School, Harbin Institute of Technology, P.R. China); [Xiaodong Lin](#) (University of Ontario Institute of Technology, Canada)

## **WCS-09: Spectrum Sensing in Cognitive Radio Networks (II)**

Date: Oct. 26, 2012

Time: 16:00pm – 17:30pm

Room: Qingsong (青松厅)

Chair: Hang Zhang, PLA University of Science & Technology, P.R. China

- 1. Double-Threshold Energy Detection of Spectrum Sensing for Cognitive Radio Under Noise Uncertainty Environment**  
[Shujing Xie](#) (Southeast University, P.R. China); [Lianfeng Shen](#) (National Mobile Communications Research Laboratory, Southeast University, P.R. China)
- 2. An Efficient Cooperative Spectrum Sensing Algorithm in Time Domain**  
[Jun Luo](#) (University of Electronic Science and Technology of China, P.R. China); [Jun Wang](#) (University of Electronic Science and Technology of China, P.R. China); [Qiang Li](#) (University of Electronic Science & Technology of China, P.R. China); [Shaoqian Li](#) (University of Electronic Science and Technology of China, P.R. China)
- 3. Efficient Cooperative Spectrum Sensing with Minimum Sensing Error in Cognitive Radio Networks**  
[Hang Hu](#) (PLA University of Science and Technology, P.R. China); [Lianguo Wu](#) (PLA University of Science and Technology P.R. China); [Ning Li](#) (PLA University of Science and Technology, P.R. China); [Dongmei Zhang](#) (PLA University of Science and Technology, P.R. China); [Youyun Xu](#) (PLA University of Science & Technology, P.R. China)
- 4. Seeking Justice: Lapsed Reputation-based Cooperative Spectrum Sensing with Lasting Trusted Nodes Assistance**  
[Shuo Feng](#) (PLA University of Science and Technology, P.R. China); [Xueqiang Zheng](#) (PLA University of Science and Technology, P.R. China); [Junnan Yao](#) (PLA University of Science and Technology, P.R. China); [Guoru Ding](#) (PLA University of Science and Technology, P.R. China)
- 5. Secure Enhanced Compressed Wideband Spectrum Sensing**  
[Yao Gang](#) (Nanjing University of Posts and Telecommunications, P.R. China); [Baoyu Zheng](#) (Nanjing University of Posts and Telecommunications, P.R. China); [Junqing Chen](#) (Nanjing University of Posts and Telecommunications, P.R. China)

## **WCS-10: Relaying and Relay Systems**

Date: Oct. 26, 2012

Time: 16:00pm – 17:30pm

Room: Baisong (白松厅)

Chair: Wen Chen, Shanghai Jiao Tong University, P.R. China

- 1. Fixed Full Duplex Relaying for Wireless Broadband Communication**  
[Qingmin Meng](#) (Nanjing University of Posts and Telecommunications, P.R. China); [Wei Feng](#) (Nanjing University of Posts and Telecommunications, Nanjing, Belgium); [Gan Zheng](#) (University of Luxembourg, Luxembourg); [Symeon Chatzinotas](#) (University of Luxembourg, Luxembourg); [Björn Ottersten](#) (University of Luxembourg, Luxembourg)

2. **Outage Probability of Two-Way AF Relaying in the Presence of Channel Estimation Error and Co-Channel Interference**  
[Zhuo Chen](#) (PLA University of Science and Technology, P.R. China); [Cai Yueming](#) (PLA University of Science and Technology, P.R. China); [Wang Lei](#) (PLA University of Science and Technology, P.R. China)
  
3. **Performance Analysis of Dual-Hop MIMO-MRC AF Relaying in the Presence of Co-Channel Interference at the Destination**  
[Xiaoming Xu](#) (PLA University of Science and Technology, P.R. China); [Cai Yueming](#) (PLA University of Science and Technology, P.R. China); [Weiwei Yang](#) (PLA University of Science and Technology, P.R. China); [Peng Zhang](#) (China Electronic System Engineering Company, P.R. China)
  
4. **Outage Performance Analysis of Transmit Antenna Selection in MIMO Decode-And-Forward Relaying Over Nakagami-m Fading Channels**  
[Yang Gao](#) (Xidian University, P.R. China); [Jianhua Ge](#) (Xidian University, P.R. China); [Ming Jin](#) (Ningbo University, P.R. China)
  
5. **Outage Probability Analysis of Asymmetrical Bi-Directional Multi-Relay Systems with Network Coding**  
[Hua Tian](#) (PLA University of Sci. and Tech., P.R. China); [Wenwen Liang](#) (PLA University of Science and Technology, P.R. China); [Youyun Xu](#) (PLA University of Science and Technology, P.R. China); [Kui Xu](#) (PLA University of Science and Technology, P.R. China); [Lianguo Wu](#) (PLA University of Science and Technology, P.R. China)
  
6. **Asymptotic Energy Efficiency Analysis for Noisy Relay Systems with Interference-Limited Destination**  
[Yuning Wang](#) (Beijing University of Posts and Telecommunications, P.R. China); [Jianhua Zhang](#) (Beijing University of Posts and Telecommunications, P.R. China); [Ping Zhang](#) (Beijing University of Posts and Telecommunications, P.R. China)

## **WCS-11: MIMO and Multiple Antennas**

Date: Oct. 27, 2012

Time: 8:45am – 10:15am

Room: Cuisong (翠松厅)

Chair: Gang Wu, University of Electronic Science and Technology of China, P.R. China

1. **An Improved LR-aided K-Best Algorithm for MIMO Detection**  
[Qi Zhou](#) (Georgia Institute of Technology, USA); [Xiaoli Ma](#) (Georgia Institute of Technology, USA)
  
2. **Exploiting Statistical and Outdated CSI in Multiuser Downlink Transmission**  
[Shi Jin](#) (Southeast University, P.R. China); [Jue Wang](#) (Southeast University, P.R. China); [Michail Matthaiou](#) (Chalmers University of Technology, Sweden); [Xiqi Gao](#) (Southeast University, P.R. China)

3. **The Interference of MIMO Transmission Modes in Downlink LTE Systems**  
[Deli Jia](#) (University of Electronic Science and Technology of China, P.R. China); [Gang Wu](#) (University of Electronic Science and Technology of China, P.R. China); [Shaoqian Li](#) (University of Electronic Science and Technology of China, P.R. China)
4. **A Dual-Antenna Based Handover Scheme for GSM-R Networks**  
[Pengyuan Du](#) (Shanghai Jiao Tong University, P.R. China); [Lujin Luo](#) (Shanghai Jiao Tong University, P.R. China); [Yongsen Ma](#) (Shanghai Jiao Tong University, P.R. China); [Chengnian Long](#) (Shanghai Jiao Tong University, P.R. China)
5. **Joint Iterative Decoding and MMSE-SIC VBLAST Detection of LDPC Coded MIMO Systems**  
[Jianrong Bao](#) (Hangzhou Dianzi University, P.R. China); [Xiaorong Xu](#) (Hangzhou Dianzi University, P.R. China); [Bing Jiang](#) (Hangzhou Dianzi University, P.R. China)

## **WCS-12: Collaborative and Cognitive Communications**

Date: Oct. 27, 2012

Time: 8:45am – 10:15am

Room: Qingsong (青松厅)

Chair: Lingyang Song, Peking University, P.R. China

1. **MIMO Physical Layer Network Coding Based on VBLAST Detection (Invited)**  
[Shengli Zhang](#) (Shenzhen University, P.R. China); [Canping Nie](#) (Shenzhen University, P.R. China); [Liya Lu](#) (Shenzhen University, P.R. China); [Shengqi Zhang](#) (ZTE Co. Shenzhen, P.R. China); [Qian Gongbin](#) (Shenzhen University, P.R. China)
2. **Investigation of Multi-Link Spatial Correlation Properties (Invited)**  
[Xiang Cheng](#) (Peking University, P.R. China); [Chengxiang Wang](#) (Heriot-Watt University, United Kingdom); [Ai Bo](#) (Beijing Jiaotong University, P.R. China); [Xuefeng Yin](#) (Tongji University, P.R. China); [Bingli Jiao](#) (Peking University, P.R. China)
3. **Energy-Efficient Feedback Communication based on the S-K Scheme in Cognitive Radio Systems (Invited)**  
[Xiao Cai](#) (Zhejiang University, P.R. China); [Zhaoyang Zhang](#) (Zhejiang University, P.R. China); [Yu Zhang](#) (Zhejiang University, P.R. China); [Rui Yin](#) (Zhejiang University, P.R. China); [Caijun Zhong](#) (Zhejiang University, P.R. China)
4. **Noncoherent Amplify-and-Forward Cooperative OFDM in Block Fading Channels**  
[Ye Yang](#) (Xidian University, P.R. China); [Jianhua Ge](#) (Xidian University, P.R. China); [Tsong-Hui Chang](#) (Taiwan University of Science and Technology, Taiwan); [Yin Sun](#) (Tsinghua University, P.R. China)
5. **A Novel Data Transmission Scheme for Two-Way Multiantenna AF Relay**

## **Systems**

[Jing Yang](#) (Southwest Jiaotong University, P.R. China); [Zhiguo Ding](#) (Newcastle University, United Kingdom); [Pingzhi Fan](#) (Southwest Jiaotong University, P.R. China)

### **6. A Cooperative Transmission Scheme for Secondary Users in Cognitive Radio Networks**

[Jianbai Chen](#) (Nanjing University of Posts and Telecommunications, P.R. China); [Baoyu Zheng](#) (Nanjing University of Posts and Telecommunications, P.R. China)

## **WCS-13: OFDM and OFDM Systems**

Date: Oct. 27, 2012

Time: 8:45am – 10:15am

Room: Baisong (白松厅)

Chair: [Pengcheng Zhu](#), Southeast University, P.R. China

### **1. Physical Layer Signaling Transmission Using Walsh Sequences for OFDM Systems**

[Bo Hao](#) (Tsinghua University, P.R. China); [Jun Wang](#) (Tsinghua University, P.R. China); [Zhaocheng Wang](#) (Tsinghua University, P.R. China)

### **2. A Modified SLM Scheme with Low Complexity for Reducing the PAPR of OFDM Systems Without Side Information**

[Jinwei Ji](#) (Xidian University, Xi'an, P.R. China); [Guangliang Ren](#) (Xidian University, P.R. China)

### **3. Scalable Video Broadcast Over Multiuser OFDM Systems**

[Lan Tang](#) (Nanjing University, P.R. China); [Xinggan Zhang](#) (Nanjing University, P.R. China); [Yechao Bai](#) (Nanjing University, P.R. China); [Pengcheng Zhu](#) (Southeast University, P.R. China)

### **4. Design and Implementation of OFDMA-based WLAN Prototype Systems**

[Damin Wu](#) (Southeast University, P.R. China); [Nan Bao](#) (Southeast University, P.R. China); [Weiwei Xia](#) (Southeast University, P.R. China); [Lianfeng Shen](#) (Southeast University, P.R. China)

### **5. Fast Optimal Resource Allocation Algorithm for Multicast OFDM Systems**

[Zanjie Huang](#) (University of Science and Technology of China, P.R. China); [Xiaoming Zhao](#) (University of Science and Technology of China, P.R. China); [Chenguang He](#) (University of Science and Technology of China, P.R. China); [Yu Gu](#) (National Institute of Informatics, Japan); [Hao Zhou](#) (University of Science and Technology of China, P.R. China); [Baohua Zhao](#) (University of Science and Technology of China, P.R. China)

## **WCS-14: Cooperative Communication and Jamming**

Date: Oct. 27, 2012

Time: 10:45am – 12:15am

Room: Cuisong (翠松厅)

Chair: Shi Jin, Southeast University, P.R. China

1. **Coded Cooperation in Asymmetric Two-Way Relay Networks**

[Qin Yuan](#) (University of Science and Technology of China, P.R. China); [Sihai Zhang](#) (University of Science and Technology of China, P.R. China); [Zhao Ming](#) (University of Science and Technology of China, P.R. China); [Wuyang Zhou](#) (University of Science and Technology of China, P.R. China)

2. **Performance of Cooperative Amplify-and-Forward Protocols in Vehicular Ad-Hoc Networks**

[Zeinab Tirkan](#) (Imam Khomeini International University, Iran); [Mehrdad Shirkhani](#) (Imam Khomeini International University, Iran); [Abbas Taherpour](#) (Imam Khomeini International University, Iran); [Murat Uysal](#) (Ozyegin University, Turkey)

3. **Fairness Study on Two-Hop Selection Cooperation in Wireless Networks**

[Zhang Qian](#) (Tsinghua University, P.R. China); [Yuhan Dong](#) (Tsinghua University, P.R. China); [Xuedan Zhang](#) (Tsinghua University, P.R. China); [Sheng Zhang](#) (Tsinghua university, P.R. China); [Xiaokang Lin](#) (Tsinghua University, P.R. China)

4. **Performance Analysis and Optimization of Two-Way Cooperative Communications in Inter-Vehicular Networks**

[Mehrdad Shirkhani](#) (Imam Khomeini International University, Iran); [Zeinab Tirkan](#) (Imam Khomeini International University, Iran); [Abbas Taherpour](#) (Imam Khomeini International University, Iran)

5. **Optimal Resource Allocation for OFDM Wiretap Channels with Cooperative Jammer**

[Zhang-Ju Yu](#) (Nanjing University of Posts and Telecommunications, P.R. China); [Bao-Yun Wang](#) (Nanjing University of Posts and Telecommunications, P.R. China); [Yayan Ma](#) (Nanjing University of Posts and Telecommunications, P.R. China); [Junxi Zhao](#) (Nanjing University of Posts and Telecommunications, P.R. China)

6. **Friendly Cooperation Jamming for Secrecy in LOS Channels**

[Bin Yang](#) (Xi'an Jiaotong University, P.R. China); [Wenjie Wang](#) (Xi'an Jiaotong University, P.R. China); [Jiancun Fan](#) (Xi'an Jiaotong University, P.R. China); [Qinye Yin](#) (Xi'an Jiaotong University, P.R. China)

**WCS-15: Channel Characterization and Capacity Analysis**

Date: Oct. 27, 2012

Time: 10:45am – 12:15am

Room: Qingsong (青松厅)

Chair: Xuefeng Yin, Tongji University, P.R. China

1. **MIMO-OFDM Wireless Channel Prediction by Exploiting Spatial Correlation**

[Lihong Liu](#) (Fudan University, P.R. China); [Hui Feng](#) (Fudan University, P.R. China); [Bo Hu](#)

(Fudan University, Shanghai, P.R. China); [Jianqiu Zhang](#) (Fudan University, P.R. China)

2. **A Time-Variant MIMO Channel Model Based on the IMT-Advanced Channel Model**

[Zhiyong Zhu](#) (Beijing University of Posts and Telecommunications, P.R. China); [Yutao Zhu](#) (Beijing University of Posts and Telecommunications, P.R. China); [Tiankui Zhang](#) (Beijing University of Posts and Telecommunications, P.R. China); [Zhimin Zeng](#) (Beijing University of Posts and Telecommunications, P.R. China)

3. **A Method for WSN Channel Modeling via Stochastic Differential Equations and Its Applications**

[Liulei Zhou](#) (Soochow University, P.R. China); [Luoquan Hu](#) (Nanjing University of Posts and Telecommunications, P.R. China); [Yiming Wang](#) (Soochow University, P.R. China); [Jia Hou](#) (Soochow University, P.R. China); [Shuqi Liu](#) (Soochow University, P.R. China)

4. **Capacity Analysis of Cognitive MISO Multicast Networks**

[Jianbo Ji](#) (Shanghai Jiao Tong University, P.R. China); Renhua Ge (Guilin University of Aerospace Technology, P.R. China); [Wen Chen](#) (Shanghai Jiao Tong University, P.R. China)

5. **Ergodic Capacity Region for the Uplink OFDMA Networks**

[Zelang Wang](#) (Zhejiang University, P.R. China); [Huifang Chen](#) (Zhejiang University, P.R. China); [Lei Xie](#) (Zhejiang University, P.R. China)

**WCS-16: Resource Allocation and Scheduling**

Date: Oct. 27, 2012

Time: 10:45am – 12:15am

Room: Baisong (白松厅)

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

1. **User-Centric Compensation Framework with Universal Pricing for Hybrid Femtocell Networks**

[Fei Shen](#) (Dresden University of Technology, Germany); [Eduard Jorswieck](#) (Dresden University of Technology, Germany)

2. **Utility-Based Bandwidth Allocation Algorithm for Heterogeneous Wireless Networks**

[Rong Chai](#) (Chongqing University of Posts and Telecommunications, P.R. China); [Xiujuan Wang](#) (Chongqing University of Posts and Telecommunications, P.R. China); [Qian-bin Chen](#) (Chongqing university of Posts and telecommunications, P.R. China)

3. **Low-Complexity Energy-Efficient Resource Allocation in OFDMA Networks**

[Qiaoling Yu](#) (University of Electronic Science and Technology of China (UESTC), P.R. China); [Gang Wu](#) (University of Electronic Science and Technology of China, P.R. China); [Qian Tang](#) (University of Electronic Science and Technology of China, P.R. China); [Shaoqian Li](#) (University of Electronic Science and Technology of China, P.R. China)



4. **Enhanced Multiuser Scheduling Using Modified SLNR Metric with Outdated Partial CSI**

[Ruichi Yu](#) (Southeast University, P.R. China); [Binbin Dai](#) (University of Toronto, Canada); [Wei Xu](#) (Southeast University, P.R. China)

5. **Optimal Energy-Efficient Scheduling over Fading Channels with Non-ideal Circuit Power**

[Yinghao Jin](#) (University of Science and Technology of China, P.R. China); [Jie Xu](#) (National University of Singapore, Singapore); [Ling Qiu](#) (PCN&SS Lab, P.R. China)

6. **A Downlink User Speed Based Scheduling Algorithm for Mobile Systems with Time Multiplexing Pilot**

[Yuzhuang Miao](#) (Peking University, P.R. China); [Meng Ma](#) (Peking University, P.R. China); [Xiang Cheng](#) (Peking University, P.R. China); [Bingli Jiao](#) (Peking University, P.R. China)

**WCS-17: Detection and Channel Estimation**

Date: Oct. 27, 2012

Time: 14:00pm – 15:30pm

Room: Baisong (白松厅)

Chair: Xuefeng Yin, Tongji University, P.R. China

1. **A Low-Complexity Symbol-Level Differential Detection Scheme for IEEE 802.15.4 O-QPSK Signals**

[Cong Wang](#) (Tsinghua University, P.R. China); [Yongpan Liu](#) (Tsinghua University, P.R. China); [Rong Luo](#) (Tsinghua University, P.R. China); [Huazhong Yang](#) (Tsinghua University, P.R. China)

2. **Performance of Star 16QAM Using Iterative Decision-Directed Channel Estimation for DFT-Precoded OFDMA**

[Chihiro Mori](#) (Tokyo City University, Japan); [Teruo Kawamura](#) (NTT DOCOMO, INC., Japan); [Nobuhiko Miki](#) (NTT DOCOMO, INC., Japan); [Mamoru Sawahashi](#) (Tokyo City University, Japan)

3. **Adaptive Doppler Frequency Shift Estimation for OFDM Systems**

[Qinghua Tian](#) (Beijing University of Posts and Telecommunications, P.R. China); [Qi Zhang](#) (Beijing University of Posts and Telecommunications, P.R. China); [Xiangjun Xin](#) (Beijing University of Posts and Telecommunications, P.R. China); [Dahsiung Hsu](#) (Beijing University of Posts and Telecommunications, P.R. China)

4. **A Low-Complexity Time-Domain Channel Estimator for ZP-OFDM Systems**

[Jiong Shi](#) (Zhejiang Wanli University, P.R. China); [Liping Jin](#) (Zhejiang Wanli University, P.R. China); [Zhaoxi Fang](#) (Zhejiang Wanli University, P.R. China); [Jungan Chen](#) (Zhejiang Wanli University, P.R. China)

5. **On-Line and Dynamic Estimation of Rician Fading Channels in GSM-R**

## Networks

[Yongsen Ma](#) (Shanghai Jiao Tong University, P.R. China); [Pengyuan Du](#) (Shanghai Jiao Tong University, P.R. China); [Xiaofeng Mao](#) (Shanghai Jiao Tong University, P.R. China); [Chengnian Long](#) (Shanghai Jiao Tong University, P.R. China)

### 6. **Dynamic Range Selection for Antenna-Array Gains in High-Resolution Channel Parameter Estimation**

[Xuefeng Yin](#) (Tongji University, P.R. China); [Yuandong Hu](#) (Tongji University China, P.R. China); [Zhimeng Zhong](#) (Huawei Technology Company, P.R. China)

## WCS-18: Wireless Green Communications

Date: Oct. 27, 2012

Time: 16:00pm – 17:30pm

Room: Baisong (白松厅)

Chair: [Xiaoli Ma](#), Georgia Institute of Technology, USA

### 1. **Energy-Efficiency of Very Large Multi-User MIMO Systems**

[Hu Ying](#) (Southeast University, P.R. China); [Baofeng Ji](#) (Southeast University, Nanjing, Jiangsu, P.R. China); [Yongming Huang](#) (Southeast University, P.R. China); [Luxi Yang](#) (Southeast University, P.R. China)

### 2. **Dynamic User Association for Energy Minimization in Macro-Relay Networks**

[Li Xin](#) (Southeast University, P.R. China); [Hao Wang](#) (Southeast University, P.R. China); [Nan Liu](#) (Southeast University, P.R. China); [Xiaohu You](#) (Southeast University, P.R. China)

### 3. **Energy Efficiency Driven Random Access in WLAN Systems**

[Shiyang Chen](#) (Shanghai Jiao Tong University, P.R. China); [Xiaoying Gan](#) (Shanghai Jiao Tong University, P.R. China); [He Li](#) (Shanghai Jiao Tong University, P.R. China)

### 4. **Semi-Dynamic Switch on/off Algorithm over Multi-Pico Stations in Heterogeneous Networks**

[You Fu](#) (Beijing Institute of Technology, P.R. China); [Zesong Fei](#) (Beijing Institute of Technology, P.R. China); [Chengwen Xing](#) (Beijing Institute of Technology, P.R. China); [Jingming Kuang](#) (Beijing Institute of Technology, P.R. China); [Wan Lei](#) (Huawei Technology Ltd, P.R. China)

### 5. **Energy Savings Using an Adaptive Base Station to Relay Station Switching Paradigm**

[ATM Shafiu Alam](#) (Open University, United Kingdom); [Laurence S Dooley](#) (Open University, United Kingdom); [Adrian Poulton](#) (The Open University, United Kingdom); [Yusheng Ji](#) (National Institute of Informatics, Japan)

### 6. **Decentralized Energy Management System for Charging and Discharging of Plug-in Electric Vehicles**

[Chao-Kai Wen](#) (Sun Yat-Sen University, Taiwan); [Jung-Chieh Chen](#) (Kaohsiung Normal University, Taiwan); [Jen-Hao Teng](#) (Sun Yat-sen University, Taiwan); [Pangan Ting](#) (Tsing Hua

University, Taiwan)

## **WCS-19: Miscellaneous Topics in Wireless Communications**

Date: Oct. 27, 2012

Time: 16:00pm – 17:30pm

Room: Xuesong Hall (雪松厅)

Chair: Zhiguo Shi, Zhejiang University, P.R. China

- 1. A Lightweight Key Management Scheme for 60 GHz WPAN**  
Ruixue Sun (Zhejiang University, P.R. China); Zhiguo Shi (Zhejiang University, P.R. China);  
Rongxing Lu (University of Waterloo, Canada); Jian Qiao (University of Waterloo, Canada);  
Sherman Shen (University of Waterloo, Canada)
- 2. Distributed Coalition Formation for Selfish Relays and Eavesdroppers in Wireless Networks: A Job-Hopping Game**  
Yang Cao (Huazhong University of Science and Technology, P.R. China); Jiaolong Wei  
(Huazhong University of Science and Technology, P.R. China)
- 3. Experimental Study on Particle Filter Based Synchronization of Chaotic Colpitts Circuits with Application to Secure Communications**  
Songjie Bi (Zhejiang University, P.R. China); Zhiguo Shi (Zhejiang University, P.R. China);  
Hongtao Zhang (University of Waterloo, Canada); Sherman Shen (University of Waterloo,  
Canada)
- 4. Performance Analysis of Synchronization Based on One-Bit Quantization in Low SNR Multipath Regime**  
Jin Zhu (Tsinghua University, P.R. China)
- 5. HCVP: A Hybrid Cognitive Validation Platform for WBANs**  
Junchao Han (Shanghai Jiao Tong University, P.R. China); Jing Liu (Shanghai Jiao Tong  
University, P.R. China); Hui Yu (Shanghai Jiao Tong University, P.R. China); Chen Chen (China  
Samsung Telecom R&D Center, P.R. China); Shen Zhichun (China Samsung Telecom R&D  
Center, P.R. China)
- 6. On the Secrecy Mutual Information of Spatial Modulation with Finite Alphabet**  
Xinrong Guan (PLA University of Science and Technology, P.R. China); Cai Yueming (PLA  
University of Science and Technology, P.R. China); Weiwei Yang (PLA University of Science  
and Technology, P.R. China)

## **Wireless Networking Symposium**

### **WNS-01: Medium Access Control**

Date: Oct. 25, 2012

Time: 14:00pm – 15:30pm

Room: Baisong (白松厅)

Chair: Xiaodong Lin, University of Ontario Institute of Technology, Canada

1. **An Interference Tolerance Aware Multiple Access Protocol for Wireless Networks**

[Haiying Zhang](#) (Xidian University, P.R. China); [Jilong Liu](#) (Xidian University, P.R. China); [Mingwu Yao](#) (Xidian University, P.R. China)

2. **A Distributed TDMA-Based MAC Protocol for Ad Hoc Networks with Directional Antennas**

[Dong Hao](#) (Beijing University of Posts and Telecommunications, P.R. China); [Dan Pu Liu](#) (BUPT, P.R. China)

3. **An Adaptive Collision-Free MAC Protocol Based on TDMA for Inter-Vehicular Communication**

[Weijie Guo](#) (University of Science and Technology of China, P.R. China); [Liusheng Huang](#) (University of Science and Technology of China, P.R. China); [Long Chen](#) (University of Science and Technology of China, P.R. China); [Hongli Xu](#) (University of Science and Technology of China, P.R. China); [Jietao Xie](#) (University of Science & Technology of China, P.R. China)

4. **A Novel Hybrid Random Access Policy Based on Spectrum Occupation**

[Tong Zhang](#) (Nanjing University of Posts and Telecommunications, P.R. China); [Xiaorong Zhu](#) (Nanjing University of Posts and Telecommunications, P.R. China); [Shixiang Shao](#) (Nanjing University of Posts and Telecommunications, P.R. China)

5. **Design of QSPM-MAC: Quasi-Synchronous Priority Multi-Channel MAC Access Protocol**

[Jingye Li](#) (Beijing University of Posts and Telecommunications, P.R. China); [Jing Gao](#) (Beijing University of Posts and Telecommunications, P.R. China); [Tao Luo](#) (Beijing University of Posts and Telecommunications, P.R. China); [Guangxin Yue](#) (Beijing University of Posts and Telecommunications, P.R. China)

## **WNS-02: Routing**

Date: Oct. 25, 2012

Time: 14:00pm – 15:30pm

Room: Chisong (赤松厅)

Chair: Hangguan Shan, Zhejiang University, P.R. China

1. **An Efficient Trust-Based Opportunistic Routing for Ad Hoc Networks**

[Wang Bo](#) (Wuhan University, P.R. China)

2. **A Novel Spectrum-Aware Routing Protocol for Multi-hop Cognitive Radio Ad Hoc Networks**

[Sun Baoming Sun](#) (PLA University of Science and Technology, P.R. China); [Jianfeng Zhang](#) (PLA University of Science and Technology, P.R. China); [Wei Xie](#) (PLA University of Science and Technology, P.R. China); [Ning Li](#) (PLA University of Science and Technology, P.R. China); [Youyun Xu](#) (PLA University of Science & Technology, P.R. China)

3. **A Vehicle Density and Load Aware Routing Protocol for VANETs in City Scenarios**

[Chunchun Zhao](#) (Xidian University, P.R. China); [Changle Li](#) (National Institute of Information and Communications Technology, Japan)

4. **Joint Routing and Channel Assignment with Switching Interval Maximization for Cognitive Radio Networks**

[Liren Lai](#) (Zhejiang University, P.R. China); [Jian Wang](#) (Zhejiang University, P.R. China); [Aiping Huang](#) (Zhejiang University, P.R. China); [Hangguan Shan](#) (Zhejiang University, P.R. China)

5. **A Utility Based Relay Vehicle Selection Algorithm for VANET**

[Qian-Bin Chen](#) (Chongqing university of Posts and telecommunications, P.R. China); [Hongling Li](#) (Chongqing University of Posts and Telecommunications, P.R. China); [Bin Yang](#) (Chongqing University of Posts and Telecommunications, P.R. China); [Rong Chai](#) (Chongqing University of Posts and Telecommunications, P.R. China)

**WNS-03: Data Aggregation and Prediction**

Date: Oct. 25, 2012

Time: 16:00pm – 17:30pm

Room: Baisong (白松厅)

Chair: [Changle Li](#), Xidian University, P.R. China

1. **On Real-Time Data Gathering in Next Generation Satellite-Routed Sensor System (SRSS)**

[Yuichi Kawamoto](#) (Tohoku University, Japan); [Hiroki Nishiyama](#) (Tohoku University, Japan); [Nei Kato](#) (Tohoku University, Japan); [Shinichi Yamamoto](#) (National Institute of Information and Communications Technology, Japan); [Naoko Yoshimura](#) (National Institute of Information and Communications Technology, Japan); [Naoto Kadowaki](#) (National Institute of Information and Communications Technology, Japan)

2. **LPDA: A Lightweight Privacy-Preserving Data Aggregation Scheme for Smart Grid**

[Khalid Alharbi](#) (Northern Borders University, Saudi Arabia); [Xiaodong Lin](#) (University of Ontario Institute of Technology, Canada)

3. **A New Data Gathering Scheme for Trajectory Constrained Mobile Sink in WSN**

[Zhongyu Zhang](#) (Beijing Institute of Technology, P.R. China); [Zunwen He](#) (Beijing Institute of Technology, P.R. China); [Jianguang Jia](#) (Beijing Institute of Technology, P.R. China); [Cunxiang Chen](#) (Beijing Institute of Technology, P.R. China)

4. **A New Approach for Multi-Source Data Prediction in Wireless Sensor Networks: Collaborative Filtering**

[Mahdiah Inanloo](#) (Sharif University of Technology, Iran); [Majid Ashouri](#) (Sharif University of Technology, Iran); [Sanaz Gheibi](#) (Sharif University of Technology, Iran); [Ali Mohammad Afshin Hemmatyar](#) (Sharif University of Technology, Iran)

**WNS-04: Resource Allocation in Wireless Networks (I)**

Date: Oct. 25, 2012

Time: 16:00pm – 17:30pm

Room: Chisong (赤松厅)

Chair: [Lianfeng Shen](#), Southeast University, P.R. China

1. **Dynamic Bandwidth Allocation in Mobile Hotspots**

[Younghyun Kim](#) (Korea University, Korea); [Sangheon Pack](#) (Korea University, Korea); [Sherman Shen](#) (University of Waterloo, Canada)

2. **A Dynamic Bandwidth Allocation Algorithm Based on Transmission Rate Adaptation in Heterogeneous Wireless Networks**

[Geng Chen](#) (Southeast University, P.R. China); [Jing Hu](#) (Southeast University, PRC, P.R. China); [Weiwei Xia](#) (Southeast University, P.R. China); [Lianfeng Shen](#) (Southeast University, P.R. China)

3. **Energy-Efficient Radio Resource and Power Allocation for Device-to-Device Communication Underlying Cellular Networks**

[Feiran Wang](#) (Peking University, P.R. China); [Chen Xu](#) (Peking University, P.R. China); [Lingyang Song](#) (Peking University, P.R. China); [Zhu Han](#) (University of Houston, USA); [Baoxian Zhang](#) (Graduate University of the Chinese Academy of Sciences, P.R. China)

4. **Joint Resource Allocation Method in Heterogeneous Wireless Networks Based on Genetic Algorithm**

[Li He](#) (University of Electronic Science and Technology of China, Chengdu, P.R. China); [Xin Su](#) (Tsinghua University, P.R. China); [Jie Zeng](#) (Tsinghua University, P.R. China); [Yujun Kuang](#) (University of Electronic Science and Technology of China, P.R. China)

5. **Resource Allocation Scheme for Device-to-Device Communication Underlying LTE Downlink Network**

[Ran An](#) (Nanjing University of Posts and Telecommunications, P.R. China); [Jun Sun](#) (Nanjing University of Posts and Telecommunications, P.R. China); [Su Zhao](#) (Nanjing University of Posts and Telecommunications, P.R. China); [Shixiang Shao](#) (Nanjing University of Posts and Telecommunications, P.R. China)

**WNS-05: Resource Allocation in Wireless Networks (II)**

Date: Oct. 26, 2012

Time: 14:00pm – 15:30pm

Room: Chisong (赤松厅)

Chair: Changle Li, Xidian University, P.R. China

1. **A Rate Allocation Scheme with Inter-Session Network Coding in Wireless Networks**  
Jiaqi Wang (Zhejiang University, P.R. China); Lei Xie (Zhejiang University, P.R. China); Huifang Chen (Zhejiang University, P.R. China); Kuang Wang (Zhejiang University, P.R. China)
2. **SuperSA: Superframe Design Based Slot Allocation in Wireless Body Area Networks for Healthcare Systems**  
Haoran Li (Shanghai Jiao Tong University, P.R. China); Cailian Chen (Shanghai Jiao Tong University, P.R. China); Wenbin Yu (Shanghai Jiao Tong University, P.R. China); Bo Yang (Shanghai Jiao Tong University, P.R. China); Xiping Guan (Shanghai Jiao Tong University, P.R. China)
3. **Low-Complexity Channel Reservation Design Scheme in Cognitive Radio Networks**  
Jian Wang (Zhejiang University, P.R. China); Aiping Huang (Zhejiang University, P.R. China)
4. **Virtual Cell-Breathing Based Load Balancing in Downlink LTE-A Self-Optimizing Networks**  
Shaojie Yang (Southeast University, P.R. China); Wei Zhang (Southeast University, P.R. China); Xinsheng Zhao (Southeast University, P.R. China)
5. **Adaptive Frame Size Control Based on Resource Allocation for Machine-to-Machine Services in LTE Wireless Networks**  
Ming He (Southeast University, P.R. China); Sha Luo (Southeast University, P.R. China); Xinsheng Zhao (Southeast University, P.R. China)

## **WNS-06: Miscellaneous Topics in Wireless Networks**

Date: Oct. 26, 2012

Time: 16:00pm – 17:30pm

Room: Chisong (赤松厅)

Chair: Hanguan Shan, Zhejiang University, P.R. China

1. **Multi-Hop Network Localization in Multi-Radius Unit Disk Graph Model**  
Phisan Kaewprapha (Lehigh University, USA); Tiffany Jing Li (Lehigh University, USA); Nattakan Puttarak (Lehigh University, USA)
2. **RSS-Based Efficient Grid-Scan Localization Algorithm in Wireless Sensor Networks**  
Xinming Zhang (University of Science and Technology of China, P.R. China); Zhigang Duan (University of Science and Technology of China, P.R. China); Zhenzhong Dong (University of Science and Technology of China, P.R. China)
3. **Two-Phase Demand Response Based on Privacy-Preserving Billing for Smart**

## Grid

[Ying Bi](#) (University of Sydney, Australia); [Abbas Jamalipour](#) (University of Sydney, Australia)

4. **An Anti-Blocking Scheme with Spatial Reuse for mmWave Wireless Networks**  
[Guangcan Yan](#) (Beijing University of Posts and Telecommunications, P.R. China); [Dan Pu Liu](#) (Beijing University of Posts and Telecommunications, P.R. China)
5. **Pre-Synchronization of AVS Audio-Video Based on Real-Time Transport Protocols**  
[Lei Wang](#) (Harbin Institute of Technology Shenzhen Graduate School, P.R. China); [Weiqiang Wu](#) (Harbin Institute of Technology Shenzhen Graduate School, P.R. China); [Qinyu Zhang](#) (Shenzhen Graduate School, Harbin Institute of Technology, P.R. China); [Changjian Zhang](#) (Harbin Institute of Technology Shenzhen Graduate School, P.R. China)
6. **Designing and Implementing of Multimode Wireless Gateway for VANETS**  
[Yunchuan Mao](#) (Southeast University, P.R. China); [Weiwei Xia](#) (Southeast University, P.R. China); [Yi Wu](#) (Fujian normal university, P.R. China); [Lianfeng Shen](#) (Southeast University, P.R. China)

## WNS-07: Network and User Selection

Date: Oct. 27, 2012

Time: 8:45am – 10:15am

Room: Chisong (赤松厅)

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

1. **Network Selection Strategy for Cognitive Radios with Heterogeneous Primary Networks**  
[Zeng Anmin](#) (Harbin Institute of Technology Shenzhen Graduate School, P.R. China); [Wang Ye](#) (Harbin Institute of Technology Shenzhen Graduate School, P.R. China); [Qinyu Zhang](#) (Shenzhen Graduate School, Harbin Institute of Technology, P.R. China); [Bin Cao](#) (Harbin Institute of Technology Shenzhen Graduate School, P.R. China); [Rongxing Lu](#) (University of Waterloo, Canada)
2. **Network Selection in Heterogeneous Wireless Networks Using Learning Automata**  
[Peng Han](#) (PLA University of Science and Technology, P.R. China); [Hua Tian](#) (PLA University of Science and Technology, P.R. China); [Wei Xie](#) (PLA University of Science and Technology, P.R. China); [Wei Zhong](#) (PLA University of Science and Technology, P.R. China); [Ning Li](#) (Nanjing PLA University of Science and Technology, P.R. China)
3. **Risk-Sensitive Learners in Network Selection Games**  
[Manzoor Ahmed Khan](#) (TU Berlin, Germany); [Hamidou Tembine](#) (Supelec, France)
4. **Relay Vehicle Based Access Network Selection Scheme for Vehicular Ad Hoc Network**



[Qiong Huang](#) (Chongqing University of Posts and Telecommunications, P.R. China); [Yibo Yang](#) (Chongqing University of Posts and Telecommunications, P.R. China); [Rong Chai](#) (Chongqing University of Posts and Telecommunications, P.R. China); [Qianbin Chen](#) (Chongqing university of Posts and telecommunications, P.R. China)

5. **A New Handover Mechanism for Femtocell-to-Femtocell**

[Yidan Zhuang](#) (Nanjing University of Posts & Telecommunications, P.R. China); [Su Zhao](#) (Nanjing University of Posts and Telecommunications, P.R. China); [Xiaorong Zhu](#) (Nanjing University of Posts and Telecommunications, P.R. China)

6. **On User Selection in Cognitive Broadcast Channels**

[Caijun Zhong](#) (Zhejiang University, P.R. China); [Tharmalingam Ratnarajah](#) (The University of Edinburgh, United Kingdom)

**WNS-08: QoS and Performance Optimization**

Date: Oct. 27, 2012

Time: 10:45am – 12:15pm

Room: Chisong (赤松厅)

Chair: Cailian Chen, Shanghai Jiao Tong University, P.R. China

1. **A Scheme for End-to-End QoS Provisioning in Wireless Networks**

[Zai-Jian Wang](#) (Nanjing University of Posts and Telecommunications, P.R. China); [Yuning Dong](#) (Nanjing University of Posts and Telecommunications, P.R. China); [Haitao Zhao](#) (Nanjing University of Posts and Telecommunications, P.R. China); [Fang Shuguang](#) (Nanjing University of Posts and Telecommunications, P.R. China)

2. **Lifetime Optimization for Wireless Multihop Networks with Network Coding**

[Lianghui Ding](#) (Shanghai Jiao Tong University, P.R. China); [Ping Wu](#) (Uppsala University, Sweden); [Zhiwen Pan](#) (Southeast University, P.R. China); [Xiaohu You](#) (Southeast University, P.R. China)

3. **VoD Streaming Service Scheduling to Minimize the Distortion**

[SooYoung Jang](#) (KAIST, Korea); [Chae Y. Lee](#) (KAIST, Korea)

4. **Physical Link Optimization in Programmable Mobile Ad Hoc Networks with the Aids of Agent Mobility**

[Zhenqiang Mi](#) (University of Science and Technology Beijing, P.R. China); [Yang Yang](#) (University of Science and Technology, P.R. China); [Zhang Tao](#) (University of Science and Technology Beijing, P.R. China)

5. **Fault-Tolerant Dispersion of Mobile Agents Based on Mobile Ad Hoc Networks**

[Zhenqiang Mi](#) (University of Science and Technology Beijing, P.R. China); [Yang Yang](#) (University of Science and Technology, P.R. China); [Hao Ding](#) (University of Science and Technology Beijing, P.R. China)

## 6. On Improved MANET Network Utilization

[Zhijiang Chang](#) (Delft University of Technology, The Netherlands); [Georgi Gaydadjiev](#) (TU-Delft, The Netherlands)

## WNS-09: Interference Coordination and Mitigation

Date: Oct. 27, 2012

Time: 14:00pm – 15:30pm

Room: Chisong (赤松厅)

Chair: Zhiwen Pan, Southeast University, P.R. China

### 1. A Decentralized Interference Coordination Method for OFDMA Femtocell Networks

[Shujun Wang](#) (Southeast University, P.R. China); [Yuan Zhang](#) (Southeast University, P.R. China); [Guangguo Bi](#) (Southeast University, P.R. China)

### 2. A Cluster-based TDMA Interference Mitigation Scheme for Heterogeneous Network Convergence

[Can Zhao](#) (Zhejiang University, P.R. China); [Yang Du](#) (Zhejiang University, P.R. China); [Zhi Yuan](#) (Shanghai Research Center for Wireless Communications, P.R. China)

### 3. Interference Mitigation in Two-Tier OFDMA Femtocell Networks: A Potential Game Approach

[Hao Wu](#) (Beijing University of Posts and Telecommunications, P.R. China); [Hailun Xia](#) (Beijing University of Posts and Telecommunications, P.R. China); [Chunyan Feng](#) (Beijing University of Posts and Telecommunications, P.R. China); [Sainan Li](#) (Beijing University of Posts and Telecommunications, P.R. China)

### 4. Iterative Receiver with Interference Suppression for LTE Systems

[Jiancun Fan](#) (Xi'an Jiaotong University, P.R. China); [Xinmin Luo](#) (Xi'an Jiaotong University, P.R. China); [Ying Zhang](#) (Xi'an Jiaotong University, P.R. China)

### 5. Interference Coordination Mechanism for Device-to-Device Communication in Uplink Period Underlying Cellular Networks

[Di Zhang](#) (Xi'an Jiaotong University, P.R. China); [Liao Xuewen](#) (Xi'an Jiaotong University, P.R. China); [Jianguo Deng](#) (Xi'an Jiaotong University, P.R. China); [Wei Wang](#) (South Dakota State University, USA)

## WNS-10: Modeling and Performance Analysis

Date: Oct. 27, 2012

Time: 16:00pm – 17:30pm

Room: Chisong (赤松厅)

Chair: Zaichen Zhang, Southeast University, P.R. China

### 1. Modeling for Spectrum Handoff Based on Secondary Users with Different Priorities in Cognitive Radio Networks

[Lei Zhang](#) (Southeast University, P.R. China); [Tiecheng Song](#) (Southeast University, P.R. China); [Min Wu](#) (Southeast University, P.R. China); [Jie Guo](#) (Southeast University, P.R. China); [Dafei Sun](#) (Southeast University, P.R. China); [Bin Gu](#) (Southeast University, P.R. China)

2. **An Enhanced Cell Reselection Mechanism and Network Analysis Model in 3G/LTE Heterogeneous System**

[Xinran Zhang](#) (Beijing University of Posts and Telecommunications, P.R. China); [Hao Jin](#) (Beijing University of Posts and Telecommunications, P.R. China); [Xiaodong Ji](#) (Beijing University of Posts and Telecommunications, P.R. China); [Yuwei Jia](#) (Beijing University of Posts and Telecommunications, P.R. China); [Wenbo Wang](#) (Beijing University of Posts and Telecommunications, P.R. China); [Mugen Peng](#) (Beijing University of posts & Telecommunications, P.R. China)

3. **Fairness and Capacity Analysis of Opportunistic Feedback Protocol with Proportional Fair or Maximum Throughput Scheduling**

[Hang Li](#) (University of Western Australia, Australia); [Qinghua Guo](#) (University of Western Australia, Australia); [Licai Fang](#) (University of Western Australia, Australia); [Defeng Huang](#) (University of Western Australia, Australia)

4. **Packet Spreading without Relaying in Mobile Wireless Networks**

[Huazi Zhang](#) (Zhejiang University, P.R. China); [Zhaoyang Zhang](#) (Zhejiang University, P.R. China); [Huaiyu Dai](#) (NC State University, USA); [Shaolei Chen](#) (Zhejiang University, P.R. China)

5. **Connectivity of Mobile Cognitive Radio Networks with Random Waypoint Movement**

[Shuqi Liu](#) (Soochow University, P.R. China); [Yiming Wang](#) (Soochow University, P.R. China); [Cuimei Cui](#) (Soochow University, P.R. China); [Liulei Zhou](#) (Soochow University, P.R. China); [Rong Chen](#) (Soochow University, P.R. China)