

Phy/MAC Track

Monday, 12 March 2007

11:00 - 12:10

T1s01: Cognitive Radio 1

Location: Ching

Session Chair: Ekram Hossain (University of Manitoba, Canada)

T1s01p01: Cooperative Spectrum Sensing for Cognitive Radios under Bandwidth Constraints

Chunhua Sun (Hong Kong University of Science and Technology, P.R. China); **Wei Zhang** (Hong Kong University of Science and Technology, Hong Kong); **Khaled Letaief** (Hong Kong Univ. Science & Technology, Hong Kong)

T1s01p02: Capacity of Cognitive Radio Networks: Analysis and Comparisons of Narrowband, Wideband and Ultra-wideband Systems

Duo Zhang (Michigan Technological University, USA); **Zhi Tian** (Michigan Technological University, USA)

T1s01p03: Distributive Opportunistic Spectrum Access for Cognitive Radio using Correlated Equilibrium and No-regret Learning

Zhu Han (University of Maryland, College Park, USA); **Charles Pandana** (UMD, USA); **K.J. Ray Liu** (Department of Electrical and Computer Engineering, University of Maryland, USA)

T1s01p04: A Game-Theoretic Approach to Competitive Spectrum Sharing in Cognitive Radio Networks

Ekram Hossain (University of Manitoba, Canada); **Dusit Niyato** (University of Manitoba, Canada)

T1s11: Cross-layer Design 1

Location: Tang I

Session Chair: Yingjun Zhang (The Chinese University of Hong Kong, Hong Kong)

T1s11p01: Delay-Sensitive Cross Layer Designs for OFDMA Systems with Outdated CSIT

David Hui (Hong Kong University of Science and Technology, Hong Kong); **Vincent Lau** (the Hong Kong University of Science and Technology, Algeria)

T1s11p02: *Decomposition Methods for Cross-Layer Optimization in Wireless Networks*

Daniel Barreto (Stanford University, USA); **Samuel Chiu** (Stanford University, USA)

T1s11p03: *Cross-Layer Optimization for Wireless Mesh Backhaul Networks*

Mehmet Kemal Karakayali (Bell Labs, Alcatel-Lucent, USA); **Joseph Kang** (Bell Labs, Lucent Technologies, USA); **M. Kodialam** (Bell Labs, Lucent Technologies, USA); **Krishna Balachandran** (Bell Laboratories, Lucent Technologies, USA)

T1s11p04: *Cross-Layer Link Scheduling for End-to-End Throughput Maximization in Wireless Ad Hoc Networks*

Yuxiu Shen (The Chinese University of Hong Kong, Hong Kong); **Yingjun Zhang** (The Chinese University of Hong Kong, Hong Kong); **Wing Shing Wong** (The Chinese University of Hong Kong, Hong Kong)

T1s21: Modulation and Coding 1

Location: Tang II

Session Chair: **Jan Olivier** (University of Pretoria, South Africa)

T1s21p01: *Optimum Binary to Symbol Coding for 6PSK and Bit Error Rate Performance*

Seiichi NODA (Gifu University, Japan); **Shin'ichi Koike** (Consultant, Japan)

T1s21p02: *A New Approach for Constructing FSSM Modeled Encoders to Satisfy Spectral Constraints*

Yongguang Zhu (University of Alberta, Canada); **Ivan Fair** (University of Alberta, Canada)

T1s21p03: *A Novel Algorithm for Blind Recognition of M-ary Frequency Shift Keying Modulation*

Octavia Dobre (Memorial University of Newfoundland, Canada); **Sreeraman Rajan** (DRDC-Ottawa, Canada); **Robert Inkol** (DRDC-Ottawa, Canada)

T1s21p04: *Generalized Soft-Output Layered Orthogonal Lattice Detector for Golden Code*

Cong Shen (UCLA, USA); **Michael Fitz** (Univ. of California Los Angeles, USA); **Massimiliano Sitti** (STMicroelectronics Srl, Italy)

T1s31: Cooperative Networks 1

Location: Sung I

Session Chair: Mischa Dohler (France Telecom R&D, France)

T1s31p01: *Routing Strategies in Multihop Cooperative Networks*

Bo Gui (University of Delaware, USA); **Lin Dai** (University of Delaware, USA); **Len Cimini** (University of Delaware, USA)

T1s31p02: *Joint Design of Network Coding and Channel Decoding for Wireless Networks*

Zhang Shengli (cuhk, Hong Kong); **Yu Zhu** (Hong Kong University of Science and Technology, Hong Kong); **Soung Chang Liew** (The Chinese University of Hong Kong, Hong Kong); **Khaled Letaief** (Hong Kong Univ. Science & Technology, Hong Kong)

T1s31p03: *The Efficiency and Delay of Distributed Source Coding in Random Access Sensor Networks*

Yuh-Ren Tsai (National Tsing-Hua University, Taiwan); **Yao-Win Hong** (National Tsing Hua University, Taiwan); **Yan-Yu Liao** (National Tsing Hua University, Taiwan); **Kai-Jie Yang** (National Tsing Hua University, Taiwan)

T1s31p04: *Energy Efficiency of Cooperative MIMO with Data Aggregation in Wireless Sensor Networks*

Yi Gai (Tsinghua University, P.R. China); **Lin Zhang** (Tsinghua University, P.R. China); **Xiuming Shan** (Tsinghua University, P.R. China)

T1s41: MIMO 1

Location: Ballroom B

Session Chair: Geoffrey Li (Georgia Tech, USA)

T1s41p01: *A Maximum Entropy Characterization of Spatially Correlated MIMO Wireless Channels*

Maxime Guillaud (FTW, Austria); **Merouane Debbah** (Institut Eurecom, France); **Aris Moustakas** (University of Athens, Greece)

T1s41p02: *A Capacity Achieving Precoding Scheme Based on Partial Channel Information for Broadcast MIMO Systems*

Tho Le-Ngoc (McGill University, Canada); **Hamid Reza Bahrami** (McGill University, Canada)

T1s41p03: *Some Properties of the Uniform Correlation Matrix and Their Applications*

R.K. Mallik (Indian Institute of Technology - Delhi, India)

T1s41p04: *Multi-Polarized MIMO Communications: Channel Model, Mutual Information and Array Optimization*

Claude Oestges (Université catholique de Louvain, Belgium); **Maxime Guillaud** (FTW, Austria); **Merouane Debbah** (Institut Eurecom, France)

T1s51: OFDM 1

Location: Ming II

Session Chair: Hikmet Sari (Ecole Supérieure d'Electricité (SUPELEC), France)

T1s51p01: *Analysis of Linear Precoding Techniques for OFDMA Systems*

Serdar Sezginer (Supelec, France); **Hikmet Sari** (Ecole Supérieure d'Electricité (SUPELEC), France)

T1s51p02: *Precoding for Multiuser Orthogonal Space-Time Block-Coded OFDM Downlink over Spatially-Correlated Channels*

Yu Fu (University of Alberta, Canada); **Chintha Tellambura** (University of Alberta, Canada); **Witold Krzymien** (University of Alberta / TRILabs, Canada)

T1s51p03: *Sum Power Minimization Under Rate Constraints in Multiuser OFDM Systems*

Nevio Benvenuto (University of Padova, Italy); **Daniele Veronesi** (Department of Information Engineering, University of Padova, Italy)

T1s51p04: *Opportunistic Transmission with Partial Channel Information in Multi-User OFDM Wireless Systems*

Jae-Yun Ko (Seoul National University, Korea); **Yong-Hwan Lee** (Seoul National University, Korea)

T1s61: UWB 1

Room Location: Sung II

Session Chair: Moe Win (Massachusetts Institute of Technology, USA)

T1s61p01: *Effect of Bandwidth on the UWB Ranging Error*

Chia-Chin Chong (DoCoMo USA Labs, USA); **Fujio Watanabe** (DoCoMo USA Labs, USA); **Moe Win** (Massachusetts Institute of Technology, USA)

T1s61p02: *NLOS Error Mitigation for UWB Ranging in Dense Multipath Environments*

Shaohua Wu (Harbin Institute of Technology, P.R. China); **Yongkui Ma** (Harbin Institute of Technology, P.R. China); **Qinyu Zhang** (Shenzhen Graduate School, Harbin Institute of Technology, P.R. China); **Naitong Zhang** (Communication Research Center, Harbin Institute of Technology, P.R. China)

T1s61p03: *NLOS Identification and Mitigation for UWB Localization Systems*

Ismail Guvenc (DoCoMo USA Labs, USA); **Chia-Chin Chong** (DoCoMo USA Labs, USA); **Fujio Watanabe** (DoCoMo USA Labs, USA)

T1s61p04: *Synchronization and Integration Region Optimization for UWB TR Signals*

Rongrong Zhang (University of Victoria, Canada); **Xiaodai Dong** (University of Victoria, Canada)

T1s71: WiMAX 1

Room Location: Ballroom A

Session Chair: Kevin Sowerby (The University of Auckland, New Zealand)

T1s71p01: *Influence of Channel Models and MIMO on the Performance of a System based on IEEE 802.16*

Wout Joseph (Ghent University, Belgium); **Wouter Reynders** (Ghent University, Belgium); **Jeffrey Debruyne** (Ghent University, Belgium); **Luc Martens** (Ghent University, Belgium)

T1s71p02: *Performance evaluation of mobile WiMAX with MIMO and relay extensions*

Yan Bian (University of Bristol (UoB), UK, United Kingdom); **Andrew Nix** (University of Bristol, United Kingdom); **Yong Sun** (Toshiba Research Europe Limited, United Kingdom); **Paul Strauch** (Toshiba Research Europe Ltd, United Kingdom)

T1s71p03: *System Level Performance of Cellular WiMAX IEEE 802.16 with SDMA-enhanced Medium Access*

Ralf Pabst (RWTH Aachen University, Germany); **Jan Ellenbeck** (Munich University of Technology, Germany); **Marc Schinnenburg** (RWTH Aachen University, Germany); **Christian Hoymann** (RWTH Aachen University, Germany)

T1s71p04:

T1s71p04: *MIMO Link Adaptation in Mobile WiMAX Systems* **Bertrand Muquet** (Sequans Communications, France); **Ezio Biglieri** (Universitat Pompeu Fabra, Barcelona, Spain); **Hikmet Sari** (Ecole Supérieure d'Electricité (SUPELEC), France)

T1s81: Wireless LANs 1

Room Location: Ming I

Session Chair: Halim Yanikomeroglu (Carleton University, Canada)

T1s81p01: *Effective Antenna Selection in a Frequency-Selective Wireless LAN System*

Hailing Meng (The Hong Kong University of Science and Technology, Hong Kong); **Ross Murch** (HKUST, Hong Kong); **Roger Cheng** (The Hong Kong University of Science & Technology, Hong Kong)

T1s81p02: *Delay Guarantee and Service Interval Optimization for HCCA in IEEE 802.11e WLANs*

Yuhi Higuchi (Kobe University, Japan); **Augusto Foronda** (Kobe University, Japan); **Chikara Ohta** (Kobe University, Japan); **Masahiko Yoshimoto** (Kobe University, Japan); **Yoji okada** (Sumitomo, Japan)

T1s81p03: *Load-Aware Power Saving Mechanism in WLAN*

Fan Zhu (Tsinghua University, P.R. China); **Zhisheng Niu** (Tsinghua University, P.R. China)

14:00 – 15:25

T1s02: Cognitive Radio 2

Room Location: Ching Room

Session Chair: Aylin Yener (Pennsylvania State University, USA)

T1s02p01: *Joint Beamforming and Power Control in the Downlink of Cognitive Radio Networks*

Md Islam (Institute for Infocomm Research (I_R), Singapore); **Ying-Chang Liang** (Institute for Infocomm Research, Singapore); **Anh Tuan Hoang** (Institute for Infocomm Research, Singapore)

T1s02p02: *Optimization for Cooperative Sensing in Cognitive Radio Networks*

Edward Peh (Institute for Infocomm Research, Singapore); **Ying-Chang Liang** (Institute for Infocomm Research, Singapore)

T1s02p03: *Optimal Dynamic Spectrum Access via Periodic Channel Sensing*

Qianchuan Zhao (Tsinghua University, P.R. China); **Stefan Geirhofer** (Cornell University, USA); **Lang Tong** (Cornell University, USA); **Brian Sadler** (Army Research Laboratory, USA)

T1s02p04: Utilizing OFDM Guard Interval for Spectrum Sensing

Nilesh Khambekar (Wayne State University, USA); **Liang Dong** (Western Michigan University, USA); **Vipin Chaudhary** (University at Buffalo, SUNY, USA)

T1s02p05: BIOlogically-inspired Spectrum Sharing in Cognitive Radio Networks

Ozgur Akan (Middle East Technical University, Turkey); **Baris Atakan** (Middle East Technical University, Turkey)

T1s12: Cross-layer Design 2

Room Location: Tang I

Session Chair: Shaline Kishore (Lehigh University, USA)

T1s12p01: Two Cross-Layer Optimization Methods for Transporting Multimedia Traffic over Multicode CDMA Networks

Hui Chen (The University of British Columbia, Canada); **Henry Chan** (The Hong Kong Polytechnic University, Hong Kong); **Victor Leung** (The University of British Columbia, Canada)

T1s12p02: Radio Link Level Performance in Multi-Rate MIMO Wireless Networks: Analysis and Optimization

Ekram Hossain (University of Manitoba, Canada); **Dusit Niyato** (University of Manitoba, Canada)

T1s12p03: Closed Loop Cross Layer Scheduling For Goodput Maximization in Frequency Selective Environment with No CSIT

Zuleita Ho (Hong Kong university of Science and Technology, Hong Kong); **Vincent Lau** (The university of science and technology, Hong Kong); **Roger Cheng** (HKUST, Hong Kong)

T1s12p04: A New Cross-layer Designed Multipolling MAC Protocol over WLANs

Fanglei Sun (The University of Hong Kong, P.R. China); **Victor Li** (University of Hong Kong, P.R. China); **Zhifeng Diao** (Arizona State Univ., USA); **Zhengyuan Xu** (University of California, Riverside, USA)

T1s12p05: UEP video transmission based on dynamic resource allocation in MIMO OFDM system

Congchong Ru (Tsinghua University, P.R. China); **Liuguo Yin** (Tsinghua University, P.R. China); **Jianhua Lu** (Tsinghua University, P.R. China); **Chang Wen Chen** (Florida Institute of Technology, USA)

T1s22: Space-Time Coding 1

Room Location: Tang II

Session Chair: Hamid Jafarkhani (University of California, Irvine, USA)

T1s22p01: *Improved Detection of Differential Space-Time Block Codes*
Yun Zhu (UC, Irvine, USA); **Hamid Jafarkhani** (University of California, Irvine, USA)

T1s22p02: *On the Error Performance of Distributed Space-Time Block Codes in Nakagami Channels*
Hongzhi Zhao (Nanyang Technological University, Singapore); **Yi Gong** (Nanyang Technological University, Singapore); **Yong Guan** (Nanyang Technological University, Singapore); **Choi Look Law** (Nanyang Technological University, Singapore); **Tang Youxi** (National Communications Lab, University of Electronic Science & Technology of China, Taiwan)

T1s22p03: *Receiver Constellation Waveform Subspace Preprocessing for Burst Alamouti Block STC CPM Modulation*
Jan Sykora (Czech Technical University in Prague, Czech Republic)

T1s22p04: *Hybrid-ARQ for layered space time MIMO systems with channel state information only at the receiver*
Chunlong Bai (University of Alberta/TRLabs, Canada); **Witold Krzymien** (University of Alberta / TRLabs, Canada); **Ivan Fair** (University of Alberta, Canada)

T1s22p05: *On Distributed Space-Time Coding*
Mohamed Oussama Damen (University of Waterloo, Canada); **Roger Hammons** (APL, Johns Hopkins University, USA)

T1s32: Cooperative Networks 2

Location: Sung I

Session Chair: Sang Wu Kim (Iowa State University, USA)

T1s32p01: *Diversity Gains of Generalized Distributed Antenna Systems with Cooperative Users*
Yifan Chen (Nanyang Technological University, Singapore); **Chau Yuen** (Institute for Infocomm Research, Singapore); **Yan Zhang** (Simula

Research Laboratory, Norway); **Zhenrong Zhang** (Guangxi University, P.R. China)

T1s32p02: *Improving collaborative transmit diversity by using constellation rearrangement*

Majid Nasiri Khormuji (Royal Institute of Technology, Sweden); **Erik G. Larsson** (Royal Institute of Technology, Sweden)

T1s32p03: *Power and weight distribution design criteria for cooperative diversity channels*

Paul Lusina (University of British Columbia, Canada); **Robert Schober** (University of British Columbia, Canada); **Lutz Lampe** (University of British Columbia, Canada)

T1s32p04: *Lifetime Maximization for Amplify-and-Forward Cooperative Networks*

Wan-Jen Huang (University of Southern California, USA); **Yao-Win Hong** (National Tsing Hua University, Taiwan); **C.C. Jay Kuo** (University of Southern California, USA)

T1s32p05: *LLR-based Ordering in Amplify-and-Forward Cooperative Spatial Multiplexing System*

Andreas Darmawan (The University of Tokyo, Japan); **Sang Wu Kim** (Iowa State University, USA); **Hiroyuki Morikawa** (Associate Professor, Japan)

T1s42: MIMO 2

Room Location: Ballroom B

Session Chair: Tan Wong (University of Florida, USA)

T1s42p01: *A Modified V-BLAST System for Performance Improvement Through Introducing Different Delay Offsets to Each Spatially Multiplexed Data Streams*

Shihai Shao (University of Electronic Science and Technology of China, P.R. China); **Tang Youxi** (National Communications Lab, University of Electronic Science & Technology of China, Taiwan); **Ting Kong** (University of Electronic Science and Technology of China, P.R. China); **Xiaoyuan Li** (University of Electronic Science and Technology of China, 610054 Chengdu, China, P.R. China)

T1s42p02: *A novel antenna allocation in V-BLAST system with hybrid ARQ in correlated fading channels*

Bonghoe Kim (LG Electronics, Korea); **Seung-Hoon Hwang** (Dongguk University, Korea)

T1s42p03: *An Enhanced V-BLAST System for Reduced-Complexity Tree Searching*

Hyounkuk Kim (Information and Communications University, Korea);
Hyuncheol Park (Information and Communication University, Korea);
Kihwan Jeon (Information and Communications University, Korea)

T1s42p04: *A Low Complexity Near ML V-BLAST Algorithm for MIMO Systems*

Jiming Chen (University of Electronic Science and Technology of China, P.R. China)

T1s42p05: *Rotation Invariant Coding and Decoding for Multicarrier V-BLAST System*

Hong Zhang (Xi'an jiaotong university, P.R. China)

T1s52: OFDM 2

Room Location: Ming II

Session Chair: Stefan Kaiser (DoCoMo Euro-Labs, Germany)

T1s52p01: *PTS-Based Radix FFT for PAPR Reduction in OFDM Systems*

Abolfazl Ghassemi (University of Victoria, Canada); **T. Aaron Gulliver** (University of Victoria, Canada)

T1s52p02: *A Modified Selective Mapping with PAPR Reduction and Error Correction in OFDM Systems*

Houshou Chen (National Chung Hsing University, Taiwan); **Hsinying Liang** (National Chung Hsing University, Taiwan)

T1s52p03: *Optimal Clipping Value for PAR Reduction of OFDM*

Tyler Nechiporenko (University of Saskatchewan, Canada); **Ha Nguyen** (University of Saskatchewan, Canada)

T1s52p04: *Novel Low-Complexity Post-IFFT PAPR Reduction Technique by Utilising Amplitude Transforming for OFDM Systems*

Lin Yang (University of Manchester, United Kingdom); **Emad Alsusa** (Manchester University, United Kingdom)

T1s52p05: *Modified exponential companding for PAPR reduction of OFDM signals*

Adrish Banerjee (Indian Institute of Technology, Kanpur, India)

T1s62: UWB 2

Room Location: Sung II

Session Chair: Norman Beaulieu (University of Alberta, Canada)

T1s62p01: *Kronecker Modelling for Correlated Shadowing in UWB MIMO Channels*

Zhiwei Lin (Institute for Infocomm Research, Singapore); **Xiaoming Peng** (Institute for InfoComm Research, Singapore); **Khiam Boon Png** (Institute for Infocomm Research, Singapore); **Francois Chin** (Institute for InfoComm Research, Singapore)

T1s62p02: *Space-Time Adaptive Multiuser Detection for Direct-Sequence UWB-MIMO Systems*

Zhonghua Liang (Xi'an Jiaotong University, P.R. China)

T1s62p03: *Diversity Analysis of Multi-Antenna UWB Impulse Radio Systems with Correlated Propagation Channels*

Junsheng Liu (King's College London, United Kingdom); **Mohammad Ghavami** (Kings College London, United Kingdom); **Xiaoli Chu** (King's College London, United Kingdom); **Ben Allen** (University of Oxford, United Kingdom); **Wasim Malik** (University of Oxford, United Kingdom)

T1s62p04: *MIMO-UWB Systems with Parallel Interference Canceller Using Timing Control Scheme in LOS environments*

Masaki Takanashi (Hokkaido University, Japan)

T1s62p05: *The Propagation Characteristics of Ultra-Wide Band Signals in Indoor Line-of-Sight Wireless Channel*

Wang Yang (Harbin Institute of Technology Shenzhen Graduate School, P.R. China)

T1s72: WiMAX 2

Room Location: Ballroom A

Session Chair: Sennur Ulukus (University of Maryland, USA)

T1s72p01: *Power Reservation-based Admission Control Scheme for IEEE 802.16e OFDMA Systems*

Guanding Yu (Zhejiang University, P.R. China); **Aiping Huang** (Zhejiang University, P.R. China); **Zhao-yang Zhang** (Zhejiang University, P.R. China); **Huiling Jia** (Zhejiang University, P.R. China)

T1s72p02: *Optimal Selection of Power Saving Classes in IEEE 802.16e*

Lei Kong (HONG KONG University of Science and Technology, Hong Kong); **Danny H. K. Tsang** (Hong Kong University of Science and Technology, Hong Kong)

T1s72p03: *Facilitating the Network Entry and Link Establishment Processes of IEEE 802.16 Mesh Networks*

Shie-Yuan Wang (National Chiao Tung University, Taiwan, Taiwan);
Chih-Che Lin (National Chiao Tung University, Taiwan); **Ku-han Fang**
(National Chiao Tung University, Taiwan); **Teng-wei Hsu** (National Chiao
Tung University, Taiwan)

T1s72p04: *A Study on Cell Search Algorithms for IEEE 802.16e OFDMA Systems*

Peng Cheng (Zhejiang University, P.R. China); **Zhaoyang Zhang**
(Zhejiang University, P.R. China); **Xiangwei Zhou** (Zhejiang University,
P.R. China); **Jing Li** (Zhejiang University, P.R. China); **Peiliang Qiu**
(Zhejiang University, P.R. China)

T1s72p05: *Performance Analysis of IEEE 802.16 Multicast and Broadcast Polling based Bandwidth Request*

Lidong Lin (City University of Hong Kong, Hong Kong); **Weijia Jia** (City
University of Hong Kong, P.R. China); **Wenyan Lu** (City University of
Hong Kong, Hong Kong)

T1s82: Wireless LANs 2

Room Location: Ming I

Session Chair: Mischa Dohler (France Telecom R&D, France)

T1s82p01: *A ranging method with IEEE 802.11 data frames for indoor localization*

Marc Ciurana (Technical University of Catalonia (UPC), Spain);
Francisco Barcelo-Arroyo (Universidad Politecnica de Catalunya,
Spain); **Fernán Izquierdo** (Technical University of Catalonia (UPC),
Spain)

T1s82p02: *Performance Analysis of Mitigated Asynchronous Spectrally-Overlapping WLAN Interference*

Philippe Mary (France Telecom R&D, France); **Mischa Dohler** (France
Telecom R&D, France); **Jean-Marie Gorce** (INSA-Lyon, France);
Guillaume Villemaud (INSA Lyon, France); **Marylin Arndt** (France
Telecom R&D, France)

T1s82p03: *A Distributed Fair Auto Rate Medium Access Control for Wireless LANs*

Zhu Yanfeng (Tsinghua University, P.R. China); **Zhisheng Niu** (Tsinghua
University, P.R. China)

T1s82p04: *Dynamic Contention Window Control to Achieve Fairness between Uplink and Downlink Flows in IEEE 802.11 WLANs*

B. A. Hirantha Sithira Abeysekera (Osaka University, Japan); **Takahiro Matsuda** (Osaka University, Japan); **Tetsuya Takine** (Osaka University, Japan)

T1s82p05: *RAT Selection in 3GPP-based cellular heterogeneous networks: From Theory to Practical Implementation*

Jordi Perez-Romero (Universitat Politècnica de Catalunya, Spain); **Ramon Ferrús** (Universitat Politècnica de Catalunya, Spain); **Oriol Sallent** (Universitat Politècnica de Catalunya, Spain); **Joan Olmos** (Universitat Politècnica de Catalunya, Spain)

15:25 – 17:00

T1s03: Ad hoc Networks 1

Room Location: Ching

Session Chair: Sastri Kota (Harris Corporation, USA)

T1s03p01: *Cross-Layer Optimization on Routing and Power Control of MIMO Ad Hoc Networks*

Jia Liu (Virginia Polytechnic Institute and State University, USA); **Tae Yoon Park** (Virginia Tech, USA); **Thomas Hou** (Virginia Tech, USA); **Yi Shi** (Virginia Tech, USA); **Hanif Sherahli** (Virginia Tech, USA)

T1s03p02: *Multiple Channels with Overlapping Data Sub-Channel Method for Mobile Ad Hoc Networks*

Ching-Wen Chen (Feng Chia University, Taiwan); **Chuan-Chi Weng** (Feng Chia University, Taiwan); **Chun-Liang Lai** (Chaoyang University, Taiwan); **Chang-Jung Ku** (Feng Chia, Taiwan)

T1s03p03: *Optimal Adaptive Power Management Protocols for Asynchronous Wireless Ad Hoc Networks*

Zi-Tsan Chou (Institute for Information Industry, Taiwan)

T1s03p04: *Location-Free Topology Control Protocol in Wireless Ad Hoc Networks*

Shin-Chih Tu (National Central University, Taiwan); **Jang-Ping Sheu** (National Central University, Taiwan)

T1s13: MAC Protocols 1

Room Location: Tang I

Session Chair: Soung Chang Liew (The Chinese University of Hong Kong, Hong Kong)

T1s13p01: *A General Analytical Model for the IEEE 802.15.4 Contention Access Period*

Xinhua Ling (University of Waterloo, Canada); **Yu Cheng** (Illinois Institute of Technology, USA); **Jon Mark** (University of Waterloo, Canada); **Sherman Shen** (University of Waterloo, Canada)

T1s13p02: *A Location-Assisted MAC Protocol for Multi-hop Wireless Networks*

Seung Min Hur (Pohang University of Science and Technology, Korea); **Shiwen Mao** (Auburn University, USA); **Thomas Hou** (Virginia Tech, USA); **Kwanghee Nam** (Pohang University of Science and Technology, Korea); **Jeffrey Reed** (Virginia Tech, USA)

T1s13p03: *A Multi-Mode MAC Protocol with Relay Support*

Arif Otyakmaz (RWTH Aachen University, Germany); **Ismet Aktas** (RWTH Aachen University, Germany); **Marc Schinnenburg** (RWTH Aachen University, Germany); **Ralf Pabst** (RWTH Aachen University, Germany)

T1s13p04: *McMAC: A Parallel Rendezvous Multi-Channel MAC Protocol*

Hoi-Sheung Wilson So (University of California Berkeley, USA); **Jean Walrand** (University of California at Berkeley, USA); **Jeonghoon Mo** (Information and Communications University, Korea)

T1s23: LDPC Applications 1

Room Location: Tang II

Session Chair: Desmond Taylor (University of Canterbury, New Zealand)

T1s23p01: *Performance Bound for LDPC Coded Unitary Space-Time Modulation*

Huy Vu (University of Saskatchewan, Canada); **Ha Nguyen** (University of Saskatchewan, Canada); **David Dodds** (University of Saskatchewan, Canada)

T1s23p02: *A Modified PEG Algorithm for Construction of LDPC Codes with Strictly Concentrated Check-Node Degree Distributions*

Hua Chen (Tsinghua University, P.R. China); **Zhigang Cao** (Tsinghua University, P.R. China)

T1s23p03: *Performance Analysis of Low Density Parity-Check Codes on a WiMAX Platform*

Brian Salmon (University of Pretoria, South Africa); **Jan Olivier** (University of Pretoria, South Africa)

T1s23p04: *Analysis of Check-Node Merging Decoding for Punctured LDPC Codes with Dual-Diagonal Parity Structure*

Jung-Ae Kim (Hanyang University, Korea); **Sung-Rae Kim** (University of Hanyang, Korea); **Song-Nam Hong** (Hanyang University, Korea); **Dong-Joon Shin** (Hanyang University, Korea)

T1s33: MIMO-OFDM 1

Room Location: Sung I

Session Chair: David Gesbert (Eurecom Institute, France)

T1s33p01: *Iterative Receiver Architectures for MIMO-OFDM*

Jos Akhtman (University of Southampton, United Kingdom); **Lajos Hanzo** (University of Southampton, United Kingdom)

T1s33p02: *Throughput Analysis of Feedback-directed Adaptive MIMO-OFDM Systems*

Fu-Hsuan Chiu (Texas Instruments, USA)

T1s33p03: *A Novel Method of Channel Estimation in Broadband MIMO-OFDM systems*

Jiao Huiying (Beijing institute of technology, P.R. China); **Jianping An** (Beijing Institute of Technology, P.R. China); **Bu Xiangyuan** (Beijing Institute of Technology, P.R. China); **Hua Wang** (Beijing Institute of Technology, P.R. China)

T1s33p04: *Subcarrier-Grouping based Detection Schemes for Multi-Layer STBC coded MIMO-OFDM*

Ming Lei (National Institute of Information and Communications Technology (NICT), Japan)

T1s43: MIMO 3

Room Location: Ballroom B

Session Chair: Erik G. Larsson (Royal Institute of Technology, Sweden)

T1s43p01: *Complexity analysis of lattice reduction for MIMO decoding*

Magnus Sandell (Toshiba TRL, United Kingdom); **Andy Lillie** (Toshiba Research Europe Ltd, United Kingdom); **Darren McNamara** (Toshiba Research Europe Ltd, United Kingdom); **Vishakan Ponnampalam** (Toshiba Research Europe Ltd, United Kingdom); **David Milford** (Toshiba Research Europe Ltd, United Kingdom)

T1s43p02: *A First Encounter with Faster-than-Nyquist Signaling on the MIMO Channel*

Fredrik Rusek (University of Lund, Sweden)

T1s43p03: *A Simple Low-Complexity Precoding Technique for MIMO Systems*

Ulises Pineda (University of Manchester, United Kingdom); **Emad Alsusa** (Manchester University, United Kingdom); **Christos Masouros** (University of Manchester, United Kingdom)

T1s43p04: *A Novel MIMO Detection Scheme with Linear Complexity*

Frederik Simoens (Ghent University, Belgium); **Henk Wymeersch** (Massachusetts Institute of Technology, USA); **Marc Moeneclaey** (Ghent University, Belgium)

T1s53: OFDM 3

Room Location: Ming II

Session Chair: Peng Tan (TELUS Communications Inc.)

T1s53p01: *Multi-dimensional Subcarrier Mapping for Bit-Interleaved Coded OFDM with Iterative Decoding*

Nghi Tran (University of Saskatchewan, Canada); **Ha Nguyen** (University of Saskatchewan, Canada); **Tho Le-Ngoc** (McGill University, Canada)

T1s53p02: *An Ordered LDPC Coded OFDM System with Power Allocation*

Fang Wang (Southeast University, P.R.China, P.R. China); **ShiXin Cheng** (University of Southeast, P.R. China); **Haifeng Wang** (Nokia, Finland); **Ming Chen** (National Mobile Communications Research Lab, Taiwan)

T1s53p03: *Design of Reed-Solomon Codes for OFDM Systems with Clipping and Filtering*

Takahiro Masakawa (Yokohama National University, Japan); **Hideki Ochiai** (Yokohama National University, Japan)

T1s63: UWB 3

Room Location: Sung II

Session Chair: Chia-Chin Chong (DoCoMo USA Labs, USA)

T1s63p01: *Performance of A New Transmitted Reference Pulse Cluster System for UWB Communications*

Xiaodai Dong (University of Victoria, Canada); **Li Jin** (University of Victoria, Canada); **Philip Orlik** (Mitsubishi Electric, USA); **Rongrong Zhang** (University of Victoria, Canada)

T1s63p02: *Optimization of Single-Carrier UWB Transmissions for Narrowband Interference Avoidance*

Justin Coon (Toshiba TRL, United Kingdom)

T1s63p03: *Adaptive Power control for cooperative UWB network Using Potential Game theory*

Fangmin Xu (Beijing university of Posts & Telecommunications, P.R. China)

T1s63p04: *Analytical Performance of M-ary TH-PPM UWB Systems with Multiple Users*

Qingfeng Zhou (Hong Kong Polytechnic University, Hong Kong); **Francis Lau** (Hong Kong Polytechnic University, Hong Kong)

T1s73: WiMAX 3

Room Location: Ballroom A

Session Chair: Lin Dai (University of Delaware, USA)

T1s73p01: *Cross-layer System Designs for Scalable Video Streaming over Mobile WiMAX*

Hung Hui Juan (National Chiao Tung University, Taiwan); **ChingYao Huang** (National Chiao Tung University, Taiwan)

T1s73p02: *A Cross-layer Packet Scheduling and Subchannel Allocation Scheme in 802.16e OFDMA AMC Mode*

Lihua Wan (Beijing University of Posts and Telecommunications, P.R. China); **Wenchao Ma** (Lenovo Corporate Research & Development, P.R. China); **Zihua Guo** (Lenovo, P.R. China)

T1s73p03: *Path Loss Measurements in Sea Port for WiMAX*

Jurianto Joe (Institute of Infocomm Research, Singapore)

T1s73p04: *An Efficient Initial Ranging Improvement Algorithm for IEEE 802.16 P2MP Networks*

Lidong Lin (City University of Hong Kong, Hong Kong); **Bo Han** (City University of Hong Kong, Hong Kong); **Weijia Jia** (City University of Hong Kong, P.R. China); **Lizhuo Zhang** (City University of Hong Kong, Hong Kong)

T1p83: Wireless LANs 3

Room Location: Ming I

Session Chair: Claude Oestges (Université catholique de Louvain, Belgium)

T1p83p01: *A MAC Queue Aggregation Scheme for VoIP Transmission in WLAN*

Yang Lu (Tsinghua University, P.R. China); **Chao Zhang** (Tsinghua University, Beijing, P.R. China); **Jianhua Lu** (Tsinghua University, P.R. China); **Xiaokang Lin** (Tsinghua University, P.R. China)

T1p83p02: *A MAC Layer Dynamic Power Management Scheme for Multiple Users in a WLAN*

Mahasweta Sarkar (University of California, San Diego, USA)

T1p83p03: *A MAC Protocol for MIMO Based IEEE 802.11 Wireless Local Area Networks*

Jelena Mirkovic (RWTH Aachen University, Germany); **Georgios Orfanos** (RWTH Aachen University, Germany); **Hans-Jürgen Reumerman** (Philips Research Aachen, Germany); **Dee Denteneer** (Philips Research, The Netherlands)

T1p83p04: *AQM with Dual Virtual PI Queues for TCP Uplink/Downlink Fairness in Infrastructure WLANs*

Qiuyan Xia (The Hong Kong University of Science and Technology, Hong Kong)

Tuesday, 13 March 2007

10:45 - 12:30

T1s04: Turbo Codes

Room Location: Ching

Session Chair: Aaron Gulliver (University of Victoria, Canada)

T1s04p01: *Error Rate Estimation Based on Soft Output Decoding and its Application to Turbo Coding*

Emilio Calvanese Strinati (Ecole Nationale Supérieure des Télécommunications, Paris, France); **Sebastien Simoens** (Motorola Centre de Recherche, France); **Joseph Jean Boutros** (ENST, Paris, France)

T1s04p02: *Binary Turbo Coding with Interblock Memory*

Chia-Jung Yeh (National Taiwan University, Taiwan); **Yeong-Luh Ueng** (National Tsing Hua Univ., Taiwan, Taiwan); **Mao-Chao Lin** (National Taiwan University, Taiwan); **Ming-Che Lu** (Novatek Microelectronics Corp., Taiwan)

T1s04p03: *An Efficient Decoder for Turbo Product Codes with Multi-Error Correcting Codes*

Guotai Chen (Fuzhou University, P.R. China); **Lei Cao** (The University of Mississippi, USA); **Lun Yu** (Fuzhou University, P.R. China); **Chang Wen Chen** (Florida Institute of Technology, USA)

T1s04p04: *Spatial Temporal Turbo Channel Coding for 3GPP Evaluation*
Gang Wu (Philips Research East Asia, P.R. China)

T1s04p05: *Parallel Concatenated Product Codes*
Din Hwa Huang (National Chiao Tung University, Taiwan)

T1s04p06: *Residual Frequency Offset Compensation-embedded Turbo Decoder*
Kwonhue Choi (Yeungnam Univ, Korea)

T1s14: MAC Protocols 2

Room Location: Tang I

Session Chair: Ranjan Mallik (Indian Institute of Technology - Delhi, India)

T1s14p01: *Multiple User Packet Repackaging*
Sean McBeath (Motorola Labs, USA); **Jack Smith** (Motorola Labs, USA);
Doug Reed (Motorola, USA)

T1s14p02: *Improve IEEE 802.11 MAC Performance with Collision Sequential Resolution Algorithm*
Qifei Zhang (Huazhong University of Science and Technology, P.R. China); **Wei Liu** (Huazhong University of Science and Technology, P.R. China); **Bo Cheng** (Huazhong University of Science and Technology, P.R. China); **Wenqing Cheng** (Huazhong University of Science and Technology, China, P.R. China)

T1s14p03: *A Resource Allocation Framework for the Distributed MAC Protocols of Wireless PANs*
Seung Hyong Rhee (Kwangwoon University, Korea); **Byungjoo Lee** (Kwangwoon University, Korea); **Ki Soo Chang** (Samsung Electronics, Korea)

T1s14p04: *Misbehavior and MAC Friendliness in CSMA Networks*
Cory Beard (University of Missouri-Kansas City, USA); **Zhefu Shi** (University of Missouri-Kansas City, USA); **Kenneth Mitchell** (University of Missouri-Kansas City, USA)

T1s14p05: *Cayley Pseudo-Random (CPR) Protoco: A Novel MAC Protocol for Dense Wireless Sensor Networks*
Wendy Tang (Stony Brook University, USA); **Ridha Kamoua** (Stony Brook University, USA)

T1s14p06: *Influence of Bit Error Rate on the Performance of IEEE 802.11 MAC Protocol*

Xiaolong Li (Morehead State University, USA); **Qing-An Zeng** (University of Cincinnati, USA)

T1s24: Space-Time Coding 2

Room Location: Tang II

Session Chair: Keith Q. T. Zhang (City University of HongKong, Hong Kong)

T1s24p01: *Implementation of the Alamouti OSTBC to a Distributed Set of Single-Antenna Wireless Nodes*

Richard Cagley (Toyon Research Corp., USA); **Brad Weals** (Toyon Corporation, USA); **Scott McNally** (Toyon Research Corp., USA); **Ronald A. Iltis** (University of California, Santa Barbara, USA); **Shahnam Mirzaei** (University of California, Santa Barbara, USA); **Ryan Kastner** (University of California, Santa Barbara, USA)

T1s24p02: *Low Complexity Decoders for Combined Space Time Block Coding and V-BLAST*

Umapathi Reddy (Hellosoft India Pvt. Ltd., India); **Sandeep Gogineni** (International Institute of Information Technology, India); **Ravi Teja** (International Institute of Information Technology, India); **Kalyana Krishnan** (Hellosoft Pvt Ltd, India)

T1s24p03: *Four-Group Decodable Semi-Orthogonal Algebraic Space-Time Block Codes*

Dung Dao (University of Alberta, Canada); **Chau Yuen** (Institute for Infocomm Research, Singapore); **Chintha Tellambura** (University of Alberta, Canada); **Yong Guan** (Nanyang Technological University, Singapore); **Tjeng Thiang Tjhung** (Institute for Infocomm Research, Singapore)

T1s24p04: *Differential Group Space-Time Block Coded CPM*

Michael Riediger (Simon Fraser University, Canada); **Paul Ho** (Simon Fraser University, Canada)

T1s24p05: *Censored Noncoherent Distributed Space-Time Coding for Wireless Sensor Networks*

Simon Yiu (University of British Columbia, Canada); **Robert Schober** (University of British Columbia, Canada)

T1s24p06: *On Four-group ML decodable Distributed Space Time Codes for Cooperative Communication*

G. Susinder Rajan (Indian Institute of Science, India); **Anshoo Tandon** (Freescale Semiconductor Inc., India); **B.Sundar Rajan** (Indian Institute of Science, India)

T1s34: MIMO-OFDM 2

Room Location: Sung I

Session Chair: Vincent Lau (The university of science and technology, Hong Kong)

T1s34p01: *ICI mitigation in MIMO OFDM systems*

Peng Tan (TELUS Communications Inc.); **Norman Beaulieu** (University of Alberta, Canada)

T1s34p02: *Detection of SFBC-OFDM Signals in Frequency- and Time-Selective MIMO Channels*

Dheeraj Sreedhar (Indian Institute of Science, India); **A. Chockalingam** (Indian Institute of Science, India)

T1s34p03: *Preamble Design Based on Complete Complementary Sets for Random Access in MIMO-OFDM Systems*

Jichao Liu (Beijing University of Posts and Telecommunications, P.R. China); **Guixia Kang** (Beijing Univ. of Posts and Telecommunications, P.R. China)

T1s34p04: *Suitable MIMO-OFDM Decoders to Compensate IQ Imbalance*

Yasuhiko Tanabe (Toshiba Corporation, Japan); **Yoshimasa Egashira** (Toshiba, Japan); **Tsuguhide Aoki** (TOSHIBA Corporation, Japan); **Kazumi Sato** (Toshiba, Japan)

T1s34p05: *Link Correlation based Transmit Sector Antenna Selection for Alamouti Coded OFDM*

Chang-Jun Ahn (National Institute of Information and Communications Technology (NICT), Japan)

T1s34p06: *Partial Linear and SQRD-based DF Detections for DSTTD-OFDM Systems in Severely Time-Varying Multipath Channels*

Wooram Shin (Information and Communications University, Korea); **Jongsub Cha** (Information and Communications University, Korea); **Hoojin Lee** (The University of Texas at Austin, USA); **Sooyoung Hur** (Information and Communications University, Korea); **Joonhyuk Kang** (Information and Communications University, Korea)

T1s44: MIMO 4

Room Location: Ballroom B

Session Chair: Geoffrey Li (Georgia Tech, USA)

T1s44p01: MU-MIMO Decomposition Transmission with Limited Feedback
Elva, Cheng Wang (HKUST, Hong Kong); **Ross Murch** (HKUST, Hong Kong)

T1s44p02: Adaptive MIMO Systems based on Partial Channel State Information in 2 x 2 Uncorrelated Rayleigh Fading Channel
Jin Liang Huang (Royal Institute of Technology(KTH), Sweden)

T1s44p03: Power Allocation without CSI Feedback for Decision-Feedback MIMO Signal Detection
Geoffrey Li (Georgia Tech, USA); **Anthony Soong** (Huawei Technologies, USA); **Jianmin Lu** (Huawei Technologies Co., Ltd, USA); **Yinggang Du** (Huawei Technologies Co., Ltd, P.R. China)

T1s44p04: Two Novel Channel Augmentation Schemes for MIMO Systems
Harry Chen (University of British Columbia, Canada); **Robert Schober** (University of British Columbia, Canada); **Lutz Lampe** (University of British Columbia, Canada)

T1s44p05: Robust Optimization of Linear Precoders/decoders for Multiuser MIMO Downlink with Imperfect CSI at Base station
Hao Li (Shanghai Jiao Tong University, P.R. China); **Changqing Xu** (Shanghai Jiao Tong University, P.R. China)

T1s44p06: Performance Analysis of MRT and Transmit Antenna Selection with STBC with Feedback Delay and Channel Estimation Error
Shengqian Han (Beihang University, P.R. China); **Chenyang Yang** (Beihang University, P.R. China)

T1s54: OFDM 4

Room Location: Ming II

Session Chair: Meixia Tao (National University of Singapore, Singapore)

T1s54p01: Minimizing Power in Wireless OFDMA with Limited-Rate Feedback
Antonio Marques (Universidad Rey Juan Carlos, Spain); **Georgios B. Giannakis** (University of Minnesota, USA); **Fadel Digham** (University of Minnesota, USA); **F. Javier Ramos** (Rey Juan Carlos University, SPAIN, Algeria)

T1s54p02: A novel scheme for OFDMA based E-UTRA uplink
Lili Liu (Beijing University of Posts and Telecommunications (BUPT), P.R. China); **Jianchi Zhu** (Beijing University of Posts and Telecommunications,

P.R. China); **Xiaofeng Tao** (WTI-BUPT, P.R. China); **Ping Zhang** (WTI-BUPT, P.R. China)

T1s54p03: *Dynamically Adaptive Bandwidth for Sub Carriers in OFDM based Wireless Systems*

Suvra Das (Aalborg University, Denmark)

T1s54p04: *Novel SNR Analysis for Adaptive Modulation and Coding in Generalized OFDM and Single Carrier Systems*

Mosa Aburgheff (University of Plymouth, United Kingdom); **Lin Tang** (Shanghai Research Center for Wireless Communications, P.R. China); **Mingqi Li** (Shanghai Research Center for Wireless Communications(SHRCWC), P.R. China); **Haifeng Wang** (Nokia, Finland)

T1s54p05: *A Low-Complexity Concatenated ICI Cancellation Scheme for High-Mobility OFDM Systems*

Chong-Ren Sheu (Industrial Technology Research Institute, Taiwan); **Ming-Chien Tseng** (Industrial Technology Research Institute, Taiwan); **Ching-Yung Chen** (CCL/ITRI, Taiwan)

T1s54p06: *Pre-FFT type MMSE adaptive array antenna to suppress asynchronous interference for OFDM packet transmission*

Kazuto Yano (ATR, Japan); **Makoto Taromaru** (ATR Wave Engineering Laboratories, Japan)

T1s64: UWB 4

Room Location: Sung II

Session Chair: Zhu Han (Boise State University, USA)

T1s64p01: *A Novel Multiple-Access Scheme for Chirp UWB*

Peng Zhang (University of Electr Sci & Tech of China, P.R. China); **Jianhao Hu** (University of Electronic Science and Technology of China (UESTC), P.R. China)

T1s64p02: *A Polarization UWB Receiver with Narrowband Interference Suppression Capability*

Xingpeng Mao (Harbin Institute of Technology, P.R. China); **Jon Mark** (University of Waterloo, Canada)

T1s64p03: *A Fast UWB Timing Acquisition Scheme with Robustness to Multiple Access Interference*

Tingting Liu (Beihang University, P.R. China); **Chenyang Yang** (Beihang University, P.R. China); **Yafei Tian** (Beihang University, P.R. China)

T1s64p04: *A Low-Complexity Decision-Feedback MAI Suppression for Coded TH-UWB Systems*

Tomoko Matsumoto (Yokohama National University, Japan)

T1s64p05: *Robust Acquisition of Ultra-Wideband Signals with Averaged Template*

Ersen Ekrem (Boğaziçi University, Turkey); **Mutlu Koca** (Bogazici University, Turkey); **Hakan Delic** (Bogazici University, Turkey)

T1s74: Channel Characterization and Modeling 1

Room Location: Ballroom A

Session Chair: Claude Oestges (Université catholique de Louvain, Belgium)

T1s74p01: *A Three-Dimensional MIMO Mobile-to-Mobile Channel Model*

Alenka Zajic (Georgia Institute of Technology, USA); **Gordon Stuber** (Georgia Institute of Technology, USA)

T1s74p02: *Space-Time-Frequency Characterization of 3D Non-Isotropic MIMO Multicarrier Propagation Channels Employing Directional Antennas*

Hamidreza Saligeh Rad (Harvard University, USA)

T1s74p03: *Correlation properties of large scale fading based on indoor measurements*

Niklas Jalden (Royal Institute of Technology (KTH), Sweden); **Aihua Hong** (TU-Ilmenau, Germany); **Per Zetterberg** (KTH, Sweden); **Björn Ottersten** (Royal Institute of Technology, Sweden); **Reiner Thomae** (University of Ilmenau, Germany)

T1s74p04: *Multuser MIMO Channel Measurements and Performance in a Large Office Environment*

Gerhard Bauch (DoCoMo Euro-Labs, Germany); **Jørgen Andersen** (Aalborg University, Denmark); **Christian Guthy** (Munich University of Technology, Germany); **Markus Herdin** (DoCoMo Communications Laboratories Europe GmbH, Germany); **Jesper Nielsen** (Aalborg University, Denmark); **Josef A. Nossek** (Munich University of Technology, Germany); **Pedro Tejera** (Munich University, Germany); **Wolfgang Utschick** (Munich University of Technology, Germany)

T1s74p05: *The η - μ Joint Phase-Envelope Distribution*

Daniel Benevides Da Costa (State University of Campinas, Brazil); **Michel Yacoub** (State University of Campinas, Brazil)

T1s74p06: *MIMO Channel Modelling: the Kronecker model and maximum entropy*

Bodhaswar Maharaj (University of Pretoria, South Africa); **Jon Wallace** (Brigham Young University, USA)

10:00 – 12:30

T1s85: Phy/MAC Poster Session 1

Location: Ballroom Pre-Function Area

T1s85p01: *Eliminating Inter-BSS Co-channel Interferences by MC-CDMA in WLANs*

Ping Chung Ng (University of Oxford, United Kingdom); **David Edwards** (University of Oxford, United Kingdom); **Soung Chang Liew** (The Chinese University of Hong Kong, Hong Kong)

T1s85p02: *On Pilot Grid Design for an OFDM Air Interface*

Gunther Auer (DoCoMo Euro-Labs, Germany); Ivan Cosovic (DoCoMo Communications Laboratories Europe GmbH, Germany)

T1s85p03: *A Fuzzy Control Quorum-Based Energy Conserving Protocol for IEEE 802.11 Ad Hoc Networks*

Chih-Min Chao (National Taiwan Ocean University, Taiwan); **Xin-Hong Lin** (Tamkang University, Taiwan)

T1s85p04: *Ergodic Capacity and Information Outage Probability of MIMO Nakagami-m Keyhole Channels with General Branch Parameters*

T1s85p05: *Decentralized Interference Cancellation in Mobile Radio Networks*

Tobias Weber (Uni Rostock, Germany); **Andreas Ahrens** (University of Rostock, Germany); **Shiyang Deng** (University of Rostock, Germany)

T1s85p06: *Multi-carrier DS-CDMA Transmission with Frequency-domain Equalization*

Ken Tanaka (Tohoku University, Japan); **Hiromichi Tomeba** (Tohoku University, Japan); **Fumiyuki Adachi** (Tohoku University, Japan)

T1s85p07: *Queue-Aware Power Allocation for Space-Time Block Coded MIMO Systems*

Ekram Hossain (University of Manitoba, Canada); **Dusit Niyato** (University of Manitoba, Canada)

T1s85p08: *Performance Analysis of Frequency-Domain Decision-Feedback Equalizer Using Gaussian Approximation and Markov Model*

Rih-Lung Chung (Yuan-Ze University, Taiwan); **Jeng-Kuang Hwang** (Yuan-Ze University, Taiwan)

T1s85p09: Prediction of Downlink SNR for Opportunistic Beamforming

Markus Jordan (RWTH Aachen University, Germany); **Lars Schmitt** (RWTH Aachen University, Germany); **Gerd Ascheid** (RWTH Aachen University, Germany); **Heinrich Meyr** (RWTH Aachen University, Germany)

T1s85p10: Exact BER of Rectangular-Constellation Quadrature Amplitude Modulation Subjected to Asynchronous Co-Channel Interference and Nakagami-m Fading

Xiang Liu (University of Southampton, United Kingdom); **Lajos Hanzo** (University of Southampton, United Kingdom)

T1s85p11: Stability region of multicarrier channel aware Aloha

Ghurumuruhan Ganesan (Georgia Institute of Technology, USA); **Geoffrey Li** (Georgia Tech, USA); **Frederick Vook** (Motorola Labs, USA)

T1s85p12: Generalized Moment-Based Method for SNR Estimation

Mohammed Bakkali (Institut National de la Recherche Scientifique, Canada); **Alex Stephenne** (Ericsson, Canada); **Sofiene Affes** (INRS - Centre Energie, Matériaux et Télécommunications, Canada)

T1s85p09: Prediction of Downlink SNR for Opportunistic Beamforming

Markus Jordan (RWTH Aachen University, Germany); **Lars Schmitt** (RWTH Aachen University, Germany); **Gerd Ascheid** (RWTH Aachen University, Germany); **Heinrich Meyr** (RWTH Aachen University, Germany)

T1s85p10: Exact BER of Rectangular-Constellation Quadrature Amplitude Modulation Subjected to Asynchronous Co-Channel Interference and Nakagami-m Fading

Xiang Liu (University of Southampton, United Kingdom); **Lajos Hanzo** (University of Southampton, United Kingdom)

T1s85p11: Stability region of multicarrier channel aware Aloha

Ghurumuruhan Ganesan (Georgia Institute of Technology, USA); **Geoffrey Li** (Georgia Tech, USA); **Frederick Vook** (Motorola Labs, USA)

T1s85p12: Generalized Moment-Based Method for SNR Estimation

Mohammed Bakkali (Institut National de la Recherche Scientifique, Canada); **Alex Stephenne** (Ericsson, Canada); **Sofiene Affes** (INRS - Centre Energie, Matériaux et Télécommunications, Canada)

T1s85p13: Novel SINR-to-CQI Mapping Maximizing the Throughput in HSDPA

Klemens Freudenthaler (Inst. f. Communications and Information Engineering, University of Linz, Austria); **Andreas Springer** (University of Linz, Austria); **Joachim Wehinger** (Wipro-NewLogic Technologies, France)

T1s85p14: *The New RF Models on the TinyOS Simulator for IEEE 802.15.4 Standard*

Changsu Suh (Ajou University, Korea)

T1s85p15: *Impact of Channel Estimation Errors on the Performance of DFE equalizers with Space Time Block Codes in Wideband Fading Channels*

Mohamed Nouné (University of Bristol, United Kingdom); **Andrew Nix** (University of Bristol, United Kingdom)

14:00 – 15:25

T1s05: Cognitive Radio 3

Room Location: Ching

Session Chair: Erik G. Larsson (Royal Institute of Technology, Sweden)

T1s05p01: *A Cognitive MAC Protocol Using Statistical Channel Allocation for Wireless Ad-hoc Networks*

Chia-Chun Hsu (University of Southern California, USA); **David Wei** (Fordham University, USA); **C.C. Jay Kuo** (University of Southern California, USA)

T1s05p02: *Optimization of Detection Time for Channel Efficiency in Cognitive Radio Systems*

Peng Wang (Tsinghua University, P.R. China); **Limin Xiao** (Tsinghua University, P.R. China); **Shidong Zhou** (Tsinghua University, P.R. China); **Jing Wang** (EE, Tsinghua University, P.R. China)

T1s05p03: *Optimal Power Control under Interference Temperature Constraints in Cognitive Radio Network*

Wei Wang (Beijing University of Posts and Telecommunications, P.R. China); **Tao Peng** (Beijing University of Posts & Telecommunications, P.R. China); **Wenbo Wang** (Beijing University of Posts and Telecommunications, P.R. China)

T1s05p04: *A Concurrent Transmissions MAC Protocol for Enhancing Throughout and Avoiding Spectrum Sensing in Cognitive Radio*

Li-Chun Wang (National Chiao Tung University, Taiwan); **Chung-Wei Wang** (National Chiao Tung University, Taiwan); **Yin-Chih Lu** (National Chiao Tung University, Taiwan); **Chuan-Ming Liu** (National Taipei University of Technology, Taiwan)

T1s05p05: *Stochastic Control of Dynamic Guard Bandwidth for Prioritized Management of Open Spectrum*

Oliver Yu (University of Illinois at Chicago, USA); **Emir Saric** (University of Illinois at Chicago, USA); **Anfei Li** (University of Illinois at Chicago, USA)

T1s15: Cross-layer Design 3

Room Location: Tang I

Session Chair: Mischa Dohler (France Telecom R&D, France)

T1s15p01: *User Identification for Opportunistic OFDM based Broadband Wireless Network*

Defeng Huang (University of Western Australia, Australia); **Yingjun Zhang** (The Chinese University of Hong Kong, Hong Kong)

T1s15p02: *Experimental Evaluation of Adaptive SR-SW-ARQ/FEC Scheme for Ultra Low-Latency Mobile Networks*

Xiaoqiu Wang (KDDI R&D Laboratories Inc., Japan); **Satoshi Konishi** (KDDI R&D Laboratories Inc., Japan); **Takeshi Kitahara** (KDDI R&D Laboratories Inc., Japan); **Hajime Nakamura** (KDDI R&D Laboratories Inc., Japan); **Toshinori Suzuki** (KDDI, Japan)

T1s15p03: *Analysis of Multi-User ARQ with Multiple Unicast Flows under Non-iid Reception Probabilities*

Peter Larsson (Ericsson, Sweden)

T1s15p04: *Improving Application Performance over Error Prone Routes in Internet: Joint Optimization of Coding, Interleaving and ARQ*

Sarma Vangala (University of Massachusetts, USA); **Hossein Pishro-Nik** (University of Massachusetts, Amherst, USA); **Bharat Doshi** (Johns Hopkins University, USA)

T1s15p05: *Channel Assignment for Maximum Throughput in Multi-Channel Access Point Networks*

Xiang Luo (Rensselaer Polytechnic Institute, USA); **Rajagopal Iyengar** (Rensselaer Polytechnic Institute, USA); **Koushik Kar** (Rensselaer Polytechnic Institute, USA)

T1s25: Multi-carrier

Room Location: Tang II

Session Chair: Wei Zhang (Hong Kong University of Science and Technology, Hong Kong)

T1s25p01: *Transmit Diversity for Down-Link MC-CDMA based on Energy Spreading Transform*

Taewon Hwang (Yonsei University, Korea); **Geoffrey Li** (Georgia Tech, USA)

T1s25p02: *On Antenna Diversity Exploitation for Multicarrier On-Off Keying Transmission*

Jose Luna-Rivera (Autonomous University of San Luis Potosi, Mexico)

T1s25p03: *Linear Precoding for Downlink MC-CDMA Systems*

Federico Boccardi (Bell Labs, United Kingdom); **Nevio Benvenuto** (University of Padova, Italy); **Paola Bisaglia** (Dora Spa, STMicroelectronics Group, Italy)

T1s25p04: *Dynamic Code-allocation Based PAPR Reduction Technique for MC-CDMA systems*

Lin Yang (University of Manchester, United Kingdom); **Emad Alsusa** (Manchester University, United Kingdom)

T1s25p05: *Convolutional Multiplexing for Multicarrier Systems*

Wei Jiang (Beijing University of Posts and Telecommunications, P.R. China); **Daoben Li** (Beijing University of posts and telecommunications, P.R. China); **Xingpeng Mao** (Harbin Institute of Technology, P.R. China)

T1s35: Cooperative Networks 3

Room Location: Sung I

Session Chair: Lin Dai (University of Delaware, USA)

T1s35p01: *Using Relay Balance and AQM Schemes to Improve Performance in Multi-hop Wireless Networks*

Binh Ngo (University of South Australia, Australia); **Steven Gordon** (Thammasat University, Thailand); **Aruna Jayasuriya** (University of South Australia, Australia)

T1s35p02: *A Non-Orthogonal Cooperative Multiple Access (NCMA) Protocol and Low ML decoding complexity codes*

B.Sundar Rajan (Indian Institute of Science, India); **G.Susinder Rajan** (Indian Institute of Science, India)

T1s35p03: *Multiple Frequency Offsets Estimation and Compensation for Cooperative Networks*

Daniele Veronesi (Department of Information Engineering, University of Padova, Italy); **Nevio Benvenuto** (University of Padova, Italy); **Stefano Tomasin** (University of Padova, Italy)

T1s35p04: *Effect of user mobility in coded cooperative systems with joint partner and cooperation level selection*

Stefan Valentin (University of Paderborn, Germany); **Holger Karl** (University of Paderborn, Germany)

T1s35p05: *Distributed Space-Time Codes for Cooperative Networks with Partial CSI*

B. Sundar Rajan (Indian Institute of Science, India); **G.Susinder Rajan** (Indian Institute of Science, India)

T1s45: MIMO 5

Room Location: Ballroom B

Session Chair: Yingjun Zhang (The Chinese University of Hong Kong, Hong Kong)

T1s45p01: *Optimization of Training and Feedback for Beamforming over a MIMO Channel*

Wiroonsak Santipach (Kasetsart University, Thailand); **Michael Honig** (Northwestern University, USA)

T1s45p02: *Minimum SINR Maximization for Multiuser MIMO Downlink with Per BS Power Constraints*

Antti Tolli (University of Oulu, Finland); **Marian Codreanu** (University of Oulu, Finland); **Markku Juntti** (University of Oulu, Finland)

T1s45p03: *Combined Rate and Precoder Design for Slow Fading Correlated MIMO Channels with Limited Feedback*

Vincent Lau (the Hong Kong University of Science and Technology, Algeria); **Bao Mok** (Hong Kong University of Science and Technology, Hong Kong)

T1s45p04: *Beamforming with Imperfect CSI*

Geoffrey Li (Georgia Tech, USA); **Anthony Soong** (Huawei Technologies, USA); **Yinggang Du** (Huawei Technologies Co., Ltd, P.R. China); **Jianmin Lu** (Huawei Technologies Co., Ltd, USA)

T1s45p05: *Amount of Fading Analysis for Transmit Antenna Selection in MIMO systems*

Xinwei Deng (University of Alberta, Canada); **Wei Zhang** (University of Alberta, Canada); **Chintha Tellambura** (University of Alberta, Canada)

T1s55: OFDM 5

Room Location: Ming II

Session Chair: Chenyang Yang (Beihang University, P.R. China)

T1s55p01: *Pilot Design and Channel Estimation for OFDM Amplify--and--Forward with Chunk Reordering*

Markus Herdin (DoCoMo Communications Laboratories Europe GmbH, Germany); **Gunther Auer** (DoCoMo Euro-Labs, Germany)

T1s55p02: *Approximated Maximum Likelihood Estimation of Carrier Frequency Offset in Practical OFDM Systems*

Ming (Matt) Ruan (Australian National University, National ICT Australia, Australia); **Mark Reed** (National ICT Australia, ANU, Australia); **Zhenning Shi** (National ICT Australia, Australia)

T1s55p03: *Optimal Channel Estimation Algorithms for OFDM over Markov Channels*

Jung-Hyun Park (Korea Advanced Institute of Science and Technology, Korea); **Dong-Jo Park** (Korea Advanced Institute of Science and Technology, Korea)

T1s55p04: *H_{∞} Channel Estimation for Cellular OFDM*

Lakshminarayanan Raghavendran (Indian Institute of Technology Madras., India); **Giridhar Krishnamurthy** (Professor, Indian Institute of Technology, Madras, India)

T1s55p05: *Detection of OFDM Signals in Fast Fading with Low-Density Pilot Symbols*

Ming-Xian Chang (Nation Cheng Kung University, Taiwan); **Tsung-Da Hsieh** (National Cheng-Kung University, Taiwan)

T1s65: RFID

Room Location: Sung II

Session Chair: Nejb Boubaker (Hong Kong University of Sciences and Technology, Hong Kong)

T1s65p01: *A New Architecture of UHF RFID Digital Receiver for SoC Implementation*

Chenling Huang (State Key Lab of ASIC & System, Fudan University, P.R. China)

T1s65p02: *Digital Correlation Demodulator Design for RFID Reader Receiver*

Yuan Liu (State Key Lab of ASIC & System, Fudan University, P.R. China); **Chenling Huang** (State Key Lab of ASIC & System, Fudan University, P.R. China); **Hao Min** (State Key Lab of ASIC & System, Fudan University, P.R. China); **Guohong Li** (Mercury Technology (Shanghai) Co., Ltd, P.R. China); **Yifeng Han** (Mercury Technology (Shanghai) Co., Ltd, P.R. China)

T1s65p03: *A Simulated Annealing Algorithm for RFID Reader Networks*
Chun-Fu Lin (National Taiwan University, Taiwan)

T1s65p04: *Optimum Partitioning of Tags for Near-Optimum RFID Anti-collision Performance*

Jeong Kim (Kyung Hee University, Korea); Woo-Jin Shin (Kyung Hee University, Korea)

T1s65p05: *The Practical Feasibility of Using RFID in a Metal Environment*

Kanik Arora (Indian Institute of Technology, Bombay, India); Hugo Mallinson (University of Cambridge, United Kingdom); Anand Kulkarni (University of Cambridge, United Kingdom); James Brusey (University of Cambridge, United Kingdom); Duncan McFarlane (University of Cambridge, United Kingdom)

T1s75: Diversity 1

Room Location: Ballroom A

Session Chair: Norman Beaulieu (University of Alberta, Canada)

T1s75p01: *Performance of simplified receiver diversity schemes in 3G systems*

Guido Montorsi (Politecnico di Torino, Italy); Sergio Benedetto (Politecnico di Torino, Italy)

T1s75p02: *On the rate versus diversity trade-off in multi-channel wireless transmission systems*

Haewoon Nam (The University of Texas at Austin, USA); Young-Chai Ko (Korea University, Korea); Mohamed-Slim Alouini (University of Minnesota, USA)

T1s75p03: *Efficient Optimization of Input Covariance Matrix for MISO in Correlated Rayleigh Fading*

Feng Li (City University of Hong Kong, Hong Kong); Keith Q. T. Zhang (City University of HongKong, Hong Kong); Shenghui Song (City University of HK, Hong Kong)

T1s75p04: *Exploiting Multiuser Diversity with Capture in Wireless Communication Networks*

Justin Foo (Western Australian Telecommunications Research Institute, Australia); Defeng Huang (University of Western Australia, Australia); Guven Mercankosk (University of Western Australia, Australia)

T1s75p05: *The Effects of Co-channel Interference on Spatial Diversity Techniques*

Wan Choi (Information and Communications University, Korea); **Nageen Himayat** (Intel Corporation, USA); **Shilpa Talwar** (Intel, USA); **Minnie Ho** (Intel Research Lab, Intel Corporation, USA)

14:00 – 16:00

T1s86: Phy/MAC Poster Session 2

Room Location: Ballroom Pre-Function Area

T1s86p01: *Efficient Signaling for VoIP in OFDMA*

Sean McBeath (Motorola Labs, USA); **Hao Bi** (Motorola Inc., USA); **Danny Pinckley** (Motorola, USA); **Alfonso Rodriguez** (Motorola, Mexico); **Jack Smith** (Motorola Labs, USA); **Doug Reed** (Motorola, USA); **Jim O'Connor** (Motorola Labs, USA)

T1s86p02: *Reuse One Frequency Planning for Two-hop Cellular System with Fixed Relay Nodes*

Ping Li (Shanghai Jiaotong university, P.R. China); **Mengtian Rong** (Shanghai Jiao Tong University, P.R. China); **Xue Yisheng** (Siemens Ltd. China, P.R. China)

T1s86p03: *Adaptive Transmit-Receive Mode Selection for Multi-User Distributed Wireless Communication System*

Jiansong Gan (National Laboratory for Information Science and Technology, Tsinghua University, P.R. China); **Yunzhou Li** (National Laboratory for Information Science and Technology, Tsinghua University, P.R. China); **Jing Wang** (EE, Tsinghua University, P.R. China); **Shidong Zhou** (Tsinghua University, P.R. China)

T1s86p04: *an analysis of the coexistence of 802.11 DCF and 802.11e EDCA*

Lixiang Xiong (University of Sydney, Australia, Australia); **Guoqiang Mao** (The University of Sydney, Australia)

T1s86p05: *Spatial-Multiplexed Soft Handoff*

Sang Wu Kim (Iowa State University, USA)

T1s86p06: *An Orthogonal Frequency Division Duplex (OFDD) System Using an Analog Filter Bank*

Ryota Kimura (Waseda University, Japan); **Shigeru Shimamoto** (Waseda University, Japan)

T1s86p07: *Choice of Sampling Frequency for the Quadrature RF-sampling Receiver*

Xuecheng Qian (Philips, P.R. China)

T1s86p08: *Selective Multimedia Multicast Protocol in Wireless Personal Area Networks*

Jaeun Na (Information and Communications University, Korea); **Cheolgi Kim** (Information and Communications University, Korea); **Joong Soo Ma** (Information and Communications University, Korea)

T1s86p09: *Performance Comparison of Bluetooth LDI, Modified LDI, and NSD Receivers*

Ehsan Bayaki (University of British Columbia, Canada); **Lutz Lampe** (University of British Columbia, Canada); **Robert Schober** (University of British Columbia, Canada)

T1s86p10: *A New Up Bound of Spacing Between Pilot Symbols over Fading Channels in PSAM Systems*

Jun Sun (Shandong University of Shandong Province, P.R. China)

T1s86p11: *A Non-hierarchical Cell Search Scheme*

Fredrik Berggren (Huawei, Sweden); **Branislav Popovic** (Atelier Telecom AB, Sweden)

T1s86p12: *Enabling Low Power Listening on IEEE 802.15.4-based Sensor Nodes*

Sunghyun Moon (Yonsei University, Korea); **Taekjoo Kim** (Yonsei University, Korea); **Hojung Cha** (Yonsei University, S. Korea, USA)

T1s86p13: *QoS-aware Adaptive Physical Carrier Sensing for Wireless Networks*

Zhu Yanfeng (Tsinghua University, P.R. China); **Qian Zhang** (Hong Kong University of Science and Technology, Hong Kong); **Zhisheng Niu** (Tsinghua University, P.R. China); **Jing Zhu** (Intel, USA)

T1s86p14: *Position Estimation With Moving Beacons in Wireless Sensor Networks*

Liang Dong (Western Michigan University, USA); **Frank Severance** (Western Michigan University, USA)

15:55 – 17:00

T1s06: Ad hoc Networks 2

Room Location: Ching

Session Chair: Geert Heijenk (University of Twente, The Netherlands)

T1s06p01: *CC-TDMA: Coloring- and Coding-based Multi-channel TDMA Scheduling for Wireless Ad Hoc Networks*

Xuedan Zhang (Tsinghua University, P.R. China); **Jun Hong** (Tsinghua University, P.R. China); **Lin Zhang** (Tsinghua University, P.R. China); **Xiuming Shan** (Tsinghua University, P.R. China); **Victor Li** (University of Hong Kong, P.R. China)

T1s06p02: *An Evolutionary-Dynamic TDMA Slot Assignment Protocol for Ad Hoc Networks*

Wei Li (National university of defense technology, P.R. China); **Ji-Bo Wei** (National University of Defense Technology, P.R. China); **Shan Wang** (National University of Defense Technology, P.R. China)

T1s06p03: *Effectiveness of Physical and Virtual Carrier Sensing in IEEE 802.11 Wireless Ad Hoc Networks*

Fu-Yi Hung (Rutgers University, USA); **Ivan Marsic** (Rutgers University, USA)

T1s06p04: *Approximating Flow-Based Proportional Fairness in Ad-hoc Wireless Networks*

Nikhil Singh (University of Illinois at Urbana Champaign, USA); **Ramavarapu Sreenivas** (University of Illinois at Urbana-Champaign, USA)

T1s16: MAC Protocols 3

Room Location: Tang I

Session Chair: Witold Krzymien (University of Alberta / TRLabs, Canada)

T1s16p01: *MAC Protocol using Asynchronous Multi-channels in Ad Hoc Networks*

Chung Hwan Son (Seoul National University, Korea); **Neung-Hyung Lee** (Seoul National University, Korea); **Saewoong Bahk** (Seoul National University, Korea)

T1s16p02: *Performance Comparison between Channel-Bonding and Multi-Channel CSMA*

Liang Xu (Kyoto University, Japan); **Koji Yamamoto** (Kyoto University, Japan); **Susumu Yoshida** (Kyoto University, Japan)

T1s16p03: *Simulative MAC Level Performance Evaluation of an OFDMA System under the Consideration of Frequency Correlated Fading*

Michael Einhaus (RWTH Aachen University, Germany)

T1s16p04: *Towards Broadband Vehicular Ad-Hoc Networks –The Vehicular Mesh Network (VMESH) MAC Protocol*

Yunpeng Zang (ComNets Aachen, Germany); **Lothar Stibor** (RWTH Aachen University, Germany); **Bernhard Walke** (RWTH Aachen)

University, Germany); **Hans-Jürgen Reuerman** (Philips Research Aachen, Germany); **Andre Barroso** (Philips Research, Aachen, Germany)

T1s26: Modulation and Coding 2

Room Location: Tang II

Session Chair: Meixia Tao (National University of Singapore, Singapore)

T1s26p01: *Level Sensitivity of Adaptive Modulation in Fast Fading Channels*

Jia-Han Lin (National Chi-Nan University, Taiwan); **Shyue-Win Wei** (National Chi Nan University, Taiwan)

T1s26p02: *Adaptive Differential Space-Time-Spreading-Assisted Turbo-Detected Sphere Packing Modulation*

Mohammed El-Hajjar (University of Southampton, United Kingdom); **Osamah Alamri** (University of Southampton, United Kingdom); **Lajos Hanzo** (University of Southampton, United Kingdom)

T1s26p03: *Adaptive Modulation for a Downlink Multicast Channel in OFDMA systems*

Haibo Wang (Aalborg University, Denmark); **Hans-Peter Schwefel** (Aalborg University, Denmark); **Thomas Nielsen** (Ericsson Telebit, Denmark)

T1s26p04: *Adaptive Modulation and Coding for IEEE 802.11n*

Fei Peng (University of Arizona, USA); **Jinyun Zhang** (MERL, USA); **William Ryan** (University of Arizona, USA)

T1s36: Multiuser detection and interference cancellation 1

Room Location: Sung I

Session Chair: Ranjan Mallik (Indian Institute of Technology - Delhi, India)

T1s36p01: *MLSE Multiuser Detection in MC-CDMA Systems Using Sinusoidal Spreading Codes*

Hisato Iwai (Doshisha University, Japan); **Yusuke Miyamoto** (Doshisha Univ., Japan); **Hideichi Sasaoka** (Doshisha University, Japan)

T1s36p02: *A Weighted Combining Approach to Multiuser Detection in Macrodiversity*

Vineet Abhishek (Stanford University, USA); **Ajit Chaturvedi** (Indian Institute of Technology Kanpur, India, India)

T1s36p03: *Soft Information Assisted Linear Space-Time Multiuser Detection for Multipath CDMA*

Hoang-Yang Lu (Lee-Ming Institute of Technology, Taiwan); **Wen-Hsien Fang** (National Taiwan University of Science and Technology, Taiwan)

T1s36p04: *A New Turbo Multi-User Receiver With Recursive SIC-MMSE Detection*

Zhiyuan Wu (Concordia University, Canada); **Xiaofeng Wang** (Concordia University, Canada)

T1s46: Synchronization 1

Room Location: Ballroom B

Session Chair: Henk Wymeersch (Massachusetts Institute of Technology, USA)

T1s46p01: *Timing Error Detector Design and Analysis for Quasi-Orthogonal Space-Time Block Coding*

Pawel Dmochowski (Queen's University, Canada); **Peter McLane** (Queen's University, Canada)

T1s46p02: *Chip-level Synchronisation for Ad Hoc Enabled UTRA-TDD Networks*

Lin Du (Philips Research East Asia, P.R. China); **Dan Shang** (Philips(China)Investment Co., Ltd. Shanghai R&D Centre, P.R. China); **Yan Zhang** (Shanghai Jiao Tong University, P.R. China)

T1s46p03: *Timing Synchronization for MIMO-OFDM WLAN Systems*

Dong Wang (Philips Research North America, USA); **Jinyun Zhang** (MERL, USA)

T1s46p04: *Enhanced frame synchronization for DVB-S2 system under a large of frequency offset*

Pansoo Kim (Electronics and Telecommunications Research Institute, Korea)

T1s56: OFDM 6

Room Location: Ming II

Session Chair: Ali Almutairi (Kuwait University, Kuwait)

T1s56p01: *PAPR Reduction using Frequency Domain Multiplexed Pilot Sequences*

Chan Tong Lam (Carleton University, Canada); **David Falconer** (Carleton University, Canada); **Florence Danilo-Lemoine** (Carleton University, Canada)

T1s56p02: *Adaptive Modulation in Frequency Spreading OFDM System with Low Transmit Power Spectral Density Constraint*

Chun Cheung (Hong Kong University of Science and Technology, Hong Kong); **Roger Cheng** (HKUST, Hong Kong)

T1s56p03: *Coverage Enhancement for OFDM-based Spatial Multiplexing Systems by Scheduling*

Li-Chun Wang (National Chiao Tung University, Taiwan); **Cheng-Wei Chiu** (National Chiao Tung University, Taiwan); **Chu-Jung Yeh** (National Chiao Tung University, Taiwan); **Chi-Fang Li** (Industrial Technology Research Institute, Taiwan)

T1s56p04: *Interference-Blocking Algorithm for OFDM Systems: Insensitive to Time and Frequency Synchronization Error*

Rendong Ying (Shanghai Jiaotong University, P.R. China); **Rueywen Liu** (University of Notre Dame, USA); **Guozhi Xu** (Shanghai Jiaotong University, P.R. China)

T1s66: Resource Allocation and Management 1

Room Location: Sung II

Session Chair: David Gesbert (Eurecom Institute, France)

T1s66p01: *Uplink DPCCH Gating of Inactive UEs in Continuous Packet Connectivity Mode for HSUPA*

Tao Chen (Nokia Technology Platforms, Finland); **Esa Malkamaki** (Nokia Research Center, Finland); **Tapani Ristaniemi** (University of Jyväskylä, Finland)

T1s66p02: *Maximizing Multicell Capacity Using Distributed Power Allocation and Scheduling*

Saad Kiani (Eurecom Institute, France); **Geir Oien** (NTNU, Norway); **David Gesbert** (Eurecom Institute, France)

T1s66p03: *Fair resource allocation in an uplink OFDMA system*

Didem Kivanc-Tureli (Stevens Institute of Technology, USA); **Ufuk Tureli** (Stevens Institute of Technology, USA); **Hui Liu** (University of Washington, USA)

T1s66p04: *Dynamic Bandwidth Quasi-reservation Scheme for Real-time Services in IEEE 802.16e Networks*

Yin Ge (Beijing University of Posts and Telecommunications, P.R. China);
Geng-Sheng Kuo (National Chengchi University, Taiwan)

T1s76: WiMAX 4

Room Location: Ballroom A

Session Chair: Peng Tan (TELUS Communications Inc.)

T1s76p01: *The IEEE 802.16 and 802.11a Coexistence in the License-Exempt Band*

Xiaoyu Fu (University of Texas at Dallas, USA); **Wenchao Ma** (Lenovo Corporate Research & Development, P.R. China); **Qian Zhang** (Hong Kong University of Science and Technology, Hong Kong)

T1s76p02: *WiMax Network Planning and System's Performance Evaluation*

Konstantinos Voudouris (Technological Educational Institute of Athens, Greece); **Thodoris Tsourakis** (Brunel University, Greece)

T1s76p03: *Adaptive Hierarchical Polling and Cost-based Call Admission Control in IEEE 802.16 WiMax Networks*

Ben-Jye Chang (Chaoyang University of Technology, Taiwan); **Yan-Ling Chen** (Chaoyang University of Technology, Taiwan); **Chien-Ming Chou** (Chaoyang University of Technology, Taiwan)

T1s76p04: *Joint Detection of Integral Carrier Frequency Offset and Preamble Index in OFDMA WiMAX Downlink Synchronization*

Kun-Chien Hung (National Chiao Tung University, Taiwan); **David Lin** (National Chiao Tung University, Taiwan)

T1s84: Wireless LANs 4

Room Location: Ming I

Session Chair: Zhu Han (Boise State University, USA)

T1s84p01: *Achieving Energy Efficiency and QoS for Low-Rate Applications with 802.11e*

Dave Cavalcanti (Philips Research North America, USA); **Amjad Soomro** (Philips Research-USA, USA); **Ruediger Schmitt** (Philips Research USA, USA)

T1s84p02: *Towards Optimized Multimedia Packet Bursting for IEEE 802.11 Wireless LAN*

Joshua Wall (CSIRO Energy Technology, Australia); **Jamil Khan** (University of Newcastle, Australia)

T1s84p03: *Performance Enhancement Scheme for Wireless LAN under Bursty Channel*

Yun Wang (University of Cincinnati, USA); **Jun Yin** (Dominican University, USA); **Weihuang Fu** (University of Cincinnati, USA); **Dharma Agrawal** (UNIVERSITY OF CINCINNATI, USA)

T1s84p04: *Access Point Selection Strategy for Large-Scale Wireless Local Area Networks*

Lei Du (DoCoMo Beijing labs, P.R. China); **Yong Bai** (DoCoMo (Beijing) Communications Laboratories Co., Ltd, P.R. China); **Lan Chen** (DoCoMo Beijing Communication Laboratories Co., Ltd, P.R. China)

Wednesday, 14 March 2007

8:30 – 10:15

T1s06: Channel Estimation 1

Room Location: Ching

Session Chair: Huaping Liu (Oregon State University, USA)

T1s06p01: *EM based Channel estimation and decoding in OFDM Turbo Blast detectors*

KORA Dooguy (Université de Limoges, Senegal); **Jean Pierre Cancès** (University of Limoges, France); **Vahid Meghdadi** (University of Limoges, France); **Leopold Djogbe** (EPAC / Université d'Abomey Calavi, Nigeria); **Guillaume Ferré** (University of Limoges, France)

T1s06p02: *DCT-based Channel Estimation Method for MIMO-OFDM Systems*

Shaopeng Feng (Beijing University of Posts and Telecommunications, P.R. China); **Nan Hu** (Beijing University of Posts and Telecommunications, P.R. China); **Bin Yang** (Beijing University of Posts and Telecommunications, P.R. China); **Weiling Wu** (Beijing University of Posts and Telecommunications, P.R. China)

T1s06p03: *A New Algorithm for MIMO Channel Tracking Based on Kalman Filter*

Linhai Li (Zhengzhou Information Science and Technology Institute, P.R. China); **Hong Li** (Information Engineering University, P.R. China); **Hanying Hu** (Information Engineering University, P.R. China); **Baiwei Yang** (Zhengzhou Information Science and Technology Institute, P.R. China); **Yu Hongyi** (Institute of Information Science and Technology, P.R. China)

T1s06p04: *A Robust ML Channel Estimator for Indoor Wireless OFDM Systems*

Zhongjun Wang (Oki Techno Centre (Singapore) Pte Ltd, Singapore); **George Mathew** (Data Storage Institute, Singapore); **Yan Xin** (National University of Singapore, Singapore); **Masayuki Tomisawa** (Oki Techno Centre (Singapore) Pte Ltd, Singapore)

T1s06p05: *A Novel Channel Estimation for Frequency-Selective Block-Fading Rayleigh MIMO Channels Based on Parametric Channel Modeling*

Sun Liang (Beijing University of Posts and Telecommunications, P.R. China); **Guo Jinjing** (Beijing University of Posts and Telecommunications, P.R. China); **Yafeng Wang** (Beijing University of Posts and Telecommunications, P.R. China); **Dacheng Yang** (Beijing University of Posts and Telecommunications, P.R. China); **Xin Zhang** (Beijing University of Posts and Telecommunications, P.R. China)

T1s17: MAC Protocols 4

Room Location: Tang I

Session Chair: Guoqiang Mao (The University of Sydney, Australia)

T1s17p01: *Performance Analysis of Saturated Throughput of PCA in the Presence of Hard DRPs in WiMedia MAC*

David Tung Chong Wong (Institute for Infocomm Research, Singapore); **Francois Chin** (Institute for Infocomm Research, Singapore); **Mangalam Ramakrishnan Shajan** (Institute for Infocomm Research, Singapore); **Yong Huat Chew** (Institute for Infocomm Research, Singapore)

T1s17p02: *Delay Analysis of IEEE 802.11e EDCA Under Unsaturated Conditions*

Jing Liu (Tsinghua University, P.R. China); **Zhisheng Niu** (Tsinghua University, P.R. China)

T1s17p03: *Adaptive Medium Access Control for Hybrid Wireless Mesh Networks*

Oliver Yu (University of Illinois at Chicago, USA); **Anfei Li** (University of Illinois at Chicago, USA); **Emir Saric** (University of Illinois at Chicago, USA)

T1S17P04: *Throughput Analysis of a Path in an IEEE 802.11 Multihop Wireless Network*

Mukesh Hira (Stanford University, USA); **Fouad Tobagi** (Stanford University, USA); **Kamesh Medepalli** (Stanford University, USA)

T1s27: LDPC Applications 2

Room Location: Tang II

Session Chair: Aaron Gulliver (University of Victoria, Canada)

T1s27p01: *Arbitrary Bit Generation and Correction Technique for Encoding QC-LDPC Codes with Dual-Diagonal Parity Structure*

Chanho Yoon (ETRI, Korea); Eun-young Choi (ETRI, Korea); Minho Cheong (Electronics and Telecommunications Research Institute, Korea); Sok-kyu Lee (ETRI, Korea)

T1s27p02: *A Perturbation Method for Decoding LDPC Concatenated with CRC*

Dongliang Xiao (Tsinghua University, P.R. China); Jianhua Lu (Tsinghua University, P.R. China); Bingli Jiao (Peking University, P.R. China); Philippe Lin (Peking University, P.R. China)

T1s27p03: *A Joint Source-Channel Coding Scheme Using Low-Density Parity-Check Codes and Error Resilient Arithmetic Codes*

Tingjun Xie (Tsinghua University, P.R. China); Xuan Wang (Tsinghua University, P.R. China); Jianhua Lu (Tsinghua University, P.R. China)

T1s27p04: *Optimized Rotations for LDPC-coded MPSK Constellations with Signal Space Diversity*

Nauman Kiyani (Delft University of Technology, The Netherlands); Umar Rizvi (Delft University of Technology, The Netherlands); Jos Weber (Delft University of Technology, The Netherlands); Gerard Janssen (Delft University of Technology, The Netherlands)

T1s27p05: *A Novel Scheme for Type-II Hybrid ARQ Protocols using LDPC Codes*

Liang Chen (Shanghai Jiao Tong University, P.R. China); Shijun Yan (Shanghai Jiao Tong University, P.R. China); Ziyu Wu (Shanghai Jiao Tong University, P.R. China); WenJun Zhang (Shanghai JiaoTong University, P.R. China); Yunfeng Guan (Shanghai Jiao Tong University, P.R. China)

T1s27p06: *Greedy Check Allocation for Irregular LDPC Codes Optimization in Multicarrier Systems*

asad mahmood (ENSTA, France)

T1s37: MIMO-OFDM 3

Room Location: Sung I

Session Chair: Chenyang Yang (Beihang University, P.R. China)

T1s37p01: *Signal-to-interference-plus-noise ratio Analysis for MIMO-OFDM with Carrier Frequency Offset and Channel Estimation Errors*

Wei Zhang (University of Alberta, Canada); **Zhongshan Zhang** (University of Alberta, Canada); **Chintha Tellambura** (University of Alberta, Canada)

T1s37p02: *MAP Receiver with Enhanced EM Channel Estimation for MIMO OFDM Systems*

Zhang Ying (National University of Defense Technology, China, P.R. China)

T1s37p03: *High-data-rate DPC-OF/TDMA based on multi-layer STBC coded MIMO-OFDM scheme*

Ming Lei (National Institute of Information and Communications Technology (NICT), Japan)

T1s37p04: *MIMO-OFDM Downlink Channel Prediction for IEEE802.16e Systems Using Kalman Filter*

Changkee Min (Information and Communication University, Korea); **Namseok Chang** (Information and Communications University, Korea); **Jongsub Cha** (Information and Communications University, Korea); **Joonhyuk Kang** (Information and Communications University, Korea)

T1s37p05: *A Joint Design of MIMO-OFDM Transceiver and Power-Saving MAC in WLANs*

Miao Zhao (Stony Brook University, USA); **Yuanyuan Yang** (State University of New York at Stony Brook, USA)

T1s37p06: *Exploiting Multiuser Spatial Diversity in MIMO-OFDM System through Uplink Scheduling*

Feng Jiang (Beijing University of Posts and Telecommunications, P.R. China); **Ying Wang** (Beijing University of Posts and Telecommunications, P.R. China); **Guangyi Liu** (Beijing University of Posts & Telecommunications, P.R. China); **Xi Fang** (Beijing University of Posts and Telecommunications, P.R. China); **Ping Zhang** (WTI-BUPT, P.R. China)

T1s47: MIMO 6

Room Location: Ballroom B

Session Chair: Stefan Kaiser (DoCoMo Euro-Labs, Germany)

T1s47p01: *Influence of CSI Feedback Delay on Capacity of Linear Multi-User MIMO Systems*

Bartosz Mielczarek (TRLabs, Canada); **Witold Krzymien** (University of Alberta / TRLabs, Canada)

T1s47p02: *Spatial Pre-Coding with Phase Flipping for Wireless Communications*

Stefan Kaiser (DoCoMo Euro-Labs, Germany)

T1s47p03: *On Layer Ordering Techniques for Near-optimal Hard and Soft Output MIMO Detectors*

Massimiliano Siti (STMicroelectronics Srl, Italy); **Michael Fitz** (Univ. of California Los Angeles, USA)

T1s47p04: *Practical Antenna Selection for Spatial Multiplexing MIMO Systems with Decoding Ordering*

Nejib Boubaker (Hong Kong University of Sciences and Technology, Hong Kong); **Roger Cheng** (The Hong Kong University of Science & Technology, Hong Kong); **Dr. Chih-Lin I** (AT&T Bell Laboratories, USA); **Vincent Lau** (the Hong Kong University of Science and Technology, Algeria)

T1s47p05: *Orthogonal Linear Beamforming in MIMO Broadcast Channels*

Ruben de Francisco (Eurecom Institute, France); **Marios Kountouris** (France Telecom R&D, France); **Dirk Slock** (Eurecom Institute, France); **David Gesbert** (Eurecom Institute, France)

T1s47p06: *Pilot Sequence Design for Inter-cell Interference Mitigation in MIMO FMT Systems*

Guixia Kang (Beijing Univ. of Posts and Telecommunications, P.R. China)

T1s57: Frequency Domain Equalization

Room Location: Ming II

Session Chair: Justin Coon (Toshiba TRL, United Kingdom)

T1s57p01: *Frequency Domain Pre-Equalization With Precoding for Broadband SDMA Systems*

Yu Zhu (Hong Kong University of Science and Technology, Hong Kong); **Khaled Letaief** (Hong Kong Univ. Science & Technology, Hong Kong)

T1s57p02: *A Weighted STBC-Block Adaptive Frequency Domain Equalization for Single-Carrier Systems in Frequency-Selective Time-Varying Channels*

Jong-Seob Baek (Yonsei University, Korea)

T1s57p03: *A Novel Frequency Domain Equalizer against High Doppler in Single-carrier*

Wei Li (Southeast University, P.R. China); **Haifeng Wang** (Nokia, Finland)

T1s57p04: *BER Performance Analysis of Joint Tomlinson-Harashima Precoding and Frequency-domain Equalization*

Kazuki Takeda (Tohoku University, Japan); **Hiromichi Tomeba** (Tohoku University, Japan); **Fumiyuki Adachi** (Tohoku University, Japan)

T1s57p05: *Virtual receive antenna system with frequency domain equalization*

Yang Lan (University of Manchester, United Kingdom); **Daniel K. C. So** (University of Manchester, United Kingdom)

T1s57p06: *Asymptotic Equivalence of SC LMMSE-FDE to Continuous-Time LMMSE Equalizer*

Young Geon Yoo (Pohang Univ. of Science and Technology (POSTECH), Korea); **Joon Ho Cho** (Pohang University of Science and Technology, Korea)

T1s67: Resource Allocation and Management 2

Room Location: Sung Il

Session Chair: Gunther Auer (DoCoMo Euro-Labs, Germany)

T1s67p01: *Resource Allocation Scheme in MIMO-OFDMA System for User's Different Data Throughput Requirements*

Maung Maw (Keio University, Japan); **Iwao Sasase** (Keio University, Japan)

T1s67p02: *New Results on Single-Step Power Control (SSPC) System in Finite State Markov Channel: Power Control Error Modelling and SSPC Modelling*

Shi-Yong Lee (National Chung Hsing University, Taiwan); **Min-Kuan Chang** (National Chung Hsing University, Taiwan)

T1s67p03: *Dynamic channel allocation using the interference range in multi-cell downlink systems*

Neung-Hyung Lee (Seoul National University, Korea); **Saewoong Bahk** (Seoul National University, Korea)

T1s67p04: *Adaptive Power and Rate Transmission with Single- and Multi-User Detection*

Farhad Zarringhalam (King's College London, United Kingdom); **Babak Seyfe** (King's College, United Kingdom); **Mohammad Shikh-Bahaei**

(Kings college London, United Kingdom); **Alireza Kobravi** (King's College London, United Kingdom); **Gilles Charbit** (Nokia UK, United Kingdom)

T1s67p05: *Simplified Antenna Selection and User Scheduling for Orthogonal Space-Division Multiplexing*

Shreeram Sigdel (University of Alberta/TRIabs, Canada); **Witold Krzymien** (University of Alberta / TRILabs, Canada)

T1s67p06: *Centralized Scheduling and Channel Assignment in Multi-Channel Single-Transceiver WiMax Mesh Network*

Peng Du (City University of Hongkong / University of Science and technology of China, P.R. China); **Weijia Jia** (City University of Hong Kong, P.R. China)

T1s77: Synchronization 2

Room Location: Ballroom A

Session Chair: Jan Olivier (University of Pretoria, South Africa)

T1s77p01: *Synchronization Tracking Methods for DRM Systems*

Chen Chen (China Samsung Telecom R&D Center, P.R. China); **Beomjin Park** (Samsung Electronics, Korea); **Lijun Wei** (China Samsung Telecom R&D Center, P.R. China); **Hyun Seok Oh** (Samsung Electronics, Korea); **Kyungho Kim** (Samsung Electronics, Korea)

T1s77p02: *Low Complexity Blind Residual Carrier Offset Estimation in OFDM-based Wireless LAN Systems*

Samir Attallah (National University of Singapore, Singapore); **Yan Wu** (Institute for Infocomm Research, Singapore); **Jan Bergmans** (Technical University Eindhoven, The Netherlands)

T1s77p03: *Multiuser Common Phase Error Estimation for Uplink OFDMA Communications*

Yi-Ching Liao (MediaTek Inc., Taiwan); **Kwang-Cheng Chen** (National Taiwan University, Taiwan)

T1s77p04: *Pilot based synchronization strategy for a coherent OFDM receiver*

Martin Henkel (University of Applied Science Ulm, Germany)

T1s77p05: *Loop Delay Correction for Adaptive Digital Linearization of Power Amplifiers*

Shigang Tang (Tsinghua University, P.R. China); **Ke Gong** (Tsinghua University, P.R. China); **Jun Wang** (Tsinghua University, Puerto Rico); **Kewu Peng** (Tsinghua University, P.R. China); **Changyong Pan**

(Tsinghua University, P.R. China); **Zhixing Yang** (Tsinghua University, P.R. China)

T1s77p06: *Statistics and Chip Pulse Design for Efficient Multiuser Detection in Asynchronous CDMA*

Laura Cottatellucci (Institute Eurecom, France); **Merouane Debbah** (Institut Eurecom, France); **Ralf Mueller** (Norwegian University of Science and Technology, Norway)

10:45 - 12:30

T1s08: CDMA

Room Location: Ching

Session Chair: Ali Almutairi (Kuwait University, Kuwait)

T1s08p01: *A Simple Exact Bit Error Analysis for DS-CDMA with Arbitrary Pulse Shape in Flat Nakagami Fading*

M. Azizur Rahman (Niigata University, Japan); **Shigenobu Sasaki** (Niigata University, Japan); **Hisakazu Kikuchi** (Niigata University, Japan)

T1s08p02: *On Jamming Capacity of General Multiuser CDMA Systems*

Reza Nikjah (University of Alberta, Canada); **Norman Beaulieu** (University of Alberta, Canada)

T1s08p03: *Multiple Access Interference Analysis in Asynchronous GSFH/MC-CDMA Systems*

Xuan Li (Queensland university of technology, Australia); **Bouchra Senadji** (Queensland University of Technology, Australia)

T1s08p04: *Minimum User Powers and Optimal Codewords in Uplink CDMA Systems*

Catalin Lacatus (University of Texas at San Antonio, USA); **Dimitrie Popescu** (Old Dominion University, USA); **Mehdi Shadaram** (The University of Texas at San Antonio, USA)

T1s08p05: *Space-Frequency Coded BS-CDMA for Broadband Mobile Communication Systems*

Surya Dharma Tio (Nanyang Technological University, Singapore); **As Madhukumar** (Nanyang Technological University, Singapore); **A.b. Premkumar** (Nanyang Technological University, Singapore); **Xiaoming Peng** (Institute for InfoComm Research, Singapore)

T1s08p06: *Dual-Rate Automatic Gain Controller for WCDMA Mobile Receiver*

Ser Wah Oh (Institute for Infocomm Research, Singapore); **Rizki Ridwan** (Motorola, Singapore)

T1s18: MAC Protocols 5

Room Location: Tang I

Sessino Chair: Guoqiang Mao (The University of Sydney, Australia)

T1s18p01: *A Delay-based Piggyback Scheme in IEEE 802.11*

Jae-Hyun Kim (Ajou University, South Korea, Korea); **Lee Hyun Jin** (University of Ajou, Korea); **Sunghyun Cho** (Samsung Advanced Institute of Technology, Korea)

T1s18p02: *On the Proper Interference Protection in Wireless Multi-hop Networks*

Filip Rindler (Technische Universität Berlin, Germany); **Martin Kubisch** (Technische Universität Berlin, Germany); **Emma Carlson** (Technische Universität Berlin, Germany); **Daniel Hollos** (Technical University Berlin, Germany)

T1s18p03: *An Energy-efficient MAC Protocol Based on Routing Information for Wireless Sensor Networks*

Ana Liu (Institute of Information Science and Technology, P.R. China); **Lin Li** (Institute of Information Science and Technology, P.R. China); **Yu Hongyi** (Institute of Information Science and Technology, P.R. China); **Dalong Zhang** (Institute of information Science and Technology, P.R. China)

T1s18p04: *Modelling Delay on IEEE 802.11 MAC Protocol for Unicast and Broadcast Non-saturated Traffic*

Rodolfo Oliveira (Universidade Nova de Lisboa, Portugal); **Luis Bernardo** (Universidade Nova de Lisboa, Portugal); **Paulo Pinto** (Universidade Nova de Lisboa, Portugal)

T1s28: Modulation and Coding 3

Room Location: Tang II

Session Chair: Ha Nguyen (University of Saskatchewan, Canada)

T1s28p01: *Multidimensional Binary Repetition Codes*

Pavel Loskot (University of Alberta, Canada); **Norman Beaulieu** (University of Alberta, Canada)

T1s28p02: *Differential Detection of Serially Concatenated Precoded GMSK with Iterative Decoding*

Richard Hsin-Hsyong Yang (National Kaohsiung First University of Science and Technology, Taiwan); **Shiunn-Jang Chern** (DSP Lab, Department of Electrical Engineering, National Sun Yat-Sen University, Taiwan); **Zhi-Yuan Hsu** (National Kaohsiung First University of Science and Technology, Taiwan)

T1s28p03: *Design of Majority-Logic Decoders for the Shortened Reed-Muller Code in TETRA*

Peng Zhang (Beijing Institute of Technology, P.R. China); **Siliang Wu** (Beijing Institute of Technology, P.R. China); **Dongping Yao** (Beijing Jiaotong University, P.R. China); **Zhen-hui Tan** (Beijing Jiaotong University, P.R. China)

T1s28p04: *Novel Bi-orthogonal Filter Design Methodology for Filter-Bank Based Transmission*

Bin Zhou (Shanghai Research Center for Wireless Communications, P.R. China); **Haifeng Wang** (Nokia, Finland); **Xiaodong Zhang** (Shanghai Research Center for Wireless Communications, P.R. China)

T1s28p05: *On Parallelized Serially Concatenated Codes*

Orhan Gazi (Cankaya University, Turkey); **Ali Oezguer Yilmaz** (Middle East Technical University, Turkey)

T1s28p06: *Rate-Compatible Punctured Systematic Repeat - Accumulate Codes*

Shiva Planjery (University of Victoria, Canada); **T. Aaron Gulliver** (University of Victoria, Canada); **Andrew Thangaraj** (Asst. Prof, India)

T1s38: Cooperative Networks 4

Room Location: Sung I

Session Chair: Sang Wu Kim (Iowa State University, USA)

T1s38p01: *Multi-user MIMO Relay System with Self-interference Cancellation*

Lingfan Weng (The Hong Kong University of Science and Technology, Hong Kong); **Ross Murch** (HKUST, Hong Kong)

T1s38p02: *Selective Relaying in OFDM Multihop Cooperative Networks*

Lin Dai (University of Delaware, USA); **Bo Gui** (University of Delaware, USA); **Len Cimini** (University of Delaware, USA)

T1s38p03: *On the Optimum Threshold of Digital Cooperative Relaying Schemes*

Furuzan Atay Onat (Carleton University, Canada); **Abdulkareem Adinoyi** (Carleton University, Canada); **Yijia Fan** (University of

Edinburgh, United Kingdom); **Halim Yanikomeroglu** (Carleton University, Canada); **John Thompson** (University of Edinburgh, United Kingdom)

T1s38p04: *Partial Channel State Information Based Cooperative Relaying and Partner Selection*

Jing Shi (Zhejiang University, P.R. China); **Guanding Yu** (Zhejiang University, P.R. China); **Zhaoyang Zhang** (Zhejiang University, P.R. China); **Yan Chen** (Zhejiang University, P.R. China)

T1s38p05: *Joint Cooperative Diversity and Scheduling in OFDMA Relay Systems*

Poramate Tarasak (Institute for Infocomm Research, Singapore); **Yong Hoon Lee** (KAIST, Korea)

T1s38p06: *Concatenated Network Coding for Multi-User, Multi-Hop Cooperative Relay Networks*

Sang Wu Kim (Iowa State University, USA)

T1s48: Detection and Estimation

Room Location: Ballroom B

Session Chair: Henk Wymeersch (Massachusetts Institute of Technology, USA)

T1s48p01: *Signal Detection for Space-Frequency Coded Cooperative Communication System with Multiple Carrier Frequency Offsets*

Feng Tian (The Chinese University of Hong Kong, Hong Kong); **Xiang-Gen Xia** (University of Delaware, USA); **P.c. Ching** (The Chinese University of Hong Kong, Hong Kong)

T1s48p02: *Detection of an Unknown FH Signal Using Scanning Receiver and DF Receiver in Practical Environments*

Jeungmin Joo (Agency for Defense Development, Korea)

T1s48p03: *A Subspace Estimation Method based on Eigenvalue Decomposition for Multi-Target Constant Modulus Algorithm*

Yosuke Fujino (NTT Corporation, Japan); **Daisei Uchida** (NTT, Japan); **Takafumi Fujita** (NTT Corporation, Japan); **Osamu Kagami** (NTT, Japan); **Kazuji Watanabe** (NTT, Japan)

T1s48p04: *Optimal Detection of IDMA Signals*

Oliver Nagy (Swiss Federal Institute of Technology, Switzerland); **Mark Reed** (National ICT Australia, ANU, Australia); **Zhenning Shi** (National ICT Australia, Australia)

T1s48p05: *Indoor Surveillance with Multimodal Wireless Networks: Multi-Cycle Detection and Performance Analysis*

Jianjun Chen (IT University of Copenhagen, Denmark); **Zoltan Safar** (Nokia Danmark A/S, Denmark)

T1s48p06: *Analysis and Performance Evaluation of a K-Symbol Pilot Assisted Channel Estimator using Linear Interpolation for OFDM Systems*

Athanasios Doukas (University of Patras, Greece)

T1s58: OFDM 7

Room Location: Ming II

Session Chair: Justin Coon (Toshiba TRL, United Kingdom)

T1s58p01: *A Novel Preamble Scheme for Packet-based OFDM WLAN*

Ying Wang (Philips Research, Eindhoven, The Netherlands); **Job Oostveen** (TNO Information and Communication Technology, The Netherlands); **Alessio Filippi** (Philips Research, The Netherlands); **Stefan Wesemann** (Signalion GmbH, Dresden, Germany)

T1s58p02: *Performance of Turbo Decision-Feedback Detection for Downlink OFDM*

Koushik Sil (Northwestern University, USA); **Manish Agarwal** (Northwestern University, USA); **Dongning Guo** (Northwestern University, USA); **Michael Honig** (Northwestern University, USA)

T1s58p03: *Adaptive Sub-band Nulling for OFDM-Based Wireless Communication Systems*

Bang Chul Jung (Korea Advanced Institute of Science and Technology, Korea); **Young-Jun Hong** (Korea Advanced Institute of Science and Technology, Korea); **Dan Keun Sung** (Korea Advanced Institute of Science and Technology, Korea); **Sae-Young Chung** (KAIST, Korea)

T1s58p04: *Efficient Real-time Video Transmission in OFDM Systems*

Jun Xu (University of Waterloo, Canada); **Sherman Shen** (University of Waterloo, Canada); **Jon Mark** (University of Waterloo, Canada); **Jun Cai** (University of Manitoba, Canada)

T1s58p05: *Monte Carlo Probabilistic Data Association detector for SFBC-VBLAST-OFDM System*

Bin Yang (Beijing University of Posts and Telecommunications, P.R. China); **Ping Gong** (Beijing University of Posts and telecommunications, P.R. China); **Shaopeng Feng** (Beijing University of Posts and Telecommunications, P.R. China); **Nan Hu** (Beijing University of Posts and Telecommunications, P.R. China); **Yonghua Li** (Beijing University of

Posts and Telecommunications, P.R. China); **Weiling Wu** (Beijing University of Posts and Telecommunications, P.R. China)

T1s58p06: *Physical Channel Structures and Cell Search Method for Scalable Bandwidth for OFDM Radio Access in Evolved UTRA Downlink*

Kenichi Higuchi (NTT DoCoMo, Inc., Japan); **Satoshi Nagata** (NTT DoCoMo, Inc., Japan); **Yoshihisa Kishiyama** (IP Radio Network Development Department, NTT DoCoMo, Inc., Japan); **Mamoru Sawahashi** (Musashi Institute of Technology, Japan)

T1s68: UWB 5

Room Location: Shung II

Session Chair: Wei Zhang (Hong Kong University of Science and Technology, Hong Kong)

T1s68p01: *Cooperative Routing in UWB Wireless Networks*

Man Hon Cheung (The Chinese University of Hong Kong, Hong Kong); Tat Lok (The Chinese University of Hong Kong, Hong Kong)

T1s68p02: *Noncoherent Detection of TH-CDMA-PPM Signals for Low Rate WPAN Communications*

Shenghui Song (City University of HK, Hong Kong); **Keith Q. T. Zhang** (City University of HongKong, Hong Kong)

T1s68p03: *Performance of different UWB pulse shapes under high data rate indoor channel*

Wilson Chandra Tjhi (Nanyang Technological University, Singapore); C.t. Lau (Nanyang Technological University, Singapore); A.b. Premkumar (Nanyang Technological University, Singapore)

T1s68p04: *Low Power UWB Transceiver Design Using Dynamic Voltage Scaling*

Rajesh Garg (Texas A&M University, USA); **Chunjie Duan** (Mitsubishi Electronics Research Laboratories, USA); **Sinan Gezici** (Bilkent University, Turkey); **Jinyun Zhang** (MERL, USA)

T1s68p05: *Signal-to-Interference-Plus-Noise Ratio Analysis for Direct-Sequence Ultra-Wideband Systems*

Cheng-Chia Lee (National Tsing Hua University, Taiwan); **Wei-De Wu** (National Tsing Hua University, Taiwan); **Chi-chao Chao** (National Tsing Hua University, Taiwan)

T1s78: Diversity 2

Room Location: Ballroom A

Session Chair: Kevin Sowerby (The University of Auckland, New Zealand)

T1s78p01: *Quantifying the Diversity of OFDMA Subchannels*

Patrick Hosein (Huawei Technologies, USA); **Jungwoon Lee** (Huawei, USA)

T1s78p02: *Transmit/Receive Antenna Diversity for Frequency-interleaved Single-carrier Spread Spectrum Multi-access with Frequency-domain Equalization*

Kazuaki Takeda (Tohoku University, Japan); **Fumiyuki Adachi** (Tohoku University, Japan)

T1s78p03: *Minimum Selection GSC with Adaptive Modulation and Post-combining Power Control*

Anders Gjendemsjo (Norwegian Univ. of Science and Technology, Norway); **Hong-Chuan Yang** (University of Victoria, Canada); **Geir Oien** (NTNU, Norway); **Mohamed-Slim Alouini** (University of Minnesota, USA)

T1s78p04: *Downlink Site Selection Transmit Diversity With Power Allocation For A 2-dimensional Block Spread DS-CDMA Cellular System*

Le Liu (Tohoku University, Japan); **Fumiyuki Adachi** (Tohoku University, Japan)

T1s78p05: *A New Hybrid Frequency-Amplitude Diversity Technique for Multicarrier On-Off Keying Transmission*

Emad Alsusa (Manchester University, United Kingdom); **Jose Martin Luna-Rivera** (Autonomous University of San Luis Potosi, Mexico)

T1s78p06: *Low-Complexity ZF Detection for Double Space-Frequency Transmit Diversity based OFDM System in Frequency Selective Fading Channel*

Chanho Yoon (ETRI, Korea); **Kyounghee Song** (Electronics and Telecommunications Research Institute, Korea); **Minho Cheong** (Electronics and Telecommunications Research Institute, Korea); **Sok-kyu Lee** (ETRI, Korea)

10:00 – 12:30

T1s87: Phy/MAC Poster Session 3

Room Location: Ballroom Pre-Function Area

T1s87p01: *Feasibility Assessment of Repeater Jamming Technique for DSSS*

Hang Wang (Tsinghua University, P.R. China); **Jingbo Guo** (Tsinghua University, P.R. China); **Zanji Wang** (Tsinghua University, P.R. China)

T1s87p02: *A Novel Multi-Beacon Superframe Structure with Greedy GTS Allocation for IEEE 802.15.4 Wireless PANs*

Li-chun Ko (Ill, Taiwan); **Zi-Tsan Chou** (Institute for Information Industry, Taiwan)

T1s87p03: *Embedding Antennas in User Equipments*

Brian Collins (Antenova Ltd, United Kingdom)

T1s87p04: *Level Crossing Rates of Envelop Processes for Multihop Fading Channels with Amplify-and-Forward Relays*

Yawgeng Chau (Yuan Ze University, Taiwan); **Karl Huang** (Yuan Ze University, Taiwan); **Yao-Hua Chen** (Yuan Ze University, Taiwan)

T1s87p05: *BlueBridge: A Wireless Interworking Architecture for the Ubiquitous Home*

Omar Abuelma'atti (Liverpool John Moores University, United Kingdom); **Anirach Mingkhwan** (King Mongkuts Institute of Technology North Bangkok, Thailand); **Madjid Merabti** (Liverpool John Moores University, United Kingdom); **Robert Askwith** (Liverpool John Moores University, United Kingdom)

T1s87p06: *Self Organization Algorithm for Unattended Acoustic Sensor Networks in Ground Target Tracking*

Malaka Walpola (Florida International University, USA); **Hao Zhu** (Florida International University, USA); **Jinsong Zhang** (Florida International University, USA)

T1s87p07: *Evaluation of Co-channel and Adjacent Channel Interference for Multiple Bluetooth Piconets with Dual Channel Transmission*

Jingli Li (University of Louisville, USA); **Xiangqian Liu** (University of Louisville, USA)

T1s87p08: *Multi-Mode DVB-RCS Satellite Terminal with Software Defined Radio*

Floriano De Rango (University of Calabria, Italy)

T1s87p09: *A High Performance Scalable FFT*

J Greg Nash (Centar, USA)

T1s87p10: *A Cut-through MAC for Multiple Interface, Multiple Channel Wireless Mesh Networks*

Joo Ghee Lim (University of New South Wales, Australia); **Chun Tung Chou** (School of Computer Science and Engineering, University of New South Wales, Australia); **Alfandika Nyandoro** (University of New South Wales, Australia); **Sanjay Jha** (University of NSW, Australia)

T1s87p11: *Performance Analysis for Multichannel Reception of OOFSK Signaling*

Qingyun Wang (University of Nebraska-Lincoln, USA); **Mustafa Gursoy** (University of Nebraska-Lincoln, USA)

T1s87p12: *A Characterization of Wireless NIC Active Scanning Algorithms*

Vaibhav Gupta (Georgia State University, USA); **Raheem Beyah** (Georgia State University, USA); **Cherita Corbett** (Sandia National Laboratory, USA)

T1s87p13: *A new approach to QPSK: Mechanism and Implementation*

Ali Abuelmaatti (University of Glasgow, United Kingdom); **Ian Thayne** (University of Glasgow, United Kingdom); **Steve Beaumont** (Institute for System Level Integration, United Kingdom)

T1s87p14: *Optimal Retransmission Probability for S-ALOHA Under the Infinite Population Model*

Mario Rivero-Angeles (Advanced Technologies and Engineering Interdisciplinary Professional Unit, Mexico); **Domingo Lara-Rodriguez** (Cinvestav, Mexico); **Felipe Cruz-Pérez** (Centro de Investigación y de Estudios Avanzados del IPN (CINVESTAV-IPN), Mexico)

T1s87p15: *Orthogonal Pilot Channel Using Combination of FDMA and CDMA for Single-Carrier FDMA-Based Evolved UTRA Uplink*

Teruo Kawamura (NTT DoCoMo, Inc., Japan); **Yoshihisa Kishiyama** (IP Radio Network Development Department, NTT DoCoMo, Inc., Japan); **Kenichi Higuchi** (NTT DoCoMo, Inc., Japan); **Mamoru Sawahashi** (Musashi Institute of Technology, Japan)

14:00 – 15:25

T1s09: Channel Estimation 2

Room Location: Ching

Session Chair: Bodhaswar Maharaj (University of Pretoria, South Africa)

T1s09p01: *A Unified Approach to Joint Blind Channel Estimation and Interference Suppression for Block Transmission Systems*

Khaled Amleh (Penn State Mont Alto, USA); **Hongbin Li** (Stevens Tech, USA)

T1s09p02: *Performance of OFDM/TDM with MMSE-FDE Using Pilot-assisted Channel Estimation*

Haris Gacanin (Tohoku University, Japan); **Fumiyuki Adachi** (Tohoku University, Japan)

T1s09p03: *EM-Based MAP Channel Estimation and Data Detection for Downlink MC-CDMA Systems*

Hakan Dogan (Istanbul University, Turkey); **Erdal Panayirci** (Bilkent University, Turkey); **Hakan Cirpan** (Istanbul University, Turkey)

T1s09p04: *A Noise Variance Optimization Method for 2x1-Dimensional Wiener Filtered Channel Estimation*

Yun Rui (Shanghai Institute of Microsystem and Information Technology, P.R. China); **Mingqi Li** (Shanghai Research Center for Wireless Communications(SHRCWC), P.R. China); **Xiaodong Zhang** (Shanghai Research Center for Wireless Communications, P.R. China); **Tang Lin** (Shanghai research center for wireless communications, P.R. China); **Songlin Feng** (Shanghai Institute of Micro-system and Information Technology, P.R. China)

T1s09p05: *A Novel Channel Estimation in T-DMB Receivers*

Sung Ik Park (Electronics and Telecommunications Research Institute (ETRI), Korea); **Jae-young Lee** (Electronics and Telecommunications Research Institute (ETRI), Korea); **Hyungsoo Lim** (Electronics and Telecommunications Research Institute (ETRI), Korea); **Heung Mook Kim** (ETRI, Korea); **Hyung-Nam Kim** (Pusan National University, Korea); **Jong Soo Lim** (Electronics and Telecommunications Research Institute, Algeria)

T1s19: Transceiver Design

Room Location: Tang I

Session Chair: Keith Q. T. Zhang (City University of HongKong, Hong Kong)

T1s19p01: *Performance Analysis and Transceiver Design for Adaptive BIC-MIMO-OFDM Systems*

Fu-Hsuan Chiu (Texas Instruments, USA); **Sau-Hsuan Wu** (National Chiao Tung University, Taiwan); **C.C. Jay Kuo** (University of Southern California, USA)

T1s19p02: *Finger Assignment Schemes for RAKE Receivers with Multi-way Soft Handover*

Seyeong Choi (Texas A&M University, USA); **Mohamed-Slim Alouini** (University of Minnesota, USA); **Khalid Qaraqe** (Texas A&M University at Qatar, Qatar); **Hong-Chuan Yang** (University of Victoria, Canada)

T1s19p03: *24 GHz Direct Conversion Transceiver for Sensor Networks*

Stefan Von der Mark (Technische Universität Berlin, Germany); **Meik Huber** (TU Berlin, Germany); **Georg Boeck** (TU Berlin, Germany)

T1s19p04: *Optimal Receiver for MPSK Signaling with Imperfect Channel Estimation*

Himanshu Tyagi (Indian Institute of Technology, Delhi, India); **R.K. Mallik** (Indian Institute of Technology - Delhi, India); **Sumit Raina** (Mumbai, India)

T1s29: Modulation and Coding 4

Room Location: Tang II

Session Chair: Ha Nguyen (University of Saskatchewan, Canada)

T1s29p01: *Iterative Decoding and Soft Interference Cancellation in Fast Frequency Hopping Multiuser Systems Employing Clipped Combining*

Sohail Ahmed (University of Southampton, United Kingdom); **Lie-Liang Yang** (University of Southampton, United Kingdom); **Lajos Hanzo** (University of Southampton, United Kingdom); **Soon Ng** (University of Southampton, United Kingdom)

T1s29p02: *Energy minimization of a QAM system*

Raghavendra Prabhu (University of California, Los Angeles, USA); **Babak Daneshrad** (University of California, Los Angeles, USA); **Lieven Vandenberghe** (University of California, Los Angeles, USA)

T1s29p03: *EXIT Chart Based Joint Code-Rate and Spreading-Factor Optimisation of Single-Carrier Interleave Division Multiple Access*

Rong Zhang (Univ. of Southampton, United Kingdom); **Lajos Hanzo** (University of Southampton, United Kingdom)

T1s29p04: *Closed-Form Performance of MFSK Signals with Diversity Reception over Non-identical Fading Channels*

Cao Le (National University of Singapore, Singapore); **Meixia Tao** (National University of Singapore, Singapore); **Pooi-Yuen Kam** (National University of Singapore, Singapore)

T1s29p05: *Efficient Decoding Algorithm with QR-decomposition*

In Sook Park (KAIST, Korea); **Hyun Kyu Chung** (ETRI, Korea)

T1s39: Multiuser detection and interference cancellation 2

Room Location: Sung I

Session Chair: Kevin Sowerby (The University of Auckland, New Zealand)

T1s39p01: *Weight Behavior Analysis of Adaptive Two-Stage Partial PIC Receivers*

Yu-Tao Hsieh (Industrial Technology Research Institute, Taiwan); **Wen-Rong Wu** (National Chiao Tung University, Taiwan)

T1s39p02: *SIR Analysis and Interference Cancellation in Uplink OFDMA with Large Carrier Frequency and Timing Offsets*

K. Raghunath (Indian Institute of Science, Bangalore, India); **A. Chockalingam** (Indian Institute of Science, India)

T1s39p03: *Iterative Maximal Ratio Combining Channel Estimation for Multiuser Detection with DS/CDMA on a Time and Frequency Selective Wireless Channel*

Zhenning Shi (National ICT Australia, Australia); **Mark Reed** (National ICT Australia, ANU, Australia)

T1s39p04: *Optimal Selection of Weighting Factors for Variance-Reduced Partial Parallel Interference Cancellation in MC-CDMA Systems*

Chin-Liang Wang (National Tsing Hua University, Taiwan); **Chang-Chen Chu** (National Tsing Hua University, Taiwan)

T1s39p05: *Impulsive Interference Cancellation in Uplink Macro-Diversity Combining*

Sheetal Kalyani (Indian Institute of Technology Madras, India); **Jubin Jose** (University of Texas at Austin, USA); **Giridhar Krishnamurthy** (Professor, Indian Institute of Technology, Madras, India)

T1s49: MIMO 7

Room Location: Ballroom B

Session Chair: Daniel K. C. So (University of Manchester, United Kingdom)

T1s49p01: *Iterative Channel Estimation for a 2x2 and a 4x2 non-orthogonal MIMO schemes*

Benoît Le saux (France Telecom R&D, France)

T1s49p02: *Virtual receive antennas for spatial multiplexing system*

Daniel K. C. So (University of Manchester, United Kingdom); **Yang Lan** (University of Manchester, United Kingdom)

T1s49p03: *Prediction of Area Capacity in a Multilink MIMO Cellular Network with Guaranteed QoS*

Akiyo Yoshimoto (Sophia University, Japan); **Takeshi Hattori** (Sophia University, Japan)

T1s49p04: *Balance of Multiuser Diversity and Multiplexing Gain in Near-Orthogonal MIMO Systems with Limited Feedback*

Ruben de Francisco (Eurecom Institute, France); **Dirk Slock** (Eurecom Institute, France); **Ying-Chang Liang** (Institute for Infocomm Research, Singapore)

T1s49p05: *Performance Analysis of Distributed Space-Time Coded Transmission with Channel Estimation Error*

Leila Musavian (University of Quebec, INRS-EMT, Canada, Canada);
Sonia Aissa (University of Quebec, INRS-EMT, Canada, Canada)

T1s59: Scheduling 1

Room Location: Ming II

Session Chair: Gunther Auer (DoCoMo Euro-Labs, Germany)

T1s59p01: *Power Allocation and Multiuser Scheduling for Delay-Limited Communications Exploiting Only Channel Statistics*

Kai Kit Wong (University College London, United Kingdom)

T1s59p02: *Performance Analysis of a Power-Constrained Cross-Layer Scheduling Using Artificial Neural Networks*

Amoakoh Gyasi-Agyei (Central Queensland University, Australia)

T1s59p03: *Opportunistic Scheduling with Multiple QoS Constraints for Wireless Multiclass Services Networks*

Dan Liao (University of Electronic Science and Technology of China, P.R. China); **Le Min Li** (University of Electronic Science and Technology of China, P.R. China); **Shizhong Xu** (Univ. of electronic science and technology, P.R. China); **Hongfang Yu** (University of Electronic Science and Technology of China, P.R. China)

T1s59p04: *Stochastic Primal-Dual Scheduling Subject to Rate Constraints*

Xin Wang (University of Minnesota, USA); **Georgios B. Giannakis** (University of Minnesota,, USA)

T1s59p05: *Low Complex User Selection Strategies for Multi-user MIMO Downlink Scenario*

Tianxiong Ji (Tsinghua University, P.R. China); **Chunhui Zhou** (Tsinghua University, P.R. China); **Shidong Zhou** (Tsinghua University, P.R. China); **Yan Yao** (Tsinghua University, P.R. China)

T1s69: Resource Allocation and Management 3

Room Location: Sung II

Session Chair: Lin Dai (University of Delaware, USA)

T1s69p01: *Minimal Waiting Time Assignment of Subcarriers and Power for OFDMA System*

Yang Xiang (South China University of Technology, P.R. China); **Tak-Shing Yum** (The Chinese University of Hong Kong, Hong Kong)

T1s69p02: *Rate-Optimal Power Adaptation in Average and Peak Power Constrained Fading Channels*

Sebastien de la Kethulle de Ryhove (Norwegian Univ. of Science and Technology, Norway); **Geir Oien** (NTNU, Norway)

T1s69p03: *Reduced CQI Feedback Signaling with Power Loading for Downlink Multi-Stream MIMO Transmission*

Honglin Hu (Shanghai Research Center for Wireless Communications, P.R. China); **Hsiao-Hwa Chen** (National Sun Yat-Sen University, Taiwan); **Haifeng Wang** (Nokia, Finland)

T1s69p04: *Optimum Adaptive Modulation and Channel Coding Scheme for Frequency Domain Channel-Dependent Scheduling in OFDM Based Evolved UTRA Downlink*

Nobuhiko Miki (NTT DoCoMo, Japan); **Yoshihisa Kishiyama** (IP Radio Network Development Department, NTT DoCoMo, Inc., Japan); **Kenichi Higuchi** (NTT DoCoMo, Inc., Japan); **Mamoru Sawahashi** (NTT DoCoMo, Japan)

T1s79: Channel Characterization and Modeling 2

Room Location: Ballroom A

Session Chair: Biao Chen (Syracuse University, USA)

T1s79p01: *A Comparative Study of Deterministic and Stochastic Sum-of-Sinusoids Models of Rayleigh-Fading Wireless Channels*

Andre McDonald (University of Pretoria, South Africa); **Jan Olivier** (University of Pretoria, South Africa)

T1s79p02: *Upper Bound of The Number of Channels for Conflict-Free Communication in Multi-Channel Wireless Networks*

Lili Cao (University of California, Santa Barbara, USA); **Min-You Wu** (Shanghai JiaoTong University, P.R. China)

T1s79p03: *Mutual Information and Error Probability of Dual-Polarized Systems*

Claude Oestges (Université catholique de Louvain, Belgium)

T1s79p04: *On Joint Order Statistics in Correlated Nakagami Fading Channels*

Raymond Kwan (Simon Fraser University, Canada); **Paul Ho** (Simon Fraser University, Canada); **Cyril Leung** (University of British Columbia, Canada)

T1s79p05: *An Inner Bound of Capacity Region for the Gaussian Interference Channel*

Xiaohu Shang (Syracuse University, USA); **Biao Chen** (Syracuse University, USA)

14:00 – 16:00

T1s88: Phy/MAC Poster Session 4

Room Location: Ballroom Pre-Function Area

T1s88p01: *Efficient Synchronization and Frequency Tracking for Cellular Reuse-1 OFDMA Systems*

Bhargava Yalala (Indian Institute of Technology, Madras, India); **Giridhar Krishnamurthy** (Professor, Indian Institute of Technology, Madras, India)

T1s88p02: *Iterative Joint Synchronization, Channel Estimation and Decoding for Coded OFDM Systems*

Si Li (McGill University, Canada); **Tho Le-Ngoc** (McGill University, Canada)

T1s88p03: *Mobile Speed Estimation for Broadband Wireless Communications*

Yahong Zheng (University of Missouri - Rolla, USA); **Chengshan Xiao** (University of Missouri-Columbia, USA)

T1s88p04: *A Modified Carrier Frequency Estimator for DVB-S2 System*

Nan Wu (Beijing Institute of Technology, P.R. China); **Hua Wang** (Beijing Institute of Technology, P.R. China); **Jingming Kuang** (Modern Comm. Lab, Dept. of E.E. Beijing Institute of Technology, P.R. China); **Fei Zesong** (Beijing Institute of Technology, P.R. China); **Guangrong Fan** (Beijing Institute of Technology, P.R. China)

T1s88p05: *A New Timing Offset Estimation Algorithm Using Phase Difference between Adjacent Subcarriers in Intereaved OFDMA Uplink Systems*

Hyunkee Min (Yonsei Univ., Korea); **Jihyung Kim** (Yonsei University, Korea); **Sungeun Lee** (Yonsei University, Korea); **Kyungchul Kwak** (Yonsei University, Korea); **Keukjoon Bang** (Induk University, Korea); **Daesik Hong** (Yonsei Univ., Korea)

T1s88p06: *Accuracy Enhancement for Initial Timing Acquisition through Lagrange Interpolation*

Ser Wah Oh (Institute for Infocomm Research, Singapore)

T1s88p07: *Two-Stage Frequency Synchronization for Uplink MC-CDMA System*

Lokesh Thiagarajan (National University of Singapore, Singapore);
Samir Attallah (National University of Singapore, Singapore); **Ying-Chang Liang** (Institute for Infocomm Research, Singapore)

T1s88p08: *A novel frame synchronization method using correlation between permuted sequences*

Miao Shi (New Jersey Institute of Technology, USA); **Yehekel Bar-Ness** (New Jersey Institute of Technology, USA); **Seokhyun Yoon** (Dankook University, Korea)

T1s88p09: *Low Complexity Multiuser MIMO Scheduling with Channel Decomposition*

Xiaojie Zhang (Seoul Nation University, Korea); **Jungwoo Lee** (Seoul National University, Korea); **Huaping Liu** (Oregon State University, USA)

T1s88p10: *QoS Scheduling in IEEE 802.16 Networks*

Pin-Han Ho (University of Waterloo, Canada); **Fen Hou** (University of Waterloo, Canada); **Sherman Shen** (University of Waterloo, Canada); **Anyi Chen** (INSTITUTE FOR INFORMATION INDUSTRY, Taiwan)

T1s88p11: *An Improved Derivative Method for Symbol Synchronization in OFDM Systems*

Xinyue Pan (University of HongKong, Hong Kong); **Yiqing Zhou** (University of Hong Kong, Hong Kong); **Shaodan Ma** (The University of Hong Kong, P.R. China); **Tungsang Ng** (University of Hong Kong, Argentina)

T1s88p12: *Linear Recursive Tracking of Fast Rayleigh-Faded MIMO Channels*

Yoav Levinbook (University of Florida, USA); **Tan Wong** (University of Florida, USA)

15:55 – 17:00

T1s10: Ad hoc Networks 3

Room Location: Ching

Session Chair: Qian Zhang (Hong Kong University of Science and Technology, Hong Kong)

T1s10p01: *A Traffic-Load Oriented Power Saving Mechanism for MAC Protocol in Ad Hoc Networks*

Tsung-Chuan Huang (National Sun Yat-Sen University, Taiwan); **Jui-Hua Tan** (National Sun Yat-sen University, Taiwan); **Chao-Chieh Huang** (National Sun Yat-sen University, Taiwan)

T1s10p02: *Bounds Selection - Dynamic Reset Protocol for Wireless Ad Hoc LANs*

Sylwia Romaszko (University of Antwerp, Belgium); **Chris Blondia** (University of Antwerp, Belgium)

T1s10p03: *Evaluation of communication distance of broadcast messages in a vehicular ad-hoc network using IEEE 802.11p*

Lothar Stibor (RWTH Aachen University, Germany); **Yunpeng Zang** (ComNets Aachen, Germany); **Hans-Jürgen Reuerman** (Philips Research Aachen, Germany)

T1s10p04: *A Power Control Scheme for Directional MAC protocols in MANET*

Basel Alawieh (Concordia University, Canada); **Chadi Assi** (Concordia University, Canada); **Wessam Ajib** (University de Quebec a Montreal, Canada)

T1s10: Equalization

Room Location: Tang I

Session Chair: **Huaping Liu** (Oregon State University, USA)

T1s10p01: *A Novel Iterative Method for Turbo Equalization*

Xiang Cheng (Heriot-Watt University, United Kingdom); **Cheng-Xiang Wang** (Heriot-Watt University, United Kingdom); **Dongfeng Yuan** (Shandong University, P.R. China); **Hsiao-Hwa Chen** (National Sun Yat-Sen University, Taiwan)

T1s10p02: *New Hybrid Decision Feedback Equalization for DS-CDMA systems*

Tran Le-Nam (Kyung Hee University, Korea); **Een-Kee Hong** (Kyunghee University, Korea); **Huaping Liu** (Oregon State University, USA)

T1s10p03: *Decreasing Error Propagation of Decision Feedback Equalizer with Hybrid Modulation*

Rujiang Wang (University Laval, Canada); **Gilles Y. Delisle** (International Institute of Telecommunications, Canada)

T1s10p04: *New Soft Transition Dual Mode Type Algorithms For Blind Equalization*

Wee Gin Lim (University of Nottingham Malaysia Campus, Malaysia)

T1s30: Space-Time Coding 3

Room Location: Tang II

Session Chair: Daniel K. C. So (University of Manchester, United Kingdom)

T1s30p01: *New DSTTD Transceiver Architecture for Low-Complexity Maximum-Likelihood Detection*

Hyounkuk Kim (Information and Communications University, Korea);
Hyuncheol Park (Information and Communication University, Korea)

T1s30p02: *Quasi-Orthogonal STBC using Stretched Constellations for Low Detection Complexity*

Patrick Marsch (Technische Universitaet Dresden, Germany); **Wolfgang Rave** (Dresden University of Technology, Germany); **Gerhard Fettweis** (Technische Universität Dresden, Germany)

T1s30p03: *Non-Unitary Super Orthogonal Differential Space-Time Trellis Coding and Decoding*

Dong Wang (Philips Research North America, USA); **Jinyun Zhang** (MERL, USA); **Xiang-Gen Xia** (University of Delaware, USA)

T1s30p04: *Exact Error Probability Analysis of Orthogonal Space-Time Block Codes with Arbitrary Rectangular QAM over MIMO Nakagami-m Fading Channels*

Amine Maaref (University of Quebec, INRS-EMT, Canada, Canada);
Sonia Aissa (University of Quebec, INRS-EMT, Canada, Canada)

T1s40: Synchronization 3

Room Location: Sung I

Session Chair: Henk Wymeersch (Massachusetts Institute of Technology, USA)

T1s40p01: *Frequency Offset Estimation for MB-OFDM-based UWB Systems in Time-Variant Channels*

Yinghui Li (University of Texas at Dallas, USA); **Hlaing Minn** (University of Texas at Dallas, USA); **Moe Win** (Massachusetts Institute of Technology, USA)

T1s40p02: *Timing Robust Joint Carrier Frequency Offset and Channel Estimation for OFDM Systems*

Jianwu Chen (the University of Hong Kong, Hong Kong); **Yik-Chung Wu** (The University of Hong Kong, Hong Kong); **Tungsang Ng** (University of Hong Kong, Argentina)

T1s40p03: *A New Carrier Frequency Offset Estimation using CP-ICA Scheme in OFDM Systems*

Jongdeuk Kim (University of InCheon, Korea)

T1s40p04: *Carrier Frequency Offset Estimation for MIMO Correlated Fading Channels*

Kai Deng (University of Electronic Science and Technology of China, 610054 Chengdu, China, P.R. China)

T1s50: MIMO 8

Room Location: Ballroom B

Session Chair: Vincent Lau (The university of science and technology, Hong Kong)

T1s50p01: *Decoding MIMO Systems*

Lei Zhang (Tsinghua University, P.R. China); **Chunhui Zhou** (Tsinghua University, P.R. China); **Shidong Zhou** (Tsinghua University, P.R. China); **Xibin Xu** (Tsinghua University, P.R. China)

T1s50p02: *Receive antenna selection for spatial multiplexing systems based on union bound minimization*

Khoa Phan (University of Alberta, Canada); **Chintha Tellambura** (University of Alberta, Canada)

T1s50p03: *Adaptive Minimum Variance Two-Stage Parallel Interference Cancellation for Time-Varying MIMO Channels*

Yinman Lee (National Chi Nan University, Taiwan); **Wen-Rong Wu** (National Chiao Tung University, Taiwan)

T1s50p04: *Linear Precoder and Equalizer Design for Uplink Multiuser MIMO Systems with Imperfect Channel State Information*

Jane Huang (Hong Kong University of Science and Technology, Hong Kong); **Edward K. S. Au** (The Hong Kong University of Science and Technology, Hong Kong); **Vincent Lau** (the Hong Kong University of Science and Technology, Algeria)

T1s60: Scheduling 2

Room Location: Ming II

Session Chair: Ekram Hossain (University of Manitoba, Canada)

T1s60p01: *HCCA Scheduler Design for Guaranteed QoS in 802.11e based WLANs*

Mohammad Mamunur Rashid (University of British Columbia, Canada);
Ekram Hossain (University of Manitoba, Canada); **Vijay Bhargava**
(University of British Columbia, Canada)

T1s60p02: *Resource Scheduling for OFDMA/TDD Based Relay Enhanced Cellular Networks*

Lei Huang (Shanghai Jiao Tong University, P.R. China); **Xue Yisheng**
(Siemens Ltd. China, P.R. China)

T1s60p03: *A Channel-Aware and Queue-Aware Scheduling for IEEE 802.16 Wireless*

Mehri Mehrjoo (University of Waterloo, Canada); **Sherman Shen**
(University of Waterloo, Canada); **Kshirasagar Naik** (University of
Waterloo, Canada)

T1s60p04: *Buffer-Aware and Traffic-Dependent Packet Scheduling in Wireless OFDM Networks*

Jinri Huang (Tsinghua University, P.R. China); **Zhisheng Niu** (Tsinghua
University, P.R. China)

T1s70: Diversity 3

Room Location: Sung II

Session Chair: Halim Yanikomeroglu (Carleton University, Canada)

T1s70p01: *Evaluation of Diversity Techniques for the Indoor Diffuse Infrared Channel*

David Tacconi (Create-Net, Trento, Italy); **Hagen Woesner** (CREATE-
NET, Italy); **Changsong Xie** (Siemens, Germany); **Imrich Chlamtac**
(CREATE-NET, Italy)

T1s70p02: *Interactions between Multiuser Diversity and Spatial Diversity Techniques in an Interference Limited Environment*

Wan Choi (Information and Communications University, Korea); **Nageen
Himayat** (Intel Corporation, USA); **Shilpa Talwar** (Intel, USA); **JY Kim**
(Intel Corporation, Korea); **Albert Koo** (Intel Corporation, Korea); **Jane
Choi** (Intel Corporation, Korea); **Yujin Noh** (Intel Corporation, Korea);
Josep Kim (Intel Corporation, Korea)

T1s70p03: *Diversity Order Bounds for Wireless Relay Networks*

John Boyer (Carleton University, Canada); **David Falconer** (Carleton
University, Canada); **Halim Yanikomeroglu** (Carleton University,
Canada)

T1s70p04: *Network-Driven Receive Diversity Activation*

Eric Hardouin (France Telecom, Research & Development Division, France)

T1s80: Channel Characterization and Modeling 3

Room Location: Ballroom A

Session Chair: Biao Chen (Syracuse University, USA)

T1s80p01: *A four-state Markov frame error model for the wireless physical layer*

Yi Yu (Texas A&M University, USA); **Scott Miller** (Texas A&M University, USA)

T1s80p02: *Frequency Domain Analysis of the IEEE 802.15.4a Standard Channel Models*

Ni Xin (University of British Columbia, Canada); David Michelson (University of British Columbia, Canada)

T1s80p03: *Statistical Modeling of Intra-body Propagation Channel*

Jordi Agud Ruiz (Graduate School of Global Information and Telecommunication Studies, Waseda University, Japan); **Shigeru Shimamoto** (Waseda University, Japan)

T1s80p04: *A New Achievable Rate Region for Interference Channels with Common Information*

Yi Cao (Syracuse University, USA); **Biao Chen** (Syracuse University, USA); **Junshan Zhang** (Arizona State University, USA)