SP10 Signal Processing and Coding

Thursday, 1 December 2005 • 10:30AM–12:15PM
Room: Landmark 1/Level One/Renaissance Grand Hotel
Session Chair: **Jing Tiffany Li**, Lehigh University, USA

SP10.1 Design of Minimium-Error-Rate Lattice (Space–Time) Codes via Stochastic Optimization and Gradient Estimation
Inaki Berenguer, University of Cambridge, UK, Xiaodong Wang, Columbia University, USA, Narayan Prasad, NEC Laboratories America, USA, Jibing Wang, Qualcomm, USA, Mohammad Madihian, NEC Laboratories America, USA
SP10.2 Tomlinson-Harashima Precoding: A Continuous Transition from Complete to Statistical Channel Knowledge
Frank A. Dietrich, Peter Breun and Wolfgang Utschick, Munich University of Technology, Germany
SP10.3 Enhancing the Robustness of Distributed Compression Using Ideas from Channel Coding
Peiyu Tan and Jing Li, Lehigh University, USA
SP10.4 Low Latency Joint Source-Channel Coding Using Overcomplete Expansions and Residual Source Redundancy
Jörg Kliewer, University of Notre Dame, USA, Alfred Mertins, University of Oldenburg, Germany
SP10.5 Optimal Overlapped Message Passing Decoding for Quasi-Cyclic Low-Density Parity-Check Codes
Yongmei Dai and Zhiyuan Yan, Lehigh University, USA

SP11 Signal Processing Algorithms

Thursday, 1 December 2005 • 2:00–3:45PM
Room: Landmark 1/Level One/Renaissance Grand Hotel
Session Chair: **Ananthram Swami**, Army Research Laboratory, USA

SP11.1 New Blind Beamforming Algorithm Using Joint Multiple Matrix Diagonalization
Hsiao-Chun Wu and Xiaozhou Huang, Louisiana State University, USA
SP11.2 Joint MIMO Channel Tracking and Symbol Detection with EM Algorithm and Soft Decoding
Fu-Hsuan Chiu, University of Southern California, USA
Sau-Hsuan Wu, National Chiao-Tung University, Taiwan
C.-C. Jay Kuo, University of Southern California, USA
SP11.3 Performance Analysis of Directional Beacon based Position Location Algorithm for UWB Systems
S. F. A. Shah and A. H. Tewfik, University of Minnesota, USA
SP11.4 Blind Nonlinear Channel Equalization Based on Efficient Subspace Algorithms
Dayong Zhou and Victor DeBrunner, University of Oklahoma, USA

SP12 Signal Processing for Wireless Systems

Thursday, 1 December 2005 • 4:00–5:45PM
Room: Landmark 1/Level One/Renaissance Grand Hotel
Session Chair: **Murat Uysal**, University of Waterloo, Canada

SP12.1 Parallel Distributed Detection for Wireless Sensor Networks: Performance Analysis and Design
Israfil Bahceci, Ghassan Al-Regib and Yucel Altunbasak, Georgia Institute of Technology, USA
SP12.2 Transmission Distortion Modeling for Wireless Video Communication
Janak U. Dani and Zhihai He, University of Missouri, USA
Xiong Hongkai, Shanghai Jiaotong University, PR China
SP12.3 Implementation of an Efficient Two-Step SOVA Turbo Decoder for Wireless Communication Systems
J. H. Han, A. T. Erdogan and T. Arslan, University of Edinburgh, UK
SP12.4 Multiple Access Performance of Direct Sequence Ultra Wideband Communications with Diversity Reception
S. S. Tan and A. Nallanathan, National University of Singapore, Singapore
B. Kannan, Institute for Infocomm Research, Singapore
SP12.5 Demodulation with Dirty Templates for UWB Impulse Radios
Shahrokh Farahmand, Xiliang Luo and Georgios B. Giannakis, University of Minnesota, USA

Wireless Communication Symposium

Chair: Abbas Jamalipour, University of Syndey, Australia
Vice Chairs: Nirwan Ansari, New Jersey Institute Of Technology, USA, Chengshan Xiao, University of Missouri-Columbia, USA, and Mostofa Howlader, University of Tennessee, USA

WC01 Wireless Communications Session -I

Tuesday, 29 November 2005 • 9:00AM–12:00PM
Room: Majestic C/Level Two/Renaissance Grand Hotel
Session Chair: N/A

WC01.01 On the Reliability and Utilization Enhancement for Local Repair in On-Demand Ad hoc Networks
Ben-Jye Chang, Chaoyang, Yan-Min Lin and Shou-Chi Liang, Chaoyang University of Technology, ROC
WC01.02 Call-Level and Packet-Level Performance Modeling in Cellular CDMA Networks
Dusit Niyato and Ekram Hossain, University of Manitoba, Canada
WC01.03 Connection Admission Control Algorithms for OFDMA Wireless Networks
Dusit Niyato and Ekram Hossain, University of Manitoba, Canada
WC01.04 Analysis of the Outage Probability for Spatially Correlated MIMO Channels with Receive Antenna Selection
Hao Shen and Ali Ghrayeb, Concordia University, Canada
WC01.05 Reactive Cognitive Radio Algorithms for Co-Existence between IEEE 802.11b and 802.16a Networks
Xiangpeng Jing, Siun-Chuon Mau and D. Raychaudhuri, Rutgers University, USA, Robert Matyas, Nortel, Canada
WC01.06 Energy Efficient Information Collection with the ARIMA Model in Wireless Sensor Networks
Chong Liu, Kui Wu and Min Tsao, University of Victoria, Canada
WC01.07 Delay Statistics for Selective Repeat ARQ Protocol in Multi-rate Wireless Networks with Non-instantaneous Feedback
Long B. Le and Ekram Hossain, University of Manitoba, Canada
WC01.08 Using Cooperative Multiple Paths to Reduce File Download Latency in Cellular Data Networks
Danyu Zhu, Microsoft Corporation, USA, Matt W. Mutka and Zhiwei Cen, Michigan State University, USA
WC01.09 A New Cell Structure for Distributed Wireless Communication System without Inter-cell Interference
Jianjun Li and Hojin Kim, Samsung Advanced Institute of Technology, Korea, Sungjin Kimand and Kwang Bok Lee, Seoul National University, Korea
WC01.10 Link-Adaptive Largest-Weighted Throughput Packet Scheduling for Real-Time Traffics in Wireless OFDM Networks
Ying Jun Zhang, and Soung Chang Liew, The Chinese University of Hong Kong, Hong Kong
WC01.11 MSDU-based ARQ Scheme for IP-Level Performance Maximization
Youngkyu Choi and Sunghyun Choi, Seoul National University, Korea
Seokhyun Yoon, Dankook University, Korea
WC01.12 Accurate Evaluation of Packet Error Probabilities Considering Bit-to-Bit Error Dependence
Khairi Ashour Hamdi, The University of Manchester, UK, László Pap, Budapest University of Technology and Economics, Hungary, Emad Alsusa, The University of Manchester, UK
WC01.13 Agility Improvement through Cooperative Diversity in Cognitive Radio
Ghurumuruhan Ganesan and Ye Li, Georgia Institute of Technology, USA

WC01.14 Spectrum Agile Radio: Capacity and QoS Implications of Dynamic Spectrum Assignment
Sai Shankar, Chun-Ting Chou, and Kiran Challapali, Philips Research USA, USA, Stefan Mangold, Swiss Communications, Switzerland
WC01.15 Noncoherent Detection Based on Markov Chain Monte Carlo Methods for Block Fading Channels
Rong-Rong Chen and Ronghui Peng, University of Utah, USA
WC01.16 Energy and Throughput Tradeoff in Wireless Networks with Processing Energy Considerations
Lillian L. Dai and Vincent W. S. Chan, Massachusetts Institute of Technology, USA
WC01.17 A Vector Quantization -based Approach for Equal Gain Transmission
Chandra R. Murthy and Bhaskar D. Rao, University of California, San Diego, USA
WC01.18 Exact Distribution of Access Delay in IEEE 802.11 DCF MAC
Teerawat Issariyakul, Dusit Niyato, Ekram Hossain and Attahiru Sule Alfa, University of Manitoba, Canada
WC01.19 Efficient Mobility Management Mechanisms for Next Generation Wireless Networks
Hairong Zhou and Chihsiang Yeh, Queen's University, Canada
Hussein T. Mouftah, University of Ottawa, Canada
WC01.20 On the Fairness Delay Trade-Off in Wireless Packet Scheduling
Aditya Dua and Nicholas Bambos, Stanford University, USA
WC01.21 Dynamic Soft-Combine Zone Configuration in a Multicast CDMA Network
Jae-Hoon Kim, SK Telecom, Korea
Kwang-Soo Kim, KAIST, Korea
WC01.22 The Impact of Interference Cancellation on the Uplink Throughput of WLAN with CSMA\CA
Hamid Reza Karimi and Alexandr M. Kuzminskiy, Bell Laboratories, Lucent Technologies, UK
WC01.23 Source Fidelity over Fading Channels: Erasure Codes versus Scalable Codes
Konstantinos E. Zachariadis, Michael L. Honig and Aggelos K. Katsaggelos, Northwestern University, USA
WC01.24 Alternative Decompositions and Distributed Algorithms for Network Utility Maximization
Daniel P. Palomar and Mung Chiang, Princeton University, USA
WC01.25 A Robust Mobile Speed Estimator in Fading Channels: Performance Analysis and Experimental Results
Hong Zhang and Ali Abdi, New Jersey Institute of Technology, USA
WC01.26 Space–Time Active Rotation (STAR): A New Layered Space–Time Architecture
Arumugam Kannan and John R. Barry, Georgia Institute of Technology, USA
WC01.27 A Directional Hidden Terminal Problem in Ad hoc Network MAC Protocols with Smart Antennas and Its Solutions
Masanori Sekido, Masanori Takata, Masaki Bandai and Takashi Watanabe, Shizuoka University, Japan
WC01.28 Buffer Unit Multiple Access (BUMA) Protocol: An Enhancement to IEEE 802.11b DCF
Nurul I. Sarkar and Kevin W. Sowerby, The University of Auckland, New Zealand
WC01.29 Handover of Packet-Switched Services in GERAN A/Gb Mode
V. Rexhepi, D. Bohaty, S. Hamiti and G. Sébire, Nokia, Finland

WC02 Ad Hoc Networks I

Tuesday, 29 November 2005 • 10:30AM–12:15PM
Room: Landmark 2/Level One/Renaissance Grand Hotel
Session Chair: **Nei Kato**, Tohoku University, Japan

WC02.1 A Modeling Framework for Multipath Routing in Ad hoc Networks
Canfeng Chen and Jian Ma, Nokia Research Center, China, Weiling Wu and Jiongpan Zhou, Beijing University of Posts and Telecommunications, China
WC02.2 Interference-Aware QoS Routing (IQ Routing) for Ad hoc Networks
Rajarshi Gupta, Zhanfeng Jia, Teresa Tung and Jean Walrand, University of California, Berkeley, USA
WC02.3 User-Aware Rate Adaptive Control for IEEE 802.11 -based Ad hoc Networks
Yanfeng Zhu and Zhisheng Niu, Tsinghua University, PR China
WC02.4 Threshold Effect in the Throughput of Large Clustered Ad hoc Networks
Eugene Perevalov, Rick Blum and Danny Safi, Lehigh University, USA
WC02.5 An Enhanced GPSR Routing Algorithm for TDMA-based Ad hoc Networks
Giuseppe Caizzone, Walter Erangoli, Paolo Giacomazzi and Giacomo Verticale, Politecnico di Milano, Italy

WC03 Cellular Networks I

Tuesday, 29 November 2005 • 10:30AM–12:15PM
Room: Landmark 3/Level One/Renaissance Grand Hotel
Session Chair: **Dapeng Oliver Wu**, University of Florida, USA

WC03.1 Paging Load Balance in Hierarchical Cellular Networks
Yang Xiao, The University of Memphis, USA, Mohsen Guizani, Western Michigan University, USA
WC03.2 Call-Level and Packet-Level Performance Analysis of Call Admission Control and Adaptive Channel Allocation in Cellular Wireless Networks
Dusit Niyato, Rajesh Palit, Sastri Kota and Ekram Hossain, University of Manitoba, Canada
WC03.3 Real-Time Service Provisioning in CDMA Wireless Cellular Networks
Hai Jiang and Weihua Zhuang, University of Waterloo, Canada
WC03.4 Performance Analysis of the 3G Network with Complementary WLANs
Shensheng Tang and Wei Li, University of Toledo, USA

WC04 Wireless LAN Services

Tuesday, 29 November 2005 • 10:30AM–12:15PM
Room: Landmark 4/Level One/Renaissance Grand Hotel
Session Chair: **Seshadri Mohan**, University of Arkansas at Little Rock, USA

WC04.1 Enhancement of Voice over Mobile IP for Infrastructure-Mode Wireless LANs
Min Wang, Beijing University of Posts and Telecommunications, China
Geng-Sheng Kuo, National Chengchi University, Taiwan
WC04.2 Secure and Flexible Support for Visitors in Enterprise Wi-Fi Networks
Haidong Xia and José Carlos Brustoloni, University of Pittsburgh, USA
WC04.3 Differential VoIP Service in Wi-Fi Networks and Priority QoS Maps
Nghia T. Dao and Robert A. Malaney, National ICT Australia, Australia; University of New South Wales, Australia, Ernesto Exposito and Xun Wei, National ICT Australia, Australia
WC04.4 Physical Authentication through Localization in Wireless Local Area Networks
Vishal Bhargava and Mihail L. Sichitiu, North Carolina State University, USA
WC04.5 Online Adaptive Application-Driven WLAN Power Management
Yu Jiao,and Ali R. Hurson, The Pennsylvania State University, USA
Behrooz A. Shirazi, Washington State University, USA

WC05 OFDM I

Tuesday, 29 November 2005 • 10:30AM–12:15PM
Room: Landmark 5/Level One/Renaissance Grand Hotel
Session Chair: **Nallanathan Arumugam**, National University Singapore, Singapore

WC05.1 A Novel Iterative Receiver for Uplink OFDMA Systems
Man-On Pun, University of Southern California, USA, Michele Morelli, University of Pisa, Italy, C.-C. Jay Kuo, University of Southern California, USA
WC05.2 Analysis of Phase Noise Effects on Time-Direction Differential OFDM Receivers
Jungwon Lee, Hui-Ling Lou and Dimitris Toumpakaris, Marvell Semiconductor, Inc., USA
WC05.3 Receiver Windowing for Reduction of ICI in OFDM Systems with Carrier Frequency Offset
Norman C. Beaulieu and Peng Tan, University of Alberta, Canada
WC05.4 An Interpolation-based High-Precision Frequency Acquisition Method for OFDM Systems
Martin Makundi, Helsinki University of Technology, Finland, Are Hjørungnes, University of Oslo, Norway, Timo I. Laakso, Helsinki University of Technology, Finland

WC06 MIMO I

Tuesday, 29 November 2005 • 10:30AM–12:15PM
Room: Complex 225/Level Two/America's Center
Session Chair: **Andreas Molisch**, Mitsubishi Electric Research Laboratory/Lund University, USA

WC06.1 Minimum System-wide Mean-Squared Error for Downlink Spatial Multiplexing in Multiuser MIMO Channels
Jinfan Zhang, Mingguang Xu, Shidong Zhou and Jing Wang, Tsinghua University, PR China
WC06.2 Multiuser MIMO Downlink Precoder Design Based on the Maximal SJNR Criterion
Yongle Wu, Jinfan Zhang, Mingguang Xu, Shidong Zhou and Xibin Xu, Tsinghua University, PR China
WC06.3 On the Sum Rate of Channel Subspace Feedback for Multi-Antenna Broadcast Channels
Peilu Ding, David J. Love and Michael D. Zoltowski, Purdue University, USA
WC06.4 Downlink Scheduling and Rate Adaptation Design of Multi-user, Multiple-antenna Base Station with Imperfect CSIT
Vincent Lau, Hong Kong University of Science and Technology, Hong Kong, Meilong Jiang, The University of Hong Kong, Hong Kong
WC06.5 On the Encoding Rate and Modulation Adaptation Design for MIMO Links with CSIT
Vincent Lau, and Tianyu Wu, Hong Kong University of Science and Technology, Hong Kong

WC07 Ad Hoc Networks II

Tuesday, 29 November 2005 • 2:00–3:45PM
Room: Landmark 2/Level One/Renaissance Grand Hotel
Session Chair: **Takaya Yamazato**, Nagoya University, Japan

WC07.1 Theoretical Analysis of TCP Throughput in Ad hoc Wireless Networks
Hannan Xiao, University of Hertfordshire, UK, Kee Chaing Chua, National University of Singapore, Singapore, James A. Malcolm, University of Hertfordshire, UK, Ying Zhang, University of Cambridge, UK
WC07.2 A Reactive Random Graph (RRG) Model for Multicast Routing in MANETs
Hasnaa Moustafa, Houda Labiod and Philippe Godlewski, Ecole Nationale Supérieure de Télécommunications, France
WC07.3 Performance Analysis of Rayleigh Fading Ad hoc Networks with Regular Topology
Xiaowen Liu and Martin Haenggi, University of Notre Dame, USA
WC07.4 Cooperative Routing and Power Allocation in Ad hoc Networks
Zigui Yang, Jianhan Liu and Anders Høst-Madsen, University of Hawaii at Manoa, USA
WC07.5 Route Discovery and Capacity of Ad hoc Networks
Eugene Perevalov and Rick Blum, Lehigh University, USA, Anthony Nigara, ITT Industries, USA, Xun Chen, Lehigh University, USA

WC08 Cellular Networks II

Tuesday, 29 November 2005 • 2:00–3:45PM
Room: Landmark 3/Level One/Renaissance Grand Hotel
Session Chair: **Vincent Wong**, University of British Columbia, Canada

WC08.1 Dynamic Channel Allocation for Mobile Cellular Systems Using a Control Theoretical Approach
Yaya Wei and Chuang Lin, Tsinghua University, PR China
Raad Raad and Fengyuan Ren, University of Wollongong, Australia
WC08.2 Performance Evaluation of Hierarchical Cellular Networks with Bidirectional Overflow and Take-back Strategies under Generally Distributed Cell Residence Times
Shensheng Tang and Wei Li, University of Toledo, USA
WC08.3 A Location Aware Three-Step Vertical Handoff Scheme for 4G/B3G Networks
M. Rubaiyat Kibria, Abbas Jamalipour and Vinod Mirchandani, The University of Sydney, Australia
WC08.4 Cross-Layer Design for Real-Time Video Streaming over 1xEV-DO Using Multiple Objective Optimization
Tanır Özçelebi, M. O_uz Sunay, A. Murat Tekalp and M. Reha Civanlar, Koç University, Turkey

WC09 Applications of Ad Hoc and Sensor Networks

Tuesday, 29 November 2005 • 2:00–3:45PM
Room: Landmark 4/Level One/Renaissance Grand Hotel
Session Chair: **Homayoun Yousefi'zadeh**, UC Irvine, USA

WC09.1 Cooperative Vehicle Collision Avoidance using Inter-vehicle Packet Forwarding
Raymond Tatchikou, University of Kaiserslautern, Germany, Subir Biswasand Francois Dion, Michigan State University, USA
WC09.2 Currency Boosts Content Dissemination in Noncooperative Ad hoc Networks
Kyunghan Lee and Song Chong, Korea Advanced Institute of Science and Technology, Korea
WC09.3 Position Estimation for Wireless Sensor Networks
K.-F. Simon Wong, Ivor W. Tsang, Victor Cheung, S.-H. Gary Chan and James T. Kwok, The Hong Kong University of Science and Technology, Hong Kong
WC09.4 On Data Gathering Protocols for In-Body Biomedical Sensor Networks
Melody Moh, San Jose State University, USA, Benjamin J. Culpepper, San Jose State University, USA, Lan Dungand Teng-Sheng Moh, San Jose State University, USA, Takeo Hamada and Ching-Fong Su, Fujitsu Laboratories of America, USA
WC09.5 An Adaptive Zone-based Storage Architecture for Wireless Sensor Networks
Thang Nam Le and Dong Xuan, The Ohio State University, USA
Wei Yu, Texas A&M University, USA

WC10 OFDM II

Tuesday, 29 November 2005 • 2:00–3:45PM
Room: Landmark 5/Level One/Renaissance Grand Hotel
Session Chair: **Stefan Kaiser**, DoCoMo Euro-Labs, Germany

WC10.1 Delay Limited Optimal and Suboptimal Power and Bit Loading Algorithms for OFDM Systems over Correlated Fading Channels
Md. Jahangir Hossain, Dejan V. Djonin and Vijay K. Bhargava, University of British Columbia, Canada
WC10.2 Efficient Adaptive Loading Algorithm with Simplified Bandwidth Optimization Method for OFDM Systems
Kaiming Liu, Feifei Yin, Wenbo Wang and Yuan'an Liu, Beijing University of Posts and Telecommunications, China
WC10.3 Companding Technique for PAPR Reduction in OFDM Systems Based on an Exponential Function
Tao Jiang, Brunel University, UK, Yang Yang, University College London, UK, Yong-Hua Song, Brunel University, UK
WC10.4 Reduced Complexity Peak-to-Average Power Ratio Reduction for OFDM by Selective Time Domain Filtering
Zheng Du, University of Alberta, Canada, Norman C. Beaulieu, University of Alberta, Canada, Jinkang Zhu, University of Science and Technology of China, China
WC10.5 The Effectiveness of Signal Clipping for PAPR and Total Degradation Reduction in OFDM Systems
Steve C. Thompson, John G. Proakis and James R. Zeidler, University of California, San Diego, USA

WC11 MIMO II

Tuesday, 29 November 2005 • 2:00–3:45PM
Room: Pershing/Lindall/Level One/Renaissance Grand Hotel
Session Chair: **Claude Oestges**, Université catholique de Louvain, Belgium

WC11.1 Channel Capacity Estimation for MIMO Systems with Correlated Noise
Snezana Krusevac, The Australian National University, Australia
Predrag Rapajic, University of Greenwich, UK, Rodney A. Kennedy, The Australian National University, Australia
WC11.2 Evaluating the Temporal Correlation of MIMO Channel Capacities
Nan Zhang and Branimir Vojcic, The George Washington University, USA
WC11.3 Feedback Rate Versus Capacity Loss in Limited Feedback MIMO Systems
Amir D. Dabbagh and David J. Love, Purdue University, USA
WC11.4 Capacity-based Connectivity of MIMO Fading Ad hoc Networks
Hamid Jafarkhani, Homayoun Yousefi'zadeh and Javad Kazemitabar, University of California, Irvine, USA
WC11.5 Exact Capacity and Symbol Error Probability Analysis of STBC in Spatially Correlated MIMO Nakagami Fading Channels
Amine Maaref and Sonia Aïssa, University of Quebec, Canada

WC12 Ad Hoc Networks III

Tuesday, 29 November 2005 • 4:00–5:45PM
Room: Landmark 2/Level One/Renaissance Grand Hotel
Session Chair: **Ru H. Wang**, Lamar University, USA

WC12.1 Enhanced Backbone Net Synthesis for Mobile Wireless Ad hoc Networks
Hueijiun Ju and Izhak Rubin, University of California, Los Angeles, USA
WC12.2 Trajectory Control of Mobile Access Points in MANET
Chien-Chung Shen and Ozcan Koc, University of Delaware, USA, Chaiporn Jaikaeo, Kasetsart University, Thailand, Zhuochuan Huang, Diego Research Center, Inc., USA
WC12.3 GeO-LANMAR: A Scalable Routing Protocol for very Large, Dense Ad hoc Networks with Group Motion
Floriano De Rango, Mario Gerla, Biao Zhou and Salvatore Marano, University of Calabria, Italy
WC12.4 Cooperative MAC and Routing Protocols for Wireless Ad hoc Networks
Aytac Azgin, Yucel Altunbasak and Ghassan AlRegib, Georgia Institute of Technology, USA
WC12.5 View Consistency for Reliable Topology Control in Mobile Ad hoc Networks
Fei Dai, North Dakota State University, USA, Jie Wu, Florida Atlantic University, USA
Amine Maaref and Sonia Aïssa, University of Quebec, Canada

WC13 Cellular Networks III

Tuesday, 29 November 2005 • 4:00–5:45PM
Room: Landmark 3/Level One/Renaissance Grand Hotel
Session Chair: **Halim Yanikomeroglu**, Carleton University, Canada

WC13.1 Dynamic Code Assignment for OVSF CDMA System
Dian Gong,Yusong Yan and Jianhua Lu, University of Tsinghua, PR China
WC13.2 Cross-layer MAC Design for Wireless Networks Using MIMO
Minyoung Park, Soon-Hyeok Choi and Scott M. Nettles, The University of Texas at Austin, USA
WC13.3 Performance Analysis of the Distance-based Location Update Mechanism of CDMA 1X EV-DO
Vijay Raman and Suresh Kalyanasundaram, Motorola India Electronics Limited, India
WC13.4 Transmit Power and Bit Allocation for the MIMO System
Lingyan Fan and Chen He, Zhiying Wang and Xiaolin Che, Shanghai Jiaotong University, China
WC13.5 AQuA: Aggregated Queueing Algorithm for cdma2000 Base Station Controllers
Vikas Paliwal, Biswajit Nandy and Ioannis Lambadaris, Carleton University, Canada

WC14 Topics in Mobile Internet

Tuesday, 29 November 2005 • 4:00–5:45PM
Room: Landmark 4/Level One/Renaissance Grand Hotel
Session Chair: **Nirmala Shenoy**, Rochester Institute of Technology, USA

WC14.1 A Dynamic and Efficient MAP Selection Scheme for Mobile IPv6 Networks
Tarik Taleb, Tasuku Suzuki, Nei Kato and Yoshiaki Nemoto, Tohoku University, Japan
WC14.2 Fast and Secure Universal Roaming Service for Mobile Internet
Yeali S. Sun and Yu-Chun Pan, National Taiwan University, Taiwan
Meng Chang Chen, Academia Sinica, Taiwan
WC14.3 Reducing Idle Mode Power Consumption of Cellular/VoWLAN Dual Mode Mobiles
Shiao-Li Tsao and E-Cheng Cheng, National Chiao Tung University, ROC
WC14.4 Securing Hybrid Wired/Mobile IP Networks from TCP-Flooding -based Denial-of-Service Attacks
Tarik Taleb, Hiroki Nishiyama, Nei Kato and Yoshiaki Nemoto, Tohoku University, Japan
WC14.5 WWW Browsing Performance within a Mixed Speech Environment of Future Cellular Networks
Tallal Elshabrawy and Tho Le-Ngoc, McGill University, Canada

WC15 OFDM III

Tuesday, 29 November 2005 • 4:00–5:45PM
Room: Landmark 5/Level One/Renaissance Grand Hotel
Session Chair: **Yao Ma**, Iowa State University, USA

WC15.1 A New ICI Matrix Estimation Technique Using Padded M-Sequences for Wireless OFDM Systems
Hsiao-Chun Wu, Louisiana State University, USA, Yiyan Wu, Communications Research Centre, Canada
WC15.2 OFDM vs. HSDPA Comparison for Satellite Digital Multimedia Broadcasting Systems
S. Cioni, G. E. Corazza, M. Neri and A. Vanelli-Coralli, University of Bologna, Italy
WC15.3 Decoder-Assisted Noncoherent Frame Synchronization for Burst OFDM-based Packet Transmission
Mostofa K. Howlader, The University of Tennessee, USA
WC15.4 The Potential of Dynamic Power and Sub-carrier Assignments in Multi-User OFDM-FDMA Cells
Mathias Bohge, James Gross and Adam Wolisz, TU Berlin, Germany
WC15.5 Variable Guard Interval Orthogonal Frequency Division Multiplexing in Presence of Carrier Frequency Offset
Suvra S. Das, Aalborg University, Denmark; Tata Consultancy Services, India, Frank H. P. Fitzek, E. D. Carvalho and Ramjee Prasad, Aalborg University, Denmark

WC16 MIMO III

Tuesday, 29 November 2005 • 4:00–5:45PM
Room: Pershing/Lindall/Level One/Renaissance Grand Hotel
Session Chair: **Tomoaki Ohtsuki**, Keio University, Japan

WC16.1 LDPC-Coded MIMO Receiver Design over Unknown Fading Channels
Jun Zheng and Bhaskar D. Rao, University of California at San Diego, USA
WC16.2 Channel Estimation and Data Detection with Tracking Channel Variation in MIMO System using ZF-based SAGE Algorithm
Takao Someya, Tokyo University of Science, Japan, Tomoaki Ohtsuki, Keio University, Japan
WC16.3 Complex Lattice Reduction Algorithms for Low-Complexity MIMO Detection
Ying Hung Gan and Wai Ho Mow, Hong Kong University of Science and Technology, Hong Kong
WC16.4 MIMO Channel Estimation Based on Ambiguity Resistant Filtering and Decimated Feedback
Xiaofei Dong and Zhi Ding, University of California, Davis, USA
WC16.5 Blind Channel Estimation for MIMO Systems with Structured Transmit Delay Diversity
Qi Ling and Tongtong Li, Michigan State University, USA

WC17 Sensor Networks I

Wednesday, 30 November 2005 • 10:30AM–12:15PM
Room: Landmark 2/Level One/Renaissance Grand Hotel
Session Chair: **Yang Xiao**, University of Memphis, USA

WC17.1 LPT for Data Aggregation in Wireless Sensor Networks
Marc Lee and Vincent W. S. Wong, University of British Columbia, Canada
WC17.2 Cost Efficient Routing Strategies over Virtual Coordinates for Wireless Sensor Networks
Michele Rossi and Michele Zorzi, University of Padova, Italy
Ramesh R. Rao, University of California, San Diego, USA
WC17.3 A Study on Combined Routing and Source Coding with Explicit Side Information in Sensor Networks
Huiyu Luo and Gregory Pottie, University of California at Los Angeles, USA
WC17.4 Rate Optimization for MAC Layer Multicast in Wireless Networks
Weiyan Ge and Junshan Zhang, Arizona State University, USA
Sherman Shen, University of Waterloo, Canada
WC17.5 Mobility and Security Issues in Wireless Ad hoc Sensor Networks
Noureddine Boudriga and Mohammad S. Obaidat, University of Carthage, Tunisia; Monmouth University, USA

WC18 Wireless LAN I

Wednesday, 30 November 2005 • 10:30AM–12:15PM
Room: Landmark 3/Level One/Renaissance Grand Hotel
Session Chair: **Mario Marchese**, University of Genoa, Italy

WC18.1 Analyzing the Channel Access Delay of IEEE 802.11 DCF
Yun Li, ChongQing, Ke-Ping Long, Wei-Liang Zhao and Chong-Gang Wang, ChongQing University of Posts & Telecommunications, China
WC18.2 A New IEEE 802.11 MAC Protocol with Admission Control for Sensitive Multimedia Applications
Adlen Ksentini, Université de Cergy-Pontoise, France, Abdelhak Gueroui, Université de Versailles, France, Mohamed Naimi, Université de Cergy-Pontoise, France
WC18.3 Throughput Analysis of IEEE 802.11 Wireless LANs using an Average Cycle Time Approach
Kamesh Medepall and Fouad A. Tobagi, Stanford University, USA
WC18.4 Uplink Medium Access Control for WLANs with Multi-beam Access Point
Jianfeng Wang, Yuguang Fang and Dapeng Wu, University of Florida, USA
WC18.5 An Efficient Admission Control for IEEE 802.11 Networks Based on Throughput Analyses of (Un)saturated Channel
Lidong Lin,Haohuan Fu and Weijia Jia, City University of Hong Kong, China

WC19 Space-Time Coding I

Wednesday, 30 November 2005 • 10:30AM–12:15PM
Room: Landmark 4/Level One/Renaissance Grand Hotel
Session Chair: **Lutz Lampe**, University of British Columbia, USA

WC19.1 Full-Diversity Quasi-Orthogonal Space–Time Block Codes for M-PSK Modulations
Chiang-Yu Chen, Stanford University, USA, Ming-Yang Chen, National Taiwan University, Taiwan, John M. Cioffi, Stanford University, USA
WC19.2 Design of Space–Time Codes Achieving Generalized Optimal Diversity
Moon Il Lee, LG Electronics Inc., Korea, Seong Keun Oh, Ajou University, Korea, Dong Seung Kwon, Electronics and Telecommunications Research Institute, Korea
WC19.3 Block Differential Space–Time Modulation with Decision-Feedback Detection in Rayleigh Fading
Zheng Du, University of Alberta, Canada, Norman C. Beaulieu, University of Alberta, Canada
WC19.4 Relaxed Threaded Space–Time Codes
Mohammad Janani and Aria Nosratinia, The University of Texas at Dallas, USA
WC19.5 Space–Time Block Codes for Noncoherent CPFSK
Fabrizio Pancaldi and Giorgio M. Vitetta, University of Modena and Reggio Emilia, Italy

WC20 Ad Hoc and Wireless Networks I

Wednesday, 30 November 2005 • 10:30AM–12:15PM
Room: Landmark 5/Level One/Renaissance Grand Hotel
Session Chair: **Zhu Han**, University of Maryland, College Park, USA

WC20.1 Decode-and-Forward Cooperative Diversity with Power Allocation in Wireless Networks
J. Luo and R. S. Blum, Lehigh University, USA, L. J. Cimini, University of Delaware, USA, L. J. Greenstein, Rutgers University, USA, A. M. Haimovich, New Jersey Institute of Technology, USA
WC20.2 Cooperative Relaying Architecture for Wireless Video Sensor Networks
Sang Wu Kim, Iowa State University, USA
WC20.3 Multi-Node Cooperative Resource Allocation to Improve Coverage Area in Wireless Networks
Ahmed K. Sadek, Zhu Han and K. J. Ray Liu, University of Maryland, USA
WC20.4 Performance Analysis of the Node Cooperative ARQ Scheme for Wireless Ad hoc Networks
Mehrdad Dianati, Xinhua Ling,Kshirasagar Naik and Xuemin Shen, University of Waterloo, Canada
WC20.5 Cooperative Communications with Partial Channel State Information: When to Cooperate?
Ahmed S. Ibrahim and Ahmed K. Sadek, University of Maryland, USA
Weifeng Su, State University of New York at Buffalo, USA
K. J. Ray Liu, University of Maryland, USA

WC21 MIMO IV

Wednesday, 30 November 2005 • 10:30AM–12:15PM
Room: Complex 225/Level Two/America's Center
Session Chair: **Yahong Rosa Zheng**, University of Missouri – Rolla, USA

WC21.1 Doppler Sensitivity of Link Reciprocity in TDD MIMO Systems
Matilde Sánchez-Fernández, Universidad Carlos III de Madrid, Spain
Angel Lozano, Bell Laboratories, Lucent Technologies, USA
WC21.2 Generalized Feedback Detection for MIMO Systems
Tao Cui and Chintha Tellambura, University of Alberta, Canada
WC21.3 Erasure Insertion for Coded MIMO Slow Frequency-Hopping Systems in Presence of PBI
Haichang Sui and James R. Zeidler, University of California, San Diego, USA
WC21.4 Non-Linear Limited-Feedback Precoding for ICI Reduction in Closed-Loop Multiple-Antenna OFDM Systems
Yu Fu, Chintha Tellambura and Witold A. Krzymie_, University of Alberta, Canada
WC21.5 Spatial Reuse through Adaptive Interference Cancellation in Multi-Antenna Wireless Networks
A. Singh, P. Ramanathan and B. Van Veen, University of Wisconsin–Madison, USA

WC22 Sensor Networks II

Wednesday, 30 November 2005 • 2:00–3:45PM
Room: Landmark 2/Level One/Renaissace Hall
Session Chair: **Tarik Taleb**, Tohoku University, Japan

WC22.1 Traffic Diffusion Analysis for Adaptive Multi-path Routing Algorithm in Sensor Networks
Anand P. Santhanam, Balaji C. Neyveli and Mainak Chatterjee, University of Central Florida, USA
WC22.2 Maximum Network Lifetime in Fault Tolerant Sensor Networks
Petar Djukic and Shahrokh Valaee, University of Toronto, Canada
WC22.3 Loop-based Topology Maintenance and Route Discovery for Wireless Sensor Networks
Yanping Li and Xin Wang, Fudan University, China, Florian Baueregger, Friedrich-Alexander University, Germany, Xiangyang Xue, Fudan University, China, C. K. Toh, Queen Mary University of London, UK
WC22.4 Hop-Constrained Energy-Aware Routing in Wireless Sensor Networks
Shashidhar Gandham, Milind Dawande and Ravi Prakash, University of Texas at Dallas, USA
WC22.5 Receiver Initiated Rendezvous Schemes for Sensor Networks
En-Yi A. Lin and Jan M. Rabaey, University of California, Berkeley, USA
Sven Wiethoelter and Adam Wolisz, Technische Universitaet Berlin, Germany

WC23 Wireless LAN II

Wednesday, 30 November 2005 • 2:00–3:45PM
Room: Landmark 3/Level One/Renaissance Grand Hotel
Session Chair: **Guoliang Xue**, Arizona State University, USA

WC23.1 Delay Analysis of 802.16 based Last Mile Wireless Networks
Rajagopal Iyengar, RPI, USA, Prakash Iyer, Intel, USA, Biplab Sikdar, RPI, USA
WC23.2 Multi-Rate 802.11 WLANs
Osama Abu-Sharkh and Ahmed H. Tewfik, University of Minnesota, USA
WC23.3 Exploiting Spatial Diversity in Rate Adaptive WLANs with Relay Infrastructure
Aaron So and Ben Liang, University of Toronto, Canada
WC23.4 An Unscented Particle Filtering Approach to Estimating Competing Stations in IEEE 802.11 WLANs
Dong Zheng and Junshan Zhang, Arizona State University, USA
WC23.5 Performance Analysis of IEEE 802.11 DCF in Binary Symmetric Channels
Yu Zheng, University of Florida, USA, Kejie Lu, University of Puerto Rico at Mayagüez, Puerto Rico, Dapeng Wu, and Yuguang Fang, University of Florida, USA

WC24 Space-Time Coding II

Wednesday, 30 November 2005 • 2:00–3:45PM
Room: Landmark 4/Level One/Renaissance Grand Hotel
Session Chair: **David Love**, Purdue University, USA

WC24.1 Space–Time Coding and Beamforming with Partial Channel State Information
Jianqi Wang, Peilv Ding, Michael D. Zoltowski and David J. Love, Purdue University, USA
WC24.2 STBC for Uplink Single-Carrier CDMA with Equalization in the Frequency Domain
François Horlin, Eduardo Lopez-Estraviz and Liesbet Van der Perre, IMEC, Belgium
WC24.3 Burst-based Orthogonal ST Block Coding for CPM
A.–M. Silvester, R. Schober and L. Lampe, University of British Columbia, Canada
WC24.4 A Posteriori Rake Finger Selection in Space–Time Coded CDMA Systems
Sang Wu Kim, Iowa State University, USA, Eun Yong Kim, KAIST, Korea
WC24.5 Fano Space–Time Multiple Symbol Differential Detectors
Patrick Pun and Paul Ho, Simon Fraser University, Canada

WC25 Ad hoc and Wireless Networks II

Wednesday, 30 November 2005 • 2:00–3:45PM
Room: Landmark 5/Level One/Renaissance Grand Hotel
Session Chair: **Oliver Yang**, University of Ottawa, Canada

WC25.1 Cross-Layer Design for Combining Cooperative Diversity with Truncated ARQ in Ad hoc Wireless Networks
Lin Dai and Khaled B. Letaief, The Hong Kong University of Science & Technology, Hong Kong
WC25.2 Cross-layer Scheduling and Power Control Combined with Adaptive Modulation for Wireless Ad hoc Networks
Weilan Huang and K. B. Letaief, The Hong Kong University of Science & Technology, Hong Kong

WC25.3 Cross-Layer Design for Scheduling and Antenna Sharing in MIMO Networks
Ghassane Aniba and Sonia Aïssa, University of Quebec, Canada
WC25.4 Dynamic Resource Allocation in Integrated Voice/Data Wireless Networks with Link Adaptation
Remberto Sandoval-Aréchig and Felipe A. Cruz-Pérez, CINVESTAV-IPN, Mexico, Lauro Ortigoza-Guerrero, WFI, USA
WC25.5 A Cross Layer MAC with Explicit Synchronization through Intelligent Feedback for Multiple Beam Antennas
Vivek Jain and Anurag Gupta, University of Cincinnati, USA, Dhananjay Lal, Robert Bosch Corporation, USA, Dharma P. Agrawal, University of Cincinnati, USA

WC26 CDMA I

Wednesday, 30 November 2005 • 2:00–3:45PM
Room: Pershing/Lindall/Level One/Renaissance Grand Hotel
Session Chair: **Jingxian Wu**, Sonoma State University, USA

WC26.1 Non-linear Pre-Filtering Techniques for MC-CDMA Downlink Transmissions
Luca Sanguinetti and Michele Morelli, University of Pisa, Italy
Ivan Cosovic, German Aerospace Center, Germany
WC26.2 MC-CDMA Performance in the Presence of Carrier Frequency Offset, Sample Clock Offset and IQ Imbalance
François Horlin and Stefaan De Rore, IMEC, Belgium, Eduardo Lopez-Estraviz, Frederik Naessens and Liesbet Van der Perre, IMEC, Belgium
WC26.3 Frequency Domain Near-ML Multiuser Receiver for MC-CDMA Systems
Zexian Li, Markku J. Juntti and Matti Latva-aho, University of Oulu, Finland
WC26.4 SFBC with Pre-Filtering Technique for DL TDD MC-CDMA Systems in High Data Rate Context
Adão Silva and Atílio Gameiro, University of Aveiro, Portugal
WC26.5 Analysis of Multirate MC-CDMA over Multipath Channels with Delay Spread Exceeding the Guard Interval
Esa Kunnari and Jari Iinatti, University of Oulu, Finland

WC27 Satellite Networks

Wednesday, 30 November 2005 • 2:00–3:45PM
Room: Complex 225/Level Two/America's Center
Session Chair: **Nei Kato**, Tohoku University, Japan

WC27.1 A Multiple Subset Sum Formulation for Feedback Implosion Suppression over Satellite Networks
Gun Akkor, John S. Baras and Michael Hadjitheodosiou, University of Maryland, USA
WC27.2 Call Admission Control with Statistical Multiplexing for Aggregate MPEG Traffic in a DVB-RCS Satellite Network
Floriano De Rango, Mauro Tropea, Peppino Fazio and Salvatore Marano, University of Calabria, Italy
WC27.3 Rate Control Optimization for Bandwidth Provision over Satellite Independent Service Access Points
Mario Marchese and Maurizio Mongelli, University of Genoa Italy
WC27.4 On the Optimal Number of Hops in Infrastructure-based Fixed Relay Networks
Mario Marchese and Maurizio Mongelli, University of Genoa Italy
WC27.5 Analysis of the TCP Round Trip Time over Asymmetric DVB-RCS Systems
Igor Bisio and Mario Marchese, University of Genoa Italy

WC28 Sensor Networks III

Wednesday, 30 November 2005 • 4:00–5:45PM
Room: Landmark 2/Level One/Renaissance Grand Hotel
Session Chair: **Takaya Yamazato**, Nagoya University, Japan

WC28.1 Clustering-based Correlation Aware Data Aggregation for Distributed Sensor Networks
Ramanan Subramanian, Hossein Pishro-Nik and Faramarz Fekri, Georgia Institute of Technology, USA
WC28.2 Utilization-based Duty Cycle Tuning MAC Protocol for Wireless Sensor Networks
Shih-Hsien Yang, and Hung-Wei Tseng, National Taiwan University, Taiwan, Eric Hsiao-Kuang Wu, National Central University, Taiwan, Gen-Huey Chen, National Taiwan University, Taiwan
WC28.3 Single-Beam Flow Routing for Wireless Sensor Networks
Y. Thomas Hou, Virginia Tech, USA, Yi Shi, Virginia Tech, USA
Jianping Pan, University of Victoria, Canada, Scott F. Midkiff, Virginia Tech, USA, Kazem Sohraby, University of Arkansas, USA
WC28.4 A Theoretical Analysis of Cooperative Diversity in Wireless Sensor Networks
Naveen Shastry, Jayesh Bhatia and Raviraj S. Adve, University of Toronto, Canada
WC28.5 Optimal Traffic Distribution in Minimum Energy Wireless Sensor Networks
Jing Wang and Ivan Howitt, University of North Carolina at Charlotte, USA

WC29 Wireless LAN III

Wednesday, 30 November 2005 • 4:00–5:45PM
Room: Landmark 3/Level One/Renaissance Grand Hotel
Session Chair: **Roberto Rojas-Cessa**, New Jersey Institute of Technology, USA

WC29.1 Multi-channel Wireless LAN Mesh Architecture with DCF-based Inter-AP Communication and Idle Channel Search Packet Forwarding
L. Loyola, T. Kumagai, K. Nagata, S. Otsuki and S. Aikawa, NTT Corporation
WC29.2 Energy-Aware Resource Allocation in WLAN Mobile Devices
Junsung Kim, LG Electronics, Korea
Minsu Shin, Sachin Lal Shrestha and Song Chong, KAIST, Korea
WC29.3 A MAC-Layer Differentiated Service Model in IEEE 802.11e WLANs
Jeng Farn Lee and Wanjiun Liao, National Taiwan University, Taiwan
Meng Chang Chen Academia Sinica, Taiwan
WC29.4 Detection of Malicious Parameter Configurations in 802.11e EDCA
Pablo Serrano, Albert Banchs and José Félix Kukielka, Universidad Carlos III de Madrid, Spain
WC29.5 Dynamic Priority Assignment in IEEE 802.11e Ad hoc Networks
Antonio Iera, Antonella Molinaro,Giuseppe Ruggeri and Domenico Tripodi, Università "Mediterranea" di Reggio Calabria, Italy

WC30 Space-Time Coding III

Wednesday, 30 November 2005 • 4:00–5:45PM
Room: Landmark 4/Level One/Renaissance Grand Hotel
Session Chair: **Wai Ho Mow**, Hong Kong University of Science and Techn., Hong Kong

WC30.1 Capacity-Approaching Semi-Orthogonal Space–Time Block Codes
Dũng Ngọc Đào, Chintha Tellambura, University of Alberta, Canada
WC30.2 A GRASP for Unitary Space–Time Codes
Adam Panago and Kurt Kosbar, University of Missouri–Rolla, USA

WC30.3 Adaptive Receive Antenna Selection for Orthogonal Space–Time Block Codes with Channel Estimation Errors
Kai Zhang and Zhisheng Niu, Tsinghua University, China
WC30.4 Alamouti Scheme with Joint Antenna Selection and Power Allocation over Rayleigh Fading Channels in Wireless Networks
Jia Tang and Xi Zhang and Qinghe Du, Texas A&M University, USA
WC30.5 On Distributed Space–Time Filtering
Simon Yiu and Robert Schober, University of British Columbia, Canada

WC31 Ad Hoc and Wireless Networks III

Wednesday, 30 November 2005 • 4:00–5:45PM
Room: Landmark 5/Level One/Renaissance Grand Hotel
Session Chair: **Sonia Aissa**, Universite du Quebec, Canada

WC31.1 An Integrated QoS Control Architecture for IEEE 802.16 Broadband Wireless Access Systems
Jianfeng Chen, Wenhua Jiao and Qian Guo, Lucent Technologies, Bell Labs Research, China
WC31.2 Delay-Constrained Energy-Efficient Wireless Packet Scheduling with QoS Guarantees
Xiliang Zhong and Cheng-Zhong Xu, Wayne State University, USA
WC31.3 Service-based Rate Adaptation Architecture for IEEE 802.11e QoS Networks
Jong-Ok Kim, Hideki Tode and Koso Murakami, Osaka University, Japan
WC31.4 Route Robustness of a Multi-Meshed Tree Routing Scheme for Internet MANETs
Nirmala Shenoy, Yin Pan, Darren Narayan, David Ross and Carl Lutzer, Rochester Institute of Technology, USA
WC31.5 A MAC Layer Traffic-Priority Management Technique in CDMA-based Ad hoc Networks
Romano Fantacci and Daniele Tarchi, University of Florence, Italy

WC32 CDMA II

Wednesday, 30 November 2005 • 4:00–5:45PM
Room: Pershing/Lindall/Level One/Renaissance Grand Hotel
Session Chair: **Huaiyu Dai**, North Carolina State University, USA

WC32.1 A Frequency Domain Approach to Design Constrained Amplitude Spreading Sequences for DS-CDMA Systems for Frequency Selective Fading Channels
B. J. Peiris, K. R. Narayanan and S. L. Miller, Texas A&M University, USA
WC32.2 Impact and Compensation of Sample Clock offset on up-Link SC-CDMA Systems
Stefaan De Rore, François Horlin and Liesbet Van der Perre, IMEC, Belgium
WC32.3 Blind Adaptive and Iterative Algorithms for Decision Feedback DS-CDMA Receivers in Dispersive Channels
Rodrigo C. de Lamare and Raimundo Sampaio-Neto, CETUC/PUC-RIO, Brazil
WC32.4 On the Reverse Link Performance of the cdma2000 1xEV-DO Revision—A System with Antenna Array Receivers
Yeliz Tokgoz, Mingxi Fan and John E. Smee, Qualcomm Incorporated, USA
WC32.5 Orthogonality Factor in WCDMA Downlinks in Urban Macrocelluar Environments
Neelesh B. Mehta and Andreas F. Molisch, Mitsubishi Electric Research Labs, USA, Larry J. Greenstein, Rutgers University, USA

WC33 Wireless Network Services

Wednesday, 30 November 2005 • 4:00–5:45PM
Room: Complex 225/Level Two/America's Center
Session Chairs: **Victor Rangel Licea**, National Autonomous University of Mexico, Mexico and **Xi Zhang**, Texas A&M University, USA

WC33.1 Analytically Modeling Pipeline Paging for Wireless Systems
Yang Xiao and Hui Chen, University of Memphis, USA, Mohsen Guizani, Western Michigan University, USA
WC33.2 A Technique to Support Dynamic Pricing Strategy for Differentiated Cellular Mobile Services
Swarup Mandal, XLRI School of Management, India, Debashis Saha and Ambuj Mahanti, Indian Institute of Management Calcutta, India
WC33.3 On Regional Performance Improvement of an Adaptive Wireless Push System in Environments with Locality of Demand
P. Nicopolitidis and G. I. Papadimitriou, Aristotle University, Greece
M. S. Obaidat, Monmouth University, USA, A. S. Pomportsis, Aristotle University, Greece
WC33.4 Partially Coherent BPSK Diversity Receivers in Cochannel Interference
Mahmoud A. Smadi, The Hashemite University, Jordan, Vasant K. Prabhu, The University of Texas at Arlington, USA

WC34 Wireless Communications Session II

Thursday, 1 December 2005 • 9:00AM–12:00PM
Room: Majestic C/Level Two/Renaissance Grand Hotel
Session Chair: N/A

WC34.01 Secure and Seamless Mobility Support in Heterogeneous Wireless Networks
Kaouthar Sethom, Institut National de Telecommunications, France, Hossam Afifi, Institut National de Telecommunications, France, Guy Pujolle, University of Paris6, France
WC34.02 An Enhanced High-Rate WPAN MAC for Mesh Networks with Dynamic Bandwidth Management
Xi Chen, Jianhua Lu and Zucheng Zhou, Tsinghua University, China
WC34.03 A Flexible Lognormal Sum Approximation Method
Jingxian Wu, Sonoma State University, USA, Neelesh B. Mehta and Jin Zhang, Mitsubishi Electric Research Labs, USA
WC34.04 Indoor Channel Characterization of Diversity-based Nomadic Wireless Systems
Claude Oestges, Bruno Clerck, Laurent Bollen and Danielle Vanhoenacker-Janvier, Université catholique de Louvain, Belgium
WC34.05 Delay Performance of Different MAC Schemes for Multihop Wireless Networks
Min Xie and Martin Haenggi, University of Notre Dame, USA
WC34.06 Analysis of Throughput and Energy Efficiency of p-persistent CSMA with Imperfect Carrier Sensing
Iyappan Ramachandran and Sumit Roy, University of Washington, USA
WC34.07 Transmit Beamforming for a Large Reconfigurable Antenna Array
Li Liu and Hamid Jafarkhani, University of California, Irvine, USA
WC34.08 Transmission Power Control for 802.11: A Carrier-Sense based NAV Extension Approach
Jayanthi Rao and Subir Biswas, Michigan State University, USA
WC34.09 Solving Nonconvex Power Control Problems in Wireless Networks: Low SIR Regime and Distributed Algorithms
Chee Wei Tan, Daniel P. Palomar and Mung Chiang, Princeton University. USA
WC34.10 Effect of Parity Check Bits in Turbo Coded Multi-route Multi-hop Networks
Tadahiro Wada, Shizuoka University, Japan, Abbas Jamalipour, The University of Sydney, Australia, Hiraku Okada, Nagoya University, Japan
Kouji Ohuchi, Shizuoka University, Japan, Masato Saito, Nara Institute of Science and Technology, Japan

WC34.11 Transmitted Energy as a Basic System Resource
Aarne Mämmelä and Ilkka Saarinen, VTT Electronics, Finland, Desmond P. Taylor, University of Canterbury, New Zealand
WC34.12 Truthful Routing for Wireless Hybrid Networks
Yu Wang, University of North Carolina at Charlotte, USA,Weizhao Wang, Illinois Institute of Technology, USA,Teresa A. Dahlberg, University of North Carolina at Charlotte, USA
WC34.13 Joint Rate and Power Control with Pricing
Madhusudhan R. Musku, Anthony T. Chronopoulos and Dimitrie C. Popescu, The University of Texas at San Antonio, USA
WC34.14 Analysis of Throughput Gains from Relays in Cellular Networks
Sayandev Mukherjee and Harish Viswanathan, Lucent Technologies–Bell Laboratories, USA
WC34.15 Localization in Wireless Sensor Networks under Non- Line-of-Sight Propagation
Seshan Srirangarajan and Ahmed H. Tewfik, University of Minnesota, USA
WC34.16 The Optimality of Beamforming: A Unified View
Sudhir Srinivasa and Syed Ali Jafar, University of California–Irvine, USA
WC34.17 Space–Time Block Coded OFDM with Adaptive Modulation and Transmitter Beamforming
Kevin H. Lin, Seedahmed S. Mahmoud and Zahir M. Hussain, RMIT University, Australia
WC34.18 Comparison of Modulation Schemes and Rake Receiver Structures for UWB Systems on an IEEE 802.15.3 Indoor Channel
Bo Hu and Norman C. Beaulieu, University of Alberta, Canada
WC34.19 Optimal Power Control for Discrete-Rate Link Adaptation Schemes with Capacity-Approaching Coding
Henrik Holm, University of Minnesota, USA
WC34.20 Optimal MMSE Finite Parameter Model for Doubly-Selective Channels
Kok Ann Donny Teo and Shuichi Ohno, Hiroshima University, Japan
WC34.21 Utility-based Optimal Resource Allocation in Wireless Networks
Wen-Hsing Kuo and Wanjiun Liao, National Taiwan University, Taiwan
WC34.22 Semi-Blind Pilot-Layer Aided Channel Estimation with Emphasis on Interleave-Division Multiple Access Systems
Hendrik Schoeneich and Peter Adam Hoeher, University of Kiel, Germany
WC34.23 Performance of a New Device Discovery and Link Establishment Protocol for Bluetooth
Sándor Zsolt Kardos and Attila Vidács, Budapest University of Technology and Economics, Hungary
WC34.24 Techniques to Improve Scheduling Performance in IEEE 802.15.3 -based Ad hoc Networks
Attila Török and Lóránt Vajda, Bay Zoltán Foundation for Applied Research, Hungary, Attila Vidács and Rolland Vida, Budapest University of Technology and Economics, Hungary
WC34.25 Dynamic Common Pilot Power Management in a Real Hot Spot Environment.
F. Adelantado and F. Casadevall, Universitat Politècnica de Catalunya, Spain
WC34.26 Investigation into Packet Delivery Options for WLAN Access Points Implementing Unscheduled Power Save Delivery
Ye Chen and Steve Emeott, Motorola Labs, USA
WC34.27 Distributed Power Control for Optimizing a Weighted Sum of Link-Layer QoS Levels
Slawomir Stanczak, Fraunhofer German-Sino Lab for Mobile Communications, Germany, Marcin Wiczanowski and Holger Boche, Technical University of Berlin, Germany
WC34.28 A Simple Beamforming-SIMO Merger in Spatially Correlated Channel via Virtual Channel Representation
Hui Tong and Seyed A. Zekavat, Michigan Tech. University, USA
WC34.29 Locally Optimal Relay Node Placement in Heterogeneous Wireless Sensor Networks
Quanhong Wang and Kenan Xu, Glen Takahara and Hossam Hassanein, Queen's University, Canada

WC35 Wireless Internet I

Thursday, 1 December 2005 • 10:30AM–12:15PM
Room: Landmark 2/Level One/Renaissance Grand Hotel
Session Chair: **Seshadri Mohan**, University of Arkansas at Little Rock, USA

WC35.1 Distributed Virtual Network Interfaces to Support Intra-PAN and PAN-to-Infrastructure Connectivity
Kaouthar Sethom, Mehdi Sabeur, Badii Jouaber, Hossam Afifi and Djamal Zeghlache, Institut National des Télécommunications, France
WC35.2 Support of Path Changes with Resource Reservations for Mobile Hosts in IP-based Access Networks
Liesbeth Peters, Ingrid Moerman, Bart Dhoedt and Piet Demeester, Ghent University - IBBT - IMEC, Belgium
WC35.3 RAMP: Reconfigurable Architecture and Mobility Platform
Jyh-Cheng Chen, Jui-Hung Yeh, Yi-Wen Lan, Li-Wei Lin, Fu-Cheng Chen, Shao-Hsiu Hung, National Tsing Hua University, Taiwan
WC35.4 Efficient Scheduling Schemes for Real-Time Traffic in Wireless Networks
Emily Lee and David Taubman, The University of New South Wales, Australia
WC35.5 TCP-Jersey over High Speed Downlink Packet Access
Shupeng Li, Lucent Technologies, USA, Nirwan Ansari, New Jersey Institute of Technologies, USA

WC36 Interference Cancellation

Thursday, 1 December 2005 • 10:30AM–12:15PM
Room: Landmark 3/Level One/Renaissance Grand Hotel
Session Chair: **Raviraj Adve**, University of Toronto, Canada

WC36.1 Iterative Frequency-Domain Equalizers for Adjacent Channel Interference Suppression
Rui Dinis, Tech. Univeristy of Lisbon, Portugal
David Falconer and Benjamin Ng, Carleton University, Canada
WC36.2 Interference Analysis of Filtered Multitone Modulation over Time-varying Fading Channels
Tiejun Wang, John G. Proakis and James R. Zeidler, University of California, San Diego, USA
WC36.3 BER-Optimized Linear Parallel Interference Cancellers for Multicarrier DS-CDMA Systems
S. Manohar and V. Tikiya, Indian Institute of Science, India, R. Annavajjala, University of California, San Diego, USA, A. Chockalingam, Indian Institute of Science, India
WC36.4 A Robust High-Throughput Tree Algorithm Using Successive Interference Cancellation
Xin Wang, Yingqun Yu, and Georgios B. Giannakis, University of Minnesota, USA

WC37 Recent Advances I

Thursday, 1 December 2005 • 10:30AM–12:15PM
Room: Landmark 4/Level One/Renaissance Grand Hotel
Session Chair: **Vincent Lau**, Hong Kong University of Science and Technology, Hong Kong

WC37.1 High-Rate Codes over Space, Time, and Frequency
Jinsong Wu and Steven D. Blostein, Queen's University, Canada
WC37.2 Rate Control using Antenna Selection for Closed-Loop Spatial Multiplexing
Youngwook Ko and Cihan Tepedelenlioglu, Arizona State University, USA
WC37.3 GSECps: A Diversity Technique with Improved Performance-Complexity Tradeoff
Le Yang and Hong-Chuan Yang, University of Victoria, Canada
WC37.4 A New SDM Transmit Scheme Using HARQ with MRC
Jun Konishi and Takahiko Saba, Chiba Institute of Technology, Japan

WC38 Ad Hoc and Wireless Networks IV

Thursday, 1 December 2005 • 10:30AM–12:15PM
Room: Landmark 5/Level One/Renaissance Grand Hotel
Session Chair: **Kui Wu**, University of Victoria, Canada

WC38.1 Energy-based Transmission Strategy Selection for Wireless Sensor Networks
Yanbing Zhang and Huaiyu Dai, NC State University, USA
WC38.2 Energy Efficiency Evaluation of Wireless LAN over Bursty Error Channel
Jun Yin, Xiaodong Wang and Dharma P. Agrawal University of Cincinnati, USA
WC38.3 MDA: An Efficient Directional MAC Scheme for Wireless Ad hoc Networks
Hrishikesh Gossain, Carlos Cordeiro and Dharma P. Agrawal, University of Cincinnati, USA
WC38.4 Dual Power Assignment for Network Connectivity in Wireless Sensor Networks
Jian-Jia Chen, Hsueh-I Lu, Tei-Wei Kuo, Chuan-Yue Yang and Ai-Chun Pang, National Taiwan University, Taiwan
WC38.5 Asynchronous Busy-Tone Multiple Access with Acknowledgement (ABTMA/ACK) for Ad hoc Wireless Networks
Baowei Ji, Samsung Telecom America, USA

WC39 UWB I

Thursday, 1 December 2005 • 10:30AM–12:15PM
Room: Complex 225/Level Two/America's Center
Session Chair: **Robert Caiming Qiu**, Tennessee Technological University, USA

WC39.1 A Comprehensive Model for Ultrawideband Propagation Channels
Andreas F. Molisch, Kannan Balakrishnan, Dajana Cassioli, Chia-Chin Chong, Shahriar Emami, Andrew Fort, Johan Karedal, Juergen Kunisch, Hans Schantz, Kazimierz Siwiak
WC39.2 Frequency Domain Channel Estimation for SC-FDE in UWB Communications
Yue Wang and Xiaodai Dong, University of Victoria, Canada
WC39.3 A TDMA Scheme for SC-FDE UWB Communications
Yue Wang and Xiaodai Dong, University of Victoria, Canada
WC39.4 Performance and Capacity of Ultra-Wideband Transmission with Pulse Position Amplitude Modulation over Multipath Fading Channels
Wei Li, University of Victoria, Canada, T. Aaron Gulliver, University of Victoria, Canada, Hao Zhang, University of Victoria, Canada
WC39.5 Differential TDMA Impulse Radio Systems Using Delay-Sum Scheme in UWB Channel
Qi Zhang and Chun Sum Ng, National University of Singapore, Singapore

WC40 Wireless Internet II

Thursday, 1 December 2005 • 2:00–3:45PM
Room: Landmark 2/Level One/Renaissance Grand Hotel
Session Chair: **Mohammed Atiquzzaman**, University of Oklahoma, USA

WC40.1 Applying Speculative Technique to Improve TCP Throughput over Lossy Links
Haowei Bai, Honeywell Labs, USA, David Lilja, University of Minnesota, USA, Mohammed Atiquzzaman, University of Oklahoma, USA
WC40.2 Support of Multimedia SIP Applications in Mobile Ad hoc Networks: Service Discovery and Networking Architecture
Li Li and Louise Lamont, Communications Research Centre Canada, Canada
WC40.3 A Playback-Adaptive Approach for Video Streaming over Wireless Networks
Mohamed Hassan and Marwan Krunz, University of Arizona, USA
WC40.4 STODER: A Robust and Efficient Algorithm for Handling Spurious Retransmit Timeouts in TCP
Kun Tan, Qian Zhang and Wenwu Zhu, Microsoft Research Asia, PR China
WC40.5 QoS Multicasting over Mobile Networks
Ai-Chun Pang and Shun-Mao Wang, National Taiwan University, Taiwan
Shiao-Li Tsao, National Chiao Tung University, Taiwan

WC41 Queuing and Scheduling

Thursday, 1 December 2005 • 2:00–3:45PM
Room: Landmark 3/Level One/Renaissance Grand Hotel
Session Chair: **Wei (Wayne) Li**, University of Toledo, USA

WC41.1 Queue-Aware Uplink Bandwidth Allocation for Polling Services in 802.16 Broadband Wireless Networks
Dusit Niyato and Ekram Hossain, University of Manitoba, Canada
WC41.2 Queuing Analysis of Go-Back-N ARQ Protocol in Multi-rate Wireless Networks with Feedback Delay
Long B. Le and Ekram Hossain, University of Manitoba, Canada
WC41.3 Queuing Analysis of OFDM/TDMA Systems
Dusit Niyato and Ekram Hossain, University of Manitoba, Canada
WC41.4 Queuing and Delivery Analysis of SR ARQ on Markov Channels with Non-instantaneous Feedback
Leonardo Badia, Michele Rossi and Michele Zorzi, University of Ferrara, Italy
WC41.5 Scheduling for Proportional Differentiated Service Provision in Geostationary Bandwidth on Demand Satellite Networks
Wei Koong Chai, University of Surrey, UK, Merkourios Karaliopoulos, Teletel S.A., Greece, George Pavlou, University of Surrey, UK

WC42 Recent Advances II

Thursday, 1 December 2005 • 2:00–3:45PM
Room: Landmark 4/Level One/Renaissance Grand Hotel
Session Chair: **Waslon Terllizzie A. Lopes**, Faculdade AREA1, Brazil

WC42.1 Multiuser Diversity with Quantized Feedback
Yahya Al-Harthi, Ahmed Tewfik and Mohamed-Slim Alouini, University of Minnesota, USA
WC42.2 Blind Adaptive Multiuser Detection
Shu Wang, Sang G. Kim, Li-Hsiang Sun, Hobin Kim, Suk W. Lee, S. R. Subramanya, Ki Y. Kim and Byung K. Yi, LGE Mobile Research, USA
WC42.3 Non-Coherent Distributed Space–Time Processing for Multiuser Cooperative Transmissions
Tairan Wang, University of Minnesota, USA, Yingwei Yao, University of Illinois at Chicago, USA, Georgios B. Giannakis, University of Minnesota, USA
WC42.4 Common Detectors for Shaped Offset QPSK (SOQPSK) and Feher-patented QPSK (FQPSK)
Tom Nelson, Brigham Young University, USA, Erik Perrins, University of Kansas, USA, Michael Rice, Brigham Young University, USA
WC42.5 Optimum Receivers for Pilot Symbol Assisted Modulation in Rician Fading
Yunfei Chen and Norman C. Beaulieu, University of Alberta, Canada

WC43 Performance Analysis

Thursday, 1 December 2005 • 2:00–3:45PM
Room: Landmark 5/Level One/Renaissance Grand Hotel
Session Chair: **Seyed Alireza Zekavat**, Michigan Technological University, USA

WC43.1 An Analytical Solution for the BER of an Individually Optimal Single Cochannel Interferer BPSK Receiver
Amir Masoud Rabiei and Norman C. Beaulieu, University of Alberta, Canada

WC43.2 Matched Filter Bound of Wireless Systems over Frequency Selective Channels with Receiver Timing Phase Offset
Jingxian Wu, Sonoma State University, USA, Yahong R. Zheng, University of Missouri, Rolla, USA, Khaled B. Letaief, Hong Kong University of Science & Technology, China, Chengshan Xiao, University of Missouri, Columbia, USA
WC43.3 BER Performance Analysis of Multistage PIC Scheme in Asynchronous DS-CDMA System over Unbalanced Multipath Fading Channels
Pei Xiao, University of Newcastle, UK, Erik Ström, Chalmers University of Tech., Sweden, Rolando Carrasco, University of Newcastle, UK
WC43.4 Performance of 2IMO Differentially Transmit-Diversity Block Coded OFDM Systems in Doubly Selective Channels
Ping-Hung Chiang National Taiwan University, Taiwan, Ding-Bing Lin,, National Taipei University of Technology, Taiwan, Hsueh-Jyh Li, National Taiwan University, Taiwan
WC43.5 Minimum BER Transmit Optimization for Two-Input Multiple-Output Spatial Multiplexing
Neng Wang and Steven D. Blostein, Queen's University, Canada

WC44 UWB II

Thursday, 1 December 2005 • 2:00–3:45PM
Room: Pershing/Lindall/Level One/Renaissance Grand Hotel
Session Chair: **Xiaodai Dong**, University of Victoria, Canada

WC44.1 Narrowband Interference Avoidance in Ultra Wideband Communication Systems
Prasad Yaddanapudi and Dimitrie C. Popescu, University of Texas at San Antonio, USA
WC44.2 Prerake Diversity Combining for Pulsed UWB Systems Considering Realistic Channels with Pulse Overlapping and Narrow-Band Interference
Shiwei Zhao and Huaping Liu, Oregon State University, USA
WC44.3 Multiband Differential Modulation for UWB Communication Systems
Thanongsak Himsoon, University of Maryland, USA, Weifeng Su, State University of New York at Buffalo, USA, K. J. Ray Liu, University of Maryland, USA
WC44.4 Influence of the Amplitude Distribution to the Interference of UWB Signals on Radio Receivers
Michael Schmidt, Holger Jäkel and Friedrich Jondral, Universität Karlsruhe, Germany
WC44.5 Frequency Domain Detection Strategies for Short-Range Ultra-Wideband Communication Systems
Tiziano Bianchi and Simone Morosi, Università di Firenze, Italy

WC45 Wireless Internet III

Thursday, 1 December 2005 • 4:00–5:45PM
Room: Landmark 2/Level One/Renaissance Grand Hotel
Session Chair: **Xi Zhang**, Texas A&M University, USA

WC45.1 Service Differentiation in Wireless LANs Based on Capture
Alfandika Nyandoro, University of New South Wales, Australia
Lavy Libman, National ICT Australia; Australia
Mahbub Hassan, University of New South Wales, Australia; National ICT Australia; Australia
WC45.2 Handover Latency Comparison of SIGMA, FMIPv6, HMIPv6, and FHMIPv6
Shaojian Fu and Mohammed Atiquzzaman, University of Oklahoma, USA
WC45.3 Access Router Information Protocol with FMIPv6 for Efficient Handovers and Their Implementations
Dong-Hee Kwon,Yong-Sung Kim, Kyung-Jin Bae and Young-Joo Suh, Pohang University of Science and Technology, Korea
WC45.4 IPv6 Network Mobility for Flat Ad hoc Routing Protocol
Teck Meng Lim, Bu Sung Lee and Chai Kiat Yeo, Nanyang Technological University, Singapore
WC45.5 QoS-Guaranteed Downlink Transmission Optimization for Multi-Service Distributed Antenna System
Peng Chen and Wei-ling Wu, Beijing University of Posts and Telecommunications, China

WC46 Resource Management and Allocation

Thursday, 1 December 2005 • 4:00–5:45PM
Room: Landmark 3/Level One/Renaissance Grand Hotel
Session Chair: **Michael Hadjitheodosiou**, University of Maryland, USA

WC46.1 A New AMC Scheme for QoS Provisioning in CDMA2000 1xEV-DV Networks
Song Ci, University of Massachusetts, Boston, USA, Mohsen Guizani and Ghassen Ben Brahim, Western Michigan University, USA
WC46.2 Capacity Optimizing Channel Allocation Scheme Supporting Multiple Services with Mobile Users in Cellular System
Ming Yang and Peter H. J. Chong, Nanyang Technological University, Singapore
WC46.3 Satisfaction Oriented Resource Management in Integrated Internet and DVB-T Network Providing High Mobility Broadband Access Services
Guowang Miao and Zhisheng Niu Tsinghua University, PR China
WC46.4 Adaptive Multiuser Radio Resource Allocation for OFDMA Systems
Xing Zhang, En Zhou, Renshui Zhu, Shiming Liu and Wenbo Wang, Beijing University of Posts and Telecommunications, China
WC46.5 Joint Radio Resource Management Algorithm for Multi-RAT Networks
L. Giupponi, R. Agustí, J. Pérez-Romero and O. Sallent, Universitat Politècnica de Catalunya, Spain

WC47 Recent Advances III

Thursday, 1 December 2005 • 4:00–5:45PM
Room: Landmark 4/Level One/Renaissance Grand Hotel
Session Chairs: **Krishnamurthy Giridhar**, Indian Institute of Technology, India, and **Ru H. Wang**, Lamar University, USA

WC47.1 Rate-Compatible Punctured Low-Density Parity-Check Codes for Ultra Wide Band Systems
Demijan Klinc, Technische Universität München, Germany, Jeongseok Ha, Information and Communications University, Korea, Jaehong Kim, Georgia Institute of Technology, USA, Steven W. McLaughlin, Georgia Institute of Technology, USA
WC47.2 Proposal of a New Punctured Turbo Coding Scheme for TH-UWB Communications
Francesco Chiti, Romano Fantacci, Dania Marabissi and Luciano Innocenti, Università degli Studi di Firenze, Italy
WC47.3 Coded Layered Space–Time Transmission with Signal Space Diversity in OFDM Systems
Jihoon Kim and Inkyu Lee, Korea University, Korea
WC47.4 MMSE-based Turbo Equalization for Chip Space–Time Block Coded Downlink CDMA
K. C. B. Wavegedara and Vijay K. Bhargava, University of British Columbia, Canada
WC47.5 A Power Loading Scheme for Space–Time Trellis Codes Based on Channel Magnitude Feedback
Siavash Ekbatani, Li Liu and Hamid Jafarkhani, University of California, Irvine, USA

WC48 Performance Analysis II

Thursday, 1 December 2005 • 4:00–5:45PM
Room: Landmark 5/Level One/Renaissance Grand Hotel
Session Chair: **Huaping Liu**, Oregon State University, USA

WC48.1 Asymptotic Performance Analysis of V-BLAST
Yi Jiang, University of Colorado, USA
Xiayu Zheng and Jian Li, University of Florida, USA

WC48.2 Performance Analysis and Code Design for Differential Antenna Selection Systems
Qian Ma and Cihan Tepedelenlioglu, Arizona State University, USA

WC48.3 On the Performance of Linear Equalizers for Block Transmission Systems
Cihan Tepedelenlioglu and Qian Ma, Arizona State University, USA

WC48.4 Performance Analysis of Multicarrier DS-CDMA with Imperfect Power Control and Variable Spreading Factors
Li-Chun Wang and Chih-Wen Chang, National Chiao Tung University, Taiwan

WC48.5 Performance Analysis of IEEE 802.11 for Multi-hop Infrastructure Networks
Anindo Mukherjee, Wei Li and Dharma P. Agrawal, University of Cincinnati, USA

WC49 MIMO-OFDM

Thursday, 1 December 2005 • 4:00–5:45PM
Room: Pershing/Lindall/Level One/Renaissance Grand Hotel
Session Chair: **Shengli Zhou**, University of Connecticut, USA

WC49.1 Obtaining Channel Knowledge for Closed-Loop Multi-Stream Broadband MIMO-OFDM Communication Using Direct Channel Feedback
Timothy A. Thomas, Kevin L. Baum and Philippe Sartori, Motorola Labs, USA

WC49.2 Recursive and Trellis-based Feedback Reduction for MIMO-OFDM with Transmit Beamforming
Shengli Zhou, Baosheng Li and Peter Willett, University of Connecticut, USA

WC49.3 Robust V-BLAST MIMO-OFDM Channel Estimators in Time-Varying Channels Using Iterative Wiener Filters
JoonBeom Kim, Gordon L. Stüber and Ye Li, Georgia Institute of Technology, USA

WC49.4 Adaptive Resource Allocation for Multiuser MIMO/OFDM Networks Based on Partial Channel State Information
Ralph Chemaly and Khaled B. Letaief, The Hong Kong University of Science and Technology, Hong Kong, Djamal Zeghlache, Institut National des Télécommunications, France

WC49.5 Joint Time-Frequency Beamforming for MIMO-OFDM Systems
Shaohua Li and Defeng Huang Tsinghua University, PR China, K. B. Letaief, The Hong Kong University of Science and Technology, Hong Kong, Zucheng Zhou, Tsinghua University, PR China