IEEE GLOBECOM 2009 Symposiums Program

Tuesday, 1 December 2009
10:15 - 12:15
Location: Honolulu Suite #1
AHSN-01: Routing Protocols in WSNs
Chair: Satyajayant Misra (New Mexico State University, USA)

Joint Base Station Placement and Fault-Tolerant Routing in Wireless Sensor Networks
Dejun Yang (Arizona State University, USA)
Satyajayant Misra (New Mexico State University, USA)
Guoliang Xue (Arizona State University, USA)

Realization of Greedy Anti-Void Routing Protocol for Wireless Sensor Networks
Wen-Jiunn Liu, Kai-Ten Feng (National Chiao Tung University, Taiwan)

Dynamic Election-Based Sensing and Routing in Wireless Sensor Networks
Sharief Oteafy (Queen's University, Canada)
Hosam Aboelfotoh (Kuwait University, Kuwait)
Hossam Hassanein (Queen's University, Canada)

REER: Robust and Energy Efficient Multipath Routing Protocol for Wireless Sensor Networks
Bashir Yahya, Jalel Ben-Othman (University of Versailles, France)

ROME: Routing Over Mobile Elements in WSNs
Stefano Basagni (Northeastern University, USA)
Michele Nati, Chiara Petrioli, Roberto Petroccia (University of Rome "La Sapienza", Italy)

Implementation of Gradient Routing in Wireless Sensor Networks
Thomas Watteyne, Kristofer Pister (University of California Berkeley, USA)
Dominique Barthel (Orange Labs, France)
Mischa Dohler (Centro Tecnológico Telecomunicaciones Cataluña, Spain)
Isabelle Augé-Blum (INRIA, France)

Tuesday, 1 December 2009
10:15 - 12:15
Location: Honolulu Suite #2
AHSN-02: Mobility in Sensor Networks
Chair: Boleslaw Szymanski (Rensselaer Polytechnic Institute, USA)

Multiple-Symbol Differential Decision Fusion for Mobile Wireless Sensor Networks
Andre Lei, Robert Schober (University of British Columbia, Canada)

Networked Ultrasonic Sensors for Target Tracking: An Experimental Study
Hongbin Li, Di Miao, Jiming Chen, Youxian Sun (Zhejiang University, China)
Xuemin (Sherman) Shen (University of Waterloo, Canada)

Packet Transmission Scheduling Algorithm for Dense Wireless Sensor Networks with Mobile Sink
Ali Sharifkhani, Norman Beaulieu (University of Alberta, Canada)

Spatial Correlation and Mobility Aware Traffic Modeling for Wireless Sensor Networks
Pu Wang, Ian Akyildiz (Georgia Institute of Technology, USA)

A Motion Tendency-based Adaptive Data Delivery Scheme for Delay Tolerant Mobile Sensor Networks
Fulong Xu, Ming Liu (University of Electronic Science and Technology of China, China)
Jiannong Cao (Hong Kong Polytechnic University, Hong Kong)
Guihai Chen (Nanjing University, China)
Haigang Gong, Jinqi Zhu (University of Electronic Science and Technology of China, China)

Distributed Target Tracking with Directional Binary Sensor Networks
Zijian Wang, Eyuphan Bulut, Boleslaw K. Szymanski (Rensselaer Polytechnic Institute, USA)

Tuesday, 1 December 2009
10:15 - 12:15
Location: Honolulu Suite #3
AHSN-03: Cross-Layer Protocols in WSNs
Chair: Mohamed Ibnkahla (Queen's University, Canada)

A Cross-Layer Mechanism for Solving Hidden Device Problem in IEEE 802.15.4 Wireless Sensor Networks
Hsueh-Wen Tseng, Shan-Chi Yang, Ping-Cheng Yeh, Ai-Chun Pang (National Taiwan University, Taiwan)

Joint Rate Control and Routing for Energy-constrained Wireless Sensor Networks with Real-time Requirement
Meng Zheng, Wei Liang, Xiaoling Zhang, Hai-bin Yu, Peng Zeng (Chinese Academy of Sciences, China)

A Joint Design of Opportunistic Forwarding and Energy-Efficient MAC Protocol in Wireless Sensor Networks
Haiming Chen (Chinese Academy of Sciences, China)
Li Cui (Institute of Computing Technology, China)
Victor O. K. Li (University of Hong Kong, China)

Joint Coding/Routing Optimization for Correlated Sources in Wireless Visual Sensor Networks
Chenglin Li, Junni Zou, Hongkai Xiong, Yongsheng Zhang (Shanghai Jiao Tong University, China)

Performance Modeling of Cognitive Wireless Sensor Networks Applied to Environmental Protection
Elyes Bdira, Mohamed Ibnkahla (Queen's University, Canada)

QUATTRO: QoS-Capable Cross-layer MAC Protocol for Wireless Sensor Networks
Joel Ruiz, Jose Gallardo (CICESE University of Ottawa, Mexico)
Luis Villasenor (CICESE, Mexico)
Dimitrios Makrakis, Hussein Mouftah (University of Ottawa, Canada)

Tuesday, 1 December 2009
10:15 - 12:15
Location: Coral Ballroom Lounge
AHSN-24: Topics in Ad Hoc Sensor and Mesh Networking I (Poster)
Chair: Hossam S. Hassanein (Queen's University, Canada)

Parallel Singulation in RFID Systems
Kashif Ali, Hossam Hassanein (Queen's University, Canada)

Spatial Inference Using Networks of RFID receivers: a Bayesian approach
Ying Zhu, William Howard, Ken Pu (University of Ontario, Canada)

When Do Non-Regenerative Two-Hop Relaying Networks Require a Global Phase Reference?
Stefan Berger, Armin Wittneben (Swiss Federal Institute of Technology, Switzerland)

Three-Dimensional Markov Chain Model for Performance Analysis of the IEEE 802.11 Distributed Coordination Function
Ahed Alshanyour, Anjali Agarwal (Concordia University, Canada)

Anonymous Cardinality Estimation in RFID Systems with Multiple Readers
Vahid Shah-Mansouri, Vincent W. S. Wong (University of British Columbia, Canada)

Fast and Reliable Tag Estimation in RFID Systems with Collision-Oblivious Reader
Han-You Jeong, Won-Ju Yoon; Sang-Hwa Chung (Pusan National University, Korea)

Tuesday, 1 December 2009
10:15 - 12:15
Location: Sea Pearl Suite 3-4
CTS-01: Multiple Access and Broadcast Channels
Chair: David Gesbert (Eurecom, France)

Block Diagonalization in the MIMO Broadcast Channel with Delayed CSIT
Jun Zhang, Jeffrey Andrews, Robert W. Heath, Jr. (The University of Texas at Austin, USA)

Capacity Region of Reversely Degraded Gaussian MIMO Broadcast Channel
Jun Chen (McMaster University, Canada)
Chao Tian (AT&T Labs - Research, USA)

De-hyping Transmit Diversity in Modern MIMO Cellular Systems
Nihar Jindal (University of Minnesota, USA)
Angel Lozano (Universitat Pompeu Fabra, Spain)

Stochastic Resource Allocation over Fading Multiple Access and Broadcast Channels
Na Gao, Xin Wang (Florida Atlantic University, USA)

Constellation Constrained Capacity of Two-user Broadcast Channels
Naveen Deshpande, B. Sundar Rajan (Indian Institute of Science, India)

The Gap Approximation for Gaussian Multiple Access Channels
Dimitris Toumpakaris (University of Patras, Greece)
Jungwon Lee (Marvell Semiconductor, USA)

Tuesday, 1 December 2009
10:15 - 12:15
Location: Iolani Suite 5-6
CISS-01: Physical Layer Security
Chair: Stamatios Kartalopoulos (University of Oklahoma, USA)

Secrecy Extraction from Increased Randomness in a Time-Variant MIMO Channel
Chan Chen, Michael Jensen (Brigham Young University, USA)

CatchIt: Detect Malicious Nodes in Collaborative Spectrum Sensing
Wenkai Wang (University of Rhode Island, USA)
Husheng Li (University of Tennessee, USA)
Yan Sun (University of Rhode Island, USA)
Zhu Han (University of Houston, USA)

Dogfight in Spectrum: Jamming and Anti-Jamming in Multichannel Cognitive Radio Systems
Husheng Li (University of Tennessee, USA)
Zhu Han (University of Houston, USA)

LDPC Codes for Physical Layer Security
Demijan Klinc (Georgia Institute of Technology, USA)
Jeongseok Ha (KAIST, Korea)
Steven W. McLaughlin (Georgia Institute of Technology, USA)
João Barros (University of Porto, Portugal)
Byung-Jae Kwak (Electronics and Telecommuncations Research Institute, Korea)

Network Security: Synchronization in Chaotic Communication Systems
Stamatios K. Kartalopoulos (University of Oklahoma, USA)

A Framework of Multiplicative Spread Spectrum Embedding for Data Hiding: Performance, Decoder and Signature Design
Amir Valizadeh, Z. Jane Wang (University of British Columbia, Canada)

Tuesday, 1 December 2009
10:15 - 12:15
Location: Kahili 1
CQPRM-01: Design of Networks and Services
Chair: Toshinori Tsuboi (Tokyo University of Technology, Japan)

Design Method of Robust Networks against Performance Deterioration during Failures
Nozomu Katayama, Takeshi Fujimura; Hiroyoshi Miwa (Kwansei Gakuin University, Japan)
Noriaki Kamiyama, Haruhisa Hasegawa, Hideaki Yoshino (NTT, Japan)

Construction of Candidate Topologies for Large-Scale Networks
Noriaki Kamiyama (NTT, Japan)

Network Administration using Web Services
Paolo Anedda, Luigi Atzori (University of Cagliari, Italy)

End–to–End Inference of Link Level Queueing Delay Statistics
Gianni Antichi, Andrea Di Pietro, Domenico Ficara, Stefano Giordano, Gregorio Procissi, Fabio Vitucci (University of Pisa, Italy)

Information-Guided Relay Selection for High Throughput in Half-Duplex Relay Channels
Yuli Yang (Alcatel-Lucent, China)

LTE Access Network Planning and Optimization: A Service-Oriented and Technology-Specific Perspective
Fernando Gordejuela-Sanchez, Jie Zhang (University of Bedfordshire, UK)

Tuesday, 1 December 2009
10:15 - 12:15
Location: Sea Pearl Suite 5-6
CSS-01: Peer-to-Peer Services
Chair: Abdelhamid Mellouk (University Paris XII, France)

Analyzing the Aggregate Download Bandwidths in Peer-to-peer Live Streaming Systems
Yusuo Hu, Jiang Li (Microsoft Research Asia, China)

Superchunk based Fast Search in P2P-VoD System
Danqi Wang, Chai Kiat Yeo (Nanyang Technological University, Singapore)

FairE9: Fair File Distribution over Mesh-Only Peer-to-Peer
Eyal Zohar, Anat Lerner (The Open University of Israel, Israel)

SpamResist: Making Peer-to-Peer Tagging Systems Robust to Spam
Ennan Zhai, Ruichuan Chen (Peking University, China)
Eng Keong Lua (Carnegie Mellon University, USA)
Long Zhang, Huiping Sun, Zhuhua Cai, Sihan Qing, Zhong Chen (Peking University, China)

Time-shifted Streaming in a Peer-to-Peer Video Multicast System
Jeonghun Noh, Aditya Mavlankar (Stanford University, USA)
Pierpaolo Baccichet (Dyyno Inc., USA)
Bernd Girod (Stanford University, USA)

A Multicast-based Bootstrap Mechanism for Self-organizing P2P Networks
Simone Cirani, Luca Veltri (University of Parma, Italy)

Tuesday, 1 December 2009
10:15 - 12:15
Location: Lehua Suite
NGNI-01: Emerging Networking-I
Chair: Vinod Mishra (Defense Information Systems Agency, USA)

MobiSN: Semantics-based Mobile Ad Hoc Social Network Framework
Juan Li, Samee Khan (North Dakota State University, USA)

ANTS - A Framework for Knowledge based NAT Traversal
Andreas Müller, Andreas Klenk, Georg Carle (Technische Universität München, Germany)

Host Identity Protocol and Proxy Mobile IPv6: A Secure Global and Localized Mobility Management Scheme for Multihomed Mobile Nodes
Giuliana Iapichino, Christian Bonnet (EURECOM, France)

Economics of Femtocells
Nikhil Shetty (University of California, Berkeley, USA)
Shyam Parekh (Alcatel-Lucent Bell Labs, USA)
Jean Walrand (University of California, Berkeley, USA)

Energy-aware Resource Adaptation for Next-Generation Network Equipment
Raffaele Bolla, Roberto Bruschi; Franco Davoli (University of Genoa, Italy)

Towards a Declarative Framework For Managing Application and Network Adaptations
Palanivel Kodeswaran, Anupam Joshi (University of Maryland Baltimore County, USA)

Tuesday, 1 December 2009
10:15 - 12:15
Location: Coral Ballroom Lounge
NGNI-11: Topics in Next Generation Networking (Poster)
Chair: Luca Valcarenghi (Scuola Superiore Sant'Anna, Italy)

Revenue Management in the Presence of Self-Similar Alpha-Stable Distributions
Armin Ghayoori, Alberto Leon-Garcia (University of Toronto, Canada)

An Integrated Mobility Framework for Pervasive Communications
Raffaele Bolla, Riccardo Rapuzzi, Matteo Repetto (University of Genoa, Italy)

Second-Order Differential Encoding of Deterministic Finite Automata
Gianni Antichi, Andrea Di Pietro, Domenico Ficara, Stefano Giordano, Gregorio Procissi, Fabio Vitucci (University of Pisa, Italy)

Detecting Trustworthy Real-Time Communications using a Web-of-Trust
Jan Seedorf, Nico d'Heureuse; Saverio Niccolini (NEC Europe Ltd., Germany)
Marco Cornolti (University of Pisa, Italy)

A Novel Fingerprint Location Method Using Ray-tracing
Phillip Maher, Robert Malaney (University of New South Wales, Australia)

Caching in Content-based Publish/Subscribe Systems
Vasilis Sourlas (University of Thessaly, Greece)
Georgios S. Paschos (CERTH - ITI, Greece)
Paris Flegkas, Leandros Tassiulas (University of Thessaly, Greece)

Tuesday, 1 December 2009
10:15 - 12:15
ONS-01: Routing and Scheduling
Location: Iolani Suite 1-2
Chair: Eiji Oki (The University of Electro-Communications, Japan)

Optical Flow Switching with Time Deadlines for High-Performance Applications
Vincent V. S. Chan, Anurupa Ganguly, Guy Weichenberg (Massachusetts Institute of Technology, USA)

Dynamic Routing and Scheduling for Variable Bandwidth Circuit Switching
Ankitkumar N. Patel, Jason P. Jue (University of Texas at Dallas, USA)

Multi-Parametric Online RWA based on Impairment Generating Sources
Panagiotis Kokkinos, Kostas Christodoulopoulos, Konstantinos Manousakis, Emmanouel Varvarigos (University of Patras, Greece)

Dynamic Routing of Connections with Known Duration in WDM Networks
Diego Lucerna (Politecnico di Milano, Italy)
Massimo Tornatore, Biswanath Mukherjee (University of California Davis, USA)
Achille Pattavina (Politecnico di Milano, Italy)

A Multipath Routing Mechanism in Optical Networks with Extremely High Bandwidth Requests
Xiaomin Chen, Admela Jukan (Technische Universität Carolo-Wilhelmina zu Braunschweig, Germany)
André Drummond, Nelson L. S. da Fonseca (State University of Campinas, Brazil)

Flexible Scheduling of Multicast Sessions with Different Granularities for Large Data Distribution over WDM Networks
Dragos Andrei, Massimo Tornatore, Charles U. Martel, Biswanath Mukherjee (University of California Davis, USA)

Tuesday, 1 December 2009
10:15 - 12:15
Location: Sea Pearl Suite 1-2
SAC(CRN)-01: Resource Allocation in Cognitive Radio Networks

Chair: Joseph B. Evans (University of Kansas, USA)

Probability-based Resource Allocation in Cognitive Radio Networks
Xiangwei Zhou, Geoffrey Ye Li (Georgia Institute of Technology, USA)
Dongdong Li, Dandan Wang, Anthony C. K. Soong (Huawei Technologies, USA)

Optimal Power Control for Concurrent Transmissions of Location-aware Mobile Cognitive Radio Ad Hoc Networks
Yi Song; Jiang Xie (University of North Carolina at Charlotte, USA)

Power Control of Cognitive Radio System in Rayleigh Fading
Chen Sun, Yohannes D. Alemseged, Ha Nguyen Tran, Hiroshi Harada (National Institute of Information & Communications Technology, Japan)

Fair Profit Allocation in the Spectrum Auction Using the Shapley Value
Miao Pan, Feng Chen (University of Florida, USA)
Xiaoyan Yin (Northwestern Polytechnical University, China)
Yuguang Fang (University of Florida, USA)

A Cognitive Radio Network Architecture Without Control Channel
Chunsheng Xin (Norfolk State University, USA)
Xiaojun Cao (Georgia State University, USA)

Distributed Power and Admission Control for Cognitive Radios in Spectrum Underlay Networks
John Tadrous, Ahmed Sultan (Nile University, Egypt)
Mohammed Nafie (Cairo University, Egypt)

Tuesday, 1 December 2009
10:15 - 12:15
Location: Kahili 2
SAC(SSC)-01: Transmission and coding techniques for satellite and space communications
Chair: Giovanni Corazza (University of Bologna, Italy)

Threshold Detection Analysis for OFDM Timing and Frequency Recovery
Stefano Rosati (University of Bologna, Italy)
Adegbenga Awoseyila (University of Surrey, UK)
G. Alessandro Vanelli-Coralli (University of Bologna, Italy)
Christos Kasparis (University of Surrey, UK)
Giovanni Emanuele Corazza (University of Bologna, Italy)
Barry Evans (University of Surrey, UK)

Distributed Power and Carrier Allocation in Multibeam Satellite Uplink with Individual SINR Constraints
Joan Enric Barcelo Llado, Maria-Angeles Vázquez-Castro, Lei Jiang (Universidad Autónoma de Barcelona, Spain)
Are Hjørungnes (University of Oslo, Norway)

Packet Coding Performance with Correlated Fading and Shadowing
Marco Papaleo, Rosario Firrincieli, Giovanni Corazza, Alessandro Vanelli-Coralli (University of Bologna, Italy)

Performance Analysis of SDPSK and 1-Bit Differential GMSK Modems for FFH-FDMA Satellite Communications under Jamming
Junghwan Kim, Chong Wang, Mike Orra (The University of Toledo, USA)

A Study of Adaptive Equalizer for APSK in the Satellite Broadcasting System
Yoichi Suzuki, Akinori Hashimoto, Masaaki Kojima, Hisashi Sujikai, Shoji Tanaka, Takeshi Kimura, Kazuyoshi Shogen (NHK Science and Technical Research Laboratories, Japan)

Adaptive Optics based Telescope Array Receiver for Compensation of Optical Turbulence Effects in Deep Space Optical Communication Link with Mars
Ali Hashmi, Ali Eftekhar, Ali Adibi (Georgia Institute of Technology, USA)
Farid Amoozegar (California Institute of Technology, USA)

Tuesday, 1 December 2009
10:15 - 12:15
Location: Iolani Suite 3-4
SPC-01: Adaptive Antennas and Beamforming
Chair: Shih Yu Chang (National Tsing Hua University of Taiwan), Hung Nguyen (The Aerospace Corp., USA)

Robust Noise Filtering in Wideband Frequency-Invariant Beamforming with Uniform Circular Arrays
Camillo Gentile (National Institute of Standards and Technology, USA)

SNR Maximization and Distributed Beamforming in Multiuser Multi-relay Networks
Duy H. N. Nguyen, Ha H. Nguyen (University of Saskatchewan, Canada)

Super-Gaussian Loading for Robust Beamforming
Jing Gu, Patrick Wolfe (Harvard University, USA)

Multicell Multicast Beamforming with Delayed SNR Feedback
Markus Jordan, Xitao Gong, Gerd Ascheid (RWTH Aachen University, Germany)

A Low-Complexity Planar Antenna Array for Wireless Communication Applications: Performance Analysis and Beamforming
Moon-Sik Lee (Electronics and Telecommunications Research Institute, Korea)

Multi-Source Multi-Destination Relay Network: An Interference-Free Multi-Beamforming Protocol
Shouhong Zhu, Zhiguo Ding (Lancaster University, UK)

Tuesday, 1 December 2009
10:15 - 12:15
Location: S. Pacific Ballroom #1
WCS-01: Cooperative Communication: Relay Selection
Chair: Andreas Molisch (University of Southern California, USA)

Relay Selection and Data Transmission Throughput Tradeoff in Cooperative Systems
Virag Shah, Neelesh Mehta (Indian Institute of Science, India)
Raymond Yim (Mitsubishi Electric Research Labs, USA)

Cooperative Selection Diversity with CSI-based Amplify-and-Forward Relaying in Nakagami-m Fading Channels
Phee Lep Yeoh (University of Sydney, Australia)
Maged Elkashlan, Iain B. Collings (CSIRO, ICT Centre, Australia)

Probabilistic Relay Selection for Fast Selection Cooperation in Half-Duplex Wireless Networks
Kuang-Hao Liu, Hsiao-Hwa Chen (National Cheng Kung University, Taiwan)

Achieving Full Diversity by Selection in Arbitrary Multi-hop Amplify-and-Forward Relay Networks
Wei Shi, Sumit Roy (University of Washington, USA)

Optimal Relay-Subset Selection and Time-Allocation in Decode-and-Forward Cooperative Networks
Elzbieta Beres, Raviraj Adve (University of Toronto, Canada)

A Novel Relay Selection Scheme with Simplified Power Allocation for Wireless Relay Networks
Hua Wu, Yafeng Wang (Beijing University of Posts and Telecommunications, China)

Tuesday, 1 December 2009
10:15 - 12:15
Location: S. Pacific Ballroom #2
WCS-02: MIMO
Chair: Nghi Tran (McGill University, Canada)

Effective SINR Computation for Maximum Likelihood Detector in MIMO Spatial Multiplexing Systems
Tetsushi Abe, Gerhard Bauch (DoCoMo Euro-Laboratories, Germany)

Achieving Near-Optimal Detection Using Adaptive Joint Combination of MLD and MMSE-SIC over Spatially Correlated MIMO Channels
Lisheng Fan (Shantou University, China)
Yangyang Zhang (University College London, UK)
Yongquan Jiang (Shantou University, China)
Kai-Kit Wong (University College London, UK)

Eigenmode Transmission for the MIMO Broadcast Channel with Semi-Orthogonal User Selection
Liang Sun, Matthew R. McKay (Hong Kong University of Science and Technology, Hong Kong)

MIMO Beam-forming at 60 GHz: Analysis of Ergodic Capacity
Navid Lashkarian (San Jose State University, USA)
Karim Nasiri Toussi (Sibeam Inc., USA)

Feasibility Conditions for Interference Alignment
Cenk M. Yetis (Istanbul Technical University, USA)
Tiangao Gou, Syed Jafar (University of California Irvine, USA)
Ahmet Kayran (Istanbul Technical University, Turkey)

Nonuniform Array Design for Robust Millimeter-Wave MIMO Links
Eric Torkildson, Colin Sheldon, Upamanyu Madhow, Mark Rodwell (University of California, Santa Barbara, USA)

Tuesday, 1 December 2009
10:15 - 12:15
Location: S. Pacific Ballroom #3
WCS-03: Resource Allocation
Chair: Patrick Marsch (Technische Universität Dresden, Germany)

Subcarrier-Pair Based Resource Allocation for Cooperative AF Multi-Relay OFDM Systems
Wenbing Dang, Meixia Tao, Hua Mu (Shanghai Jiao Tong University, China)
Jianwei Huang (The Chinese University of Hong Kong, Hong Kong)

Distributed Coordinated Multi-cell Transmission Based on Dual Decomposition
Antti Tolli, Harri Pennanen, Petri Komulainen (University of Oulu, Finland)

Fair Energy-Efficient Resource Allocation over Fading TDMA Channels
Xin Wang, Di Wang, Hanqi Zhuang, Salvatore D. Morgera (Florida Atlantic University, USA)

On the Rate Duality of the MIMO Interference Channel and its Application to Sum Rate Maximization
An Liu (Peking University, China)
Youjian Liu (University of Colorado at Boulder, USA)
Haige Xiang, Wu Luo (Peking University, China)

Impact of Interference Coupling - Loss of Convexity
Holger Boche, Siddharth Naik (Technical University of Berlin, Heinrich Hertz Institute, Germany)

On Optimization of Joint Base Station Association and Power Control via Benders' Decomposition
Jieying Chen, Liping Qian, Yingjun Zhang (The Chinese University of Hong Kong, Hong Kong)

Tuesday, 1 December 2009
10:15 - 12:15
Location: S. Pacific Ballroom #4
WCS-04: Multiple Access
Chair: Teng Joon Lim (University of Toronto, Canada)

Interference Cancellation Techniques for CDMA2000 1x Reverse Link
Peter Black, Yu-Cheun Jou, Rashid Attar, Jun Ma, Xin Zhang (Qualcomm Inc., USA)

Packet Acquisition for Time-Frequency Hopped Asynchronous Random Multiple Access
Hoang Nguyen, Fred Block (Massachusetts Institute of Technology Lincoln Lab, USA)

Multiple Access with Low-Density Signatures
Jaap van de Beek; Branislav Popovic (Huawei Technologies, Sweden)

Uplink Random Access Scheme with Prioritized Orthogonal Layers for OFDMA CSI Feedback
Megumi Kaneko, Kazunori Hayashi (Kyoto University, Japan)
Petar Popovski, Hiroyuki Yomo (Aalborg University, Denmark)
Hideaki Sakai (Kyoto University, Japan)

Design and Analysis of Framed Aloha based RFID Anti-collision Algorithms
Lei Zhu, Tak-shing, Peter Yum (Chinese University of Hong Kong, Hong Kong)

Rate Optimization for IDMA Systems with Iterative
Tao Yang, Jinhong Yuan, Zhenning Shi (University of New South Wales, Australia)

Tuesday, 1 December 2009
10:15 - 12:15
Location: Coral Ballroom Lounge
WCS-37: Topics in Wireless Communications I (Poster)
Chair: Padmini Vellore (Memorial University of Newfoundland, Canada)

Implications of Energy Profile and Storage on Energy Harvesting Sensor Link Performance
Bhargav Medepally, Neelesh Mehta, Chandra R. Murthy (Indian Institute of Science, India)

Centralized and Distributed Optimization of Ad-Hoc Cognitive Radio Network
Yao Ma (Iowa State University, USA)
Dong In Kim (Sungkyunkwan University, Korea)

Efficient Mutual Interference Minimization and Power Allocation for OFDM-based Cognitive Radio
Md. Jahidur Rahman, Xianbin Wang, Serguei L. Primak (The University of Western Ontario, Canada)

Effective Capacity Analysis of Cognitive Radio Channels for Quality of Service Provisioning
Sami Akin, Mustafa Cenk Gursoy (University of Nebraska-Lincoln, USA)

A Self-Organized Femtocell for IEEE 802.16e Sysyem
Young Jin Sang, Hae Gwang Hwang, Kwang Soon Kim (Yonsei University, Korea)

Probability Distribution of Multi-hop Multipath Connection in a Random Network
Padmini Vellore, Paul Gillard, Ramachandran Venkatesan (Memorial University, Canada)

Tuesday, 1 December 2009
10:15 - 12:15
Location: Coral Ballroom #1
WNS-01: Channel Capacity
Chair: Petar Popovski (Aalborg University, Denmark)

An Analytical Expression for Service Curves of Fading Channels
Giacomo Verticale, Paolo Giacomazzi (Politecnico di Milano, Italy)

High-Order Analysis of Outage Probability in OFDMA Wireless Networks
Bo Bai, Wei Chen, Zhigang Cao (Tsinghua University, China)
Khaled B. Letaief (Hong Kong University of Science & Technology, Hong Kong)

Optimal MIMO Antenna Geometry Analysis for Wireless Networks in Underground Tunnels
Zhi Sun, Ian F. Akyildiz (Georgia Institute of Technology, USA)

Channel Coding Design to Support Asynchronous Physical Layer Network Coding
Dong Wang (Philips Research North America, USA)
Shengli Fu (University of North Texas, USA)
Kejie Lu (University of Puerto Rico at Mayaguez, Puerto Rico)

End-to-end Delay Analysis for Reliable Communications over Lossy Channels: Integrating Network Coding and ARQ Schemes
Francesco Chiti, Romano Fantacci, Russel Allan Johnson (University of Florence, Italy)
Vladimir Crnojevic, Dejan Vukobratovic, (University of Novi Sad, Serbia)

A Proposal of New Hybrid ARQ Scheme suitable for Multi-hop Transmissions using LDPC Codes
Takayuki Hashimoto, Tetsuya Wakiyama, Koji Ishibashi, Tadahiro Wada (Shizuoka University, Japan)

Tuesday, 1 December 2009
10:15 - 12:15
Location: Coral Ballroom #2
WNS-02: TCP and Congestion Control
Chair: Toktam Mahmoodi (King's College London, UK)

Performance of Different TCP Variants in IEEE 802.11 WLAN and The TCP-WOW Algorithm
Shan Chen, Brahim Bensaou, Ka-Lok Hung (The Hong Kong University of Science and Technology, Hong Kong)

RACING: Rate Control for Enhancing Intermittent Networking Performance for Mobile Users
Haruki Izumikawa (Universität Bremen, TZI, Germany)
Dirk Kutscher (NEC Europe Ltd., Germany)
Andreas Timm-Giel, Carsten Bormann (Universität Bremen, Germany)

Combined Congestion Control and Link Selection Strategies for Delay Tolerant Interplanetary Networks
Igor Bisio, Marco Cello (University of Genoa, Italy)
Tomaso De Cola (German Aerospace Center, Germany)
Mario Marchese (University of Genoa, Italy)

Hop-by-hop Congestion Control for Wireless Mesh Networks with Multi-channel MAC
Gang Feng (University of Electronic Science and Technology of China, China)
Fei Long (Siemens, China)
Yide Zhang (University of Electronic Science and Technology of China, China)

One-Hop Call Admission Control in Heterogeneous Wireless Networks: A Queueing Analysis
Wenzhou Ouyang, Luoyi Fu, Xinbing Wang (Shanghai Jiaotong University, China)
Ekram Hossain (University of Manitoba, Canada)

Improving TCP Performance During the Intra LTE Handover
Davide Pacifico, Matteo Pacifico, Carlo Fischione, Håkan Hjalmarsson, Karl Henrik Johansson (KTH Royal Institute of Technology, Sweden)

Tuesday, 1 December 2009
14:00 - 16:00
Location: Honolulu Suite #1
AHSN-04: Energy Efficient Protocols for WSNs
Chair: Song Ci (University of Nebraska-Lincoln, USA), Sirisha Medidi (Boise State University, USA)

Lifetime Maximization via a New Cooperative MAC Protocol in Wireless Sensor Networks
Chao Zhai, Ju Liu, Lina Zheng, Hongji Xu (Shandong University, China)

Analytical Models for the Wake-up Receiver Power Budget for Wireless Sensor Networks
Maarten Lont, Dusan Milosevic (Eindhoven University of Technology, The Netherlands)
Guido Dolmans (Holst Centre, The Netherlands)
Peter Baltus, Arthur van Roermund (Eindhoven University of Technology, The Netherlands)

Optimal Flow Control for Utility-Lifetime Tradeoff in Wireless Sensor Networks
Jiming Chen, Shibo He, Youxian Sun (Zhejiang University, China)
Preetha Thulasiraman, Xuemin (Sherman) Shen (University of Waterloo, Canada)

Energy-Efficient k-Coverage for Wireless Sensor Networks with Variable Sensing Radii
Jiong Wang (Washington State University, USA)
Sirisha Medidi, Muralidhar Medidi (Boise State University, USA)

A Battery-Aware Deployment Scheme for Cooperative Wireless Sensor Networks
Jiucai Zhang, Song Ci, Hamid Sharif, Mahmoud Alahmad (University of Nebraska-Lincoln, USA)

TBCD-TDM: Novel Ultra-Low Energy Protocol for Implantable Wireless Body Sensor Networks
Fariborz Fereydouni-forouzandeh, Otmane Ait Mohamed (Concordia University, Canada)
Mohamad Sawan (École Polytechnique de Montréal, Canada)
Falah Awwad (United Arab Emirates University, UAE)

Tuesday, 1 December 2009
14:00 - 16:00
Location: Honolulu Suite #2
AHSN-05: WSNs I
Chair: Sinem Coleri Ergen (University of California, Berkeley, USA)

Analysis of IEEE 802.15.4 Sensor Networks for Event Detection
Marco Gribaudo, Daniele Manini (University of Torino, Italy)
Alessandro Nordio, Carla-Fabiana Chiasserini (Politecnico di Torino, Italy)

MAC Protocol Engine for Sensor Networks
Sinem Coleri Ergen (Telecom Italia WSN Berkeley Lab, Berkeley, USA)
Piergiuseppe Di Marco, Carlo Fischione (Royal Institute of Technology, Sweden)

HE-MAC: Hop Extended MAC Protocol for Wireless Sensor Networks
Kyong-Tak Cho, Saewoong Bahk (Seoul National University, Korea)

MRSD: Multirate-based Service Differentiation for the IEEE 802.15.4 Wireless Sensor Network
Chewoo Na, Yaling Yang (Virginia Polytechnic Institute and State University, USA)

SPARE MAC Enhanced: A Dynamic TDMA Protocol for Wireless Sensor Networks
Fabio Turati, Matteo Cesana (Politecnico di Milano, Italy)
Luca Campelli (CEFRIEL Politecnico di Milano, Italy)

2C-WSN: A Configuration Protocol based on TDMA Communications over WSN
Fernando Royo (University of Castilla-La Mancha, Spain)
Miguel Lopez-Guerrero (Metropolitan Autonomous University, Mexico)
Luis Orozco-Barbosa, Teresa Olivares (University of Castilla-La Mancha, Spain)

Tuesday, 1 December 2009
14:00 - 16:00
Location: Honolulu Suite #3
AHSN-06: WSNs II
Chair: Xi Zhang (Texas A&M University, USA)

Implementing Information Paths in a Dense Wireless Sensor Network
Masoumeh Haghpanahi, Mehdi Kalantari, Mark Shayman (University of Maryland, USA)

Fast Sensory Data Collection By Mobility-based Topology Exploration
Constantinos Marios Angelopoulos, Sotiris Nikoletseas (University of Patras and Computer Technology Institute, Greece)

Minimal Exposure Path Algorithms for Directional Sensor Networks
Liang Liu, Xi Zhang (Texas A&M University, USA)
Huadong Ma (Beijing University of Posts and Telecommunications, China)

A Fault Tolerant Dynamic Clustering Protocol of Wireless Sensor Networks
Lutful Karim, Nidal Nasser (University of Guelph, Canada)
Tarek Sheltami (King Fahd University of Petroleum & Minerals, Saudi Arabia)

Accelerating Initialization for Sensor Networks
Luoyi Fu, Linghe Kong, Xuemei Liu, Min-You Wu (Shanghai Jiao Tong University, China)

Event Reporting on Continuous Monitoring Wireless Sensor Networks
Mario E. Rivero-Angeles (Institut National de Recherche en Informatique et en Automatique/UPITA-IPN, France)
Nizar Bouabdallah (Institut National de Recherche en Informatique et en Automatique, France)

Tuesday, 1 December 2009
14:00 - 16:00
Location: Coral Ballroom Lounge
AHSN-25: Topics in Ad Hoc Sensor and Mesh Networking II (Poster)
Chair: Yasamin Mostofi (University of New Mexico, USA)

Performance Evaluation of Asynchronous Ranging Algorithms
Hakyong Kim (LG Dacom, Korea)

Transmission Delay Analysis with Finite Coding Length in Wireless Cooperative Networks
Zhengguo Sheng (Imperial College London, UK)
Zhiguo Ding (Lancaster University, UK)
Kin K. Leung (Imperial College, UK)

Adaptive Optimal Buffer Management Policies for Realistic DTN
Yong Li, Mengjiong Qian, Depeng Jin, Li Su, Lieguang Zeng (Tsinghua University, China)

Range-only Tracking in Multipath Environments - An Algorithm Based on Particle Filtering
Thuraiappah Sathyan, Mark Hedley (Commonwealth Scientific and Industrial Research Organization, Australia)

Fusion and Diversity Trade-offs in Cooperative Estimation over Fading Channels
Mehrzad Malmirchegini, Yasamin Mostofi (University of New Mexico, USA)

Effect of Jamming Signals on Wireless Ad Hoc and Sensor Networks
Jahangir Sarker, Hussein Mouftah (University of Ottawa, Canada)

Tuesday, 1 December 2009
14:00 - 16:00
Location: Iolani Suite 5-6
CISS-02: Sensor and Adhoc Network Security
Chair: Abderrahim Benslimane (University of Avignon & LIA/CERI, France)

Trust-Aware In-Network Aggregation for Wireless Sensor Networks
Hongmei Deng, Guang Jin, Kun Sun, Roger Xu, Margaret Lyell (Intelligent Automation Inc., USA)
Jahn Luke (AFRL/RYTC, USA)

Software-Based Remote Code Attestation in Wireless Sensor Network
Tamer AbuHmed, Ninbold Nyamaa, DaeHun Nyang (Inha University, Korea)

An Efficient Post-Deployment Key Establishment Scheme for Heterogeneous Sensor Networks
Paul Loree, Kendall Nygard (North Dakota State University, USA)
Xiaojiang Du (Temple University, USA)

Secure Communication among Cell Phones and Sensor Networks
Arjan Durresi (Indiana University-Purdue University Indianapolis, USA)
Vamsi Paruchuri (University of Central Arkansas, USA)

Multi-path Key Establishment Against REM Attacks in Wireless Ad Hoc Networks
Tian Lan, Ruby Lee, Mung Chiang (Princeton University, USA)

A Novel Framework for Message Authentication in Vehicular Communication Networks
Hong Wen, Pin-Han Ho, Guang Gong (University of Waterloo, Canada)

Tuesday, 1 December 2009
14:00 - 16:00
Location: Kahili 1
CQPRM-02: Quality and Performance in Wireless and Mobile Networks I
Chair: Tommaso Pecorella (Università di Firenze & CNIT, Italy)

QoS Scheduling for Heterogeneous Traffic in OFDMA-based Wireless Systems
Youngki Kim (KT, Korea)

Kyuho Son, Song Chong (KAIST, Korea)

Admission Control in the IEEE 802.11e WLANs based on Analytical Modelling and Game Theory
Jia Hu, Geyong Min (University of Bradford, UK)
Weijia Jia (City University of Hong Kong, China)
Mike E. Woodward (University of Bradford, UK)

Measurements of Multicast Service Discovery in a Campus Wireless Network
Se Gi Hong, Suman Srinivasan, Henning Schulzrinne (Columbia University, USA)

A Link Level Efficiency Measure for Wireless Home Area Networks
Oliver Hoffmann, Ruediger Kays (Dortmund University of Technology, Germany)

Optimization of Energy Efficient Transmission in Underwater Sensor Networks
Hongkun Yang, Liu Bin, Fengyuan Ren, Hao Wen, Chuang Lin (Tsinghua University, China)

Modeling User Cooperation Problem in Mobile Overlay Multicast as a Multi-agent System
Makoto Yoshino, Hiroyuki Kubo, Ryoichi Shinkuma, Tatsuro Takahashi (Kyoto University, Japan)

Tuesday, 1 December 2009
14:00 - 16:00
Location: Sea Pearl Suite 5-6
CSS-02: Fixed and Mobile Service Platforms
Chair: Jalel Ben-othman (University of Versailles, France)

Design and Implementation of Aggregation Platform for Extended Ethernet Transport and Services
Shu Xiao (Cisco Systems, Inc., USA)
Chaoping Wu (Applied Micro Circuits Corporation, USA)
Sathish Teganahalli, Shakeel Ahmed, Hao Tran, Rajashekhar Reddy (Cisco Systems, Inc., USA)

A Flow-based Traffic Model for SIP Messages in IMS
Jie Xiao, Changcheng Huang, James Yan (Carleton University, Canada)

Applying Recommender System based Mashup to Web-Telecom Hybrid Service Creation
Guo Jie, Cheng Bo, Chen Junliang, Lix Xiangtao (Beijing University of Posts and Telecommunications, China)

On the Performance Gains of VoIP Aggregation and ROHC over a WirelessMAN-OFDMA Air Interface
Jarno Pinola, Esa Piri, Kostas Pentikousis (VTT Technical Research Centre of Finland, Finland)

Cross-Layer Based Data Management in Mobile Ad Hoc Networks
Mieso K. Denko, Jun Tian, Thabo K. R. Nkwe (University of Guelph, Canada)
Mohammad S. Obaidat (Monmouth University, USA)

SV-BCMCS: Scalable Video Multicast in Hybrid 3G/Ad-hoc Networks
Sha Hua (Polytechnic Institute of New York University, USA)
Yang Guo (Thomson, USA)
Yong Liu (Polytechnic Institute of New York University, USA)
Hang Liu (Thomson Inc., USA)
Shivendra Panwar (Polytechnic Institute of New York University, USA)

Tuesday, 1 December 2009
14:00 - 16:00
Location: Sea Pearl Suite 3-4
CTS-02: MIMO and OFDM
Chair: Robert Heath (University of Texas at Austin, USA)

Analysis of Low Complexity Max Log MAP Detector and MMSE Detector for Interference Suppression in Correlated Fading
Rizwan Ghaffar, Raymond Knopp (Eurecom, France)

Interference Cancellation Based on Divergence Minimization for MIMO-OFDM Receivers
Carles Navarro Manchon, Gunvor Elisabeth Kirkelund, Bernard Fleury, Preben Mogensen, Luc Deneire, Troels Sørensen (Aalborg University, Denmark)
Christian Rom (Infineon Technologies, Denmark)

Effect of I/Q Imbalance on Pilot Design for MIMO OFDM Channel Estimation
Hlaing Minn, Daniel Munoz (University of Texas at Dallas, USA)

Symbol-Wise Beamforming for Co-Channel Interference Reduction in MIMO-OFDM Systems
André Pollok, Nick Letzepis, William G. Cowley (University of South Australia, Australia)

BER Analysis for MIMO-OFDM Beamforming with MRC under Channel Prediction and Interpolation Errors
F. Javier Lopez-Martinez, Eduardo Martos-Naya, Jose F. Paris (University of Málaga, Spain)
Andrea Goldsmith (Stanford University, USA)

Low-Complexity OFDM Channel Estimation in the Presence of I/Q Imbalance and Phase Noise
Payam Rabiei, Won Namgoong, Naofal Al-Dhahir (University of Texas at Dallas, USA)

Tuesday, 1 December 2009
14:00 - 16:00
Location: Room 11
NGNI-02: Emerging Networking-II
Chair: TBD

On the Efficiency of Inter-Domain State Advertising in Multi-Domain Networks
Yingdi Yu, Yaohui Jin, Weiqiang Sun, Wei Guo, Weisheng Hu (Shanghai Jiao Tong University, China)

ARROW-TCP: Accelerating Transmission toward Efficiency and Fairness for High-speed Networks
Jianxin Wang, Liang Rong (Central South University, China)
Xi Zhang, Jianer Chen (Texas A&M University, USA)

Adaptive Dynamic Routing Supporting Service Management for Future Internet
Sasitharan Balasubramaniam, Dimitri Botvich, Ray Carroll, Julien Mineraud, William Donnelly (Waterford Institute of Technology, Ireland)
Tadashi Nakano (Osaka University, Japan)
Tatsuya Suda (University of California, Irvine, USA)

On Handover Procedure with Data Forwarding for Reducing Buffered User Data in Base Stations
Yoshinori Kitatsuji, Yujin Noishiki, Hidetoshi Yokota (KDDI R&D Laboratories Inc., Japan)

A Distribution-Based Approach to Anomaly Detection for 3G Mobile Networks
Alessandro D'Alconzo (Forschungszentrum Telekommunikation Wien, Austria)
Angelo Coluccia, Fabio Ricciato (University of Salento, Italy)
Peter Romirer-Maierhofer (Forschungszentrum Telekommunikation Wien, Austria)

Towards Green Broadband Access Networks
Pulak Chowdhury, Massimo Tornatore, Suman Sarkar, Biswanath Mukherjee (University of California Davis, USA)

Tuesday, 1 December 2009
14:00 - 16:00
Location: Coral Ballroom Lounge
NGNI-12: Routing & Switching -V (Poster)
Chair: Seshadri Mohan (University of Arkansas at Little Rock, USA)

Energy-Efficient Multi-Pipeline Architecture for Terabit Packet Classification
Weirong Jiang, Viktor Prasanna (University of Southern California, USA)

Frame-scheduling for Input-queued Switches with Energy Reconfiguration Costs
Andrea Bianco, Paolo Giaccone, Marco Ricca (Politecnico di Torino, Italy)

Traffic Grooming: a Changing Role in Green Optical Networks
Shu Huang (Renaissance Computing Institute, USA)
Deepa Seshadri, Rudra Dutta (North Carolina State University, USA)

ClassBenchv6: An IPv6 Packet Classification Benchmark
Qiong Sun, XiaoHong Huang, Wei Yang, XiaoJu Zhou, Yan Ma (Beijing University of Posts and Telecommunications, China)
Cong Wang (Dublin City University, Ireland)

Hole Reshaping Routing in Large-Scale Mobile Ad-Hoc Networks
Peiqiang Li, Guojun Wang (The Central South University, China)
Jie Wu (Florida Atlantic University, USA)
Hong-Chuan Yang (University of Victoria, Canada)

PreDA: Predicate Routing for DTN Architectures over MANET
Flavio Esposito, Ibrahim Matta (Boston University, USA)

Tuesday, 1 December 2009
14:00 - 16:00
Location: Iolani Suite 1-2
ONS-02: Survivability and Reconfiguration
Chair: Jason Jue (University of Texas at Dallas, USA)

Analyzing Two Conflicting Objectives of the WDM Lightpath Network Reconfiguration Problem
Fernando Solano Donado (Warsaw University of Technology, Poland)

Tree-based Protection of Multicast Services in WDM Mesh Networks
Long Long, Ahmed Kamal (Iowa State University, USA)

Performance Analysis of Nature Inspired Heuristics for Survivable Virtual Topology Mapping
Fatma Corut Ergin (Marmara University, Turkey)
Elif Kaldirim, Aysegul Yayimli, Sima Uyar (Istanbul Technical University, Turkey)

Differentiated Quality-of-Service in Survivable WDM Mesh Networks
Samir Sebbah, Brigitte Jaumard (Concordia University, Canada)

Handling Double-Link Failures in Metro Ethernet Networks Using Fast Spanning Tree Reconnection
Jian Qiu, Gurusamy Mohan, Kee Chaing Chua, Yong Liu (National University of Singapore, Singapore)

A Cross-Layer ILP Formulation for Finding p-Cycles in All-Optical Networks
Amir Askarian, Suresh Subramaniam (George Washington University, USA)
Maite Brandt-Pearce (University of Virginia, USA)

Tuesday, 1 December 2009
14:00 - 16:00
Location: Sea Pearl Suite 1-2
SAC(CRN)-02: Performance Analysis of Cognitive Radio Networks
Chair: Linda Jiang Xie (University of North Carolina at Charlotte, USA)

On Outage Capacity of Secondary Users in Fading Cognitive Radio Networks with Primary User's Outage Constraint
Xin Kang (National University of Singapore, Singapore)
Rui Zhang, Ying-Chang Liang (Institute for Infocomm Research, Singapore)
Hari Krishna Garg (National University of Singapore, Singapore)

Channel Capacity Limits of Cognitive Radio with Imperfect Channel Knowledge
Himal Suraweera (National University of Singapore, Singapore)
Peter Smith (The University of Canterbury, New Zealand)
Mansoor Shafi (Telecom New Zealand, New Zealand)
Michael Faulkner (Victoria University, Australia)

Achievable Capacity of a Spectrum Sharing System over Hyper Fading Channels
Sabit Ekin (Texas A&M University at Qatar, Qatar)
Ferkan Yilmaz (KAUST, Saudi Arabia)
Hasari Celebi, Khalid A. Qaraqe (Texas A&M University at Qatar, Qatar)
Mohamed-Slim Alouini, (KAUST, Saudi Arabia)
Erchin Serpedin (Texas A&M University at Qatar, Qatar)

Achievable Rate of Gaussian Cognitive Z-Interference Channel with Partial Side Information
Yong Peng, Dinesh Rajan (Southern Methodist University, USA)

Capacity Impact of Location-aware Cognitive Sensing
Peng Jia, Mai Vu, Tho Le-Ngoc (McGill University, Canada)

Information Theoretic Results for Three-User Cognitive Radio Channels
Kyatsandra G. Nagananda (Lehigh University, USA)
Chandra Murthy (Indian Institute of Science, India)

Tuesday, 1 December 2009
14:00 - 16:00
Location: Kahili 2
SAC(SSC)-02: Technologies for next-generation satellite and space networking
Chair: Igor Bisio (University of Genoa, Italy)

Routing Decisions Independent of Queuing Delays in Broadband LEO Networks
Janusz Jurski, Jozef Wozniak (Gdansk University of Technology, Poland)

Analysis of Uncoordinated ISL Networks
William G. Cowley, Marc P. Lavenant (University of South Australia, Australia)

The Single Frequency Satellite Network Concept: Multiple Beams for Unified Coverage
Giovanni E. Corazza, Claudio Palestini, Enzo Alberto Candreva, Alessandro Vanelli-Coralli (University of Bologna, Italy)

Experimental Evaluation of Delay Tolerant Networking (DTN) Protocols for Long-Delay Cislunar Communications
Ruhai Wang, Xuan Wu, Tiaotiao Wang (Lamar University, USA)
Tarik Taleb (NEC Europe Ltds, Germany)

Design and Evaluation Guidelines for Bandwidth Allocation Solutions in Satellite Environments
Igor Bisio, Mario Marchese (University of Genoa, Italy)

DART: Enhancing Data Acceleration with Compression for Satellite Links
Thava Iyer, Roksana Boreli, Golam Sarwar, Christoph Dwertmann (Information and Communications Technology Centre of Excellence, Australia)

Tuesday, 1 December 2009
14:00 - 16:00
Location: Iolani Suite 3-4
SPC-02: Channel Estimation, Modeling and Equalization 1
Chair: Chintha Tellambura (University of Alberta, Canada), Tomohiko Taniguchi (Fujitsu Laboratories Ltd., Japan)

Blind Channel Equalization Using Expectation Maximization of Auxiliary Objective Function for Complex Constellations
Dongxin Xu (Infoture Inc., USA)
Kun Yan, Hsiao-Chun Wu (Louisiana State University, USA)

Joint Frequency Offset and Channel Estimation Methods for Two-Way Relay Networks
Gongpu Wang (University of Alberta, Canada)
Feifei Gao (Jacobs University, Bremen, Germany)
Chintha Tellambura (University of Alberta, Canada)

An EM Algorithm for Path Delay and Complex Gain Estimation of Slowly Varying Fading Channel for CPM Signals
Habti Abeida, Jean-Marc Brossier, Laurent Ros, Jordi Vilà-Valls (GIPSA-lab/DIS, France)

Time-Varying FIR Decision Feedback Equalization for MIMO Transmission over Doubly Selective Channels
Imad Barhumi (United Arab Emirates University, UAE)
Marc Moonen (Katholieke Universiteit Leuven, Belgium)

Statistical Modeling of Co-Channel Interference
Kapil Gulati, Aditya Chopra, Brian L. Evans (University of Texas, Austin, USA)
Keith R. Tinsley (Intel Corporation, USA)

Tri-diagonalizing Approach on Frequency Domain Equalization in a Doubly-selective Channel
Keisuke Saito, Julian Webber, Toshihiko Nishimura, Takeo Ohgane, Yasutaka Ogawa (Hokkaido University, Japan)

Tuesday, 1 December 2009
14:00 - 16:00
Location: S. Pacific Ballroom #1
WCS-05: Cooperative Communication: Beamforming

Chair: Tony Q. S. Quek (Institute for Infocomm Research & Nanyang Technological University, Singapore)

Effect of Feedback Delay on Downlink Amplify-and-Forward Relaying with Beamforming
Himal A. Suraweera (National University of Singapore, Singapore)
Theodoros A. Tsiftsis, George K. Karagiannidis (Aristotle University of Thessaloniki, Greece)
Michael Faulkner (Victoria University, Australia)

Power Allocation for Beamforming Relay Networks under Channel Uncertainties
Jingon Joung, Ali H. Sayed (University of California, Los Angeles, USA)

Downlink Distributed Beamforming Through Relay Networks
Yi Zheng, Steven Blostein (Queen's University, Canada)

Distributed Beamforming in Multiuser Multi-relay Networks with Guaranteed QoS
Duy H. N. Nguyen, Ha H. Nguyen, Tung T. Pham (University of Saskatchewan, Canada)

Cooperative Multi-User MIMO Wireless Systems Employing Precoding and Beamforming
Wibowo Hardjawana, Branka Vucetic, Yonghui Li, Zhendong Zhou (The University of Sydney, Australia)

An Optimized Cooperative Beamforming Scheme in MIMO Relay Broadcast Channels
Zhendong Zhou, Branka Vucetic (The University of Sydney, Australia)

Tuesday, 1 December 2009
14:00 - 16:00
Location: S. Pacific Ballroom #2
WCS-06: Limited Feedback MIMO
Chair: Megumi Kaneko (Kyoto University, Japan)

Vector Perturbation Precoding for MIMO Broadcast Channel with Quantized Channel Feedback
Peng Lu, Hong-Chuan Yang (University of Victoria, Canada)

Trellis Exploration Algorithm Aided Precoder Design in Maximizing MIMO Capacity with Limited Feedback
Dalin Zhu, Balasubramaniam Natarajan (Kansas State University, USA)

Joint Power Control and Beamforming Codebook Design for MISO Channels with Limited Feedback
Behrouz Khoshnevis, Wei Yu (University of Toronto, Canada)

Limited Feedback in Multiuser MIMO OFDM Systems Based on Rate Approximation
Jan Schreck, Peter Jung, Gerhard Wunder (Fraunhofer German-Sino Lab for Mobile Communications at Heinrich-Hertz-Institut, Germany)
Michael Ohm, Hans-Peter Mayer (Alcatel-Lucent Bell Labs, Germany)

Distributed Multicell and Multiantenna Precoding: Characterization and Performance Evaluation
Emil Björnson (Royal Institute of Technology, Sweden)
Randa Zakhour, David Gesbert (Eurecom, France)
Björn Ottersten (Royal Institute of Technology, Sweden)

Multi-Antenna Downlink Spatial Division Multiplexing with Opportunistic Feedback
Taiwen Tang, Teng Joon Lim (University of Toronto, Canada)

Tuesday, 1 December 2009
14:00 - 16:00
Location: S. Pacific Ballroom #3
WCS-07: Resource Allocation for OFDMA
Chair: Xiaoli Chu (King's College London, UK)

Optimal Resource Allocation in the OFDMA Downlink with Feedback of Buffer State Information
Rajiv Agarwal, John M. Cioffi (Stanford University, USA)

A Graph-based Resource Allocation Algorithm for Downlink MIMO-OFDMA Networks
Ahmed Zaki, Abraham O. Fapojuwo (University of Calgary, Canada)

Delay-Optimal Resource Allocation for OFDMA Systems via Stochastic Approximation
Vincent K. N. Lau, Ying Cui (Hong Kong University of Science and Technology, Hong Kong)

A Distributed Power Allocation Algorithm with Inter-cell Interference Coordination for Multi-cell OFDMA Systems
Gangming Lv, Shihua Zhu, Hui Hui (Xi'an Jiaotong University, China)

On the Modeling of a Non-cooperative Multicell OFDMA Resource Allocation Game with Integer Bit-Loading
Zhenyu Liang (National University of Singapore, Singapore)
Yong Huat Chew (Institute for Infocomm Research, Singapore)
Chi Chung Ko (National University of Singapore, Singapore)

A Fair Radio Resource Allocation Scheme for Ubiquitous High-data-rate Coverage in OFDMA-based Cellular Relay Networks
Mohamed Salem, Abdulkareem Adinoyi, Halim Yanikomeroglu, David Falconer (Carleton University, Canada)
Young-Doo Kim (Samsung Electronics, Korea)

Tuesday, 1 December 2009
14:00 - 16:00
Location: S. Pacific Ballroom #4
WCS-08: Equalization
Chair: Xiaolin Hou (DOCOMO Beijing Communications Laboratories, Ltd., China)

Semi-Blind Gradient-Newton CMA and SDD Algorithm for MIMO Space-Time Equalisation
S. Chen, L. Hanzo, H. -T. Cheng (University of Southampton, UK)

Layered Frequency-Domain Equalization for Single Carrier MIMO Systems with Multiple Carrier Frequency Offsets
Jian Zhang, Yahong Zheng (Missouri University of Science and Technology, USA)

A Low Complexity Two Stage MMSE-Based Receiver for Single-Carrier Frequency-Domain Equalization Transmissions over Frequency-Selective Channels
Homa Eghbali, Sami Muhaidat (Simon Fraser University, Canada)
Naofal Al-Dhahir (University of Texas at Dallas, USA)

Training Sequence versus Cyclic Prefix for CPM with Frequency Domain Equalization
Wim Van Thillo, Valery Ramon, Andre Bourdoux (Interuniversity Micro-Electronics Center, Belgium)
François Horlin (Université Libre de Bruxelles, Belgium)
Kristof Sleurs (Katholieke Universiteit Leuven, Belgium)

Rudy Lauwereins (Interuniversity Micro-Electronics Center, Belgium)

Space-Time Equalization for Asynchronous Multiuser Bit-Interleaved Coded OFDM
Taiwen Tang, Teng Joon Lim (University of Toronto, Canada)

Iterative versus Adaptive Equalizers in Time-Variant Channels
Clemens Buchacher, Joachim Wehinger (Infineon Technologies AG, Germany)
Mario Huemer (Klagenfurt University, Austria)

Tuesday, 1 December 2009
14:00 - 16:00
Location: Coral Ballroom Lounge
WCS-38: Topics in Propagation and Channel Modeling (Poster)
Chair: Camillo Anthony Gentile (National Institute of Standards and Technology, USA)

Reflection Coefficient Measurement for House Flooring Materials at 57-64 GHz
Javad Ahmadi-Shokouh (University of Manitoba, Canada)
Sima Noghanian (University of North Dakota, USA)
Ekram Hossain, Majid Ostad-Rahimi, James Dietrich (University of Manitoba, Canada)

SAR Analysis in Dispersive Tissues for In Vivo UWB Body Area Networks
Toshiaki Koike-Akino (Harvard University, USA)

A Comprehensive Spatial-Temporal Channel Propagation Model for the Ultra-Wideband Spectrum 2-8 GHz
Camillo Gentile, Sofia Martinez Lopez, Alfred Kik (National Institute of Standards and Technology, USA)

On-chip Integrated Antenna Structures in CMOS for 60 GHz WPAN Systems
Felix Gutierrez Jr., Kristen Parrish, Theodore J. Rappaport (University of Texas at Austin, USA)

Improved Channel Sounding using Zero Correlation Zone Sequences
Reginald Cooper, Daniel Stancil (Carnegie Mellon University, USA)

Tuesday, 1 December 2009
14:00 - 16:00
Location: Coral Ballroom #1
WNS-03: Cross-layer Design
Chair: Hans-Juergen Zepernick (Blekinge Institute of Technology, Sweden)

Power Allocation for Cooperative Diversity Networks with Inaccurate CSI: A Robust and Constrained Kalman Filtering Approach
Mohamad Khattar Awad, Veluppillai Mahinthan, Xeumin (Sherman) Shen, Jon W. Mark (University of Waterloo, Canada)

Multi-Team Data Flow Optimization in Wireless Multi-rate Multi-hop Networks
Qian Zhang (Hong Kong University of Science and Technology, Hong Kong)

Hierarchical Network Formation Games in the Uplink of Multi-Hop Wireless Networks
Walid Saad (UNIK - University of Oslo, Norway)
Quanyan Zhu, Tamer Basar (University of Illinois at Champaign-Urbana, USA)
Zhu Han (University of Houston, USA)
Are Hjørungnes (UNIK - University of Oslo, Norway)

Distributed Joint Resource Allocation in Multi-Radio Multi-Channel Wireless Mesh Networks
Kewei Li, Furong Wang (Huazhong University of Science and Technology, China)
Yan Zhang (Simula Research Laboratory, Norway)
Fan Zhang, Xu Xie (Huazhong University of Science and Technology, China)

Using 802.11 MAC Retransmissions for Path Selection in Multi-homed Transport Layer Protocols
Sheila Fallon, Paul Jacob, Yuansong Qiao (Athlone Institute of Technology, Ireland)
Liam Murphy (University College Dublin, Ireland)
Austin Hanley (Athlone Institute of Technology, Ireland)

Cross-Layer Resource Allocation for Efficient Message Dissemination in Rural Infostation Systems
Hao Liang, Weihua Zhuang (University of Waterloo, Canada)

Tuesday, 1 December 2009
14:00 - 16:00
Location: Coral Ballroom #2
WNS-04: Handoff and Mobility Management
Chair: Vincent Wong (University of British Columbia, Canada)

Distributed or Centralized Mobility?
Philippe Bertin, Servane Bonjour (Orange Labs, France)
Jean-Marie Bonnin (Telecom Bretagne, France)

A QoS-Based Vertical Handoff Scheme for Interworking of WLAN and WiMAX
Dong Ma, Maode Ma (Nanyang Technological University, Singapore)

A Group-based Handoff Scheme for Correlated Mobile Nodes in Proxy Mobile IPv6
Yong Li, Yurong Jiang, Haibo Su, Depeng Jin, Li Su, Lieguang Zeng (Tsinghua University, China)

Network-based Micro-Mobility in Wireless Mesh Networks: is MPLS convenient?
Rosario G. Garroppo, Stefano Giordano, Luca Tavanti (University of Pisa, Italy)

Network Friendliness of Mobility Management Protocols
Md Sazzadur Rahman, Mohammed Atiquzzaman (University of Oklahoma, USA)

UPMT: Universal Per-application Mobility Management using Tunnels
Marco Bonola, Stefano Salsano, Andrea Polidoro (University of Roma "Tor Vergata", Italy)

Tuesday, 1 December 2009
16:30 - 18:30
Location: Honolulu Suite #1
AHSN-07: WSNs III
Chair: Yi Shang (University of Missouri, USA), Arunabha Sen (Arizona State University, USA)

Fusion of Decisions Modeled as Weak Signals in Wireless Sensor Networks
Jintae Park, Kiseon Kim (Gwangju Institute of Science and Technology, Korea)
Eun Ro Kim (Agency for Defense Development, Korea)
Georgy Shevlyakov (St. Petersburg State Polytechnic University, Russian Federation)

Decentralized Cooperative Positioning and Tracking Based on a Weighted Sign Algorithm for Wireless Sensor Networks
Dong-Shing Wu, Chin-Liang Wang (National Tsing Hua University, Taiwan)

Distributed faulty sensor detection
Peng Zhuang, Dan Wang, Yi Shang (University of Missouri - Columbia, USA)

Irregular Sensing Range Detection Algorithm for Coverage Protocols in Wireless Sensor Networks
Xin Fei, Azzedine Boukerche (University of Ottawa, Canada)
Regina Araujo (Federal University of São Carlos, Brazil)

Cooperative Communications with Relay Selection for QoS Provisioning in Wireless Sensor Networks
Xuedong Liang (University of Oslo, Norway)
Ilangko Balasingham (Norwegian University of Science Technology, Norway)
Victor C. M. Leung (University of British Columbia, Canada)

Approximation Algorithm for Avoiding Hotspot Formation of Sensor Networks for Temperature Sensitive Environments
Nibedita Das, Pavel Ghosh, Arunabha Sen (Arizona State University, USA)

Tuesday, 1 December 2009
16:30 - 18:30
Location: Honolulu Suite #2
AHSN-08: Data Collection and Aggregation
Chair: Xiang-Yang Li (Illinois Institute of Technology, USA), Daniel Mosse (University of Pittsburgh, USA)

Efficient Data Aggregation in Multi-hop WSNs
XiaoHua Xu, ShiGuang Wang, Xufei Mao, Shao-Jie Tang, Ping Xu, Xiang-Yang Li (Illinois Institute of Technology, USA)

Considering Link Qualities in Fault Tolerant Aggregation in Wireless Sensor Networks
Sameh Gobriel (Intel Corporation, USA)
Sherif Khattab (Cairo University, Egypt)
Daniel Mosse, Rami Melhem (University of Pittsburgh, USA)

Data Collection Capacity of Random-Deployed Wireless Sensor Networks
Siyuan Chen, Yu Wang (Univeristy of North Carolina at Charlotte, USA)
Xiang-Yang Li (Illinois Institute of Technology, USA)
Xinghua Shi (University of Chicago, USA)

Efficient Data Collection for Wireless Networks: Delay and Energy Tradeoffs
Chao Ren (Northwestern Polytechnical University, China)
XuFei Mao, Xiang-Yang Li, Ping Xu (Illinois Institute of Technology, USA)
GuoJun Dai (Hangzhou Dianzi University, China)

Reduce Data Aggregation Latency by Using Partially Overlapped Channels in Sensor Networks
Baobing Wang, Xiaohua Jia (City University of Hong Kong, Hong Kong)

Biased Sink Mobility with Adaptive Stop Times for Low Latency Data Collection in Sensor Networks
Athanasios Kinalis, Sotiris Nikoletseas, Dimitra Patroumpa (University of Patras and Computer Technology Institute, Greece)
Jose Rolim (Centre Universitaire d' Informatique, Switzerland)

Tuesday, 1 December 2009
16:30 - 18:30
Location: Honolulu Suite #3

AHSN-09: WMNs
Chair: Terence D. Todd (McMaster University, Canada)

Route Capacity Estimation Based Admission Control and QoS Routing for Mesh Networks
Chi Harold Liu, Athanasios Gkelias, Kin K. Leung (Imperial College, UK)

On Supporting P2P-based VoD Services over Mesh Networks
Mostafa Fouda (Tohoku University, Japan)
Tarik Taleb (NEC Europe Ltds, Germany)
Mohsen Guizani (Western Michigan University, USA)
Yoshiaki Nemoto, Nei Kato (Tohoku University, Japan)

A Wireless Network Coding Scheme with Forward Error Correction Code in Wireless Mesh Networks
Jeong-Yoon Lee, Woo-Jae Kim, Joo-Young Baek, Young-Joo Suh (Pohang University of Science and Technology, Korea)

Load-Balancing Gateway Selection Method in Multi-hop Wireless Networks
Kotaro Tada, Miki Yamamoto (Kansai University, Japan)

Managing Traffic Growth in Solar Powered Wireless Mesh Networks
Ghada H. Badawy, Amir A. Sayegh, Terence T. Todd (McMaster University, Canada)

A Performance Model for Integrated Wireless Mesh Networks and WLANs with Heterogeneous Stations
Yulei Wu, Geyong Min (University of Bradford, UK)
Keqiu Li (Dalian University of Technology, China)
Ahmed Y. Al-Dubai (Napier University, UK)

Tuesday, 1 December 2009
16:30 - 18:30
Location: Coral Ballroom Lounge
AHSN-26: Topics in Ad Hoc Sensor and Mesh Networking III (Poster)
Chair: Subhrakanti Dey (University of Melbourne, Australia)

An Adaptive Forwarding Scheme for Message Delivery over Delay Tolerant Networks
Fen Hou, Xeumin (Sherman) Shen (University of Waterloo, Canada)

Distortion Outage Minimisation in Rayleigh Fading Using Limited Feedback
Chih-Hong Wang, Dey Subhrakanti (University of Melbourne, Australia)

Mechanism for Coding-Aware Opportunistic Retransmission in Wireless Networks
Yan Yan, Zhuang Zhao, Baoxian Zhang (Chinese Academy of Sciences, China)
Hussein Mouftah (University of Ottawa, Canada)
Jian Ma (Nokia Research Center, China)

Generalized Second Price Auction in Multi-Path Routing with Selfish Nodes
Xueyuan Su (Yale University, USA)
Sammy Chan, Gang Peng (City University of Hong Kong, Hong Kong)

Impact of Information on Network Performance -- An Information-Theoretic Perspective
Jun Hong, Victor O. K. Li (University of Hong Kong, Hong Kong)

Probabilistic Voting-Theoretic Strategies for Resource Allocation in Heterogenous Wireless Networks
Amitav Mukherjee (University of California, Irvine, USA)

Tuesday, 1 December 2009
16:30 - 18:30
Location: Iolani Suite 5-6
CISS-03: Anomaly Detection
Chair: Thomas Gamer (Universität Karlsruhe (TH), Germany)

Online Anomaly Detection using KDE
Tarem Ahmed (BRAC University, Bangladesh)

Optimizing Network Anomaly Detection Scheme Using Instance Selection Mechanism
Yang Li (Chinese Academy of Sciences, China and Mobile Research Institute, China)
Tian-Bo Lu (Beijing University of Posts Telecommunications, China)
Li Guo (Chinese Academy of Sciences, China)
Zhi-Hong Tian (Harbin Institute of Technology, China)
Lin Qi (University of Maryland, USA)

Anomaly-based Identification of Large-Scale Attacks
Thomas Gamer (University of Karlsruhe, Germany)

Forecasting-based Sampling Decision for Accurate and Scalable Anomaly Detection
Fazirulhisyam Hashim, Abbas Jamalipour (University of Sydney, Australia)

AnomBench: A Benchmark for Volume-Based Internet Anomaly Detection
Shashank Shanbhag, Tilman Wolf (University of Massachusetts, USA)

BANBAD -- A Centralized Belief-Networks-Based Anomaly Detection Algorithm for MANETs
Chaoli Cai (Western Michigan University, USA)
Aakash Gupta (University of Michigan, USA)
Rajib Paul (Western Michigan University, USA)

Tuesday, 1 December 2009
16:30 - 18:30
Location: Kahili 1
CQPRM-03: Quality and Performance in Wireless and Mobile Networks II
Chair: Stefano Giordano (University of Pisa, Italy)

Capacity Gains of Some Frequency Reuse Schemes in OFDMA Networks
Thomas Bonald, Nidhi Hegde (Orange Labs, France)

Traffic-based Study of Femtocell Access Policy Impacts on HSPA Service Quality
Shaunak Joshi, Ray Cheung, Pooya Monajemi, John D. Villasenor (University of California, Los Angeles, USA)

On the Effect of Feedback Errors in Markov Models for SR ARQ Packet Delays
Leonardo Badia (IMT Lucca Institute for Advanced Studies, Italy)

The Impact of Channel Variations on Wireless Distributed Computing Networks
Xuetao Chen, Timothy R. Newman, Dinesh Datla, Tamal Bose, Jeffrey H. Reed (Wireless@VT, USA)

Uplink Scheduler and Admission Control for the IEEE 802.16 Standard
Juliana Borin, Nelson L. S. da Fonseca (University of Campinas, Brazil)

The Impact of Mobility on OFDMA-based Cellular Systems with Reuse Partitioning
Rubén Murillo-Pérez, Carmen Rodríguez Estrello, Felipe Cruz-Pérez (Instituto Politecnico Nacional, Mexico)

Tuesday, 1 December 2009
16:30 - 18:30
Location: Sea Pearl Suite 5-6
CSS-03: Multimedia Applications and Services
Chair: Shiwen Mao (Auburn University, USA)

Distortion Prediction for Video Quality Optimization over Packet Switched Networks
Andrea Vesco, Enrico Masala, Carlo Novara (Politecnico di Torino, Italy)

Distributed Scheduling for Video Streaming over Multi-Channel Multi-Radio Multi-Hop Wireless Networks
Liang Zhou, Benoit Geller (ENSTA-ParisTech, France)
Baoyu Zheng, Sulan Tang, Jingwu Cui, Dengyin Zhang (Nanjing University of Posts and Telecommunications, China)

Analysis and Design of A Proportional-Integral Rate Controller for Streaming Videos
Yingsong Huang, Shiwen Mao (Auburn University, USA)

Buffer-based Low-Delay Playout Control Methods for IPTV Terminals
Masayuki Baba, Hiroyuki Kurokawa, Yoshiaki Kato (Mitsubishi Electric Corporation, Japan)

A Suboptimal Network Utility Maximization Approach for Scalable Multimedia Applications
Mohammad S. Talebi, Ahmad Khonsari, Mohammad H. Hajiesmaili (IPM, Iran)
Sina Jafarpour (Princeton University, USA)

Analysis of Patching Scheme from a Practical Perspective
Joonho Choi, Biswanath Mukherjee (University of California, Davis, USA)

Tuesday, 1 December 2009
16:30 - 18:30
Location: Sea Pearl Suite 3-4
CTS-03: Training and Feedback
Chair: Nihar Jindal (University of Minnesota, USA)

Hybrid Pilot/Quantization based Feedback in Multi-Antenna TDD Systems
Umer Salim, David Gesbert, Dirk Slock (Eurecom, France)
Zafer Beyaztas (Accenture, The Netherlands)

How Much Training is Needed for Iterative Multiuser Detection and Decoding?
Mikko Vehkaperä (Norwegian University of Science and Technology, Norway)
Keigo Takeuchi (University of Electro-Communications, Japan)
Ralf Mueller (Norwegian University of Science and Technology, Norway)
Toshiyuki Tanaka (Kyoto University, Japan)

On Active Learning and Supervised Transmission of Spectrum Sharing Based Cognitive Radios by Exploiting Hidden Primary Radio Feedback
Rui Zhang (Institute of Infocomm Research, Singapore)

Coding Versus ARQ in Fading Channels: How Reliable Should the PHY Be?
Peng Wu, Nihar Jindal (University of Minnesota, USA)

MIMO Precoding with Limited Rate Feedback: Simple Quantizers Work Well
Mingguang Xu, Dongning Guo, Mike Honig (Northwestern University, USA)

Iterative NR Decoding and Channel Estimation for TDS-OFDM System
Qiuliang Xie, Kewu Peng, Fang Yang, Zhixing Yang (Tsinghua University, China)

Tuesday, 1 December 2009
16:30 - 18:30
Location: Coral Ballroom Lounge
CTS-14: Topics in Communications Theory I (Poster)
Chair: Tony Q. S. Quek (Institute for Infocomm Research & Nanyang Technological University, Singapore)

A Fresh Look at Multicanonical Monte Carlo from a Telecom Perspective
Alberto Bononi (Università di Parma, Italy)
Leslie Rusch, Amirhossein Ghazisaeidi, Francesco Vacondio (Laval University, Canada)
Nicola Rossi (Universitá di Parma, Italy)

Coded-sequence Self-encoded Spread Spectrum Communications
Poomathi Duraisamy, Lim Nguyen (University of Nebraska-Lincoln, USA)

Dual Optimal Resource Allocation for Heterogeneous Transmission in OFDMA Systems
Chunhui Liu, Anke Schmeink, Rudolf Mathar (RWTH Aachen University, Germany)

Product of the Powers of Generalized Nakagami-m Variates and Performance of Cascaded Fading Channels
Ferkan Yilmaz, Mohamed-Slim Alouini (KAUST, Saudi Arabia)

Near-complementary Sequences of Various Lengths and Low PMEPR for Multicarrier Communications
Nam Yul Yu (Lakehead University, Canada)
Guang Gong (University of Waterloo, Canada)

Cross-layer Resource Allocation for Wireless Networks via Signomial Programming
Chathuranga Weeraddana, Marian Codreanu, Matti Latva-aho (University of Oulu, Finland)

Tuesday, 1 December 2009
16:30 - 18:30
Location: Lehua Suite
NGNI-03: Peer-to-Peer Networking
Chair: Ashwin A. Gumaste (Indian Institute of Technology, Bombay/Massachusetts Institute of Technology, India)

P2P-ISP Cooperation: Risks and Mitigation in Multiple-ISP Networks
Aliye Ozge Kaya (Rutgers University, USA)
Mung Chiang (Princeton University, USA)
Wade Trappe (Rutgers University, USA)

Peer-to-Peer Single Hop Distributed Hash Tables
Luiz Monnerat (Petrobras, Brazil)
Claudio Amorim (Federal University of Rio de Janeiro, Brazil)

Scalability and Peer Churning in IP-TV: An Analytical Insight
Maria Luisa Merani, Gian Paolo Leonardi, Daniela Saladino (University of Modena and Reggio Emilia, Italy)

SPID: A Novel P2P-based Information Diffusion Scheme for Mobile Networks
Mohammad Towhidul Islam, Mursalin Akon, Xeumin (Sherman) Shen (University of Waterloo, Canada)

A Construction Scheme for Scale Free DHT-Based Networks
Salma Ktari, Artur Hecker, Houda Labiod (TELECOM ParisTech, France)

SFDHT: A DHT Designed for Server Farm
Lichun Li, Chunhong Zhang, Wei Mi, Yonghui Zhang, Tao Ma, Yang Ji, Xiaofeng Qiu (Beijing University of Posts and Telecommunications, China)

Tuesday, 1 December 2009
16:30 - 18:30
Location: Iolani Suite 1-2
ONS-03: Optical Burst and Packet Switching
Chair: Ahmed Kamal (Iowa State University, USA)

Contention Resolution in Optical Burst Switched Networks using Spectral-Amplitude-Coding Optical Code Division Multiple Access
Mohammad Sowailem, Mohamed Morsy, Hossam Shalaby (Alexandria University, Egypt)

Packet Loss Differentiation using Network Layer Packet Redundancy in Optical Packet/Burst Switched Networks
Harald Overby (Norwegian University of Science and Technology, Norway)

Scheduling Bursts using Interval Graphs in Optical Burst Switching Networks
Xiaojun Cao, Yichuan Wang, Alexander Zelikovsky (Georgia State University, USA)

An Absolute and Fair QoS Differentiation Scheme For DWDM OBS Networks
Abdeltouab Belbekkouche, Abdelhakim Hafid, Mariam Tagmouti, Michel Gendreau (University of Montreal, Canada)

TCP Based Estimation Method for Loss Control in OBS Networks
Mohamed Faten Zhani (UQAM-Canada, ENSI-Tunisia, Canada)
Halima Elbiaze, Wael Hosny Fouad Aly (University of Quebec at Montreal, Canada)

Graphical Probabilistic Routing Model for OBS Networks with Realistic Traffic Scenario
Martin Lévesque, Halima Elbiaze (University of Quebec at Montreal, Canada)

Tuesday, 1 December 2009
16:30 - 18:30
Location: Sea Pearl Suite 1-2
SAC(CRN)-03: Game Theory for Cognitive Radio Networks
Chair: Dusit Niyato (Nanyang Technological University, Singapore)

A Noncooperative Spectrum Sensing Game with Maximum Network Throughput
Wei Wang, Chen He (Shanghai Jiaotong University, China)

Price of Anarchy for Cognitive MAC Games
Lok Man Law, Jianwei Huang (The Chinese University of Hong Kong, Hong Kong)
Mingyan Liu (University of Michigan, USA)
Shuo-yen Li (The Chinese University of Hong Kong, Hong Kong)

Optimal Power Allocation Strategy Against Jamming Attacks Using the Colonel Blotto Game
Yongle Wu, Beibei Wang, K. J. Ray Liu (University of Maryland, USA)

Dynamic Power Management in Cognitive Radio Networks based on Constrained Stochastic Games
Chia-Wei Wang, Yu-Pin Hsu, Kai-Ten Feng (National Chiao Tung University, Taiwan)

A Hierarchical Game Approach to Inter-Operator Spectrum Sharing
Mehdi Bennis (University of Oulu, Finland)
Merouane Debbah, Samson Lasaulce (SUPELEC, France)
Alagan Anpalagan (Ryerson University, Canada)

On Spectrum Selection Games in Cognitive Radio Networks
Ilaria Malanchini, Matteo Cesana, Nicola Gatti (Politecnico di Milano, Italy)

Tuesday, 1 December 2009
16:30 - 18:30
Location: Kahili 2
SAC(DS)-01: Advanced Coding and Signal Processing Algorithms in Data Storage
Chair: Hao Zhong (LSI Corporation, USA), Fatih Erden (Seagate Technology, USA)

Frame Synchronization for PPM-encoded Longitudinal Position Words in Magnetic Tape Storage
Giovanni Cherubini, Roy D. Cideciyan, Evangelos Eleftheriou, Jens Jelitto (IBM Research - Zurich, Switzerland)

Compensation of PLL Loop Delay in Read Channels for Tape Storage Systems
Sedat Oelcer, Evangelos Eleftheriou (IBM Research - Zurich, Switzerland)
Robert Hutchins (IBM-STG Tucson, USA)

A New Class of MDS Erasure Codes Based on Graphs
Nattakan Puttarak, Phisan Kaewprapha (Lehigh University, USA)
Boon Chong Ng (Nanyang Technological University, Singapore)
Jing (Tiffany) Li (Lehigh University, USA)

LDPC Decoding Strategies for Two-Dimensional Magnetic Recording
Anantha Raman Krishnan, Rathnakumar Radhakrishnan, Bane Vasic (University of Arizona, USA)

Performance Evaluation of the Probe Storage Channel
Thomas Parnell (Siglead Europe, UK)
Haralampos Pozidis (IBM Research, Switzerland)
Oleg Zaboronski (University of Warwick, UK)

Maximum-Likelihood Sequence Detector for Dynamic Mode High Density Probe Storage
Naveen Kumar (Iowa State University, USA)
Pranav Agarwal (University of Minnesota, USA)
Aditya Ramamoorthy (Iowa State University, USA)
Murti Salapaka (University of Minnesota, USA)

Tuesday, 1 December 2009
16:30 - 18:30
Location: Iolani Suite 3-4
SPC-03: Channel Estimation, Modeling and Equalization 2
Chair: Jingxian Wu (University of Arkansas, USA), Tomohiko Taniguchi (Fujitsu Laboratories Ltd., Japan)

*Improved BER Performance for MIMO-OFDM Systems with Interference Using Joint Parameter Estimation
Spatial Filtering aided MAP Detection*
Lisheng Fan (Shantou University, P.R. China)
Yangyang Zhang (University College London, UK)
Yongquan Jiang (Shantou University, China)
Kai-Kit Wong (University College London, UK)

A Reactive Tabu Search Based Equalizer for UWB MIMO-ISI Channels
Nagaraja Srinidhi, Saif K. Mohammed, Ananthanarayanan Chockalingam (Indian Institute of Science, India)

Robust Channel Estimation and Detection for Uplink Control Channel in 3GPP-LTE
Ramakrishna Raghavendra (Motorola, India)
Shirish Nagaraj (Motorola, USA)
Pradap Venkatramanan Konda (Motorola, India)
Phil Fleming (Motorola, USA)

Impact of DFE Error Propagation on FEC-Based High-Speed I/O Links
Rajan Narasimha (University of Illinois, Urbana-Champaign, USA)
Nirmal Warke (Texas Instruments Inc, USA)
Naresh Shanbhag (University of Illinois, Urbana-Champaign, USA)

A Single FPGA Filter-Based Multipath Fading Emulator
Saeed Fouladi Fard, Amirhossein Alimohammad (Ukalta Engineering, Canada)
Bruce Cockburn, Christian Schlegel (University of Alberta, Canada)

An Adaptive Approach to Estimation and Compensation of Frequency-Dependent I/Q Imbalances in MIMO-OFDM Systems
Shichuan Ma, Deborah D. Duran, Hami Sharif, Yaoqing (Lamar) Yang (University of Nebraska-Lincoln, USA)

Tuesday, 1 December 2009
16:30 - 18:30
Location: S. Pacific Ballroom #1
WCS-09: Cooperative Communication: Celluar Networks
Chair: Dong In Kim (Sungkyunkwan University, Korea)

The Resource-Optimized Differentially Modulated Hybrid AF/DF Cooperative Cellular Uplink
Li Wang, Lajos Hanzo (University of Southampton, UK)

Adaptive Multi-Tx Multi-Rx MIMO Transmission Scheme for LTE-Advanced Downlink
Xiaolin Hou, Zhan Zhang, Hidetoshi Kayama (DOCOMO Beijing Labs, China)

On the Performance of Compressed Interference Forwarding for Uplink Base Station Cooperation
Michael Grieger, Patrick Marsch (Dresden University of Technology, Germany)
John M. Cioffi (Stanford University, USA)
Gerhard Fettweis (Dresden University of Technology, Germany)

Multi-user Cooperative Communications with Relay-Coding for Uplink IMT-advanced 4G Systems
Lei Cao (University of Mississippi, USA)
Jinyun Zhang (Mitsubishi Electric Research Laboratories, USA)
Norio Kanno (Mitsubishi Electric Corporation, Japan)

A Decentralized Framework for Dynamic Downlink Base Station Cooperation
Sheng Zhou, Jie Gong, Zhisheng Niu (Tsinghua University, China)
Yunjian Jia (Hitachi, Ltd., Japan)
Peng Yang (Hitachi (China) Research & Development Corporation, China)

Dynamical Cooperative MAC based on Optimal Selection of Multiple Helpers
Yun Li, Bin Cao (Chongqing University of Post and Telecommunications, China)
Chonggang Wang (NEC Laboratories America, USA)
Xiaohu You (Southeast University, China)
Ali Daneshmand (AT&T, USA)
Hongcheng Zhuang (Huawei Technology Co. Ltd, China)

Tao Jiang (Huazhong University of Science and Technology, China)

Tuesday, 1 December 2009
16:30 - 18:30
Location: S. Pacific Ballroom #2
WCS-10: Propagation and Channel Modeling
Chair: Cheng-Xiang Wang (Heriot-Watt University, UK)

Impact of Mutual Coupling on MIMO Vehicle-to-vehicle Systems
Alenka Zajic (Naval Research Laboratory, USA)

A Geometry-Based Stochastic Model for Wideband MIMO Mobile-to-Mobile Channels
Xiang Cheng, Cheng-Xiang Wang (Heriot-Watt University, UK)
David Laurenson (University of Edinburgh, UK)

A Novel Coupling-based Model for Wideband MIMO Channel
Yan Zhang, Xinwei Hu, Yuanzhi Jia, Shidong Zhou, Xiang Chen, Jing Wang (Tsinghua University, China)

Stationarity Test for Wireless Communication Channels
Dmitry Umansky, Matthias Pätzold (University of Agder, Norway)

On the alpha-mu Autocorrelation and Power Spectrum Functions: Field Trials and Validation
Ugo Dias, Michel Yacoub (University of Campinas, Brazil)

Design of Measurement-Based Stochastic Wideband MIMO Channel Simulators
Dmitry Umansky, Matthias Pätzold (University of Agder, Norway)

Tuesday, 1 December 2009
16:30 - 18:30
Location: S. Pacific Ballroom #3
WCS-11: Scheduling
Chair: Ramachandran Venkatesan (Memorial University of Newfoundland, Canada)

A Game-Theoretic Approach to Decentralized Interference-Avoidance Scheduling for Cellular Systems:
Algorithm and Equilibria
Igor Stanojev, Umberto Spagnolini (Politecnico di Milano, Italy)

Channel Aware Distributed Random Access
Guowang Miao, Geoffrey Ye Li (Georgia Institute of Technology, USA)
Ananthram Swami (Army Research Lab., USA)

A Multi-Gbps Millimeter-wave WPAN System based on STDMA with Heuristic Scheduling
Chin-Sean Sum, Zhou Lan, Mohammad Azizur Rahman, Junyi Wang, Tuncer Baykas, Ryuhei Funada, Hiroshi Harad, Shuzo Kato (National Institute of Information & Communications Technology, Japan)

Channel Norm-Based User Scheduler in Coordinated Multi-Point Systems
Shengqian Han, Chenyang Yang (Beihang University, China)
Mats Bengtsson (Royal Institute of Technology, Sweden)
Ana I. Pérez-Neira (University Politecnica de Catalunya, Spain)

A Low-Complexity Algorithm for Uplink Scheduling in Cooperative Cellular Networks with a Capacity-Constrained Backhaul Infrastructure
Fabian Diehm, Patrick Marsch, Gerhard Fettweis (Technische Universität Dresden, Germany)
Bhaskar Ramamurthi (Indian Institute of Technology, India)

Weighted-SNR-Based Fair Scheduling for Uplink OFDMA
Yao Ma, Alex Leith (Iowa State University, USA)
Mohamed-Slim Alouini (KAUST, Saudi Arabia)
Xeumin (Sherman) Shen (University of Waterloo, Canada)

Tuesday, 1 December 2009
16:30 - 18:30
Location: S. Pacific Ballroom #4
WCS-12: Channel Estimation and Synchronization
Chair: Weiyi Zhang (North Dakota State University, USA)

CFO Estimation and Compensation in Single Carrier Interleaved FDMA Systems
Yu Zhu (Fudan University, China)
Khaled Ben Letaief (Hong Kong University of Science & Technology, Hong Kong)

Performance of Superimposed Training-Based Channel Estimation in MIMO-CDMA Systems
Ayman Assra, Walaa Hamouda, Amr Youssef (Concordia University, Canada)

OFDM Channel Estimation with Optimal Threshold-Based Selection of CIR Samples
Stefano Rosati, Giovanni Emanuele Corazza, Alessandro Vanelli-Coralli (University of Bologna, Italy)

Optimal Wavelet Design for Multicarrier Modulation with Time Synchronization Error
Madan Kumar Lakshmanan, Homayoun Nikookar, Dzemal Karamehmedović (Delft University of Technology, The Netherlands)

Closed-Form Expressions for the Exact Cramér-Rao Bound for Parameter Estimation of Arbitrary Square QAM-Modulated Signals
Faouzi Bellili, Nesrine Atitallah, Sofiène Affes, Alex Stephenne (Institut National de la Recherche Scientifique, Canada)

EM Algorithm for Non-Data-Aided SNR Estimation of Linearly-Modulated Signals over SIMO Channels
Mohamed Ali Boujelben, Faouzi Bellili, Sofiène Affes, Alex Stephenne (Institut National de la Recherche Scientifique, Canada)

Tuesday, 1 December 2009
16:30 - 18:30
Location: Coral Ballroom Lounge
WCS-39: Topics in Resource Management (Poster)
Chair: Hai Jiang (University of Alberta, Canada)

A Novel Radio Admission Control Scheme for Multiclass Services in LTE Systems
Manli Qian, Yi Huang, Jinglin Shi, Yao Yuan, Lin Tian (Chinese Academy of Sciences, China)
Eryk Dutkiewicz (Macquarie University, Australia)

Mode Selection-Based Channel Feedback Reduction Scheme for Opportunistic Scheduling in OFDMA Systems
Soomin Ko, Seungmin Lee, Hojoong Kwon, Byeong Gi Lee (Seoul National University, Korea)

Mitigating Performance Anomaly of TFRC in Multi-Rate IEEE 802.11 Wireless LANs
Kenichi Kashibuchi, Yoshiaki Nemoto, Nei Kato (Tohoku University, Japan)

An Adaptive Rate Assignment Strategy for CDMA2000 IS-856 Subject to RAB Delay
Kaveh Moezzi, Seyed Kian Jalaleddini, Amir Aghdam (Concordia University, Canada)
Mehdi Alasti (Global Technology Associates)
Vahid Tarokh (Harvard University, USA)

Rate Adaptation with NAK-Aided Loss Differentiation in 802.11 Wireless Networks
Anne N. Ngugi, Yuanzhu Peter Chen (Memorial University of Newfoundland, Canada)
Qing Li (Southwestern University of Finance and Economics, Chengdu, China)

Tuesday, 1 December 2009
16:30 - 18:30
Location: Coral Ballroom #1
WNS-05: Resource Management
Chair: Zhifeng Tao (Mitsubishi Electric Research Laboratories, USA)

On Scheduling and Power Control in Multi-Cell Coordinated Clusters
Norbert Reider (Budapest University of Technology and Economics, Hungary)
Andras Racz, Gabor Fodor (Ericsson Research, Sweden)

Optimum Power Allocation against Information Leakage in Wireless Network
Shafi Bashar, Zhi Ding (University of California at Davis, USA)

Near Optimum Power Control UnderFairness Constraints in CoMP Systems
Gabor Fodor (Ericsson Research, Sweden)
Mikael Johansson, Pablo Soldati (Royal Institute of Technology, Sweden)

Maintaining Utility Fairness Using Weighting Factors in Wireless Networks
Mehri Mehrjoo, Mohamad Khattar Awad (University Of Waterloo, Canada)
Mehrdad Dianati (University of Surrey, UK)
Xeumin (Sherman) Shen (University of Waterloo, Canada)

Utility-Based Resource Allocation for Layer-Encoded Multimedia Multicasting over Wireless Relay Networks
Ya-Ju Yu, Ai-Chun Pang, Yan-Chi Fang, Pang-Feng Liu (National Taiwan University, Taiwan)

MDP-based CAC for Two-Dimension Spreading VSF-OFCDM in 4G Cellular Communications
Ben-Jye Chang (National Yunlin University of Science and Technology, Taiwan)
Ying-Hsin Liang (Nankai University of Technology, Taiwan)
Chih-Hsien Wu, Yung-Fa Huang (Chaoyang University of Technology, Taiwan)
Ren-Hung Hwang (National Chung-Cheng University, Taiwan)

Tuesday, 1 December 2009
16:30 - 18:30
Location: Coral Ballroom #2
WNS-06: Mobility Modeling and Mobility Effect
Chair: Maode Ma (Nanyang Technological University, Singapore)

Stochastic Properties and Application of City Section Mobility Model
Md Shohrab Hossain, Mohammed Atiquzzaman (University of Oklahoma, USA)

Optimal Pattern in Epidemic Networks
Supriya Nirkhiwale, Caterina Scoglio (Kansas State University, USA)

Connectivity Analysis of Mobile Linear Networks with Delay Constraint
Jingxian Wu (University of Arkansas, USA)

Analyzing the Effect of Node Mobility in Clustered Wireless Ad Hoc Networks
Yanying Gu, R. Venkatesha Prasad, Ignas Niemegeers (Delft University of Technology, Netherlands)

An Efficient Multicast Search Scheme under 2D Markov Walk Model
Yao Yuan, Yucheng Zhang, Li Hu, Yi Huang, Manli Qian (Chinese Academy of Sciences, China)
Jihua Zhou (Chongqing Jinmei Communication Co., Ltd, China)
Jinglin Shi (Chinese Academy of Sciences, China)

Analytical Modelling of the GC-Based Handover Scheme with Heavy-Tailed Call Holding Times
Xiaolong Jin, Geyong Min, Jianmin Jiang (University of Bradford, UK)