

2013 IEEE Vehicular Technology Conference

(VTC 2013-Fall)

**Las Vegas, Nevada, USA
2-5 September 2013**

Pages 1-936



**IEEE Catalog Number: CFP13VTF-POD
ISBN: 978-1-4673-6186-6**

VTC2013-Fall Program

Tuesday 3 September 2013

Tuesday 3 September 11:00-12:50

1A: Sensor Networks

1 Aggregator Modeling with Multiple Active/Sleep Modes for Wireless Sensor Networks "3

Chenyu Wang, Xuemin Chen, Wei Li, Texas Southern University

2 On the Effect of Data Request Message Flooding in Dense Wireless Sensor Networks with a Mobile Sink "8

Daisuke Takaishi, Hiroki NISHIYAMA, Nei KATO, Tohoku University; Ryu Miura, NICT

3 Hybrid Multi-Channel MAC Protocol for Wireless Sensor Networks: Interference Rate Evaluation "33

Rana Diab, Gerard Chalhoub, Michel Misson, Clermont Université

4 Joint Opportunistic Network Coding and Opportunistic Routing for Correlated Data Gathering in Wireless Sensor Network "39

Chong Tan, Junni Zou, Min Wang, Shanghai University

5 P-iRP: Physarum-inspired Routing Protocol for Wireless Sensor Networks "44

Mingchuan Zhang, Changqiao Xu, Jianfeng Guan, Beijing University of Posts and Telecommunications; Ruijuan Zheng, Qingtao Wu, Henan University of Science and Technology; Hongke Zhang, Beijing University of Posts and Telecommunications

6 Selecting Optimal Parameters of Random Linear Network Coding for Wireless Sensor Networks "4:

Janus Heide, Aalborg University; Qi Zhang, Aarhus School of Engineering, Aarhus University; Frank H.P. Fitzek, Aalborg University

Tuesday 3 September 11:00-12:30

1B: Channel Modeling

1 3-D MIMO Channel Modeling with Beamforming Analysis for Dual-polarized Antenna Systems "56

Xin Su, Bing Hui, KyungHi Chang, Inha University

2 A Vehicle-to-Infrastructure Channel Model for Blind Corner Scattering Environments "5;

Ali Chelli, King Abdullah University of Science and Technology (KAUST); Rami Hamdi, National Institute of Engineering of Tunisia; Mohamed-Slim Alouini, KAUST

3 Extension of ITU IMT-Advanced Channel Models for Elevation Domains and Line-of-Sight Scenarios "67

Zhimeng Zhong, Huawei Technology Company; Xuefeng, Tongji University; Xue Li, Xin Li, Huawei Technology Company

4 System-level Channel Modeling based on Active Measurements from a Public 3G/UMTS Network "72

Xuefeng, Nan Zhang, Tongji University; Zhimeng Zhong, Xian Jiaotong University; Jiwei Yu, Li Tian, Tongji University; Xiaomei Zhang, Huawei Technology Company, China; Weiming Duan, Huawei Technology Company, Shanghai, China

5 Enhanced Lee In-Building Model "77

David Lee, Cisco; Bill Lee, Peking University

Tuesday 3 September 11:00-12:50

1C: Spectrum Sensing 1

1 A Novel Algorithm to Optimize Sampling Rate for Compressed Sensing "83

Xiaomin Liu, Qixun zhang, Jian Yang, FENG Zhiyong, Zhang Ping, Yifan Zhang, Beijing University of Posts and Telecommunications

2 Adaptive Kalman Filtered Compressive Sensing for Streaming Signals "88

Hang Li, Wenbin Guo, Sun Zhuo, Beijing University of Posts & Telecommunications; Wenbo Wang, Beijing Univer. of Posts & Telecommunications

3 Channel Correlation Assisted Fast Spectrum Sensing "93

Mingfei Gao, Xiao Yan, Qixun zhang, FENG Zhiyong, Zhang Ping, Yifan Zhang, Beijing University of Posts and Telecommunications

4 Distributed Collaborative Compressive Spectrum Sensing in Multihop Cognitive Radio Networks "98

Hanqing Li, Guo Qing, Tao Tang, Qingzhong Li, Harbin Institute of Technology, Harbin, China

5 Energy Efficient Collaborative Spectrum Sensing Based on Trust Management in Cognitive Radio Networks "1: 3

S. Ali Mousavifar, Cyril Leung, The University of British Columbia

6 Multiple Beacon based Robust Cooperative Spectrum Sensing in MIMO Cognitive Radio Networks"1: 9

Adarsh Patel, Sinchan Biswas, Aditya K. Jagannatham, Indian Institute of Technology Kanpur

Tuesday 3 September 11:00-12:50

1D: Multihop and Relay Networks

1 A Decode-and-Forward Scheme for Multihop Wireless Networks "4

Mikel Hernaez, Iker Alustiza, Pedro M. Crespo, CEIT and TECNUN (University of Navarra); Javier Del Ser, TECNALIA-TELECOM

2 BER Analysis of Space Shift Keying in Cooperative Multihop Multi-branch DF Relaying"1: 9

Pritam Som, A. Chockalingam, Indian Institute of Science, Bangalore

3 Delay Reduction Scheme Based on Fountain Coding for Wireless Relay Communication Systems "324

Arash Asareh, Takeo Fujii, University of Electro-Communications

4 Effective Capacity Analysis of Fixed-Gain and Variable-Gain AF Two-Way Relaying "32:

Gozde Ozcan, Mustafa Cenk Gursoy, Syracuse University

5 Performance Assessment of Adaptive AF Relay with Active Antenna System and Angle Estimation Strategy "335

Chen Haiyun, Beijing University of Posts and Telecom; Qiang Wang, Ji XU, Zhang Jianhua, Beijing University of Posts and Telecommunications; Xiaoxuan Zhu, China Science and Technology Exchange Center

6 Semi-Blind Multipath Channel Estimation and Precoding Design in AF Two-Way Relay Networks "33:

Ming-Li Wang, National Sun Yat-sen University; Chih-Peng Li, Wan-Jen Huang, National Sun Yat-Sen University; Yen-Cheng Chen, Li-Chung Lo, Ming-Li Wang, National Sun Yat-sen University

Tuesday 3 September 11:00-12:30

1E: Multiuser Applications

1 A Low-Complexity Algorithm for Worst-Case Utility Maximization in Multiuser MISO Downlink"345

Kun-Yu Wang, National Tsing Hua University; Haining Wang, Zhi Ding, University of California, Davis; Chong-Yung Chi, National Tsing Hua University

2 A Novel Predictive Finite-rate Feedback Approach for Mobile Multiuser MIMO systems "34:

Yang Chuanchuan, Peking University; Daqing Gu, Feng Yang, International Centers, Orange Labs Products & Services, France Telecom

3 A PF Scheduling with low complexity for Downlink Multi-user MIMO Systems "355

Seongho Nam, Korea Advanced Institute of Science and Technology (KAIST); Jeongchan Kim, University of KAIST; Youngnam Han, Korea Advanced Institute of Science and Technology

4 Multiuser Successive Maximum Ratio Transmission (MS-MRT) for Video Quality Maximization in MIMO OFDMA based 4G Wireless Networks "35:

Nikhil Gupta, Indian Institute of Technology, Kanpur (IIT Kanpur); Aditya K. Jagannatham, Indian Institute of Technology Kanpur

5 Performance Enhancement of Multiuser Multi Cell Interference Alignment with Pair Selection"365

Danish Aziz, Mustansir Mazhar, Alcatel-Lucent Bell Labs; Andreas Weber, Bell Labs, Alcatel-Lucent

Tuesday 3 September 11:00-12:50

1F: Coding Techniques

1 Analysis and Optimization of Trellis Shaping Concatenated with Bit-Interleaved Coded Modulation"36:

Ryota Yoshizawa, Hideki Ochiai, Yokohama National University

2 Conditions on Degree Distributions to Compensate Differential Penalty by LDPC Turbo Decoding "375

Doris Pflueger, Universität der Bundeswehr München; Gerhard Bauch, Hamburg University of Technology; Yu Zhao, Huawei Technologies Duesseldorf GmbH, European Research Center; Fabian N. Hauske, Huawei Technologies Duesseldorf GmbH (on leave)

3 Non-Binary Turbo Coded Spatial Modulation "37:

Shigeaki Hashimoto, Koji Ishii, Shigeaki Ogose, Kagawa University

4 PG-LDPC Codes in Turbo Equalizer Systems: Trade-off between Design Parameters of the Protograph and the Permutation Size "385

Patrick Grosa, TU Dresden; Gerhard Fettweis, Technische Universität Dresden

5 Inter-Layer Turbo Coded Unequal Error Protection for Multi-Layer Video Transmission "38:

Yongkai Huo, Mohammed El-Hajjar, Lajos Hanzo, University of Southampton

6 Investigation on LLR Computation at FDE Output with Receiver Diversity Using Low-Rate Turbo Code for DFT-Precoded OFDMA "395

Keita Miwa, Tokyo City University; Teruo Kawamura, NTT DOCOMO, INC.; Nobuhiko Miki, Kagawa University; Mamoru Sawahashi, Tokyo City University

Tuesday 3 September 11:00-12:50

1G: Heterogeneous Networks

1 A New Spectrum Sharing Trade in Heterogeneous Networks "39:

Soumaya Hamouda, Monia Zitoun, Sami Tabbane, Sup'Com Tunis

2 Simple Decentralized Cell Association Method for Heterogeneous Networks in Fading Channel "3: 5

Tetsunosuke Koizumi, Kenichi Higuchi, Tokyo University of Science

3 Joint Resource Management with Reinforcement Learning in Heterogeneous Networks "3: :

Junichi Suga, Fujitsu Laboratories LTD.; Professor Rahim Tafazolli, University of Surrey

4 Multi-Path TCP with Network Coding for Mobile Devices in Heterogeneous Networks "3; 5

Jason Cloud, Flavio Calmon, Weifei Zeng, MIT; Giovanni Pau, UCLA; Linda Zeger, Auroral LLC; Muriel Médard, Massachusetts Institute of Technology

5 Proportional Fairness in LTE-Advanced Heterogeneous Networks with eICIC "3: :

Kiran Somasundaram, Qualcomm Research, Qualcomm Technologies, Inc.

6 Robust UE Receiver with Interference Cancellation in LTE Advanced Heterogeneous Network "426

Basuki E. Priyanto, Shashi Kant, Fredrik Rusek, Sha Hu, Jianjun Chen, Chris Wugengshi, Huawei Technologies Sweden AB

Tuesday 3 September 11:00-12:30

1H: Energy Efficient Networks 1

1 A Novel Energy Saving Scheme Based On Dynamic Configuration Of Base Stations In Green Cellular Networks "433

Ying Yang, Li Chen, WeiDong Wang, University of Science and Technology of China

2 Can Data and Signaling Network Separation Improve Energy Efficiency of Cellular Access Systems? "438

Ye Wu, Huawei Technologies, Co. Ltd.

3 Cell Load-Aware Energy Saving Management in Self-Organizing Networks "443

Henrik Klessig, Technische Universität Dresden; Albrecht Fehske, TU Dresden; Jens Voigt, Actix GmbH; Gerhard Fettweis, TU Dresden

4 Joint Base Station Association and Power Allocation for Uplink Sum-Power Minimization "449

Krishna Chitti, University of Stuttgart

5 Optimal Network Discovery Period for Energy-Efficient WLAN Offloading "454

Dr. Dionysia Triantafyllopoulou, Tao Guo, Klaus Moessner, University of Surrey

6 Intelligent Energy Management in a Low Cost Hybrid Electric Vehicle Power System "459

Yi L. Murphey, Jungme Park, University of Michigan-Dearborn; M. Abul Masrur, US Army RDECOM-TARDEC

Tuesday 3 September 14:20-15:50

2A: Energy Efficient Networks 2

1 AOC-MAC: A Novel MAC-layer Adaptive Operation Cycle Solution for Energy-awareness in Wireless Mesh Networks "464

Shengyang Chen, Gabriel-Miro Muntean, Dublin City University

2 Energy Analysis of Device Discovery for Bluetooth Low Energy "46:

Jia Liu, Canfeng Chen, Nokia Research Center; Yan Ma, Beijing University of Posts and Telecommunications; Ying Xu, Tsinghua University

3 IEEE 802.11ah based M2M network employing virtual grouping and power saving methods "475

Kohei Ogawa, Yuki Sangenya, Kyoto University; Masahiro Morikura, Graduate School of Informatics, Kyoto-University; Koji Yamamoto, Kyoto University; Tomoyuki Sugihara, Allied Telesis Holdings K.K.

4 Pareto-Optimal Topologies for Lifetime Extension of Coordinated Wireless Point-to-Point Networks "47:

Christian Mannweiler, Pratip Chakraborty, Hans Schotten, University of Kaiserslautern

5 Prolonging the Lifetime of Large Scale Wireless Sensor Networks via Base Station Placement "485

Yunan Gu, Miao Pan, Wei Wayne Li, Texas Southern University

Tuesday 3 September 14:20-15:50

2B: Channel Measurements

- 1 **A Study on a LTE-Based Channel Sounding Scheme for High-Speed Railway Scenarios "48:**
Tao Zhou, LiuLiu, Beijing Jiaotong University
- 2 **Channel Measurement and Characterization for HSR U-Shape Groove Scenarios at 2.35 GHz "49:**
Rongchen Sun, Beijingjiaotong University; Zhen-Hui Tan, Beijing Jiaotong University
- 3 **Elevation angle characteristics of urban wireless propagation environment at 3.5 GHz "49:**
Feng Pei, Zhang Jianhua, Chun Pan, Beijing University of Posts and Telecommunications
- 4 **Measurements of Shadow Correlations in a Suburban Environment on the 485 MHz Band "4: 5**
Nikos Perpinias, Alexandros Palaios, Janne Riihijärvi, Petri Mahonen, RWTH Aachen University
- 5 **Parking Garage Channel Characteristics at 5 GHz for V2V Applications "4: ;**
Ruoyu Sun, David W. Matolak, University of South Carolina; Pengyu Liu, Beijing Jiaotong University

Tuesday 3 September 14:20-15:50

2C: Spectrum Sensing 2

- 1 **A Novel Cooperative Sensing Based on Spatial Distance and Reliability-based Cluster Scheme in Cognitive Radio System 4; 6**
Shang Liu, BUPT; FENG Zhiyong, Qixun zhang, Yifan Zhang, Zhang Ping, Beijing University of Posts and Telecommunications
- 2 **Sensing Performance of Improved Multi-cycle Cyclostationary Detector with Multiple Correlated Antennas over Nakagami Fading Channel"4; ;**
Ying Zhu, Beijing University of Posts and Telecommunications
- 3 **Sensing-Delay Tradeoff for Cognitive Radio Networks with QoS Considerations "526**
Chin-Liang Wang, Han-Wei Chen, Yuan-Xiang Cheng, National Tsing Hua University
- 4 **Spectrum Sensing using Robust Principal Component Analysis for Cognitive Radio "52;**
Yonghee Han, Hyuk Lee, Jungwoo Lee, Seoul National University
- 5 **Wavelet Cyclic Feature Based Automatic Modulation Recognition Using Nonuniform Compressive Samples"536**
Lei Zhou, Hong Man, Stevens Institute of Technology

Tuesday 3 September 14:20-15:50

2D: MIMO Relaying Systems

- 1 **A Distributed Energy Efficiency Optimization Scheme for Cooperative Virtual MIMO System"542**
Li Chen, Guo Wei, University of Science and Technology of China
- 2 **Channel Estimation and Decoding of OSTBC in Two-Way AF MIMO Relay Networks "547**
Arti M.K., IIT Delhi; Ranjan Mallik, Indian Institute of Technology - Delhi; Robert Schober, University British Columbia
- 3 **Joint Relay and Destination Design for Two-Way MIMO AF Multi-Relay Systems "552**
Lingling Shen, Youhua Fu, Chen Liu, Nanjing University of Posts and Telecommunications; Wei-Ping Zhu, Concordia University
- 4 **MIMO Incremental AF Relay Networks with TAS/MRC and Adaptive Modulation "557**
Chu Thi My Chinh, Hoc Phan, Hans-Jurgen Zepemick, Blekinge Institute of Technology
- 5 **Robust Joint Precoder-Decoder Design for PNC based MIMO Two-Way Relaying System"562**
Keeth Saliya Jayasinghe, Nandana Rajatheva, Matti Latva-aho, Centre for Wireless Communications, University of Oulu

Tuesday 3 September 14:20-15:50

2E: Adaptive Multiple Antenna Systems

- 1 **A Bit-adaptive PMI Feedback Mechanism "567**
Chao-Yuan Hsu, Ren-Jr Chen, Industrial Technology Research Institute, Taiwan; Fan-Shuo Tseng, National Sun Yat-Sen University, Taiwan
- 2 **Adaptive Single-carrier MIMO Transmission Using Joint Tx/Rx MMSE Filtering "572**
Shinya Kumagai, Tatsunori Obara, Tetsuya Yamamoto, Fumiyuki Adachi, Tohoku University
- 3 **An Efficient Downlink Coordinated Beamforming for Heterogeneous Networks "577**
Jeongchan Kim, University of KAIST; Youngnam Han, Korea Advanced Institute of Science and Technology
- 4 **Interference Rejection Characteristics by Adaptive Array at User Equipment Using Measured K-factor in Heterogeneous Networks"582**
Kentaro Nishimori, Keisuke Kusumi, Misaki Horio, Niigata University; Koshiro Kitao, NTT DOCOMO; Tetsuro Imai, NTT DoCoMo Inc.
- 5 **Symmetry-Constrained Concurrent CMA and DD Algorithm for Adaptive Multi-Antenna System "587**
Yao-Jen Chang, Wei-Chen Pao, Industrial Technology Research Institute

Tuesday 3 September 14:20-15:50

2F: Channel Estimation Techniques

- 1 **Adaptive Sparse Channel Estimation for Time-Variant MIMO Communication Systems"592**
Guan Gui, Abolfazl Mehdodniya, Fumiyuki Adachi, Tohoku University
- 2 **Bayesian Sparse Channel Estimation and Data Detection for OFDM Communication Systems "597**
Guan Gui, Abolfazl Mehdodniya, Fumiyuki Adachi, Tohoku University
- 3 **Channel Estimation for Amplify-and-Forward Relay Networks with Both Time and Frequency Offsets"5: 2**
Chao Shen, Beijing University of Posts and Telecommunications; Gang Deng, Beijing Univ. of Posts and Telecom.; Zhang Jianhua, Mengmeng Liu, Beijing University of Posts and Telecommunications
- 4 **MMSE Training Design for Filter Bank Multicarrier Systems with Per-Subcarrier Channel Estimation "5: 7**
Michael Newinger, Leonardo Gomes Baltar, Technische Universität München; Josef. A. Nossek, Munich University of Technology
- 5 **Sparse Channel Estimation for MIMO-OFDM Amplify-and-Forward Two-Way Relay Networks "5; 2**
Guan Gui, Abolfazl Mehdodniya, Fumiyuki Adachi, Tohoku University

Tuesday 3 September 14:20-15:50

2G: Femtocellular Networks

- 1 **A Cooperative Q-learning Approach for Real-time Power Allocation in Femtocell Networks "5; 7**
Hussein Saad, Nile University; Amr Mohamed, Qatar University; Tamer ElBatt, Nile University
- 2 **A Proximity-based Q-learning Reward Function for Femtocell Networks "623**
Jonathan Tefft, Nicholas J. Kirsch, University of New Hampshire
- 3 **A QoS-based Hybrid Centralized/Distributed Resource Allocation Algorithm in Downlink Femtocell Networks"628**
Kan Wang, Hongyan Li, Yinghong Ma, Xidian University
- 4 **Analysis of Spectral Efficiency and Management of Cross-Tier Interference in Femtocell Network "633**
Fan Zhou, Beijing University of Posts and Telecommunications; Ben Wang, Beijing University of Post and Telecommunications; Weidong Wang, Yinghai Zhang, Beijing University of Posts and Telecommunications; Ming Lei, NEC laboratories, China; Lei Jiang, NEC Laboratories, China

- 5 **Queue-aware resource allocation scheme in hybrid macrocell-femtocell networks "639**
Jiandong Li, Hua Shi, Honghao Ju, Jie"Zheng, Xidian University

Tuesday 3 September 14:20-15:50

2H: Network Planning, Coverage, and Coordination

- 1 **A Stochastic Knapsack Queuing Model for Capacity Planning in TD-SCDMA System "644**
Dong Yang, Beijing University of Posts and Telecommunications
- 2 **Indoor Distributed Antenna System Planning with Optimized Antenna Power Using Genetic Algorithm "649**
Ramy Atawia, German University in Cairo; Tallal El-Shabrawy, The German University of Cairo; Mohamed ashour, German University in Cairo

- 3 **Joint Coverage Optimization of Multiple Sectors for Cellular Networks "655**
Dongdong Fan, Zhouyun Wu, Aiping Huang, Zhejiang University; Hongcheng Zhuang, Huawei Technologies Co.,Ltd.; Tony Q.S. Quek, Singapore University of Technology and Design

- 4 **Macro Cell Muting Coordination for Non-Uniform Topologies in LTE-A HetNets "65:**
Beatriz Soret, Aalborg University; Klaus I. Pedersen, Nokia Siemens Networks

- 5 **Traffic-Aware Micro Base Station Planning in Wireless Cellular Networks "665**
Haibao Ren, University of Science and Technology of China; Ming Zhao, University of Science & Technology of China; Wuyang Zhou, University of Science and Technology of China; Dong Peng, Jia Kong, Research Institute of China Mobile

Tuesday 3 September 16:20-15:50

3A: Distributed Transmission

- 1 **Network Coding Design for Broadcast Service of Low Cost Receiver "66:**
Shin-Lin Shieh, Himadri Subrah Saha, Rakhi Roy, National Taipei University
- 2 **Scheduling for Dual-Hop Block-Fading Channels with Two Source-User Pairs Sharing One Relay"675**
Ammar Zafar, King Abdullah University of Science and Technology; Dr. Mohammad Shaqfeh, Texas A&M University at Qatar; Mohamed-Slim Alouini, KAUST; Hussein Alnuweiri, Texas A&M University at Qatar
- 3 **Distributed Spatial Modulation for Relay Networks "67:**
Sandeep Narayanan, WEST Aquila; Marco Di Renzo, CNRS-SUPELEC-Univ Paris-Sud; Fabio Graziosi, WEST; Harald Haas, University of Edinburgh
- 4 **Delay Minimization for Network Coded Cooperative Data Exchange with Rate Adaptation"686**
Xiumin Wang, Chau YUEN, Dau Son Hoang, Singapore University of Technology and Design,
- 5 **Delay Minimization for Relay-based Cooperative Data Exchange with Network Coding "68;**
Zheng Dong, Xiumin Wang, Dau Son Hoang, Chau YUEN, Singapore University of Technology and Design

Tuesday 3 September 16:20-15:50

3B: Channel Prediction and Analysis

- 1 **An Analytical Formula of Spatial Correlation based on the Hierarchical Angle Structure for 3GPP Spatial Channel Model "696**
Lin Zhang, City University of Hong Kong; Yuesheng Zhu, Shenzhen Graduate School, Peking University; S H Leung, City University of Hong Kong
- 2 **Indoor Channel Prediction Using an Efficient Sum of Sinusoids Linear Prediction Scheme "69;**
Alan Anderson, Harald Haas, University of Edinburgh
- 3 **The kappa-mu/IG Composite Statistical Distribution in RF and FSO Wireless Channels"6: 6**
Paschalis Sofotasios, University of Leeds; Theodoros Tsiftsis, Technological Educational Institute of Lamia; Khuong Ho Van, HoChiMinh City University of Technology; Steven Freear, University of Leeds; Leif R. Wilhelmsson, Ericsson Research, Lund, Sweden; Mikko Valkama, Tampere University of Technology
- 4 **UHF and SHF fading analysis using Wavelets in Tunnel Environments "6; ;**
Carlos Rizzo, Francisco Lera, University of Zaragoza; José Luis Villarroel, Aragón Institute for Engineering Research (I3A)

- 5 **Validation of Tilt Gain under Realistic Path Loss Model and Network Scenario "6; 7**

Huan Cong Nguyen, Ignacio Rodriguez, Troels B. Sørensen, Aalborg University; Jan Elling, Morten Gentsch, Mads Sorensen, Telenor Denmark; Preben E. Mogensen, Aalborg University

Tuesday 3 September 16:20-15:50

3C: Resource Allocation

- 1 **Distributed Power Control and User Selection Algorithms for Cognitive Radios "722**
Olasunkanmi Durowaju, University of Surrey; Kamran Arshad, University of Greenwich; Klaus Moessner, University of Surrey
- 2 **Distributed Resource Allocation for Cognitive Radio Network with Imperfect Spectrum Sensing "727**
Hanqing Li, Guo Qing, Tao Tang, Qingzhong Li, Harbin Institute of Technology, Harbin, China
- 3 **Distributed Resource Allocation for Cognitive Radio Networks: Sub-carrier Power and Bandwidth sizing"733**
Vinay Thumar, Indian Institute of Technology, Bombay; Taskeen Nadkar, Indian Institute of Technology Bombay; U.B.Desai, IITB; S. N. Merchant, IIT-Bombay
- 4 **Hybrid Overlay/Underlay Resource Allocation for Cognitive Radio Networks in User Mobility Environment "739**
Hailan Peng, Takeo Fujii, The University of Electro-Communications
- 5 **Tethering Over TV White-space: Dynamic Hotspot Selection and Resource Allocation"745**
Haleh Tabrizi, Stanford University; Golnaz Farhadi, Fujitsu Labs of America; John M. Cioffi, Stanford University

Tuesday 3 September 16:20-15:50

3D: Network Coding

- 1 **Decode-and-forward Design of Signal Space Alignment for Network Coding on Asymmetric MIMO Y Channel "74;**
Qing Huang, Beijing University of Posts and Telecommunications; Yingmin Wang, China Academy of Telecommunications Technology
- 2 **Equiphase Precoder Design for Cooperative Communication with Complex Field Network coding "756**
Hao Lu, USTC,EEIS; Peilin Hong, Kaiping Xue, University of Science and Technology of China; Li Xiaolong, University of Science and Technology of China
- 3 **Limited Feedback Power Control for Physical Layer Network Coding via Power Ratio Quantization "75;**
Yixin Li, Fuchun Zheng, The University of Reading
- 4 **Network Coding for Cooperative MIMO Vehicular Ad-Hoc Networks "766**
Ohara Kerusauskas Rayel, João Luiz Rebelatto, Federal University of Technology-Paraná; Richard Demo Souza, UTFPR; Bartolomeu F. Uchôa-Filho, Federal University of Santa Catarina

- 5 Outage Capacity of Two-way Relay Systems by Network Coding under Rayleigh Fading Channels '76;**
Wanhua Lin, Xiangyang Wang, Qian Li, Lei Pan, Southeast University

Tuesday 3 September 16:20-15:50

3E: MIMO 1

- 1 A Lattice-Reduction Aided List Demapper for Coded MIMO Receiver '776**
Tung-Jung Hsieh, National Chiao Tung University; Wern-Ho Sheen, Chaoyang University of Technology; Sin-Hong Chen, National Chiao Tung University; Jen-Yuan Hsu, Industrial Technology Research Institute
- 2 Channel Capacity of Distributed MIMO Antenna Systems under the Effect of Spatially Correlated Shadowing '77;**
Ou Zhao, Hidekazu Murata, Susumu Yoshida, Kyoto University
- 3 Energy Efficient Power Allocation Algorithm for Downlink Massive MIMO with MRT Precoding '786**
Zhao Long, Hui Zhao, Beijing University of Posts and Telecommunications
- 4 Enhancing Connectivity of Unmanned Vehicles Through MIMO Communications '78;**
Michael J. Gans, Air Force Research Laboratory; Kapil M. Borle, Biao Chen, Syracuse University; Thomas Freeland, Daniel McCarthy, Roger Nelson, David Overrocker, Paul Oleski, Air Force Research Laboratory, Rome, NY
- 5 Enhancing In-Home 802.11 Performance: Mesh or MIMO? '796**
Di Kong, Evangelos Mellios, Geoffrey Hilton, Angela Doufexi, Andrew Nix, University of Bristol

Tuesday 3 September 16:20-15:50

3F: Synchronization

- 1 A Synchronization Scheme Based on Interleaved Partial Zadoff-Chu Sequences for Cooperative MIMO Systems '79;**
Chin-Liang Wang, Hung-Chin Wang, Yi-Hsiu Chen, National Tsing Hua University
- 2 Blind Symbol Rate Estimation and Testbed Implementation for Linearly Modulated Signals '7: 6**
Sudhan Majhi, Nanyang Technological University
- 3 Gabor Division/Spread Spectrum System is Separable in Time and Frequency Synchronization '7: ;**
Tohru Kohda, Yutaka Jitsumatsu, Kyushu University; Kazuyuki Aihara, The University of Tokyo
- 4 Timing and Frequency Synchronization for Cooperative Relay Networks '7; 6**
Zhang Jianhua, Chao Shen, Beijing University of Posts and Telecommunications; Gang Deng, Beijing Univ. of Posts and Telecom.; Wang Yuning, BUPT
- 5 Phase coded Costas signals for ambiguity function improvement and grating lobes suppression '7; ;**
Nadjah Touati, Charles Tatkeu, IFSTTAR; Atika RIVENQ, University of valenciennes; Thierry chonavel, telecom Bretagne

Tuesday 3 September 16:20-15:50

3G: LTE Co-Existence and Interference Mitigation

- 1 Adaptive Cell Association and Interference Management in LTE-A Small-Cell Networks '826**
Yong-Ping Zhang, Research Department of Hisilicon, Huawei Technologies; Shulan Feng, Philipp Zhang, Hisilicon Technologies, Huawei
- 2 Analytical Model of Proportional Fair Scheduling in Interference-limited OFDMA/LTE Networks '832**
Donald Parruca, RWTH-Aachen University; Marius Grysla, UMIC Research Centre, RWTH-Aachen; Simon Goertzen, RWTH Aachen; James Gross, Royal Institute of Technology (KTH), Sweden
- 3 Dynamic Cell Size Adaptation and Intercell Interference Coordination in LTE HetNets'839**
Katrin Erlinghagen, Bjoern Dusza, Christian Wietfeld, TU Dortmund University; Jörg Huschke, Ericsson
- 4 LTE UL Power Control for the Improvement of LTE/Wi-Fi Coexistence '845**
Fabiano Chaves, Instituto Nokia de Tecnologia; Érika Almeida, Nokia Technology Institute; Robson D. Vieira, André Mendes Cavalcante, Fuad M. Abinader Jr., Nokia Institute of Technology (INdT); Sayantan Choudhury, Klaus Doppler, Nokia Research Center
- 5 Performance Gains of Spectrum Sharing in Multi-Operator LTE Advanced Systems '84;**
Ahmed Alsahaily, Elvino S. Sousa, University of Toronto

Tuesday 3 September 16:20-15:50

3H: Security and Trust

- 1 A Trust Based Threshold Revocation Scheme for MANETs '856**
Hisham Dahshan, University of Strathclyde; Fatma Elsayed, Alaa Rohiem, Aly Elmoghazy, Military Technical College; James Irvine, University of Strathclyde
- 2 Cooperative Jamming and Power Allocation in Two-Way Relaying System with Eavesdropper'85;**
Hang Long, Beijing University of Posts and Telecommunications; Wei Xiang, University of Southern Queensland; Jing Wang, Yueying Zhang, Wenbo Wang, Beijing University of Posts & Telecommunications
- 3 Digital Modulation for Intrinsic Secure Pairing of Wireless Nodes '866**
Lorenzo Mucchi, University of Florence; Luca Simone Ronga, Enrico Del Re, CNIT - University of Florence; Patrizio Marrocci, Cnit
- 4 GMM based Semi-Supervised Learning for Channel-based Authentication Scheme'86;**
Nikhil Gulati, Rachel Greenstadt, Kapil Dandekar, John Walsh, Drexel University
- 5 MMSE Relaying Strategies under Jamming, Channel Uncertainty, Node Geometry, and Power Constraint'877**
Kanghee Lee, Hyuck M. Kwon, Jie Yang, Edwin Sawan, Wichita State University; Hyuncheol Park, Yong H. Lee, Korea Advanced Institute of Science and Technology

Wednesday 4 September 2013

Wednesday 4 September 10:30-12:20

4A: Performance, Optimization and Control

- 1 A QoS Control Scheme using Dynamic Window Size Control for Wide Area Ubiquitous Wireless Networks'882**
Fusao NUNO, Takatoshi Sugiyama, NTT Access Network Service Systems Laboratories; Masahiro Morikura, Graduate School of Informatics, Kyoto-University

- 2 Joint Optimization of Role and Channel Assignments for Wireless Mesh Networks'887**

Andy An-Kai Jeng, Industrial Technology Research Institute; Rong-Hong Jan, National Chiao Tung University

- 3 Lifetime Properties in Cluster-Based IEEE 802.15.4 WSNs'893**

Hamidreza Tavakoli, Jelena Mistic, Ryerson University; Majid Naderi, Iran University of Science & Technical; Vojislav Mistic, Ryerson University

4 Measurements campaign for interference estimation and performance assessment of a wireless ECG remote monitoring prototype in a city hospital "898
Lorenzo muchhi, Dept. of Electronics and Telecommunications, University of Florence

5 Properties of Blind Rendezvous in Channel Hopping Cognitive Piconets "8: 3
Jelena Mistic, Vojislav Mistic, Shahnoor Khan, Md. Mizanur Rahman, Ryerson University

6 Trust and Risk Assessment Approach for Access Control in Wireless Sensor Networks "8: 8
Junqi Duan, Deyun Gao, Beijing Jiaotong University; Chuan Heng Foh, University of Surrey; Victor C. M. Leung, The University of British Columbia

Wednesday 4 September 10:30-12:20

4B: Localization 1

1 A Base Station Identification Algorithm for SFN Positioning Systems in NLOS Environment "8; 3
Jun Yan, Nanjing University of Posts and Telecommunications; Lenan Wu, Southeast University; Wei-Ping Zhu, Concordia University

2 A Hybrid TDOA/RSSD Geolocation System using the Unscented Kalman Filter "8; 8
Noha El Gemayel, Holger Jäkel, Friedrich K. Jondral, Karlsruhe Institute of Technology (KIT)

3 A Novel Near Field Source Localization Algorithm Based on Information Theoretic Criteria "923
Yang Bai, FENG Zhiyong, Qixun zhang, Yifan Zhang, Yinghua Liu, Beijing University of Posts and Telecommunications

4 An Indoor Probabilistic Localization Method Using Prior Information "928
Ranita Bera, Nicholas J. Kirsch, Dr. Tat Fu, University of New Hampshire

5 Anchor-cum-Relay Nodes for Localizing a Mobile Source and Relaying Source Signals "933
Javier Perez-Ramirez, New Mexico State University; Deva K. Borah, NMSU

6 Cluster-based Multi-Target Localization Using Joint Sparsity Property "939
Yue Wang, Huawei Technologies Co., Ltd.; Shulan Feng, Hisilicon Technologies, Huawei; Philipp Zhang, Huawei Technologies Co., Ltd.

Wednesday 4 September 10:30-12:20

4C: Spectrum Sharing

1 A Channel Allocation Algorithm for Cognitive Radio Systems using Restless Multi-armed Bandit "944
Hyuk Lee, Jungwoo Lee, Seoul National University

2 A Guard-band-aware Channel Allocation Algorithm for Multi-channel Cognitive Radio Networks "949
Lingwu Yuan, FENG Zhiyong, Qixun zhang, Zhang Ping, Beijing University of Posts and Telecommunications

3 An Efficient Cooperative Spectrum Access in Cognitive Radio Networks via Coalitional Game "954
Sourour El Bessi, Soumaya Hamouda, Sami Tabbane, Sup'Com Tunis

4 Co-operative use of licensed spectrum by unlicensed devices: the concept of Bandwidth Scavenging "959
Milos Tesanovic, Paul Bucknell, Fujitsu Laboratories of Europe Ltd.; Hind Munzer-Chebbi, Fujitsu Laboratories Of Europe LTD.(FLE)

5 Priced based Spectrum Sharing and Power Allocation in Cognitive Femtocells Network "964
Ishtiaq Ahmad, Beijing University of Posts and Telecommunications; Feng Zhiyong, Qixun Zhang, BUPT China; Zhang Ping, Beijing University of Posts and Telecommunications

6 Spectrum Coordination and Learning in Energy Efficient Cognitive Radio Networks "969
Yezekael Hayel, Université d'Avignon; Majed Haddad, Oussama Habbachi, INRIA

Wednesday 4 September 10:30-12:20

4D: Mobile Applications

1 An Energy Saving Algorithm based on User-Provided Resources in Mobile Cloud Computing "974
Xing Liu, Zhen Yang, Zhongwei Hu, Chaowei Yuan, Beijing University of Posts and Telecommunications

2 Auto-Calibration Around-View Monitoring System "979
Yu-Lung Chang, National Chung Cheng University; Li-You Hsu, Automotive Research & Testing Center; Oscar T.-C. Chen, National Chung Cheng University

3 Evaluation of Efficient Modes of Operation of GSM/GPRS Modules for M2M Communications "984
Friedrich Pauls, Technische Universität Dresden; Stefan Krone, Walter Nitzold, TU Dresden; Gerhard Fettweis, Technische Universität Dresden; Christopher Flores, Sensys Networks, Inc.

4 GeoSPIN: An approach for Geocast routing based on SPatial INformation in VANETs "98:
Clayson Sandro Francisco de Sousa Celes, Federal University of Minas Gerais; Reinaldo Bezerra Braga, Federal University of Ceará; Carina Teixeira de Oliveira, Federal University of Ceara (UFC); Rossana Maria de Castro Andrade, Federal University of Ceará; Antonio Alfredo Loureiro, UFMG

5 Investigation and Compensation of the Magnetic Deviation on a Magnetometer of a Smartphone caused by a Vehicle "996
Abdul Qudoos Memon, University of Kassel; Sian Lun Lau, Sunway University; Klaus David, University of Kassel

6 IPTV Capacity Analysis using DCCP over IEEE 802.11n "99;
Saad Saleh, National University of Sciences and Technology (NUST), Islamabad; Zawar Shah, Adeel Baig, National University of Sciences and Technology (NUST), Pakistan

Wednesday 4 September 10:30-12:00

4E: MIMO 2

1 Large-MIMO Receiver based on Linear Regression of MMSE Residual "9: 6
Srinidhi Nagaraja, Indian Institute of Science, Bangalore; Onkar Dabeer, Tata Institute for Fundamental Research, Mumbai, India; A. Chockalingam, Indian Institute of Science, Bangalore

2 MIMO Joint Detection with Enhanced Physical Layer Security "9: ;
Yejian Chen, Xin Yu, Alcatel-Lucent Bell Labs Germany

3 An Adaptive MIMO System using Incremental Diversity "9; 6
Tallal El-Shabrawy, The German University of Cairo; Sally Nafie, German University in Cairo

4 Optimal Feedback Bits Allocation for Two-Cell Massive MIMO Downlink "9; ;
Guozhen Xu, Wei Jiang, Peking University; An Liu, Hong Kong University of Science and Technology; Haige Xiang, Luo Wu, Peking University

5 Performance Evaluation of 3D MIMO LTE-Advanced System "!: 26
Yuwen Pan, Qinglin Luo, Li Guodong, Yan Zhao, Zhilan Xiong, R&I Institute, Alcatel-Lucent Shanghai Bell

Wednesday 4 September 10:30-12:20

4F: Adaptive Transmission and Equalization

1 Adaptive alpha-expectation-conditional-maximization DS-CDMA receivers under frequency-selective fast fading circumstances "!: 2;
Tsung-Hua Tsai, Industrial Technology Research Institute; Tsan-Ming Wu, Yi-Fang Hou, Chung Yuan Christian University

- 2 **Adaptive Modulation for MIMO systems with Decision-Feedback Equalizer** "": 36
Mohamed Lassaad AMMARI, Université Laval; Paul Fortier, Laval University
- 3 **Adaptive Power Ratio Updating Algorithm In Soft Frequency Reuse Scheme** "": 3;
Ying Yang, Peng Zhao, University of Science and Technology of China
- 4 **Efficient Fixed-Point Implementation of a SC-MMSE Turbo Equalizer** "": 46
Michael Schwall, David Leuck, Friedrich K. Jondral, Karlsruhe Institute of Technology (KIT)
- 5 **Energy Efficient Link Adaptation for Downlink Transmission of LTE/LTE-A Systems** "": 4;
Guo Li, Shi Jin, Southeast University; Fuchun Zheng, The University of Reading; Xiqi Gao, Xiaoyu Wang, Southeast University
- 6 **Minimizing the Effect of Feedback Delay in a Multi-user System through Adaptive Feedback Scheduling** "": 56
Ankit Bhamri, Eurecom, France and Aalto University, Finland; Jyri Hämäläinen, Aalto University, Comnet; Florian Kaltenberger, Raymond Knopp, Eurecom

Wednesday 4 September 10:30-12:20

4G: Scheduling and Fairness

- 1 **Adaptive and Distributed CoMP Scheduling in LTE-Advanced Systems** "": 5;
Kyuhan Kwak, Hyewon Lee, Seoul National University; Hui Won Je, Samsung Electronics; Jongwoo Hong, Sunghyun Choi, Seoul National University
- 2 **Analysis of Weighted Proportional Fair resource allocation for Uplink OFDMA** "": 66
Salma Hamda, Conservatoire National des Arts et Métiers; Mylene Pischella, Daniel Roviras, CNAM; Ridha BOUALLEGUEI, 1Ecole Supérieure des Communications
- 3 **Capacity-Fairness Controllable Scheduling for Uplink Single-carrier FDMA** "": 6;
Takayoshi Iwata, Kazuhiro Kimura, Hiroyuki Miyazaki, Tatsunori Obara, Fumiyuki Adachi, Tohoku University
- 4 **Cross-point Coordination with Aggregated Scheduling and Power Allocation in Multi-carrier MF-HSDPA** "": 76
Tianyang Song, Yuan Zhuang, Chi Zhang, Yongyu Chang, Dacheng Yang, Beijing University of Posts and Telecommunications
- 5 **Opportunistic QoS Aware Fair Downlink Scheduling For Delay Sensitive Applications using Fuzzy Reactive And Proactive Controllers** "": 82
Nabeel khan, kingston University; Maria G. Martini, Kingston University, London; Dirk Staehle, DOCOMO Euro-Labs
- 6 **QoS Aware Scheduling and Cross-Radio Coordination** "": 88
Shu-ping Yeh, Ali Y. Panah, Nageen Himayat, Shilpa Talwar, Intel Corporation

Wednesday 4 September 10:30-12:20

4H: Transmission Algorithms

- 1 **A near-100% Efficient Algorithm for Generating \mathbb{Z}^N and \mathbb{Z}^N Variates** "": 94
Rodrigo Cogliatti, Rausley Adriano Amaral de Souza, National Institute of Telecommunications (Inatel)
- 2 **A New Approach to Analyse Asynchronous CSMA Wireless Networks Based on Hidden Node Models** "": 99
Javad Jafarian, Khairi Hamdi, University of Manchester
- 3 **A Stochastic Geometry Approach to the Rate of Downlink Cellular Networks over Correlated Log-Normal Shadowing** "": 4
Marco Di Renzo, French National Center for Scientific Research (CNRS)

- 4 **Code-Aided Iterative SNR Estimator for M-APSK Signals Based on Expectation Maximization Algorithm** "": 9
Zhixin Li, Nan Wu, Hua Wang, Jingming Kuang, Beijing Institute of Technology
- 5 **Uniform Power Allocation with Thresholding over Rayleigh Slow Fading Channels with QAM Inputs** "": 4
Eddy Kwon, Young-Han Kim, Bhaskar D. Rao, University of California, San Diego
- 6 **Weighted Average Energy Efficiency Contours for Uplink Channels** "": 9
Amir Akbari, Muhammad Ali Imran, Mehrdad Dianati, Rahim Tafazolli, University of Surrey

Wednesday 4 September 10:30-12:20

4P: Radio Transmission Posters

- 1 **3D Channel Model Emulation in a MIMO OTA Setup** "": 24
Wei Fan, Aalborg University; Pekka Kyösti, Anite Telecoms oy; Fan Sun, Jesper Ødum Nielsen, Aalborg University; Xavier Carreno, Mikael B. Knudsen, Intel Mobile Communications, DK 9220 Aalborg, Denmark; Gert F. Pedersen, Aalborg University
- 2 **Channel Verification of SCME models in a Multi-Probe Based MIMO OTA Setup** "": 29
Wei Fan, Aalborg University; Xavier Carreno, Jagjit S. Ashta, Intel Mobile Communications; Jesper Ødum Nielsen, Gert F. Pedersen, Aalborg University; Mikael B. Knudsen, Intel Mobile Communications, DK 9220 Aalborg, Denmark
- 3 **Parametric Channel Prediction for Narrowband Mobile MIMO Systems Using Spatio-Temporal Correlation Analysis** "": 34
Ramon O. Adeogun, Paul D. Teal, Pawel Dmochowski, Victoria University of Wellington, Wellington
- 4 **Exact Performance of Cooperative Spectrum Sensing for Cognitive Radios with Quantized Information under Imperfect Reporting Channels** "": 39
Mahdi Ben Ghorbel, King Abdullah University of Science and Technology; Haewon Nam, Hanyang University; Mohamed-Slim Alouini, KAUST
- 5 **TDSC Waveform Design for MUI-free Cognitive Radio Networks** "": 44
Su Hu, Gang Wu, University of Electronic Science and Technology of China; Wenhui Xiong, University of Electronic Science and Technology of China; Yue Xiao, Lilin Dan, Shaoqian Li, University of Electronic Science and Technology of China
- 6 **An Antenna Selection Scheme for Regenerative MIMO Relaying** "": 49
Xiaodong Sun, Shihua Zhu, Guobing Li, Xi'an Jiaotong University; Hui Hui, Xi'an University of Technology; Zhenjie Feng, Huawei Technologies Co., Ltd.
- 7 **Outage Probability and Power Allocation for Amplify-and-Forward Cooperative Relaying Systems with Correlated Shadowing** "": 53
Liang Han, Shihai SHAO, Ying Shen, Chaojin Qing, University of Electronic Science and Technology of China; Youxi Tang, UESTC
- 8 **Extracting Multi-User Diversity in the Cellular Uplink, where Transmission Grants Influence CSI Quality** "": 58
Alexandros Pollakis, Fabian Diehm, Gerhard Fettweis, Technische Universität Dresden
- 9 **On the Precoder Design for MIMO Systems over Correlated Rician Channels** "": 64
Lin Zhang, FUJITSU Research and Development Center Co., Ltd; Xin Wang, Fujitsu R&D Center Co., Ltd

10 FPGA Implementation of MIMO OFDM Eigenbeam-Space Division Multiplexing Systems for Future Wireless Communications Networks"; 69

Nguyen Trung Hieu, Bui Huu Phu, Hochiminh City University of Technology; Yasutaka Ogawa, Hokkaido University; Vu Dinh Thanh, Hochiminh City University of Technology

11 Time-Domain Repetition Coding for MISO Transmission over Free-Space Optical Channel"; 74

Jeongchan Kim, University of KAIST; Youngnam Han, Korea Advanced Institute of Science and Technology

12 Approximate Rate Adaptation for MIMO-OFDM Systems with Delayed Feedback"; 79

Eckhard Ohlmer, Gerhard Fettweis, Technische Universität Dresden

13 Impulsive Noise Blanking Using Quantised PAPR Estimates in Powerline Communications"; 84

Khaled Rabie, Emad Alsusa, The University of Manchester

Wednesday 4 September 13:40-15:10

5A: Satellite Communications 1

1 A soft-handover scheme for LEO satellite networks"; 89

Gonçalo Barros, Francisco Ganhão, José Vieira, Luis Bernardo, Rui Dinis, Paulo Carvalho, Rodolfo Oliveira, Paulo Pinto, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa

2 Carreau: CARRIER RESOURCE Access for mUle, DTN applied to hybrid WSN / satellite system"; 94

Patrice Raveneau, University of Toulouse, ENSEEIHT, IRIT, TeSA; Emmanuel Chapat, University of Toulouse, ENSEEIHT - IRIT /CNRS - TeSA; Riadh DHAOU, University of Toulouse, ENSEEIHT/IRIT; Emmanuel Dubois, Patrick Gélard, CNES; André-Luc Beylot, University of Toulouse, ENSEEIHT/IRIT, TeSA

3 Frequency Packing for Interference Alignment-based Cognitive Dual Satellite Systems"; 99

Symeon Chatzinotas, Shree Krishna Sharma, Bjorn Ottersten, SnT, University of Luxembourg

4 Information Theory Analysis of Blind Detection for PCMA Satellite Communication Systems"; 6

Liu Xijia, Tsinghua University; Tao Xiaoming, Tsinghua university; Xiang Chen, Ge Ning, Tsinghua University

5 Less-than-Best-Effort capacity sharing over high BDP networks with LEDBAT"; ;

Nicolas Kuhn, Olivier Mehani, NICTA / ISAE; Arjuna Sathiseelan, University of Cambridge; Emmanuel Lochin, ISAE

Wednesday 4 September 13:40-15:10

5B: Vehicular Communications 1

1 A 5.8 GHz Cooperative Transponder System for Localization and Communication in Traffic Safety Applications"; 6

Bernhard Schaffer, Gerrit Kalverkamp, Erwin Biebl, Technische Universität München

2 A Two-State Packet Error Model for Vehicle-to-Infrastructure Communications"; ;

Veronika Shivaldova, Christoph Mecklenbräuer, Vienna University of Technology

3 Cluster-Based Vehicular Data Collection for Efficient LTE Machine-Type Communication "3226

Christoph Ide, Fabian Kurtz, Christian Wietfeld, TU Dortmund University

4 Data Dissemination with Dynamic Backbone Selection in Vehicular Ad Hoc Networks"322;

Celimuge Wu, Satoshi Ohzahata, Toshihiko Kato, The university of electro-communications

5 Direction of Arrival Estimation for Vehicle-to-Person Communication Using Steerable Antennas "3237

Volker Köster, Andreas Lewandowski, Dortmund University of Technology; Christian Wietfeld, TU Dortmund University

Wednesday 4 September 13:40-15:10

5C: Cognitive Radio Performance Analysis

1 Cramer-Rao Bounds for Hybrid RSS-DOA Based Emitter Location and Transmit Power Estimation in Cognitive Radio Systems "3242

Janis Werner, Aki Hakkarainen, Mikko Valkama, Tampere University of Technology

2 Error Rate Analysis of Cognitive Radio Transmissions with Imperfect Channel Sensing "3249

Gozde Ozcan, Mustafa Cenk Gursoy, Syracuse University; Sinan Gezici, Bilkent University

3 Relay-Assisted Proactive Channel Gain Estimation in Cognitive Radio"3254

Lin Zhang, UESTC, China; Guodong Zhao, HKUST, Hong Kong; Gang Wu, Zhi Chen, University of Electronic Science and Technology of China

4 Signal Detection Performance of Overlapped FFT Scheme with Frame Summation of Adjacent Channels "3259

Akihiro Sato, Shoya Uchida, Mamiko Inamori, Yukitoshi Sanada, Keio University; Mohammad Ghavami, London South Bank University

5 VoIP Erlang Capacity in Coordinated Cognitive Radio Networks "3264

S. Lirio Castellanos-López, Felipe A. Cruz-Pérez, CINVESTAV-IPN; Mario E. Rivero-Ángeles, UPIITA-IPN; Genaro Hernandez-Valdez, Universidad Autonoma Metropolitana

Wednesday 4 September 13:40-15:10

5D: Cooperative Communication Systems

1 A Cooperative Spectrum Sharing Networking Based on Labor-Consumption Model "326:

Liud Dandan, BUPT; Wenbo Wang, Beijing Univer. of Posts & Telecommunications; Wenbin Guo, Beijing University of Posts & Telecommunications

2 A Cooperative System Using an Adaptive Relaying Protocol and Rateless Codes "3275

Yen-Ming Chen, Hao-Lun Lo, Yeong-Luh Ueng, Huang-Chang Lee, National Tsing Hua University

3 Enhanced Cooperative Relaying Transmission for LTE-Advanced System"327:

Yan Meng, Wei Ni, Qi Jiang, Alcatel-Lucent Shanghai Bell, Co., Ltd; Chaojun Xu, Alcatel Shanghai Bell, Co., Ltd; Zhilan Xiong, Alcatel-Lucent Shanghai Bell; Bei Jia, Xi'an Communication Institute

4 Multi-Relay Cooperative Retransmission Strategies over Time-Correlated Channels "3285

Meiyu Huang, Fei Yang, Sihai Zhang, Wuyang Zhou, Haibao Ren, University of Science and Technology of China

5 Power Minimization with Rate Constraint in Downlink Multi-cell Cooperative MIMO Systems"328:

Ting Fu, Cui Qimei, Yinjun Liu, Beijing University of Posts and Telecommunications; Alexis Alfredo Dowhuszko, Department of Communications and Networking - Aalto University; Jyri Hämäläinen, Aalto University, Comnet

Wednesday 4 September 13:40-15:10

5E: MIMO 3

- 1 Pilot Power Ratio for Uplink Sum-Rate Maximization in Zero-Forcing Based MU-MIMO Systems with Large Number of Antennas "3295**
Kyungsik Min, Minchae Jung, Taehyung Kim, Sooyong Choi, Yonsei University
- 2 Practical Implementation of Integer Forcing Linear Receivers in MIMO Channels"329:**
Asma Mejri, Telecom-ParisTech; Ghaya Rekaya Ben-Othman, Telecom ParisTech
- 3 Robust Detection with Stable Throughput Over III-Conditioned Channels for High-Order MIMO Systems"32: 5**
Weilei WANG, Pinyi Ren, Qinghe Du, Li Sun, Xi'an Jiaotong University
- 4 Separate Horizontal & Vertical Codebook Based 3D MIMO Beamforming Scheme in LTE-A Networks "32: :**
Yuan Yuan, Ying Wang, Weidong Zhang, Fei Peng, Beijing University of Posts and Telecommunications
- 5 SINR-based Transceiver Design in the K-user MIMO Interference Channel using Multi-Objective Optimization "32; 5**
Milad Amir Toutouchian, Rodney G. Vaughan, Simon Fraser University

Wednesday 4 September 13:40-15:10

5F: Performance Analysis

- 1 Analysis of Spreading Codes in Conjunction with Ambiguity Function for Inter Vehicular Communication "32; :**
Susanna Spinsante, Ennio Gambi, Università Politecnica delle Marche; Chirag Warty, Ahilya Technologies; Sandeep Mattigiri, California State University; Richard Wai Yu, NAVSEA
- 2 Error Probability Bounds for Multiuser Detection in Cooperative Cellular Networks "3325**
Rajitha Senanayake, Phee Lep Yeoh, University of Melbourne; Jamie S. Evans, Monash University
- 3 Performance Analysis for Heterogeneous Cellular Systems with Range Expansion "332:**
Haichuan Ding, Beijing Institute of Technology; Guanghua Yang, The University of Hong Kong; Shaodan Ma, University of Macau; Chengwen Xing, Zesong Fei, Beijing Institute of Technology
- 4 Performance Analysis of Multi-Hop AF Relaying Systems with a Poisson Field of Interferers in Nakagami-m Fading Channels "3335**
Valentine Aalo, Florida Atlantic University; Kostas Peppas, National Center for scientific research "Demokritos"; George Efthymoglou, University of Piraeus; Mohammed Alwakeel, University of Tabuk; Sami Alwakeel, King Saud University, College of Computer & Information Sciences
- 5 Performance of a multiuser downlink system applying thresholding feedback with imperfect channel information"333: "3**
Anh Nguyen, Yichao Huang, Prof. Bhaskar D. Rao, University of California, San Diego, USA

Wednesday 4 September 13:40-15:10

5G: LTE Networks

- 1 Channel Orthogonality and Utility-Based UE Pairing Schemes for LTE Uplink MU-MIMO "3345**
Balamurali Natarajan, Naveen Arulselvan, Suresh Kalyanasundaram, Hans Kroener, Rajeev Agrawal, Nokia Siemens Networks
- 2 Modeling of Wi-Fi IEEE 802.11ac Offloading Performance For 1000x Capacity Expansion of LTE-Advanced"334:**
Liang Hu, Laura Luque Sanchez, Aalborg University & NTT DOCOMO; Michal Maternia, Istvan Z. Kovacs, Benny Vejlgard, Nokia Siemens Networks - Wroclaw, Poland; P. E. Mogensen, Nokia Siemens Networks, Aalborg; Hidekazu Taoka, NTT DOCOMO

- 3 Network-assisted widely linear receivers for LTE "3356**
Luis Felipe Del Carpio, Aalto University, Finland; Marko Lampinen, Mihai Enescu, Tommi Koivisto, Renesas Mobile Europe Ltd; Olav Tirkkonen, Aalto University
- 4 Reference Signals for Improved Energy Efficiency in LTE "335;**
Havish Koorapaty, Jung-Fu (Thomas) Cheng, Ericsson Research Silicon Valley; Jiann-Ching Guey, ITRI
- 5 Study of Signaling Overhead Caused by Keep-Alive Messages in LTE Network"3366**
Ziqi Zhang, Beijing Jiaotong University; Zhuyan Zhao, Guan Hao, Deshan Miao, Nokia Siemens Networks; Zhen-Hui Tan, Beijing Jiaotong University

Wednesday 4 September 13:40-15:10

5H: Network Resource Allocation and Optimization

- 1 An Enhanced Spectrum Resource Allocation Algorithm for Femtocells "336;**
Linjing Zhao, Xidian University; Guangrui Huo, Xidian university; Kang G. Shin, University of Michigan
- 2 Genetic Algorithm-based Power Allocation for Multiuser MIMO-OFDM Femtocell Networks with ZF Beamforming "3376**
Wei-Chen Pao, Industrial Technology Research Institute; Yung-Feng Lu, National Taichung University of Science and Technology; Chen-Yu Shih, Yung-Fang Chen, National Central University
- 3 Joint Bandwidth Allocation and Small Cell Switching in Heterogeneous Networks"337;**
Jens Bartelt, Technische Universität Dresden; Albrecht Fehske, TU Dresden; Henrik Klessig, Technische Universität Dresden; Jens Voigt, Actix GmbH; Gerhard Fettweis, TU Dresden
- 4 Optimal Multi-Hop Compute-and-Forward for Generalized Two-Way Relay Channels "3386**
Gengkun Wang, Wei Xiang, University of Southern Queensland; Yafeng Wang, Beijing University of Posts and Telecommunications
- 5 Power Allocation for AF Relaying Network under Channel Phase Misalignment "338;**
Kanghee Lee, Hyuck M. Kwon, Jie Yang, Edwin Sawan, Wichita State University; Hyuncheol Park, Yong H. Lee, Korea Advanced Institute of Science and Technology

Wednesday 4 September 13:40-15:10

5P: Network and Applications Posters

- 1 Energy Efficient Power Allocation Schemes for Device-to-Device(D2D) Communication"3396**
Si Wen, Xiaoyue Zhu, Zhesheng Lin, Xin Zhang, Dacheng Yang, Beijing University of Posts and Telecommunications
- 2 Optimal Beamforming Design for Minimal Energy Optimization in Cognitive MIMO System with Perfect/Imperfect Knowledge of PU's Precoder"339;**
Yinglei Teng, Hang Weng, Shuai Yu, Chaowei Wang, Mei Song, Beijing University of Posts and Telecommunications
- 3 A Genetic Algorithm for Multiple Relay Selection in Two-Way Relaying Cognitive Radio Networks "33: 6**
Ahmad Alsharoa, Hakim Ghazzai, Mohamed-Slim Alouini, King Abdullah University of Science and Technology (KAUST)
- 4 Opportunistic Relay Selection Protocol under Multi-user Environment "33; ;**
Inchul Yoo, LG Uplus; Jinyoung Oh, KAIST; Youngnam Han, Korea Advanced Institute of Science and Technology
- 5 A General Framework for Distributed Coordination of Parameters in Communication Networks "33; 6**
Jiann-Ching Guey, ITRI; Dennis Hui, Ericsson Research

6 Control Channels Performance Evaluation with the Coexistence of TD-LTE and LTE-FDD "33; ;

Yinshan Liu, Tsinghua University; Zhong Xiaofeng, University of Tsinghua; Jing Wang, Tsinghua University; Yang Lan, Atsushi Harada, DOCOMO Beijing Communications Laboratories Co., Ltd

7 Achievable Transmission Capacity of Relay Assisted Device-to-Device (D2D) Communication System "3426

Si Wen, Xiaoyue Zhu, Yanchao Lin, Zhesheng Lin, Xin Zhang, Dacheng Yang, Beijing University of Posts and Telecommunications

8 SEP of Multihop Relay Network in Nakagami-m Fading Channels "342;

Bappi Barua, Mehran Abolhasan, Dr. Daniel Franklin, University of Technology Sydney; F. Safaei, University of Wollongong

9 A Tuned Fuzzy Logic Relocation Model in WSN Using Particle Swarm Optimization "3436

Ali Rafiei, Yashar Maali, Mehran Abolhasan, Dr. Daniel Franklin, University of Technology Sydney; F. Safaei, University of Wollongong; Stephen Smith, Macquarie University

10 Low-complexity Energy-Efficient Resource Allocation for Uplink OFDMA Systems "343;

Zhengguang Zheng, Lilin Dan, Yue Xiao, Gang Wu, Su Hu, University of Electronic Science and Technology of China

11 Performance of Green LTE Networks Powered by the Smart Grid with Time Varying User Density "3446

Hakim Ghazzai, KAUST; Elias Yaacoub, Qatar Mobility Innovations Center (QMIC); Mohamed-Slim Alouini, KAUST; Adnan Abu-Dayya, Qatar Mobility Innovations Center (QMIC)

12 Base Station and Relay Station Broadband Network Planning Using Immune Quantum Evolutionary Algorithm "3452

Hafiz Munsub Ali, Jaspreet Oberoi, Jiangchuan Liu, Daniel Lee, Simon Fraser University, Canada

Tuesday 3 September 16:20-15:50

6A: Resource Allocation

1 A Dynamic Resource Allocation Scheme using Nash Bargaining Game for the Uplink of Multiuser OFDM Systems "3458

Akram Baharlouei, Bijan Jabbari, George Mason University

2 A Sub-optimal Threshold-Based Power Allocation Scheme for Joint Transmission in HetNet "3463

XiaoPangbupt, Wenan Zhou, Beijing University of Posts and Telecommunications; Xiaotao Ren, Research Department of Wireless Network, Huawei Technologies; Te Liang, Beijing University of Posts and Telecommunications

3 Improved Resource Allocation Algorithm Based on Partial Solution Estimation for SC-FDMA Systems "3468

Lei Lei, Scott Fowler, Di Yuan, Linköping University

4 Improved Subcarrier and Power Allocation Schemes for Wireless Multicast in OFDM Systems "3473

Wei-Chen Pao, Industrial Technology Research Institute; Yung-Feng Lu, National Taichung University of Science and Technology; Wen-Bin Wang, National Central University; Yao-Jen Chang, Industrial Technology Research Institute; Yung-Fang Chen, National Central University

5 Investigations on Power Allocation Among Beams in Non-orthogonal Access with Random Beamforming and Intra-beam SIC for Cellular MIMO Downlink "3478

Yuta Hayashi, Tokyo University of Science; Yoshihisa Kishiyama, NTT DoCoMo, Inc.; Kenichi Higuchi, Tokyo University of Science

Wednesday 4 September 15:40-17:10

6B: Vehicular Communications 2

1 CQI Maps for Optimized Data Distribution "3483

Lutz Kelch, Tobias Pögel, Technische Universität Braunschweig; Lars Wolf, TU Braunschweig; Andreas Sasse, Volkswagen AG

2 Effects of Vegetation on Vehicle-to-Vehicle Communication Performance at Intersections "3488

Hugues N. Tchouankem, Leibniz Universität Hannover; Tetiana Zinchenko, Volkswagen AG; Henrik Schumacher, Leibniz Universität Hannover; Lars Wolf, TU Braunschweig

3 Vehicle-to-Vehicle Real-Time Relative Positioning Using 5.9 GHz DSRC Media "3494

Keyvan Ansari, Charles Wang, Lei Wang, Yanming Feng, Queensland University of Technology

4 Effective Uplink Interference Avoidance Scheme for High-Speed Railway Communications "349;

Shaoyi Xu, Nokia(China)

5 Integrating Spectrum Database and Cooperative Sensing for Cognitive Vehicular Networks "34; 6

Marco Di Felice, University of Bologna, Italy; Ali Ghandour, Hassan Artail, American University of Beirut; Luciano Bononi, University of Bologna

Wednesday 4 September 15:40-17:10

6C: Cognitive Radio Networking and Routing

1 A Near-transparent Cooperation Scheme in Cognitive Radio Networks "34; 3

Lei Du, Sumin Deng, Yang Yu, Wang Weidong, Beijing University of Posts and Telecommunications; Ben Wang, Beijing University of Post and Telecommunications; Xia Li, Beijing University of Posts and Telecommunications

2 Dynamic Packet Length Control for Cognitive Radio Networks "34; 8

Ali H. Mahdi, Mohamed A. Kalil, Ilmenau University of Technology; Andreas Mitschele-Thiel, Technische Universität Ilmenau

3 Optimal Energy-Efficient Relay Selection and Power Allocation for Cognitive Two-Way Relay Network Using Physical-Layer Network Coding "3523

Jia Liu, Guixia Kang, Ying Zhu, Yingjiao Zhao, Junling Mao, Beijing University of Posts and Telecommunications,

4 Route Aware Dynamic Channel Scheduling and Selection for Multi-Hop Cognitive Radio Networks "3528

Erald Troja, Kenneth Ezirim, Sumah Bhunia, CUNY Graduate Center

5 Routing and Spectrum Decision in Single Transceiver Cognitive Radio Networks "3533

Muhammad Zeeshan, Kashif Sattar, National University of Science and Technology, Islamabad, Pakistan; Zawar Shah, National University of Sciences and Technology (NUST), Pakistan; Imdad Ullah, National University of Science and Technology, Islamabad, Pakistan

Wednesday 4 September 15:40-17:10

6D: Resource Allocation and Optimization

1 Feedback and Scheduling for Coordinated Beamforming of CoMP in LTE-Advanced System "3538

Zhilan Xiong, Alcatel-Lucent Shanghai Bell; Hongwei Yang, Alcatel Shanghai Bell; Min Zhang, Alcatel-Lucent; Yan Meng, Alcatel Shanghai Bell, Co., Ltd; Yuwen Pan, Alcatel-Lucent Shanghai Bell

2 Opportunistic Relaying for Two-Way Relay Transmission with Asymmetric Traffic Requirements "3543

Xiaodong Ji, Nanjing University of Posts and Telecommunications; Wei-Ping Zhu, Concordia University; Daniel Massicotte, UQTR - Université du Québec a Trois-Rivières - Canada

3 Optimization of Relay Transmission Schemes with Interference Cancellation in Wireless Systems"3548
Wang Xianan, Wang Xiaoxiang, Wang Dongyu, Wang Yulong, Beijing University of Posts and Telecommunications

4 Study of an Iterative Resource Allocation Algorithm for a 2-hop OFDMA Virtual Cellular Network "3553
Gerard Jimmy Paraison, Eisuke Kudoh, Tohoku Institute of Technology

5 Sub-carrier Pairing and Fairness Based Resource Allocation in Multi-User Relay Networks "3558
Muhammad Abrar, Dr Xiang Gui, Dr. Amal Punchihewa, Massey University

Wednesday 4 September 15:40-17:10

6E: Practical Considerations for Multiple Antenna Systems

1 A Reduced-Complexity Detector for OFDMA/SC-FDMA-Aided Space-Time Shift Keying "3563
Mohammad Ismat Kadir, University of Southampton; Sheng Chen, Univ. of Southampton; Lajos Hanzo, University of Southampton

2 Adaptive Feedback Reduction for P-VQ in MU-MISO Downlink Precoding "3568
Mirza Golam Kibria, Hidekazu Murata, Susumu Yoshida, Kyoto University

3 An MMSE based Signal to Leakage plus Noise Ratio Precoding Scheme with Other Cell Interference"3573
Shuai Wang, Changliang Zhai, Beijing University of Posts and Telecommunications

4 Coordinated Linear Precoding in Downlink Multicell MU-MISO OFDMA Networks "3578
Mirza Golam Kibria, Hidekazu Murata, Susumu Yoshida, Kyoto University

5 Impact of Mobile Antenna Mismatch on Receive Antenna Diversity in Frequency-Flat Rayleigh Fading Channels"3583
Peng Liu, JKU; Andreas Springer, University of Linz

Wednesday 4 September 15:40-17:10

6F: Interference Alignment and Cancellation

1 Analysis of Self Interference in a Basic FBMC System"3588
M. G. S. Sriyananda, University of Jyväskylä; Nandana Rajatheva, University of Oulu

2 Inter-Carrier Interference Compensation for Zero Padding OFDM "3593
Daisuke Shimbo, Naotoshi Maeda, Hidetoshi Mishima, Jun Ido, Mitsubishi Electric Corporation

3 Non-orthogonal Access Scheme over Multiple Channels with Iterative Interference Cancellation and Fractional Sampling in MIMO-OFDM Receiver "3598
Hiroyuki Osada, Mamiko Inamori, Yukitoshi Sanada, Keio University

4 Non-orthogonal Access with Random Beamforming and Intra-beam SIC for Cellular MIMO Downlink "35: 3
Kenichi Higuchi, Tokyo University of Science; Yoshihisa Kishiyama, NTT DoCoMo, Inc.

5 Partial Interference Alignment for Multi-Cell and Multi-User MIMO Downlink Transmission "35: 8
Wanfang Zhang, Cheng Wang, Chaowei Wang, Wang Weidong, Yang Yu, Beijing University of Posts and Telecommunications

Wednesday 4 September 15:40-17:10

6G: Wireless Networking

1 A Throughput Model Based on Prior Link Probability for Fiber Aided Wireless Mesh Networks"35; 3
Qinglong Dai, Guochu Shou, Yihong Hu, Zhigang Guo, Beijing University of Posts and Telecommunications

2 On the Potential of Interference Rejection Combining in B4G Networks"35; 8
Fernando Tavares, Gilberto Berardinelli, Nurul Huda Mahmood, Troels B. Sorensen, Preben E. Mogensen, Aalborg University

3 Optimal SINR-based Coverage in Poisson Cellular Networks with Power Density Constraints "3623
Tharaka Samarasinghe, Monash University; Hazer Inaltekin, Antalya International University; Jamie S. Evans, Monash University

4 Power-Delay Tradeoffs in Green Wireless Access Networks"3628
Farah Moety, University of Rennes I; Samer Lahoud, Bernard Cousin, University of Rennes 1 / IRISA; Kinda Khawam, UVSQ

5 The Performance Analysis and Access Mechanism of Small Cell Network "3635
Baofeng Ji, University of Southeast; Zhaohua Lu, ZTE; Kang Song, University of Southeast; Yongming Huang, Luxi Yang, Southeast University

Wednesday 4 September 15:40-17:30

6H: Wireless Networks

1 A User-preference-aware Terminal-controlled Access Network Selection Scheme in Heterogeneous Wireless Networks "363;
Guannan Xie, Zhejiang University; Huifang Chen, Zhejiang University; Lei XIE, Kuang Wang, Zhejiang University

2 Coordinated Inter-Cell Interference Management for Expanded Region Picocells in Heterogeneous Network"3646
Yi Li, Beijing University of Posts and Telecommunications; Xiaodong Xu, Beijing University of Posts and Telecommunications; Jiang Han, Beijing University of Posts and Telecommunications; Liu Wen, Beijing University of Posts and Telecommunications

3 Efficient Multicast Content Delivery over a Distributed Mobility Management Environment "364;
Tien-Thinh Nguyen, Christian Bonnet, Institut Eurecom

4 System Design for Multiple Users Cooperative Communication in LTE "3657
Yue Li, Song Zhu, Xiaolong Guo, Huawei Technologies

5 Mobility Analysis for Inter-Site Carrier Aggregation in LTE Heterogeneous Networks"3662
Simone Barbera, Aalborg University; Klaus I. Pedersen, Per Henrik Michaelsen, Claudio Rosa, Nokia Siemens Networks – Denmark

6 Genetic Algorithm Based Optimization of Encoding Sequence for a Reduced Complexity OFDM Time Synchronization Technique"3667
Leila Nasraoui, Sup'Com; Leila Najjar, Supcom school; Mohamed Siala, SUPCOM, Tunis, Tunisia

Thursday 5 September 2013

Thursday 5 September 8:30-10:00

7A: Satellite Communications 2

1 Partial Precoding for Integrated Mobile Satellite Service System "3672

Kaidong Wang, Qi Sun, Xiaofeng Tao, Cui Qimei, Beijing University of Posts and Telecommunications

2 A Study of TDOA Positioning Using UWB Reflected Waves "3677

Shinji Uebayashi, Masaru Shimizu, Takayuki Fujiwara, Chukyo University

3 Advanced channel coding for space mission telecommand links "3682

Franco Chiaraluce, Università Politecnica delle Marche; Marco Baldi, Università Politecnica delle Marche; Marco Bianchi, Università Politecnica delle Marche; Roberto Garello, Politecnico di Torino; Ignacio Aguilar Sanchez, Stefano Cioni, European Space Agency

4 RSTD Performance for Small Bandwidth of OTDOA Positioning in 3GPP LTE "3687

Liu Jinnan, Shulan Feng, Hisilicon Technologies, Huawei

5 Space Time Code of High Diversity Gain for Dual Polarized MIMO in Hybrid Mobile Satellite Systems "3692

Cui Qimei, Kaidong Wang, Xiaofeng Tao, Beijing University of Posts and Telecommunications

Thursday 5 September 8:30-10:00

7B: Mobile Networking

1 Distributed AF Mobile Relay Networks in Adverse Wireless Communication Environments "3697

Kanghee Lee, Hyuck M. Kwon, Jie Yang, Edwin Sawan, Wichita State University; Hyuncheol Park, Yong H. Lee, Korea Advanced Institute of Science and Technology

2 Handover protocol based on estimated received signal strength for target beam in beam division cellular communication systems "36: 2

Hoang Duc Tuong, KAIST; Sungjin Park, Korea Advanced Institute of Science and Technology; Dong-Ho Cho, KAIST

3 Location-Aware Fast Handover in Proxy Mobile IPv6 "36: 7

Changyong Park, MyoungBeom Chung, Hongseok Lee, Sungkyunkwan University; Hyun Jung Choe, LG Electronics; Hyunseung Choo, Sungkyunkwan University

4 Multicast Source Mobility Support Schemes in PMIPv6 Networks "36: 2

Lili Wang, Shuai Gao, Zhang Hongke, Beijing Jiaotong University; Thomas C. Schmidt, HAW Hamburg; Jianfeng Guan, Beijing University of Posts and Telecommunications

5 On the improvement of vehicular macroscopic mobility models "36: 9

Fabricio A Silva, Thais Regina M. B. Silva, Federal University of Viçosa; Raphael Vicente, State University of Maringá; Linnyer B Ruiz, UEM; Antonio Alfredo Loureiro, UFMG

Thursday 5 September 8:30-10:00

7C: Interference and Co-Existence

1 Cross-polarized Transmission for Interference Avoidance in Femto-Macro Network "3724

Ponnu Jacob, A.S. Madhukumar, Nanyang Technological University; Arokiaswami Alphones, NTU, Singapore

2 Identifying the Guard Region for Cognitive Networks under Mutual Interference Constraints "3729

Zebing Feng, Beijing University of Posts and Telecommunications

3 Interference Constrained D2D Communication with Relay Underlying Cellular Networks "3734

Lefei Wang, Tao Peng, Yufeng Yang, Beijing University of Posts and Telecommunications; Wenbo Wang, Beijing Univer. of Posts & Telecommunications

4 Optimum Uplink Power Control Under Power and Interference Constraints "3739

Bar?? Yükksekaya, Hacettepe University; Hazer Inaltekin, Antalya International University; Cenk Toker, Hacettepe University, Turkey

5 Self-Coexistence in Cognitive Radio Networks using Multi-Stage Perception Learning "3744

Deepak K Tosh, City University of New York; Shamik Sengupta, University of Nevada, Reno

Thursday 5 September 8:30-10:00

7D: Power Allocation Techniques

1 A Game Theoretic Power Allocation and Relay Load

Balancing in OFDMA-Based DF Cellular Relay Networks "3749
Yalda Farazmand, Attahiru S. Alfa, University of Manitoba

2 Error Probability and Power Allocation Analysis of Cooperative Relay Networks Over Nakagami-q (Hoyt) Fading Channels "3755

Mulugeta K. Fikadu, Mikko Valkama, Tampere University of Technology

3 Power Allocation and Sum-Rate Analysis for Multi-User Multi-Relay Networks "3762

Qian Wang, Yindi Jing, University of Alberta

4 Power Allocation for Cooperative Broadcast Channel with Shared Channel Quality Indicators "3767

Hui Wang, Beijing University of Post and Telecommunication; Cui Qimei, Tao Xiaofeng, Beijing University of Posts and Telecommunications; Mikko Valkama, Tampere University of Technology

5 Power Allocation in Training for Amplify-and-forward Relay Network "3773

Chunyan Wu, Yindi Jing, University of Alberta

Thursday 5 September 8:30-10:00

7E: Multiple Antenna Applications and Implementations

1 Boosting MMSE receivers using AdaBoost "3778

Onkar Dabeer, Tata Institute for Fundamental Research, Mumbai, India; Srinidhi Nagaraja, A. Chockalingam, Indian Institute of Science, Bangalore

2 Performance of HSPA Vertical Sectorization System under Semi-Deterministic Propagation Model "3783

Huan Cong Nguyen, Aalborg University; Jarmo Mäkinen, Nokia Siemens Networks, Finland; Wolfgang Stoermer, Deutsche Telekom, Germany

3 Performance of Spatial Modulation using Measured Real-World Channels "3788

Abdelhamid H. F. Younis, The University of Edinburgh; William Thompson, The University of Bristol; Marco Di Renzo, CNRS-SUPELEC-Univ Paris-Sud; Cheng-Xiang Wang, Heriot-Watt University; Mark Beach, University of Bristol; Harald Haas, Peter Grant, The University of Edinburgh

4 Space Time State Trellis Codes for Reconfigurable Antenna Systems "3793

Uzma Afsheen, Philippa A. Martin, Peter J. Smith, University of Canterbury

5 The General Procedure for Resolving Manifold Ambiguity using Planar Substrate Placement "3798

Supawat Supakwong, Thammasat University

Thursday 5 September 8:30-10:00

7F: OFDM 1

1 A Deterministic Transmit Power Control for OFDM Clipping and Filtering "37: 3

Shoya Takebuchi, Gen Osada, Fumiaki Maehara, Waseda University

2 A Novel Receiver Design for Training Sequence Inserted OFDM Transmission "37: 8

Tetsuya Yamamoto, Fumiaki Adachi, Tohoku University

3 An Efficient OFDM with Adaptive Guard Interval for Amplify and Forward Relay Systems"37; 3

Xin Gao, Xianbin Wang, Yulong Zou, The University of Western Ontario; Paul Ho, Simon Fraser University

4 BEM-based Reconstruction of Time-varying Sparse Channel in OFDM Systems "37; 8

Fei Qi, Yanhong Ju, Beijing University of Posts and Telecommunications; Songlin Sun, Beijing University of Post and Telecommunications; Jing Xiaojun, Beijing Universities of Posts and Telecommunications; Yueming Lu, Beijing University of Posts and Telecommunications

5 Blind Estimation of Memoryless AM/PM Nonlinearities in OFDM Systems"3823

Jan Dohl, TU Dresden; Gerhard Fettweis, Technische Universität Dresden

Thursday 5 September 8:30-10:00

7G: Topics on Wireless Access

1 Measurement-Based Multiplexing Mode Selection for Codebook-Based MIMO Systems "3828

Junjun Gao, Zhang Jianhua, Tao Xiaofeng, Beijing University of Posts and Telecommunications

2 Efficient Implementations of Orthogonal Matching Pursuit Based on Inverse Cholesky Factorization"3833

Hufei Zhu, Ganghua Yang, Huawei Technologies Co., Ltd., P. R. China; Wen Chen, Dept. of Electronic Engineering, Shanghai Jiao Tong Univ.

3 Exploiting Multi-Antenna Diversity in Overlaid Wireless Network: Transmission Capacity Analysis"3838

Xianling Wang, Beijing University of Posts and Telecommunications; Jianjun Liu, China Mobile Research Institute; Jian Geng, Xin Zhang, Dacheng Yang, Beijing University of Posts and Telecommunications

4 Multi-cell Downlink Joint Transmission with 3D beamforming"3843

Hong Zhu, Ying Wang, Cong Shi, Weidong Zhang, Beijing University of Posts and Telecommunications

5 OFDMA Base Station Power-saving Via Joint Power Control and DTX in Cellular Systems"3848"

Hauke Holtkamp, DOCOMO Euro-Labs; Harald Haas, University of Edinburgh

Thursday 5 September 10:30-12:20

8A: Routing

1 Adaptive Estimation over Networks with Link Failures and Channel Noise "3853

Dr. Wael Bazzi, American University in Dubai; Azam Khalili, University of Malayer; Amir Rategarnia, university of Tabriz

2 DPCOR: A Novel Dual Priority Cooperative Opportunistic Routing Scheme in wireless multi-hop networks "3858

Wang Dongyang, Beijing University of Posts and Communications; Wu Muqing, Beijing University of Posts and Telecommunications; Wen Jingrong, Beijing University of Posts and Communications; Lv Bo, Beijing University of Posts and Telecommunications

3 Improvement for Rate-based Protocols in Multihop Wireless Networks "3864

DUONG Le Minh, University of Engineering and Technology, VNUH; Lynda Zitoune, ESIEE-Paris; Veronique VEQUE, University of Paris-Sud XI

4 MMSE Relaying Strategy for Two-Way Amplify-and-Forward Wireless Networks "386:

Kanghee Lee, Hyuck M. Kwon, Jie Yang, Edwin Sawan, Wichita State University; Hyuncheol Park, Yong H. Lee, Korea Advanced Institute of Science and Technology

5 On Sequence Design for Relay Networks with Multipath "3875

Jie Yang, Kanghee Lee, Youvaraj Sagar, Hyuck M. Kwon, Wichita State University

6 Reliable routing using heterogeneity in wireless sensor networks "387:

Juan G. Barros, IRIT/ENSEEIH; Anne Wei, CNAM, Laboratoire Cédric; André-Luc Beylot, University of Toulouse

Thursday 5 September 10:30-12:00

8B: Localization 2

1 GPS/INS integrated navigation based on UKF and simulated annealing optimized SVM"3885

Zhuqing Jiang, Beijing University of Posts and Telecommunications; Chonghua Liu, Gong Zhang, Beijing Institute of Spacecraft System

Engineering; Yupeng Wang, Chengkai Huang, Jiayi Liang, Beijing University of Posts and Telecommunications

2 Indoor Geo-location Approach for Dense Multipath Environments "388:

Md. Humayun Kabir, Holitiana Macha Randrianandraina, Chika Sugimoto, Ryuji Kohno, Yokohama National University

3 Indoor Localization in Wireless Networks based on a Two-modes Gaussian Mixture Model"3895

Ndeye Amy Dieng, Telecom Bretagne; Maurice Charbit, Claude Chaudet, Telecom ParisTech; Laurent Toutain, TELECOM Bretagne; Tayeb Ben Meriem, Orange Labs Network Carrier

4 Indoor Location Estimation Using Smart Antenna System"389:

Shiann-Tsong Sheu, Ming-Tse Kao, Yen-Ming Hsu, Yen-Chieh Cheng, National Central University

5 Reference Selection for Hybrid TOA/RSS Linear Least Squares Localization"38: 5

Yue Wang, Chinese Academy of Sciences; Feng Zheng, Michael Wiemeler, University of Duisburg-Essen; Weiming Xiong, Chinese Academy of Sciences; Thomas Kaiser, University of Duisburg-Essen

6 TDoA and RSS based Extended Kalman Filter for Indoor Person Localization "38: :

Julian Lategahn, Marcel Müller, Christof Roehrig, University of Applied Sciences and Arts in Dortmund

Thursday 5 September 10:30-12:20

8C: Practical Considerations for Cognitive Radio

1 Cognitive Radio Networks with the RESTART Retransmission Strategy and Limited Reconnections"38; 5

S. Lirio Castellanos-López, Felipe A. Cruz-Pérez, CINVESTAV-IPN; Genaro Hernandez-Valdez, Universidad Autonoma Metropolitana

2 Directional Information based Mobility Procedure for Throughput Enhancement in Mobile TVWS "38; ;

Jihaeng Heo, Yonsei University; Gosan Noh, Electronics and Telecommunications Research Institute; Sungsoo Park, Korea Railroad Research Institute; Eunsun Kim, LG Electronics Co.; Daesik Hong, Yonsei University

3 Machine Learning based Knowledge Acquisition on Spectrum Usage for LTE Femtocells"3926

Ghassan Alnwaimi, Talha Zahir, Seiamak Vahid, Klaus Moessner, University of Surrey

4 Precoder Design for Non-Regenerative MIMO Relay Cognitive Radio Systems"3932

Krishna Ram Budhathoki, Mehdi Maleki, Hamid Reza Bahrami, The University of Akron

5 Spectrum Occupancy Measurements below 1 GHz in the City of San Luis Potosi, Mexico "3938

Rafael Aguilar-Gonzalez, Universidad Autonoma de San Luis Potosi; Marco Cardenas-Juarez, Leeds University; Ulises Pineda Rico, Universidad Autonoma de San Luis Potosi; Enrique Stevens-Navarro, Universidad Autonoma de San Luis Potosi

6 Spectrum Occupancy Measurements in Beijing "3943

Jiantao Xue, BUPT; FENG Zhiyong, Beijing University of Posts and Telecommunications; Kai Chen, BUPT

Wednesday 4 September 13:40-15:10

8D: Performance Analysis

1 Analysis of Coverage Probability for Cooperative Heterogeneous Network "3948

Yifeng Xie, Hui Zhang, Yingshan Li, Nankai University

2 On the Achievable Rates of Memoryless Two-Way Relay Channels "3953

Moslem Noori, University of British Columbia; Masoud Ardakani, University of Alberta

3 On the Performance of DF Opportunistic Relaying Systems with Limited Feedback "3958

Hui Hui, Xi'an University of technology; Guobing Li, Xiaodong Sun, Xi'an Jiaotong University

4 On the Performance of Mixed RF/FSO Variable Gain Dual-Hop Transmission Systems with Pointing Errors"3963

Imran Shafique Ansari, Ferkan Yilmaz, Mohamed-Slim Alouini, King Abdullah University of Science and Technology (KAUST)

5 Outage Analysis of Opportunistic Cooperative Multi-antenna Multicast Based on Space-Time Coding "3968

Zhoujia, Wang Xiaoxiang, Mingming Li, Wang Yulong, Beijing University of Posts and Telecommunications

6 Performance Analysis of Fiber-optic Relaying in the Presence of Interferences between Backhaul and Access Links"3973

Hirofumi Otsuka, Naohiro Tanoi, Akiyuki Nakajima, Kogakuin University

Thursday 5 September 10:30-12:20

8E: Applications of Transmission Technologies

1 Realistic IEEE 802.11p Transmission Simulations based on Channel Sounder Measurement Data"3978

Kim Mahler, Fraunhofer Heinrich Hertz Institute; Panagiotis Paschalidis, Fraunhofer-Institut für Nachrichtentechnik, Heinrich-Hertz-Institut; Andreas Kortke, Michael Peter, Fraunhofer Heinrich-Hertz-Institut; Wilhelm Keusgen, Fraunhofer Heinrich Herz Institut

2 Scalable Distributed Video Coding Using Compressed Sensing in Wavelet Domain"3983

Nianfei Fan, Beijing University of Posts and Telecommunications; Xuqi Zhu, BUPT; LIU Yu, ZHANG Lin, Beijing University of Posts and Telecommunications

3 Uncoded Error Performance of eCall Modem Through AMR Codec and AWGN"3988

Jacob Brandenburg, John Liu, Wayne State University

4 Equivalent Tapped Delay Line Channel Responses with Reduced Taps 3992

Shweta S. Sagari, Wade Trappe, Larry Greenstein, WINLAB, Rutgers University

5 A Novel Approach to Reduce The Storage Amount and Load of Geolocation Database "3997

Xiao Jin, Qixun zhang, FENG Zhiyong, Zhang Ping, Yifan Zhang, Yinghua Liu, Beijing University of Posts and Telecommunications

6 Signal-to-Noise Ratio of Direct Sampling Receivers with Realistic Sampling Circuit Models "39: 2

Bjoern Almeroth, Gerhard Fettweis, Technische Universität Dresden

Thursday 5 September 10:30-12:20

8F: OFDM 2

1 CFO Effect Mitigation Using Reduced Hadamard-Coded Conjugate Transmission for OFDM Systems "39: 7

Chi-Hsiang Tseng, Char-Dir Chung, National Taiwan University, Taiwan, R.O.C

2 Iterative Signal Detection of EM-based Receivers with Multiple Antennas for OFDM Communications "39: 2

Kazushi Muraoka, Kazuhiko Fukawa, Hiroshi Suzuki, Satoshi Suyama, Tokyo Institute of Technology

3 On the Optimum Performance of Coded OFDM with Strongly Nonlinear Transmitters "39: 7

João Guerreiro, FCT-UNL; Rui Dinis, Paulo Carvalho, FCT-Universidade Nova de Lisboa

4 Optimal Beamforming and Scheduling for MIMO-OFDM Uplink Transmissions in Hierarchical Cognitive Radio Systems "3: 22

Ssu-Han Lu, Yen-Ming-Chen, Li-Chun Wang, National Chiao Tung University

5 Performance Analysis of MIMO-SVD and MMSE- Receivers for Adaptive OFDM Systems '3: 27

Krishna P. Kongara, Peter J. Smith, University Of Canterbury

6 Power Spectrum Characterization of Systematic Coded UW-OFDM Systems"3: 32

Morteza Rajabzadeh-Oghaz, Heidi Steendam, Ghent University; Hossein Khoshbin, Electrical Engineering Department, Ferdowsi University of Mashhad

Thursday 5 September 10:30-12:00

8G: Topics on Wireless Networks

1 SPMLD: Sub-Packet based Multipath Load Distribution for Real-Time Multimedia Traffic "3: 37

Jiyan Wu, Xiaokun Wu, Junliang Chen, Beijing University of Posts and Telecommunications

2 The Impact of Neglecting Vehicular Scattering in LTE Heterogeneous Networks"3: 42

Laurent Maviel, CITI Laboratory - INSA Lyon; Jean-Marie Gorce, INSA de Lyon; Yves Lostanlen, SIRADEL

3 Cluster-based Multicast Transmission for Device-to-Device (D2D) Communication "3: 47

Peng Bo, Tao Peng, Beijing University of Posts and Telecommunications; Liu Ziyang, Beijing University of Post and Telecommunication; Yufeng Yang, Chunjing Hu, Beijing University of Posts and Telecommunications

4 eCIC performance calculations based on idle mode measurements in two heterogeneous networks"3: 52

Juergen Beyer, Ole Klein, Deutsche Telekom

5 User Rate Evaluation of Dynamic Clustering in Homogeneous Small Cell Networks "3: 57

Xiaoyu Wang, Shi Jin, Xiqi Gao, Wen Zhong, Guo Li, Southeast University; Tianle Deng, Huawei Tech. Co. Ltd.

Thursday 5 September 13:40-15:10

9A: Cellular Access

- 1 Economic Cost Analysis of Relay-Enhanced Cellular Networks "3: 62**
Hye-J. Kang, Sangkyu Baek, Chung Gu Kang, Korea University
- 2 Enabling Data Offload and Proximity Services using Device to Device communication over licensed cellular spectrum with infrastructure control "3: 67**
Subramanian Vasudevan, Kathiravetpillai Sivanesan, Satish Kanugovi, Jialin Zou, Alcatel-Lucent
- 3 Group-Based Signaling and Access Control for Cellular Machine-to-Machine Communication"3: 74**
Golnaz Farhadi, Fujitsu Labs of America; Akira Ito, Fujitsu Laboratories of America
- 4 Impact of Placement of Small Cells on Downlink Performance for Cellular Wireless Networks "3: 7:**
Hung-Bin Chang, University of California, Los Angeles; Izhak Rubin, UCLA
- 5 Improving the Capacity of an Existing Cellular Network using Distributed Antenna Systems and Right-of-Way Cell Sites "3: 85**
Joseph B. Soriaga, Jean Au, Kai Tang, Chris Lott, Rashid Attar, Qualcomm Technologies, Inc.; Jacob Warner, Bo Piekarski, Crown Castle International Corporation

Thursday 5 September 13:40-15:10

9B: Antennas and Propagation

- 1 Better but Worse, the Challenging Promise of 4G Smartphones "3: 92**
Mauro Pelosi, Alexandru Tatomirescu, Aalborg University; Osama, AIT-CTiF; Elpiniki Tsakalaki, Gert F. Pedersen, Aalborg University; Francescantonio Della Rosa, Tampere University of Technology
- 2 Minimize Beam Squint Solutions for 60GHz Millimeter-wave Communication System "3: 97**
Zhijun Liu, Waheed ur Rehman, Xiaodong Xu, Xiaofeng Tao, Beijing University of Posts and Telecommunications
- 3 Non-Line-Of-Sight Microwave Backhaul in Heterogeneous Networks ""3: : 2**
Mikael Coldrey, Lars Manholm, Mona Hashemi, Ericsson Research; Sorour Falahati, Ericsson AB; Anders Derneryd, Ulrika Engström, Ericsson Research
- 4 Optimal and Computational-Efficient Detection and Estimation of Multi-paths in Channel Sounding "3: : 7**
Yanliang Sun, Zhang Jianhua, Chun Pan, Zhang Ping, Beijing University of Posts and Telecommunications
- 5 Small Scale Fading Characteristics of Wideband Radio Channel in the U-shape Cutting of High-speed Railway"3: ; 3**
Tian Lei, Beijing University of Posts and Telecommunication; Zhang Jianhua, Beijing University of Posts and Telecommunications; Chun Pan, Beijing University of Posts and Telecommunications

Thursday 5 September 13:40-15:10

9C: Topics on Transmission Technologies

- 1 Improving Greedy Compressive Sensing Based Multi-User Detection with Iterative Feedback "3: ; 9**
Henning F. Schepker, Carsten Bockelmann, Armin Dekorsy, University of Bremen
- 2 Look-Up Table Based Differential Amplitude/Phase Modulation Schemes for Rayleigh Fading Channels"3; 24**
Yen-Ming Chen, Chia-Wei Chen, Yeong-Luh Ueng, Huang-Chang Lee, National Tsing Hua University
- 3 Monobit Digital Receivers for QPSK Modulation Using Impulse Radio "3; 29**
Zhiyong Wang, Huarui Yin, Wenyi Zhang, Guo Wei, University of Science and Technology of China

4 On the Use of Multiple Grossly Nonlinear Amplifiers for Highly Efficient Linear Amplification of Multilevel Constellations 3; 35

Paulo Carvalho, Rui Dinis, Vitor Astucia, marko Beko, FCT-Universidade Nova de Lisboa

5 Optimized Quantized Feedback in a Multiuser System Employing CDF based Scheduling "3; 3:

Anh Nguyen, Yichao Huang, Prof. Bhaskar D. Rao, University of California, San Diego, USA

Thursday 5 September 13:40-15:10

9D: Channel Estimation and Feedback Issues

- 1 A Blind Decorrelating Channel Estimator for OFDM Modulated Two-Way Relay Networks "3; 45**
Xiaoyan Xu, Jianjun Wu, Wei Jiang, Haige Xiang, Peking University
- 2 Energy Efficiency and Capacity Evaluation of LTE-Advanced Downlink CoMP Schemes Subject to Channel Estimation Errors and System Delay"3; 4:**
Gencer Cili, Apple Inc; Halim Yanikomeroglu, F. Richard Yu, Carleton University
- 3 Iterative Joint Source-Relay Channel Decoding for the Noisy Decode-and-Forward Protocol "3; 55**
Haifa Fares, Charlotte Langlais, Telecom Bretagne
- 4 Low-complexity Amplify-and-Forward Mobile Relay Networks without Source-to-Relay CSI "3; 5:**
Han-Kui Chang, Meng-Lin Ku, Keshav Singh, Jia-Chin Lin, National Central University
- 5 Robust Interference Alignment Over Correlated Channels with Imperfect CSI "3; 65**
Lingxiang Li, Zhi Chen, University of Electronic Science and Technology of China; Jun Fang, National Key Lab. of Sci. and Tech. on Communications, UESTC, China

Thursday 5 September 13:40-15:10

9E: Multiple Antenna Systems 1

- 1 Multicell Random Beamforming with CDF-based Scheduling: Exact Rate and Scaling Laws"3; 6:**
Yichao Huang, Prof. Bhaskar D. Rao, University of California, San Diego, USA
- 2 Adaptive Transceiver Design for Single Carrier Transmission "3; 75**
Wei Peng, Fumiyuki Adachi, Tohoku University
- 3 Direct Transmit Antenna Selection for Transmit Optimized Spatial Modulation "3; 7:**
Xiping Wu, University of Edinburgh; Marco Di Renzo, CNRS-SUPELEC-Univ Paris-Sud; Harald Haas, University of Edinburgh
- 4 Energy Evaluation of Spatial Modulation at a Multi-Antenna Base Station"3; 85**
Athanasios Stavridis, University of Edinburgh; Sinan Sinanovic, Glasgow Caledonian University; Marco Di Renzo, CNRS-SUPELEC-Univ Paris-Sud; Harald Haas, University of Edinburgh
- 5 Optimized Differential Space Time Block Code without Constellation Expansion "3; 8:**
Jinan Leng, Lei XIE, Zhejiang University; Huifang Chen, Zhejiang University; Kuang Wang, Zhejiang University

Thursday 5 September 13:40-15:10

9F: Vehicular Electronics and Systems

- 1 A Novel Link Budget Approach for the Analysis of Automotive Remote Keyless Entry Systems"3; 95**
Raed El-Makhour, Eric Lardjane, RENAULT S.A.S; Gregory Siguier, Sebastian Kessler, CONTINENTAL AUTOMOTIVE S.A.S
- 2 Evaluating message transmission times in Controller Area Network (CAN) without buffer preemption revisited "3; 9:**
Ugur Keskin, BRACE Automotive

- 3 Front Vehicle Blind Spot Translucitization Based on Augmented Reality '3; : 5**
Che-Tsung Lin, Yu-Chen Lin, Long-Tai Chen, ITRI; Yuan-Fang Wang, UCSB
- 4 Sensing Techniques and Detection Methods for Train Approach Detection '3; ;**
Jose Santos, University of Nebraska-Lincoln; Michael Hempel, University of Nebraska - Lincoln; Hamid Sharif, University of Nebraska-Lincoln
- 5 OFDM-Based Ranging Approach for Vehicular Safety Applications '3; ; 6**
Gerrit Kalverkamp, Bernhard Schaffer, Erwin Biebl, Technische Universität München

Thursday 5 September 13:40-15:10

9G: Wireless Access Control and Optimization

- 1 Active LTE RAN Sharing with Partial Resource Reservation '3; ; ;**
Tao Guo, Rob Amott, NEC Telecom Modus Ltd

- 2 Component Carrier Selection based on User Mobility for LTE-Advanced Systems '4226**
Zhuaxia Chen, Gaofeng Cui, Changliang Zhai, Wang Weidong, Yinghai Zhang, Xiuhua Li, Beijing University of Posts and Telecommunications
- 3 Increasing Uplink Data Rates in HSPA by Modified Mapping of OVSF Codes '422;**
Krzysztof Bakowski, Adrian Langowski, Krzysztof Wesolowski, Poznan University of Technology, Poland
- 4 Physical Uplink Control Channel Enhancements for Further Evolved LTE-Advanced '4236**
Jung-Fu (Thomas) Cheng, Ericsson Research Silicon Valley; Sorour Falahati, Ericsson AB; Mattias Frenne, Y.-P. Eric Wang, Ericsson System & Technologies
- 5 Priority-Based Congestion Control Algorithm for Cross-Traffic Assistance on LTE Networks '423;**
Lung-Chih Tung, University of California, Los Angeles; Mario Gerla, UCLA

Thursday 5 September 15:40-17:10

10A: Fairness, Scheduling, and Load Balancing

- 1 Opportunistic Proportional Fair Downlink Scheduling for Scalable Video Transmission over LTE Systems '4246**
Nabeel Khan, Kingston University; Maria G. Martini, Kingston University, London; Dirk Staehle, DOCOMO Euro-Labs
- 2 A Multi-QoS Aggregation Mechanism for Improved Fairness in WLAN '4252**
Marta Gatnau, Davide Catania, Aalborg University; Andrea Fabio Cattoni, Aalborg University; Jagjit Singh Ashta, Universitat Politècnica de Catalunya; Preben E. Mogensen, Aalborg University
- 3 Load Balancing Techniques Based on Antenna Tilt and Handover Timing Control '4257**
Kazuhide Toda, Toshiaki Yamamoto, Takeo Ohseki, Satoshi KONISHI, KDDI R&D Laboratories Inc.
- 4 QoS Analysis of Self-Similar Multimedia Traffic with Variable Packet Size in Wireless Networks '4263**
Li Xiaolong, Hancheng Lu, University of Science and Technology of China; Hao Lu, USTC, EEIS
- 5 Surrogate based centralized automated optimization applied to LTE mobility load balancing '4268**
Yasir Khan, Berna Sayrac, France Telecom Orange Labs; Eric Moulines, Telecom ParisTech

Thursday 5 September 15:40-17:10

10B: Wireless Access Applications

- 1 Increased Sectorization: Horizontal or Vertical? '4273**
Fredrik Athley, Martin Johansson, Andreas Nilsson, Ericsson Research
- 2 Nation-Wide Mobile Network Energy Evolution Analysis '4278**
Eva María Pérez Robles, Philipp Frank, Nokia Siemens Networks; Gilbert Micallef, Aalborg University; Luis Ángel Maestro Ruiz de Temiño, Benny Vejlgard, Nokia Siemens Networks
- 3 Puncturing of CRC codes for IEEE 802.11ah '4283**
Monisha Ghosh, Frank LaSita, InterDigital
- 4 LTE Performance over High Speed Railway Channel '4288**
F. Javier Martín-Vega, University of Málaga; Isabel Delgado, University of Málaga; Francisco Blázquez-Casado, University of Málaga; Gerardo Gomez, University of Malaga; M. Carmen Aguayo-Torres, Universidad de Malaga; José Tomás Entrambasaguas, University of Málaga

- 5 IEEE 802.11 Networks: A Simple Model Geared Towards Offloading Studies and Considerations on Future Small Cells '4293**
Luis Guilherme Uzeda Garcia, Ignacio Rodriguez, Davide Catania, Aalborg University (AAU); P. E. Mogensen, Nokia Siemens Networks, Aalborg

Thursday 5 September 15:40-17:10

10C: Optimization and Machine Learning

- 1 Ant Colony Optimization based Cross-layer Bandwidth Aggregation Scheme for Efficient Data Delivery in Multi-homed Wireless Networks '4299**
Yuanlong Cao, Changqiao Xu, Jianfeng Guan, Wei Quan, Beijing University of Posts and Telecommunications; Jia Zhao, Beijing Jiaotong University; Hongke Zhang, Beijing University of Posts and Telecommunications
- 2 Cell Range Expansion Using Distributed Q-Learning in Heterogeneous Networks '42: 5**
Toshihito Kudo, Tomoaki Ohtsuki, Keio University
- 3 Neural Network based Situation Detection and Service Provision in the Environment of IoT '42: :**
Xiaokun Wu, Jiyan Wu, Bo Cheng, Junliang Chen, Beijing University of Posts and Telecommunications, China
- 4 Two Block partitioned Dijkstra algorithms '42: 5**
Xinyu Mao, Yuxin Cheng, Haige Xiang, Peking University

Thursday 5 September 15:40-17:10

10D: Relay Network Applications

- 1 Joint TTCM-VLC-Aided SDMA for Two-Way Relaying Aided Wireless Video Transmission '42: :**
Abdulah Aljohani, Dr Soon Xin (Michael) Ng, Rob Maunder, Lajos Hanzo, University of Southampton
- 2 Layered Source-Channel Coding Over Two-Way Relay Networks '4325**
Chongyuan Bi, Jie Liang, Simon Fraser University
- 3 Multi-hop Collaborative Relay Beamforming '432:**
Chao Wang, Ju Liu, Shandong University; Zheng Dong, McMaster University; Hongji Xu, Southeast University; Shuang Ma, Shandong University
- 4 Robust Precoder Design for Two-Hop Relay Networks over Double Correlated Rician Channels '4335**
Zhen Luo, S H Leung, City University of Hong Kong; Xiang Bin Yu, Nanjing University of Aeronautics and Astronautics

- 5 The Energy Efficiency Potential of Moving and Fixed Relays for Vehicular Users "433:**
Yutao Sui, Agisilaos Papadogiannis, Wei Yang, Tommy Svensson, Department of Signals and Systems, Chalmers University of Technology

Thursday 5 September 15:40-17:10

10E: Multiple Antenna Systems 2

- 1 Partial noise value aided reduced K-best sphere decoding "4347**
Xinyu Mao, Yuxin Cheng, Haige Xiang, Peking University
- 2 Power Allocation in Multiuser MIMO Systems for Simultaneous Wireless Information and Power Transfer"4352**
Wei Wang, Li LiHua, Qi Sun, Jin Jin, Beijing University of Posts and Telecommunications
- 3 System-Level Studies for Multi-user Interference Alignment in a Homogeneous Network"4357**
Harri Niemeläinen, Tampere University of Technology; Helka-Liina Maattanen, Renesas Mobile Europe; Mikko Valkama, Tampere University of Technology
- 4 Transmit Diversity Design for Channels with Inter Symbol Interference"4363**
Bingchao, Li Fang, Daoben Li, Beijing University of Posts and Telecommunications
- 5 Impact of Antenna Placement on the Radiation Pattern of Frequency Domain Adaptive Antenna Array "4368**
Wei Peng, Sri Maldia, Fumiyuki Adachi, Tohoku University

Thursday 5 September 15:40-17:10

10F: Detection and Estimation

- 1 A New ML Detector for SIMO Systems with Imperfect Channel and Carrier Frequency Offset Estimation"4373**
Shayondip Sinha, Behnam Shahrrava, Garima Deep, University of Windsor
- 2 On the Detection Mode of Spectrum Analyzers in the Measurement of OFDM Out-of-Band Distortion"4377**
Makoto Tanahashi, Yoshimasa Egashira, Toshiba Corporation; Keiichi Yamaguchi, Toshiba corporation; Yasuhiko Tanabe, Toshiba Corporation

- 3 Estimation of time and frequency offsets in LTE coordinated multi-point transmission "4382**
Tommi Koivisto, Tero Kuosmanen, Timo Roman, Renesas Mobile Europe Ltd.

- 4 Subspace-based Blind Channel Estimation for MIMO-OFDM Systems with Repetition Index "4387**
Shih-Hao Fang, Industrial Technology Research Institute; Ju-Ya Chen, National Sun Yat-Sen University; Jing-Shiun Lin, National Cheng-Kung University; Tung-Jung Hsieh, National Chiao Tung University; Jen-Yuan Hsu, Industrial Technology Research Institute

- 5 Extrinsic LLR of Soft-Demapper under Presence of Channel Estimation Errors"4392**
Hiroyuki Sasaki, Shinsuke Ibi, Seiichi Sampei, Osaka University

Thursday 5 September 15:40-17:10

10G: Wireless Access Experimentation

- 1 Analysis and Modeling of the LTE Broadband Channel for Train-Ground Communications on High-Speed Railway"4397**
Min Zhao, Wu Muqing, Yanzhi Sun, Jia Guiyuan, Beijing University of Posts and Telecommunications
- 2 Compared RF performance of 1.4 MHz-LTE and EVDO rev. A in rural environments at 450 MHz "43: 2**
Renny E. Badra, Universidad Simon Bolivar
- 3 Empirical LTE Smartphone Power Model with DRX Operation for System Level Simulations "43: 7**
Mads Lauridsen, Aalborg University; Laurent Noël, Vidéotron; Preben E. Mogensen, Aalborg University
- 4 Field Evaluation of the New Flexible LTE Transmission Mode "43: 3**
Arne Simonsson, Ericsson Research; Björn Halvarsson, Qiang Zhang, Peter Naucclér, Ericsson AB
- 5 Performance Benchmarking of Uplink Polarization and Spatial Diversity Gains Using Field Measurements from UMTS/HSPA Network "43: 8**
Krishnan Iyer, Nokia Siemens Networks; Raphael Amorim, Nokia Institute of Technology

5 XX]hcbU`DUdYfg. 7`ci X`HYW bc`c[]Yg`UbX`9bYf[m9Z]VYbWw

"Fgr gpf cdlkw{ 'O qf gkpi 'Ht co gy qtm'4423
Mqpuwvwp'Ggp|. 'Vj qo cuDaj pgtv

Gpgti { 'Eqpuwo r vkap'Ucxkpi u'y ksj '5I 'QHmqcf "442;
O 0kcdgnUcpej gl. 'EctnuL0Dgtptf qu.'Cpxqpk'f'g'ic'Qrksx. Redm'Ugttcpq

J gygt qi gpgwu'Dcenj c wllqt 'Emwf /Dcugf 'O qdlag P gvy qtm'4436
Lgpu'Dctvgn.'I gij ctf 'Hgyw gku.'F kmfY 'AddgpO cwtq'Dqrf k'Dtwpq'O grku

"kp/P gvy qt mRt qegukpi 'hqt 'Uo cmEgnE qqr gt cvkap
kp'F gpug'P gvy qtm'443;
J gppki 'Rcwn'Dcp/UqniUj kp.'F kmfY 'Dddgp.'cpf 'Cto kp'F gnytu{

Qr gp'Y k gguu'P gvy qt miCtej lsgewt g'kp'T cf kq'Ceeguu
P gvy qtm'4446
Nwj cp'Y cpi. '\ j cqo kpi 'Nw.'J we'Uj cq.'O kpi hgr'Y cp.'Zkpi o kpi 'Y gp

Rqy gt/cy ct g'emqecvqp'qhiO DUHP 'twdlit co gu'wukpi
F haeqpvwqwu'EgnVtcpuo kulkap'lp'NVG'bf'wgo u'444;
F cplng'O ki rktlpk'I lqxcppk'Ugc.'O cteq'Ectgwk'F ctkq'Ucdgnc

K]XYUbx`AcV]Y7c[b]hij YFUX]c`7ca a i b]WU]cbg`UbX`BYfk cf_g

Eqi plskg'T cf kq'Vgej pls wgu'ht 'Ucwnsg'Ego o wplecvqp'U' wgo u'4456
Uj tgg'Mkuj pc'Uj cto e.'U{ o gap'Ej cv kqvcu.'cpf 'DlDtp'Qwgtvsgp

Gxcmwvpi 'Urgevt wo 'Qeewr cpef 'lp'Kur o cdef 'Wlpi Nqpi /t cpi g'Wnt c/y k'gdcpf 'Urgevt wo 'Ugquu
Operation for System Level Simulations "445;
O 0Ucs kl'fpe{ cv'Krnf gny ct.'O wj co o cf 'Lxpkf.'O wj co o cf 'W0k{ cu.'J cuuwp'MDS wtguj k'epf '\ cy ct'Uj ej

Ngctplpi /clf gf 'Ugukpi 'Uej gf wlpki 'hqt 'Y k'g/dcpf
Eqi plskg'T cf kquode"4467
[cpi 'NkA'Uwf j cto cp'MDLc{ cy ggteA'Ej kwcdtevc'I j quj 'Ecpf 'O ctkq'Dmcutkp{

Qr vlo cniVtcpuo k'Rqy gt 'Eqvt qihqt
Gpgti { /J ct xgukpi 'Eqi plskg'T cf kq'U' wgo "4472
Y qpuwmiEj wpi , Uwpi uq'Rectm Uwpi o qqm'Nlo ,F egukniJ qpi

'S wlemiUrgevt wo 'Ceeguu'kic'DnqeniUco r nipi "4477
Cik'Vclgt.'J 0Xlpegv'Rqqt

"Ugeqpf ct { 'Wgt 'Uej gf wlpki 'Wpf gt 'Vj tqwi j r ww
I wetcpvggu'ht 'vj g'Rt lo ct { 'P gvy qtm"4482
F>| gxf cp'Mcr gvcpxkfe.'O 00 clk' 'Dww.'U{ o gap'Ej cv kqvcu.'cpf 'DlDtp'Qwgtvsgp

Vgo r qtcniGpvtqr { 'epf 'Eqi plskg'kp'ht o cvkap'dcugf
Ghilegpv'Gpxlt qpo gpv'Cy ct gpguu'Vgej pls wgu'lp'Eqi plskg'T cf kq'P gvy qtm'4487
'S kzw' \ j cpi. '\ j kskpi 'Y gk'kij xcs 'Cj o cf

""Vtcpuigt 'Ngctplpi <e' Rctcf ki o 'hqt 'F { pco le'Urgevt wo
cpf 'Vqr qni { 'O cpci go gpv'lp'Hgzklng'Ctej lsgewt gu"4492
S k{ cpi '\ j cq.'Vcq'Ucpi . 'P ku'O qtq u.'F cxkf 'I tceeg.'Vlo 'Enrtng

Y k'gdcpf 'S wcf tcvwtg" 'CF'E qpxgt ukp'ht
Eqi plskg'T cf kq'6'Tgeqphi wtcdng'F guki p'epf 'F ki keniO kt qt/Htgs wgep{ 'Uwr r tguukp"4497
O ctmu' Cnfp. 'Lccmq' O ctvkr. 'O kmq' Xcmto c