

# 2010 IEEE Global Telecommunications Conference GLOBECOM 2010

6-10 December 2010

Miami, Florida, USA

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**2010 IEEE Global Telecommunications Conference GLOBECOM 2010**

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# TECHNICAL PROGRAM CHAIRS' WELCOME



Haohong Wang



John Thompson



Mukesh Singhal

It is our great pleasure to  
welcome you to Miami  
during 6 – 10 December 2010  
at the IEEE GLOBECOM 2010.

IEEE GLOBECOM 2010 received a record-breaking number of 4,614 paper submissions, the highest in IEEE GLOBECOM history. More than 2,200 TPC members and 6,300 reviewers helped in the peer-review process for submitted papers. We accepted 1,305 papers in the 11 symposia with an average acceptance rate of 35.4%, and 415 papers in the 21 workshops with an average acceptance rate of 44.8%. The symposia papers will be presented in 308 sessions, of which 252 sessions will have lecture style presentations and 56 will be poster format. This separation among papers was not based on technical quality, as all oral and poster sessions in IEEE GLOBECOM 2010 are considered by us to be equally important.

The IEEE GLOBECOM 2010 program committee put together an outstanding program. Apart from the 3 keynote sessions, 10 Business & Tech Forums, 308 technical symposium sessions, and 21 workshops, the program includes the following new features for the first time at IEEE GLOBECOM:

- The high-quality tutorial program is offered free to all conference attendees. Each of the 8 half-day classes and 4 short classes has received more than 250 registrations;
- Plenary Featured Talks delivered by 12 of the world's top scientists cover a variety of areas ranging from wireless communications to optical networks;
- Plenary Forums with 25 senior executives and world renowned scientists covering wireless networks, mobile communications, multimedia QoS and future networks;
- Funding Forum with invited speakers representing various funding agencies such as NSF, DARPA, ARO, ONR, AFOSR, DHS and so on;
- Student program jointly organized with IEEE GOLD with features targeted at young professionals such as, Early-bird Student Award, GOLD Best Paper Award, Student Travel Grant and Young Professional Program;
- Paper demo program with 20 demos to showcase the latest research advances.

The program bring a wide set of vision, practices, and technical expertise to attendees covering both fundamental research and new emerging advances in both the communications and networking areas. On the other hand, the featured Best Paper Award and GOLD Best Paper Award promote the best new ideas/concepts to our community. The specially designed Early-Bird Student Award and Student Travel Grant will encourage student attendance to this prime event.

The technical program of IEEE GLOBECOM 2010 would not have been possible without the tremendous efforts of 8,000+ volunteers in both the technical program committee and the organizing committee. The success of this conference is down to our authors who submitted their latest research advances to IEEE GLOBECOM 2010. We are deeply thankful to the TPC leadership team, technical program committee members and the reviewers who took tremendous workload during the paper peer review process. Special thanks to Kia Makki, the Executive General Chair, who gave us guidance and support all the time.

We look forward to seeing you all in Miami.

**Haohong Wang**, Cisco, USA  
IEEE GLOBECOM 2010 Technical Program Chair

**John Thompson**, University of Edinburg, UK  
**Mukesh Singhal**, Kentucky University, USA  
IEEE GLOBECOM 2010 Technical Program Co-Chairs

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# IEEE GLOBECOM COMPLETE TECHNICAL PROGRAM

## TUESDAY

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Tuesday, 7 December 2010 • 10:00 – 11:10

Location: Tuttle South

### **AHSN01: Routing I**

Chair: Mohamed Eltoweissy, Pacific Northwest National Laboratory, USA

#### **An Opportunistic Service Differentiation Routing Protocol for Cognitive Radio Networks**

Kiam Cheng How, Maode Ma (Nanyang Technological University, SG)

Yang Qin (HIT Shenzhen Graduate School, CN)

#### **A New Hybrid Location-based Ad Hoc Routing Protocol**

Mohammad Al-Rabayah, Robert Malaney (University of New South Wales, AU)

#### **A Secure Routing Protocol for Cluster-based Wireless Sensor Networks Using ID-based Digital Signature**

Huang Lu, Jie Li (University of Tsukuba, JP)

#### **Near-Minimum-Energy Routing in Heterogeneous Wireless Sensor Networks**

Weiyi (Max) Zhang (North Dakota State University, USA)

Xiaojiang Du, Jie Wu (Temple University, USA)

Shanaka de Soysa, Yang Liu (North Dakota State University, USA)

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Tuesday, 7 December 2010 • 10:00 – 11:10

Location: Riverfront North Hall

### **AHSN1P: Topics in Ad Hoc, Sensor, and Mesh Networks I (Poster)**

Chair: Kai Daniel, TU Dortmund University, Germany

#### **Collaborative Sampling in Wireless Sensor Networks**

Minglei Huang, Yu Hen Hu (University of Wisconsin-Madison, USA)

#### **Network Coding and Service Reneging for Real-Time Communication in Sensor Networks**

Marc Aoun (Philips Research, NL)

Antonios Argyriou (University of Thessaly, GR)

#### **PCFG Based Synthetic Mobility Trace Generation**

Sahin Geyik, Eyuphan Bulut, Boleslaw K Szymanski (Rensselaer Polytechnic Institute, USA)

#### **Optimal Multi-Frame Message Transmission for Intermittently Connected Mobile Networks**

Guolong Su, Yong Li (Tsinghua University, CN)

Fang Wang (Harbin Institute of Technology, CN)

Depeng Jin, Li Su, Lieguang Zeng (Tsinghua University, CN)

#### **RCS: a Random Channel Selection with Probabilistic Backoff for Multi-Channel MAC Protocols in WSNs**

Jinbao Li, Desheng Zhang (Heilongjiang University, CN)

Shouling Ji, Longjiang Guo (Georgia State University, USA)

**Prolonging Network Lifetime via A Controlled Mobile Sink in Wireless Sensor Networks**

Weifa Liang (Australian National University, AU)

Jun Luo (National University of Defense Technology, CN)

Grace Xu (Australian National University, AU)

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**Tuesday, 7 December 2010 • 10:00 – 11:10**

**Location: Tuttle Center**

**AHSN13: Security II**

**Chair: Yuri Labrador, Univision, FIU, USA**

**RPoK: A Strongly Resilient Polynomial-based Random Key Pre-distribution Scheme for Multiphase Wireless Sensor Networks**

Hisashige Ito, Atsuko Miyaji and Kazumasa Omote

(Japan Advanced Institute of Science and Technology, JP)

**PAAVE: Protocol for Anonymous Authentication in Vehicular Networks using Smart Cards**

Vamsi Krishna Paruchuri (University of Central Arkansas, USA)

Arjan Durrezi (Indiana University/Purdue University Indianapolis, USA)

**Threshold Key Redistribution for Dynamic Change of Authentication Group in Wireless Mesh Networks**

Kan Yang, Xiaohua Jia, Bo Zhang, Zhongming Zheng (City University of Hong Kong, HK)

**A Scheme for Secure and Reliable Distributed Data Storage in Unattended WSNs**

Yi Ren, Vladimir Oleshchuk, Frank Y. Li (University of Agder, NO)

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**Tuesday, 7 December 2010 • 10:00 – 11:10**

**Location: Jasmine**

**AHSN25: Energy Saving and Power Control Protocols IV**

**Chair: Shahrokh Valaee, University of Toronto, Canada**

**Symmetrical Power Control for Multi-channel Multi-hop Wireless Networks**

Khaled AlMotairi, Sherman Shen (University of Waterloo, CA)

**Using Centrality-based Power Control for Hot-spot Mitigation in Wireless Networks**

Parth Pathak, Rudra Dutta (North Carolina State University, USA)

**Position Aware Node Provisioning for Solar Powered Wireless Mesh Networks**

Mohammad Sheikh Zefreh (McMaster University, CA)

Ghada Badawy (Ryerson University, CA)

Terence D. Todd (McMaster University, CA)

**Dimension Reduction of Virtual Coordinate Systems in Wireless Sensor Networks**

Dulanjalie Dhanapala, Anura Jayasumana (Colorado State University, USA)

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**Tuesday, 7 December 2010 • 10:00 – 11:10**

**Location: Ibis**

**CIS01 Privacy Protection 1**

**Chair: Yan Huang, North Texas University, USA**

**Privacy Preserving Group Nearest Neighbour Queries in Location-based Services using Cryptographic Techniques**

Yan Huang, Roopa Vishwanathan (University of North Texas, USA)

**Sacrificing the Plum Tree for the Peach Tree: A Socialspot Tactic for Protecting Receiver-location Privacy in VANET**

Rongxing Lu (University of Waterloo, CA)

Xiaodong Lin (University of Ontario Institute of Technology, CA)

Xiaohui Liang, Sherman Shen (University of Waterloo, CA)

**An Efficient Privacy-Preserving Publish-Subscribe Service Scheme for Cloud Computing**

Yanping Xiao, Chuang Lin (Tsinghua University, CN)

Yixin Jiang (University of Waterloo, CA)

Xiaowen Chu (Hong Kong Baptist University, HK)

**Privacy Protecting Identification for RFIDs**

Behzad Malek, Ali Miri (University of Ottawa, CA)

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**Tuesday, 7 December 2010 • 10:00 – 11:10**

**Location: Riverfront North Hall**

**CIS1P: Internet Security I (Poster)**

**Chair: Yingfei Dong, University of Hawaii, USA**

**A Lite Security Solution for SIP Networks**

Samer El Sawda (University Pierre and Marie Curie, FR)

Pascal Urien (Ecole Nationale Supérieure de Télécommunication, FR)

Rami El Sawda (ESRGroups, FR)

**Practical Searching Over Encrypted Data by Private Information Retrieval**

Rei Yoshida (Chuo University, JP)

Yang Cui (AIST, JP)

Tomohiro Sekino (Chuo-University, JP)

**Integrating Security with QoS in Next Generation**

Tarik Taleb (NEC Europe Ltd., DE)

Abderrahim Benslimane, Abdelouahid El Yakoubi (University of Avignon, FR)

**Ergodic Secrecy Rate for Gaussian MISO Wiretap Channels with Non-Trivial Covariance**

Athina Petropulu, Jiangyuan Li (Drexel University, USA)

**Survivable SCADA Systems: An analytical framework using performance modeling**

Carlos Queiroz, Abdun Mahmood, Zahir Tari (RMIT University, AU)

**Accelerating String Matching Using Multi-threaded Algorithm on GPU**

Cheng-Hung Lin, Sheng-Yu Tsai, Chen-Hsiung Liu, Shih-Chieh, Jyuo-Min Shyu

(National Tsing-Hua University, TW)

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**Tuesday, 7 December 2010 • 10:00 – 11:10**  
**Location: Pearson I**

**CIS04 Network Coding and Attacks**  
**Chair: Dongsheng Wang, Tsinghua University, China**

**Trusted Network Coding in Wireless Ad Hoc Networks**  
Wei Cheng, Li Yu, Fei Xiong, Wei Wang (Huazhong University of Science and Technology, CN)

**Preventing Traffic Explosion and Achieving Source Unobservability in Multi-hop Wireless Networks using Network Coding**

Yanfei Fan (University of Waterloo, CA)  
Jiming Chen (Zhejiang University, CN)  
Xiaodong Lin (University of Ontario Institute of Technology, CA)  
Sherman Shen (University of Waterloo, CA)

**Rethinking about Type-flaw Attacks**  
Zhiwei Li, Weichao Wang (University of North Carolina, Charlotte, USA)

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**Tuesday, 7 December 2010 • 10:00 – 11:10**  
**Location: Orchid AB**

**CQRM01: Cognitive Radio and Networks I**  
**Chair: Chunxuan Ye, InterDigital Communications, USA**

**Efficient Channel Search Algorithms for Cognitive Radio in a Multichannel System**

Yan Xin (NEC Laboratories America Inc., USA)  
Guosen Yue (NEC Laboratories America, Inc., USA)  
Lifeng Lai (University of Arkansas at Little Rock, USA)

**Performance Enhancement for Unlicensed Users in Coordinated Cognitive Radio Networks Via Channel Reservation**

Xu Mao, Hong Ji (Beijing University of Posts and Telecommunications, CN)  
Victor Leung (University of British Columbia, CA)  
Ming Li (Beijing University of Posts and Telecommunications, CN)

**Sensing Users Selection with Overhead Reduction for Cognitive Wireless Ad-Hoc Networks**

Ferran Adelantado, Angel Juan (Universitat Oberta de Catalunya, ES)  
Harry Skianis (University of the Aegean, GR)  
Christos Verikoukis (Telecommunications Technological Centre of Catalonia, ES)

**Reliable Cooperative Spectrum Sensing Algorithm based on Dempster-Shafer Theory**

Jing Li, Jian Liu, Keping Long (University of Electronic Science and Technology of China, CN)

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**Tuesday, 7 December 2010 • 10:00 – 11:10**  
**Location: Hibiscus A**

**CQRM13: Access Control**  
**Chair: Toshinori Tsuboi, Tokyo University of Technology, Japan**



**Connection Admission Versus Load Balancing**

Shaunak Joshi, Przemyslaw Pawelczak (University of California, Los Angeles, USA)  
Sateesh Addepalli (Cisco, USA)  
John Villasenor, Danijela Cabric (University of California Los Angeles, USA)

**A Type-2 Fuzzy Logic Decision System for Call Admission Control in Next Generation Mobile Networks**

Nora Boumella (University of Paris-East, Créteil, FR)

**Admission Control Policies for Revenue and Utility Maximization in IEEE 802.16 networks**

Juliana Freitag Borin, Nelson L. S. da Fonseca (State University of Campinas, BR)

**Analysis of a Distributed Queuing Medium Access Control Protocol for Cooperative ARQ**

Jesus Alonso-Zarate (Centro Tecnológico Telecomunicaciones de Cataluña, ES)  
Luis Alonso (Universidad Politecnica de Catalunya, ES)  
Harry Skianis (University of the Aegean, GR)  
Christos Verikoukis (Centro Tecnológico Telecomunicaciones de Cataluña, ES)

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**Tuesday, 7 December 2010 • 10:00 – 11:10**

**Location: Merrick II**

**CSSMA01: P2P and Social Networking Services**

**Chair: Navjot Singh, Avaya Labs Research, USA**

**Impact of Network Address Translator Traversal on Delays in Peer-to-Peer Session Initiation Protocol**

Jouni Mäenpää, Veera Andersson, Gonzalo Camarillo, Ari Keränen (Ericsson, FI)

**Towards A Scalable Content-based Publish/Subscribe Service over DHT**

Wei Li (University of British Columbia, CA), Son Vuong (University of British Columbia, CA)

**Capability and Responsibility Balancing in Online Social Search**

Kuang Xu, Victor Li, Jing Xie, Guang-Hua Yang (University of Hong Kong, HK)

**Enabling Next Generation Multimedia Social Services**

Jose Simoes, Sebastian Lampe, Thomas Magedanz (Fraunhofer FOKUS, DE)

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**Tuesday, 7 December 2010 • 10:00 – 11:10**

**Location: Hibiscus B**

**CT01: Cooperative Techniques**

**Chair: Wei Zhang, University of New South Wales, Australia**

**Widely Linear Cooperative Spectrum Sensing for Cognitive Radio Networks**

Angela Sara Cacciapuoti, Marcello Caleffi, Luigi Paura (Università di Napoli Federico II, IT)

**Achievable Rates for Two User Cooperative OFDMA**

Onur Kaya, Sezi Bakım (Isik University, TR)

**Error Rate Performance of Network-Coded Cooperative Diversity Systems**

Amir Nasri, Robert Schober (University of British Columbia, CA)

Murat Uysal (University of Waterloo, CA)

**Outage Probability and SER of Cooperative Selection Diversity in Nonregenerative MIMO Relaying**

Phee Lep Yeoh (University of Sydney, AU)

Maged Elkashlan, Iain B. Collings (CSIRO, AU)

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**Tuesday, 7 December 2010 • 10:00 – 11:10**

**Location: Flamingo**

**NGN01: Packet Switching I**

**Chair: Si-Qing Zheng**, University of Texas, Dallas, USA

**Design Packet Buffer Using Random Round Robin**

Dong Lin, Mounir Hamdi, Jogesh Muppala

(Hong Kong University of Science and Technology, CN)

**Thermal Control for Crossbar-based Input-Queued Switches**

Andrea Bianco, Paolo Giaccone, Guido Maserà, Marco Ricca (Politecnico di Torino, IT)

**Modeling the Optimal Organization of Internet-Based Computation in the Cloud Computing Environment**

Ji Lu, Yaoxue Zhang, Yuezhi Zhou (Tsinghua University, CN)

**Achieving Flow Level Constant Performance Guarantees for CICQ Switches without Speedup**

Hao Jin, Deng Pan, Deng Pan, Niki Pissinou, Kia Makki (Florida International University, USA)

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**Tuesday, 7 December 2010 • 10:00 – 11:10**

**Location: Riverfront North Hall**

**NGN1P: Network Applications and Measurement (Poster)**

**Chair: Sung-Ju Lee**, HP Labs, USA

**A Social Accountability Framework for Computer Networks**

Kang Wang, Alexis Malozemoff, Ning Jia, Chunhui Han, Muthucumar Maheswaran

(McGill University, CA)

**Hierarchical Notification Dissemination for IMS Presence using Network Coordinates**

Dylan Smith, Changcheng Huang, James Yan (Carleton University, CA)

**Dynamics of Service Provider Selection in Communication Markets**

Shaolei Ren, Jaeok Park, Mihaela van der Schaar (University of California, Los Angeles, USA)

**Relative Delay Estimator for SCTP-based Concurrent Multipath Transfer**

Fei Song (University of Cambridge, UK)

Zhang Hongke, Sidong Zhang (Beijing Jiaotong University, CN)

Fernando Ramos, Jon Crowcroft (University of Cambridge, UK)

**Empirical analysis of core-edge separation by decomposing Internet topology graph**

Yangyang Wang, Jun Bi, Jianping Wu (Tsinghua University, CN)

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**Tuesday, 7 December 2010 • 10:00 – 11:10**

**Location: Tuttle North**

**ONS01: Energy Efficiency**

**Chair: Byrav Ramamurthy, University of Nebraska-Lincoln, USA**

**Differentiated Energy Savings in Optical Networks with Grooming Capabilities**

Farid Farahmand (Sonoma State University, USA)  
Mohammad Masud Hasan (University of Texas, Dallas, USA)  
Isabella Cerutti (Scuola Superiore Sant'Anna, IT)  
Jason P. Jue (University of Texas, Dallas, USA)  
Joel J. Rodrigues (IT, University of Beira Interior, PT)

**Energy-Efficient Design of Survivable WDM Networks with Shared Backup**

Cicek Cavdar, Feza Buzluca (Istanbul Technical University, TR)  
Lena Wosinska (Royal Institute of Technology, SE)

**Energy Efficient Time-Aware Traffic Grooming in Wavelength Routing Networks**

Shuqiang Zhang, Dong Shen, Chun-Kit Chan (Chinese University of Hong Kong, CN)

**Energy-Efficient WDM Network Planning with Protection Resources in Sleep Mode**

Ajmal Muhammad (Linköping University, SE)  
Paolo Monti (Royal Institute of Technology, SE)  
Isabella Cerutti (Scuola Superiore Sant'Anna, IT)  
Lena Wosinska (Royal Institute of Technology, SE)  
Piero Castoldi (Scuola Superiore Sant'Anna, IT)  
Anna Tzanakaki (AIT, GR)

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**Tuesday, 7 December 2010 • 10:00 – 11:10**

**Location: Gardenia**

**SAC01: Deep Space Networking**

**Chair: William Ivancic, NASA Glenn Research Center, USA**

**Joint Use of Custody Transfer and Erasure Codes in DTN Space Networks: Benefits and Shortcomings**

Tomaso De Cola (German Aerospace Center, DE)  
Mario Marchese (DIST- University of Genoa, IT)

**Large-File Transfers from Space Using Multiple Ground Terminals and Delay Tolerant Networking**

William D. Ivancic (NASA Glenn Research Center, USA)  
Wesley M. Eddy (MTI Systems, USA)  
Dave Stewart (Verizon Federal Network Systems, USA)  
Lloyd Wood (University of Surrey, UK)  
James Northam, Chris Jackson (Surrey Satellite Technology Ltd., UK)  
John Taylor, Jay Heberle, Scott Lynch (Universal Space Network, USA)  
Phillip Paulsen (NASA Glenn Research Center, USA)  
James H. McKim (RS Information Systems, USA)

**Comparative Analysis of Interplanetary and Pervasive Communications**

Mario Marchese (DIST- University of Genoa, IT)

**Licklider Transmission Protocol (LTP)-based DTN for Long-delay Cislunar Communications**

Ruhai Wang, Paavan Parik, Ramakrishna Bhavanthula (Lamar University, USA)

Jia Hou, Zhou Liu Lei (Soochow University, CN)  
Tarik Taleb (NEC Europe Ltd., DE)

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**Tuesday, 7 December 2010 • 10:00 – 11:10**

**Location: Tequesta**

**SPC01: Channel Estimation, Modeling and Equalization I**

**Chair: Li Zhang, University of Leeds, UK**

**Linear Minimum Mean-Squared Error Channel Estimation for Per-Subcarrier Antenna Selection**

Cheran M. Vithanage (Toshiba Research Europe Limited, UK)

Stojan Denic (Toshiba/Bristol University, USA)

**Low-Complexity Sparse FIR Channel Shortening**

Ahmad Abdulrahman Gomaa, Naofal Al-Dhahir (University of Texas, Dallas, USA)

**Multiple Carrier Frequency Offset and Channel Estimation for Distributed Relay Networks**

Lokesh Bheema Thiagarajan, Sumei Sun, Patrick Ho Wang Fung, Chin Keong Ho

(Institute for Infocomm Research, SG)

**Time Reversal Direction of Arrival Estimation with Cramer-Rao Bound Analysis**

Amir Asif, Foroohar Foroozan (York University, CA)

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**Tuesday, 7 December 2010 • 10:00 – 11:10**

**Location: Brickell North**

**WC01: MIMO I**

**Chairs: Seshadri Mohan, University of Arkansas, Little Rock, USA**

**George Efthymoglou, University of Piraeus, Greece**

**MU-MIMO Downlink Transmission Strategy Based on the Distributed Antennas for 3GPP LTE-A**

Yifan Yu (France Telecom R&D Beijing, CN)

**Performance Benchmark for Network MIMO Systems: A Unified Approach for MMSE Transceiver Design and Performance Analysis**

Jialing Li, Enoch Lu (Polytechnic Institute of New York University, USA)

I-Tai Lu (Polytechnic University, USA)

**Optimality Properties and Low-Complexity Solutions to Coordinated Multicell Transmission**

Emil Björnson, Mats Bengtsson, Björn Ottersten (Royal Institute of Technology, SE)

**Updated Basis Lattice Reduction based Sequential User Selection for Multiuser MIMO Systems**

Lin Bai (Swansea University, UK)

Chen Chen (Peking University, CN)

Jinho Choi (Swansea University, UK)

Cong Ling (Imperial College London, UK)

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**Tuesday, 7 December 2010 • 10:00 – 11:10**

**Location: Riverfront North Hall**

**WC1P: Cognitive Radio Systems (Poster)**  
**Chair: Jelena Masic, Ryerson University, Canada**

**Efficiency of Filter Bank Multicarrier Techniques in Burst Radio Transmission**  
Maurice Bellanger (CNAM, FR)

**On the Throughput Maximization of Spectrum Sharing Cognitive Radio Networks**  
Stergios Stotas, Nallanathan Arumugam (King's College London, UK)

**A Framework for Resource Allocation in a Cognitive Digital Home**  
Tianming Li, Narayan Mandayam (WINLAB, Rutgers University, USA)  
Alex Reznik (InterDigital, USA)

**Opportunistic Spectrum Access in Cognitive Relay Networks based on White Space Modeling**  
Zhe Wang, Wei Zhang (University of New South Wales, AU)

**Performance Analysis of Cognitive Radio Systems under QoS Constraints and Channel Uncertainty**  
Sami Akin, M. Cenk Gursoy (University of Nebraska-Lincoln, USA)

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**Tuesday, 7 December 2010 • 10:00 – 11:10**  
**Location: Brickell Center**

**WC13: Cognitive Radio I**  
**Chairs: Husheng Li, University of Tennessee, USA**  
**Ariton Xhafa, Texas Instruments, USA**

**Achieving Energy Efficiency via Drowsy Transmission in Cognitive Radio**  
Kun Zheng, Husheng Li (University of Tennessee, USA)

**Statistical Modeling of Cognitive Network Interference**  
Alberto Rabbachin (Joint Research Centre, European Commission, IT)  
Tony Q. S. Quek (Institute for Infocomm Research, SG)  
Moe Z. Win (MIT, USA)

**Impact of Noise Power Uncertainty on Cooperative Spectrum Sensing in Cognitive Radio Systems**  
Karama Hamdi (Hong Kong University of Science and Technology, CN)  
Xiang Nian Zeng, Ali Ghrayeb (Concordia University, CA)  
Khaled Letaief (Hong Kong University of Science & Technology, CN)

**Learning Interference Strategies in Cognitive ARQ Networks**  
Sina Firouzabadi, Marco Levorato, Daniel O'Neill, Andrea Goldsmith (Stanford University, USA)

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**Tuesday, 7 December 2010 • 10:00 – 11:10**  
**Location: Brickell South**

**WC25: Cooperative Communications I**  
**Chair: Sana Sfar, Interdigital, USA**

**Packet-Reliability-Based Decode-and-Forward Distributed Space-Time Shift Keying**

Shinya Sugiura, Sheng Chen, Lajos Hanzo (University of Southampton, UK)

**An Analysis of Two-Way Multi-Node Relay Systems**

Zhiyong Chen (Beijing University of Posts and Telecommunications, CN)

Hui Liu (University of Washington, USA)

Wenbo Wang (Beijing University of Posts and Telecommunications, CN)

**Amplify-and-Forward Selection Cooperation with Channel Estimation Error**

Mehdi Seyfi, Sami Muhaidat, Jie Liang (Simon Fraser University, CA)

**Power Optimization in Adaptive Relay Networks**

Aimal Khan, Volker Kuehn (University of Rostock, DE)

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**Tuesday, 7 December 2010 • 10:00 – 11:10**

**Location: Orchid D**

**WC37: Beamforming I**

**Chair: Youngchul Sung, KAIST, Korea**

**Low-complexity Coordinated Beamforming Transmission for Multiuser MISO Systems and its Performance Analysis**

Jun Zhu, Hong-Chuan Yang (University of Victoria, CA)

**MIMO Transmission with Rank Adaptation for Multi-Gigabit 60 GHz Wireless**

Meilong Jiang, Guosen Yue, Sampath Rangarajan (NEC Labs America, USA)

**Impact of Imperfect Channel Estimation Errors in MIMO Two Hop Relay Network with Beamforming**

Karaputugala Gam Acharige Thilina, Nandana Rajatheva (Asian Institute of Technology, TH)

**Frequency-Domain Digital Calibration and Beamforming with Wideband Antenna Array**

Xiaojing Huang, Val Dyadyuk (CSIRO, AU)

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**Tuesday, 7 December 2010 • 10:00 – 11:10**

**Location: Orchid C**

**WC49: Cross-layer Design**

**Chair: Xinsheng Zhao, Southeast University, China**

**Cross-layer Design for Interference-limited Spectrum Sharing Systems**

Krishna Nehra, Amir Shadmand, Mohammad Shikh-Bahaei (Kings College London, UK)

**Routing and Power Allocation in MIMO Two-way Multihop Networks: A New Cross-layer Approach to Mitigate Interference**

Rindranirina Ramamonjison, JongHyun Lee, Kei Sakaguchi, Kiyomichi Araki (Tokyo Institute of Technology, JP)

**Cross-Layer Channel Allocation Protocol for OFDMA Ad Hoc Networks**

Marzieh Veyseh, JJ Garcia-Luna-Aceves, Hamid Sadjadpour (University of California, Santa Cruz, USA)

**Multi-User Buffer Control with Drift Fields**

Vinay Majjigi, Daniel O'Neill (Stanford University, USA)  
Carolin Huppert (Ulm University, German)  
John Cioffi (Stanford University, USA)

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**Tuesday, 7 December 2010 • 10:00 – 11:10**

**Location: Peason II**

**WN01: Cognitive Networking I**

**Chairs: Tsung-Nan Lin, National Taiwan University, Taiwan  
Lijun Qian, Prairie View A&M University, USA**

**Opportunistic Periodic MAC Protocol for Cognitive Radio Networks**

Dongyue Xue (Ohio State University, USA)  
Xinbing Wang (Shanghai Jiaotong University, CN)  
Eylem Ekici (Ohio State University, USA)

**Cognitive MAC Protocol with Transmission Tax: Dynamically Adjusting Sensing and Data Performance**

Vojislav B. Mistic, Jelena Mistic (Ryerson University, CA)

**Maximize Secondary User Throughput via Optimal Sensing in Multi-channel Cognitive Radio Networks**

Shimin Gong, Ping Wang (Nanyang Technological University, SG)  
Wei Liu, Wei Yuan (Huazhong University of Science and Technology, CN)

**A Real Time Testbed for the Evaluation of Cognitive Radio MAC**

Shen Gu, Pengchao Xu, Xinbing Wang, Hui Yu, Xiaoying Gan  
(Shanghai Jiao Tong University, CN)

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**Tuesday, 7 December 2010 • 10:00 – 11:10**

**Location: Riverfront North Hall**

**WN1P: Topics in Wireless Networking I (Poster)**

**Chair: Abderrahmane Lakas, UAE University, UAE**

**Critical Phase of Connectivity in Wireless Network Expansion**

Bo Gu, Xiaoyan Hong (University of Alabama, USA)

**Fast Heuristic Algorithm for Topology Design and Load Balancing in FSO Networks**

Inkeun Son, Shiwen Mao (Auburn University, USA)

**A Reformulation-Linearization Technique-based Approach to Joint Topology Design and Load Balancing in FSO Networks**

Inkeun Son, Shiwen Mao (Auburn University, USA)

**Cooperation Stimulation in Cognitive Networks Using Indirect Reciprocity Game Modeling**

Yan Chen, K. J. Ray Liu (University of Maryland, USA)

**Incentive Schemes for Data Collaboration in Disruption Tolerant Networks**

Kamalavasan Srinivasan (Microsoft Corporation, USA)

Sreejith Rajkumar, Parmesh Ramanathan (University of Wisconsin, USA)

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**Tuesday, 7 December 2010 • 10:00 – 11:10**

**Location: Gautier**

**WN13: 802.16 / WiMAX Networks I**

**Chairs: Maode Ma, Nanyang Technological University, Singapore**

**Jon Ward, Johns Hopkins University, USA**

**Relay Station Placement for Cooperative Communications in WiMAX Networks**

Dejun Yang, Xi Fang, Guoliang Xue (Arizona State University, USA)

Jian Tang (Montana State University, USA)

**Fairness Schemes in 802.16j Mobile Multihop Relay Networks**

Yongchul Kim, Mihail Sichitiu (North Carolina State University, USA)

**Cross-layer Uplink Scheduler for the IEEE 802.16 standard**

Flavio Adalberto Kubota (State University of Campinas, BR)

Juliana Freitag Borin, Nelson L. S. da Fonseca (State University of Campinas, BR)

**Cross-Layer Self-Optimizing Temporal-Spectrum Block Scheduling for QoS Provisioning in WiMAX**

Maode Ma (Nanyang Technological University, SG)

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**Tuesday, 7 December 2010 • 10:00 – 11:10**

**Location: Merrick I**

**WN25: Wireless Sensor Network Design I**

**Chairs: Jingxian Wu, University of Arkansas, USA**

**Debarati Sen, Samsung Electronics, India**

**Routing and Link Layer Protocol Design for Sensor Networks with Wireless Energy Transfer**

Rahman Doost Mohammady, Kaushik Chowdhury (Northeastern University, USA)

Marco Di Felice (University of Bologna, IT)

**Deployment Algorithms for Wireless Underground Sensor Networks using Magnetic Induction**

Zhi Sun, Ian F. Akyildiz (Georgia Institute of Technology, USA)

**Link Loss Inference in Wireless Sensor Networks with Randomized Network Coding**

Vahid Shah-Mansouri, Vincent Wong (University of British Columbia, CA)

**A POMDP Based k-Coverage Dynamic Scheduling Protocol for Wireless Sensor Networks**

Xin Fei, Azzedine Boukerche (University of Ottawa, CA)

F. Richard Yu (Carleton University, CA)

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**Tuesday, 7 December 2010 • 11:20 – 12:30**

**Location: Tuttle South**



**AHSN02: Routing II**

Chair: Burkhard Stiller, University of Zürich, Switzerland

**Opportunistic Routing with Adaptive CSMA/CA in Wireless Mesh Networks**

Mathias Kurth, Jens-Peter Redlich (Humboldt University Berlin, DE)

**GW-GEM: A Reliable Routing Algorithm for Wireless Sensor Networks**

Qiang Ye, Junjian Li (University of Prince Edward Island, CA)

Yanxia Jia (Arcadia University, USA)

Hongwei Du (University of Prince Edward Island, CA)

**Maximum Lifetime Broadcast and Multicast Routing in Unreliable Wireless Ad-hoc Networks**

Song Guo, Victor CM Leung (University of British Columbia, CA)

**EMAC: An Asynchronous Routing-Enhanced MAC Protocol in Multi-hop Wireless Networks**

Shu Du, Yanjun Sun (Texas Instruments, USA)

David B. Johnson (Rice University, USA)

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Tuesday, 7 December 2010 • 11:20 – 12:30

Location: Tuttle Center

**AHSN14: Clustering V**

Chair: Yu Cheng, Illinois Institute of Technology, USA

**Message Authentication with Non-transferability for Location Privacy in Mobile Ad Hoc Networks**

Xiaohui Liang, Rongxing Lu (University of Waterloo, CA)

Xiaodong Lin (University of Ontario Institute of Technology, CA)

Sherman Shen (University of Waterloo, CA)

**A Bayesian Statistical Model to Alleviate Greediness in Wireless Mesh Networks**

Soufiene Djahel (University of Lille, FR)

Youcef Begriche (IEEE, FR)

Farid Naït-Abdesselam (University of Lille, FR)

**Deploying Proxy Signature In VANETs**

Subir Biswas (University of Manitoba, CA)

Jelena Mistic (Ryerson University, CA)

**Mobi-Sync: Efficient Time Synchronization for Mobile Underwater Sensor Networks**

Jun Liu, Zhong Zhou, Zheng Peng, Jun-Hong Cui (University of Connecticut, USA)

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Tuesday, 7 December 2010 • 11:20 – 12:30

Location: Riverfront North Hall

**AHSN2P: Topics in Ad Hoc, Sensor, and Mesh Networks II (Poster)**

Chair: Qilian Liang, University of Texas, Arlington, USA

**Secured Two Phase Geographic Forwarding Protocol in Wireless Multimedia Sensor Networks**

Taye Mulugeta (Addis Ababa University, ET)

Lei Shu (Osaka University, JP)

Manfred Hauswirth (DERI Galway, IE)  
Min Chen (Seoul National University, KR)  
Takahiro Hara, Shojiro Nishio (Osaka University, JP)

**Dynamic Slot Allocation Algorithm for R-ALOHA with Priority (PR-ALOHA)**

Nesreen Alsbou, Hazem Refai (Oklahoma University, USA)

**Solution Space Characterization and a Fast Algorithm for the Channel Assignment Problem in Wireless Mesh Networks**

Jose Barrameda, Nancy Samaan (University of Ottawa, CA)

**Self-Deployment Algorithms for Coverage Problem in a Network of Mobile Sensors with Unidentical Sensing Range**

Hamid Mahboubi, Kaveh Moezzi, Amir Aghdam (Concordia University, CA)  
Kamran Sayrafian-Pour, Vladimir Marbukh (NIST, USA)

**Waveform Design and Optimization in Radar Sensor Network**

Lei Xu, Qilian Liang (University of Texas, Arlington, USA)

**Chip Design of a 0.18 $\mu$ m RF CMOS-based Analog Low-pass Filter for WSN RF Front-end**

Xiangning Fan, Chisheng Zhu, Lei Zhang (Southeast University, CN)

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**Tuesday, 7 December 2010 • 11:20 – 12:30**

**Location: Jasmine**

**AHSN26: Topology Control**

**Chair: Marco Roccetti, University of Bologna, Italy**

**Degree Constrained Topology Control for Very Dense Wireless Sensor Networks**

Jaewook Yu (Stony Brook University, USA)  
Eric Noel (AT&T Labs - Research, USA)  
Wendy Tang (Stony Brook University, USA)

**Topology Aware Link Throughput of Slotted Aloha in Rayleigh Block Fading Channels**

Arash Tahmasebi Toyserkani, Erik G. Ström, Arne Svensson (Chalmers University of Technology, SE)

**Connectivity Restoration in Wireless Sensor Networks using Steiner Tree Approximations**

Mohamed Younis, Rahul Waknis (University of Maryland, Baltimore County, USA)

**Optimal Sensor Density in a Distortion-Tolerant Linear Wireless Sensor Network**

Jingxian Wu, Ning Sun (University of Arkansas, USA)

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**Tuesday, 7 December 2010 • 11:20 – 12:30**

**Location: Ibis**

**CIS02 Privacy Protection II**

**Chair: Jinyuan Sun, University of Florida, USA**

**Preserving Privacy in Emergency Response Based on Wireless Body Sensor Networks**

Jinyuan Sun (University of Florida, USA)  
Xiaoyan Zhu (Xidian University, CN)

Yuguang Fang (University of Florida, USA)

**On the Privacy of Encrypted Skype Communications**

Benoit Dupasquier, Stefan Burschka, Kieran McLaughlin, Sakir Sezer (Queen's University Belfast, UK)

**FLIP: An Efficient Privacy-preserving Protocol for Finding Like-minded Vehicles on the Road**

Rongxing Lu (University of Waterloo, CA)

Xiaodong Lin (University of Ontario Institute of Technology, CA)

Xiaohui Liang, Sherman Shen (University of Waterloo, CA)

**Privacy Enhanced RFID Using Quasi-Dyadic Fix Domain Shrinking**

Tomohiro Sekino (Chuo-University, JP)

Yang Cui, Kazukuni Kobara (AIST, JP)

Hideki Imai (Chuo University, JP)

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**Tuesday, 7 December 2010 • 11:20 – 12:30**

**Location: Pearson I**

**CIS05 Wireless and RFID Security**

**Chair: Charles Clancy, Virginia Tech, USA**

**Practical Defenses for Evil Twin Attacks in 802.11**

Harold Gonzales, Kevin Bauer (University of Colorado, Boulder, USA)

Janne Lindqvist (Carnegie Mellon University, USA)

Damon McCoy (University of Colorado, Boulder, USA)

**Authenticating MIMO Transmissions Using Channel-Like Fingerprinting**

Nathan Goergen, Wanyi Lin, K. J. Ray Liu, T. Charles Clancy (University of Maryland, USA)

**A Lightweight Stream Cipher WG-7 for RFID Encryption and Authentication**

Yiyuan Luo (Shanghai Jiao Tong University, CN)

Qi Chai, Guang Gong (University of Waterloo, CA)

Xuejia Lai (Shanghai Jiao Tong University, CN)

**ACSP: A Novel Security Protocol against Counting Attack for UHF RFID Systems**

Ce Chen, Zhuzhong Qian (Nanjing University, CN)

Ilsun You (Korean Bible University, KR)

Jue Hong, Sanglu Lu (Nanjing University, CN)

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**Tuesday, 7 December 2010 • 11:20 – 12:30**

**Location: Riverfront North Hall**

**CIS2P: Wireless Security I (Poster)**

**Chair: Kejie Lu, University of Puerto Rico at Mayagüez, Puerto Rico**

**Credit-based Mechanism Protecting Multi-hop Wireless Networks from Rational and Irrational Packet Drop**

Mohamed Mahmoud, Sherman Shen (University of Waterloo, CA)

**Quantum Location Verification in Noisy Channels**

Robert Malaney (University of New South Wales, AU)

**SinPack: A Security Protocol for Preventing Pollution Attacks in Network-Coded Content Distribution Networks**

Wassim Itani, Cesar Ghali, Ahmad El-Hajj, Ayman Kayssi, Ali Chehab (American University of Beirut, LB)

**A Distributed Multi-Target Software Vulnerability Discovery and Analysis Infrastructure for Smart Phones**

Thandava Krishnan Saidapet Padmanabhan, Wang Hao Lee, Lavany Devi D/O Suppiah, Sathya SA (Institute for Infocomm Research, SG)

**MIMO Cross-Layer Secure Communication Architecture Based on STBC**

Hong Wen, Guang Gong, Pin-Han Ho (University of Waterloo, CA)

**Fast Message Authentication Code for Multiple Messages with Provable Security**

Aida Vosoughi, Rajendra Katti (North Dakota State University, USA)

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**Tuesday, 7 December 2010 • 11:20 – 12:30**

**Location: Orchid AB**

**CQRM02: Cognitive Radio and Networks II**

**Chair: Chunxuan Ye, InterDigital Communications, USA**

**Modeling and Analysis of Dynamic Spectrum Access in Cognitive Radio Networks with Self-Similar Traffic**

Lei Liu, Xiaolong Jin, Geyong Min, Jia Hu (University of Bradford, UK)

**A Cognitive Approach for Cross-Layer Performance Management**

Neumar Malheiros (University of Campinas, BR)

Dzmitry Kliazovich (University of Luxembourg, LU)

Fabrizio Granelli (University of Trento, IT)

Edmundo Madeira, Nelson L. S. da Fonseca (State University of Campinas, BR)

**Identifying Relevant Cross-Layer Interactions in Cognitive Processes**

Christian Facchini, Fabrizio Granelli (University of Trento, IT)

Nelson L. S. da Fonseca (State University of Campinas, BR)

**Quality of Experience aware multimedia provisioning with Cross-layer Autonomic Network Management**

René Serral-Gracià, Eva Marin/Tordera, Marcelo Yannuzzi, Xavier Masip-Bruin (Universitat Politècnica de Catalunya, ES)

Sergio Sánchez-López (Technical University of Catalonia, ES)

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**Tuesday, 7 December 2010 • 11:20 – 12:30**

**Location: Hibiscus A**

**CQRM14: Internet**

**Chair: Qiang Duan, Pennsylvania State University, Abington, USA**

**Constructing Candidate Network Topologies Using Multiagent System**

Noriaki Kamiyama (NTT Service Integration Laboratories, JP)

**Delay Analysis and Queue-length Distribution of a Slotted Metro Network using Embedded Discrete Time Markov Chain**

Tulin Atmaca (IT/Telecom & Management SudParis, FR)

**Performance of TCP in Intermittently Connected Wireless Networks: Analysis and Improvement**

Yun Li (Chongqing University of Posts and Telecommunications of China, CN)

Shiyong Lei (Research Center for Wireless Networks, CQUPT, CN)

Xiaohu You (Southeast University, CN)

Qilie Liu (Chongqing University of Posts and Telecommunications, CN)

Kazem Sohraby (University of Arkansas, USA)

**The Skeleton of the Internet**

Márton Csernai, András Gulyás, Zalan Heszberger, Gábor Rétvári

(Budapest University of Technology and Economics, HU)

András Császár (Ericsson Research, HU)

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**Tuesday, 7 December 2010 • 11:20 – 12:30**

**Location: Merrick II**

**CSSMA02: Location Measurement**

**Chair: Thomas Schmidt, HAW Hamburg, Germany**

**GAC: Energy-Efficient Hybrid GPS-Accelerometer-Compass GSM Localization**

Moustafa Youssef (Nile University, EG)

Mohamed Yosef, Mohamed El-Derini (Alexandria University, EG)

**Accurate Indoor Location Estimation by Incorporating the Importance of Access Points in Wireless Local Area Networks**

Shih-Hau Fang (Yuan Ze University, TW)

Tsung-Nan Lin (National Taiwan University, TW)

**Energy Efficient Assisted GPS Measurement and Path Reconstruction for People Tracking**

Robin Wentao Ouyang, Albert K. Wong (Hong Kong University of Science and Technology, HK)

Mung Chiang (Princeton University, USA)

Kam-tim Woo, Victoria Ying Zhang (Hong Kong University of Science and Technology, HK)

Hongseok Kim (University of Texas, Austin, USA)

Xiaoming Xiao (Hong Kong University of Science and Technology, CN)

**Controlling Overload in SIP Proxies: An Adaptive Window Based Approach Using No Explicit Feedback**

Maryam Homayouni, Hani Nemati, Vahid Azhari, Ahmad Akbari

(Iran University of Science and Technology, IR)

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**Tuesday, 7 December 2010 • 11:20 – 12:30**

**Location: Hibiscus B**

**CT02: Broadcast Channels**

**Chair: B. Sundar Rajan, Indian Institute of Science, India**

**ROME: Rateless Online MDS Code for Wireless Data Broadcasting**

Nengqiang He, Yi Xu (Tsinghua University, CN)  
Jiannong Cao, Zhu Li (Hong Kong Polytechnic University, CN)  
Hongyang Chen (University of Tokyo, JP)  
Yong Ren (Tsinghua University, CN)

**MIMO Bidirectional Broadcast Channels with Common Message**

Rafael F. Wyrembelski (Technische Universität Berlin, DE)  
Tobias J. Oechtering (Royal Institute of Technology, SE)  
Holger Boche (Technical University of Berlin, DE)

**Degrees of Freedom Region of the Gaussian MIMO Broadcast Channel with Common and Private Messages**

Ersen Ekrem, Sennur Ulukus (University of Maryland, USA)

**On the use of the gap approximation for the Gaussian broadcast channel**

Dimitris Toumpakaris (University of Patras, Greece, GR)  
Jungwon Lee (Marvell Semiconductor, USA)

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**Tuesday, 7 December 2010 • 11:20 – 12:30**

**Location: Flamingo**

**NGN02: Packet Switching II**

**Chair: Wojciech Kabacinski, Poznan University of Technology, Poland**

**Multistage Software Routers in a Virtual Environment**

Andrea Bianco, Robert Birke, Luca Girauda, Nanfang Li (Politecnico di Torino, IT)

**Performance Guarantees in Partially Buffered Crossbar Switches**

Lotfi Mhamdi, Nikolaos Skalis (Delft University of Technology, NL)

**A Container-based Fast Bridge for Virtual Routers on Commodity Hardware**

Manel Bourguiba, Kamel Haddadou, Guy Pujolle (University of Paris 6, FR)

**Making Contention-Tolerant Crossbar Switch Scalable**

Hyung Jae Chang (University of Texas, Dallas, USA)  
Guannan Qu (Jilin University, CN)  
Jianping Wang (City University of Hong Kong, CN)  
Si-Qing Zheng (University of Texas, Dallas, USA)

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**Tuesday, 7 December 2010 • 11:20 – 12:30**

**Location: Riverfront North Hall**

**NGN2P: Network Virtualization & Cloud Computing (Poster)**

**Chair: Csaba Kiraly, University of Trento, Italy**

**Privacy Exposure of Online Social Search**

Kuang Xu, Victor O. K. Li (University of Hong Kong, CN)

**Reducing Crosspoint Buffers for Performance Guaranteed Asynchronous Crossbar Scheduling**

Masoumeh Karimi, Zhou Sun, Deng Pan (Florida International University, USA)

**Energy-Information Transmission Tradeoff in Green Cloud Computing**

Amir-Hamed Mohsenian-Rad, Alberto Leon-Garcia (University of Toronto, CA)

**Game Theory Based Bandwidth Allocation Scheme for Network Virtualization**

Zhou Ye, Yong Li, Sun Guang, Depeng Jin, Li Su, Lieguang Zeng (Tsinghua University, CN)

**SplitAP: Leveraging Wireless Network Virtualization for Flexible Sharing Of WLANs**

Gautam Bhanage, Dipti Vete, Ivan Seskar, Dipankar Raychaudhuri (Rutgers University, USA)

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**Tuesday, 7 December 2010 • 11:20 – 12:30**

**Location: Tuttle North**

**ONS02: Monitoring**

**Chair: Jaafar Elmirghani, University of Leeds, United Kingdom**

**A New Heuristic for Monitoring Trail Allocation in All-Optical WDM Networks**

Yangming Zhao, Shizhong Xu (University of Electronic Science and Technology, CN)

**Optimal Allocation of Monitoring Trails for Fast SRLG Failure Localization in All-Optical Networks**

Bin Wu, Pin-Han Ho (University of Waterloo, CA)

János Tapolcai (Budapest University of Technology and Economics, HU)

**Monitoring-Tree: An Innovative Technique for Failure Localization in WDM Translucent Networks**

Elias A. Doumith, Sawsan Al Zahr (TELECOM Paris Tech, FR)

Maurice Gagnaire (Ecole Nationale Supérieure des Telecommunications, FR)

**Analyzing the Receiver Operating Characteristics of Novel Fiber Ring Based PON Monitoring System**

Maged Abdullah Esmail (King Saud University, SA)

Habib Fathallah (Université Laval, CA)

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**Tuesday, 7 December 2010 • 11:20 – 12:30**

**Location: Gardenia**

**SAC02: Cognitive Radio and Learning**

**Chair: Octavia Dobre, Memorial University, Canada**

**Learning Through Reinforcement for Repeated Power Control Game in Cognitive Radio Networks**

Pan Zhou, Yusun Chang, John Copeland (Georgia Institute of Technology, USA)

**A Bargaining Game for Channel Access in Dynamic Spectrum Access Networks**

Swastik Brahma, Mainak Chatterjee (University of Central Florida, USA)

**A Nash-Stackelberg Fuzzy Q-Learning Decision Approach in Heterogeneous Cognitive Networks**

Majed Haddad (Orange-Labs, FR)

Zwi Altman (France Telecom R&D, FR)

Salah Eddine Elayoubi (Orange Labs, FR)

Eitan Altman (INRIA, FR)

**Efficiency-Revenue Optimality Tradeoffs in Dynamic Spectrum Allocation**

Majid Alkaee Taleghan, Bechir Hamdaoui (Oregon State University, USA)

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**Tuesday, 7 December 2010 • 11:20 – 12:30**

**Location: Tequesta**

**SPC02: Channel Estimation, Modeling and Equalization II**

**Chair: Lee Swindlehurst, University of California, Irvine, USA**

**ML Estimation of Signal Amplitude in Laplace Noise**

Norman C. Beaulieu, Sijing Jiang (University of Alberta, CA)

**Indoor Channel Measurements and Models at 2.4 GHz in a Hospital**

Ruben de Francisco (IMEC / Holst Centre, NL)

**Reduced-Complexity Soft-Output Viterbi Algorithm for Channels Characterized by Dominant Error Events**

Ravi Motwani (Broadcom Corp, USA)

**AMC Improvements from Robust Estimation**

Amy Malady, A. A. (Louis) Beex (DSPRL - Wireless@VT, USA)

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**Tuesday, 7 December 2010 • 11:20 – 12:30**

**Location: Brickell North**

**WC02: MIMO II**

**Chairs: Emad Alsusa, University of Manchester, United Kingdom**

**Senad Busovaca, California State University, USA**

**On the Performance of SSK Modulation over Multiple-Access Rayleigh Fading Channels**

Marco Di Renzo (French National Center for Scientific Research, FR)

Harald Haas (University of Edinburgh, UK)

**Channel Inversion in MIMO Systems over Rician Fading**

Damith Senaratne (University of Alberta, CA)

Himal Suraweera (National University of Singapore, SG)

Chintha Tellambura (University of Alberta, CA)

**Time-Out Lattice Sequential Decoding for the MIMO ARQ Channel**

Walid Abedeliseid, Mohamed Oussama Damen (University of Waterloo, CA)

**On the Power Allocation for Relay Networks with Finite Alphabet Constraint**

Weiliang Zeng, Mingxi Wang, Chengshan Xiao (Missouri University of Science and Technology, USA)

Jianhua Lu (Tsinghua University, CN)

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**Tuesday, 7 December 2010 • 11:20 – 12:30**

**Location: Brickell Center**

**WC14: Cognitive Radio II**

**Chairs: Husheng Li, University of Tennessee, USA**

**Sonia Aissa, University of Quebec, INRS-EMT, Canada**



**Distributed Cooperative Multi-channel Spectrum Sensing based on Dynamic Coalitional Game**  
Weiwei Wang, Behzad Kasiri, Jun Cai, Attahiru Alfa (University of Manitoba, CA)

**Modeling of Interference from Cooperative Cognitive Radios for Low Power Primary Users**  
Prasanna Madhusudhanan, Juan Restrepo, Youjian (Eugene) Liu, Timothy Brown, Kenneth Baker  
(University of Colorado, Boulder, USA)

**A Cognitive Transmission Scheme with the Best Relay Selection in Cognitive Radio Networks**  
Yu Long Zou (Stevens Institute of Technology, USA)  
Zhu Jia, Baoyu Zheng (Nanjing University of Posts and Telecommunications, CN)  
Yu-Dong Yao (Stevens Institute of Technology, USA)

**High-Diversity Cooperative Spectrum Sensing in Cognitive Radio Networks**  
Guobing Li (Xi'an Jiaotong University, CN)  
Alfonso Cano (University of Minnesota, USA)  
Shihua Zhu (Xi'an Jiaotong University, CN)

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**Tuesday, 7 December 2010 • 11:20 – 12:30**  
**Location: Riverfront North Hall**

**WC2P: Multi-Antenna Systems I (Poster)**  
**Chair: Vojislav B. Misic, Ryerson University, Canada**

**Asymptotic performance of two-hop amplify-and-forward MIMO relaying with transmit antenna selection**  
Lei Cao, Li Chen, Xin Zhang, Dacheng Yang (Beijing University of Posts and Telecommunications, CN)

**Investigation into the Doppler Component of the IEEE 802.11n Channel Model**  
Eldad Perahia, Anmol Sheth, Thomas Kenney, Robert Stacey (Intel, USA)  
Daniel Halperin (University of Washington, USA)

**Single-cell vs. Multicell MIMO Downlink Signaling Strategies with Imperfect CSI**  
Steven Blostein, Hassan Abou Saleh (Queen's University, CA)

**Performance Improvement of Multiantenna Cellular System Using Cooperation of Base Stations and Relay Stations**  
Tetsuki Taniguchi, Yoshio Karasawa, Nobuo Nakajima (University of Electro-Communications, JP)

**Exact and Closed-Form Error Performance Analysis for Hard MMSE Detection in MIMO Systems**  
Peng Liu, Il-Min Kim (Queen's University, CA)

**MIMO in HSDPA and SIMO/MIMO Co-existence**  
Pavan Kumar Vitthaladevuni, Haitong Sun, Danlu Zhang, Sharad Sambhwani, Jilei Hou  
(Qualcomm Inc., USA)

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**Tuesday, 7 December 2010 • 11:20 – 12:30**  
**Location: Brickell South**

**WC26: Cooperative Communications II**  
**Chairs: Bala Natarajan, Kansas State University, USA**

**Sana Sfar, InterDigital, USA**

**On the Achievability in Cooperative Amplify and Forward Wireless Relay Network**

Rajet Krishnan, Bala Natarajan (Kansas State University, USA)

**Opportunistic Routing in Ad Hoc Networks: How many relays should there be? What rate should nodes use?**

Joseph Blomer, Nihar Jindal (University of Minnesota, USA)

**Performance Analysis of Dual-Hop Relaying Systems in the Presence of Co-Channel Interference**

Salama Ikki (University of Waterloo, CA)

Sonia Aissa (University of Quebec, CA)

**Finite-SNR Diversity-Multiplexing Tradeoff for Two-Way Multi-Antenna Relay Fading Channels**

Xiaochen Lin, Meixia Tao (Shanghai Jiao Tong University, CN)

Youyun Xu (PLA University of Science & Technology, CN)

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**Tuesday, 7 December 2010 • 11:20 – 12:30**

**Location: Orchid D**

**WC38: Beamforming II**

**Chair: Sana Sfar, InterDigital Communications, USA**

**Optimal Beamforming in MIMO Two-Way Relay Channels**

Xiyuan Wang (Tsinghua University, CN)

Xian-Da Zhang (Tsinghua University, TW)

**Downlink Transmit Beamforming for Inter-cell Interference Mitigation with CoMP**

Uk Jang, Kang Yong Lee, Cho Kee Seong, Won Ryu (ETRI, KR)

**A Graphical Model Approach to Downlink Cooperative MIMO Systems**

Illsoo Sohn, Sang Hyun Lee, Jeffrey Andrews (University of Texas, Austin, USA)

**Multicell Collaborative Random Beamforming with Power Sharing and User Selection**

Jia-Hao Wu, Yu-Tao Hsieh, Pangan Ting (Tsing Hua University, Hsinchu, TW)

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**Tuesday, 7 December 2010 • 11:20 – 12:30**

**Location: Orchid C**

**WC50: Equalization**

**Chair: Sami Muhaidat, Simon Fraser University, Canada**

**Signal-Level Turbo Packet Combining for Multi-Rate Relay-Assisted Systems over Multi-Antenna Broadband Channels**

Houda Chafnaji, Tarik Ait-Idir (INPT, MA)

Halim Yanikomeroglu (Carleton University, CA)

Samir Saoudi (Telecom-Bretagne, FR)

**Stochastic Expectation Maximization Algorithm for Long-Memory Fast-Fading Channels**

Hong Wan, Rong-Rong Chen (University of Utah, USA)

Jun Won Choi, Andrew Singer (University of Illinois, Urbana Champaign, USA)

James Preisig (Woods Hole Oceanographic Institution, USA)  
Behrouz Farhang-Boroujeny (University of Utah, USA)

**MMSE Beamforming for SC-FDMA Transmission over MIMO ISI Channels with Linear Equalization**

Uyen Ly Dang, Michael Ruder, Wolfgang Gerstacker (University of Erlangen-Nuernberg, DE)  
Robert Schober (University of British Columbia, CA)

**Cooperative Filter-and-Forward Beamforming with Linear Equalization**

Yang-wen Liang, Aissa Ikhlef (University of British Columbia, CA)  
Wolfgang Gerstacker (University of Erlangen-Nuernberg, DE)  
Robert Schober (University of British Columbia, CA)

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**Tuesday, 7 December 2010 • 11:20 – 12:30**

**Location: Peason II**

**WN02: Dynamic Spectrum Access I**

**Chairs: Husheng Li, University of Tennessee, USA**  
**Lijun Qian, Prairie View A&M University, USA**

**Optimization of Periodic Channel Sensing by Secondary Users in a Cognitive Radio Network**

Dongyue Xue (Ohio State University, USA)  
Xinbing Wang (Shanghai Jiaotong University, CN)  
Ekram Hossain (University of Manitoba, CA)

**Opportunistic Energy-Aware Channel Sensing Schemes for Dynamic Spectrum Access Networks**

Hang Su, Xi Zhang (Texas A&M University, USA)

**Collaborative Spectrum Sensing Based on Signal Correlation in Cognitive Radio Networks**

Chengnian Long (Shanghai Jiaotong University, CN)  
Haifeng Wang (Yanshan University, CN)  
Bo Li (Hong Kong University of Science and Technology, CN)

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**Tuesday, 7 December 2010 • 11:20 – 12:30**

**Location: Gautier**

**WN14: 802.11 Wireless Networks I**

**Chairs: Maode Ma, Nanyang Technological University, Singapore**  
**Jon Ward, Johns Hopkins University, USA**

**A Game Theoretical Approach for Load Balancing User Association in 802.11 Wireless Networks**

Wenchao Xu, Cunqing Hua, Aiping Huang (Zhejiang University, CN)

**Adaptive Carrier-Sensing for Throughput Improvement in IEEE 802.11 Networks**

Ehsan Haghani, Michael Krishnan, Avidah Zakhor (University of California, Berkeley, USA)

**Adaptive Spectrum Distribution in WLANs**

Fatima Zarinni, Samir R. Das (Stony Brook University, USA)

**Measurement Based Investigation of Indoor IEEE 802.11g Channel Dynamics**

Shaoen Wu (University of Southern Mississippi, USA)  
Honggang Wang (University of Massachusetts, Dartmouth, USA)

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**Tuesday, 7 December 2010 • 11:20 – 12:30**

**Location: Riverfront North Hall**

**WN2P: Resource Management in Wireless Networks I (Poster)**

**Chair: Ruonan Zhang**, Northwest Polytechnical University, China

**An Energy Efficient Network Architecture for Infrastructured Wireless Networks**

Satyanarayana Degala, Jaafar Elmirghani (University of Leeds, UK)

**Dimming Cellular Networks**

David Tipper, Abdelmounaam Rezgui, Prashant Krishnamurthy, Peera Pacharintanakul (University of Pittsburgh, USA)

**Resource Utilization Mechanism for Multi-rate Ultra-wide Band Networks**

Raed Taleb Al-Zubi, Marwan Krunz, Leo Lopes (University of Arizona, USA)

**Inter-operator Resource Sharing Decisions Under Uncertainty**

Ahmet C. Toker, Fikret Sivrikaya, Sahin Albayrak (Technische Universität Berlin, DE)  
Bulent Yener (RPI, USA)

**Optimal Bandwidth Allocation with Dynamic Service Selection in Heterogeneous Wireless Networks**

Kun Zhu, Dusit Niyato, Ping Wang (Nanyang Technological University, SG)

**When Idle is Not Quite: Energy-Efficient Platform Design in Presence of Network Background and Management Traffic**

Sameh Gobriel, Christian Maciocco, Tsung-Yuan (Charles) Tai (Intel Corporation, USA)

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**Tuesday, 7 December 2010 • 11:20 – 12:30**

**Location: Merrick I**

**WN26: Delay Tolerant Networks I**

**Chairs: Marcello Caleffi**, University of Naples "Federico II", Italy  
**Yu Wang**, University of North Carolina Charlotte, USA

**A Socially-based Routing Protocol for Delay Tolerant Networks**

Tamer A. AbdelKader, Kshirasagar Naik (University of Waterloo, CA)  
Amiya Nayak (SITE, University of Ottawa, CA)  
Nishith Goel (Cistel, CA)

**Trust Management for Encounter-Based Routing in Delay Tolerant Networks**

Ing-Ray Chen, Fenyue Bao, Moonjeong Chang (Virginia Tech, USA)  
Jin-Hee Cho (U.S. Army Research Laboratory, USA)

**Prediction Assisted Single-copy Routing in Underwater Delay Tolerant Networks**

Zheng Guo, Bing Wang, Jun-Hong Cui (University of Connecticut, USA)

**Improving Dominating Set Routing Performance Via Node Mobility Model**

Hany Samuel (University of Waterloo, CA)  
Weihua Zhuang (University of Waterloo, CA)

Bruno R. Preiss (Research In Motion, CA)

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**Tuesday, 7 December 2010 • 16:00 – 17:10**

**Location: Tuttle South**

**AHSN03: Routing III**

**Chair: Jelena Masic, Ryerson University, Canada**

**On Multipath Routing in Wireless Mesh Networks with Multiple Gateways**

Chia-Hung Chang, Wanjiun Liao (National Taiwan University, TW)

**Energy-Saving Event-Driven Wakeup and Routing in Wireless Sensor Networks**

Weiying Zhu (Hampton University, USA)

**Correlation-Aware QoS Routing for Wireless Video Sensor Networks**

Rui Dai, Pu Wang, Ian F. Akyildiz (Georgia Institute of Technology, USA)

**PRO: A Profile-based Routing Protocol for Pocket Switched Networks**

Murat Ali Bayir, Murat Demirbas (University at Buffalo, SUNY, USA)

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**Tuesday, 7 December 2010 • 16:00 – 17:10**

**Location: Tuttle Center**

**AHSN15: Data Aggregation and Processing**

**Chair: Baoxian Zhang, Graduate University of the Chinese Academy of Sciences, China**

**Algorithms for Answering Geo-Range Query**

Xi Zhang, Kui Wu, (University of Victoria, CA)

Yong Gao (UBC-Okanagan, CA)

**An Efficient Data Aggregation Approach for Large Scale Wireless Sensor Networks**

Lutful Karim, Nidal Nasser (University of Guelph, CA)

Hanady Abdulsalam (Kuwait University, KW)

Imad Moukadem (Gulf University for Science and Technology, KW)

**Structure-less Message Aggregation (SLMA): Reliably and Efficiently Improve Information Precision and Certainty for VANETs**

Congyi Liu, Chunxiao (Tricia) Chigan (Michigan Technological University, USA)

**Data Gathering Protocols for Wireless Sensor Networks with Mobile Sinks**

Ke Tian (Beijing University of Posts and Telecommunications, CN)

Baoxian Zhang, Kui Huang (Chinese Academy of Sciences, CN)

Jian Ma (Nokia Research Center, CN)

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**Tuesday, 7 December 2010 • 16:00 – 17:10**

**Location: Jasmine**

**AHSN27: Multi-Radio and/or Multi-Channel Networks**

**Chair: Amir-Hamed Mohsenian-Rad, University of Toronto, Canada**

**MMAC-HR: Multi-channel Medium Access Control with Hopping Reservation for Multi-hop Wireless Networks**

Khaled AlMotairi, Sherman Shen (University of Waterloo, CA)

**A Cooperative Multi-Channel MAC Protocol for Wireless Networks**

Devu Manikantan Shila, Tricha Anjali, Yu Cheng (Illinois Institute of Technology, USA)

**A Small World Model based on Multi-interface and Multi-channel to Design Heterogeneous Wireless Sensor Networks**

Daniel L. Guidoni, Azzedine Boukerche (University of Ottawa, CA)

Fernanda S H Souza (Federal University of Minas Gerais, BR)

Raquel A. F. Mini (PUC Minas, BR)

Antonio A.F. Loureiro (Federal University of Minas Gerais, BR)

**Throughput Improvement in Multi-Radio Multi-Channel 802.11a-based Wireless Mesh Networks**

Aizaz Chaudhry, Roshdy Hafez, Osama Aboul-Magd, Samy Mahmoud (Carleton University, Ottawa, CA)

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**Tuesday, 7 December 2010 • 16:00 – 17:10**

**Location: Riverfront North Hall**

**AHSN3P: Topics in Ad Hoc, Sensor, and Mesh Networks III (Poster)**

**Chair: Khairi A. Hamdi, University of Manchester, United Kingdom**

**Dynamic Connectivity of Cognitive Radio Ad-hoc Networks with Time-varying Spectral Activity**

Pu Wang, Ian F. Akyildiz (Georgia Institute of Technology, USA)

**Stationarity of Mobility Models Constructed with LEMMA**

Alexander P. Pelov, Thomas Noel (University of Strasbourg, FR)

**Fast Recovery from Link Failures and Blackout of A Managed Wireless Mesh for NerveNet**

Masugi Inoue, Masaaki Ohnishi (National Institute of Information and Communications Technology, JP)

Hiroaki Morino (Shibaura Institute of Technology, JP)

Tohru Sanefuji (Nassua Solutions Corp., JP)

**Traffic Protection via Bandwidth Scavenging in Heterogeneous Sensor Networks**

Anthony Plummer Jr., Matthias Schmidt, Mahmoud Taghizadeh, Subir Biswas (Michigan State University, USA)

**Effects of Different Mobility Models on Traffic Patterns in Wireless Sensor Networks**

Pu Wang, Ian F. Akyildiz (Georgia Institute of Technology, USA)

**A Cooperative Dual Access Multi-Channel MAC Protocol for Ad Hoc Networks**

Yuhan Moon, Violet R. Syrotiuk (Arizona State University, USA)

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**Tuesday, 7 December 2010 • 16:00 – 17:10**

**Location: Ibis**

**CIS03: Trust Management**

**Chair: Dijiang Huang, Arizona State University, USA**

**On Measuring Email-based Social Network Trust**

Dijiang Huang, Vetri Arasan (Arizona State University, USA)

**WIM: A Wage-based Incentive Mechanism for Reinforcing Truthful Feedbacks in Reputation Systems**

Huanyu Zhao, Xin Yang, Xiaolin (Andy) Li (Oklahoma State University, USA)

**Provenance Based Information Trustworthiness Evaluation in Multi-hop Networks**

Xinlei Wang, Kannan Govindan, Prasant Mohapatra (University of California, Davis, USA)

**Coping with Traitor Attacks in Reputation Models for Wireless Sensor Networks**

Shenlong Chen (Chinese Academy of Sciences, CN)

Yuqing Zhang (State Key Laboratory of Information Security, CN)

Peng Liu, Jingyu Feng (Xidian University, CN)

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**Tuesday, 7 December 2010 • 16:00 – 17:10**

**Location: Pearson I**

**CIS06: Internet Security**

**Chair: Niki Pissinou, Telecom & IT Institute, USA**

**Signaling Architecture for Network Traffic Authorization**

Se Gi Hong, Henning Schulzrinne (Columbia University, USA)

Swen Weiland (University of Göttingen, DE)

**Credible-BGP: A Hybrid Cryptosystem to Secure BGP**

Junaid Israr, Mouhcine Guennoun, Hussein Mouftah, Sk. Md. Mizanur Rahman (University of Ottawa, CA)

**On the Robustness of the Botnet Topology Formed by Worm Infection**

Qian Wang (Florida International University, USA)

Zesheng Chen, Chao Chen (Indiana University Purdue University Fort Wayne, USA)

Niki Pissinou (Florida International University, USA)

**Node Behavior based Fast Malware Detection for Enterprise Networks**

Su Chang, Thomas Daniels (Iowa State University, USA)

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**Tuesday, 7 December 2010 • 16:00 – 17:10**

**Location: Riverfront North Hall**

**CIS3P: CIS Poster Session 3 Wireless Security B**

**Chair: Nidal Nasser, University of Guelph, Canada**

**Distance Bounding Protocols on TH-UWB Radios**

Ahmed Benfarah (INSA-Lyon, FR)

Cedric Lauradoux (INRIA, FR)

Benoit Miscopein (France Telecom, FR)

Jean-Marie Gorce (INSA-Lyon, FR)

Bernard Roux (University of Lyon, FR)

**Performance Evaluation of a Hybrid Cryptosystem with Authentication for Wireless Ad hoc Networks**

Azzedine Boukerche, Yonglin Ren, Richard Pazzi (University of Ottawa, CA)

**A modified fuzzy vault scheme for biometrics-based body sensor networks security**

Fen Miao, Shudi Bao, Ye Li (Chinese Academy of Sciences, CN)

**Time Correlation Analysis of Secret Key Generation via UWB Channels**

Masoud Ghoreishi Madiseh, Stephen Neville, Michael McGuire (University of Victoria, CA)

**Integrated UCON-Based Access Control and Adaptive Intrusion Detection for Wireless Sensor Networks**

Jun Wu, Shigeru Shimamoto (Waseda University, JP)

**Analysis of Certificate Revocation List Distribution Protocols for Vehicular Networks**

Yogesh Reddy Kondareddy (Auburn University, USA)

Giovanni Di Crescenzo (Telcordia Technologies, USA)

Prathima Agrawal (Auburn University, USA)

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**Tuesday, 7 December 2010 • 16:00 – 17:10**

**Location: Orchid AB**

**CQRM03: Multimedia**

**Chair: Stefano Giordano, University of Pisa, Italy**

**Applying Active Window Management for Jitter Control and Loss Avoidance in Video Streaming over TCP Connections**

Alfio Lombardo, Carla Panarello, Giovanni Schembra (University of Catania, IT)

**Case Study of Internet Links: What degrades Video QoE?**

Mukundan Iyengar, Mainak Chatterjee (University of Central Florida, USA)

**Methods of Selecting Threshold for the QoE-Based Video Output Scheme SCS**

Shuji Tasaka, Akifumi Hirashima (Nagoya Institute of Technology, JP)

**Modeling of Transmission Distortion for Multi-View Video in Packet Lossy Networks**

Yuan Zhou, Chunping Hou (Tianjin University, CN)

Wei Xiang (University of Southern Queensland, AU)

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**Tuesday, 7 December 2010 • 16:00 – 17:10**

**Location: Hibiscus A**

**CQRM15: P2P Network and Applications I**

**Chair: Yannis Viniotis, North Carolina State University, USA**

**Peer-to-Peer Storage Systems: a Practical Guideline to be Lazy**

Frederic Giroire (CNRS, FR)

Julian Monteiro (INRIA Sophia Antipolis, FR)

Stephane Perennes (INRIA, FR)

**Are a Few Neighboring Peers Good Enough?**



Lili Zhong, Jie Dai, Bo Li (Hong Kong University of Science and Technology, CN)  
Baochun Li (University of Toronto, CA)  
Hai Jin (Huazhong University of Science and Technology, CN)

**Efficient Uplink Bandwidth Utilization in P2P-TV Streaming Systems**

Alessandra Carta, Michela Meo, Marco Mellia, Stefano Traverso (Politecnico di Torino, IT)

**DHTrust: A Robust and Distributed Reputation System for Trusted Peer-to-Peer Networks**

Yaqiong Liu, Keqiu Li (Dalian University of Technology, CN)  
Geyong Min (University of Bradford, UK)  
Yingwei Jin (Dalian University of Technology, CN)  
Wenyu Qu (Dalian Maritime University, CN)

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**Tuesday, 7 December 2010 • 16:00 – 17:10**

**Location: Merrick II**

**CSSMA03: Scheduling and Latency in Service Delivery**

**Chair: Krishna K. Dhara, Avaya Labs Research, USA**

**XenTune: Detecting Xen Scheduling Bottlenecks for Media Applications**

Min Lee (Georgia Tech, USA)  
Anjur Krishnakumar; P. Krishnan, Navjot Singh, Shalini Yajnik (Avaya Labs, USA)

**Scheduling Grid Applications on Clouds**

Cesar Chaves, Daniel Batista, Nelson L. S. da Fonseca (State University of Campinas, BR)

**Enabling Ambient Aware Service Delivery in Heterogeneous Wireless Environments**

Marius Corici, Thomas Magedanz, Dragos Vingarzan, Peter Weik (Fraunhofer FOKUS, DE)

**VNC in High-Latency Environments and Techniques for Improvement**

Taurin Tan-atichat, Joseph Pasquale (University of California, San Diego, USA)

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**Tuesday, 7 December 2010 • 16:00 – 17:10**

**Location: Hibiscus B**

**CT03: Channel Coding I**

**Chair: Ali Abedi, University of Maine, USA**

**Ball Codes - Two-Dimensional Tail-Biting Convolutional Codes**

Liam Alfandary, Dan Raphaeli (Tel Aviv University, IL)

**On Design of Doubly-Generalized LDPC Codes Based on Multi-Type Information Functions**

Enrico Paolini, Marco Chiani (University of Bologna, IT)  
Marc Fossorier (Etis Ensea, FR)

**Variable-Rate Transmission for Incremental Redundancy Hybrid ARQ**

Leszek Szczecinski (INRS-EMT, CA)  
Ciro Correa, Luciano Ahumada (Universidad Diego Portales, CL)

**Flexible Signal Space Diversity Techniques from MDS Codes with Fast Decoding**

Yue Shang (MathWorks, USA)  
Dong Wang (Philips Research North America, USA)  
Xiang-Gen Xia (University of Delaware, USA)

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**Tuesday, 7 December 2010 • 16:00 – 17:10**  
**Location: Flamingo**

**NGN03: Packet Processing**  
**Chair: Tarik Taleb, NEC Europe, Germany**

**A Tunnel-aware Language for Network Packet Filtering**  
Luigi Ciminiera, Marco Leogrande, Ju Liu (Politecnico di Torino, IT)  
Olivier Morandi (Laser S.r.l., IT)  
Fulvio Risso (Politecnico di Torino, IT)

**Incremental Forwarding Table Aggregation**  
Yaoqing Liu, Kyuhan Nam (University of Memphis, USA)  
Xin Zhao (University of Arizona, USA)  
Lan Wang (University of Memphis, USA)  
Beichuan Zhang (University of Arizona, USA)

**Experience on Applying Push Model to Packet Processors in High Performance Routers**  
Bo Yuan, Hongbo Zhao, Chengchen Hu, Bin Liu (Tsinghua University, CN)  
Jia Yu (University of California, Riverside, USA)  
Laxmi Bhuyan (University of California, USA)

**Cache-Based Scalable Deep Packet Inspection with Predictive Automaton**  
Hyung Jae Yi Tang, Junchen Jiang, Bin Liu (Tsinghua University, CN)

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**Tuesday, 7 December 2010 • 16:00 – 17:10**  
**Location: Riverfront North Hall**

**NGN3P: Peer-to-Peer and Content Delivery Networks (Poster)**  
**Chair: Panayiotis Kolios, King's College London, UK**

**Odd for Even: A Selfishness Prevention File Swap Scheme for BitTorrent**  
Miao Wang, Zhang Yujun, Guojie Li (Chinese Academy of Sciences, CN)

**Assessing the impact of geographically correlated failures on overlay-based data dissemination**  
Kyungbaek Kim, Nalini Venkatasubramanian (University of California, Irvine, USA)

**On the Use of Concurrent Multipath Transfer over Asymmetric Paths**  
Thomas Dreibholz, Martin Becke, Erwin P. Rathgeb (University of Duisburg-Essen, DE)  
Michael Tüxen (Münster University of Applied Sciences, DE)

**An Analytic Model for the Stream Control Transmission Protocol**  
T. Daniel Wallace, Abdallah Shami (University of Western Ontario, CA)

**On Parallel UDP-based Transport Control over Dedicated Connections**  
Xukang Lu, Qishi Wu (University of Memphis, USA)  
Zongmin Wang (Zhengzhou University, CN)

Nageswara Rao (Oak Ridge National Laboratory, USA)

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**Tuesday, 7 December 2010 • 16:00 – 17:10**

**Location: Tuttle North**

**ONS03: Multicast**

**Chair: Andrea Bianco, Politecnico di Torino, Italy**

**Multicast Advance Reservation RWA Heuristics in Wavelength-Routed Networks**

Neal Charbonneau, Vinod M. Vokkarane (University of Massachusetts, Dartmouth, USA)

**Dynamic Sub-Light-Tree Based Traffic Grooming for Multicast in WDM Networks**

Rongping Lin, Wen-De Zhong (Nanyang Technological University, SG)

Sanjay Kumar Bose (I.I.T. Guwahati, IN)

Moshe Zukerman (City University of Hong Kong, CN)

**Placement of Multicast Capable Nodes in Power Constrained All-Optical WDM Networks**

Kelvin Keen-Mun Yong, Tee Hiang Cheng, Gaoxi Xiao (Nanyang Technological University, SG)

Luying Zhou (Institute for Infocomm Research, SG)

**Approximation Ratios of Multicast Light-trees in WDM Networks**

Fen Zhou, Miklos Molnar (INSA Rennes / IRISA, FR)

Bernard Cousin (IRISA, University of Rennes 1, FR)

Chunming Qiao (State University of New York, Buffalo, USA)

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**Tuesday, 7 December 2010 • 16:00 – 17:10**

**Location: Gardenia**

**SAC03: Cognitive Radio and Security**

**Chair: Tim Newman, Virginia Tech, USA**

**Optimal Defense against Jamming Attacks in Cognitive Radio Networks using the Markov Decision Process Approach**

Yongle Wu, Beibei Wang, K. J. Ray Liu (University of Maryland, USA)

**Case Study: Security Analysis of a Dynamic Spectrum Access Radio System**

Timothy Newman (Virginia Tech, USA)

T. Charles Clancy (University of Maryland, USA)

Mark McHenry (Shared Spectrum Company, USA)

Jeffrey Reed (Virginia Tech, USA)

**Denial of Service Attacks in Cognitive Radio Networks through Channel Eviction Triggering**

Shabnam Sodagari (Pennsylvania State University, USA)

Alireza Attar, Victor Leung (University of British Columbia, CA)

Sven Bilen (Pennsylvania State University, USA)

**Robust Spectrum Decision Protocol against Primary User Emulation Attacks in Dynamic Spectrum Access Networks**

Zituo Jin, Santhanakrishnan Anand, Koduvayur Subbalakshmi (Stevens Institute of Technology, USA)

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**Tuesday, 7 December 2010 • 16:00 – 17:10**  
**Location: Tequesta**

**SPC03: Channel Estimation, Modeling and Equalization III**  
**Chair: Hsiao-Chun Wu, Louisiana State University, USA**

**A Novel Robust Detection Algorithm Using Jarqur-Bera Statistic for Spectrum Sensing**  
Lu Lu, Hsiao-Chun Wu, Sitharama Iyengar (Louisiana State University, USA)

**Novel Robust Blind Equalizer for QAM Signals Using Iterative Weighted-Least-Mean-Square Algorithm**

Kun Yan, Hsiao-Chun Wu (Louisiana State University, USA)  
Dongxin Xu (Infoture Inc., USA)  
Sitharama Iyengar (Louisiana State University, USA)

**Equalizers for Multi-scale/Multi-lag Wireless Channels**

Urbashi Mitra (University of Southern California, USA)  
Geert Leus (Delft University of Technology, NL)

**Optimal Precoder and Symbol Grouping for Bandwidth-Efficient Bit-interleaved Coded Modulation over NAF Single-Relay Channels**

Nghi Tran, Leonardo Jiménez Rodríguez, Tho Le-Ngoc (McGill University, CA)

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**Tuesday, 7 December 2010 • 16:00 – 17:10**  
**Location: Brickell North**

**WC03: MIMO III**

**Chair: Yan Xin, NEC Labs America, USA**  
**Niki Pissinou, Telecom & IT Institute, USA**

**Energy-efficient power loading for a MIMO-SVD system and its performance in flat fading**  
Raghavendra Prabhu, Babak Daneshrad (University of California, Los Angeles, USA)

**User Selection with Throughput-Fairness Tradeoff for MIMO Broadcast Channels**

Ziqing Ye, Kai Niu, Zhiqiang He (Beijing University of Posts and Telecommunications, CN)

**A Novel Capacity Outer Bound for the MIMO Gaussian Interference Channel and Application to Relay-Assisted Communications**

Oussama Souihli, Tomoaki Ohtsuki (Keio University, JP)

**Space-Time Correlation Properties of a 3-D Two-Sphere Model for Non-Isotropic MIMO Mobile-to-Mobile Channels**

Yi Yuan, Xiang Cheng, Chengxiang Wang (Heriot-Watt University, UK)  
David Laurenson (University of Edinburgh, UK)  
Ge Xiaohu (Huazhong University of Science & Technology, CN)  
Feng Zhao (Guilin University of Electronic Technology, CN)

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**Tuesday, 7 December 2010 • 16:00 – 17:10**  
**Location: Brickell Center**

**WC15: Cognitive Radio III**

**Chairs: Robert Qiu, Tennessee Tech University, USA**

**Jerry Miller, Advance Research Center, USA**

**Experimental Study of Cooperative Spectrum Sensing for Cognitive Radio**

Yoshimitsu Yagi, Takuto Ohno, Hidekazu Murata, Koji Yamamoto (Kyoto University, JP)

**Capacity for Spectrum Sharing Cognitive Radios with MRC Diversity and Imperfect Channel Information from Primary User**

Ruifeng Duan (University of Vaasa, FI)

Riku Jantti (Helsinki University of Technology, FI)

Mohammed Elmusrati, Reino Virrankoski (University of Vaasa, FI)

**Classification of Forward Error Correction Codes**

Michael Buehrer (Virginia Tech, USA)

**Dual Methods for Power Allocation for Radios Coexisting in Unlicensed Spectra**

Kandasamy Illanko, Alagan Anpalagan, Dimitri Androustos (Ryerson University, CA)

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**Tuesday, 7 December 2010 • 16:00 – 17:10**

**Location: Brickell South**

**WC27: Cooperative Communications III**

**Chair: Philippa Martin, University of Canterbury, New Zealand**

**Distributed Analog Channel Coding for Wireless Relay Networks.**

Md. Shahriar Rahman, Yonghui Li, Branka Vucetic (University of Sydney, AU)

**Relay Selection with Outdated Channel Estimates**

Diomidis Michalopoulos (University of British Columbia, CA)

Himal Suraweera (National University of Singapore, SG)

George Karagiannidis (Aristotle University of Thessaloniki, GR)

Robert Schober (University of British Columbia, CA)

**Transceiver Design for Multi-user Multi-antenna Two-way Relay Channels**

Can Sun (Beijing University, CN)

Yonghui Li, Branka Vucetic (University of Sydney, AU)

Chenyang Yang (Beijing University, CN)

**Performance of Energy Detection: A Complementary AUC Approach**

Saman Atapattu, Chintla Tellambura, Hai Jiang (University of Alberta, CA)

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**Tuesday, 7 December 2010 • 16:00 – 17:10**

**Location: Riverfront North Hall**

**WC3P: Multi-Antenna Systems II (Poster)**

**Chair: Husheng Li, University of Tennessee, USA**

**Experimental Evaluation of an IEEE 802.11n Wireless LAN System Employing Lattice Reduction Aided MIMO Detection**

Josep Soler-Garrido, Daisuke Takeda, Yoshimasa Egashira (Toshiba, JP)

**Transmit Antenna Selection Strategies for Cooperative MIMO AF Relay Networks**

Gayan Amarasuriya, Chinthu Tellambura, Masoud Ardakani (University of Alberta, CA)

**Reinforcement Learning for Link Adaptation in MIMO-OFDM Wireless Systems**

Sungho Yun, Constantine Caramanis (University of Texas at Austin, USA)

**New Achievable Rate Region of Gaussian MIMO Broadcast Channels with Linear Precoding**

Junyoung Nam (Electronics and Telecommunication Research Institute, KR)

Jeongseok Ha (Korea Advanced Institute of Science and Technology, KR)

**Opportunistic Interference Aligned User Selection in Multiuser MIMO Interference Channels**

Jung Hoon Lee, Wan Choi (KAIST, KR)

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**Tuesday, 7 December 2010 • 16:00 – 17:10**

**Location: Orchid D**

**WC39: Communication Feedback I**

**Chair: Xiaodai Dong, University of Victoria, Canada**

**MMSE Relaying Design for Multi-Antenna Two-Hop Downlinks with Finite-Rate Feedback**

Wei Xu, Xiaodai Dong (University of Victoria, CA)

**Limited Feedback-based Unitary Precoder Design in Rician MIMO Channel via Trellis Exploration Algorithm**

Dalin Zhu (NEC Laboratories China, CN)

Bala Natarajan (Kansas State University, USA)

**A Reduced Feedback Precoder for Cooperative Relay Networks**

Kyeong Jin Kim (USA)

Yijia Fan (Princeton University, USA)

Ronald A. Iltis (University of California, Santa Barbara, USA)

H. Vincent Poor (Princeton University, USA)

**On the Minimum Differential Feedback for Time-Correlated MIMO Rayleigh Block-Fading Channels**

Leiming Zhang, Lingyang Song, Meng Ma, Bingli Jiao (Peking University, CN)

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**Tuesday, 7 December 2010 • 16:00 – 17:10**

**Location: Orchid C**

**WC51: Estimation I**

**Chair: Paul J. Gendron, SSC-Pacific, USA**

**Pilot Design for Channel Estimation in OFDM-based Cognitive Radio Systems**

Die Hu (Fudan University, CN)

Lianghua He (Tongji University, CN)

**A Suboptimal Sensing Scheme for OFDM Signal Based on Pilots Estimation in Cognitive Radios**

Pinyi Ren, Wenshan Yin (Xi'an Jiaotong University, CN)

**BEM-Based Estimation for Time-Varying Channels and Training Design in Two-Way Relay Networks**

Gongpu Wang (University of Alberta, CA)  
Feifei Gao (Jacobs University, DE)  
Chintha Tellambura (University of Alberta, CA)

**Estimation, Training, and Effect of Timing Offsets in Distributed Cooperative Networks**

Hani Mehrpouyan, Steven Blostein (Queen's University, CA)

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**Tuesday, 7 December 2010 • 16:00 – 17:10**

**Location: Peason II**

**WN03: Handoff and Mobility Management I**

**Chairs: Tomaso De Cola, German Aerospace Center, Germany  
Fotini-Niovi Pavlidou, Aristotle University of Thessaloniki, Greece**

**A Handoff Solution in Wireless Mesh Networks by Implementing Split Channels**

Haopeng Li, Linda Jiang Xie (University of North Carolina, Charlotte, USA)

**Network Engineering and Traffic Forwarding (NETF): An Integrated Design for Inter-gateway QoS Handoffs in Infrastructure Wireless Mesh Networks**

Weiyl Zhao, Linda Jiang Xie (University of North Carolina, Charlotte, USA)

**Cross Layer Design for Video Transmissions in Metro Passenger Information Systems**

Li Zhu, F. Richard Yu (Carleton University, CA)  
Bing Ning (State Key Laboratory of Rail Traffic Control and Safety, CN)

**Evaluation of handover implementations in commercial GPRS/UMTS/HSDPA networks**

Almudena Díaz Zayas, Pedro Merino (University of Malaga, ES)

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**Tuesday, 7 December 2010 • 16:00 – 17:10**

**Location: Gautier**

**WN15: TCP and Congestion Control I**

**Chair: Vincent Wong, University of British Columbia, Canada**

**A Model for Steady State Throughput of TCP CUBIC**

Wei Bao, Vincent Wong, Victor CM Leung (University of British Columbia, CA)

**ARROW-WTCP: A Fast Transport Protocol based on Explicit Congestion Notification over Wired/Wireless Networks**

Jianxin Wang, Jing Li, Liang Rong (Central South University, CN)  
Xi Zhang (Texas A&M University, USA)

**A Probabilistic Approach for Improving TCP Fairness across Multiple Contending WLANs**

Ming Zhang, S. M. Iftekhharul, Shigang Chen (University of Florida, USA)  
Jianwei Liu (Beijing University, CH)

**Flowgrind – A New Performance Measurement Tool**

Alexander Zimmermann, Arnd Hannemann, Tim Kosse (RWTH Aachen University, DE)

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**Tuesday, 7 December 2010 • 16:00 – 17:10**  
**Location: Merrick I**

**WN27: Vehicular Networks I**  
**Chairs: Jun Zheng, Southeast University, China**  
**Abderrahmane Lakas, UAE University, UAE**

**Delay-aware Transmission Range Control for VANETs**  
Jialiang Li, Chunxiao (Michigan Technological University, USA)

**Statistical Broadcast Protocol Design for Unreliable Channels in Wireless Ad-hoc Networks**  
Michael J. Slavik, Imad Mahgoub (Florida Atlantic University, USA)

**Location Privacy Protection in Contention Based Forwarding for VANETs**  
Qing Yang, Alvin Lim, Xiaojun Ruan, Xiao Qin (Auburn University, USA)

**Network-Coding-Based Relay MAC Protocols for Drive-Thru Internet Services in Vehicular Networks**  
Hang Su, Xi Zhang (Texas A&M University, USA)

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**Tuesday, 7 December 2010 • 16:00 – 17:10**  
**Location: Riverfront North Hall**

**WN3P: Network Performance Optimization I (Poster)**  
**Chair: Lin X. Cai, University of Waterloo, Canada**

**Dynamic Base Station Selections for QoS Provisioning Over Distributed MIMO Links**  
Qinghe Du, Xi Zhang (Texas A&M University, USA)

**Performance Analysis of the Quick Idle State Protocol of CDMA 1xEV-DO Rev. B Systems**  
Venkatesh Ramaswamy, Jae Chung (Airvana, Inc., USA)

**Hit Optimal Cache for Wireless Data Access**  
Mursalin Akon, Mohammad Towhidul Islam, Sherman Shen, Ajit Singh (University of Waterloo, CA)

**Adaptive Modulation in Wireless Networks with Smoothed Flow Utility**  
Ekine Akuiyibo, Stephen Boyd, Daniel O'Neill (Stanford University, USA)

**Capacity of Wireless Hybrid Networks with Successive Interference Cancellation**  
Davis Kirachaiwanich, Qilian Liang (University of Texas, Arlington, USA)

**Spectrum Pooling-Based Optimal Internetwork Spectrum Sharing for Cognitive Radio Systems**  
Pengbo Si (Beijing University of Technology, CN)  
F. Richard Yu (Carleton University, CA)  
Ruizhe Yang, Yanhua Zhang (Beijing University of Technology, CN)

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**Tuesday, 7 December 2010 • 17:20 – 18:30**  
**Location: Tuttle South**

**AHSN04: Routing IV**



**Chair: Weifa Liang, Australian National University, Australia**

**Cross-Layer Aware Routing Approaches for Lifetime Maximization in Rate-Constrained Wireless Sensor Networks**

Samina Ehsan, Bechir Hamdaoui (Oregon State University, USA)  
Mohsen Guizani (WMU, USA)

**Adaptive Multi-Criteria Routing for Shared Sensor-Actuator Networks**

Ramy Eltarras (Virginia Tech, USA)  
Mohamed Eltoweissy (Pacific Northwest National Laboratory, USA)

**Geometric Routing Precluding Loops and Dead Ends in 3-D Wireless Sensor Networks**

Jun Duan, Deying Li, Wenping Chen (Renmin University of China, CN)

**Spectrum-Aware Routing for Reliable End-to-End Communications in Cognitive Sensor Networks**

Rong Yu (South China University of Technology, CN)  
Yan Zhang (Simula Research Laboratory and University of Oslo, NO)  
Wenqing Yao (South China University of Technology, CN)  
Lingyang Song (Peking University, CN)

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**Tuesday, 7 December 2010 • 17:20 – 18:30**

**Location: Tuttle Center**

**AHSN16: Cross-layer Design**

**Chair: Iyad Dayoub, University Lille Nord de France, France**

**Cross-layer Design to Support QoS in Wireless Multimedia Sensor Networks**

Ghalib Asadullah Shah (National University of Science and Technology, PK)  
Weifa Liang (Australian National University, AU)  
Xiaojun Shen (University of Missouri-Kansas City, USA)

**A MIMO Cross-Layer Design for Ad-Hoc Networks**

Wei Fang Mao, Walaa Hamouda (Concordia University, CA)  
Iyad Dayoub (University Lille Nord de France, FR)

**Cross-Layer Protocol Design for Distributed Wireless Networks with Novel Relay Selection**

Hanguan Shan, Weihua Zhuang, Ho Ting Cheng (University of Waterloo, CA)

**Transmit Rate Control for Energy-efficient Estimation in Wireless Sensor Networks**

Iordanis Koutsopoulos (UTH, DE)  
lawomir Stanczak (Fraunhofer German-Sino Lab for Mobile Communications, DE)  
Angela Feistel (Technical University of Berlin, DE)

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**Tuesday, 7 December 2010 • 17:20 – 18:30**

**Location: Jasmine**

**AHSN28: Cooperative Networks**

**Chair: Chi Zhou, Illinois Institute of Technology, USA**

**Asynchronous Cooperative Spectrum Sensing in Multi-hop Cognitive Radio Networks**

Yi Liu, Rong Yu (South China University of Technology, CN)

Yan Zhang (Simula Research Laboratory and University of Oslo, NO)  
Shengli Xie (South China University of Technology, CN)

**Polarization Filtering Based InterferenceSuppressions for Cooperative Radar Sensor Networks**

Bin Cao, Qinyu Zhang, Zhang Yan-Qun, Shou-Ming Wen, Dong Liang  
(Harbin Institute of Technology, CN)

**A CDS based Cooperative Information Repair Protocol with Network Coding in Wireless Networks**

Yu Liu, Bin Guo, Chi Zhou, Yu Cheng (Illinois Institute of Technology, USA)

**A Distributed Collaborative Relay Protocol for Multi-hop WLAN Accesses**

Bo Zhang, Zhongming Zheng, Xiaohua Jia, Kan Yang (City University of Hong Kong, CN)

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**Tuesday, 7 December 2010 • 17:20 – 18:30**

**Location: Riverfront North Hall**

**AHSN4P: Topics in Ad Hoc, Sensor, and Mesh Networks IV (Poster)**

**Chair: Masoumeh Karimi, Florida International University, USA**

**Compressive Sensing for Radar Sensor Networks**

Qilian Liang (University of Texas, Arlington, USA)

**PCO based Event Propagation Scheme for Globally Synchronized Sensor Networks**

Rajeev Dokania, Xiao Wang, Waclaw Godycki, Carlos Dorta-Quinones, Alyssa Apsel  
(Cornell University, USA)

**inter-MARIO: A Fast and Seamless Mobility Protocol to support Inter-PAN Handover in 6LoWPAN**

Minkeun Ha, Daeyoung Kim, Seong Hoon Kim, Sungmin Hong  
(Korea Advanced Institute of Science and Technology, KR)

**A Prediction based Long-cycle Time Synchronization Algorithm for Sensor Networks**

Wentao Jiang, Limin Sun (Chinese Academy of Sciences, CN)  
Junwei Lv (Naval Aeronautical and Astronautical University, CN)  
Feng Wang (Simon Fraser University, CN)

**EasiDesign: an Improved Ant Colony Algorithm for Sensor Deployment in Real Sensor Network System**

Dong Li, Wei Liu, Li Cui (Chinese Academy of Sciences, CN)

**ATMA: Advertisement-based TDMA Protocol for Bursty Traffic in Wireless Sensor Networks**

Surjya S Ray, Ilker Demirkol, Wendi Heinzelman (University of Rochester, USA)

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**Tuesday, 7 December 2010 • 17:20 – 18:30**

**Location: Pearson I**

**CIS07: Wireless and Cognitive Radio**

**Chair: Yan Sun, University of Rhode Island, USA**

**Cross-layer Attack and Defense in Cognitive Radio Networks**

Wenkai Wang, Yan Sun (University of Rhode Island, USA)

Husheng Li (University of Tennessee, USA)  
Zhu Han (University of Houston, USA)

**Dynamic Spectrum Allocation Based Confidentiality for Cognitive Radio Networks**  
Chao Zou, Chunxiao Chigan (Michigan Tech, USA)

**Detection of Resource-Drained Attacks on SIP-Based Wireless VoIP Networks**  
Jin Tang, Yong Hao, Yu Cheng, Chi Zhou (Illinois Institute of Technology, USA)

**ESPR: Efficient Security Scheme for Position-Based Routing in Vehicular Ad Hoc Networks**  
Nizar Alsharif, Albert Wasef, Sherman Shen (University of Waterloo, CA)

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**Tuesday, 7 December 2010 • 17:20 – 18:30**  
**Location: Riverfront North Hall**

**CIS4P: Internet Security II (Poster)**  
**Chair: Yanchao Zhang, Arizona State University, USA**

**Queuing Analysis of Network Firewalls**  
Khaled Salah (KUSTAR, UAE)

**Attribute-based Conditional Proxy Re-encryption with Chosen-Ciphertext Security**  
Jing Zhao, Dengguo Feng, ZhenFeng Zhang (Chinese Academy of Sciences, CN)

**A Modified Multi-Resolution Approach for Port Scan Detection**  
Hwashin Moon, Sungwon Yi, Cho Kee Seong (ETRI, KR)

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**Tuesday, 7 December 2010 • 17:20 – 18:30**  
**Location: Orchid AB**

**CQRM04: P2P Network and Applications II**  
**Chair: Katsunori Yamaoka, Tokyo Institute of Technology, Japan**

**Exploiting Peer-to-Peer Technology for Network and Resource Management in Interactive Broadcasting Environments**

Evangelos Markakis (University of the Aegean, GR)  
Evangelos Pallis (Technological Institute of Crete, GR)  
Harry Skianis (University of the Aegean, GR)

**Unveiling Popularity of BitTorrent Darknets**  
Xiaowei Chen, Xiaowen Chu (Hong Kong Baptist University, CN)  
Jiangchuan Liu (Simon Fraser University, CA)

**Mobile P2P Multicast based on Social Network Reducing Psychological Forwarding Cost**  
Hiroyuki Kubo, Ryoichi Shinkuma, Tatsuro Takahashi (Kyoto University, JP)

**Selfishness-aware Application-Layer Multicast**  
Miao Wang, Ge Peng, Zhang Yujun, Guojie Li (Chinese Academy of Sciences, CN)

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**Tuesday, 7 December 2010 • 17:20 – 18:30**

**Location: Hibiscus A**

**CQRM16: Routing I**

**Chair: Geyong Min, University of Bradford, United Kingdom**

**A Hybrid Approach to CAM-Based Longest Prefix Matching for IP Route Lookup**

Yan Sun, Min Kim (Washington State University, USA)

**A Resilient Routing Policy for Peering Management**

Stefano Secci (Telecom ParisTech, FR)

Huaiyuan Ma, Bjarne Helvik (Norwegian University of Science and Technology, NO)

Jean-Louis Rougier (TELECOM ParisTech, FR)

**An Effective Approximation Scheme for Multiconstrained Quality-of-Service Routing**

Jun Huang, Xiaohong Huang, Yan Ma (Beijing University of Posts and Telecommunications, CN)

**Correlation-Resilient Path Selection in Multi-Path Routing**

Xin Zhang, Adrian Perrig (Carnegie Mellon University, USA)

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**Tuesday, 7 December 2010 • 17:20 – 18:30**

**Location: Merrick II**

**CSSMA04: Communications Software in Vehicular Communications and Wireless Sensor Networks Services**

**Chairs: Joel Rodrigues, University of Beira Interior, Portugal**

**Jaime Lloret Mauri, University of Valencia, Spain**

**Performance Assessment of Caching and Forwarding Algorithms for Vehicular Delay Tolerant Networks**

Bruno Silva (University of Beira interior, PT)

Farid Farahmand (Sonoma State University, USA)

Joel Rodrigues (University of Beira Interior, PT)

**Reliable Routing Based on Energy Prediction for Wireless Multimedia Sensor Networks**

Kai Lin (Dalian University of Technology, CN)

Min Chen (Seoul National University, KR)

**Energy-efficient Location-dependent Key Management Scheme for Wireless Sensor Networks**

Lin He, Yiyang Zhang (Korea University, Seoul, KR)

Lei Shu (Osaka University, JP)

Athanasios Vasilakos (University of Western Macedonia, GR)

Myongsoon Park (University of Korea, KR)

**NetViewer: A Universal Visualization Tool for Wireless Sensor Networks**

Longhui Ma, Lei Wang (Dalian University of Technology, CN)

Lei Shu (Osaka University, Japan, JP)

Jing Zhao, Zhuxiu Yuan, Suran Li, Ning Ding (Dalian University of Technology, CN)

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**Tuesday, 7 December 2010 • 17:20 – 18:30**

**Location: Hibiscus B**

**CT04: Channel Coding II**

**Chair: Kiran Gunnam, LSI Corporation, USA**

**A Discrete Time Markov Chain Model for High Throughput Bidirectional Fano Decoders**

Ran Xu (University of Bristol, UK)

Graeme K Woodward (Toshiba Research Europe Ltd., UK)

Kevin A Morris, Taskin Kocak (University of Bristol, UK)

**Diversity Embedded Streaming Erasure Codes (DE-SCo): Constructions and Optimality**

Ahmed A. Badr, Ashish Khisti (University of Toronto, CA)

Emin Martinian (Tilda Consulting, Inc., USA)

**Lowering Error Floors Using Dithered Belief Propagation**

François Leduc-Primeau, Saied Hemati, Shie Mannor, Warren Gross (McGill University, Canada)

**Chaotic Analog Error Correction Codes: The Baker's Codes**

Kai Xie, Tiffany Jing Li (Lehigh University, USA)

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**Tuesday, 7 December 2010 • 17:20 – 18:30**

**Location: Flamingo**

**NGN04: Routing & Management in Wireless Networks**

**Chair: Valentine Aalo, Florida Atlantic University, USA**

**On Wireless Social Community Network Routers: The Design and Cost-Sharing Problem for Better Deployment**

Ranjan Pal (University of Southern California, USA)

**A Spectrum Trading Model with Strict Transmission Power Control**

Gülfem Isiklar, Ayse Bener (Boğaziçi University, TR)

**Congestion Exposure in Mobile Wireless Communications**

Dirk Kutscher (NEC Laboratories Europe, DE)

Henrik Lundqvist (Docomo Laboratories Europe, DE)

Faisal Mir (NEC Europe Ltd., DE)

**Access Network Reselection based on Momentary Resources in a Converged Wireless Environment**

Marius Corici, Thomas Magedanz, Dragos Vingarzan (Fraunhofer FOKUS, DE)

Cornel Pampu (Huawei Technologies Deutschland GmbH, DE)

Qing Zhou (Huawei Technologies, CN)

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**Tuesday, 7 December 2010 • 17:20 – 18:30**

**Location: Riverfront North Hall**

**NGN4P: Wireless Networks and Network Architecture (Poster)**

**Chair: Qishi Wu, University of Memphis, USA**

**IP Fast Reroute: NotVia with Early Decapsulation**

Qing Li, Mingwei Xu, Qi Li (Tsinghua University, CN)  
Dan Wang (Hong Kong Polytechnic University, CN)

**LTE Relay Architecture and Its Upper Layer Solutions**

Xiaolong Huang, Fatih Ulupinar, Parag Agashe, Duncan Ho, Gang Bao (Qualcomm Inc, USA)

**Range-Key Extension of the Skip Graph**

Yoshimasa Ishi (Osaka University, JP)

**Asynchronous vs Synchronous Input-Queued Switches**

Andrea Bianco, Davide Cuda, Paolo Giaccone, Fabio Neri (Politecnico di Torino, IT)

**An Opportunistic Cross-Layer Architecture for New Generation Networks**

John Paul M. Torregoza, Thai Ngoc Pham (Inje University, KR)

Yun-Sop Han (Keio University, JP)

Martin Andre (University of Tokyo, JP)

Hiroaki Harai (National Institute of Information and Communications Technology, JP)

Fumio Teraoka (Keio University, JP)

Won-Joo Hwang (Inje University, KR)

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**Tuesday, 7 December 2010 • 17:20 – 18:30**

**Location: Tuttle North**

**ONS04: Scheduling and Resource Allocation**

**Chair: Dominic A. Schupke, Nokia Siemens Networks, Germany**

**Wavelengths and Regenerators Sharing in GMPLS-controlled WSONs**

Anna V Manolova (Danish Technical University, DK)

Alessio Giorgetti, Isabella Cerutti, Nicola Sambo, Nicola Andriolli  
(Scuola Superiore Sant'Anna, IT)

Raul Muñoz, Ricardo Martinez, Ramon Casellas  
(Centre Tecnologic de Telecomunicacions de Catalunya, ES)

Sarah Ruepp (Technical University of Denmark, DK)

Piero Castoldi (Scuola Superiore Sant'Anna, IT)

**Lightpath Scheduling and Routing for Traffic Adaptation**

James Y. Zhang, Hussein Mouftah (University of Ottawa, CA)

Jing Wu, J. Michel Savoie (Communications Research Centre Canada, CA)

**Co-scheduling Computational and Networking Resources in E-Science Optical Grids**

Mohamed Abouelela, Mohamed El-Darieby (University of Regina, Canada)

**A Tabu Search Approach for Joint Scheduling of Resources in a Lambda Grid Network**

Anusha Ravula, Byrav Ramamurthy (University of Nebraska-Lincoln, USA)

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**Tuesday, 7 December 2010 • 17:20 – 18:30**

**Location: Gardenia**

**SAC04: Sensing I**

**Chair: Hsiao-Chun Wu, Louisiana State University, USA**

**Is High Quality Sensing Really Necessary for Opportunistic Spectrum Usage?**

Christian Dombrowski (RWTH Aachen University, DE)

Daniel Willkomm, Adam Wolisz (Technische Universitaet Berlin, DE)

**Optimization of Cooperative Spectrum Sensing in Ad-hoc Cognitive Radio Networks**

Wenfang Xia (Huazhong University of Science and Technology, CN)

**Soft Sensing-Based Multiple Access for Cognitive Radio Networks**

Amr Elsherif (Alexandria University, EG)

Ahmed Sultan (Nile University, EG)

Karim Seddik (Alexandria University, EG)

**Jointly Optimal Sensing Selection and Power Allocation in Cognitive Communications**

Xin Wang (Florida Atlantic University, USA)

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**Tuesday, 7 December 2010 • 17:20 – 18:30**

**Location: Tequesta**

**SPC04: Channel Estimation, Modeling and Equalization IV**

**Chair: Xiang-Gen Xia, University of Delaware, USA**

**WiMAX Signal Detection Algorithm based on Preamble-Induced Second-Order Cyclostationarity**

Ala'a Al-Habashna, Octavia A. Dobre, Ramachandran Venkatesan

(Memorial University of Newfoundland, CA)

Dimitrie C. Popescu (Old Dominion University, USA)

**1D Barcode Blind Detection in Severe Environment**

Noura Dridi, Yves Delignon, François Septier (Institut TELECOM, FR)

Wadih Sawaya (ENIC, FR)

**Blind Spectrum Sensing by Information Theoretic Criteria**

Rui Wang, Meixia Tao (Shanghai Jiao Tong University, CN)

**On Steepest Descent Adaptation: A Novel Batch Implementation of Blind Equalization Algorithms**

Huy-Dung Han, Zhi Ding (University of California, Davis, USA)

Junqiang Hu, Dayou Qian (NEC Laboratories America, USA)

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**Tuesday, 7 December 2010 • 17:20 – 18:30**

**Location: Ibis**

**SPC10: Transmitter and Receiver Techniques**

**Chair: Hsiao-Chun Wu, Louisiana State University, USA**

**Transceiver Design in Multiuser MISO Systems with Limited Feedback**

Mario Castaneda, Israa Slim, Josef A. Nossek (Munich University of Technology, DE)

**A Novel Continuous Wave Interference Detectable Adaptive Notch Filter for GPS Receivers**

Ying-Ren Chien (Academia Sinica, TW)

Yi-Cheng Huang (National Taiwan University, TW)

De-Nian Yang (Academia Sinica, TW)

Hen-Wai Tsao (National Taiwan University, TW)

**On the Performance of Spectrum Sensing Algorithms using Multiple Antenna**

Ying-Chang Liang (Institute for Infocomm Research, SG)  
Guangming Pan (Nanyang Technological University, SG)  
Yonghong Zeng (Institute for Infocomm Research, SG)

**New FIR Filter Design for Both Spectrum Matching and Inverse System Approximation**

Shih Yu Chang (National Tsing Hua University of Taiwan, TW)  
Hsiao-Chun Wu (Louisiana State University, USA)

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**Tuesday, 7 December 2010 • 17:20 – 18:30**

**Location: Brickell North**

**WC04: MIMO IV**

**Chairs: Mohamed Moustafa, Akhbar El Yom Academy, Egypt  
Kami Makki, Lamar University, USA**

**Achieve the Degrees of Freedom of K-User MIMO Interference Channel with a MIMO Relay**

Sujie Chen, Roger Cheng (HKUST, Hong Kong)

**Layered Tabu Search Algorithm for Large-MIMO Detection and a Lower Bound on ML Performance**

Nagaraja Srinidhi, Tanumay Datta, A. Chockalingam, B. Sundar Rajan (Indian Institute of Science, IN)

**Joint Iterative Channel Estimation and Data Detection for MIMO-CDMA Systems over Frequency-Selective Fading Channels**

Ayman Assra, Walaa Hamouda, Amr Youssef (Concordia University, CA)

**High-Order Super-Block GLRT for Non-Coherent Grassmann Codes in MIMO-OFDM Systems**

Toshiaki Koike-Akino (Harvard University, USA)  
Philip Orlik (Mitsubishi Electric, USA)

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**Tuesday, 7 December 2010 • 17:20 – 18:30**

**Location: Brickell Center**

**WC16: Cognitive Radio IV**

**Chair: Robert Qiu, Tennessee Tech University, USA**

**A Two-Step Compressed Spectrum Sensing Scheme for Wideband Cognitive Radios**

Yue Wang (Beijing University of Posts and Telecommunications, CN)  
Zhi Tian (Michigan Technological University, USA)

**On the Performance of an {LTE SFBC} System in Frequency-selective Channels in the Presence of Channel Estimation Errors**

Michael Horvat, Cecilia Carbonelli (Infineon Technologies AG, DE)  
Zijian Bai, Peter Jung (Universität Duisburg-Essen, DE)

**Stable Throughput Analysis of Multi-User Cognitive Cooperative Systems**

Bao Xu (Southeast University, CN)  
Martins Philippe (TELECOM ParisTech, FR)  
Song Tiecheng, Shen Lianfeng (National Mobile Communications Research Laboratory, CN)



**Capacity for Spectrum Sharing Cognitive Radios with MRC Diversity at the Secondary Receiver under Asymmetric Fading**

Ruifeng Duan, Mohammed Elmusrati (University of Vaasa, FI)  
Riku Jantti (Helsinki University of Technology, FI)  
Reino Virrankoski (University of Vaasa, FI)

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**Tuesday, 7 December 2010 • 17:20 – 18:30**

**Location: Brickell South**

**WC28: Cooperative Communications IV**

**Chair: Tarik Ait-Idir, INPT/Telecom Bretagne, France**

**Secure Communications via Cooperative Jamming in Two-hop Relay Systems**

Jing Huang, Lee Swindlehurst (University of California, Irvine, USA)

**Incremental Cooperative Relaying in Time-Correlated Rayleigh Fading Channels**

Nikolaj Marchenko, Wilfried Elmenreich, Christian Bettstetter (University of Klagenfurt, AT)

**A Useful Integral for Wireless Communication Theory and Its Application in Amplify-and-Forward Multihop Relaying**

Imene Trigui, Sofiene Affes (INRS - Centre Energie, Matériaux et Télécommunications, CA)

**Threshold-based Frame Error Rate Analysis of Incremental Hybrid Relay Selection Scheme**

Tianxi Liu, Lingyang Song, Bingli Jiao (Peking University, CN)

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**Tuesday, 7 December 2010 • 17:20 – 18:30**

**Location: Orchid D**

**WC40: Communication Feedback II**

**Chair: Xiaodai Dong, University of Victoria, Canada**

**Dynamic Feedback Allocation Algorithms for Interference Management In MIMO Uplink**

Harish Ganapathy, Constantine Caramanis (University of Texas, Austin, USA)

**Quasi-MMSE/ZF Based Limited Feedback Schemes for MU-MIMO Precoding**

Wei Wang, Zhan Zhang, Hidetoshi Kayama  
(DOCOMO Beijing Communications Laboratories Co., Ltd, CN)

**A Feedback Update Control Scheme for Limited Feedback Multiple Antennas Systems**

Taejoon Kim, David Love (Purdue University, USA)  
Bruno Clerckx (Samsung Electronics, KR)

**Using Quantized Feedback to Cancel Interference in Multiple Access Channels**

Feng Li, Hamid Jafarkhani (University of California, Irvine, USA)

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**Tuesday, 7 December 2010 • 17:20 – 18:30**

**Location: Riverfront North Hall**

**WC4P: Multi-Antenna Systems III (Poster)**

**Chair: Sumei Sun, Institute for Infocomm Research, Singapore**

**Indoor LOS MIMO Channel Measurements with a Focus on Antenna Array Design**

Christian Hofmann (Munich University of the Bundeswehr, DE)

Andreas Knopp (Fed. Office of the Bundeswehr for Information Technology, DE)

Berthold Lankl (Munich University of the German Armed Forces (Bundeswehr), DE)

**Optimal Training in Large TDD Multi-user Downlink Systems under Zero-forcing and Regularized Zero-forcing Precoding**

Sebastian Wagner (Eurecom, FR)

Romain Couillet, Merouane Debbah (Supelec, FR)

Dirk Slock (Eurecom, FR)

**Exact and Asymptotic SER of Nonregenerative Relaying in MIMO Multi-Relay Networks**

Maged Elkashlan (CSIRO, ICT Centre, AU)

Phee Lep Yeoh (University of Sydney, AU)

Iain Collings (CSIRO, AU)

**Diversity Analysis of EGT and LTE Precoders for Multiuser MIMO**

Rizwan Ghaffar (Institut Eurecom, FR)

**Statistical Modeling of Underwater Wireless Channels**

Alenka Zajic (Georgia Institute of Technology, USA)

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**Tuesday, 7 December 2010 • 17:20 – 18:30**

**Location: Orchid C**

**WC52: Estimation II**

**Chair: Davide Dardari, University of Bologna, Italy**

**A Novel Method for Position Estimation of Passive RFID Tags; Swift Communication Range Recognition (S-CRR) Method**

Manato Fujimoto, Norie Uchitomi, Atsuki Inada, Tomotaka Wada (Kansai University, JP)

Kouichi Mitsuura (Shinshu University, JP)

Hiromi Okada (Kansai University, Japan)

**Estimation and Modelling of NLoS Time-Variant Multipath for Localization Channel Model in Mobile Radios**

Wei Wang, Jost Thomas, Armin Dammann (German Aerospace Center, DE)

**Received Signal Compensation-Based Position Estimation of Outdoor RFID nodes**

Mohamed Amine Abid, Soumaya Cherkaoui (University of Sherbrooke, CA)

**An Upper Bound on the Probability of Instability of a DVB-T/H Repeater with a Digital Echo Canceller**

Matteo Mazzotti, Flavio Zabini, Davide Dardari, Oreste Andrisano (University of Bologna, IT)

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**Tuesday, 7 December 2010 • 17:20 – 18:30**

**Location: Peason II**

**WN04: Wireless Mesh Network Design I**  
**Chair: Hamid Nafaa, University of College Dublin, Ireland**

**Coding-Aware Routing for Unicast Sessions in Wireless Mesh Networks**  
Yongxiang Peng, Yaling Yang (Virginia Tech, USA)  
Xianliang Lu, Xuyang Ding (University of Electronic Science and Technology of China, CN)

**GSQAR: A Quality Aware Anycast Routing Protocol for Wireless Mesh Networks**  
Amitangshu Pal, Asis Nasipuri (University of North Carolina, Charlotte, USA)

**High-Performance Multicast Routing in Multi-Channel Multi-Radio Wireless Mesh Networks**  
Hoang Lan Nguyen, Uyen Trang Nguyen (York University, CA)

**Mitigating Load Imbalance in Wireless Mesh Networks with Mixed Application Traffic Types**  
Amr G M Al Asaad, Sathish Gopalakrishnan, Victor CM Leung (University of British Columbia, CA)

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**Tuesday, 7 December 2010 • 17:20 – 18:30**  
**Location: Gautier**

**WN16: Medium Access Control**  
**Chair: Ruonan Zhang, Northwest Polytechnical University, China**

**A CSMA/CA MAC Protocol for Multi-User MIMO Wireless LANs**  
Michelle Gong, Eldad Perahia, Robert J Stacey (Intel, USA)  
Roy Want (Intel Research, USA)  
Shiwen Mao (Auburn University, USA)

**Power Efficient Time-Controlled CSMA/CA MAC protocol for Lunar Surface Networks**  
Xudong Wang (Teranovi Technologies, Inc., USA)

**Directional CSMA/CA Protocol with Spatial Reuse for mmWave Wireless Networks**  
Michelle Gong, Dmitry Akhmetov (Intel Corporation, USA)  
Roy Want (Intel Research, USA)  
Shiwen Mao (Auburn University, USA)

**A Novel Random Access Mechanism for OFDMA Wireless Networks**  
Xudong Wang (Teranovi Technologies, Inc., USA)  
Hao Wang (Shanghai Jiao Tong University, CN)

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**Tuesday, 7 December 2010 • 17:20 – 18:30**  
**Location: Merrick I**

**WN28: Wireless Relay Networks I**  
**Chairs: Petar Popovski, Aalborg University, Denmark**  
**Hassan Moradi, University of Oklahoma, USA**

**Stochastic Optimization for Joint Resource Allocation in OFDMA-Based Relay System**  
Rui Yin, Yu Zhang (Zhejiang University, CN)  
Hsiao-Hwa Chen (National Cheng Kung University, TW)  
Guanding Yu, Zhaoyang Zhang (Zhejiang University, CN)

**On Exploiting Cooperative, Channel and Multiuser Diversities in Wireless Relay Networks**

Jian Tang, Brendan Mumeey, Kairat Zhubayev, Richard S. Wolff (Montana State University, USA)

**Achieving Full Rate Network Coding with Constellation Compatible Modulation and Coding**

Suhua Tang (ATR Adaptive Communications Research Laboratories, JP)

Hiroyuki Yomo (Kansai University, JP)

Tetsuro Ueda, Ryu Miura, Sadao Obana

(Advanced Telecommunication Research Institute International, JP)

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**Tuesday, 7 December 2010 • 17:20 – 18:30**

**Location: Riverfront North Hall**

**WN4P: Topics in Wireless Networking II (Poster)**

**Chair: Giacomo Morabito, University of Catania, Italy**

**Opportunistic Communications in Infestation Systems; Delay and Stability Analysis**

Laura Galluccio, Giacomo Morabito (University of Catania, IT)

Aris Moustakas (University of Athens, GR)

Sergio Palazzo (University of Catania, IT)

**Exploiting Space-Time Correlations in an RFID Tag Field for Localization and Tracking**

Victor K.Y. Wu, Nitin Vaidya (University of Illinois, Urbana-Champaign, USA)

**Node Localization in Wireless Networks Through Physical Layer Network Coding**

Zhiwei Li (University of North Carolina, Charlotte, USA)

Di Pu (Worcester Polytechnic Institute, USA)

Weichao Wang (University of North Carolina, Charlotte, USA)

Alexander M. Wyglinski (Worcester Polytechnic Institute, USA)

**Constructing Secure Localization Systems with Adjustable Granularity Using Commodity Hardware**

Patrick G. Traynor (Georgia Institute of Technology, USA)

Joshua Schiffman, Tom La Porta, Patrick McDaniel (Pennsylvania State University, USA)

Abhrajit Ghosh (Telcordia Technologies Inc., USA)

## WEDNESDAY

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Wednesday, 8 December 2010 • 10:00 – 11:10

Location: Tuttle South

**AHSN05: Routing V**

Chair: Nei Kato, Tohoku University, Japan

**Preserving Source-Location Privacy in Wireless Sensor Network using STaR Routing**

Leron Lightfoot, Yun Li, Jian Ren (Michigan State University, USA)

**Contour-Based Hole Avoiding Routing Protocol in Wireless Sensor Networks**

Guey-Yun Chang, Jang-Ping Sheu (National Tsing Hua University, TW)

**Using Reconfigurable Hardware Devices in WSNs for Reducing the Energy Consumption of Routing and Security Tasks**

Georgios-Grigorios Mplemenos, Konstantinos Papadopoulos, Ioannis Papaefstathiou (Technical University of Crete, GR)

**Adaptive Parametric Routing based on Dynamic Metrics**

Nesrine Ouferrhat (University Paris, FR)

Abdelhamid Mellouk (UPEC, University Paris-Est Creteil Val de Marne, FR)

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Wednesday, 8 December 2010 • 10:00 – 11:10

Location: Tuttle Center

**AHSN17: Performance Analysis and Modeling I**

Chair: Long Le, NEC Laboratories Europe, Germany

**Performance Analysis of Multi-Channel MAC Protocols in Multi-Hop Ad Hoc Networks**

Long Le (NEC Laboratories Europe, DE)

**Multicasting vs. Broadcasting: What Are the Trade-offs?**

Bora Karaoglu, Wendi Heinzelman (University of Rochester, USA)

**Maximum Throughput of IEEE 802.15.4 Enabled Wireless Sensor Networks**

Xianghui Cao, Jiming Chen, Youxian Sun (Zhejiang University, CN)

Sherman Shen (University of Waterloo, CA)

**Performance Analysis of Broadcast Messages in VANETs Safety Applications**

Khalid Abdel Hafeez, Lian Zhao, Zaiyi Liao, Ngok-Wah Ma (Ryerson University, CA)

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Wednesday, 8 December 2010 • 10:00 – 11:10

Location: Jasmine

**AHSN29: Resource Management**

Chair: Fei Ye, University of Washington, USA

**Outage Probability Based Resource Allocation in Wireless Mesh Networks**

Xuning Shao, Cunqing Hua, Aiping Huang (Zhejiang University, CN)

**Towards Efficient Use of Radio Resources in Single Channel Wireless Mesh Networks**

Rami Langar, Salsabil Njima (UPMC - University of Paris 6, FR)

Nizar Bouabdallah (INRIA, FR)

Raouf Boutaba (University of Waterloo, CA)

Guy Pujolle (University of Paris 6, FR)

**Protocol-Agnostic Compression for Resource-Constrained Wireless Networks**

Travis L. Massey, Ankur Mehta, Thomas Watteyne, Kristofer Pister (UC Berkeley, USA)

**LQR Formulation of Sensor Deployment for Decision Fusion Based Detection**

Ahmad Ababnah, Bala Natarajan (Kansas State University, USA)

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**Wednesday, 8 December 2010 • 10:00 – 11:10**

**Location: Riverfront North Hall**

**AHSN5P: Topics in Ad Hoc, Sensor, and Mesh Networks V (Poster)**

**Chair: Weixiao Meng, Harbin Institute of Technology, China**

**COSMO: CO-Simulation with MATLAB and OMNeT++ for Indoor Wireless Networks**

Zhi Zhang, Zhonghai Lu, Li-Rong Zheng, (Royal Institute of Technology, SE)

Xiaolang Yan (Zhejiang University, CN)

Qiang Chen (Royal Institute of Technology, SE)

**Q-HWMP: improving end-to-end QoS for 802.11s mesh networks based**

Mohamed Ould Cheikh (Laboratoire Lamsade, FR)

Lynda Mokdad (Université de Paris 12, FR)

**Feasibility and Benefits of Passive RFID Wake-up Radios for Wireless Sensor Networks**

He Ba, Ilker Demirkol, Wendi Heinzelman (University of Rochester, USA)

**FLIMS: A Fuzzy-Logic based Mobility management Scheme in Mobile Ad Hoc Network**

Hailun Tan (University of New South Wales, AU)

**Compact Wakeup Scheduling in Wireless Sensor Networks**

Junchao Ma, Wei Lou (Hong Kong Polytechnic University, CN)

**Favorable Peer Supported Throughput Optimization in Wireless Mesh Network**

Mohammad Zulhasnine, Changcheng Huang, Anand Srinivasan (Carleton University, CA)

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**Wednesday, 8 December 2010 • 10:00 – 11:10**

**Location: Pearson I**

**CIS08 Anomaly Detection**

**Chair: Mina Guirguis, Texas State University, USA**

**SKWeak Attacks on Path Splicing: Vulnerability Assessment and Defense Mechanisms**

Emad Guirgui, Mina Guirguis, Christopher Page (Texas State University, USA)

**Networking Anomaly Detection using DSNS and Particle Swarm Optimization with Re-Clustering**

Moisés Fernando Lima, Lucas Dias Sampaio (State University of Londrina, BR)  
Bruno Zarpelão (University of Campinas, BR)  
Joel Rodrigues (University of Beira Interior, PT)  
Taufik Abrão, Mario Lemes Proença Jr. (State University of Londrina, BR)

**Fast String Matching with Overlapped Substring Classifier in Deep Packet Inspection Systems**  
Zhikai Zhang, Youjian Zhao (Tsinghua University, CN)

**An Evaluation of Anomaly Detection Based on Sketch and PCA**  
Yoshiki Kanda (Waseda University, JP)  
Kensuke Fukuda (National Institute of Informatics, JP)  
Toshiharu Sugawara (Waseda University, JP)

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**Wednesday, 8 December 2010 • 10:00 – 11:10**  
**Location: Merrick II**

**CSSMA05: Peer-to-Peer Technologies for Communication Services**  
**Chair: Abdelhamid Mellouk, University Paris-Est Creteil Val de Marne, France**

**Extending the DLNA-based Multimedia Sharing System to P2P Network on OSGi Frameworks**  
Chin-Feng Lai (National Cheng Kung University, TW)  
Min Chen (Seoul National University, KR)  
Athanasios Vasilakos (University of Western Macedonia, GR)  
Yueh-Min Huang (National Cheng Kung University, TW)

**Enhancing Content Distribution Performance of Locality-aware BitTorrent Systems**  
Zhenyu Li, Gao-Gang Xie (Chinese Academy of Sciences, CN)

**Core Tree Optimization in Hybrid Peer to Peer Real Time Broadcasting System**  
Sanghwan Lee (Kookmin University, KR)  
Sambit Sahu (IBM Research, USA)

**Multiparty Seamless Transport**  
Nuno Coutinho, Tiago Silvestre Condeixa, Rui Valbom, Susana Isabel Barreto de Miranda Sargento (Instituto de Telecomunicações, Universidade de Aveiro, Portugal, PT)  
Augusto Neto (Universidade Federal de Goiás, Brazil, BR)

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**Wednesday, 8 December 2010 • 10:00 – 11:10**  
**Location: Hibiscus B**

**CT05: Interference Alignment I**  
**Chair: Biao Chen, Syracuse University, USA**

**Two-Cell Downlink Noncoherent Cooperation without Transmitter Phase Alignment**  
Mingguang Xu, Dongning Guo, Michael Honig (Northwestern University, USA)

**Exploiting Channel Correlations - Simple Interference Alignment Schemes with no CSIT**  
Syed Ali Jafar (University of California, Irvine, USA)

**Mobility and Fading: Two Sides of the Same Coin**

Zhenhua Gong, Martin Haenggi (University of Notre Dame, USA)

**New Observations on Interference Channels under Strong and Very Strong Interference**

Jin Xu, Hao Chen, Biao Chen (Syracuse University, USA)

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**Wednesday, 8 December 2010 • 10:00 – 11:10**

**Location: Riverfront North Hall**

**CT1P: Analysis II (Poster)**

**Chair: Erik Perrins, University of Kansas, USA**

**On Wireless Channels with M-Antenna Eavesdroppers: Characterization of the outage probability and outage Secrecy Capacity**

Vinay Uday Prabhu, Miguel Rodrigues (University of Porto, PT)

**Outage and Diversity-Multiplexing Trade-off Analysis of Closed and Open-Access Femtocells**

Tariq Elkourdi, Osvaldo Simeone (New Jersey Institute of Technology, USA)

**Analytical Performance of Rayleigh-Product MIMO Channels with Arbitrary-Power Co-channel Interference and Noise**

Yongpeng Wu, Shi Jin, Xiqi Gao (Southeast University, CN)

**Novel Simple Forms for Multivariate Rayleigh and Rician Distributions With Generalized Correlation**

Norman C. Beaulieu, Kasun T. Hemachandran (University of Alberta, CA)

**Tightened Upper Bounds for TPC coded Free Space Optical Links over Atmospheric Turbulence Channels**

Yongxiang Ren, Anhong Dang, Hong Guo (Peking University, CN)

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**Wednesday, 8 December 2010 • 10:00 – 11:10**

**Location: Hibiscus A**

**CT10: Wireless Networks I**

**Chair: Mohammad A Matin, University of Kebangsaan, Malaysia**

**Outage Performance of Cognitive-Radio Relay System based on the Spectrum-Sharing Environment**

Yanyan Guo (Beijing University of Posts and Telecommunications, CN)

**Relay Network Beamforming and Power Control Using Maximization of Mutual Information**

Javier M. Paredes, Alex Gershman (Darmstadt University of Technology, DE)

**On the Degrees of Freedom of Parallel Relay Networks**

Chao Wang, Hamed Farhadi, Mikael Skoglund (Royal Institute of Technology, SE)

**A Relay Region Based Routing for Multihop Wireless Networks with Directional Antennas**

Di Li, Changchuan Yin, Changhai Chen (Beijing University of Posts and Telecommunications, CN)

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**Wednesday, 8 December 2010 • 10:00 – 11:10**

**Location: Orchid AB**

**CQRM05: Routing II**

**Chair: Tutomu Murase, NEC Corp., Japan**

**Fast Heuristics for the QoS Multicast Routing Problem**

Bellabas Alia (INSA Rennes, FR)

Samer Lahoud, Miklos Molnar (INSA Rennes / IRISA, FR)

**QoS Routing in Smart Grid**

Husheng Li (University of Tennessee, USA)

Weiyi (Max) Zhang (North Dakota State University, USA)

**Time Lagged Location-based Routing in Vehicular Ad Hoc Networks**

Zhi Li, Yanmin Zhu, Minglu Li (Shanghai Jiao Tong University, CN)

Bo Li (Hong Kong University of Science and Technology, HK)

**Efficient Mobile Content Delivery Based on Co-route Prediction in Urban Transport**

Le Shu, Hongbo Jiang, Xiaoqiang Ma, Lanchao Liu, Kai Peng, Bo Liu, Jie Cheng, Yanbo Xu  
(Huazhong University of Science and Technology, CN)

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**Wednesday, 8 December 2010 • 10:00 – 11:10**

**Location: Flamingo**

**NGN05: Load Balancing in Mobile Networks**

**Chair: Parmesh Ramanathan, University of Wisconsin, Madison, USA**

**Load Balancing via Store-Carry and Forward Relaying in Cellular Networks**

Panayiotis Koliotis, Vasilis Friderikos (King's College London, UK)

Katerina Papadaki (London School of Economics, UK)

**Evaluation of Call Dropping Probability for a Heterogeneous Wireless Network with Uniformly Distributed Handoff Failure Rates**

Valentine Aalo (Florida Atlantic University, USA)

George Efthymoglou (University of Piraeus, GR)

**Conflict Avoidance between Mobility Robustness Optimization and Mobility Load Balancing**

Zhiqiang Liu, Peilin Hong, Kaiping Xue, Min Peng (University of Science and Technology of China, CN)

**Congestion Games for Distributed Radio Access Selection in Broadband Networks**

Marc Ibrahim (Saint Joseph University, LB)

Kinda Khawam, Samir Tohme (Université de Versailles, FR)

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**Wednesday, 8 December 2010 • 10:00 – 11:10**

**Location: Riverfront North Hall**

**ONS1P: Optical Switching I (Poster)**

**Chair: Vinod M. Vokkarane, University of Massachusetts Dartmouth, USA**

**Crosstalk limiting schedulers in AWG based optical switches**

Andrea Bianco (Politecnico di Torino, IT)  
Francisco Castano (Universidad de Vigo, ES)  
Davide Cuda, Guido Alejandro Gavilanes Castillo (Politecnico di Torino, IT)  
Cristina Lopez-Bravo (Universidad de Vigo, ES)  
Fabio Neri (Politecnico di Torino, IT)  
Miguel Rodelgo-Lacruz (Gradiant, ES)  
Maria Salvat (Universitat Politecnica de Catalunya, ES)

**Fair bandwidth allocation with distance fairness provisioning in optical burst switching networks**

Tananun Orawiwattanakul, Yusheng Ji, Noboru Sonehara  
(National Institute of Informatics, JP)

**Fast Scheduling for Optical Flow Switching**

Lei Zhang, Vincent Chan (Massachusetts Institute of Technology, USA)

**Performance Evaluation of TCP over Optical Burst Switched (OBS) Networks using Coordinated Burst Cloning and Forward-Segment Redundancy**

Julie Sullivan, Neal Charbonneau, Vinod M. Vokkarane (University of Massachusetts, Dartmouth, USA)

**Continuous and Parallel Optimization of Dynamic Bandwidth Scheduling for WDM Networks**

Pragatheeswaran Angu, Byrav Ramamurthy (University of Nebraska-Lincoln, USA)

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**Wednesday, 8 December 2010 • 10:00 – 11:10**

**Location: Tuttle North**

**ONS05: Optical Access**

**Chair: Nasir Ghani, University of New Mexico, USA**

**Unbundling in WDM-PON Based on All-optical Switching**

Antonella Bogoni, Paolo Ghelfi (CNIT, IT)  
Nicola Andriolli (Scuola Superiore Sant'Anna, IT)  
Antonio D'Errico (Ericsson, IT)  
Giorgio Grasso (Pirelli, IT)

**GATE-driven Dynamic Bandwidth Allocation for WDM EPONs**

Nelson Antunes (University of Algarve, PT)  
Christine Fricker, Philippe Robert, James Roberts (INRIA, FR)

**Design of the Hybrid PON System for GPON Reach Extension on the Basis of Colorless DWDM-PON and 3R Regenerator**

Kwang-ok Kim, Kyeong Hwan Doo, Sang Soo Lee (ETRI, KR)

**Performance Analysis of QoS-Aware Layer-2 VPNs over Fiber-Wireless (FiWi) Networks**

Ahmad R. Dhaini, Pin-Han Ho (University of Waterloo, CA)  
Abdallah Shami (University of Western Ontario, CA)  
Xiaohong Jiang (Future University-Hakodate, JP)

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**Wednesday, 8 December 2010 • 10:00 – 11:10**

**Location: Gardenia**

**SAC05: Coding for Satellite Communications**

**Chair: Muriel Medard, Massachusetts Institute of Technology, USA**

**Short Erasure Correcting LDPC IRA Codes over GF(q)**

Giuliano Garramone, Balazs Matuz (German Aerospace Center, DE)

**Multidimensional Multilevel Coding for Satellite Broadcasting with Highly Flexible QoS**

Aharon Vargas (Fraunhofer Institute for Integrated Circuits (IIS), DE)

Wolfgang Gerstacker (University of Erlangen-Nuernberg, DE)

Marco Breiling (Fraunhofer IIS, DE)

Gökhan Gül (TR)

**An efficient LDGM coding scheme for optical satellite-to-ground link based on a new channel model**

Yoshitoshi Yamashita, Eiji Okamoto, Yasunori Iwanami (Nagoya Institute of Technology, JP)

Yozo Shoji, Morio Toyoshima, Yoshihisa Takayama

(National Institute of Information and Communications Technology, JP)

**Online Network Coding for Time-Division Duplexing**

Daniel E. Lucani, Muriel Medard (Massachusetts Institute of Technology, USA)

Milica Stojanovic (Northeastern University, USA)

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**Wednesday, 8 December 2010 • 10:00 – 11:10**

**Location: Tequesta**

**SPC05: Cognitive Radio**

**Chair: James Hicks, The Aerospace Corporation, USA**

**Robust downlink beamforming for cognitive radio networks**

Imran Wajid Marius Pesavento (Darmstadt University of Technology, DE)

Yonina C. Eldar (Technion-Israel Institute of Technology, IL)

Alex Gershman (Darmstadt University of Technology, DE)

**Minimum-Delay Spectrum Sensing for Multi-Band Cognitive Radios**

Seung-Jun Kim (University of Minnesota, USA)

Guobing Li (Xi'an Jiaotong University, CN)

Georgios B. Giannakis (University of Minnesota, USA)

**Nonsmooth Optimization for Beamforming in Cognitive Multicast Transmission**

Anh Phan, Hoang D. Tuan, Kha Ha (University of New South Wales, AU)

Duy T. Ngo (McGill University, CA)

**Sensing Time and Power Allocation Optimization in Wideband Cognitive Radio Networks**

Stergios Stotas, Nallanathan Arumugam (King's College London, UK)

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**Wednesday, 8 December 2010 • 10:00 – 11:10**

**Location: Ibis**

**SPC11: SIMO, MISO and MIMO Systems I**

**Chair: Byonghyo Shim, Korea University, Korea**

**MIMO Maximum Likelihood Soft Demodulation Based on Dimension Reduction**

Jungwon Lee, Jiwoong Choi, Hui-Ling Lou (Marvell Semiconductor, Inc., USA)

**Decoding for MIMO systems with imperfect channel state information**

Boon Sim Thian, Andrea Goldsmith (Stanford University, USA)

**An Equal Gain Transmission in MIMO Wireless Communications**

Shang-Ho Tsai (National Chiao Tung University, TW)

**Orthogonal Pulse Compression Codes for MIMO Radar System**

Lei Xu, Qilian Liang (University of Texas, Arlington, USA)

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**Wednesday, 8 December 2010 • 10:00 – 11:10**

**Location: Brickell North**

**WC05: MIMO V**

**Chairs: Zhaocheng Wang, Tsinghua University, China**

**Qutub Ali Bakhtiar, Technological University of America, USA**

**Dual-hop Amplify-and-Forward MIMO Relaying with Antenna Selection in Nakagami-m Fading**

Nan Yang (University of New South Wales, AU)

Maged Elkashlan (CSIRO, ICT Centre, AU)

Jinhong Yuan (University of New South Wales, AU)

**Degrees of Freedom on MIMO Multi-Link Two-Way Relay Channels**

Kwangwon Lee, Seok-Hwan Park, Inkyu Lee (Korea University, KR)

**Low Complexity Joint User and Mode Selection Algorithm for Multiuser MIMO Downlink Systems**

Jin-Sung Kim, Kyoung-Jae Lee, Inkyu Lee (Korea University, KR)

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**Wednesday, 8 December 2010 • 10:00 – 11:10**

**Location: Brickell Center**

**WC17: Game Theory I**

**Chair: Marco Luise, University of Pisa, Italy**

**Joint Optimization of Detection and Power Allocation for OFDM-based Cognitive Radios**

Xiaoge Huang, Baltasar Beferull-Lozano (Universidad de Valencia, ES)

**A Spatial Game for Access Points Placement in Cognitive Radio Networks with Multi-Type Service**

Dapeng Li, Youyun Xu, Jing Liu, Xinbing Wang (Shanghai Jiaotong University, CN)

Mohsen Guizani (WMU, USA)

**Distributed Energy Efficient Spectrum Sharing Strategy Selection with Limited Feedback in MIMO Interference Channels**

Wei Zhong (Shanghai Jiao Tong University, CN)

Youyun Xu (PLA University of Science & Technology, CN)

**Game-Theoretic Resource Allocation for Two-Hop Interference Channels**

Yi SHI, Khaled Letaief (Hong Kong University of Science & Technology, CN)

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

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**Wednesday, 8 December 2010 • 10:00 – 11:10**

**Location: Brickell South**

**WC29: Cooperative Communications V**

**Chair: Ozgur Oyman, Intel, USA**

**Relay-Induced Error Propagation Reduction for Decode-and-Forward Cooperative Communications**

Dandan Liang, Soon Xin Ng, Lajos Hanzo (University of Southampton, UK)

**Optimal Sum Rate of the MIMO Relay Communication System**

Peter He, Lian Zhao, Zaiyi Liao (Ryerson University, CA)

**Average Spectral Efficiency for Opportunistic QRD-based Cyclic Prefixed Single-Carrier Cooperative Diversity Systems with Power Allocation**

Kyeong Jin Kim (USA)

Theodoros Tsiftsis (Technological Educational Institute of Lamia, GR)

George Karagiannidis (Aristotle University of Thessaloniki, GR)

**Convergence Property of Transmit Time Pre-Synchronization for Concurrent Cooperative Communication**

Yong Jun Chang, Mary Ann Ingram (Georgia Tech, USA)

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**Wednesday, 8 December 2010 • 10:00 – 11:10**

**Location: Orchid D**

**WC41: Optimization I**

**Chair: H. Mohsenian, University of Toronto, Canada**

**Chemical Reaction Optimization for Cognitive Radio Spectrum Allocation**

Albert Lam, Victor Li (University of Hong Kong, CN)

**Throughput Optimization in Cognitive Random Wireless Ad hoc Networks**

Alireza Babaei (Auburn University, USA)

Bijan Jabbari (George Mason University, USA)

**Subchannel-Sharing Based Distributed Optimization of Ad-Hoc Cognitive Radio Network**

Yao Ma (Wright State University, USA)

Dong In Kim (Sungkyunkwan University, KR)

**On Amplify-and-Forward Relay Networks with Multiple Source-Destination Pairs**

Yupeng Liu, Athina Petropulu (Drexel University, USA)

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**Wednesday, 8 December 2010 • 10:00 – 11:10**

**Location: Orchid C**

**WC53: Fading Channels I**

**Chair: Enrico Paolini, University of Bologna, Italy**

**Performance of Power-Efficient Adaptive Interference Cancellation in Fading Channels**

Redha Radaydeh (KAUST, SA)

Mohamed-Slim Alouini (Texas A&M University, Qatar, QA)

**Iterative Primal-Dual Scaled Gradient Algorithm with Dynamic Scaling Matrices for Solving Distributive NUM over Time-Varying Fading Channels**

Yong Cheng, Vincent Lau (Hong Kong University of Science & Technology, CN)

**Adaptive M-QAM Systems with Diversity in Correlated Nakagami-m Fading and Shadowing**

George Alexandropoulos (University of Patras, GR)

Andrea Conti (ENDIF University of Ferrara, WiLAB University of Bologna, IT)

Mathiopoulos Panayiotis (Institute for Space Applications & Remote Sensing, GR)

**Cooperative Systems for the Fading Channel with Adaptive Modulation and Incremental Encoding**

Fulvio Babich (University of Trieste, IT)

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**Wednesday, 8 December 2010 • 10:00 – 11:10**

**Location: Riverfront North Hall**

**WC5P: Multi-Carrier Systems (Poster)**

**Chair: Wei Chen, Tsinghua University, China**

**A Novel TDS-FDMA Scheme for Multi-User Uplink Scenarios**

Linglong Dai, Zhaocheng Wang, Jun Wang, Yang Zhixing (Tsinghua University, CN)

**Distributed Adaptive Subchannel and Power Allocation for Downlink OFDMA with Inter-Cell Interference Coordination**

Haichao Zhang, Qinghai Yang (Xidian University, CN)

Feifei Gao (Jacobs University, DE)

Kyung Sup Kwak (Inha University, KR)

**A New Partial Loading Scheme for Interference Management in OFDM Cellular Networks**

Weiwei Chen, Chin Tau Lea (Hong Kong University of Science and Technology, CN)

**Network Coverage in Multicarrier Broadcast System**

Siqian Liu, Hongxiang Li, Benjamin Braaten (North Dakota State University, USA)

**Robust Pilot Designs for Consistent Frequency Offset Estimation in OFDM systems**

Kilbom Lee, Inkyu Lee (Korea University, KR)

**Robust Synchronization for 3GPP LTE System**

Wen Xu (Infineon Technologies, DE)

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**Wednesday, 8 December 2010 • 10:00 – 11:10**

**Location: Peason II**

**WN05: Cognitive Networking II**

**Chairs: Seshadri Mohan, University of Arkansas, Little Rock, USA**

**Liang Xiao, Xiamen University, China**

**Dynamic Interference Minimization Routing Game for On-Demand Cognitive Pilot Channel**

Quanyan Zhu (University of Illinois, Urbana Champaign, USA)  
Zhou Yuan (University of Houston, USA)  
Ju Bin Song (Kyung Hee University, KR)  
Zhu Han (University of Houston, USA)  
Tamer Başar (University of Illinois, Urbana-Champaign, USA)

**Spectrum Aware Opportunistic Routing in Cognitive Radio Networks**

Shih Chun Lin, Kwang-Cheng Chen (National Taiwan University, TW)

**Topology-incurred Delay for Information Dissemination in Large Multi-channel Cognitive Radio Networks**

Lei Sun, Wenye Wang (NC State University, USA)

**Modeling and Analysis for Reactive-Decision Spectrum Handoff in Cognitive Radio Networks**

Chung-Wei Wang, Li-Chun Wang (National Chiao Tung University, TW)  
Fumiyuki Adachi (Tohoku University, JP)

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**Wednesday, 8 December 2010 • 10:00 – 11:10**

**Location: Gautier**

**WN17: 802.16 / WiMAX Networks II**

**Chair: Debarati Sen, Samsung Electronics, India**

**A Novel Adaptive Mapping Scheme for IEEE 802.16 Mobile Downlink Framing**

Panagiotis Sarigiannidis (Aristotle University Thessaloniki, GR)  
Georgios Papadimitriou, Petros Nicopolitidis (Aristotle University, GR)  
Mohammad S. Obaidat (Monmouth University, USA)  
Andreas Pomportsis (Aristotle University, GR)

**Multi-Carrier Admission Control and Carrier Assignment for IEEE 802.16m Wireless Networks**

Hsiao-Chen Lu, Chih-Hsiang Tang, Sheng-Wei Lin, Wanjiun Liao (National Taiwan University, TW)

**Advanced Mechanisms for Sleep Mode Optimization of VoIP Traffic over IEEE 802.16m**

Ritesh Kumar Kalle (IIIT Bangalore, IN)  
Maruti Gupta (Intel Corp., USA)  
Aran Bergman (Intel, IL)  
Elad Levy, Shantidev Mohanty, Muthaiah Venkatachalam (Intel Corporation, USA)  
Debabrata Das (IIITBangalore, IN)

**On the Impact of IEEE 802.16 Bandwidth Request-Grant Mechanisms on TCP**

Yubo Yang (Telecom Bretagne, FR)  
Andrés Arcia (Universidad de Los Andes, VE)  
Nicolas Montavont, David Ros (Institut Telecom / Telecom Bretagne, FR)

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**Wednesday, 8 December 2010 • 10:00 – 11:10**

**Location: Merrick I**

**WN29: Wireless Sensor Network Design II**

**Chair: Honggang Wang, University of Massachusetts, Dartmouth, USA**

**Decentralized Sensor-Coordination Optimization for Mobile Multi-Target Tracking in Wireless Sensor Networks**

Xi Zhang (Texas A&M University, USA)

**Energy Consumption and Latency Analysis for Wireless Multimedia Sensor Networks**

Alvaro Pinto, Zhe Zhang, Xin Dong, Senem Velipasalar, Mehmet Can Vuran, M. Cenk Gursoy (University of Nebraska-Lincoln, USA)

**Vision Graph Construction in Wireless Multimedia Sensor Networks**

Xin Dong, Mehmet Can Vuran (University of Nebraska-Lincoln, USA)

**Distributed Inter-Network Interference Coordination for Wireless Body Area Networks**

Gengfa Fang, Eryk Dutkiewicz, Kegen Yu, Rein Vesilo, Yiwei Yu (Macquarie University, AU)

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**Wednesday, 8 December 2010 • 10:00 – 11:10**

**Location: Riverfront North Hall**

**WN5P: Resource Management in Wireless Networks II (Poster)**

**Chair: Yi Song, University of North Carolina, Charlotte, USA**

**A dynamic framed ALOHA scheme for batch resolution in practical CSMA-based wireless networks**

Andrea Zanella (University of Padova, IT)

**Detecting Hidden Terminal Problems in Densely Deployed Wireless Networks**

Koichi Nishide, Hiroyuki Kubo, Ryoichi Shinkuma, Tatsuro Takahashi (Kyoto University, JP)

**Slow Start Backoff Algorithm for Ad Hoc Wireless Networks**

Der-Jiunn Deng (National Changhua University of Education, TW)

Han-Chieh Chao (National Ilan University, TW)

Hsiao-Hwa Chen (National Cheng Kung University, TW)

**On Hybrid Multiple Access and Its Reuse Partitioning**

Feng Wang, Bingli Jiao, Yuping Zhao (Peking University, CN)

**A Double-Loop Receiver-Initiated Medium Access Control Scheme for Data Dissemination Services with Packet Pre-Downloading**

Hao Liang, Weihua Zhuang (University of Waterloo, CA)

**Expanding Horizon and Capture Effect in RFID Singulation**

Charles-Francois Natali, Nitin Vaidya, Victor K.Y. Wu

(University of Illinois, Urbana-Champaign, USA)

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**Wednesday, 8 December 2010 • 11:20 - 12:30**

**Location: Tuttle South**

**AHSN06: Routing VI**

**Chair: Floriano De Rango, University of Calabria, Italy**

**An Energy Efficient Channel Assignment and Routing Algorithm for Multi-Radio Wireless Mesh Networks**



Stefano Avallone (University of Naples, IT)

**Lightweight Routing with QoS Support in Wireless Sensor and Actor Networks**

Mustafa Akbas, Damla Turgut (University of Central Florida, USA)

**A Cross-layer and Adaptive Scheme for Balancing Performance and Security on WMN Data Routing**

Michele Nogueira (Federal University of Parana, BR)

Helber W. da Silva, Raimir Holanda (University of Fortaleza, BR)

Aldri Santos (UFPR, BR)

**Reducing Routing Loops under Dynamic Metrics in Wireless Mesh Networks**

Takuya Yoshihiro (Wakayama University, JP)

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**Wednesday, 8 December 2010 • 11:20 - 12:30**

**Location: Tuttle Center**

**AHSN18: Performance Analysis and Modeling II**

**Chair: Weihua Zhuang, University of Waterloo, Canada**

**Performance of IEEE 802.11 RTS/CTS with Finite Buffer and Load in Imperfect Channels: Modeling and Analysis**

Ahed M. Alshanyour, Anjali Agarwal (Concordia University, CA)

**Delay Analysis for a Reliable Message Delivery in Sparse Vehicular Ad Hoc Networks**

Atef Abdrabou (UAE University, UAE)

Ben Liang (University of Toronto, CA)

Weihua Zhuang (University of Waterloo, CA)

**Modeling and Throughput Analysis for X-MAC with a Finite Queue Capacity**

Ou Yang, Wendi Heinzelman (University of Rochester, USA)

**Joint UKF and MMSE Channel Estimation for Uplink 2-Dimensional Block Spread MC-CDMA with Cyclic Delay Transmit Diversity**

Xi Chen, Weixiao Meng, Qiyue Yu, Zhongzhao Zhang (Harbin Institute of Technology, CN)

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**Wednesday, 8 December 2010 • 11:20 – 12:30**

**Location: Jasmine**

**AHSN30: VANET and Mobility**

**Chair: Mohamed Younis, University of Maryland, Baltimore County, USA**

**Design Guidelines for a Network Architecture Integrating VANET with 3G & Beyond Networks**

Tarik Taleb (NEC Europe Ltd., DE)

Abderrahim Benslimane (University of Avignon, FR)

**A Tolerant Context-Aware Driver Assistance System for VANETs-Based Smart Cars**

Ihn-Han Bae (Catholic University of Daegu, KR)

Stephan Olariu (Old Dominion University, USA)

**Impact of Mobility on VANETs Safety Applications**

Khalid Abdel Hafeez, Lian Zhao, Zaiyi Liao, Ngok-Wah Ma (Ryerson University, CA);

**An Anti-Detection Moving Strategy for Mobile Sink**

Zhou Sha, Jia-Liang Lu (Shanghai Jiao Tong University, CN)

Xu Li (State University of New York, Buffalo, USA)

Min-You Wu (Shanghai JiaoTong University, CN)

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**Wednesday, 8 December 2010 • 11:20 - 12:30**

**Location: Riverfront North Hall**

**AHSN6P: Topics in Ad Hoc, Sensor, and Mesh Networks VI (Poster)**

**Chair: Claudio I Estevez, Georgia Institute of Technology, USA**

**Strategy for Desired Communication Reliability with Minimized Total Retransmission in Sensor Networks**

SungKee Noh (ETRI, KR)

Euisin Lee, Seungmin Oh (Chungnam National University, KR)

Tae-Ho Lee (ETRI, KR)

Sang-Ha Kim (Chungnam National University, KR)

**On the Coexistence of Uncoordinated Ad-hoc Networks**

Junaid Ahmed, Khairi A. Hamdi (University of Manchester, UK)

**CFP: Integration of Fountain Codes and Optimal Probabilistic Forwarding in DTNs**

Ying Dai, Panlong Yang, Guihai Chen (Nanjing University, CN)

Jie Wu (Temple University, USA)

**Compressive Data Persistence in Large-Scale Wireless Sensor Networks**

Mu Lin (Beijing University, CN)

Chong Luo (Microsoft Research Asia, CN)

Feng Liu (Beijing University of Aeronautics and Astronautics, CN)

Feng Wu (Microsoft Research Asia, CN)

**Empirical Modeling and Estimation of End-to-End VoIP Delay over Mobile Multi-hop Wireless Networks**

Volkan Rodoplu, Snehal Vadvalkar, Amir Aminzadeh Gohari, John J. Shynk (University of California, Santa Barbara, USA)

**Network Tomography via Compressed Sensing**

Mohammad Hamed Firooz (University of Washington, USA)

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**Wednesday, 8 December 2010 • 11:20 – 12:30**

**Location: Pearson I**

**CIS09: Anonymity**

**Chair: Tirthankar Ghosh, St. Cloud State University, USA**

**Toward Improving Path Selection in Tor**

Fallon Chen, Joseph Pasquale (University of California, San Diego, USA)

**Anonymous Certification Services**

Dijiang Huang (Arizona State University, USA)

**Selective Cross Correlation in Passive Timing Analysis against Anonymity Systems**

Titus Abraham, Matthew Wright (University of Texas, Arlington, USA)

**Statistical Framework for Source Anonymity in Sensor Networks**

Basel Alomair, Andrew Clark (University of Washington, USA)

Jorge Cuellar (Siemens, DE)

Radha Poovendran (University of Washington, USA)

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**Wednesday, 8 December 2010 • 11:20 – 12:30**

**Location: Merrick II**

**CSSMA06: Multimedia Applications**

**Chairs: Min Chen, Seoul National University, Korea**

**Lei Shu, Osaka University, Japan**

**A New Hybrid Network Traffic Prediction Method**

Lin Xiang, Xiaohu Ge, Chuang Liu (Huazhong University of Science and Technology, CN)

Lei Shu (Osaka University, JP)

Chengxiang Wang (Heriot-Watt University, UK)

**A Channel Switching Scheme for IPTV Systems**

Daniel A. G. Manzato, Nelson L. S. da Fonseca (State University of Campinas, BR)

**QoS Bandwidth Optimization in an Inductive Routing System for Multimedia Real-Time Applications**

Abdelhamid Mellouk, Said Hoceini (University Paris-Est Creteil Val de Marne, FR)

**Multiple Description Coding with Feedback Based Network Compression**

Jesper H Sørensen, Jan Østergaard, Petar Popovski (Aalborg University, DK)

Jacob Chakareski (EPFL, CH)

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**Wednesday, 8 December 2010 • 11:20 – 12:30**

**Location: Hibiscus B**

**CT06: Interference Alignment II**

**Chair: Syed Jafar, University of California, Irvine, USA**

**Large System Performance of Interference Alignment in Single-Beam MIMO Networks**

David A. Schmidt, Wolfgang Utschick (Technische Universität München, DE)

Michael Honig (Northwestern University, USA)

**Downlink Interference Alignment**

Changho Suh, David Tse (University of California, Berkeley, USA)

Minnie Ho (Intel Labs, Intel Corporation, USA)

**A General Closed-Form Solution to Achieve Interference Alignment Along Spatial Domain**

Yinggang Du, Sheng Liu (Huawei Technologies Co. Ltd., CN)

## **Interference Alignment as a Rank Constrained Rank Minimization**

Dimitris Papailiopoulos, Alex Dimakis (University of Southern California, USA)

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**Wednesday, 8 December 2010 • 11:20 - 12:30**

**Location: Hibiscus A**

### **CT11: Wireless Networks II**

**Chair: Muriel Medard, Massachusetts Institute of Technology, USA**

#### **Protocol Coding for Two-Way Communications with Half-Duplex Constraints**

Petar Popovski (Aalborg University, DK)

Oswaldo Simeone (New Jersey Institute of Technology, USA)

#### **Contention Resolution Diversity Slotted ALOHA with Variable Rate Burst Repetitions**

Gianluigi Liva (DLR (German Aerospace Center), DE)

#### **Random Field Estimation with Delay-tolerant Wireless Sensor Networks: Quantize-and-Estimate vs. Compress-and-Estimate Encoding**

Javier Matamoros, Carles Anton-Haro

(Telecommunications Technological Center of Catalonia, ES)

#### **The Impact of Limited Information on Proportional Fair Scheduling In Wireless Networks**

Hui Zhou, Pingyi Fan (Tsinghua University, CN)

Dongning Guo (Northwestern University, USA)

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**Wednesday, 8 December 2010 • 11:20 - 12:30**

**Location: Riverfront North Hall**

### **CT2P: Transmission Techniques II (Poster)**

**Chair: Dimitris A. Pados, State University of New York, Buffalo, USA**

#### **Iterative Polite Water-Filling for Weighted Sum Rate Maximization in iTree Networks**

Liu An (Peking University, CN)

Youjian Eugene Liu (University of Colorado, Boulder, USA)

Haige Xiang, Wu Luo (Peking University, CN)

#### **On Greedy Based Methods for EXIT Chart Based Transmission Power Allocation**

Juha Karjalainen, Marian Codreanu, Antti Tolli, Markku Juntti, Tadashi Matsumoto (University of Oulu, FI)

#### **An Energy-Efficient Bit Allocation Scheme in Wireless Sensor Networks**

Xiaoxia Zhang, Liang-Liang Xie, Sherman Shen (University of Waterloo, CA)

#### **Dynamic Spectrum Management for Upstream Mixtures of Vektored & Non-vektored DSL**

Aakanksha Chowdhery, John Cioffi (Stanford University, USA)

#### **Coordinated Packet Transmission in Random Wireless Networks**

Sundaram Vanka, Martin Haenggi (University of Notre Dame, USA)

#### **When does the Wyner Model Accurately Describe an Uplink Cellular Network?**

Jiaming Xu (University of Texas, Austin, USA)

Jun Zhang (Hong Kong University of Science and Technology, CN)

Jeffrey Andrews (University of Texas, Austin, USA)

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**Wednesday, 8 December 2010 • 11:20 – 12:30**

**Location: Orchid AB**

**CQRM06: Scheduling I**

**Chair: Christos Verikoukis, CTTC, Spain**

**A Trading System for Fairly Scheduling Fixed-Sized Delay Tolerant Jobs at a Shared Link**

Jorge Londono, Azer Bestavros (Boston University, USA)

Nikolaos Laoutaris (Telefonica Research, ES)

**Broadcast Traffic Queueing in OFDMA Systems for Spectrum Efficiency and Improved QoS Provisioning**

Maduranga Liyanage, Iwao Sasase (Keio University, JP)

**Distributed Interference Management and Scheduling in LTE-A Femto Networks**

Ritesh Madan, Ashwin Sampath, Aamod Khandekar, Mohammad Jaber Borran, Naga Bhushan (Qualcomm, USA)

**Performance Bounds of Opportunistic Scheduling in Wireless Networks**

Yanhui Geng, Albert Lam, Victor Li (University of Hong Kong, CN)

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**Wednesday, 8 December 2010 • 11:20 – 12:30**

**Location: Flamingo**

**NGN06: Spectrum Allocation**

**Chair: Yong Li, Tsinghua University, China**

**A New Bandwidth Allocation Algorithm for EPON-WiMAX Hybrid Access Networks**

Abdou R. Ahmad, Abdallah Shami (University of Western Ontario, CA)

(University of Western Ontario, CA)

**Resource Allocation and Performance Study for LTE Networks Integrated with Femtocells**

Latha Kant, Kaustubh Sinkar, Kenneth Kerpez (Telcordia Technologies, USA)

Tian Lan (Princeton University, USA)

**Energy Efficient Spectrum Allocation for Green Radio in Two-tier Cellular Networks**

Wenchi Cheng, Hailin Zhang, Liqiang Zhao (Xidian University, CN)

**Joint Rate Control and Spectrum Allocation under Packet Collision Constraint in Cognitive Radio Networks**

Nguyen H. Tran, Choong Seon Hong (Kyung Hee University, KR)

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**Wednesday, 8 December 2010 • 11:20 – 12:30**

**Location: Tuttle North**

**ONS06: Optical Communications I**

Chair: Marco Secondini, Scuola Superiore Sant'Anna, Italy

**OCDMA code design for BER and data rate differentiation in Beat Noise Corrupted Systems**

Stéphanie Sahuguède, Anne Julien-Vergonjanne, Jean Pierre Cances (University of Limoges, FR)

**Channel Capacity of OFDM Systems with Timing Jitter**

Yang Lei, Kusha Panta, Jean Armstrong (Monash University, AU)

**Routing and Spectrum Allocation in OFDM-based Optical Networks with Elastic Bandwidth Allocation**

Kostas Christodoulopoulos (University of Patras, GR)

Ioannis Tomkos (AIT, GR)

Emmanuel Varvarigos (University of Patras, GR)

**OCDMA Code Utilization Increase: Capacity and Spectral Efficiency Enrichment**

Massoud Karbassian, Franko Küppers (University of Arizona, USA)

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**Wednesday, 8 December 2010 • 11:20 – 12:30**

**Location: Riverfront North Hall**

**ONS2P: Network Design & Operation (Poster)**

Eiji Oki, University of Electro-Communications, Japan

**Cloud Computing over Metropolitan Area WDM Networks: The Light-trails Approach**

Ashwin A. Gumaste (Indian Institute of Technology, Bombay/Massachusetts Institute of Technology, IN)

Tamal Dinesh Das, Prasad Gokhale (Indian Institute of Technology, Bombay, IN)

**Load Balancing for Holding-Time-Aware Dynamic Traffic Grooming**

Juliana De Santi, André C. Drummond, Nelson L. S. da Fonseca

(State University of Campinas, BR)

Admela Jukan (Technische Universität Carolo-Wilhelmina zu Braunschweig, DE)

**Performance Evaluation of Node Architectures with Color and Direction Constraints in WDM Networks**

Konstantinos Manousakis, Panagiotis Kokkinos, Emmanuel Varvarigos (University of Patras, GR)

**A Hybrid Protection/Restoration Scheme for Two-Link Failure in WDM Mesh Networks**

Lu Ruan, Taiming Feng (Iowa State University, USA)

**Column Generation for Dimensioning Resilient Optical Grid Networks with Relocation**

Brigitte Jaumard (Concordia University, CN)

Jens Buysse (Ghent University, BE)

Ali Shaikh (Concordia University, CA)

Chris Develder, Marc De Leenheer (Ghent University, BE)

**Routing and Scheduling in Distributed Advance Reservation Networks**

Chongyang Xie (University of New Mexico, USA)

Hamed M. K. Alazemi (Kuwait University, KW)

Nasir Ghani (University of New Mexico, USA)

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**Wednesday, 8 December 2010 • 11:20 – 12:30**

**Location: Gardenia**

**SAC06: Sharing and Admission Control**

**Chair: R. Venkatesha Prasad, TU-Delft, Netherlands**

**Admission Control and Channel Allocation for Supporting Real-time Applications in Cognitive Radio Networks**

Feng Wang (Peking University, CN)

Junhua Zhu (Huawei Technologies, Co., Ltd., CN)

Jianwei Huang (Chinese University of Hong Kong, CN)

Yuping Zhao (Peking University, CN)

**Admission Control and Packet Scheduling in a Cognitive Radio Network with Spectrum Underlay**

Bin Wang, Dongmei Zhao (McMaster University, CA)

Jun Cai (University of Manitoba, CA)

**Opportunistic Spectrum Sharing based on Exploiting ARQ Retransmission in Cognitive Radio Networks**

James Li, Wei Zhang (University of New South Wales, AU)

Aria Nosratinia (University of Texas, Dallas, USA)

Jinhong Yuan (University of New South Wales, AU)

**Phase Transition Diagram for Underlay Heterogeneous Cognitive Radio Networks**

Weng Chon Ao, Shin-Ming Cheng, Kwang-Cheng Chen (National Taiwan University, TW)

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**Wednesday, 8 December 2010 • 11:20 - 12:30**

**Location: Tequesta**

**SPC06: Cooperative Networks**

**Chair: Shigeru Shimamoto, Waseda University, Japan**

**A Dual-hop Amplify-and-forward MIMO Cooperative Beamformer in Distributed Wireless Sensor Networks**

Hassan Aghaei Baradaran, Keyvan Zarifi, Sofiene Affes (University of Quebec, INRS-EMT, CA)

Ali Ghrayeb (Concordia University, CA)

**A New Synchronization Scheme for OFDM-Based Cooperative Relay Systems**

Gang Yang (University of Electronic Science and Technology of China, CN)

Chin-Liang Wang, Hung-Chin Wang (National Tsing Hua University, TW)

Shaoqian Li (University of Electronic Science and Technology of China, CN)

**Cooperative Spectrum Sensing and Locationing: A Sparse Bayesian Learning Approach**

Din Hwa Huang, Sau-Hsuan Wu (National Chiao Tung University, TW)

Peng-Hua Wang (National Taipei University, TW)

**Iterative Approach to the Indirect Learning Architecture for Baseband Digital Predistortion**

Jakob Harmon, Stephen G. Wilson (University of Virginia, USA)

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**Wednesday, 8 December 2010 • 11:20 - 12:30**

**Location: Ibis**

**SPC12: SIMO, MISO and MIMO Systems II**  
**Chair: James Hicks, The Aerospace Corporation, USA**

**Statistical Analysis of MIMO Beamforming with Co-Channel MIMO Interferers under Rayleigh Fading**

Yongzhao Li (Xidian University, CN)  
Len Cimini (University of Delaware, USA)  
Nageen Himayat (Intel Corporation, USA)

**Joint Channel Estimation and Data Detection for MIMO-OFDM Two-Way Relay Networks**

The Hanh Pham (National University of Singapore, SG)  
Ying-Chang Liang (Institute for Infocomm Research, SG)  
Hari Krishna Garg (National University of Singapore, SG)  
Nallanathan Arumugam (King's College London, UK)

**Getting Closer to MIMO Capacity with Non-Binary Codes and Spatial Multiplexing**

Stephan F. Pfletschinger (Centre Tecnològic de Telecomunicacions de Catalunya, ES)  
David Declercq (ETIS lab. ENSEA/Cergy University, FR)

**Transmit Antenna Selection with Linear Precoding in MIMO Multiuser Systems**

Pu-Hsuan Lin, Shang-Ho Tsai (National Chiao Tung University, TW)  
Gene C.H. Chuang (Industrial Technology Research Institute, TW)

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**Wednesday, 8 December 2010 • 11:20 – 12:30**

**Location: Brickell North**

**WC06: MIMO VI**

**Chair: Tarik Ait-Idir, INPT/Telecom Bretagne, France**  
**Deng Pan, Telecom & IT Institute, USA**

**Fractional Reuse Partitioning for MIMO Networks**

Andreas Dotzler, Wolfgang Utschick (Technische Universität München, DE)  
Guido Dietl (DOCOMO Euro-Labs, DE)

**A Tabu Search Scheduling Algorithm for MIMO CDMA Systems**

Elmahdi Driouch, Wessam Ajib (Université du Québec à Montréal, CA)  
Mohamed Gaha (École Polytechnique de Montréal, CA)

**Field Trial Results on Different Uplink Coordinated Multi-Point (CoMP) Concepts in Cellular Systems**

Patrick Marsch, Michael Grieger, Gerhard Fettweis (Technische Universität Dresden, GE)

**Distribution of the Demmel Condition Number of Complex Wishart Matrices**

Caijun Zhong (Queen's University Belfast, UK)  
Matthew McKay (Hong Kong University of Science and Technology, CN)  
Tharmalingam Ratnarajah (Queens University of Belfast, UK)  
Kai Kit Wong (University College London, UK)

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**Wednesday, 8 December 2010 • 11:20 – 12:30**

**Location: Brickell Center**



**WC18: Game Theory II**

**Chair: Marco Luise, University of Pisa, Italy**

**Performance Comparison of Energy-Efficient Power Control for CDMA Code Acquisition and Detection**

Giacomo Bacci, Marco Luise (University of Pisa, IT)

**Cross-Polarization Discrimination in Vehicle-to-vehicle channels: Geometry-based Statistical Modeling**

Seok-Chul Kwon, Gordon Stuber (Georgia Institute of Technology, USA)

**Non-NCO Periodical-Pilot-Assisted Tracking Method for Practical High-Rate DS-UWB Systems**

Zhenyu Xiao, Jiaqi Zhang, Depeng Jin, Ning Ge, Lieguang Zeng (Tsinghua University, CN)

**Towards Efficient, Stable, and Fair Random Access Networks: A Conjectural Equilibrium Approach**

Yi Su, Mihaela van der Schaar (University of California, Los Angeles, USA)

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**Wednesday, 8 December 2010 • 11:20 – 12:30**

**Location: Brickell South**

**WC30: Network Coding I**

**Chair: Seshadri Mohan, University of Arkansas, Little Rock, USA**

**Relay Selection with Physical-layer Network Coding**

MinChul Ju, Il-Min Kim (Queen's University, CA)

**Secret Key Agreement Based on Radio Propagation Characteristics in Two-Way Relaying Systems**

Takayuki Shimizu, Hisato Iwai, Hideichi Sasaoka (Doshisha University, JP)

Arogyaswami Paulraj (Stanford University, USA)

**Detection of Misbehaving Relays in Network Coded Multiple Access Relay Networks**

Sang Wu Kim (Iowa State University, USA)

**Rotating Decode-and-Forward for Two Pairs of Two-Way Communications**

Yiwei Pu, Cen Lin, Meixia Tao (Shanghai Jiao Tong University, CN)

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**Wednesday, 8 December 2010 • 11:20 – 12:30**

**Location: Orchid D**

**WC42: Optimization II**

**Chair: Bala Natarajan, Kansas State University, USA**

**Multiple Description Coding-Based Optimal Resource Allocation for OFDMA Multicast Service**

Yao Ma (Wright State University, USA)

Khaled Letaief (Hong Kong University of Science & Technology, CN)

Zhengdao Wang (Iowa State University, USA)

Ross Murch (HKUST, CN)

Zhiqiang Wu (Wright State University, USA)

**Rank Constrained Schur-Convex Optimization with Multiple Trace/Log-Det Constraints**

Hao Yu, Vincent Lau (Hong Kong University of Science and Technology, CN)

**Passively Controllable Smart Antennas**

Javad Lavaei, Aydin Babakhani, Ali Hajimiri, John Doyle (California Institute of Technology, USA)

**Throughput-Efficient Rateless Coding with Packet Length Optimization for Practical Wireless Communication Systems**

Xijun Wang, Wei Chen, Zhigang Cao (Tsinghua University, CN)

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**Wednesday, 8 December 2010 • 11:20 – 12:30**

**Location: Orchid C**

**WC54: Fading Channels II**

**Chair: George Efthymoglou, University of Piraeus, Greece**

**Approximation of Log-Likelihood Ratio for Wireless Channels Based on Taylor Series**

Reza Asvadi (K. N. Toosi University of Technology, IR)

Amir Banihashemi (Carleton University, CA)

Mahmoud Ahmadian (K.N. Toosi University of Technology, IR)

**Secrecy Capacity With Leakage Constraints in Fading Channels**

Chen Zhi, Pingyi Fan (Tsinghua University, CN)

Dapeng Oliver Wu (University of Florida, USA)

Khaled Letaief (Hong Kong University of Science & Technology, CN)

**Second-Order Properties for Wireless Cooperative Systems with Rayleigh Fading**

Yuanqian Luo, Ruonan Zhang, Lin Cai (University of Victoria, CA)

**Novel Switching Schemes for Dual S+N Selection Diversity Combining**

Norman Beaulieu, Ramin Babaei (University of Alberta, CA)

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**Wednesday, 8 December 2010 • 11:20 – 12:30**

**Location: Riverfront North Hall**

**WC6P: Relay Networks (Poster)**

**Chair: Wei Zhang, University of New South Wales, Australia**

**Cooperative Relaying using OFDM in the Presence of Frequency Offsets**

Satya Prakash Ponnaluri, Babak Azimi-Sadjadi (Intelligent Automation Inc, USA)

Daniel McCathy, Paul Oleski (AFRL, USA)

**Filter-And-Forward Distributed Beamforming for Two-Way Relay Networks With Frequency Selective Channels**

Haihua Chen, Alex Gershman (Darmstadt University of Technology, DE)

Shahram Shahbazpanahi (University of Ontario Institute of Technology, CA)

**Transmission Schemes for Two User Linear Multi-Access Relay Networks**

Liangbin Li (University of California, Irvine, USA)

Yindi Jing (University of Alberta, CA)

Hamid Jafarkhani (University of California, Irvine, USA)

**Outage Priority Based Relay Fairness in Opportunistic Cooperation**  
Yubo Li, Qinye Yin, Junsong Wang, Bin Li (Xi'an Jiaotong University, CN)

**Uplink Cell Selection for Cooperative Multi-Cell Networks with Hybrid ARQ**  
Davide Zennaro, Stefano Tomasin, Lorenzo Vangelista (University of Padova, IT)

**Cooperative Multi-Antenna Multicasting for Wireless Networks**  
Hua Zhang, Xiaohu You (Southeast University, CN)  
Gang Wu, Haifeng Wang (Nokia, FI)

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**Wednesday, 8 December 2010 • 11:20 – 12:30**  
**Location: Peason II**

**WN06: Dynamic Spectrum Access II**  
**Chairs: Husheng Li, University of Tennessee, USA**  
**Athanassios Manikas, Imperial College London, United Kingdom**

**Strategyproof Wireless Spectrum Auctions with Interference**  
Ajay Gopinathan, Zongpeng Li (University of Calgary, CA)

**Spectrum Trading in Cognitive Radio Network: An Agent-based Model under Demand Uncertainty**  
Tian Chu, Peng Cheng, Lin Gao, Xinbing Wang, Hui Yu, Xiaoying Gan  
(Shanghai Jiao Tong University, CN)

**Backward-Compatible Dynamic Spectrum Leasing for 802.11-Based Wireless Networks**  
Robert Murawski, Eylem Ekici (Ohio State University, USA)

**Reward and Risk for Opportunistic Spectrum Accessing in Cognitive Radio Networks**  
Miao Pan, Yang Song (University of Florida, USA)  
Pan Li (Mississippi State University, USA)  
Yuguang Fang (University of Florida, USA)

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**Wednesday, 8 December 2010 • 11:20 – 12:30**  
**Location: Gautier**

**WN18: 802.11 Wireless Networks II**  
**Chair: Janise McNair, University of Florida, USA**

**A Novel Power Saving Strategy for Greening IEEE 802.11 based Wireless Networks**  
Bharathan Balaji, Bheemarjuna Reddy Tamma, Manoj Bs  
(University of California, San Diego, USA)

**Trade Off Issues for CCH/SCH duty cycle for IEEE 802.11p single channel devices**  
Jelena Mistic, Ghada Badawy (Ryerson University, CA)  
Saeed Rashwand (University of Manitoba, CA)  
Vojislav B. Mistic (Ryerson University, CA)

**gama-TBSC: Time-Bound Signaling Control with gama-Percent Soft Guarantee in IEEE 802.11 Wireless LANs**  
Ju-Lin Shih, Maria C. Yuang, Shih-Hsuan Lin (National Chiao Tung University, TW)

### **802.11 User Anonymization**

Dingbang Xu (Governors State University, USA)  
Yu Wang (University of North Carolina, Charlotte, USA)  
Xinghua Shi (Harvard University, USA)  
Xiaohang Yin (Governors State University, USA)

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**Wednesday, 8 December 2010 • 11:20 – 12:30**

**Location: Merrick I**

### **WN30: Delay Tolerant Networks II**

**Chairs: Mehmet Can Vuran, University of Nebraska-Lincoln, USA**

**Xiaoyan Hong, University of Alabama, USA**

### **Cost-Efficient Topology Design Problem in Time-Evolving Delay-Tolerant Networks**

Minsu Huang, Siyuan Chen, Ying Zhu, Yu Wang (University of North Carolina, Charlotte, USA)

### **Latency Analysis for Thrown Box Based Message Dissemination**

Bo Gu, Xiaoyan Hong, Pu Wang, Richard Borie (University of Alabama, USA)

### **Coalition Formation Games for Improving Data Delivery in Delay Tolerant Networks**

Dusit Niyato, Ping Wang (Nanyang Technological University, SG)

Walid Saad, Are Hjrrngnes (University of Oslo, UniK, NO)

### **Multicasting in Delay Tolerant Networks: Delegation Forwarding**

Yunsheng Wang, Xiaoguang Li, Jie Wu (Temple University, USA)

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**Wednesday, 8 December 2010 • 11:20 - 12:30**

**Location: Riverfront North Hall**

### **WN6P: Network Performance Optimization II (Poster)**

**Chairs: Dmitry Akhmetov, Intel Corporation, USA**

**Weiyi Zhao, University North Caroline, Charlotte, USA**

### **Improving Channel Utilization by Exploiting Partially Overlapping Channels in Wireless Ad Hoc Networks**

Kuei-Ping Shih, Chau-Chieh Chang (Tamkang University, TW)

Der-Jiunn Deng, Hsiao-Hwa Chen (National Changhua University of Education, TW)

### **A Cross-Layer Analytical Model of End-to-End Delay Performance for Wireless Multi-hop Environments**

Yu Chen (University College London, UK)

Yang Yang (Shanghai Research Center for Wireless Communications, CN)

Izzat Darwazeh (University College London, UK)

### **Cross-layer Optimization of Wireless Networks with Extended Transmission Rights**

Francois Luus, Bodhaswar TJ Maharaj (University of Pretoria, ZA)

### **Optimizing the WiMedia Frame Structure for Home Networking Applications**

Raghuram S Sudhaakar, Vel Pratheesh Sankar, Chunming Qiao

(State University of New York, Buffalo, USA)

**A Cross-layer Optimization for a LP-based Multi-Reader Coordination in RFID Systems**

Jin-Chul Choi, Chae-Woo Lee (Ajou University, KR)

**RF Concurrency vs. Performance Study for Integrated WiFi Radio**

Xue Yang, Dmitry Akhmetov, York Liu (Intel Corporation, USA)

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**Wednesday, 8 December 2010 • 16:00 – 17:10**

**Location: Tuttle South**

**AHSN07: Routing VII**

**Chair: Xiaoyan Hong, University of Alabama, USA**

**Improving the Energy Balance of Field-based Routing in Wireless Sensor Networks**

Goce Trajcevski, Oliviu Constantin Ghica (Northwestern University, USA)

Marco Antonio Zuniga, Rene Schubotz (National University of Ireland, Galway, IE)

Peter Scheuermann (Northwestern University, USA)

Manfred Hauswirth (DERI Galway, IE)

**Cognitive Approaches to Routing in Wireless Sensor Networks**

Amr El Moug, Zouheir El-Jabi, Mohamed Ibnkahla, Elyes Bdira (Queen's University, CA)

**BusySiMON - a New Protocol for IEEE 802.11 EDCA-Based Ad Hoc Networks with Hidden Nodes**

Katarzyna Kosek-Szot, Marek Natkaniec, Andrzej R. Pach

(AGH University of Science and Technology, PL)

**A Novel Reliable Transmission Protocol for Urgent Information in Wireless Sensor Networks**

Lulu Liang, Deyun Gao, Zhang Hongke (Beijing Jiaotong University, CN)

Victor CM Leung (University of British Columbia, CA)

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**Wednesday, 8 December 2010 • 16:00 – 17:10**

**Location: Tuttle Center**

**AHSN19: Performance Analysis and Modeling III**

**Chair: Daniele Tarchi, University of Florence, Italy**

**Performance Analysis of PCF based WLANs with Imperfect Channel and Failure Retries**

Md. Atiur Rahman Siddique, Joarder Kamruzzaman (Monash University, AU)

**Cognitive Relaying in Wireless Sensor Networks: Performance Analysis and Optimization**

Mahmoud Elsaadany (Cairo University, EG)

Tamer Khattab (Qatar University, QA)

Mohamed M. Abdallah (Texas A&M University, Qatar, QA)

Mazen Omar Hasna (Qatar University, QA)

Mohamed Khairy (Cairo University, EG)

**Understanding periodicity and regularity of nodal encounters in mobile networks: A spectral analysis**

Sungwook Moon, Ahmed Helmy (University of Florida, USA)

**Information Epidemics in Complex Networks with Opportunistic Links and Dynamic Topology**

Pin-Yu Chen, Kwang-Cheng Chen (National Taiwan University, TW)

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**Wednesday, 8 December 2010 • 16:00 – 17:10**

**Location: Jasmine**

**AHSN31: MAC I**

**Chair: Farid Naït-Abdesselam, University of Paris Descartes, France**

**QoS-Centric Collision Window Shaping for CSMA-CA MAC Protocol**

Miraz Mamun, Gour Chandra Karmakar, Joarder Kamruzzaman  
(Monash University, AU)

**An Experimental Comparison of Burst Packet Transmission Schemes in IEEE 802.11-based Wireless Mesh Networks**

Peter Dely, Andreas J. Kassler (Karlstad University, SE)  
Nico Bayer, Dmitry Sivchenko (Deutsche Telekom Laboratories, DE)

**An Enhanced Reservation-based Medium Access Control with Scheduling and Admission Control for Voice over Wireless Mesh Networks**

Racha Ben Ali (École Polytechnique de Montréal, CA)  
Abdel Hafid, Jihene Rezgui (University of Montreal, CA)

**Contention-limited Access Strategies in IEEE 802.15.4 Beacon-Enabled Networks**

Jorge M Finochietto, Ignacio Isaía Brasca (Universidad Nacional de Córdoba, AR)

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**Wednesday, 8 December 2010 • 16:00 – 17:10**

**Location: Riverfront North Hall**

**AHSN7P: Topics in Ad Hoc, Sensor, and Mesh Networks VII (Poster)**

**Chair: Jie Li, University of Tsukuba, Japan**

**Collision-load Balancing Topology Control with Rate Adaptation for Wireless Mesh Networks**

Xiaohua Jia, Kunxiao Zhou (City University of Hong Kong, CN)

**Load-Aware Channel Assignment Using Partially Overlapping Channels for Wireless Mesh Networks-**

Cheng Li, Ramachandran Venkatesan, Yuting Liu (Memorial University, CA)

**An Indoor Positioning Algorithm with Kernel Direct Discriminant Analysis**

Yubin Xu, Zhian Deng, Weixiao Meng (Harbin Institute of Technology, CN)

**Analysis of k-Hop Connectivity Probability in 2-D Wireless Networks with Infrastructure Support**

Seh Chun Ng, Guoqiang Mao (University of Sydney, AU)

**Enabling network-layer security on IPv6 Wireless Sensor Networks**

Jorge Granjal, Edmundo Monteiro, Jorge Silva (University of Coimbra, PT)

**Optimizing upload time of data from mobile devices**

Ying Zhu (University of Ontario Institute of Technology, CA)

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**Wednesday, 8 December 2010 • 16:00 – 17:10**

**Location: Pearson I**

**CIS10 Intrusion Detection**

**Chair: Yibo Xue, Tsinghua University, China**

**YACA: Yet Another Cluster-based Architecture for Network Intrusion Prevention**

Fei He, Yaxuan Qi, Yibo Xue, Jun Li (Tsinghua University, CN)

**Independent Parallel Compact Finite Automata for Accelerating Multi-String Matching**

Yi Tang, Junchen Jiang (Tsinghua University, CN)

Xiaofei Wang (Dublin City University, CN)

Yang Xu (Polytechnic Institute of New York University, USA)

Bin Liu (Tsinghua University, CN)

**Towards High-performance Pattern Matching on Multi-core Network Platforms**

Yaxuan Qi, Zongwei Zhou (Tsinghua University, CN)

Yiyao Wu (Carnegie Mellon University, USA)

Yibo Xue, Jun Li (Tsinghua University, CN)

**A Real Implementation of Deep Packet Inspection in 3G Network**

Feiyi Huang, Liwen He (Huawei Symantec Co. Ltd., CN)

Xiaoming Lu, Weihua Cao, Xusheng Huang

(GuangDong Research Institute of China Telecom Co. Ltd., CN)

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**Wednesday, 8 December 2010 • 16:00 – 17:10**

**Location: Orchid AB**

**CQRM07: Traffic Measurement I**

**Chair: Chi-Ming Chen, AT&T Labs Research, USA**

**A2C: Anti-Attack Counters For Traffic Measurement**

Keqiang He, Chengchen Hu, Junchen Jiang (Tsinghua University, CN)

Yachao Zhou (Dublin City University, IE)

Bin Liu (Tsinghua University, CN)

**Efficient Data Collection with Sampling in WSNs: Making Use of Matrix Completion Techniques**

Jie Cheng, Hongbo Jiang, Xiaoqiang Ma, Lanchao Liu

(Huazhong University of Science and Technology, CN)

Lijun Qian (Prairie View A&M University, USA)

Chen Tian, Wenyu Liu (Huazhong University of Science and Technology, CN)

**Know Your Enemy, Know Yourself: Block-Level Network Behavior Profiling and Tracking**

Esam Sharafuddin, Nan Jiang, Yu Jin, Zhi-Li Zhang (University of Minnesota, USA)

**Long-term Adaptation and Distributed Detection of Local Network Changes**

Rebecca Steinert, Daniel Gillblad (Swedish Institute of Computer Science, SE)

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**Wednesday, 8 December 2010 • 16:00 – 17:10**

**Location: Orchid C**

**CQRM17: Traffic Measurement II**  
**Chair: Luigi Atzori, University of Cagliari, Italy**

**Neighbor-Cooperative Measurement of Network Path Quality**  
Rocky Chang, Waiting Fok, Weichao Li, Edmond W. W. Chan  
(Hong Kong Polytechnic University, HK)  
Xiapu Luo (Georgia Institute of Technology, USA)

**Ternary-search-based Scheme to Measure Link Available-bandwidth in Wired Networks**  
Khondaker Salehin, Roberto Rojas-Cessa  
(New Jersey Institute of Technology, USA)

**TSprobe: a Two-Step Probe Method for End-to-End Available Bandwidth Estimation**  
Wang Huiming, Zhiliang Wang, Yin Xia (Tsinghua University, CN)

**Error Modeling in Network Tomography by Sparse Code Shrinkage (SCS) Method**  
Muhammad Raza, Bill Robertson, William Phillips, Jacek Ilow (Dalhousie University, CA)

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**Wednesday, 8 December 2010 • 16:00 – 17:10**  
**Location: Merrick II**

**CSSMA07: Distributed Systems and Applications**  
**Chair: Susana Sargento, Instituto de Telecomunicações, Universidade de Aveiro, PT**

**A Methodology Used to Optimize Probe Selection for Fault Localization**  
Yan Qiao, Lu Cheng, Qiu Xue-song, Luoming Meng  
(Beijing University of Posts and Telecommunications, CN)

**SLA-Based Resource Co-Allocation in Multi-Cluster Grid**  
Wei Wang, Luo Junzhou, Aibo Song, Fang Dong (Southeast University, CN)

**Rendering Adaptation to Address Communication and Computation Constraints in Cloud Mobile Gaming**  
Shaoxuan Wang, Sujit Dey (University of California, San Diego, USA)

**MMOPRG Traffic Modeling and Analysis over WiFi and WiMax**  
Wei Cai, Xiaofei Wang, Min Chen (Seoul National University, KR)  
Yan Zhang (Simula Research Laboratory and University of Oslo, NO)

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**Wednesday, 8 December 2010 • 16:00 – 17:10**  
**Location: Hibiscus B**

**CT07: MIMO I**  
**Chair: Andreas Molisch, University of Southern California, USA**

**On Training and Training Voids for Receive Antenna Subset Selection in Time-Varying Channels**  
Vinod Kristem, Neelesh B. Mehta (Indian Institute of Science, IN)  
Andreas Molisch (University of Southern California, USA)



**On the Effect of Feedback Delay on Limited-rate Beamforming Systems**

Yiyue Wu (Princeton University, USA)

Andreas Achtzehn, Marina Petrova, Petri Mähönen (RWTH Aachen University, DE)

Robert Calderbank (Princeton University, USA)

**Benefits of Transmit Antenna Selection in Ad Hoc Networks**

Yueping Wu (Hong Kong University of Science and Technology, CN)

Raymond Hall Yip Louie (University of Sydney, AU)

Matthew R. McKay (Hong Kong University of Science and Technology, CN)

Iain B. Collings (CSIRO, AU)

**On the Degrees of Freedom Regions of Two-User MIMO Z and Full Interference Channels with Reconfigurable Antennas**

Lei Ke, Zhengdao Wang (Iowa State University, USA)

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**Wednesday, 8 December 2010 • 16:00 – 17:10**

**Location: Hibiscus A**

**CT12: Wireless Networks III**

**Chair: Jeff Andrews, University of Texas, Austin, USA**

**Throughput and Energy Efficiency of Opportunistic Routing with type-I HARQ in Linear Multihop Networks**

Davide Chiarotto (University of Padova, IT)

Osvaldo Simeone (New Jersey Institute of Technology, USA)

Michele Zorzi (Università degli Studi di Padova, IT)

**On Optimizing Low SNR Wireless Networks using Network Coding**

Mohit Thakur (Technische Universität München, DE)

Muriel Medard (MIT, USA)

**Optimal Spatial Reuse in Poisson Multi-hop Networks**

Kostas Stamatiou, Martin Haenggi (University of Notre Dame, USA)

**On Optimal Power Allocation for a Class of Interference Networks**

Nasreen Badruddin, Jamie Evans (University of Melbourne, AU)

Stephen Hanly (National University of Singapore, SG)

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**Wednesday, 8 December 2010 • 16:00 – 17:10**

**Location: Riverfront North Hall**

**CT3P: Detection Techniques (Poster)**

**Chair: Leszek Szczecinski, INRS-EMT, Canada**

**Active Subchannel Detection for Non-Contiguous OFDM-Based Cognitive Radio Systems**

Jie Ding, Daiming Qu, Xiaojun Sun, Tao Jiang, Lu Liu

(Huazhong University of Science and Technology, CN)

**Lattice Sequential Decoding: Achievable Rates and Diversity-Multiplexing Tradeoff**

Walid Abedlseyid, Mohamed Oussama Damen (University of Waterloo, CA)

**Optimally Efficient Max-log APP Demodulation in MIMO Systems**

Narayan Prasad (NEC Labs America, Princeton, USA)

Khalid Kalbat (University of Columbia, USA)

Xiaodong Wang (Columbia University, USA)

**A Message Passing Approach to Pilot-assisted Multiuser Detection in MC-CDMA Systems**

Emre Aktas (Hacettepe University, TK)

**DMT of Interference Channels with Full-Duplex Source Cooperation and Imperfect CSIT**

Qian Li, Kwok Hung Li, Teh Kah Chan (Nanyang Technological University, SG)

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**Wednesday, 8 December 2010 • 16:00 – 17:10**

**Location: Flamingo**

**NGN07: Multicasting**

**Chair: Andrea Bianco, Politecnico di Torino, Italy**

**A Fast-Join Mechanism for Inter-domain Multicasting**

Xiaohua Tian, Yu Cheng (Illinois Institute of Technology, USA)

Bin Liu (Tsinghua University, CN)

**An Approximation Algorithm for Constructing Multicast Trees with Degree-Dependent Node Costs**

Hwa-Chun Lin, Shiu-Ming Yang (National Tsing Hua University, TW)

**Reliable Multicasting in Disruption Tolerant Networks**

Kamalavasan Srinivasan (Microsoft Corporation, USA)

Parmesh Ramanathan (University of Wisconsin at Madison, USA)

**Mapping Multicast Service-Oriented Virtual Network with Delay and Delay Variation Constraints**

Min Zhang, Chunming Wu (Zhejiang University, CN)

Ming Jiang (Hangzhou Dianzi University, CN)

Qiang Yang (Imperial College London, UK)

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**Wednesday, 8 December 2010 • 16:00 – 17:10**

**Location: Tuttle North**

**ONS07: Optical Switching II**

**Chair: Xiaojun Cao, Georgia State University, USA**

**Programmable Multi-Granular Optical Router: Modular Architecture and Testing**

Raul Cafini, Walter Cerroni, Carla Raffaelli, Michele Savi (Universita' di Bologna, IT)

**Sharing Simple Wavelength Converters in Optical Packet Switching: Performance and Power Consumption Evaluation**

Carla Raffaelli, Michele Savi (University of Bologna, IT)

**Optical Packet Switch based on Dynamic Pump Wavelength Selection**

Nattapong Kitsuwon, Eiji Oki (The University of Electro-Communications, JP)

**Modeling and Performance Evaluation of a Translucent OBS Network Architecture**

Oscar Pedrola, Davide Careglio (Universitat Politècnica de Catalunya, ES)  
Miroslaw Klinkowski (National Institute of Telecommunications, PL)  
Josep Solé-Pareta (Universitat Politècnica de Catalunya, ES)

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**Wednesday, 8 December 2010 • 16:00 – 17:10**

**Location: Riverfront North Hall**

**ONS3P: Optical Communications II (Poster)**

**Chair: Hassan Naser, Lakehead University, Canada**

**A Novel Multilevel Coded Modulation Scheme for Fiber Optical Channel with Nonlinear Phase Noise**

Lotfollah Beygi, Erik Agrell, Pontus Johannisson, Magnus Karlsson  
(Chalmers University of Technology, SE)

**Phase Noise Sensitivity and Compensation Techniques in Long-Haul Coherent Optical Links**

Giulio Colavolpe (University of Parma, IT)  
Tommaso Foggi (CNIT Research Unit, IT)  
Enrico Forestieri, Marco Secondini (Scuola Superiore S. Anna, Pisa, IT)

**Optical Wireless Communications with Adaptive Subcarrier PSK Intensity Modulation**

Nestor Chatzidiamantis, Athanasios S. Lioumpas, George K. Karagiannidis  
(Aristotle University of Thessaloniki, GR)  
Shlomi Arnon (Ben-Gurion University of the Negev, IL)

**On the Clipping Noise in an ACO-OFDM Optical Wireless Communication System**

Svilen Dimitrov, Harald Haas (University of Edinburgh, UK)

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**Wednesday, 8 December 2010 • 16:00 – 17:10**

**Location: Gardenia**

**SAC07: Cognitive Radio Experimental and Other**

**Chair: Andrew Ge, Telcordia Technologies, USA**

**Software Radio-Based Decentralized Dynamic Spectrum Access Networks: A Prototype Design and Experimental Results**

Feng Ge, Aravind Radhakrishnan, Mustafa El-Nainay (Virginia Tech, USA)  
Qinqin Chen (Virginia Polytechnic Institute and State University, USA)

**Backhauling in TV White Spaces**

Cyrus Gerami, Narayan Mandayam, Larry Greenstein (Rutgers University, USA)

**Performance Analysis of Communications & Radar Coexistence in a Covert UWB OSA System**

Shrawan Surender, Ram Narayanan, Chita Das (Pennsylvania State University, USA),

**Common Hopping based Proactive Spectrum Handoff in Cognitive Radio Ad Hoc Networks**

Yi Song, Linda Jiang Xie (University of North Carolina, Charlotte, USA)

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**Wednesday, 8 December 2010 • 16:00 – 17:10**

**Location: Tequesta**

**SPC07: Detection and Decoding**

**Chair: Luc Deneire, University of Nice, France**

**Fast Maximum-Likelihood Decoding of 4 x 4 Full-Diversity Quasi-Orthogonal STBCs with QAM signals**

Sandipan Kundu, Weifeng Su, Dimitris A. Pados, Michael Medley  
(State University of New York, Buffalo, USA)

**List Sphere Decoding with a Probabilistic Radius Tightening**

Jaeseok Lee, Byonghyo Shim (Korea University, KR)  
Insung Kang (Qualcomm Inc., USA)

**Robust Fixed Complexity Sphere Decoder**

Yuehua Ding, Yide Wang, Jean Francois Diouris (École Polytechnique de l'Université de Nantes, FR)

**An Improvement on the Soft Reliability-Based Iterative Majority-Logic Decoding Algorithm for LDPC Codes**

Telex Magloire N. Ngatched, Attahiru S. Alfa, Jun Cai (University of Manitoba, CA)

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**Wednesday, 8 December 2010 • 16:00 – 17:10**

**Location: Ibis**

**SPC13: SIMO, MISO and MIMO Systems III**

**Chair: Guido Dietl, DOCOMO Euro-Labs, Germany**

**Space-Time Shift Keying: A Unified MIMO Architecture**

Shinya Sugiura, Sheng Chen, Lajos Hanzo (University of Southampton, UK)

**Generalized Singular Value Decomposition for Coordinated Beamforming in MIMO Systems**

Damith Senaratne, Chintha Tellambura (University of Alberta, CA)

**Design of Amplify and Forward MIMO Relay Networks with QoS Constraint**

Jafar Mohammadi, Feifei Gao (Jacobs University, Bremen, DE)  
Yue Rong (Curtin University, AU)

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**Wednesday, 8 December 2010 • 16:00 – 17:10**

**Location: Brickell North**

**WC07: Wireless Sensor Networks**

**Chairs: Maciej Zawodniok, Missouri S&T, USA**

**Wei Wang, South Dakota State University, USA**

**Energy Efficiency Analysis of Multistage Cooperation in Sensor Networks**

Kanchan Vardhe, Chi Zhou (Illinois Institute of Technology, USA)  
Daryl Reynolds (West Virginia University, USA)

**Spatial Field Estimation Through Wireless Sensor Networks Under Bandwidth Constraints**

Davide Dardari, Flavio Fabbri (University of Bologna, IT)

**Region-Based Data Dissemination Scheme for Mobile Sink Groups in Wireless Sensor Networks**

Hyungjoo Lee, Jeongcheol Lee, Seungmin Oh, Sang-Ha Kim  
(Chungnam National University, KR)

**Random On-Off Accumulative Transmission for Asynchronous Wireless Sensor Networks**

Jingxian Wu (University of Arkansas, USA)  
Geoffrey Li (Georgia Tech, USA)

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**Wednesday, 8 December 2010 • 16:00 – 17:10**

**Location: Brickell Center**

**WC19: Interference Management**

**Chair: Youngchul Sung, KAIST, Korea**

**Total Inter-carrier Interference Cancellation for MC-CDMA System in Mobile Environment**

Xue Li, Ruolin Zhou (Wright State University, USA)  
Steven Hong (Stanford University, USA)  
Zhiqiang Wu (Wright State University, USA)

**Aiming Perfectly in the Dark - Blind Interference Alignment through Staggered Antenna Switching**

Tiangao Gou, Chenwei Wang, Syed Jafar (University of California Irvine, USA)

**Interference Alignment with Asymmetric Complex Signaling and Multiuser Diversity**

Hun-Young Shin, Seok-Hwan Park, Haewook Park, Inkyu Lee (Korea University, KR)

**Minimum AP Placement for WLAN with Rate Adaptation using Physical Interference Model**

Zhongming Zheng, Bo Zhang, Xiaohua Jia (City University of Hong Kong, CN)  
Jun Zhang (Hong Kong Polytechnic University, CN)  
Kan Yang (City University of Hong Kong, CN)

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**Wednesday, 8 December 2010 • 16:00 – 17:10**

**Location: Brickell South**

**WC31: Network Coding II**

**Chair: Wolfgang Gerstaecker, University of Erlangen-Nuremberg, Germany**

**Generalized Sum-Product Algorithm for Joint Channel Decoding and Physical-Layer Network Coding in Two-Way Relay Systems**

Dirk Wübben, Yidong Lang (University of Bremen, DE)

**Joint Relay Selection and Network Coding Using Decode-and-Forward Protocol in Two-Way Relay Channels**

Qimin You, Yonghui Li (University of Sydney, AU)  
Zhuo Chen (CSIRO ICT Centre, AU)

**Adaptive Network Coding in Two-Way Relaying MIMO Systems**

Toshiaki Koike-Akino (Harvard University, USA)

**Graph-Based Optimization for Relay-Assisted Bidirectional Cellular Networks**

Yuan Liu, Meixia Tao (Shanghai Jiao Tong University, CN)

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**Wednesday, 8 December 2010 • 16:00 – 17:10**

**Location: Orchid D**

**WC43: Power Control I**

**Chair: Onur Kaya, Isik University, Turkey**

**Power Control for Cognitive Radios in Nakagami Fading Channels with Outage Probability Requirement**

Chin Choy Chai, Yong Huat Chew (Institute for Infocomm Research, SG)

**Globally Optimal Resource Allocation for Achieving Maximum Weighted Sum Rate**

Kristoffer Eriksson, Shuying Shi (Linköping University, SE)

Nikola Vucic (Fraunhofer HHI, DE)

Martin Schubert (Fraunhofer German-Sino Lab for Mobile Communications MCI, DE)

Erik G. Larsson (Linköping University, SE)

**On the Sum-Rate of Peer-to-Peer MIMO Multiuser Gaussian Interference Channels**

Harpreet Dhillon, Michael Buehrer (Virginia Tech, USA)

**Optimal Subcarrier-Chunk Scheduling for OFDM Systems**

Na Gao, Xin Wang (Florida Atlantic University, USA)

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**Wednesday, 8 December 2010 • 16:00 – 17:10**

**Location: Riverfront North Hall**

**WC7P: Networking Topologies (Poster)**

**Chair: Xinbing Wang, Shanghai Jiaotong University, China**

**Throughput-Delay Scaling for Two Mobile Overlaid Networks**

Wenjie Zhang, Chai Kiat Yeo (Nanyang Technological University, SG)

**Temporal Spectrum Sensing in Packet-Based Network Using Double Thresholds**

Yingxi Liu, Nikhil Kundargi, Ahmed Tewfik (University of Minnesota, USA)

**Studying the Relationships between Spatial Structures of Wireless Networks and Population Densities**

Maria Michalopoulou, Janne Riihijärvi, Petri Mähönen (RWTH Aachen University, DE)

**Modeling of a Cooperative One-Dimensional Multi-Hop Network using Quasi-Stationary Markov Chains**

Syed Ali Hassan, Mary Ann Ingram (Georgia Tech, USA)

**On the Functional Relationship between Channel Holding Time and Cell Dwell Time in Mobile Cellular Networks**

Anum Corral-Ruiz, Andres Rico-Paez, Felipe A. Cruz-Pérez (Cinvestav-IPN, Mexico)

Genaro Hernandez-Valdez (UAM-A, Mexico)

**A QoS based Low-Complex Rate-Split Scheme in Heterogeneous Cellular Networks**

Wonjong Noh (Samsung Advanced Institute of Technology, KR)

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**Wednesday, 8 December 2010 • 16:00 – 17:10**  
**Location: Peason II**

**WN07: Handoff and Mobility Management II**  
**Chair: Hazem Refai, University of Oklahoma, USA**

**Performance Analysis of Fast Handover for Proxy Mobile IPv6**  
SuKyoung Lee (Yonsei University, KR)

**PMIPv6-HC: Handover Mechanism for Reducing Handover Delay and Packet Loss in NGWN**  
Linoh A. Magagula (University of Cape Town, ZA)  
H. Anthony Chan (Huawei Technologies, USA)  
Olabisi Emmanuel Falowo (University of Cape Town, ZA)

**Performance Comparison between MIPv6 and SEMO6**  
Md Sazzadur Rahman, Mohammed Atiquzzaman (University of Oklahoma, USA)  
Wesley M Eddy (MTI Systems, USA)  
William D. Ivancic (NASA Glenn Research Center, USA)

**Performance Evaluation of Network Mobility Handover over Future Aeronautical Data Links**  
Serkan Ayaz, Felix Hoffmann (German Aerospace Center, DE)  
Christoph Sommer (Carnegie Mellon University, USA)  
Reinhard German (Universitaet Erlangen-Nuernberg, DE)  
Falko Dressler (University of Erlangen, DE)

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**Wednesday, 8 December 2010 • 16:00 – 17:10**  
**Location: Gautier**

**WN19: TCP and Congestion Control II**  
**Chair: Humphrey Rutagemwa Communications Research Centre, Canada**

**Counteracting wireless congestion in data distribution with adaptive batching techniques**  
Mario Fanelli, Luca Foschini, Antonio Corradi (University of Bologna, IT)  
Azzedine Boukerche (University of Ottawa, CA)

**Hybrid Window and Rate Based Congestion Control for Delay Sensitive Applications**  
Sanjeev Mehrotra, Jin Li, Sudipta Sengupta (Microsoft Research, USA)  
Manish Jain (Akamai, USA)  
Sayandeep Sen (University of Wisconsin Madison, USA)

**Sliding Mode Based Joint Congestion Control and Scheduling in Multi-hop Ad Hoc Networks with Multi-class Services**  
Zongrui Ding, Dapeng Oliver Wu (University of Florida, USA)

**TCP Convergence Layer (TCPCL)-based DTN over Cislunar Channels in Presence of Long Link Disruption**  
Ruhai Wang, Xuan Wu (Lamar University, USA)  
Zhou Liu Lei, Jia Hou (Soochow University, CN)

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**Wednesday, 8 December 2010 • 16:00 – 17:10**

**Location: Merrick I**

**WN31: Vehicular Networks II**

**Chair: Liang Xiao, Xiamen University, China**

**A QoS-aware Dynamic Bandwidth Allocation Algorithm for Base Stations in IEEE 802.16j-based Vehicular Networks**

Ridong Fei, Kun Yang (University of Essex, UK)

Shumao Ou (Oxford Brookes University, UK)

**Mobility-Aware Call Admission Control Algorithm in Vehicular WiFi Networks**

Younghyun Kim, Sangheon Park, Wonjun Lee (Korea University, Korea, KR)

**An Efficient Hybrid HIP-PMIPv6 Scheme for Seamless Internet Access in Urban Vehicular Scenarios**

Sandra Cespedes U., Sherman Shen (University of Waterloo, CA)

**A Novel Network Mobility Management Scheme for Vehicular Networks**

Azzedine Boukerche, Zhenxia Zhang (University of Ottawa, CA)

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**Wednesday, 8 December 2010 • 16:00 – 17:10**

**Location: Riverfront North Hall**

**WN7P: Topics in Wireless Networking III (Poster)**

**Chair: Abderrahmane Lakas, UAE University, UAE**

**Performance Analysis of Channel Contention in Wireless Ad Hoc Networks: A Stochastic Game Nets Approach**

Xiong Wan (University of Science and Technology Beijing, CN)

Chuang Lin (Tsinghua University, CN)

Xin Chen, Kun Meng Yuanzhuo Wang (Chinese Academy of Sciences, CN)

**Estimating the Number of Nodes in a Mobile Wireless Network**

Shiping Chen (University of Shanghai for Science and Technology, CN)

**Robust and Secure Secret Sharing in Wireless Networks with Convolutional Network Coding**

Joyce Liang, C.-C. Jay Kuo (University of Southern California, USA)

**The Performance Analysis of Doppler Diversity Based on Sectorised Antenna in High-Speed Railway Communication**

Liu Liu, Cheng Tao, Jiahui Qiu, Huajing Zhang (Beijing Jiaotong University, CN)

**Wireless Data Center with Millimeter Wave Network**

Hars Vardhan, Navine Thomas, Seong-Ryong Ryu, Banerjee Bhaskar, Ravi Prakash

(University of Texas, Dallas, USA)

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**Wednesday, 8 December 2010 • 17:20 – 18:30**

**Location: Tuttle South**



**AHSN08: Localization I**

**Chair: Moustafa Youssef, Nile University, Egypt**

**A Two-phase Algorithm for Locating Sensors in Irregular Areas**

Wenbo Shi, Vincent Wong (University of British Columbia, CA)

**RELMA: A Range free Localization Approach using Mobile Anchor Node for Wireless Sensor Networks**

Lutful Karim, Nidal Nasser, Tarek El Salti (University of Guelph, CA)

**Distributed Angle Estimation for Wireless Sensor Network Localization**

Weile Zhang, Qinye Yin, Wenjie Wang (Xi'an Jiaotong University, CN)

**Optimal KNN Positioning Algorithm via Theoretical Accuracy Criterion in WLAN Indoor Environment**

Yubin Xu, Mu Zhou, Weixiao Meng, Lin Ma (Harbin Institute of Technology, CN)

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**Wednesday, 8 December 2010 • 17:20 – 18:30**

**Location: Tuttle Center**

**AHSN20: Distributed Algorithms I**

**Chair: Tirthankar Ghosh, St. Cloud State University, USA**

**Sensor Placement for Minimum Exposure in Distributed Active Sensing Networks**

Na Xia (Hefei University of Technology, CN)

Khuong Vu, Rong Zheng (University of Houston, USA)

**Adaptive Distributed Power Management Algorithm for Interference-aware Topology Control in Mobile Ad Hoc Networks**

Nuraj Pradhan, Tarek Saadawi (City University of New York/The City College, USA)

**A Novel Distributed Mobility Protocol for Dynamic Coverage in Sensor Networks**

Thakshila Wimalajeewa, Sudharman K Jayaweera (University of New Mexico, USA)

**Design of a Distributed Protocol for Proportional Fairness in Wireless Body Area Networks**

Roberto Pagliari (Cornell University, USA)

Anna Scaglione, Ramy Abdallah Tannious (University of California Davis, USA)

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**Wednesday, 8 December 2010 • 17:20 – 18:30**

**Location: Jasmine**

**AHSN32: MAC II**

**Chair: Soufiene Djahel, University of Lille, France**

**Analytical Modelling of IEEE 802.15.4 for Multi-hop Networks with Heterogeneous Traffic and Hidden Terminals**

Piergiuseppe Di Marco, Pangun Park, Carlo Fischione, Karl Henrik Johansson (Royal Institute of Technology, SE)

**Fast Channel Establishment for IEEE 802.16 Wireless Mesh Networks**

Kanthaiah Sivapragasam Vijayalayan, Aaron Harwood, Shanika Karunasekera  
(University of Melbourne, Australia)

**A Methodology for Optimal MAC Protocol Generation: Case Study of a Synchronous MAC Channel**

Jian Zhen, Forrest Brewer, Volkan Rodoplu (University of California, Santa Barbara, USA)

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**Wednesday, 8 December 2010 • 17:20 – 18:30**

**Location: Pearson I**

**CIS11: Traffic Classification and Analysis**

**Chair: Guanglu Sun, Tsinghua University, China**

**HMC: A Novel Mechanism for Identifying Encrypted P2P Thunder Traffic**

Chenglong Li, Yibo Xue (Tsinghua University, CN)

Yingfei Dong (University of Hawaii, USA)

**A Graph Similarity-based Approach to Security Event Analysis Using Correlation Techniques**

Qishi Wu, Yi Gu (University of Memphis, USA)

Xiaohui Cui (Oak Ridge National Laboratory, USA)

Praneeth Moka, Yunyue Lin (University of Memphis, USA)

**A Novel Hybrid Method for Effectively Classifying Encrypted Traffic**

Guanglu Sun, Yibo Xue (Tsinghua University, CN)

Yingfei Dong (University of Hawaii, USA)

Chenglong Li, Dongsheng Wang (Tsinghua University, CN)

**A Distributed Public Key Caching Scheme in Large Wireless Networks**

Yuan Kong, Jing Deng (University of North Carolina Greensboro, USA)

Stephen Tate (University of North Texas, USA)

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**Wednesday, 8 December 2010 • 17:20 – 18:30**

**Location: Orchid AB**

**CQRM08: Wireless Performance I**

**Chair: Csaba Kiraly, University of Trento, Italy**

**Adaptive Multi-Code Chaos-Based CDMA with Unequal Error Protection using Reduced Support Machine**

Johnny Kao, Stevan Berber, Vojislav Kecman (University of Auckland, NZ)

**An Analytical Model to Study the Packet Loss Burstiness over Wireless Channels**

Fangqin Liu (Tsinghua University, CN)

Yanfei Fan (University of Waterloo, CA)

Sherman Shen (University of Waterloo, CA)

Chuang Lin (Tsinghua University, CN)

**An Exponential Model for Evaluating Error Performance of Turbo codes**

Qingchun Chen, Jiaxiang Li, Pingzhi Fan (Southwest Jiaotong University, CN)  
Vahid Tarokh (Harvard University, USA)

**Application Profile based MIMO Link Adaptation in LTE Networks**

Vishwanath Ramamurthi (University of California, Davis, USA)  
Wei-Peng Chen (Fujitsu Laboratories, USA)

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**Wednesday, 8 December 2010 • 17:20 – 18:30**  
**Location: Orchid C**

**CQRM18: Wireless Performance II**  
**Chair: Kyungtae Kim, NEC Laboratories America, USA**

**Enhancing Handoff Performance by Introducing Ad hoc Mode into Cellular Networks**

Rongsheng Huang (University of Florida, USA)  
Chi Zhang (University of Florida, USA)  
Hongxia Zhao (Huawei Technologies Co. Ltd., CN)  
Yuguang Fang (University of Florida, USA)

**Optimization of the use of Radio Resource of Radio-Over-Fiber Access Networks**

Pedro Henrique Gomes, Nelson L. S. da Fonseca (State University of Campinas, BR)  
Omar Branquinho (Catholic University Campinas, BR)

**Traffic-Aware Connection Admission Control Scheme for Broadband Mobile Systems**

Angelos Antonopoulos (Telecommunications Technological Centre of Catalonia, ES)  
Harry Skianis (University of the Aegean, GR)  
Christos Verikoukis (Telecommunications Technological Centre of Catalonia, ES)

**Reconsider Broadcast Packet Reception Rates in One-Dimensional MANETs**

Xiaomin Ma (Oral Roberts University, USA)  
Jinsong Zhang, Tong Wu (University of Tulsa, USA)

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**Wednesday, 8 December 2010 • 17:20 – 18:30**  
**Location: Merrick II**

**CSSMA08: Coding Techniques**  
**Chair: Luigi Atzori, University of Cagliari, Italy**

**Incremental Rate Control for H.264 Scalable Video Coding**

Yang Jin (University of Electronic Science and Technology of China, CN)  
Yu Sun (University of Central Arkansas, USA)  
Yimin Zhou, Shixin Sun (University of Electronic Science and Engineering Technology of China, CN)

**The Benefits of Network Coding in Distributed Caching in Large-scale P2P-VoD Systems**

Wang Hui, Zhang Yubao, Pei Li, Zhihong Jiang (National University of Defence Technology, CN)

**Priority Linear Coding Based Opportunistic Routing for Video Streaming in Ad Hoc Networks**

Zhi Li, Limin Sun, Xinyun Zhou (Chinese Academy of Sciences, CN)

**Joint Unequal Loss Protection and LT Coding for Layer-Coded Media Delivery**

Haifeng Lu, Jianfei Cai, Chuan Heng Foh (Nanyang Technological University, SG)

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**Wednesday, 8 December 2010 • 17:20 – 18:30**

**Location: Hibiscus B**

**CT08: MIMO II**

**Chair: Xiang-Gen Xia, University of Delaware, USA**

**Analytic Framework for the Mutual Information Cumulants of Different MIMO Fading Channels**

Paul de Kerret (RWTH Aachen University, DE)

Michail Matthaiou (Chalmers University of Technology, SE)

Rudolf Mathar (RWTH Aachen University, DE)

Josef A. Nossek (Munich University of Technology, DE)

**Mutual Information of MIMO Transmission over Correlated Channels with Finite Symbol Alphabets and Link Adaptation**

Eckhard Ohlmer (Technische Universität Dresden, DE)

Udo Wachsmann (Ericsson, DE)

Gerhard Fettweis (Technische Universität Dresden, DE)

**Explicit vs. Implicit Feedback for SU and MU-MIMO**

Bruno Clerckx (Samsung Advanced Institute of Technology, KR)

Gil Kim (Seoul National University, KR)

Junil Choi, Young-Jun Hong (Samsung Electronics, KR)

**Variational Message-Passing for Joint Channel Estimation and Decoding in MIMO-OFDM**

Gunvor E. Kirkelund, Carles Navarro Manchon (Aalborg University, DK)

Lars Christensen (Nokia, DK)

Erwin Riegler (Vienna University of Technology, AT)

Bernard Fleury (Aalborg University, DK)

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**Wednesday, 8 December 2010 • 17:20 – 18:30**

**Location: Hibiscus A**

**CT13: Ad Hoc Networks**

**Chair: Michael Honig, Northwestern University, USA**

**Compress-and-Forward Rates for the Gaussian Relay with ISI and Colored Noise**

Chiranjib Choudhuri, Urbashi Mitra (University of Southern California, USA)

**Opportunistic Relay Selection with a Direct Link**

Mohamed Abouelseoud, Aria Nosratinia (University of Texas, Dallas, USA)

**Transmission Strategies for Gaussian Relay Networks Obtained from Deterministic Models**

Nicolas Schrammar, Mikael Skoglund (Royal Institute of Technology, SE)

**Adaptive Power Allocation for Bidirectional Amplify-and-Forward Multiple-Relay Multiple-User Networks**

Ted C.-K. Liu (University of Victoria, CA)

Wei Xu (Southeast University, CN)

Xiaodai Dong, Wu-Sheng Lu (University of Victoria, CA)

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**Wednesday, 8 December 2010 • 17:20 – 18:30**  
**Location: Riverfront North Hall**

**CT4P: Advanced Topics (Poster)**  
**Chair: Marco Chiani, University of Bologna, Italy**

**A Compressive Sensing Approach to NBI Cancellation in Mobile OFDM Systems**  
Ahmad Abdulrahman Gomaa, Naofal Al-Dhahir (University of Texas, Dallas, USA)

**Cross-tier Interference Mitigation for Two-tier OFDMA Femtocell Networks with Limited Macrocell Information**  
Min-Sung Kim, Hui Won Je, Fouad Tobagi (Stanford University, USA)

**Space-Time Network Codes utilizing Transform-based Coding**  
Hung-Quoc Lai (US Army RDECOM CERDEC, USA)  
Zhenzhen Gao, K. J. Ray Liu (University of Maryland, USA)

**A Duality Study for Fading Multiple Access / Broadcast Channels Without Channel State Information at the Transmitter**  
Jörg Bühler (TU Berlin, DE)  
Gerhard Wunder (Heinrich-Hertz-Institut, DE)

**Channel-Matched Coding for Coarsely Quantized Coherent Optical Communication Systems**  
Thomas Daniel Oliver Lang, Amine Mezghani (Technische Universität München, DE)  
Maxim Kuschnerov, Berthold Lankl (Munich University of the German Armed Forces, DE)  
Josef A. Nossek (Technische Universität München, DE)

**A Novel Construction of 2-group Decodable 4x4 Space-Time Block Codes**  
Amr Ismail, Jocelyn Fiorina, Hikmet Sari (Ecole supérieure d'électricité, FR)

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**Wednesday, 8 December 2010 • 17:20 – 18:30**  
**Location: Flamingo**

**NGN08: Routing**  
**Chair: Stefano Secci, University of Paris VI, France**

**Establishing Secure Virtual Trust Routing and Provisioning Domains for Future Internet**  
Dijiang Huang (Arizona State University, USA)  
Shingo Ata (Osaka City University, JP)  
Deep Medhi (University of Missouri-Kansas City, USA)

**An implementation of optimal dynamic load balancing based on multipath IP routing**  
Juan Pablo Saibene, Richard Lempert, Fernando Paganini (Universidad ORT, UY)

**A Proposal for an XOR-based Flat Routing Mechanism in Internet-like Topologies**  
Rafael Pasquini (University of Campinas, BR)  
Fábio Verdi (Federal University of São Carlos, BR)  
Rodolfo Oliveira (Universidade Nova de Lisboa/Uninova, PT)  
Maurício Ferreira Magalhães (State University of Campinas, BR)  
Annikki Welin (Ericsson, SE)

**Constant Fidelity Entanglement Flow in Quantum Communication Networks**

Baran Tan Bacinoglu, Burhan Gulbahar, Ozgur B. Akan (Middle East Technical University, TR)

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**Wednesday, 8 December 2010 • 17:20 – 18:30**

**Location: Tuttle North**

**ONS08: Optical Wireless**

**Chair: Abdallah Shami, University of Western Ontario, Canada**

**Optical Communication over Atmospheric Turbulence with Limited Channel State Information at the Transmitter**

Andrew Puryear, Vincent Chan (Massachusetts Institute of Technology, USA)

**Spectral-Efficient 60-GHz xy-MIMO Data Transport over a Radio-over-Fiber System for Gigabit Wireless Local Area Networks**

Shu-Hao Fan, Hung-Chang Chien, Arshad Chowdhury, Gee-Kung Chang  
(Georgia Institute of Technology, USA)

**Performance of Coherent BPSK Systems using Phase Compensation and Diversity Techniques**

Linzi Zuo, Yongxiong Ren, Anhong Dang, Hong Guo  
(Peking University, CN)

**Mobile Multi-gigabit Spot-Diffusing Optical Wireless System Employing Beam Angle and Power Adaptation and Imaging Reception**

Fuad E. Alsaadi, Jaafar Elmighani (University of Leeds, UK)

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**Wednesday, 8 December 2010 • 17:20 – 18:30**

**Location: Gardenia**

**SAC08: Cognitive Radio & Routing**

**Chair: Charles Clancy, Hume Center for National Security and Technology, USA**

**On-Demand Multicast Routing in Cognitive Radio Mesh Networks**

Hisham Almasaeid, Tasneem Jawadwala, Ahmed Kamal (Iowa State University, USA)

**Routing in Hybrid Mesh Networks of Cognitive and IEEE 802.11 Radios**

Marcel Silva, Jose F. de Rezende (Federal University of Rio de Janeiro, BR)

**Cognitive Multipath Multi-Channel Routing Protocol for Mobile Ad-Hoc Networks**

Suyang Ju, Joseph Evans (University of Kansas, USA)

**Scalable Cognitive Routing Protocol for Mobile Ad-Hoc Networks**

Suyang Ju, Joseph Evans (University of Kansas, USA)

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**Wednesday, 8 December 2010 • 17:20 – 18:30**

**Location: Tequesta**

**SPC08: Sensor Networks**

**Chair: Hongyang Chen, University of Tokyo, Japan**

**Localization of Wireless Sensors via Nuclear Norm for Rank Minimization**

Feng Chen, Shahrokh Valaee, Wain Sy Anthea Au (University of Toronto, CA)

Zhenhui Tan (Beijing JiaoTong University, CN)

**Estimation Feedback and Bandwidth Allocation with the Type-based Multiple-access in Wireless Sensor Networks**

Xin Wang, Chenyang Yang (Beijing University, CN)

**Topology-Assisted Techniques to Relay Selection for Homogeneously Distributed Wireless Sensor Networks**

Farrokh Etezadi (Concordia University, CA)

Keyvan Zarifi (University of Quebec, INRS-EMT, CA)

Ali Ghrayeb (Concordia University, CA)

Sofiene Affes (INRS-EMT, CA)

**A Hybrid Framework for Radio Localization in Broadband Wireless Systems**

Jun Chen, Ali Abedi (University of Maine, USA)

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**Wednesday, 8 December 2010 • 17:20 – 18:30**

**Location: Ibis**

**SPC14: SIMO, MISO and MIMO Systems IV**

**Chair: Jiangzhou Wang, University of Kent, United Kingdom**

**A Hybrid Codebook Design Algorithm for MIMO Amplify-and-Forward Relaying System with Power Allocation and Precoding**

Yuan Lu, Lihua Li (Beijing University of Posts and Telecommunications, CN)

Zhixin Liu (Chinese University of Hong Kong, CN)

**Maximum Sum-Rate Interference Alignment Algorithms for MIMO channels**

Ignacio Santamaria, Oscar Gonzalez (University of Cantabria, Spain)

Robert Heath, Steven W. Peters (University of Texas at Austin, USA)

**Non-Regenerative Multi-Hop MIMO Relays Using MMSE-DFE Technique**

Yue Rong (Curtin University, AU)

**Asymptotic Capacity and Precoding Designs for Correlated Multi-Hop MIMO Channels**

Nam Tran Nguyen, Song Ci (University of Nebraska-Lincoln, USA)

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**Wednesday, 8 December 2010 • 17:20 – 18:30**

**Location: Brickell North**

**WC08: Position and Localization**

**Chairs: Davide Dardari, University of Bologna, Italy**

**Maciej Zawodniok, Missouri S&T, USA**

**Geometry and Motion Based Positioning Algorithms for Mobile Tracking in NLOS Environments**

Kegen Yu, Eryk Dutkiewicz (Macquarie University, Australia)

**Hybrid GNSS-terrestrial Cooperative Positioning via Distributed Belief Propagation**

Mauricio Caceres, Federico Penna (Politecnico di Torino, IT)  
Henk Wymeersch (Chalmers University of Technology, SE)  
Roberto Garello (Politecnico di Torino, IT)

**Surface Based Underwater Communications**

Lloyd Emokpae, Mohamed Younis (University of Maryland, Baltimore County, USA)

**Analysis of Localization Accuracy in Wireless Networks in Presence of Uncertain Beacon Positions**

Nikhil Bhagwat, Bijan Jabbari (George Mason University, USA)

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**Wednesday, 8 December 2010 • 17:20 – 18:30**

**Location: Brickell Center**

**WC20: Modulation and Coding**

**Chair: Philippa Martin, University of Canterbury, New Zealand**

**Capacity achieving modulations for the peak-power limited Gaussian channel**

Alberto Perotti, Sergio Benedetto (Politecnico di Torino, IT)

**Layered Adaptive Modulation and Coding for 4G Wireless Networks**

James She (University of Cambridge, UK)  
James Ho (University of Waterloo, CA)  
Jingqing Mei (Beijing University of Posts and Telecommunications, CN)  
Pin-Han Ho (University of Waterloo, CA)  
Hong Ji (Beijing University of Posts and Telecommunications, CN)

**Robust Multiuser Precoder for Base Station Cooperative Transmission with Non-ideal Channel Reciprocity**

Shengqian Han, Liyan Su, Chenyang Yang (Beijing University, CN)  
Gang Wang, Ming Lei (NEC Laboratories, CN)

**An EXIT-Chart Aided Design Procedure for Near-Capacity N-Component Parallel Concatenated Codes**

Hong Chen, Robert Maunder, Lajos Hanzo (University of Southampton, UK)

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**Wednesday, 8 December 2010 • 17:20 – 18:30**

**Location: Brickell South**

**WC32: Network Coding III**

**Chair: Chunxuan Ye, InterDigital, USA**

**Opportunistic Subchannel Scheduling for OFDMA Networks with Network Coding at Relay Stations**

Byung-Gook Kim, Jang-Won Lee (Yonsei University, KR)

**On Performance of Cooperative Multicast System with Wireless Network Coding**

Yang Liu, Wenbo Wang, Mugen Peng, Dongyan Wei  
(Beijing University of Posts and Telecommunications, China)



**Minimum Broadcast Decoding Delay for Generalized Instantly Decodable Network Coding**  
Sameh Sorour, Shahrokh Valaee (University of Toronto, CA)

**Outage Performance of DF Network Coded (DFNC) Multi-User Cooperative Diversity in Orthogonal Uplink Channels**  
Bin Guo, Kanchan Vardhe, Yu Liu, Chi Zhou, Yu Cheng (Illinois Institute of Technology, USA)

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**Wednesday, 8 December 2010 • 17:20 – 18:30**  
**Location: Orchid D**

**WC44: Power Control II**  
**Chair: Khairi A Hamdi, Manchester University, United Kingdom**

**Coordinated User Scheduling and Power Control for Weighted Sum Throughput Maximization of Multicell Network**  
Lu Liu, Daiming Qu, Tao Jiang, Jie Ding (Huazhong University of Science and Technology, CN)

**Integrated Power Controlled Adaptive Rate Link Scheduling in Wireless Mesh Networks**  
Kian Hedayati, Izhak Rubin (University of California, Los Angeles, USA)

**On the Performance of Cooperative Diversity with Arbitrary Power Allocation**  
Khairi Hamdi (University of Manchester, UK)

**Energy-Efficient Multi-Carrier Link Adaptation with Sum Rate-Dependent Circuit Power**  
Christian Isheden, Gerhard Fettweis (Technische Universität Dresden, DE)

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**Wednesday, 8 December 2010 • 17:20 – 18:30**  
**Location: Riverfront North Hall**

**WC8P: Transmission Technologies (Poster)**  
**Chair: Fen Hou, Chinese University of Hong Kong, CN**

**Blind Channel Equalization for Fast Moving Terminals in Prioritized Spatial Multiplexing MIMO Systems**  
Qian Liu, Chang Wen Chen  
(State University of New York, Buffalo, USA)

**Parallel-Filtering Based Equalization of OFDM over Doubly Selective Channels**  
Guanghui Liu, Hongliang Li, Wei Chen, Mingzhen Wang  
(University of Electronic Science and Technology of China, CN)  
Lin Wang (Xiamen University, CN)

**Analog Equalization for Low Power 60 GHz Receivers in Realistic Multipath Channels**  
Khursheed Hassan, Theodore Rappaport, Jeffrey Andrews (University of Texas, Austin, USA)

**An Information-Guided Channel-Hopping Scheme for Block-Fading Channels with Estimation Errors**  
Yuli Yang, Nicholas Bonello (King Abdullah University of Science and Technology, SA)  
Sonia Aissa (University of Quebec, CA)

**Pulse Shapes That Outperform Traditional UWB Antenna/Waveform Combinations**

Mehrdad Mirshafiei, Mohammad Abtahi, Patrick Larochelle, Leslie Rusch (Laval University, CA)

**Performance Enhancement of Single Frequency Networks Using Randomized Transmit Phases**

Kiran Rege, Krishna Balachandran, Joseph Kang, Mehmet Kemal Karakayali  
(Bell Labs, Alcatel-Lucent, USA)

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**Wednesday, 8 December 2010 • 17:20 – 18:30**

**Location: Peason II**

**WN08: Wireless Mesh Network Design II**

**Chair: Seshadri Mohan, University of Arkansas, Little Rock, USA**

**Partially Overlapped Channel Assignment on Wireless Mesh Network Backbone**

Pedro B. F. Duarte, Zubair Md. Fadlullah, Kazuo Hashimoto, Nei Kato (Tohoku University, Japan)

**Interference-aware Robust Wireless Mesh Network Design**

Farah Kandah, Weiyi (Max) Zhang, Yashaswi Singh, Juan Li (North Dakota State University, USA)

**Cost-Efficient Wireless Mobile Backhaul Topologies: An Analytical Study**

Fang-Chun Kuo, Johannes Lessmann, Frank A. Zdarsky, Stefan Schmid (NEC Europe Ltd., DE)

**Scalable Publish/Subscribe Service in Wireless Mesh Networks**

Juan Li, Weiyi (Max) Zhang, Xiaojun Xia (North Dakota State University, USA)

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**Wednesday, 8 December 2010 • 17:20 – 18:30**

**Location: Gautier**

**WN20: Power Control and Energy Efficiency**

**Chair: Ehssan Sakhaee, Osaka University, Japan**

**Queue-Stability-Based Transmission Power Control in Wireless Multihop Networks**

Gustavo Vejarano, Janise McNair (University of Florida, USA)

**"Locking" Dynamics and Mitigation Schemes in Distributed Power Control for Wireless Networks**

Jeffrey Mounzer, Nicholas Bambos (Stanford University, USA)

**Globally Optimal Distributed Power Control for Nonconcave Utility Maximization**

Liping Qian, Ying Jun (Angela) Zhang (Chinese University of Hong Kong, CN)

Mung Chiang (Princeton University, USA)

**Energy Savings through Dynamic Base Station Switching in Cellular Wireless Access Networks**

Eunsung Oh, Bhaskar Krishnamachari (University of Southern California, USA)

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**Wednesday, 8 December 2010 • 17:20 – 18:30**

**Location: Merrick I**

**WN32: Wireless Relay Networks II**

**Chair: Hassan Moradi, University of Oklahoma, USA**

**Mixed Time-scale Generalized Fair Scheduling for Amplify-and-Forward Relay Networks**

Alireza Sharifian, Petar Djukic, Halim Yanikomeroglu (Carleton University, CA)

Jietao Zhang (Huawei Technologies Co., Ltd., CN)

**Cooperative Relay in Cognitive Radio Networks: Decode-and-Forward or Amplify-and-Forward?**

Donglin Hu, Shiwen Mao (Auburn University, USA)

**Energy Saving Performance Comparison of Coordinated Multi-Point Transmission and Wireless Relaying**

Dongxu Cao, Sheng Zhou, Chao Zhang, Zhisheng Niu (Tsinghua University, CN)

**Stability and Performance Issues of a Relay Assisted Multiple Access Scheme**

Nikolaos Pappas (ICS-FORTH / University of Crete, GR)

Apostolos Traganitis (ICS-FORTH, GR)

Anthony Ephremides (University of Maryland, College Park, USA)

## **THURSDAY**

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**Thursday, 9 December 2010 • 10:00 – 11:10**

**Location: Tuttle South**

### **AHSN09: Localization II**

**Chair: Maggie Cheng, Missouri University of Science and Technology, USA**

#### **Multi-hop Localization Using Mobility (MLM) in Mixed LOS/NLOS Environments**

Tomoya Takenaka (Mitsubishi Electric Corporation, JP)  
Zafer Sahinoglu, Ghulam M. Bhatti, Jinyun Zhang  
(Mitsubishi Electric Research Laboratories, USA)  
Hiroshi Mineno, Tadanori Mizuno (Shizuoka University, JP)

#### **Probabilistic Estimation of Location Error in Wireless Ad Hoc Networks**

Jeremy Gribben, Azzedine Boukerche (University of Ottawa, CA)

#### **Collaborative Position Location for Wireless Networks Using Iterative Parallel Projection Method**

Tao Jia, Michael Buehrer (Virginia Tech, USA)

#### **Localized Energy Efficient Detection and Tracking of Dynamic Phenomena**

Ravi Tiwari, My T. Thai, Abdelsalam Helal (University of Florida, USA)

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**Thursday, 9 December 2010 • 10:00 – 11:10**

**Location: Tuttle Center**

### **AHSN21: Distributed Algorithms II**

**Chair: Hongchi Shi, Texas State University, San Marcos, USA**

#### **A Distributed Wake-up Scheduling for Opportunistic Forwarding in Wireless Sensor Networks**

Chul-Ho Lee, Do Young Eun (North Carolina State University, USA)

#### **A distributed algorithm for finding maximum barrier coverage in wireless sensor networks**

Jun He, Hongchi Shi (Texas State University, San Marcos, USA)

#### **Connectivity-based Distance Estimation in Wireless Sensor Networks**

Baoqi Huang, Changbin Yu, Brian Anderson (Australian National University, AU)  
Guoqiang Mao (University of Sydney, AU)

#### **Efficient Localized Protocols to Compute Connected Dominating Sets for Ad Hoc Networks**

Khalid Almahrog, Sagar Naik, Sherman Shen (University of Waterloo, CA)

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**Thursday, 9 December 2010 • 10:00 – 11:10**

**Location: Jasmine**

### **AHSN33: Sensor Devices, Designs, and Algorithms I**

**Chair: Mohamed Hamdi, Carthage University, Tunisia**

**CoZi: basic Coding for better Bandwidth Utilization in ZigBee Sensor Networks**

Ismail Salhi (Université Paris-Est, FR)  
Yacine Ghamri-Doudane (LIGM and ENSIIE, FR)  
Stephane Lohier, Erwan Livolant (Université Paris-Est, FR)

**Capability and Fidelity of Mote-class Wireless Sniffers**

Jordan Cote, Bing Wang, Wei Zeng, Zhijie Shi (University of Connecticut, USA)

**Signature Maximization in Designing Wireless Binary Pyroelectric Sensors**

Yang Xiao, Miao Peng (University of Alabama, USA)

**A New Rate Control Technique for cdma2000 1xEV**

Ayda Basyouni, Walaa Hamouda, Amr Youssef (Concordia University, CA)

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**Thursday, 9 December 2010 • 10:00 – 11:10**

**Location: Pearson I**

**CIS12: Distributed System Security**

**Chair: Yang Xiao, University of Alabama, USA**

**Building Global View with Log Files in a Distributed/Network System**

Songqing Yue, Yang Xiao (University of Alabama, USA)

**Piece Fingerprinting: Binding Content and Data Blocks Together in Peer-to-peer Networks**

Walter Wong, Maurício Ferreira Magalhães (State University of Campinas, BR)

Jussi Kangasharju (University of Helsinki, FI)

**Fast Anomaly Detection for Large Data Centers**

Ang Li, Lin Gu (Hong Kong University of Science and Technology, CN)

Kuai Xu (Arizona State University, USA)

**Risk-Aware Response for Mitigating MANET Routing Attacks**

Ziming Zhao, Hongxin Hu, Gail-Joon Ahn (Arizona State University, USA)

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**Thursday, 9 December 2010 • 10:00 – 11:10**

**Location: Orchid AB**

**CQRM09: Wireless Performance III**

**Chair: George Michailidis, University of Michigan, USA**

**Cooperative Algorithm for the Global Planning Problem of UMTS Networks**

Shangyun Liu, Marc St-Hilaire (Carleton University, CA)

**Dynamic Channel and Interface Management in Multi-channel Multi-interface Wireless Access Networks**

Hassan Halabian, Ioannis Lambadaris, Chung-Horng Lun, Anand Srinivasan (Carleton University, CA)

**Scheme for Estimating ADSL Link Capacity based on Delay Measurements of Different Length Packets**

Makoto Aoki (Cyber Creative Institute, JP)

Eiji Oki (University of Electro-Communications, JP)

**A Novel Framework for Dynamic Utility-Based QoE Provisioning in Wireless Networks**

Giorgos Aristomenopoulos, Timotheos Kastrinogiannis, Vassilios Kaldanis  
(National Technical University of Athens, GR)

George Karantonis (VELTI, GR)

Symeon Papavassiliou (Institute of Comm. and Comp. Systems/National Technical University of Athens, GR)

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**Thursday, 9 December 2010 • 10:00 – 11:10**

**Location: Orchid C**

**CQRM19: Cognitive Radio and Networks III**

**Chair: Kyungtae Kim, NEC Laboratories America, USA**

**Cognitive Radio Scheduling for Overwater Communications**

Weiyi (Max) Zhang, Shi Bai, Yang Liu (North Dakota State University, USA)

Jian Tang (Montana State University, USA)

**Dynamic Channel and Power Allocation in Cognitive Radio Networks Supporting Heterogeneous Services**

Renchao Xie, Hong Ji, Pengbo Si, Yi Li (Beijing University of Posts and Telecommunications, CN)

**A Novel Signal Separation Algorithm for Wideband Spectrum Sensing In Cognitive Radio Networks**

Dan Liu, Chao Li, Jian Liu, Keping Long (University of Electronic Science and Technology of China, CN)

**Energy Detection Based Spectrum Sensing for Cognitive Radio: An Experimental Study**

Kyungtae Kim, Yan Xin, Sampath Rangarajan (NEC Laboratories America Inc., USA)

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**Thursday, 9 December 2010 • 10:00 – 11:10**

**Location: Riverfront North Hall**

**CQRM1P: Internet and P2P (Poster)**

**Chair: Fabrizio Granelli, University of Trento, Italy**

**GreenCloud: A Packet-level Simulator of Energy-aware Cloud Computing Data Centers**

Dzmitry Kliazovich, Pascal Bouvry (University of Luxembourg, LU)

Yury Audzevich (University of Trento, IT)

Samee Khan (North Dakota State University, USA)

**A Genetic Algorithm for the Global Planning Problem of UMTS Networks**

Shangyun Liu, Marc St-Hilaire (Carleton University, CA)

**The quest for LEDBAT fairness**

Giovanna Carofiglio (Bell Labs, Alcatel-Lucent, FR)

Luca Muscariello (Orange Labs, FR)

Dario Rossi (TELECOM ParisTech, FR)

Silvio Valenti (TELECOM ParisTech, FR)

**On Fairness and Locality in P2P-TV through Large-Scale Measurement Experiment**

Thomas Silverston (University of Tokyo, JP)

Olivier Fourmaux (University Pierre et Marie Curie, FR)

Kavé Salamatian (LISTIC PolyTech, Université de Savoie Chambéry Annecy, FR)  
Kenjiro Cho (IIJ, JP)

**P2P Video-on-Demand: Steady State and Scalability**

Pasi Lassila, Samuli Aalto, Niklas Raatikainen, Petri Savolainen, Sasu Tarkoma  
(Helsinki University of Technology, FI)

**Using Hidden Markov Chains for Modeling P2P-TV Traffic**

Maria Antonietta Garcia da Rocha Neta (Politecnico di Torino, IT)  
Ana Paula Silva (Federal University of Juiz de Fora, IT)  
Michela Meo (Politecnico di Torino, IT)

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**Thursday, 9 December 2010 • 10:00 – 11:10**

**Location: Merrick II**

**CSSMA09: Locality and Peer Caching**

**Chair: Madjid Merabti, Liverpool John Moores University, United Kingdom**

**Peer-Assisted Caching for Scalable Media Streaming in Wireless Backhaul Networks**

Hazem A. Gomaa, Geoffrey G. Messier, Robert Davies, Carey Williamson (University of Calgary, CA)

**Adaptive Peer Caching for P2P Video-on-Demand Streaming**

Jongtaek Kim, Heesu Im, Saewoong Bahk (Seoul National University, KR)

**Exploring Locality of Reference in P2P VoD Systems**

Danqi Wang, Chai Kiat Yeo (Nanyang Technological University, SG)

**Incentive-driven Content Distribution in Wireless Multimedia Service Networks**

Heesu Im (Seoul National University, KR)  
Yugyung Lee (University of Missouri, Kansas City, USA)  
Saewoong Bahk (Seoul National University, KR)

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**Thursday, 9 December 2010 • 10:00 – 11:10**

**Location: Riverfront North Hall**

**CSSMA1P: Service Platforms and Techniques (Poster)**

**Chair: Gabriel Jakobson, Altusys Corp., USA**

**Unified Cross-Layer Framework: A Generic Platform for Cross-Layer Design Experimentation**

Lu-chuan Kung (University of Illinois, USA)

**An NGN-based Cross-Domain Shared File System**

Marcus Q. Kuhnen, Johannes Häussler, Anett Schuelke, Herald Kornmayer  
(NEC Laboratories Europe, DE)  
Federico Marmorì (NEC Laboratories Europe, CH)  
Matthias Kraus (NEC Laboratories Europe, DE)

**Feature Interaction Analysis for Collaboration Spaces with Communication Endpoints**

Mario Kolberg (University of Stirling, UK)  
John Buford, K. Kishore Dhara, Venkatesh Krishnaswamy, Xiaotao Wu (Avaya Labs Research, USA)

**BFilter - A XML Message Filtering and Matching Approach in Publish/Subscribe Systems**

Liang Dai, Chung-Horng Lung, Shikharesh Majumdar (Carleton University, CA)

**Reconsidering Social Networks for Enterprise Communication Services**

K. Kishore Dhara, Venkatesh Krishnaswamy (Avaya Labs Research, USA)

Taranjeet Singh (Indian Institute of Technology, Kanpur, IN)

**Distortion-Delay Tradeoff in Real-Time Wireless Video Scheduling**

Liang Zhou (ENSTA-ParisTech, FR)

Joel Rodrigues (IT, University of Beira Interior, PT)

Athanasios Vasilakos (University of Western Macedonia, GR)

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**Thursday, 9 December 2010 • 10:00 – 11:10**

**Location: Hibiscus B**

**CT09: Space-Time Coding**

**Chair: Hamid Jafarkhani, University of California, Irvine, USA**

**A Design of High-Rate Full-Diversity STBC with Low-Complexity PIC Group Decoding**

Long Shi, Wei Zhang (University of New South Wales, AU)

Xiang-Gen Xia (University of Delaware, USA)

**Asymptotically-Good, Multigroup ML-Decodable STBCs**

Lakshmi Prasad Natarajan, B. Sundar Rajan (Indian Institute of Science, IN)

**Reduced ML-Decoding Complexity, Full-Rate STBCs for  $2^a$  Transmit Antenna Systems**

Pavan Koteswar, B. Sundar Rajan (Indian Institute of Science, IN)

**An Improved Number-Theoretic Method for Constructing Approximately Universal Codes**

Ming-Yang Chen, John Cioffi (Stanford University, USA)

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**Thursday, 9 December 2010 • 10:00 – 11:10**

**Location: Hibiscus A**

**CT14: Transmission Techniques I**

**Chair: Debarati Sen, Samsung India Software Operations, India**

**Information-theoretic Methods for the Design and Evaluation of Adaptive Protocols for Direct-sequence Spread-spectrum Transmissions**

Steven Boyd, Michael Pursley (Clemson University, USA)

**Joint Signal-Labeling Optimization for Pragmatic Capacity under Peak-Power Constraint**

Farbod Kayhan, Guido Montorsi (Politecnico di Torino, IT)

**Discrete Time Faster-than-Nyquist Signaling**

Michael McGuire (University of Victoria, CA); Mihai Sima (University of Victoria, CA)

**Information Theoretic Optimal Broadband Matching**

Pawandeep S. Taluja, Brian L Hughes (North Carolina State University, USA)

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**Thursday, 9 December 2010 • 10:00 – 11:10**  
**Location: Flamingo**

**NGN09: Future Internet**  
**Chair: Ammar Rayes, Cisco, USA**

**A Future Internet Architecture Based on De-conflated Identities**  
Subharthi Paul, Jianli Pan, Raj Jain (Washington University, St. Louis, USA)

**Transport Stratum Services in NGN: a SOA-oriented design**  
Giovanni Branca, Paolo Anedda, Luigi Atzori (University of Cagliari, IT)

**Introducing Infocards in NGN to enable user-centric identity management**  
Davide Proserpio, Fabio Sanvido, Patricia Arias, Rosa Sánchez, Daniel Diaz-Sanchez, Andres Marin, Florina Almenares (Universidad Carlos III de Madrid, ES)

**Platforms and Software Systems for an Autonomic Internet**  
Javier Rubio-Loyola (CINVESTAV Tamaulipas, MX)  
Antonio Astorga, Joan Serrat (Universitat Politècnica de Catalunya, ES)  
Wei Koong Chai, Leteris Mamatas, Alex Galis, Stuart Clayman (University College London, UK)  
Abderhaman Cheniour, Laurent Lefevre (INRIA, FR)  
Olivier Mornard (ENS-Lyon, FR)  
Andreas Fischer, Alexandru Paler, Hermann de Meer (University of Passau, DE)

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**Thursday, 9 December 2010 • 10:00 – 11:10**  
**Location: Tuttle North**

**ONS09: Routing**  
**Chair: Lu Ruan, Iowa State University, USA**

**Dynamic Routing Optimization in WDM Networks**  
Jorge Crichigno, Joud Khoury, Wei Shu (University of New Mexico, USA)  
Min-You Wu (Shanghai JiaoTong University, CN)  
Nasir Ghani (University of New Mexico, USA)

**Multi-Layer/Multi-Region Path Computation with Adaptation Capability Constraints**  
Meral Shirazipour, Samuel Pierre (Ecole Polytechnique de Montreal, CA)

**A Fuzzy Inter-Ring Route Control with PRNN Predictor Bridged Resilient Packet Rings**  
Wen-Shiang Tang, Chung-Ju Chang (National Chiao Tung University, TW)

**Multiperiod Planning with Controlled Shortest Path Routing**  
Clara Kronberger, Dominic A. Schupke (Nokia Siemens Networks, DE)  
Joerg Eberspaecher (Technische Universität München, DE)

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**Thursday, 9 December 2010 • 10:00 – 11:10**  
**Location: Gardenia**

**SAC09: Coding on Data Storage**

**Chair: Haitao (Tony) Xia, LSI Corporation, USA**

**A Class of Generalized Quasi-cyclic LDPC Codes: High-rate and Low-complexity Encoder for Data Storage Devices**

Vo Tam Van, Hajime Matsui (Toyota Technological Institute, JP)  
Seiichi Mita (Central Research Laboratory, Hitachi, Ltd., JP)

**Serial Turbo Coding Performance for Rectangular-Grain TDMR Models**

William Ryan (University of Arizona, USA)  
Roger Wood (Hitachi Global Storage, USA)  
Aleksandar Kavcic (University of Hawaii, USA)  
Bane Vasic, Lu Pan (University of Arizona, USA)

**LDPC Codes for Memory Systems with Scrubbing**

Seungjune Jeon, Euseok Hwang, Vijayakumar Bhagavatula (Carnegie Mellon University, USA)  
Michael K. Cheng (Jet Propulsion Laboratory, USA)

**Flash Coding Scheme Based on Error-Correcting Codes**

Qin Huang, Shu Lin (University of California, Davis, USA)  
Khaled Abdel-Ghaffar (University of California, USA)

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**Thursday, 9 December 2010 • 10:00 – 11:10**

**Location: Merrick I**

**SAC18: Satellite Resource Management**

**Chair: Mario Marchese, University of Genoa, Italy**

**On the Capacity of Hybrid FSO/RF Links**

Hassan Moradi, Maryam Falahpour, Hazem Refai (Oklahoma University, USA)  
Peter LoPresti (Tulsa University, USA)  
Mohammed Atiquzzaman (University of Oklahoma, USA)

**Dynamic Bandwidth Allocation of Satellite/Terrestrial Integrated Mobile Communication System**

Takaya Yamazato, Tomohiro Aman, Masaaki Katayama (Nagoya University, JP)

**A Joint Multi-User Synchronization Method for SC-FMDA in Broadband Satellite Return Channel**

Stefano Rosati, Stefano Cioni, Alessandro Vanelli-Coralli, Giovanni Emanuele Corazza  
(University of Bologna, IT)  
Gennaro Gallinaro (Space Engineering S.p.A., IT)  
Alberto Ginesi (ESA/ESTEC, NL)

**A 3-D Channel Model for Distributed MIMO Satellite System**

Xing Li, Youjian Eugene Liu (University of Colorado at Boulder, USA)

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**Thursday, 9 December 2010 • 10:00 – 11:10**

**Location: Riverfront North Hall**

**SAC1P: Cognitive Radio Technology (Poster)**

**Chair: Igor Bisio, University of Genoa, Italy**

**A Graphical Framework for Spectrum Modeling and Decision Making in Cognitive Radio Networks**

Husheng Li (University of Tennessee, USA)  
Robert Qiu (Tennessee Tech University, USA)

**Competitive Spectrum Trading in Dynamic Spectrum Access Markets: A Price War**

Yi Tan (Stevens Institute of Technology, USA)  
Shamik Sengupta (City University of New York, USA)  
Koduvayur Subbalakshmi (Stevens Institute of Technology, USA)

**A Class of Three-User Multiple Access Cognitive Radio Channels: An Achievable Rate Region**

Kyatsandra Nagananda, Shaline Kishore (Lehigh University, USA)

**Performance of Opportunistic Spectrum OFDMA Network with Users of Different Priorities and Traffic Characteristics**

Jihoon Park, Przemyslaw Pawelczak (University of California, Los Angeles, USA)  
Pa'l Grønsund (Telenor Corporate Development, NO)  
Danijela Cabric (University of California, Los Angeles, USA)

**Dynamic Spectrum Allocation based on Interference Threshold Modeling**

Chao Zou, Chunxiao Chigan (Michigan Tech, USA)

**Performance Analysis of Dynamic Spectrum Access Networks under Primary User Emulation Attacks**

Zituo Jin, Santhanakrishnan Anand, Koduvayur Subbalakshmi (Stevens Institute of Technology, USA)

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**Thursday, 9 December 2010 • 10:00 – 11:10**

**Location: Tequesta**

**SPC09: Power-Aware Communications**

**Chair: Shigeru Shimamoto, Waseda University, Japan**

**Jointly Optimal Power Assignment for Multi-Source Multi-Destination Relay Networks**

Fuyu Chen, Weifeng Su, Stella N. Batalama (State University of New York, Buffalo, USA)  
John D. Matyjas (Air Force Research Laboratory, USA)

**Joint Power Control and Relay Matrix Design for Cooperative Communication Networks with Multiple Source-destination Pairs**

Keyvan Zarifi (University of Quebec, INRS-EMT, CA)  
Ali Ghrayeb (Concordia University, CA)  
Sofiene Affes (INRS-EMT, CA)

**Energy Efficient MISO Collaborative Communication System in AWGN and Rayleigh Fading Channel**

Syed Husnain Abbas Naqvi, Stevan Mirko Berber, Zoran Salcic (University of Auckland, NZ)

**Power Minimization in Parallel Vector Broadcast Channels with Zero-Forcing Beamforming**

Christoph Hellings, Michael Joham, Wolfgang Utschick (Technische Universität München, DE)

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**Thursday, 9 December 2010 • 10:00 – 11:10**

**Location: Ibis**

**SPC15: MIMO and OFDM**

**Chair: Tomoaki Ohtsuki, Keio University, Japan**

**Frequency Synchronization for Multiuser MIMO-OFDM System Using Bayesian Approach**

Chen Jianwen (IBM Research China, CN)  
Jianwu Chen (University of Hong Kong, CN)

**Suboptimal and Optimal MIMO-OFDM Iterative Detection Schemes**

Pei Xiao (Queens University Belfast, UK)  
Zihuai Lin (University of Sydney, AU)  
Wu Yin (University of Newcastle Upon Tyne, UK)  
Colin Cowan (Queen's University Belfast, UK)

**Channel Code Aided Decision-Directed Channel Estimation for MIMO OFDM/SDMA Systems Based on the "Expectation-Conditional Maximization Either" Algorithm**

Jiankang Zhang, Lajos Hanzo, UK); Xiaomin Mu (University of Southampton, UK)

**Optimal Resource Allocation for Video Delivery over MIMO OFDM Wireless Systems**

Shengjie Zhao (Bell Labs, USA)  
Mingli You, Luoning Gui (Alcatel Shanghai Bell Co., Ltd., CN)

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**Thursday, 9 December 2010 • 10:00 – 11:10**

**Location: Riverfront North Hall**

**SPC1P: Topics in Signal Processing for Communications I (Poster)**

**Chair: Tomohiko Taniguchi, Fujitsu Laboratories Ltd., Japan**

**Novel PMEPR Control Approach for 64- and 256-QAM Coded OFDM Systems**

Scott Chih-Hao Huang (City University of Hong Kong, CN)  
Hsiao-Chun Wu (Louisiana State University, USA)  
John Cioffi (Stanford University, USA)

**Multi-Resolution Bayesian Compressive Sensing for Cognitive Radio Primary User Detection**

Steven Hong (Stanford University, USA)

**Power Allocation for Distributed Turbo Product Codes (DTPC)**

Esam Ali Obiedat, Lei Cao, Peng Huo (University of Mississippi, USA)

**Competitive Downlink Beamforming Design in Multiuser Multicell Wireless Systems**

Duy H. N. Nguyen, Tho Le-Ngoc (McGill University, CA)

**Hardware Implementation of an Iterative Sampling Rate Converter for Wireless Communication**

Michal Stala, Can Bilgin, Rakesh Gangarajiah (St-Ericsson, SE)  
Joachim Rodrigues (Lund University, SE)

**Enhancing the Network Sum-Rate without Sharing Channel State Information between Base Stations**

Ralf M Bendlin, Yih-Fang Huang (University of Notre Dame, USA)  
Michel Ivrlac, Josef A. Nossek (Munich University of Technology, DE)

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**Thursday, 9 December 2010 • 10:00 – 11:10**

**Location: Brickell North**

**WC09: OFDM I**

**Chairs: Xianbin Wang, University of Western Ontario, Canada  
Masoumeh Karimi, Technological University of America, USA**

**Frequency Offset Estimation in I/Q mismatched OFDM Receivers**

Marco Moretti, Michele Morelli (University of Pisa, IT)

**Femtocell Access Control in the TDMA/OFDMA Uplink**

Ping Xia, Vikram Chandrasekhar (Texas Instruments, USA)  
Jeffrey Andrews (University of Texas, Austin, USA)

**Zero-forcing based Decode-and-Forward Cooperative Relaying Scheme over Doubly Selective Fading Channels**

Khuong Ho-Van, Tho Le-Ngoc (McGill University, CA)

**OFDM Signal Sensing over Doubly-Selective Fading Channels**

Jinfeng Tian, Haiyou Guo, Honglin Hu (Shanghai Research Center for Wireless Communications, CN)

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**Thursday, 9 December 2010 • 10:00 – 11:10**

**Location: Brickell Center**

**WC21: Resource Allocation I**

**Chair: Bashir Yahya, University of Versailles, France**

**Differentiated Pricing Scheme for Flow Control in Multiuser Access Networks**

Jin Hu, Jiaolong Wei, Fuyuan Peng, Cai Liu, Ya Luo  
(Huazhong University of Science and Technology, CN)

**Efficient Communications over Wireless Sensor Networks**

Hacene Fouchal, Thibault Bernard (University of Reims Champagne Ardenne, FR)

**Fast Distributed Rate Control Algorithm with QoS Support in Ad Hoc Networks**

Zhang Guihua, Weqiang Xu (Zhejiang Sci-Tech University, CN)

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**Thursday, 9 December 2010 • 10:00 – 11:10**

**Location: Brickell South**

**WC33: Scheduling I**

**Chair: Howard Huang, Bell Labs, Alcatel Lucent, USA**

**Limited Feedback Design for Block Diagonalization MIMO Broadcast Channels with User Scheduling**

Sung-Hyun Moon, Jin-Sung Kim, Inkyu Lee (Korea University, KR)

**Performance Analysis of User Selected Subband Channel Quality Indicator Feedback Scheme of LTE**

Sushruth Donthi, Neelesh Mehta (Indian Institute of Science, IN)

**Performance Analysis of Scheduling in Decode-and-Forward Broadcast Channel with Limited-Feedback**

Wei Ni, Zhuo Chen, Hajime Suzuki, Iain Collings (CSIRO, AU)

**TDMA Achieves the Same Diversity Gain as Opportunistic Scheduling in Relay-assisted Wireless Networks**

Suzhi Bi, Ying Jun (Angela) Zhang (Chinese University of Hong Kong, CN)

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**Thursday, 9 December 2010 • 10:00 – 11:10**

**Location: Orchid D**

**WC45: Wireless Networks**

**Chair: Ariton Xhafa, Texas Instruments, USA**

**Throughput, Capacity, Handover and Latency Performance in a 3GPP LTE FDD Field Trial**

Marilynn Green (Nokia Siemens Networks, USA)

Tommy Svensson (Chalmers University of Technology, SE)

**Multi-User Cooperation for Channel Selection in Cognitive Radio Networks: A Bayesian Approach**

Guangxiang Yuan (Beijing University of Posts and Telecommunications, CN)

Yi Zhu (UCL, CN)

Yu Zhang (Imperial College London, UK)

Yang Yang (Shanghai Research Center for Wireless Communications, CN)

Wenbo Wang (Beijing University of Posts and Telecommunications, CN)

Zhong Fan, Mahesh Sooriyabandara (Toshiba Research Europe Limited, UK)

**Data Gathering with Compressive Sensing for Large-Scale Wireless Sensor Networks**

Yuefei Zhu, Xinbing Wang (Shanghai Jiaotong University, CN)

**Fair and QoS-oriented Spectrum Splitting in Macrocell-Femtocell Networks**

Mustafa Cenk Erturk, Hazar Aki (University of South Florida, USA)

Ismail Guvenc (DOCOMO USA Labs, USA)

Huseyin Arslan (University of South Florida, USA)

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**Thursday, 9 December 2010 • 10:00 – 11:10**

**Location: Riverfront North Hall**

**WC9P: MIMO and Relay (Poster)**

**Chair: Ying-Chang Liang, Institute for Infocomm Research, Singapore**

**Collaborative Nonlinear Transceiver Optimization in Multi-tier MIMO Cognitive Radio Networks with Deterministically Imperfect CSI**

Ebrahim Avazkonandeh Gharavol (National University of Singapore, SG)

Ying-Chang Liang (Institute for Infocomm Research, SG)

Koen Mouthaan (National University of Singapore, SG)

**Limited Feedback Schemes for Multiuser MIMO Downlink Transmission**

Guido Dietl, Olivier Labrèche (DOCOMO Euro-Labs, DE)

Wolfgang Utschick (Technische Universität München, DE)

**Rate Gap Analysis for Rate-adaptive Antenna Selection and Beamforming Schemes**

Karthikeyan Shanmugam, Srikrishna Bhashyam (Indian Institute of Technology Madras, IN)

**A Comparison between Unitary and Non-Unitary Precoder Design for MIMO Channels with MMSE Detection and Limited Feedback**

Dzevdan Kapetanovic, Fredrik Rusek (Lund University, Lund, SE)

**Optimizing Receive Combining Vectors for Multiantenna Users in Multiuser MIMO Precoding**

Ngoc-Dung Dao, Fengming Cao, Yong Sun (Toshiba Research Europe Limited, UK)

**Feedback Delay Effect on Dual-hop MIMO AF Relaying with Antenna Selection**

Gayan Amarasuriya, Chintha Tellambura, Masoud Ardakani (University of Alberta, CA)

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**Thursday, 9 December 2010 • 10:00 – 11:10**

**Location: Peason II**

**WN09: Cognitive Networking III**

**Chair: Yahia Tachwali, University of Oklahoma, USA**

**CORAL: Spectrum Aware Admission Policy in Cognitive Radio Mesh Networks**

Kaushik Chowdhury (Northeastern University, USA)

Marco Di Felice, Luciano Bononi (University of Bologna, IT)

**On Cognitive Network Channel Selection and the Impact on Transport Layer Performance**

Yao Liu, Bheemarjuna Reddy Tamma, Manoj Bs, Ramesh Rao (University of California, San Diego, USA)

**Cognitive Network Inference through Bayesian Network Analysis**

Giorgio Quer (Università di Padova, IT)

Sankara Narayana Hemanth Meenakshisundaram, Bheemarjuna Reddy Tamma, Manoj Bs, Ramesh Rao (University of California, San Diego, USA)

Michele Zorzi (University of Padova, IT)

**Novel Policy Reasoning Architecture for Cognitive Radio Environments**

Daniel Denkovski, Valentina Pavlovska, Vladimir Atanasovski, Liljana Gavrilovska (Electrical Engineering and Information Technologies-Skopje, MK)

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**Thursday, 9 December 2010 • 10:00 – 11:10**

**Location: Gautier**

**WN21: Femtocell Wireless Networks**

**Chair: Ana Garcia Armada, Universidad Carlos III de Madrid, Spain**

**Impact of Coordination Delay on Distributed Scheduling in LTE-A Femtocell Networks**

Ritesh Madan, Ashwin Sampath, Naga Bhushan, Aamod Khandekar, Mohammad Jaber Borran, Tingfang Ji (Qualcomm Inc., USA)

**Pilot Power Minimization in HSDPA Femtocells**

Yalin Zhang (Harbin Institute of Technology, CN)

Yang-Yang Li, Elvino Silveira Sousa (University of Toronto, CA)

Qinyu Zhang (Harbin Institute of Technology, CN)

**Hierarchical Competition in Femtocell-Based Cellular Networks**

Sudarshan Guruacharya, Dusit Niyato (Nanyang Technological University, SG)

Ekrum Hossain (University of Manitoba, CA)

Dong In Kim (Sungkyunkwan University, KR)

**Cognition and Docition in OFDMA-based Femtocell Networks**

Ana María Galindo, Lorenza Giupponi, Mischa Dohler  
(Centre Tecnològic de Telecomunicacions de Catalunya, ES)

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**Thursday, 9 December 2010 • 11:20 – 12:30**

**Location: Tuttle South**

**AHSN10: Clustering I**

**Chair: Pu Wang, Georgia Institute of Technology, USA**

**A Hybrid Relative Distance based Cluster Scheme for Energy Efficiency in Wireless Sensor Networks**

Hui Gao (Lanzhou University, CN)  
Hongkun Li, Yu Cheng (Illinois Institute of Technology, USA)

**ADEEC: A Novel Adaptive Energy Efficient Clustering Protocol in Wireless Sensor Network**

Mohammad Abdul Azim (Rennes, FR)  
Nizar Bouabdallah (INRIA, FR)

**A Cluster-head Selection and Update Algorithm for Ad Hoc Networks**

Hao Wu, Zhangdui Zhong (Beijing Jiaotong University, CN)  
Lajos Hanzo (University of Southampton, UK)

**Topology Stability-based Clustering for Wireless Mesh Networks**

Martin Krebs, André Stein, Mónica Alejandra Lora (RWTH Aachen University, DE)

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**Thursday, 9 December 2010 • 11:20 – 12:30**

**Location: Tuttle Center**

**AHSN22: Energy Saving and Power Control Protocols I**

**Chair: Satyajant Misra, New Mexico State University, USA**

**Fair Energy Allocation in Wireless Sensor Networks: Theory and Practice**

Qinghua Wang (Norwegian University of Science and Technology, NO)  
Tingting Zhang (Mid Sweden University, SE)

**Channel-Aware Energy Efficient Transmission Strategies for Large Wireless Sensor Networks**

Hyoungsuk Jeon (Korea Advanced Institute of Science and Technology, KR)  
Jinho Choi (Swansea University, UK)  
Hyuckjae Lee, Jeongseok Ha (Korea Advanced Institute of Science and Technology, KR)

**A Comparison of Modulations for Energy Optimization in Wireless Sensor Network Links**

Felipe Costa, Hideki Ochiai (Yokohama National University, JP)

**Multi-Radio Wireless Sensor Networks: Energy Efficient Solutions for Radio Activation**

Aravind M. Canthadai, Sridhar Radhakrishnan, Venkatesh Sarangan (Oklahoma State University, USA)

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**Thursday, 9 December 2010 • 11:20 – 12:30**



**Location: Jasmine**

**AHSN34: Sensor Devices, Designs, and Algorithms II**

**Chair: Jose Neuman, UFC, Brazil**

**SHIELD: Social sensing and Help In Emergency using mobile Devices**

Gautam Thakur, Mukul Sharma, Ahmed Helmy (University of Florida, USA)

**Comparison between Preamble Sampling and Wake-Up Receivers in Wireless Sensor Networks**

Richard Su, Thomas Watteyne, Kristofer Pister (UC Berkeley, USA)

**Virtual Sensor for Mobile Sensor Data Cleaning**

Sitthapon Pumpichet, Niki Pissinou (Florida International University, USA)

**A New Broadcast Protocol for Vehicular Ad hoc Networks Safety Applications**

Khalid Abdel Hafeez, Lian Zhao, Zaiyi Liao, Ngok-Wah Ma (Ryerson University, CA)

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**Thursday, 9 December 2010 • 11:20 – 12:30**

**Location: Pearson I**

**CIS13: Wireless Security**

**Chair: Michael Hempel, University of Nebraska, USA**

**An Implementation Scheme of Flow-Net and Its Applications on Detecting Attacks in Wireless Networks**

Bo Fu, Yang Xiao (University of Alabama, USA)

**On Unified Intra/Inter Coding and Signature/Hash Authentication Diversity for Efficient and Secure Wireless Video Transmission**

Wei Wang (South Dakota State University, USA)

Michael Hempel, Dongming Peng, Hamid Sharif (University of Nebraska-Lincoln, USA)

Honggang Wang (University of Massachusetts, Dartmouth, USA)

Hsiao-Hwa Chen (National Cheng Kung University, TW)

**Secrecy in Two-Way Relay Systems**

Shengli Fu (University of North Texas, USA)

Tao Zhang, Michael Colef (New York Institute of Technology, USA)

**Identifying Insider-based Jammers in Multi-channel Wireless Networks**

Hoang Nguyen, Thadpong Pongthawornkamol, Klara Nahrstedt

(University of Illinois, Urbana-Champaign, USA)

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**Thursday, 9 December 2010 • 11:20 – 12:30**

**Location: Merrick II**

**CSSMA10: P2P Assistant Content Delivery**

**Chair: Yong Liu, Polytechnic Institute of NYU, USA**

**Strategies of Collaboration in Multi-channel P2P VoD Streaming Multimedia Analysis, Processing and Communications**

Zhi Wang (Tsinghua University, CN)  
Chuan Wu (University of Hong Kong, CN)  
Lifeng Sun, Shiqiang Yang (Tsinghua University, CN)

**ViVUD: Virtual Server Cluster based View-Upload Decoupling for Multi-Channel P2P Video Streaming Systems**

Chao Liang, Yong Liu (Polytechnic Institute of NYU, USA)

**Dimensioning Network Interfaces with Aggregate P2P TV Traffic**

Andrzej Bak (Warsaw University of Technology, PL)  
Piotr Gajowniczek (Warsaw University of Technology, PL)

**RS-VOD: Reliable and Scalable VOD Services Provisioning System Using P2P Retransmissions**

Hamid Nafaa (University College Dublin, IE)  
Manon Gaucher (Google Europe Ltd., IE)  
Liam Murphy (University College Dublin, IE)

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**Thursday, 9 December 2010 • 11:20 – 12:30**

**Location: Merrick I**

**CSSMA13: Network Management**

**Chair: Jaime Lloret Mauri, UPV, Spain**

**A Forwarding-chain based Mobile Multicast Scheme with Management Support**

Zhiwei Yan, Huachun Zhou, Zhang Hongke, (Beijing Jiaotong University, CN)

**A Scalable and Highly Available Network Management Architecture on Consistent Hashing**

Byungjoon Lee, Youhyeon Jeong, Hoyoung Song (ETRI, KR)  
Youngseok Lee (Chungnam National University, KR)

**A Network Management System for a Heterogeneous, Multi-tier Network**

Lisa Frye (Kutztown University, USA)  
Liang Cheng (Lehigh University, USA)

**Economics of Technological Games among Telecommunication Service Providers**

Patrick Maillé (Telecom Bretagne, FR)  
Bruno Tuffin (INRIA Rennes - Bretagne Atlantique, FR)  
Jean-Marc Vigne (Institut Telecom/Telecom Bretagne, FR)

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**Thursday, 9 December 2010 • 11:20 – 12:30**

**Location: Riverfront North Hall**

**CSSMA2P: Communications Software and Services (Poster)**

**Chair: Pascal Lorenz, University of Haute Alsace, France**

**High Level Abstraction Modeling for Network Configuration Validation**

Khalid Elbadawi, James Yu (DePaul University, USA)

**Forwarding Repeated Game for End-to-End QoS Support in Fiber-Wireless Access Networks**

José Coimbra, Gabriela Schütz, Noelia Correia (University of Algarve, PT)

**A New Strategy for Efficient Decentralized Network Control**

Evariste Logota (University of Aveiro, Instituto de Telecomunicações, PT)

Augusto Neto (Universidade Federal de Goiás, Brazil, BR)

Susana Isabel Barreto de Miranda Sargento (University of Aveiro , Instituto de Telecomunicações, PT)

**Media Independent End User Behavior and Performance Reports**

Miguel Almeida, Susana Isabel Barreto de Miranda Sargento (Universidade de Aveiro, PT)

**Audiovisual Quality Estimation for Video Calls in Wireless Applications**

Mohammad Goudarzi, Lingfen Sun, Emmanuel Ifeachor (University of Plymouth, UK)

**Adaptive Wireless Multimedia Communications with Context-awareness Using Ontology-based Models**

Haiyan Luo, Song Ci, Dalei Wu (University of Nebraska Lincoln, USA)

Hui Tang (IOA, Chinese Academy of Sciences, CN)

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**Thursday, 9 December 2010 • 11:20 – 12:30**

**Location: Hibiscus A**

**CT15: Analysis I**

**Chair: Erik Perrins, University of Kansas, USA**

**Unified Theoretical Expressions for the Average Error Rate of Selection Diversity with Arbitrary Coded and Uncoded Modulation in Slow Rayleigh Fading and Their Application to Analytical, Semi-Analytical and Simulation Performance Evaluation**

Norman C. Beaulieu (University of Alberta, CA)

**Complex Gaussian Ratio Distribution with Applications for Error Rate Calculation in Fading Channels with Imperfect CSI**

Robert John Baxley, Brett Walkenhorst (Georgia Tech Research Institute, USA)

Guillermo Acosta-Marum (Georgia Institute of Technology, USA)

**Superanalysis of the Interference Effect on Adaptive Antenna Systems**

Youngmin Jeong, Hyundong Shin (Kyung Hee University, Korea)

Moe Win (Massachusetts Institute of Technology, USA)

**An Approximate Distribution of Instantaneous Power in Band-Limited PSK Signals**

Hideki Ochiai (Yokohama National University, JP)

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**Thursday, 9 December 2010 • 11:20 – 12:30**

**Location: Orchid AB**

**CQRM10: Performance I**

**Chair: Hajime Nakamura, KDDI R&D Laboratories Inc., Japan**

**Investigating Scaling Behavior of End-to-End Delay**

Hanlin Sun, Yuehui Jin, Yidong Cui, Shiduan Cheng

(Beijing University of Posts and Telecommunications, CN)

**Overload Prediction Based on Delay in Wireless OFDMA Systems**

Evilasio Lucena (Federal University of Ceara, BR)  
Francisco Lima (Wireless Telecom Research Group, BR)  
Walter Freitas, Francisco Cavalcanti (Federal University of Ceara, BR)

**Modeling and Analysis for End-to-End Service Performance in Virtualization-Based Next Generation Internet**

Qiang Duan (Pennsylvania State University, USA)

**Approximated Calculation of Connection Level Access Waiting Time Distribution in OFDMA-Based Wireless Cellular Systems with AMC**

Rubén Murillo-Pérez, Carmen B. Rodríguez Estrello, Felipe A. Cruz-Pérez (Cinvestav-IPN, MX)

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**Thursday, 9 December 2010 • 11:20 – 12:30**

**Location: Orchid C**

**CQRM20: Performance II**

**Chair: Tetsuya Yokotani, Mitsubishi Electric Corp., Japan**

**A 3-D Markov Chain Model for a Multi-Dimensional Indoor Environment**

Samya Bhattacharya (Tata Consultancy Services, IN)

Bilal Qazi, Jaafar Elmirghani (University of Leeds, UK)

**Buffered Crossbar based Parallel Packet Switch**

Zhuo Sun, Masoumeh Karimi, Deng Pan, Zhenyu Yang, Niki Pissinou

(Florida International University, USA)

**On the Complexity of Power Minimization Schemes in Data Center Networks**

Rick McGeer, Priya Mahadevan, Sujata Banerjee (Hewlett-Packard Laboratories, USA)

**Optimal Key Generation Policies for MANET Security**

Hussein Al-Zubaidy, Ioannis Lambadaris (Carleton University, CA)

Yannis Viniotis (North Carolina State University, USA)

Changcheng Huang (Carleton University, CA)

Ren-Hung Hwang (National Chung-Cheng University, TW)

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**Thursday, 9 December 2010 • 11:20 – 12:30**

**Location: Riverfront North Hall**

**CQRM2P: Performance (Poster)**

**Chair: Harry Skianis, University of the Aegean, Greece**

**Call Admission Control Scheme for Improved Quality of Service in WiMAX Communication at Vehicular Speeds**

Iftekhhar Ahmad, Daryoush Habibi (Edith Cowan University, AU)

**Distributed Dynamic Resource Allocation in Tandem Networks**

Michael Markou, Christos Panayiotou (University of Cyprus, CY)

**Mitigating SIP Overload Using a Control-Theoretic Approach**

Yang Hong, Changcheng Huang, James Yan (Carleton University, CA)

**Performance Improvement in Satellite Networks Based on Markovian Weather Prediction**

Kamal Harb, F. Richard Yu (Carleton University, CA)

Pramod Dhakal (Eion Inc., CA)

Anand Srinivasan (Carleton University, CA)

**Two-degree-of-freedom Congestion Control Strategy Against Time Delay and Disturbance**

Hao Wang (Shanghai Jiao Tong University, CN)

Chenda Liao (University of Florida, USA)

Zuohua Tian (Shanghai Jiao Tong University, CN)

**A Unified Hardware and Channel Noise Model for Communication Systems**

Amin Khajeh, Kiarash Amiri, Muhammad Khairy, Ahmed Eltawil, Fadi Kurdahi

(University of California, Irvine, USA)

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**Thursday, 9 December 2010 • 11:20 – 12:30**

**Location: Flamingo**

**NGN10: Peer-to-Peer Networking**

**Chair: Ammar Rayes, Cisco, USA**

**Leveraging Network Motifs for the Adaptation of Structured Peer-to-Peer-Networks**

Lachezar Krumov, Immanuel Schweizer, Dirk Bradler, Thorsten Strufe

(University of Technology Darmstadt, DE)

**A Coalition Formation Game in Partition Form for Peer-to-Peer File Sharing Networks**

Walid Saad (University of Oslo, NO)

Zhu Han (University of Houston, USA)

Tamer Başar (University of Illinois, Urbana-Champaign, USA)

Merouane Debbah (Supelec, FR)

Are Hjørungnes (University of Oslo, NO)

**On the Interactions between Non-Cooperative P2P Overlay and Traffic Engineering Behaviors**

Chaojong Wang, Ning Wang, Michael P. Howarth (University of Surrey, UK)

George Pavlou (University College London, UK)

**Deadline-based Differentiation in P2P Streaming**

Csaba Kiraly, Renato Lo Cigno, Luca Abeni (University of Trento, IT)

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**Thursday, 9 December 2010 • 11:20 – 12:30**

**Location: Tequesta**

**NGN13: Network Addressing**

**Chair: Lotfi Mhamdi, Delft University of Technology, Netherlands**

**Utilizing Destination Options Header to Resolve IPv6 Alias Resolution**

Qian Shiyao, Yahui Wang, Ke Xu (Beihang University, CN)

**DIMDS: a cross federation identity solution for converged networks**

Konstantinos Lampropoulos, Spyros Denazis (University of Patras, GR)

**Dynamic Port-Range-based Address Sharing**

Andreas Ripke, Marcus Brunner, Juergen Quittek, Rolf Winter (NEC Network Labs, DE)  
Holger Zuleger (Vodafone, DE)

**PET: Prefixing, Encapsulation and Translation for IPv4-IPv6 Coexistence**

Peng Wu, Yong Cui, Mingwei Xu, Jianping Wu, Xing Li (Tsinghua University, CN)  
Chris Metz (Cisco Systems, USA)

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**Thursday, 9 December 2010 • 11:20 – 12:30**

**Location: Tuttle North**

**ONS10: Survivability**

**Chair: Maurice Gagnaire, Ecole Nationale Supérieure des Telecommunications, France**

**Efficient Protection in Single-Domain Networks using Network Coding**

Isil B. Barla (Technische Universität München, DE)  
Franz Rambach (Nokia Siemens Networks GmbH & Co. KG, DE)  
Dominic A. Schupke (Nokia Siemens Networks, DE)  
Georg Carle (Technische Universität München, DE)

**Stability of p-Cycles under Dynamic Traffic**

Brigitte Jaumard (Concordia University, CA)  
Ammar Metnani (Université de Montréal, CA)

**1+N protection in polynomial time: a heuristic approach**

Mirzad Mohandespour, Ahmed E. Kamal (Iowa State University, USA)

**Circulant-Graph-Based Fault-Tolerant Routing for Avionic All-Optical WDM LANs**

Dexiang Wang, Janise McNair (University of Florida, USA)

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**Thursday, 9 December 2010 • 11:20 – 12:30**

**Location: Gardenia**

**SAC10: Sensing II**

**Chair: Mainak Chatterjee, University of Central Florida, USA**

**Hidden Primary user Awareness in Cognitive Radio Routing: The SBBO Protocol**

Pierpaolo Salvo, Francesca Cuomo (University of Rome La Sapienza, IT)  
Anna Abbagnale (University of Rome, IT)

**Sensing Wireless Microphone with ESPRIT from Noise and Adjacent Channel Interference**

Dan Zhang, Lijun Dong, Narayan Mandayam (Rutgers University, USA)

**Minimizing Detection Time while Guaranteeing Desired Detection Accuracy in Cooperative Primary User Detection**

Shengliang Peng, Xi Yang, Shuli Shu, Xiuying Cao (Southeast University, CN)

**Joint Optimization of Spectrum Sensing for Cognitive Radio Networks**

Ling Luo (University of Washington, USA)  
Chittabrata Ghosh (University of Cincinnati, USA)  
Sumit Roy (University of Washington, USA)

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**Thursday, 9 December 2010 • 11:20 – 12:30**

**Location: Hibiscus B**

**SAC13: Vehicle Systems and Wireless Technology**

**Chair: Sidi Mohammed Senouci, Orange Labs, France**

**Distributed Transmit Beamforming with Autonomous and Self-organizing Mobile Antennas**

Jian Hou, Zhiyun Lin (Zhejiang University, CN)

Wenyuan Xu (University of South Carolina, USA)

Gangfeng Yan (Zhejiang University, CN)

**Quality Evaluation of Vehicle Navigation with CPS**

Yang Yang (Shanghai Jiao Tong University, CN)

Xu Li (State University of New York, Buffalo, USA)

Wei Shu (University of New Mexico, USA)

Min-You Wu (Shanghai JiaoTong University, CN)

**Vehicle-to-Roadside Multihop Data Delivery in 802.11p/WAVE Vehicular Ad Hoc Networks**

Claudia Campolo, Antonella Molinaro (University "Mediterranea" of Reggio Calabria, IT)

**Distributed High Accuracy Peer-to-Peer Localization in Mobile Multipath Environments**

Venkatesan Nallampatti Ekambaram, Kannan Ramchandran (University of California, Berkeley, USA)

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**Thursday, 9 December 2010 • 11:20 – 12:30**

**Location: Riverfront North Hall**

**SAC2P: Topics in Satellite and Space Communications (Poster)**

**Chair: Takaya Yamazato, Nagoya University, Japan**

**Cognitive Satellite Terrestrial Radios**

Sithamparanathan Kandeepan (Create-Net International Research Centre, IT)

Luca De Nardis, Maria Gabriella Di Benedetto (University of Rome La Sapienza Italy, IT)

Alessandro Guidotti, Giovanni Corazza (University of Bologna, IT)

**Impact of Imperfect Parameter Estimation on the Performance of Multi-User ARGOS Receivers**

Benoit Escrig (Université de Toulouse, FR)

Fares Fares (TéSA, FR)

Marie-Laure Boucheret (Enseeiht, FR)

Thibaud Calmettes (Thales Alenia Space, FR)

Hervé Guillon (CNES, FR)

**Analysis and Performance of MIMO-OFDM in Mobile Satellite Broadcasting Systems**

Stefano Cioni, Alessandro Vanelli-Coralli, Giovanni Emanuele Corazza (University of Bologna, IT)

Paolo Burzigotti (European Space Agency ESA/ESTEC, NL)

Pantelis-Daniel Arapoglou (National Technical University of Athens, GR)

**Tesla with FLUTE over Satellite Network**

Lei Liang, Zhili Sun, Haitham Cruickshank (University of Surrey, UK)

Gorry Fairhurst (University of Aberdeen, UK)

Chamil Kulatunga (Waterford Institute of Technology, IE)

**Mode Switching Algorithms for DVB-S2 Links in W Band**

Sandeep Mukherjee, Mauro De Sanctis, Tommaso Rossi, Marina Ruggieri  
(University of Roma Tor Vergata, IT)

Ramjee Prasad (Aalborg University, DK)

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**Thursday, 9 December 2010 • 11:20 – 12:30**

**Location: Ibis**

**SPC16: OFDM and Multi-carrier Systems I**  
**Chair: Jinho Choi, Swansea University, United Kingdom**

**Frequency-Domain Oversampling for Zero-Padded OFDM in Underwater Acoustic Communications**

Zhaohui Wang, Shengli Zhou (University of Connecticut, USA)  
Georgios B. Giannakis (University of Minnesota, USA)  
Christian R Berger (Carnegie Mellon University, USA)  
Jie Huang (University of Connecticut, USA)

**Partial Data-Dependent Superimposed Training Based Iterative Channel Estimation for OFDM Systems over Doubly Selective Channels**

Lan Lan He, Shaodan Ma, Yik-Chung Wu, Tungsang Ng (University of Hong Kong, CN)

**Blind Estimation of Common Phase Error in OFDM and OFDMA**

Gokul Sridharan, Teng Joon Lim (University of Toronto, CA)

**Outage Throughput Maximization for OFDMA Systems with Feedback Channel Capacity Constraints**

Lin Bai (Swansea University, UK)  
Chen Chen, Bo Wu (Peking University, CN)  
Duc To, Jinho Choi (Swansea University, UK)

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**Thursday, 9 December 2010 • 11:20 – 12:30**

**Location: Riverfront North Hall**

**SPC2P: Topics in Signal Processing for Communications II (Poster)**

**Chair: Feifei Gao, Jacobs University, Bremen, Germany**

**Adaptive Distributed Source Coding over Erasure Channels using particle-based Belief Propagation**

Lijuan Cui, Shuang Wang (University of Oklahoma, USA)  
Samuel Cheng (University of Oklahoma, USA)

**Dynamic Resource Allocation Based Partial Crosstalk Cancellation in DSL Networks**

Beier Li, Paschalis Tsiiaflakis, Marc Moonen (Katholieke Universiteit Leuven, BE)  
Jochen Maes (Alcatel-Lucent, BE)  
Mamoun Guenach (Bell Laboratories, Alcatel-Lucent, Antwerp, BE)

**Frame synchronization techniques for non-binary LDPC codes over GF(q)**

Rodrigue Imad, Charly Poulliat (ETIS, CNRS, ENSEA, Univ Cergy Pontoise, FR)  
Sebastien Houcke (Institut TELECOM / TELECOM Bretagne, FR)

**Automatic Gain Control for ADC-limited Communication**

Feifei Sun (Beijing University of Posts and Telecommunications, CN)  
Jaspreet Singh, Upamanyu Madhow (University of California, Santa Barbara, USA)



**Robust General Rank Precoding Design for Amplify-and-Forward Relay Network**

Dhananjaya Ponukumati, Feifei Gao (Jacobs University, Bremen, DE)

Lisheng Fan (Shantou University, CN)

**Optimum Training Sequences for Data-Aided Synchronization**

Christopher G. Shaw, Michael Rice (Brigham Young University, USA)

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**Thursday, 9 December 2010 • 11:20 – 12:30**

**Location: Brickell North**

**WC10: OFDM II**

**Chairs: Emad Alsusa, University of Manchester, United Kingdom**

**Hao Zhu, Telecom & IT Institute, USA**

**Low-Complexity Leakage-Based Carrier Frequency Offset Estimation Technique for OFDMA Uplink**

Kilbom Lee, Sung-Hyun Moon, Inkyu Lee (Korea University, KR)

**Accurate Performance Analysis of OFDM Over Nakagami-m Fading with Nonuniform Phase Distribution**

Khairi Hamdi (University of Manchester, UK)

**Capacity and outage probability in multiuser OFDM dual-hop relay systems**

Tsan-Ming Wu, Szu-Liang Wang (Chung Yuan Christian University, TW)

**Outage Exponent for OFDM Channels**

Bo Bai (Hong Kong University of Science & Technology, CN)

Wei Chen (Tsinghua University, CN)

Khaled Letaief (Hong Kong University of Science & Technology, CN)

Zhigang Cao (Tsinghua University, CN)

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**Thursday, 9 December 2010 • 11:20 – 12:30**

**Location: Brickell Center**

**WC22: Resource Allocation II**

**Chair: Steven Blostein, Queen's University, United Kingdom**

**On Resource Reuse for Cellular Networks with Femto- and Macrocell Coexistence**

Yongsheng Shi, Allen MacKenzie, Luiz A. DaSilva

(Virginia Polytechnic Institute / State University, USA)

Kaveh Ghaboosi, Matti Latva-aho (UoOulu, FL)

**Channel Assignment Problem: A Fuzzy-based Hybrid Approach**

Yasmin Hovakeemian, Olufisayo Ekpenyong, Mohammad Towhidul Islam, Kshirasagar Naik

(University of Waterloo, CA)

**Achievable Rates of Multi-Antenna Downlink Channels with Peak Power Constraints**

Ihn-Jung Baik, Sae-Young Chung, Junmo Kim (KAIST, KR)

**Self-Organizing Coalitions for Conflict Evaluation and Resolution in Femtocells**

Luis Garcia, Gustavo Costa, Andrea Cattoni (Aalborg University, DK)  
Klaus Pedersen, Preben Mogensen (Nokia Siemens Networks, DK)

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**Thursday, 9 December 2010 • 11:20 – 12:30**

**Location: Brickell South**

**WC34: Scheduling II**

**Chair: Xinsheng Zhao, Southeast University, China**

**Efficient Link Scheduling for MIMO Ad Hoc Networks in Time-Varying Channels**

Yan Shi, Michael Jensen (Brigham Young University, USA)

**Scheduling Methods with MIMO Interference Alignment for Mutually Interfering Broadcast Channels**

Haewook Park, Seok-Hwan Park, Hakjea Sung, Inkyu Lee (Korea University, KR)

**Multicell Scheduling in Network MIMO**

Saeed Kaviani, Witold Krzymien (University of Alberta / TRLabs, CA)

**Resource Allocation and Scheduling in Multi-Cell OFDMA Decode-and-Forward Relaying Networks**

Derrick Wing Kwan Ng, Robert Schober (University of British Columbia, CA)

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**Thursday, 9 December 2010 • 11:20 – 12:30**

**Location: Orchid D**

**WC46: Wireless Security**

**Chair: Jinyuan (Stella) Sun, University of Tennessee, USA**

**Physical Layer Security for Two Way Relay Communications with Friendly Jammers**

Lingyang Song (Peking University, CN)

Zhu Han (University of Houston, USA)

Bingli Jiao (Peking University, CN)

Merouane Debbah (Supélec, FR)

**Location Spoofing Attack Detection in Wireless Networks**

Jeong Lee, Michael Buehrer (Virginia Tech, USA)

**PHY-Authentication Protocol for Spoofing Detection in Wireless Networks**

Liang Xiao (Xiamen University, CN)

Alex Reznik (InterDigital, USA)

Wade Trappe (Rutgers University, USA)

Chunxuan Ye, Yogendra Shah (InterDigital Communications Corp., USA)

Larry Greenstein, Narayan Mandayam (Rutgers University, USA)

**Techniques for Enhanced Physical-Layer Security in Wireless Networks**

Pedro Pinto (Massachusetts Institute of Technology, USA)

Joao Barros (University of Porto, Portugal)

Moe Win (Massachusetts Institute of Technology, USA)

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**Thursday, 9 December 2010 • 11:20 – 12:30**

**Location: Riverfront North Hall**

**WC10P: Wireless Channel and Interference Cancellation (Poster)**

**Chair: Lifeng Lai, University of Arkansas, Little Rock, USA**

**New Representations for the Multivariate Weibull Distribution with Constant Correlation**

Kasun Hemachandra, Norman Beaulieu (University of Alberta, CA)

**Interference Analysis of Busy Burst Enabled Interference Avoidance**

Sinan Sinanovic (University of Edinburgh, UK)

Gunther Auer (DOCOMO Euro-Labs, DE)

Harald Haas (University of Edinburgh, UK)

**Interference Alignment via Improved Subspace Conditioning**

Douglas Kim, Murat Torlak (University of Texas, Dallas, USA)

**Creating Desirable Interference by Optimized Sectorization in Cellular Systems**

Ines Riedel, Peter Rost, Patrick Marsch, Gerhard Fettweis (Technische Universitaet Dresden, DE)

**BICM-ID Systems with Signal Space Diversity over Rayleigh Fading Channels**

Qiuliang Xie, Kewu Peng, Fang Yang, Zhaocheng Wang (Tsinghua University, CN)

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**Thursday, 9 December 2010 • 11:20 – 12:30**

**Location: Peason II**

**WN10: Dynamic Spectrum Access III**

**Chair: Pu Wang, Georgia Institute of Technology, USA**

**OFDM Signal Type Recognition and Adaptability Effects in Cognitive Radio Networks**

Anna Vizziello (University of Pavia, IT)

Ian F. Akyildiz (Georgia Institute of Technology, USA)

Lorenzo Favalli, Pietro Savazzi (University of Pavia, IT)

**Voice Capacity of Cognitive Radio Networks for Both Centralized and Distributed Channel Access Control**

Subodha Gunawardena, Weihua Zhuang (University of Waterloo, CA)

**Channel Allocation for Smooth Video Delivery over Cognitive Radio Networks**

Sanying Li, Hao Luan, Sherman Shen (University of Waterloo, CA)

**Dynamic Spectrum Access with QoS Guarantee for Wireless Networks: A Markov Approach**

YanJun Yao, Zhiyong Feng (Beijing University of Posts and Telecommunications, CN)

Wei Li (Victoria University of Wellington, NZ)

Yi Qian (University of Nebraska–Lincoln, USA)

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**Thursday, 9 December 2010 • 11:20 – 12:30**

**Location: Gautier**

**WN22: Mobile Social Networks**

**Chairs: Maggie Cheng, Missouri University of Science and Technology, USA**  
**Qiang Wang, Lehigh University, USA**

**A Controlled Coalitional Game for Wireless Connection Sharing and Bandwidth Allocation in Mobile Social Networks**

Dusit Niyato (Nanyang Technological University, SG)  
Zhu Han (University of Houston, USA)  
Walid Saad, Are Hjørungnes (University of Oslo, NO)

**Optimal Content Transmission Policy in Publish-Subscribe Mobile Social Networks**

Dusit Niyato, Ping Wang (Nanyang Technological University, SG)  
Ekram Hossain (University of Manitoba, CA)  
Yifan Li (Nanyang Technological University, SG)

**Friendship based Routing in Delay Tolerant Mobile Social Networks**

Eyuphan Bulut, Boleslaw K. Szymanski (Rensselaer Polytechnic Institute, USA)

**Towards Optimal Cooperative Caching in Social Wireless Networks**

Mahmoud Taghizadeh, Anthony Plummer Jr., Ali Aqel, Subir Biswas (Michigan State University, USA)

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**Thursday, 9 December 2010 • 16:00 – 17:10**

**Location: Tuttle South**

**AHSN11: Clustering II**

**Chair: Damla Turgut, University of Central Florida, USA**

**Overlapping Clusters Algorithm in Ad hoc Networks**

Volodymyr Pryyma (University of Central Florida, USA)  
Nevin Aydin (Istanbul Arel Universitesi, TK)  
Farid Naït-Abdesselam (University of Lille, FR)  
Damla Turgut (University of Central Florida, USA)

**Lifetime Extending Heuristic for Clustered Wireless Sensor Networks**

Eddie Law, Barnabas C Okeke (Ryerson University, CA)

**Maximization of Data Gathering in Clustered Wireless Sensor Networks**

Tianqi Wang, Wendi Heinzelman, Alireza Seyedi (University of Rochester, USA)

**An Efficient TDMA Scheme with Dynamic Slot Assignment in Clustered Wireless Sensor Networks**

Shafiq Ullah Hashmi, Jahangir H. Sarker, Hussein Mouftah, Nicolas D. Georganas  
(University of Ottawa, CA)

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**Thursday, 9 December 2010 • 16:00 – 17:10**

**Location: Tuttle Center**

**AHSN23: Energy Saving and Power Control Protocols II**

**Chair: Gen Motoyoshi, NEC Corporation, Japan**

**Sequential Random Selection Relaying for Energy Efficient Wireless Sensor Networks**

Seyed A. Mousavifar (University of British Columbia, CA)  
Tamer Khattab, Mazen Omar Hasna (Qatar University, QA)

**Equitable Energy Consumption during Repeated Transmissions in a Multihop Wireless Network**

Aravind Kailas (University of North Carolina, Charlotte, USA)

Mary Ann Ingram (Georgia Tech, USA)

**Energy-Efficient Duty Cycle Assignment for Receiver-Based Convergecast in Wireless Sensor Networks**

Yuqun Zhang, Chen-Hsiang Feng, Ilker Demirkol, Wendi Heinzelman (University of Rochester, USA)

**Cooperative Relay Scheduling under Partial State Information in Energy Harvesting Sensor Networks**

Huijiang Li (Rensselaer Polytechnic Institute, USA)

Neeraj Jaggi (Wichita State University, USA)

Biplab Sikdar (Rensselaer Polytechnic Institute, USA)

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**Thursday, 9 December 2010 • 16:00 – 17:10**

**Location: Jasmine**

**AHSN35: Tracking and Detection**

**Chair: Jorge Granjal, University of Coimbra, Portugal**

**Low Altitude Target Tracking Algorithm with Acoustic Wireless Sensor Network**

Guo Yunfei, Xue Anke (Hangzhou Dianzi University, CN)

Hongyang Chen (University of Tokyo, JP)

Chen Huajie, Peng Dongliang (Hangzhou Dianzi University, CN)

Kaoru Sezaki (University of Tokyo, JP)

**Joint Multiple Target Tracking and Channel Estimation in Wireless Sensor Networks**

Majdi Mansouri, Snoussi Hichem, Cedric Richard (University of Technology of Troyes, FR)

**Decentralized Robust Acoustic Source Localization with Wireless Sensor Networks for Heavy-tail Distributed Observations**

Yong Liu (Northwestern Polytechnical University, USA)

Yu-hen Hu (University of Wisconsin-Madison, USA)

Quan Pan (Northwestern Polytechnical University, CN)

**Finding and Mending Barrier Gaps in Wireless Sensor Networks**

Anwar Saipulla, Benyuan Liu, Jie Wang (University of Massachusetts, Lowell, USA)

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**Thursday, 9 December 2010 • 16:00 – 17:10**

**Location: Pearson I**

**CIS14 Sensor Security**

**Chair: Jian Ren, Michigan State University, USA**

**Defending Resource Depletion Attacks on Implantable Medical Devices**

Xiali Hei, Xiaojiang Du, Jie Wu (Temple University, USA)

Fei Hu (University of Alabama, USA)

**Secure and Energy Aware Routing (SEAR) in Wireless Sensor Networks**

Di Tang (Michigan State University, USA)  
Tingting Jiang (Virginia Tech, USA)  
Jian Ren (Michigan State University, USA)

**Secure Cooperation Incentive Scheme with Limited Use of Public Key Cryptography for Multi-hop Wireless Network**

Mohamed Mahmoud, Sherman Shen (University of Waterloo, CA)

**Robust State Estimation under False Data Injection in Distributed Sensor Networks**

Shanshan Zheng, Tao Jiang, John Baras (University of Maryland, College Park, USA)

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**Thursday, 9 December 2010 • 16:00 – 17:10**

**Location: Orchid AB**

**CQRM11: Performance III**

**Chair: Miki Yamamoto, Kansai University, Japan**

**Performance Analysis of Exponential Increase Exponential Decrease Back-off Algorithm**

Chunxuan Ye, Yan Li, Alex Reznik (InterDigital, USA)

**Performance Analysis of Data Management in Sensor Data Storage via Stochastic Petri Nets**

Rongfei Zeng, Chuang Lin (Tsinghua University, CN)

Yixin Jiang (University of Waterloo, CA)

Xiaowen Chu (Hong Kong Baptist University, CN)

**Performance Evaluation of IMS-based Core Networks in Presence of Failures**

Maurizio Guida, Maurizio Longo, Fabio Postiglione (University of Salerno, IT)

**Probabilistic Analysis of Resequencing Queue Length in Multipath Packet Data Networks**

Jun Li, Yifeng Zhou, Louise Lamont (Communications Research Centre Canada, CA)

Minyi Huang, Yiqiang Zhao (Carleton University, CA)

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**Thursday, 9 December 2010 • 16:00 – 17:10**

**Location: Orchid C**

**CQRM21: Performance IV**

**Chairs: Harry Skianis, University of the Aegean, Greece**

**Ahmet Akyamac, Alcatel-Lucent, USA**

**Increasing Voice Capacity over IEEE 802.11 WLAN using Virtual Access Points**

Md. Atiur Rahman Siddique, Joarder Kamruzzaman (Monash University, Australia, AU)

**Dynamic Bandwidth Management System Using IP Flow Analysis for the QoS-assured Network**

Shuntaro Kashihara, Munefumi Tsurusawa (KDDI R&D laboratories Inc, JP)

**Satisfaction Equilibrium: A General Framework for QoS Provisioning in Self-Configuring Networks**

Samir Medina Perlaza (LSS, FR)

Hamidou Tembine (CNRS LSS Supelec, FR)

Samson Lasaulce (CNRS/LSS, FR)

Merouane Debbah (Supelec, FR)

## **The Average Total Power Consumption of Cooperative Hybrid-ARQ on Quasi-Static Rayleigh Fading Links**

Sangkook Lee, Weifeng Su, Dimitris Pados (State University of New York, Buffalo, USA)  
John Matyjas (Air Force Research Laboratory, USA)

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**Thursday, 9 December 2010 • 16:00 – 17:10**

**Location: Riverfront North Hall**

### **CQRM3P: Routing and Scheduling**

**Session Chair: Hideaki Yoshino**, (NTT Service Integration Laboratories, Japan)

#### **Performance-oriented routing in telecommunication networks**

Olivier Klopfenstein (France Telecom R&D, FR)  
Hassan Hijazi (Orange Labs, FR)

#### **Throughput of Reliable Networks with Load Balanced Shortest Path Routing**

Marija Antic (Belgrade University, RS)  
Aleksandra Smiljanic (Belgrade University, Polytechnic Institute of NYU, RS)

#### **A Model for Evaluating Connectivity Availability in Random Sleep Scheduled Delay-Tolerant Wireless Networks**

Tianle Zhang (Beijing University of Posts and Telecommunications, CN)  
Zongwei Luo (University of Hong Kong, HK)  
Chunlu Wang (Beijing University of Post and Telecommunications University, CN)  
Edward C Wong (University of Hong Kong, HK)

#### **A Three-Dimensional Resource Scheduling Algorithm for a Network-aware Grid**

Davide Adami, Christian Callegari, Stefano Giordano, Michele Pagano (University of Pisa, IT)

#### **Delay-Optimal User Scheduling and Inter-Cell Interference Management in Cellular Network via Distributive Stochastic Learning**

Huang Huang (HKUST, CN)  
Vincent Lau (University of Science and Technology, CN)

#### **An End-to-End QoS Assurance Method in IEEE 802.16 Mesh networks**

Yun Li, Xin Zhang (ChongQing University of Posts and Telecommunications of China, CN)  
Hongcheng Zhuang (Huawei Technologies Co.,Ltd, CN)  
Xiaohu You (Southeast University, CN)

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**Thursday, 9 December 2010 • 16:00 – 17:10**

**Location: Merrick II**

### **CSSMA11: Multimedia Streaming**

**Chair: Honggang Wang, University of Massachusetts, USA**

#### **Collaborative ISP-CP Live Streaming**

Him Cheng, Gary Chan (Hong Kong University of Science and Technology, CN)  
Guangyu Shi, Jian Chen, Hongbo Zhang (Huawei Technologies Co., Ltd, CN)

#### **Optimal Pricing for Mobile Video Streaming Using Redistribution Behavior Analysis**

Wanyi Lin, K. J. Ray Liu (University of Maryland, USA)

**Robust Cooperation Strategies for Wireless Video Streaming Social Networks**

Wanyi Lin (University of Maryland, USA)

Hong Zhao (University of Alberta, CA)

K. J. Ray Liu (University of Maryland, USA)

**Multi-Source Latency Variation Synchronization for Collaborative Applications**

Abhishek Bhattacharya, Zhenyu Yang, Deng Pan (Florida International University, USA)

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**Thursday, 9 December 2010 • 16:00 – 17:10**

**Location: Merrick I**

**CSSMA14: Networks and Services Architecture and Engineering**

**Chair: Fabrizio Granelli, University of Trento, Italy**

**CommuSearch: Small-World Based Semantic Search Architecture in P2P Networks**

Feiteng Xue, Gang Feng, Yide Zhang (University of Electronic Science and Technology of China, CN)

**On Minimizing Network Wide Node Update Time**

Lei Shi (Waterford Institute of Technology, IE)

Jing Fu (Ericsson Research, SE)

Steven Davy (Waterford Institute of Technology, IE)

**Online Traffic Engineering with Limited Flow Disruption**

Huan Luo, Khaled Harfoush (North Carolina State University, USA)

**On the Impact of Using Presence Services in P2P-based Network Management Systems**

Carlos Raniery Paula Dos Santos, Lisandro Z. Granville (Federal University of Rio Grande do Sul, BR)

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**Thursday, 9 December 2010 • 16:00 – 17:10**

**Location: Riverfront North Hall**

**CSSMA3P: Multimedia Analysis, Processing and Communications (Poster)**

**Chair: Mohamed Hamdi, (Carthage University, Tunisia)**

**Dynamic Cross-layer Adaptation of Scalable Video in Wireless Networking**

Esa Piri, Mikko Uitto, Janne Vehkaperä, Tiia Sutinen (VTT Technical Research Centre of Finland, FI)

**Multi-variable cost function for Application Layer Multicast routing**

Tien Anh Le, Hang Nguyen, Hongguang Zhang (Institut Telecom, Telecom SudParis, FR)

**Energy-Aware Server Provisioning in Large Scale Video-on-Demand Systems**

Ke Zeng, Jian Yang (University of Science and Technology of China, CN)

**PaCRAM: Path aware Content Replication Approach with Multicast for IPTV Networks**

Gajaruban Kandavanam, Dimitri D Botvich, Sasitharan Balasubramaniam, Chamil Kulatunga (Waterford Institute of Technology, IE)

**Adaptive Temporal Scalability of H.264-compliant Video Conferencing in Heterogeneous Mobile Environments**

Hans L. Cycon (HTW Berlin, University of Applied Sciences, DE)

Gabriel Hege (HAW Hamburg University of Applied Sciences, DE)



Detlev Marpe (Fraunhofer HHI, DE)  
Mark Palkow (daViKo GmbH, DE)  
Thomas C. Schmidt (HAW Hamburg, DE)  
Matthias Wählisch (Freie Universität Berlin, DE)

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**Thursday, 9 December 2010 • 16:00 – 17:10**  
**Location: Hibiscus A**

**CT16: Security**  
**Chair: Paul Cuff, Princeton University, USA**

**Providing Secrecy Irrespective of Eavesdropper's Channel State**  
He Xiang, Aylin Yener (Pennsylvania State University, USA)

**Trusted Storage over Untrusted Networks**  
Paulo Oliveira, Luísa Lima (Universidade do Porto, PT)  
Tiago T. Vinhoza (Instituto de Telecomunicações, PT)  
Joao Barros (University of Porto, PT)  
Muriel Medard (MIT, USA)

**Secure Broadcasting over Fading Channels with Statistical QoS Constraints**  
Deli Qiao, M. Cenk Gursoy, Senem Velipasalar (University of Nebraska-Lincoln, USA)

**A Framework for Partial Secrecy**  
Paul W. Cuff (Princeton University, USA)

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**Thursday, 9 December 2010 • 16:00 – 17:10**  
**Location: Flamingo**

**NGN11: Security and Reliability**  
**Chair: Thomas Dreibholz, University of Duisburg-Essen, Germany**

**Optimal Resource Allocation for Disaster Recovery**  
Andrea Bianco, Luca Giraudo (Politecnico di Torino, IT)  
David Hay (Columbia University, USA)

**Skip Finite Automaton: A Content Scanning Engine to Secure Enterprise Networks**  
Junchen Jiang, Yi Tang (Tsinghua University, CN)  
Yang Xu (Polytechnic Institute of New York University, USA)  
Xiaofei Wang (Dublin City University, IE)  
Bin Liu (Tsinghua University, CN)

**Characterizing the Scam Hosting Infrastructure**  
Ting-Kai Huang (Academia Sinica, TW)  
Nicholas Valler, Michalis V. Faloutsos (University of California, Riverside, USA)

**Scalable Markov Chain based Algorithm for Fault-Isolation in Autonomic Networks**  
Nikolay Tcholtchev (Fraunhofer Fokus, DE)  
Agnieszka Betkowska Cavalcante (Telcordia Poland, PL)  
Ranganai Chaparadza (Fraunhofer Fokus, DE)

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**Thursday, 9 December 2010 • 16:00 – 17:10**

**Location: Tequesta**

**NGN14: Network Architecture**

**Chair: Qiang Yang, Zhejiang University, China**

**Virtual Network Embedding For Evolving Networks**

Zhiping Cai, Fang Liu, Nong Xiao, Qiang Liu, Zhiying Wang  
(National University of Defense Technology, CN)

**On Comparing the Performance of Dynamic Multi-Network Optimizations**

Gerard Hoekstra (Thales Nederland/CWI, NL)  
Rob van der Mei, Joost Bosman (Centrum voor Wiskunde en Informatica, NL)

**Design and Evaluation of an Intelligent Rate Controller for Heterogeneous Networks**

Jungang Liu, Oliver Yang (University of Ottawa, CA)

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**Thursday, 9 December 2010 • 16:00 – 17:10**

**Location: Gardenia**

**SAC11: Cognitive Radio: Resource Allocation I**

**Chair: Przemyslaw Pawelczak, University of California, Los Angeles, USA**

**Rate-maximization Channel Assignment Scheme for Cognitive Radio Networks**

Haythem Bany Salameh (University of Arizona, USA)

**An Information-Theoretic Approach to Resource Consumption Minimization for Dynamic Spectrum Access Networks**

Michael Pursley, Thomas Royster (Clemson University, USA)

**Enabling Secondary Access through Robust Primary User Channel Assignment**

Jad Nasreddine, Andreas Achtzehn, Janne Riihijärvi, Petri Mähönen (RWTH Aachen University, DE)

**The X Loss: Band-Mix Selection with Uncertain Supply for Opportunistic Spectrum Accessing**

Miao Pan, Hao Yue, Yuguang Fang (University of Florida, USA)

Hongyan Li (Xidian University, CN)

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**Thursday, 9 December 2010 • 16:00 – 17:10**

**Location: Hibiscus B**

**SAC14: Vehicular Communications Networks and Systems**

**Chair: Rami Langar, University of Paris 6, France**

**On the Information Propagation Speed in Mobile Vehicular Ad Hoc Networks**

Zijie Zhang, Guoqiang Mao, Brian Anderson (Australian National University, AU)

**QoS Support in Delay Tolerant Vehicular Ad Hoc Networks**

Hanan Saleet (University of Waterloo, CA)

Rami Langar (University of Paris 6, FR)  
Sagar Naik, Raouf Boutaba (University of Waterloo, CA)  
Amiya Nayak (University of Ottawa, CA)  
Nishith Goel (Cistel, CA)

**An Efficient Fault Tolerant Location Based Service Discovery Protocol for Vehicular Networks**  
Azzedine Boukerche, Kaouther Abrougui, Richard W. Pazzi (University of Ottawa, CA)

**Establishing Strict Priorities in IEEE 802.11p WAVE Vehicular Networks**  
Mohsin Barradi, Abdel Hafid (University of Montreal, CA)  
Jose R. Gallardo (University of Ottawa, CA)

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**Thursday, 9 December 2010 • 16:00 – 17:10**  
**Location: Tuttle North**

**SAC16: Power Line Communications and Smart-Grids**  
**Chair: J.A. Cortes, University of Malaga, Spain**

**Compromising Electromagnetic Field Radiated by In-House PLC Lines**  
Pierre Degauque, Pierre Laly, Virginie Degardin, Martine Lienard, Laurent Diquelou (University of Lille, FR)

**Opportunistic Relaying in In-Home PLC Networks**  
Andrea M Tonello, Fabio Versolatto, Salvatore D'Alessandro (University of Udine, IT)

**Characterization and Evaluation of In-Vehicle Power Line Channels**  
Ana Vallejo Mora, Juan José Sánchez-Martínez, Francisco J. Cañete, José Antonio Cortés Arrabal, Luis Díez (University of Malaga, ES)

**Need-based Communication for Smart Grid: When to Inquire Power Price?**  
Husheng Li, Robert Caiming Qiu (Tennessee Tech University, USA)

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**Thursday, 9 December 2010 • 16:00 – 17:10**  
**Location: Riverfront North Hall**

**SAC3P: Cognitive Radio & Wireless Networks (Poster)**  
**Chair: Gabriel Jakobson, Altusys, USA**

**Capacity and Delay Scaling in Cognitive Radio Ad Hoc Networks: Impact of Primary User Activity**  
Pan Zhou, Yusun Chang, John Copeland (Georgia Institute of Technology, USA)

**Power Control for Constrained Throughput Maximization in Spectrum Shared Networks**  
John Tadrous, Ahmed Sultan, Mohammed Nafie, Amr El-Keyi (Nile University, EG)

**The Information Propagation Speed Upper Bound in Cognitive Radio Networks**  
Chuan Han, Yaling Yang (Virginia Tech, USA)

**Evaluating Wireless Network Effects for SLAM Robot Map Making**  
Egor Reentov, Geoffrey G. Messier, Sebastian Magierowski (University of Calgary, CA)

**Multi-Agent System based Wireless Sensor Network for Crisis Management**

Ahmad Sardouk, Majdi Mansouri, Leila Merghem-Boulaiah, Dominique Gaiti, Rana Rahim-Amoud (UTT, FR)

**Synchronization and Timing in Packet Networks**

Karim Traore (Symmetricom, Inc, USA)  
Kishan Shenoi (Shenoi Consulting, USA)

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**Thursday, 9 December 2010 • 16:00 – 17:10**

**Location: Ibis**

**SPC17: OFDM and Multi-carrier Systems II**

**Chair: Hai Lin, Osaka Prefecture University, Japan**

**A Novel Equalization Method for OFDM Systems without Guard Interval**

Umut Yunus, Hai Lin, Katsumi Yamashita (Osaka Prefecture University, JP)

**Low Complexity Block Processing Algorithms for Adaptive Channel Estimation in OFDM Systems**

Christian Rohde, Wolfgang Gerstacker, Wolfgang Koch (University of Erlangen, DE)

**TDS-OFDM Transmit Diversity Based on Space-Time Shifted CAZAC Sequence**

Linglong Dai, Jintao Wang, Zhaocheng Wang, Jun Wang (Tsinghua University, PR)

**Superimposed Pilot Based Joint CFO and Channel Estimation for CP-OFDM Modulated Two-Way Relay Networks**

Gongpu Wang (University of Alberta, CA)  
Feifei Gao (Jacobs University, Bremen, DE)  
Chintha Tellambura (University of Alberta, CA)

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**Thursday, 9 December 2010 • 16:00 – 17:10**

**Location: Riverfront North Hall**

**SPC3P: Topics in Signal Processing for Communications III (Poster)**

**Chair: Zhu Liu, AT&T Laboratories, USA**

**On the Computation/Memory Trade-Off in Software Defined Radios**

Vincenzo Pellegrini, Mario Di Dio, Marco Luise (Università di Pisa, IT)  
Luca Rose (Supelec, FR)

**A Novel Accurate Method for Estimating the Time ACF of a Sum of Complex Plane Waves**

Ali Chelli, Matthias Pätzold (University of Agder, NO)

**Cyclostationary-based Architectures for Spectrum Sensing in IEEE 802.22 WRAN**

Deepa Bhargavi (Indian Institute of Science, IN)  
Anand Padmanabha Iyer (Microsoft Research, IN)  
Chandra R Murthy (Indian Institute of Science, IN)

**Joint Encoder and Buffer Control for Statistical Multiplexing of Multimedia Contents**

Nesrine Changuel, Bessem Sayadi (Alcatel-Lucent Bell-Labs, FR)  
Michel Kieffer (University of Paris-Sud, FR)

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**Thursday, 9 December 2010 • 16:00 – 17:10**  
**Location: Brickell North**

**WC11: OFDM III**

**Chairs: Mohamed Moustafa, Akhbar El Yom Academy, Egypt**  
**Saeed Ghassemzadeh, AT&T, USA**

**Uplink Inter-Cell Interference Coordination through Soft Frequency Reuse**  
Mazin Al-Shalash, F. Khafizov, Zhijun Chao (Huawei Technologies, CN)

**Pilot Symbol Assisted Adaptive Modulation for OFDM Systems with Imperfect Channel State Information**

Mahdi Karami (University of Alberta, CA)  
Ali Olfat (University of Tehran, IT)  
Norman Beaulieu (University of Alberta, CA)

**Joint Blind Channel and Control Signal Estimation for OFDM Systems**  
Emad Alsusa, Ahmed Elkalagy (University of Manchester, UK)

**Multiple Access Schemes for DCT-Based OFDM: Derivation and Comparison**  
Stefano Sorrentino (Ericsson AB, SE)

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**Thursday, 9 December 2010 • 16:00 – 17:10**  
**Location: Brickell Center**

**WC23: Space-time Coding I**

**Chair: Ender Ayanoglu, University of California, Irvine, USA**

**Distributed Space-Time Coding for Two-Path Successive Relaying**

Feng Tian (Chinese University of Hong Kong, CN)  
Wei Zhang (University of New South Wales, AU)  
Wing-Kin Ma, P.C. Ching (Chinese University of Hong Kong, CN)

**Blind Modulation Identification for MIMO Systems**

Kais Hassan (University Lille Nord de France, FR)  
Crépin Nsiala Nzéza, Marion Berbineau  
(Institut National de Recherche sur le Transport et leur Sécurité, FR)  
Iyad Dayoub (University Lille Nord de France, FR)

**Golden Coded Multiple Beamforming**

Boyu Li, Ender Ayanoglu (University of California, USA)

**A Simple Construction of Full-Rate Quasi-Orthogonal Space-Time Block Codes for 4 and 6 Transmit Antennas**

Xiaoyong Guo (Alcatel-Lucent Shanghai Bell, CN)

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**Thursday, 9 December 2010 • 16:00 – 17:10**  
**Location: Brickell South**

**WC35: Scheduling III**

**Chair: Jianwei Huang, Chinese University of Hong Kong, Hong Kong**

**Reducing Downlink Signaling Traffic in Wireless Systems Using Mobile-Assisted Scheduling**

Reza Moosavi, Erik G. Larsson (Linköping University, SE)

**Optimal Routing and Scheduling of Deadline-Constrained Traffic over Lossy Networks**

Pablo Soldati, Haibo Zhang, Zhenhua Zou, Mikael Johansson (Royal Institute of Technology, SE)

**Scheduling under SINR model in Ad hoc Networks with Successive Interference Cancellation**

Shaohe Lv (National University of Defense Technology, CN)

**Differential Signaling of Scheduling Information in Wireless Multiple Access Systems**

Reza Moosavi, Jonas Eriksson, Erik G. Larsson (Linköping University, SE)

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**Thursday, 9 December 2010 • 16:00 – 17:10**

**Location: Orchid D**

**WC47: Wireless MAC**

**Chairs: Bashir Yahya, University of Versailles, France**

**Subodha Gunawardena, University of Waterloo, Canada**

**Distributed QoS-aware MAC for Multimedia over Cognitive Radio Networks**

Lin Cai, Liu Yongkang, Sherman Shen, Jon Mark (University of Waterloo, CA)

**Design and Analysis of Defection-Proof MAC Protocols Using a Repeated Game Framework**

Khoa Phan, Jaeok Park, Mihaela van der Schaar (University of California, Los Angeles, USA)

**Parallel Link Rendezvous in Ad Hoc Cognitive Radio Networks**

Majid Altamimi, Kshirasagar Naik, Sherman Shen (University of Waterloo, CA)

**Dynamic Framed-ALOHA for Energy-Constrained Wireless Sensor Networks with Energy Harvesting**

Fabio Iannello, Osvaldo Simeone (New Jersey Institute of Technology, USA)

Umberto Spagnolini (Politecnico di Milano, IT)

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**Thursday, 9 December 2010 • 16:00 – 17:10**

**Location: Riverfront North Hall**

**WC11P: Wireless Systems (Poster)**

**Chair: Maciej J. Zawodniok, Missouri University of Science and Technology, USA**

**On the Distortion Exponent of Partially Closed-Loop Wireless Systems**

Sriram Sridharan (University of Texas Austin, USA)

Ozgur Oyman (Intel Corporation, USA)

**Cross-layer optimization of adaptive multi-rate wireless networks using truncated Chase combining HARQ**

Jaume Ramis, Guillem Femenias, Felip Riera-Palou, Loren Carrasco

(University of the Balearic Islands, ES),

**Inductive Routing based on Dynamic End-to-End Delay**

Abdelhamid Mellouk, Saida Ziane (University Paris-Est Creteil Val de Marne, FR)

**Localization of Wireless Sensor Nodes with erroneous anchors via EM algorithm**

Mei Leng, Yik-Chung Wu (University of Hong Kong, HK)

**Robust Beamforming and Power Control for Multiuser Cognitive Radio**

Fanggang Wang, Wenbo Wang (Beijing University of Posts and Telecommunications, CN)

**Joint Space-Time Transmitter-Receiver Beamforming**

Zhijie Chen, Athanassios Manikas (Imperial College London, UK)

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**Thursday, 9 December 2010 • 16:00 – 17:10**

**Location: Peason II**

**WN11: Routing in Wireless Networks I**

**Chair: Dan He, University of Surrey, United Kingdom**

**Optimal Constrained Candidate Selection for Opportunistic Routing**

Angela Sara Cacciapuoti, Marcello Caleffi, Luigi Paura (Università di Napoli Federico II, IT)

**Energy-Aware Real-Time Opportunistic Routing for Wireless Ad Hoc Networks**

Wei Yang (National University of Defense Technology, CN)

Weifa Liang (Australian National University, AU)

**LOR: Localized Opportunistic Routing in Large-scale Wireless Network**

Yanhua Li (Beijing University of Posts and Telecommunications, CN)

Xurong Sun (University of Minnesota, USA)

Zheng Zhou (Beijing University of Posts and Telecommunications, CN)

**Opportunistic Overlay Multicast in Wireless Networks**

Tan Le, Yong Liu (Polytechnic Institute of NYU, USA)

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**Thursday, 9 December 2010 • 16:00 – 17:10**

**Location: Gautier**

**WN23: Scheduling**

**Chair: Wei Li, Victoria University of Wellington, New Zealand**

**Simple and Effective Scheduling in Wireless Networks under the Physical Interference Model**

Dejun Yang, Xi Fang, Guoliang Xue, Afsheen Irani (Arizona State University, USA)

Satyajayant Misra (New Mexico State University, USA)

**Greedy Maximal Scheduling in Wireless Networks**

Qiao Li, Rohit Negi (Carnegie Mellon University, USA)

**Distributed Scheduling and Routing in Underwater Wireless Networks**

Kurtis Kredo II, Prasant Mohapatra (University of California, Davis, USA)

**An Opportunistic Scheduling Scheme for Cognitive Wireless Networks with Cooperative Beamforming**

Juan Liu, Wei Chen, Zhigang Cao (Tsinghua University, CN)  
Ying Jun (Angela) Zhang (Chinese University of Hong Kong, HK)

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**Thursday, 9 December 2010 • 17:20 – 18:30**

**Location: Tuttle South**

**AHSN12: Security I**

**Chair: Pedro C Pinto, Massachusetts Institute of Technology, USA**

**An Efficient Authenticated Key Establishment Scheme for Wireless Mesh Networks**

Bing He, Saugat Joshi, Dharma Agrawal (University of Cincinnati, USA)

Dongmei Sun (Beijing Jiaotong University, CN)

**Intrusion Detection System for WSN-based Intelligent Transportation Systems**

Mounib Khanafer, Mouhcine Guennoun, Hussein Mouftah (University of Ottawa, CA)

**MCC: Mitigating Colluding Collision Attacks in Wireless Sensor Networks**

Issa M. I. Khalil (United Arab Emirates University, UAE)

**On Identifying Power Control Performing Sybil Nodes in Wireless Sensor Networks Using RSSI**

Satyajayant Misra, Sowmya Myneni (New Mexico State University, USA)

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**Thursday, 9 December 2010 • 17:20 – 18:30**

**Location: Tuttle Center**

**AHSN24: Energy Saving and Power Control Protocols III**

**Chair: R. Venkatesha Prasad, Delft University of Technology, Netherlands**

**Traffic Scheduling For Energy Sustainable Vehicular Infrastructure**

Abdulla Hammad (McMaster University, CA)

Ghada Badawy (Ryerson University, CA)

Terence D. Todd, Amir A Sayegh (McMaster University, CA)

**HYMN to Improve the Longevity of Wireless Sensor Networks**

Ahmed E.A.A. Abdulla, Hiroki Nishiyama (Tohoku University, JP)

Nirwan Ansari (NJIT, USA)

Yoshiaki Nemoto, Nei Kato (Tohoku University, JP)

**Layered Multi-path Power Control in Underwater Sensor Networks**

Junfeng Xu (University of Bradford, UK)

Keqiu Li (Dalian University of Technology, CN)

Geyong Min (University of Bradford, UK)

**Iterative Beamforming and Power Control for MIMO Ad Hoc Networks**

Engin Zeydan, Didem Kivanc-Tureli, Ufuk Tureli (West Virginia University, USA)

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**Thursday, 9 December 2010 • 17:20 – 18:30**

**Location: Jasmine**



**AHSN36: Modelling and Analysis**  
**Chair: Zhi Zhang, Royal Institute of Technology, Sweden**

**On the Throughput of Wireless Sensor Networks**  
Ming-Fei Guo, Xinbing Wang, Min-You Wu (Shanghai JiaoTong University, CN)

**Statistical Analysis for Ad Hoc Hierarchical Networks Built on Network Coding**  
Shih Yu Chang (National Tsing Hua University of Taiwan, Taiwan)  
Hsiao-Chun Wu (Louisiana State University, USA)  
Scott Chih-Hao Huang (City University of Hong Kong, HK)

**Toward Minimum Contention Delay in Body Sensor Networks: a Game Theoretic Perspective**  
Francesco Chiti, Romano Fantacci, Stefano Lappoli (University of Florence, IT)

**A Three-State Node Reliability Model for Sensor Networks**  
Mohamed Shazly, Ehab S. Elmallah (University of Alberta, CA)  
Hosam Aboelfotoh (Kuwait University, KW)

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**Thursday, 9 December 2010 • 17:20 – 18:30**  
**Location: Pearson I**

**CIS15: Physical Layer and Sensor Security**  
**Chair: Shengli Fu, North Texas University, USA**

**Physical Layer Error Correction Based Cipher**  
Oluwayomi Adamo, Shengli Fu, Murali Varanasi (University of North Texas, USA)

**Augmenting Bit-Level Network Security Using Physical Layer RF DNA Fingerprinting**  
Mckay Williams, Michael Temple, Donald Reising (AF Institute of Technology, USA)

**A Threat-aware Routing Algorithm for Maximum Physical-layer Path Survivability**  
Shengli Yuan (University of Houston, USA)  
Balaji Raghavachari (University of Texas, Dallas, USA)  
Lei Chen (Sam Houston State University, USA)

**Time-Based Dynamic Keying and En-route Filtering (TICK) for Wireless Sensor Networks**  
Arif Uluagac, Raheem Beyah, John Copeland (Georgia Institute of Technology, USA)

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**Thursday, 9 December 2010 • 17:20 – 18:30**  
**Location: Orchid AB**

**CQRM12: Reliability**  
**Chair: Noriaki Kamiyama, NTT Service Integration Laboratories, Japan**

**Providing Reliable Data Services in Hybrid WSNs with Transmit-only Nodes**  
Jia Zhao, Raghuram Sudhaakar, Chunming Qiao (State University of New York, Buffalo, USA)

**Survivable Virtual Infrastructure Mapping in a Federated Computing and Networking System under Single Regional Failures**  
Hongfang Yu (University of Electronic Science and Technology of China, CN)

Chunming Qiao (State University of New York at Buffalo, USA)  
Vishal Anand (State University of New York, Brockport, USA)  
Xin Liu (Brookhaven National Laboratory, USA)  
Hao Di, Gang Sun (University of Electronic Science and Technology of China, CN)

**Multicanonical Estimation of Outage Probabilities in MIMO Channels**

Pushpika Wijesinghe, Upul Gunawardana, Ranjith Liyanapathirana (University of Western Sydney, AU)

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**Thursday, 9 December 2010 • 17:20 – 18:30**

**Location: Orchid C**

**CQRM22: Scheduling II**

**Chair: Qingchun Chen, Southwest JiaoTong University, China**

**A Performance Guarantee for Maximal Schedulers in Sensor Networks with Cooperative Relays**

Huijiang Li, Biplab Sikdar (Rensselaer Polytechnic Institute, USA)

**Heuristic-based request scheduling subject to a percentile response time SLA in a distributed cloud**

Keerthana Bloor, Rada Chirkova (North Carolina State University, USA)

Timo Salo (IBM Software Group, USA)

Yannis Viniotis (North Carolina State University, USA)

**Optimal Scheduling for Network Coding: Delay v.s. Efficiency**

Jingyao Zhang, Pingyi Fan (Tsinghua University, CN)

**Delay-Sensitive Retransmission Method based on Network Coding in IEEE 802.11 Wireless LANs**

Yosuke Tanigawa (Osaka Prefecture University, JP)

Jong-Ok Kim (Korea University, KR)

Hideki Tode (Osaka Prefecture University, JP)

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**Thursday, 9 December 2010 • 17:20 – 18:30**

**Location: Riverfront North Hall**

**CQRM4P: Reliability (Poster)**

**Chair: Michael Kallitsis, University of Michigan, USA**

**Enhanced Protection Schemes to Guarantee Consistent Filtering Database in Ethernet Rings**

Kwang Koog Lee (University of Science and Technology, KR)

Chang Kyu Lee, Jeong-dong Ryoo (ETRI, KR)

**Error Recovery Framework Design for the IPTV Networks**

Aytac Azgin (Georgia Institute of Technology, USA)

**Simple Protocol Enhancements of Rapid Spanning Tree Protocol over Ring Topologies**

Mario Marchese, Maurizio Mongelli, Giancarlo Portomauro (University of Genoa, IT)

**How precise should localization be? A quantitative analysis of the impact of delay and mobility on reliability of location information**

Rasmus Olsen, Joao Figueiras, Jakob Rasmussen (Aalborg University, DK)

Hans-Peter Schwefel (Forschungszentrum Telekommunikation Wien, AT)

**Formulation of a New Constraint for Admitting Flows in a Multi-Rate Wireless Ad Hoc Network**

Junmei Qu, Zenghua Zhao (Tianjin University, CN)

Oliver Yang (University of Ottawa, CA)

Lianfang Zhang, Yantai Shu (Tianjin University, CN)

**A Graph-theoretic QoS-aware Vulnerability Assessment for Network Topologies**

Ying Xuan, Yilin Shen, My Thai (University of Florida, USA)

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**Thursday, 9 December 2010 • 17:20 – 18:30**

**Location: Merrick II**

**CSSMA12: Performance Evaluation**

**Chair: Lisa Frye, Kutztown University of Pennsylvania, USA**

**Network-based Model for Video Packet Importance Considering Both Compression Artifacts and Packet Losses**

Yuxia Wang, Ting-Lan Lin, Pamela Cosman (University of California, San Diego, USA)

**Improving Performance of Multimedia Applications in Distributed Collaborative Environment**

Fariza Sabrina (CSIRO, AU)

**Measurements of Messaging Load in a P2P Overlay Network under Churn**

Otso Kassinen, Erkki Harjula, Mika Ylianttila (University of Oulu, FL)

**Distortion Analysis of Wyner-Ziv Distributed Video Coding**

Siyuan Xiang, Lin Cai (University of Victoria, CA)

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**Thursday, 9 December 2010 • 17:20 – 18:30**

**Location: Merrick I**

**CSSMA15: System Prediction and Analysis**

**Chairs: Jala Ben-Othman, Université de Versailles, France**

**Mohammad S. Obaidat, Monmouth University, USA**

**Predicting Critical Intradomain Routing Events**

Geneviève Amélie Medem, Renata Teixeira (Université Pierre et Marie Curie, FR)

Nicolas Usunier (Lip6 Laboratory, FR)

Failure Prediction Based on Multi-Scale Frequent Anomalous Behavior Identification in Support of Autonomic Networks

Ala I Al-Fuqaha (Western Michigan University, USA)

**Feedback-free Early VoIP Quality Adaptation Scheme in Next Generation Networks**

Is-Haka Mkwawa; Emmanuel Jammeh; Lingfen Sun; Emmanuel Ifeachor (University of Plymouth, UK)

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**Thursday, 9 December 2010 • 17:20 – 18:30**

**Location: Hibiscus A**

**CT17: Source Coding**

**Chair: Tolga Duman, Arizona State University, USA**

**Hybrid Digital-Analog Transmission for the Gaussian One-helper Problem**

Iñaki Estella Aguerri (Centre Tecnològic de la Comunicació de Catalunya, ES)  
Deniz Gunduz (Princeton University, USA)

**Adaptive Wyner-Ziv Decoding using Particle-based Belief Propagation**

Shuang Wang, Lijuan Cui, Samuel Cheng (University of Oklahoma, USA)

**New Capacity-Achieving Encoding Schemes for Degraded Binary Broadcast Channels**

Uttam Bhat, Dario Fertonani, Tolga M. Duman (Arizona State University, USA)

**Scalar Quantizers with Uniform Encoders and Channel-Optimized Decoders for M-PSK Schemes**

Dengyu Qiao (Chinese Academy of Sciences, CN)  
Wai Ho Mow (Hong Kong University of Science and Technology, HK)  
Chi-sing Leung (City University of Hong Kong, CN)

**Thursday, 9 December 2010 • 17:20 – 18:30**

**Location: Riverfront North Hall**

**CSSMA4P: Network and Service Management and Provisioning (Poster)**

**Chairs: Mohamed Hamdi, (Carthage University, Tunisia)**

**CellSense: A Probabilistic RSSI-based GSM Positioning System**

Moustafa Youssef Mohamed Ibrahim (Nile University, EG)

**On Tradeoffs between Cross-ISP P2P Traffic and P2P Streaming Performance**

Peng Yang, Lisong Xu (University of Nebraska-Lincoln, USA)

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**Thursday, 9 December 2010 • 17:20 – 18:30**

**Location: Flamingo**

**NGN12: Network Measurement**

**Chair: Eiji Oki, University of Electro-Communications, Japan**

**An Efficient Approach to Per-Flow State Tracking for High-Speed Networks**

Brad Whitehead, Chung-Horng Lung (Carleton University, CA)  
Peter Rabinovitch (RIM, CA)

**Towards Measuring the Deployment Information of Different TCP Congestion Control Algorithms**

Peng Yang, Wen Luo, Lisong Xu (University of Nebraska-Lincoln, USA)

**Leveraging Correlations Between Capacity and Available Bandwidth To Scale Network Monitoring**

Praveen Yalagandula, Sung-Ju Lee, Puneet Sharma, Sujata Banerjee  
(Hewlett-Packard Laboratories, USA)

**Measuring the Effectiveness of Hierarchical Address Assignment**

Yinfang Zhuang, Ken Calvert (University of Kentucky, USA)

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**Thursday, 9 December 2010 • 17:20 – 18:30**

**Location: Tequesta**

**NGN15: Content Delivery**

**Chair: Luigi Atzori, University of Cagliari, Canada**

**Popularity-Aware Caching Algorithm for Video-on-Demand Delivery over Broadband Access Networks**

Chamil Jayasundara (National ICT Australia, AU)

Ampalavanapillai Nirmalathas (University of Melbourne, AU)

Nishaanthan Nadarajah, Elaine Wong (National ICT Australia, AU)

**Storing and Replication in Topic-Based Publish/Subscribe Networks**

Vasilis Sourlas, Paris Flegkas (University of Thessaly, GR)

Georgios S. Paschos (Center for Research and Technology, GR)

Dimitrios Katsaros, Leandros Tassioulas (University of Thessaly, GR)

**Web-IMS Convergence Architecture and Prototype**

Hiroki Baba, Naoki Takaya, Ichiro Inoue, Akira Kurokawa (NTT Service Integration Laboratories, JP)

Linda Chong Chauvot, Michel Le Clec'h, Benoit Fourestié (Orange Labs, FR)

Frederique Forestier Husson (France Telecom, FR)

Nicolas Edel (Orange Labs, FR)

**An Optimal Solution to the Distributed Data Retrieval Problem**

Mohammad Asad Rehman Chaudhry, Zakia Asad, Alex Sprintson (Texas A&M University, USA)

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**Thursday, 9 December 2010 • 17:20 – 18:30**

**Location: Gardenia**

**SAC12: Cognitive Radio: Resource Allocation II**

**Chair: Summit Roy, University of Washington, USA**

**Dynamic Spectrum Access with QoS Provisioning in Cognitive Radio Networks**

Chunyan An, Hong Ji, Pengbo Si (Beijing University of Posts and Telecommunications, CN)

**Resource Allocation with Load Balancing for Cognitive Radio Networks**

Huahui Wang, Jian Ren, Tongtong Li (Michigan State University, USA)

**Distributed Spectrum Access in Cognitive Radio Network Employing Rateless Codes**

Shaolei Chen, Zhaoyang Zhang, Xiaoming Chen, Kedi Wu (Zhejiang University, CN)

**Dynamic Channel Selection in Cognitive Radio Network with Channel Heterogeneity**

Fen Hou, Jianwei Huang (Chinese University of Hong Kong, CN)

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**Thursday, 9 December 2010 • 17:20 – 18:30**

**Location: Hibiscus B**

**SAC15: Signal Processing on Data Storage**

**Chair: Kui Cai, Data Storage Institute, Singapore**

**Performance Evaluation of Iterative Channel Codes for Digital Data Storage on Microfilm**

Florian Pflug, Christoph Voges, Tim Fingscheidt (Technische Universität Braunschweig, DE)

**Symmetric Allocations for Distributed Storage**

Derek Leong (California Institute of Technology, USA)

Alex Dimakis (University of Southern California, USA)

Tracey Ho (California Institute of Technology, USA)

**Performance Evaluation for ML Sequence Detection in ISI Channels with Gauss Markov Noise**

Naveen Kumar, Aditya Ramamoorthy, Murti Salapaka (Iowa State University, USA)

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**Thursday, 9 December 2010 • 17:20 – 18:30**

**Location: Tuttle North**

**SAC17: Access and Home Networks**

**Chair: Andrea Tonello, University of Udine, Italy**

**Autonomous Spectrum Balancing using Multiple Reference Lines for Digital Subscriber Lines**

Christopher Leung, Sean Huberman, Tho Le-Ngoc (McGill University, CA)

**An Algorithm for Improved Stability of DSL Networks using Spectrum Balancing**

Marcio Monteiro, Ana Claudia Gomes (Federal University of Para - UFPA, Brazil)

Neiva da S. F. Lindqvist (Lunds Tekniska Högskola, SE)

Boris Dortschy (Ericsson AB, SE)

Aldebaro Klautau (Universidade Federal do Para, Brazil)

**Novel Sleep Control for EPON Optical Line Terminal employing Layer-2 Switch Functions**

Satoshi Shimazu, Jun-ichi Kani, Naoto Yoshimoto, Hisaya Hadama (NTT, JP)

**Closed Access OFDMA Femtocells under Timing Misalignment**

Poramate Tarasak, Tony Q. S. Quek, Francois Chin (Institute for Infocomm Research, SG)

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**Thursday, 9 December 2010 • 17:20 – 18:30**

**Location: Riverfront North Hall**

**SAC4P: Cognitive Radio Technology II (Poster)**

**Chair: Linda Doyle, Trinity College Dublin, Ireland**

**Hybrid Coherent/Energy Detection for Cognitive Radio Networks**

Farzad Moghimi, Robert Schober (University of British Columbia, CA)

Ranjan Mallik (Indian Institute of Technology-Delhi, IN)

**Stochastic Resonance Noise Enhanced Spectrum Sensing in Cognitive Radio Networks**

Wei Chen, Jun Wang (University of Electronic Science and Technology of China, CN)

Husheng Li (University of Tennessee, USA)

Shaoqian Li (University of Electronic Science and Technology of China, TW)

**Cyclostationarity-Based Detection of LTE OFDM Signals for Cognitive Radio Systems**

Ala'a Al-Habashna, Octavia Dobre, Ramachandran Venkatesan

(Memorial University of Newfoundland, CA)

Dimitrie Popescu (Old Dominion University, USA)

**Distributed Resource Allocation for Cognitive Radio Ad-hoc Networks with Spectrum-Sharing Constraints**

Duy Ngo, Tho Le-Ngoc (McGill University, CA)

**Distributed Heuristics for Allocating Spectrum in CR Ad Hoc Networks**

Vijay Sathyanarayana Rao, R. Venkatesha Prasad, Chetan Yadati, Ignas Niemegeers  
(Delft University of Technology, NL)

**On Random Dynamic Spectrum Access for Cognitive Radio Networks**

Chunsheng Xin (Norfolk State University, USA)  
Min Song (Old Dominion University, USA)  
Liangping Ma (InterDigital Communications, Inc., USA)  
George Hsieh (Norfolk State University, USA)

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**Thursday, 9 December 2010 • 17:20 – 18:30**

**Location: Ibis**

**SPC18: OFDM and Multi-carrier Systems III**

**Chair: Xianbin Wang, University of Western Ontario, Canada**

**Efficient Cyclic Prefix Reconstruction for Shaped OFDM Systems without Cyclic Prefix**

Ahmed Selim, Baris Ozgul, Linda Doyle (Trinity College Dublin, IE)

**Iterative Dual Diagonal LMMSE Channel Estimation in OFDM Systems**

Geng Nian, Xiaojun Yuan, Li Ping (City University of Hong Kong, CN)

**Bayesian Learning for Joint Sparse OFDM Channel Estimation and Data Detection**

Ranjitha Prasad, Chandra R Murthy (Indian Institute of Science, IN)

**Carrier Frequency Offset Estimation for Uplink OFDMA using Partial FFT Demodulation**

Srinivas Yerramalli (University of Southern California, USA)  
Milica Stojanovic (Northeastern University, USA)  
Urbashi Mitra (University of Southern California, USA)

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**Thursday, 9 December 2010 • 17:20 – 18:30**

**Location: Riverfront North Hall**

**SPC4P: Topics in Signal Processing for Communications IV (Poster)**

**Chair: Dilip Sarkar, University of Miami, USA**

**Realizable Forms of Ideal D/C and C/D Conversions for Complex Bandlimited Periodic Signals**

Ming-Xian Chang, Ren-Shian Chen (National Cheng-Kung University, TW)

**A Reliable Adaptive Multitaper Spectral Detector in Wideband Strong Interference Environments**

Jung-Mao Lin, Hsi-Pin Ma (National Tsing Hua University, TW)  
Danijela Cabric (University of California Los Angeles, USA)

**Two-step Low-complexity Space-time Adaptive Processing (STAP)**

Man-On Pun, Zafer Sahinoglu (Mitsubishi Electric Research Laboratories, USA)  
Sagar Shah (Drexel University, USA)  
Yoshihisa Hara (Mitsubishi Electric, JP)

**Analysis of Vector Precoding at High SNR: Rate Bounds and Ergodic Results**

Maitane Barrenechea (Mondragon Unibertsitatea, ES)  
Michael Joham (Technische Universität München, DE)  
Mikel Mendicute (University of Mondragon, ES)  
Wolfgang Utschick (Technische Universität München, DE)

**Multiple-Description Speech Coding using Speech-Polarity Decomposition**  
Stephen D. Voran, Andrew Catellier (Institute for Telecommunication Sciences, USA)

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**Thursday, 9 December 2010 • 17:20 – 18:30**  
**Location: Brickell North**

**WC12: OFDM IV**  
**Chairs: Shengli Zhou, University of Connecticut, USA**  
**Jorge T. Tapanes, Horizon Electronics, USA**

**Amplify-and-Forward Cooperative Diversity for BICM-OFDM Systems**  
Toufique Islam, Robert Schober (University of British Columbia, CA)  
Ranjan Mallik (Indian Institute of Technology-Delhi, IN)  
Vijay Bhargava (University of British Columbia, CA)

**Comparison of Fractional Frequency Reuse Approaches in the OFDMA Cellular Downlink**  
Thomas Novlan, Jeffrey Andrews, Illsoo Sohn, Radha Krishna Ganti (University of Texas, Austin, USA)  
Arunabha Ghosh (AT&T Labs, Inc., USA)

**A Decentralized Subchannel Allocation Scheme with Inter-cell Interference Coordination (ICIC) for Multi-cell OFDMA Systems**  
Ioannis Fraimis, Vasileios Papoutsis (University of Patras, GR)  
Stavros Kotsopoulos (Wireless Telecommunications Laboratory, GR)

**Optimal Joint Water-filling for OFDM Systems with Multiple Cooperative Power Sources**  
Bing Luo, Qimei Cui (Beijing University of Posts and Telecommunications, CN)

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**Thursday, 9 December 2010 • 17:20 – 18:30**  
**Location: Brickell Center**

**WC24: Space-time Coding II**  
**Chair: Feng-Tsun Chien, National Chiao Tung University, Taiwan**

**Multi-Antenna Multicasting with Opportunistic Multicast Scheduling and Space-Time Transmission**  
Tze-Ping Low (University of Southern California, USA)  
Po-Chun Fang, Yao-Win Peter Hong (National Tsing Hua University, TW)  
C.-C. Jay Kuo (University of Southern California, USA)

**Correction of the CFO in OFDM Relay-based Space-Time Codes**  
Farrokh Etezadi (Concordia University, CA)  
Leszek Szczecinski (INRS-EMT, CA)  
Ali Ghayeb (Concordia University, CA)

**Differential Cooperative Communications with Space-Time Network Coding**  
Zhenzhen Gao (University of Maryland, USA)



Hung-Quoc Lai (US Army RDECOM CERDEC, USA)  
K. J. Ray Liu (University of Maryland, USA)

**General Construction Method of Bounded Delay-Tolerant Space Time Block Codes**

Michel Nahas, Ahmed Saadani (Orange Labs, FR)  
Ghaya Rekaya-Ben Othman (TELECOM ParisTech, FR)

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**Thursday, 9 December 2010 • 17:20 – 18:30**  
**Location: Brickell South**

**WC36: Transceiver Design**  
**Chair: Hsiao-Chun Wu, Louisiana State University, USA**

**A New Receiver Design for Single-Carrier Frequency Domain Equalization in Broadband Cooperative Wireless Networks**

Homa Eghbali, Sami Muhaidat (Simon Fraser University, CA)  
Naofal Al-Dhahir (University of Texas, Dallas, USA)

**Reduced Complexity Sphere Decoder for Spatial Modulation Detection Receivers**

Abdelhamid Younis (University of Edinburgh, UK)  
Raed Mesleh (Jacobs University Bremen, DE)  
Harald Haas (University of Edinburgh, UK)  
Peter Grant (Edinburgh School of Engineering and Electronics, UK)

**A New Self-Calibration Method for Transmitter and Receiver Radio Impairments in Direct-Conversion Architecture**

Chen-Jui Hsu (National Chiao Tung University, TW)  
Wern-Ho Sheen (Chaoyang University of Technology, TW)

**New Identification Sequence Analysis for Multiple Transmitters Subject to Arbitrary Topologies**

Xiaoyu Feng, Hsiao-Chun Wu (Louisiana State University, USA)  
Yiyan Wu (Communications Research Centre, CA)

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**Thursday, 9 December 2010 • 17:20 – 18:30**  
**Location: Orchid D**

**WC48: UWB**  
**Chair: Alberto Rabbachin, JRC, Italy**

**Wideband Sequential Spectrum Sensing with Varying Thresholds**

Kasra Haghighi, Arne Svensson, Erik Agrell (Chalmers University of Technology, SE)

**Bi-directional Cooperative Relays for Transmitted Reference Pulse Cluster UWB Networks**

Xue Dong, Xiaodai Dong (University of Victoria, CA)

**An Analytical Framework for Assessing Coding Performance in Multi-User IR-UWB Systems**

Hua Shao, Norman Beaulieu (University of Alberta, CA)

**Energy Detection of Wideband and Ultra Wideband PPM**

Shahzad Gishkori, Geert Leus (Delft University of Technology, NL)  
Hakan Delic (Bogazici University, TK)

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**Thursday, 9 December 2010 • 17:20 – 18:30**  
**Location: Peason II**

**WN12: Routing in Wireless Networks II**  
**Chair: Marcello Caleffi, University of Naples "Federico II", Italy**

**Optimal Outage Efficient Routing in Amplify-and-Forward Multi-Hop Wireless Networks**  
Ramin Babaei, Norman C. Beaulieu (University of Alberta, CA)

**Interference-Aware Multipath Routing and Link Rate Control in Multihop Wireless Networks**  
Maggie Cheng, Xuan Gong (Missouri University of Science and Technology, USA)

**Gateway Selection in Multi-hop Wireless Networks using Route and Link Optimization**  
Hans Livingstone, Hidehisa Nakayama, Takeshi Matsuda (Tohoku University, JP)  
Sherman Shen (University of Waterloo, CA)  
Nei Kato (Tohoku University, JP)

**A novel routing algorithm for mobile pervasive computing**  
Romano Fantacci, Daniele Tarchi, Andrea Tassi (University of Florence, IT)

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**Thursday, 9 December 2010 • 17:20 – 18:30**  
**Location: Gautier**

**WN24: Wireless Multimedia Services**  
**Chair: Qiang Wang, Lehigh University, USA**

**Effect of Varying the Intra-frame Packet Burstiness on the Performance of Wireless Video Streaming**  
Guilherme D. G. Jaime, Rosa Maria Meri Leão, Edmundo de Souza e Silva  
(Federal University of Rio de Janeiro, Brazil)  
José Roberto B. de Marca (PUC/Rio, Brazil)

**Video Streaming with PCA and Hard vs Soft DRP**  
Rukhsana Ruby, Jianping Pan (University of Victoria, CA)

**Power-Aware Scalable Video Multicast in 4G Wireless Systems**  
Ya-Ju Yu (National Taiwan University, TW)  
Pi-Cheng Hsiu (Academia Sinica, TW)  
Ai-Chun Pang, Chi-Ping Lai (National Taiwan University, TW)

**Age Invariant Regime for Multi-Source Content Update in Mobile Opportunistic Networks**  
Sungon Kim, Do Young Eun (North Carolina State University, USA)