IEEE GLOBECOM 2009 Symposiums Program

Thursday, 3 December 2009 10:15 - 12:15 Location: Honolulu Suite #1 AHSN-18: Deployment Strategies Chair: Jian Tang (Montana State University, USA), Bala Natarajan (Kansas State University, USA)

Strong Barrier Coverage with Directional Sensors Li Zhang, Jian Tang (Montana State University, USA) Weiyi Zhang (North Dakota State University, USA)

Fundamental Results on Target Coverage Problem in Wireless Sensor Networks

Yu Gu (University of Science and Technology of China, China) Yusheng Ji (National Institute of Informatics, Japan) Jie Li (University of Tsukuba, Japan) Baohua Zhao (State Key Laboratory of Networking and Switching Technology, China)

Sensor Deployment for Collaborative Target Detection in the Presence of Obstacles Tai-Lin Chin (National Taiwan University of Science and Technology, Taiwan)

Iterative Node Deployment in an Unknown Environment Assane Gueye, Sinem Coleri Ergen, Alberto Sangiovanni-Vincentelli (University of California, Berkeley, USA)

Optimal Sensor Deployment for Value-Fusion Based Detection Ahmad Ababnah, Balasubramaniam Natarajan (Kansas State University, USA)

A Lightweight Iterative Positioning Algorithm for Context-Aware Wireless Sensor Networks: Proof of Correctness

Anahit Martirosyan, Azzedine Boukerche (University of Ottawa, Canada)

Thursday, 3 December 2009 10:15 - 12:15 Location: Honolulu Suite #2 AHSN-19: Localization I Chair: Richard Martin (Rutgers University, USA)

A Novel Non-iterative Localization Solution

Junlin Yan, Christian C. J. Tiberius, Giovanni Bellusci, Gerard J. M. Janssen (Delft University of Technology, The Netherlands)

Lightweight Object Localization with a Single Camera in Wireless Multimedia Sensor Networks Hakan Oztarak (Middle East Technical University, Turkey) Kemal Akkaya (Southern Illinois University Carbondale, USA) Adnan Yazici (Middle East Technical University, Turkey)

Bias-Correction In Localization Algorithms Yiming Ji, Changbin Yu, Brian D. O. Anderson (Australian National University, Australia)

Sequential Greedy Localization in Wireless Sensor Networks With Inaccurate Anchor Positions Qingjiang Shi, Chen He (Shanghai Jiao Tong University, China) Hongyang Chen (University of Tokyo, Japan) Lingge Jiang, Wei Wang (Shanghai Jiao Tong University, China) *Restarting Particle Filters: an Approach to Improve the Performance of Dynamic Indoor Localization* Begumhan Turgut, Richard Martin (Rutgers University, USA)

Understanding and Solving Flip-Ambiguity in Network Localization via Semidefinite Programming

Stefano Severi (University of Bologna, Italy) Giuseppe Abreu, Giuseppe Destino (University of Oulu, Finland) Davide Dardari (University of Bologna, Italy)

Thursday, 3 December 2009 10:15 - 12:15 Location: Iolani Suite 5-6 CISS-07: Wireless Network Security Chair: Mieso Denko (University of Guelph, Canada)

Implementation and Benchmarking of Hardware Accelerators for Ciphering in LTE Terminals

Sebastian Hessel, David Szczesny, Nils Lohmann, Attila Bilgic (Ruhr-Universität Bochum, Germany) Josef Hausner (Infineon Technologies, Germany)

Modeling Worm Propagation through Hidden Wireless Connections

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

Lightweight Jammer Localization in Wireless Networks: System Design and Implementation Konstantinos Pelechrinis (University of California, Riverside, USA) Iordanis Koutsopoulos (University of Thessaly, Greece) Ioannis Broustis, Srikanth V. Krishnamurthy (University of California, Riverside, USA)

The Directional Attack on Wireless Localization – or – How to Spoof Your Location with a Tin Can Kevin Bauer, Damon McCoy, Eric Anderson, Markus Breitenbach, Greg Grudic, Dirk Grunwald, Douglas Sicker (University of Colorado, USA)

Building Femtocell More Secure with Improved Proxy Signature Chan-Kyu Han, Hyoung-Kee Choi, In-Hwan Kim (Sungkyunkwan University, Korea)

A Trust Management Scheme for Enhancing Security in Pervasive Wireless Networks

Mieso Denko, Tao Sun (University of Guelph, Canada) Isaac Woungang (Ryerson University, Canada) Joel J. C. P. Rodrigues (University of Beira Interior, Portugal) Han-Chieh Chao (National I-Lan University, Taiwan)

Thursday, 3 December 2009 10:15 - 12:15 Location: Kahili 1 CQPRM-09: Quality in Multimedia Networks Chair: Harry Skianis (University of the Aegean, Greece)

On Characterizing PPStream: Measurement and Analysis of P2P IPTV under Large-Scale Broadcasting Wei Liang, Jingping Bi, Rong Wu, Zhenyu Li (Chinese Academy of Sciences, China) Chen Li (Beijing University of Post and Telecommunications, China)

A Fast Reroute Scheme for IP Multicast

Adrian Tam, Kang Xi, H. Jonathan Chao (Polytechnic Institute of New York University, USA)

Evaluating Quality of Experience for Streaming Video in Real-Time Mukundan Venkataraman, Mainak Chatterjee (University of Central Florida, USA) Siddhartha Chattopadhyay (Google Inc, USA)

Evaluating Peer Churn Effects on P2P-based Video-on-Demand Services

Giovanni Branca (University of Cagliari, Italy) Thomas Schierl (Heinrich-Hertz-Institute, Germany) Luigi Atzori (University of Cagliari, Italy)

Priority Based Dynamic Rate Control for VoIP Traffic

Fariza Sabrina (Commonwealth Scientific and Industrial Research Organization, Australia) Jean-Marc Valin (Octasic Inc., Canada)

Maximizing QoE of Interactive Services with Audio-Video Transmission over Bandwidth Guaranteed IP Networks

Shuji Tasaka, Norihito Misaki (Nagoya Institute of Technology, Japan)

Thursday, 3 December 2009 10:15 - 12:15 **Location: Coral Ballroom Lounge COPRM-12:** Topics in Communications OoS, Reliability and Performance Modeling I (Poster)

Chair: Hajime Nakamura (KDDI R&D Laboratories Inc., Japan)

A Logic Distance-based Method for Deploying Probing Sources in the Topology Discovery Xin Zou, Qiao Zhong Liang, Gang Zhou, Ke Xu (Beihang University, China)

Hybrid Traffic Classification Approach Based on Decision Tree Wei Lu, Mahbod Tavallaee, Ali A. Ghorbani (University of New Brunswick, Canada)

On the Role of Flows and Sessions in Internet Traffic Modeling: An Explorative Toy-Model Fabio Ricciato, Angelo Coluccia (University of Salento, Italy) Alessandro D'Alconzo (Forschungszentrum Telekommunikation Wien, Austria)

Darryl Veitch (ARC Special Research Centre for Ultra-Broadband Information Networks, Australia) Pierre Borgnat, Patrice Abry (University of Lyon, France)

An Efficient and Loss Tolerant Method for Measuring Available Bandwidth

Victor Vfajardo, Yuu-Heng Cheng (Telcordia Technologies, USA) Gautam Parmar (Toshiba, USA) Yoshihiro Ohba (Toshiba, Japan)

Performance Modelling and Analysis of Interconnection Networks with Spatio-Temporal Bursty Traffic Geyong Min, Yulei Wu (University of Bradford, UK) Mohamed Ould-Khaoua (University of Glasgow, UK) Hao Yin (Tsinghua University, China) Keqiu Li (Dalian University of Technology, China)

Performance Analysis of Shortest Path Bridging Control Protocols Janos Farkas, Zoltan Arato (Ericsson, Hungary)

Thursday, 3 December 2009 10:15 - 12:15 Location: Sea Pearl Suite 3-4 **CTS-08: Low Density Parity Check Codes** Chair: Adriaan J. van Wijngaarden (Bell Laboratories, USA)

Growth Rate of the Weight Distribution of Doubly-Generalized LDPC Codes: General Case and Efficient

Evaluation

Mark Flanagan (University College Dublin, Ireland) Enrico Paolini, Marco Chiani (University of Bologna, Italy) Marc Fossorier (ETIS ENSEA, France)

Ensemble Pseudocodeword Weight Enumerators for Protograph-Based Generalized LDPC Codes

Shadi Abu-Surra (University of Arizona, USA) Dariush Divsalar (Jet Propulsion Laboratory, USA) William E. Ryan (University of Arizona, USA)

Sparse Decoding of Low Density Parity Check Codes Using Margin Propagation Ming Gu, Kiran Misra, Hayder Radha, Shantanu Chakrabartty (Michigan State University, USA)

Pivoting Algorithms for Maximum Likelihood Decoding of LDPC Codes over Erasure Channels Gianluigi Liva, Balazs Matuz (German Aerospace Centre, Germany) Enrico Paolini, Marco Chiani (University of Bologna, Italy)

Undetected Errors in Quasi-cyclic LDPC Codes Caused by Receiver Symbol Slips

Alexander Kaiser (University of California Berkeley, USA) Sam Dolinar, Michael K. Cheng (Jet Propulsion Laboratory, USA)

A Relaxed Half-Stochastic Iterative Decoder for LDPC Codes François Leduc-Primeau, Saied Hemati, Warren J. Gross, Shie Mannor (McGill University, Canada)

Thursday, 3 December 2009

10:15 - 12:15 Location: Sea Pearl Suite 5-6 CTS-09: Interference and Relay Networks Chair: Rui Zhang (Institute of Infocomm Research, Singapore)

Capacity Outer Bounds for the Cognitive Z Channel

Yi Cao, Biao Chen (Syracuse University, USA)

Coverage in Tiered Cellular Networks with Spatial Diversity

Vikram Chandrasekhar (Texas Instruments, USA) Marios Kountouris (SUPELEC, France) Jeffrey G. Andrews (The University of Texas at Austin, USA)

Delay-Throughput Tradeoff for Supportive Two-Tier Networks: A Static Primary Tier vs. a Mobile Secondary Tier

Long Gao (Texas A&M University, USA) Rui Zhang (Institute of Infocomm Research, Singapore) Shuguang Cui (Texas A&M University, USA)

Optimal Scheduling in Interference Limited Fading Wireless Networks

Sastry Kompella (Naval Research Laboratory, USA) Hanif Sherali (Virginia Polytechnic Institute and State University, USA) Anthony Ephremides (University of Maryland at College Park, USA)

Coding Strategies for Bidirectional Relaying for Arbitrarily Varying Channels Rafael F. Wyrembelski, Igor Bjelaković, Holger Boche (Technical University of Berlin, Germany)

Diversity and Multiplexing of Opportunistic Shared Relay Channel and the X-Relay Channel Mohamed Abouelseoud, Aria Nosratinia (University of Texas at Dallas, USA)

Thursday, 3 December 2009 10:15 - 12:15 Location: Lehua Suite NGNI-07: Routing & Switching - IV Chair: Gregorz Danilewicz (Poznan University of Technology, Poland)

Scalable Support of Interdomain Routes in a Single AS Cristel Pelsser, Akeo Masuda, Kohei Shiomoto (NTT, Japan)

Scalable Multi-Region Routing at Inter-Domain Level

Pedro Amaral, Francisco Ganhão, Claudio Assunção, Luis Bernardo, Paulo Pinto (Universidade Nova de Lisboa, Portugal)

From Trees to DAGs: Improving the Performance of Bridged Ethernet Networks Chen Avin, Ran Giladi, Nissan Lev-tov, Zvi Lotker (Ben Gurion University, Israel)

OSPF-based Fast Reroute for BGP Link Failures

Masafumi Watari, Yuichiro Hei, Shigehiro Ano (KDDI R&D Laboratories, Japan) Katsuyuki Yamazaki (Nagaoka University of Technology, Japan)

Fast Network Failure Recovery Using Multiple BGP Routing Planes

Ning Wang, Yu Guo, Kin-Hon Ho, Michael Howarth (University of Surrey, UK) George Pavlou (University College London, UK)

On the Eyeshots of BGP Vantage Points

Kai Chen (Northwestern University, USA) Chengchen Hu (Tsinghua University, China) Yan Chen (Northwestern University, USA) Bin Liu (Tsinghua University, China)

Thursday, 3 December 2009

10:15 - 12:15 Location: Iolani Suite 1-2 ONS-07: Traffic Grooming and Network Design Chair: Xiaojun Cao (Georgia State University, USA)

Distributed Grooming in Multi-Domain IP/MPLS-DWDM Networks

Qing Liu (Oak Ridge National Laboratory, USA) Tannous Frangieh (Virginia Polytechnic Institute and State University, USA) Feng Xu, Chongyang Xie, Nasir Ghani (University of New Mexico, USA) Ashwin Gumaste (Indian Institute of Technology Bombay, India) Tom Lehman (University of Southern California, USA) Chin Guok (ESnet, USA) Scott Klasky (Oak Ridge National Laboratory, USA)

Design and Provisioning of WDM Networks for Many-to-Many Traffic Grooming Mohammad A. Saleh, Ahmed E. Kamal (Iowa State University, USA)

REPARE: Regenerator Placement and Routing Establishment in Translucent Networks Weiyi Zhang (North Dakota State University, USA) Jian Tang (Montana State University, USA) Kendall Nygard (North Dakota State University, USA) Chonggang Wang (NEC Laboratories America, USA)

Non-uniform Waveband Switching in Multi-granular Optical Networks

Yang Wang, Xiaojun Cao (Georgia State University, USA)

On the Efficiency of a Game Theoretic Approach to Sparse Regenerator Placement in WDM Networks Diego Lucerna, Nicola Gatti, Guido Maier, Achille Pattavina (Politecnico di Milano, Italy)

Power Efficient Traffic Grooming in Optical WDM Networks Emre Yetginer (Bilkent University, Turkey) George N. Rouskas (North Carolina State University, USA)

Thursday, 3 December 2009 10:15 - 12:15 Location: Sea Pearl Suite 1-2 SAC(CRN)-07: Cooperation in Cognitive Radio Networks-1 Chair: Saeed Ghassemzadeh (AT&T Labs - Research, USA)

Cooperative Spectrum Sensing Using Free Probability Theory Lei Wang, Baoyu Zheng, Jing Wu Cui, Sulan Tang (Nanjing University of Posts and Telecomm, China) Haie Dou (Southeast University, China)

Efficient Cooperative Spectrum Sensing in Cognitive Radio Dan Wang, Ahmed Tewfik (University of Minnesota, USA)

Collaborative Quickest Spectrum Sensing Via Random Broadcast in Cognitive Radio Systems Husheng Li (University of Tennessee, USA) Huaiyu Dai, Chengzhi Li (North Carolina State University, USA)

Information Sharing in Spectrum Auction for Dynamic Spectrum Access Hui Yu, Lin Gao, Yun Li, Xiaoying Gan, Xinbing Wang, Youyun Xu, Wen Chen (Shanghai Jiaotong University, China) Athanasios Vasilakos (University of Western Macedonia, Greece)

Spectrum Self-coexistence in Cognitive Wireless Access Networks

Tao Chen (VTT, Finland) Honggang Zhang (Zhejiang University, China) Marko Höyhtyä, Marcos D. Katz (VTT, Finland)

Measurement based Capacity Scavenging via Whitespace Modeling in Wireless Networks Anthony Plummer, Jr., Mahmoud Taghizadeh, Subir Misway (Michigan State University, USA)

Thursday, 3 December 2009 10:15 - 12:15 Location: Honolulu Suite #3 SAC(ET)-02: Power-Line Communications and Technologies for Access Networks Chair: Lutz Lampe (University of British Columbia, Canada)

A Unified Structure for Multi-Carrier Modulations in Power-Line Communications Hao Lin, Pierre Siohan (France Telecom, France)

An Adaptive Procedure for Impulsive Noise Mitigation over Power Line Channels Gaetan Ndo, Pierre Siohan, Marie-Helene Hamon (France Telecom, France)

Inter-packet Channel Estimation in OFDM Systems Gabriele Dell'Amico, Eleonora Guerrini, Raffaele Riva (STMicroelectronics S.r.l., Italy) *Joint Channel and Echo Impulse Response Shortening for High-Speed Data Transmission* Ali Enteshari, Jarir M. Fadlullah, Mohsen Kavehrad (Pennsylvania State University, University Park, USA)

A Novel Time Domain Synchronous Orthogonal Frequency Division Multiple Access Scheme Linglong Dai, Jian Fu, Jun Wang, Jian Song, Zhixing Yang (Tsinghua University, China)

Advanced Wireless IP Access System (WIPAS) for Higher Speed and Real-Time Communication Services Kiyohiko Itokawa, Toru Nishikawa, Akira Matsushita, Mitsuru Nishino, Yasunari Takahata, Yoshihiko Shindo (NTT, Japan)

Thursday, 3 December 2009 10:15 - 12:15 Location: Iolani Suite 3-4 SPC-07: Signal Detection and Synchronization 1 Chair: Zhiqiang Wu (Wright State University, USA) Hung Nguyen (The Aerospace Corporation, USA)

Signal Estimation in Clutter Using SVM-based Chaos Synchronization Di He (Shanghai Jiao Tong University, China)

Low-Complexity Near-Optimal Presence Detector for Linearly Modulated Signals Jeong Ho Yeo, Joon Ho Cho (Pohang University of Science and Technology, Korea)

On-line Hybrid Cramér-Rao Bound for Oversampled Dynamical Phase and Frequency Offset Estimation Jordi Vilà Valls, Jean-Marc Brossier, Laurent Ros (Grenoble Institute of Technology, France)

Near-ML Detection over a Reduced Dimension Hypersphere Jun Won Choi (University of Illinois at Urbana-Champaign, USA) Byonghyo Shim (Korea University, Korea) Andrew Singer (University of Illinois at Urbana-Champaign, USA)

IDMA vs. CDMA: Detectors, Performance and Complexity Katsutoshi Kusume, Gerhard Bauch (DOCOMO Euro-Labs, Germany) Wolfgang Utschick (Technische Universität München, Germany)

Jamming Mitigation Techniques based on Message-Driven Frequency Hopping Lei Zhang, Jian Ren, Tongtong Li (Michigan State University, USA)

Thursday, 3 December 2009 10:15 - 12:15 Location: Coral Ballroom Lounge SPC-14: Signal Processing for Communications 2 (Poster) Chair: Tomoaki Ohtsuki (Keio University, Japan), Hung Nguyen (The Aerospace Corporation, USA)

Soft-decode-and-forward for Asynchronous Wireless Network with Doubly-Selective Fading Jingxian Wu (University of Arkansas, USA)

Distributed Null-Steering Beamforming for Wireless Sensor Networks Keyvan Zarifi, Sofiene Affes (University of Quebec, Canada) Ali Ghrayeb (Concordia University, Canada)

Joint Power Allocation and Relay Selection in Cooperative Networks Khoa T. Phan (University of California at Los Angeles, USA) Duy H. Nguyen, Tho Le-Ngoc (McGill University, Canada) *Optimized Spreading Code Reallocation Technique for PAPR Reduction in MC-CDMA systems* Lin Yang, Mingli You, Jun Li (Alcatel Lucent Shanghai Bell, China)

Optimized Architecture for Computing Zadoff-Chu Sequences with Application to LTE Mohammad M. Mansour (American University of Beirut, Lebanon)

SSCT: A Simple Sequential Spectrum Sensing Scheme for Cognitive Radio Yan Xin, Honghai Zhang, Sampath Rangarajan (NEC Labs America, USA)

Thursday, 3 December 2009 10:15 - 12:15 Location: S. Pacific Ballroom #1 WCS-25: Cooperative Communication: Distributed Modulation and Coding Chair: Sami Muhaidat (Simon Fraser University, Canada)

Cooperative Transmission with Continuous Phase Frequency Shift Keying and Phase-Forward Relays Qi Yang, Paul Ho (Simon Fraser University, Canada)

Energy-Efficient Space-Time Coded Cooperative Routing in Multihop Wireless Networks Behrouz Maham (University of Oslo, Norway) Ravi Narasimhan (Quantenna Communications, USA) Are Hjørungnes (University of Oslo, Norway)

Design of Signal Constellation Rearrangement (CoRe) for Multiple Relay Links Jinwoo Kim (Korea University, South Korea) Hee S. Lee, Jae Y. Ahn (ETRI, South Korea) Chung G. Kang (Korea University, South Korea)

Design of Distributed Space-Time Block Code for Two-Relay System over Frequency Selective Fading Channels Quoc-Tuan Vien, Le-Nam Tran, Een-Kee Hong (Kyung Hee University, Korea)

Iteratively Suboptimum Decoder Design for Distributed Space-Time Coding Based on Distributed Interleavers Yier Yan, Xueqin Jiang, Moon Ho Lee (Chonbuk University, Korea)

Successive Relaying Aided Near-Capacity Irregular Distributed Space-Time Coding Lingkun Kong, Soon Xin Ng, Robert G. Maunder, Lajos Hanzo (University of Southampton, UK)

Thursday, 3 December 2009 10:15 - 12:15 Location: S. Pacific Ballroom #2 WCS-26: Cognitive Radio Chair: Chonggang Wang (NEC Laboratories America, USA)

Bandpass Sampling Digital Frontend Architecture for Multi-band Access Cognitive Radio Jae Hyung Kim, Hongmei Wang (Changwon National University, Korea) Hyung-Jung Kim, Jin-Up Kim (Electronics and Telecommunications Research Institute, Korea)

Cooperative Spectrum Sensing over Correlated Log-Normal Sensing and Reporting Channels Marco Di Renzo (University of Edinburgh, UK) Laura Imbriglio, Fabio Graziosi, Fortunato Santucci (University of l'Aquila, Italy) *Cooperative Spectrum Sensing with Dynamic Threshold Adaptation* Dae-Young Seol, Hyoung-Jin Lim, Gi-Hong Im (Pohang University of Science and Technology, Korea)

Quality-of-Service in Cognitive Radio Networks with Collaborative Sensing Caoxie Zhang, Xinbing Wang, Xinping Guan (Shanghai Jiao Tong University, China) Hsiao-Hwa Chen (National Cheng Kung University, Taiwan)

Relay Based Cooperative Spectrum Sensing in Cognitive Radio Networks Saman Atapattu, Chintha Tellambura, Hai Jiang (University of Alberta, Canada)

A Distributed Beamforming Approach for Enhanced Opportunistic Spectrum Access in Cognitive Radios Juan Liu, Wei Chen, Zhigang Cao (Tsinghua University, China) Ying Jun (Angela) Zhang (The Chinese University of Hong Kong, Hong Kong)

Thursday, 3 December 2009 10:15 - 12:15 Location: S. Pacific Ballroom #3 WCS-27: MIMO-OFDM Chair: Guosen Yue (NEC Laboratories America, Inc., USA)

Multilayer Space-Time-Frequency Coding Scheme for MIMO-OFDM

Guosen Yue (NEC Laboratories America, Inc., USA) Li Zhang (University of California at Davis, USA) Xiaodong Wang (Columbia University, USA)

A Virtual Layered Space-Frequency Communication Architecture with Iterative Decoding Jun Imamura, Satoshi Denno, Daisuke Umehara, Masahiro Morikura (Kyoto University, Japan)

Low-Complexity Algorithm for Log Likelihood Ratios in Coded MIMO-OFDM Communications Liming Zheng, Jooin Woo, Kazuhiko Fukawa, Hiroshi Suzuki (Tokyo Institute of Technology, Japan)

Bit-Interleaved Coded Transmission with Multilevel Modulation for MIMO-OFDM Systems Chan-Ho Choi, Gi-Hong Im (Pohang University of Science and Technology, Korea)

Iterative Receiver Design with Joint Channel Estimation and Synchronization for Coded MIMO-OFDM over Doubly Selective Channels Hung Nguyen-Le, Tho Le-Ngoc, Nghi H. Tran (McGill University, Canada)

Slepian-Based Serial Estimation of Time-Frequency Variant Channels for MIMO-OFDM Systems Pierluigi Salvo Rossi (Second University of Naples, Italy) Ralf Müller (Norwegian University of Science and Technology, Norway) Ove Edfors (Lund University, Sweden)

Thursday, 3 December 2009 10:15 - 12:15 Location: Kahili 2 WCS-28: Power Control Chair: Norman C. Beaulieu (University of Alberta, Canada)

Dynamic Power Allocation over Block-Fading Channels with Delay Constraint Ali Sharifkhani, Norman C. Beaulieu (University of Alberta, Canada)

Three-Degree of Freedom Adaptive Power Control for CDMA Cellular Systems J. C. Agüero, G. C. Goodwin, K. Lau, M. Wang (University of Newcastle, Australia) E. I. Silva (Universidad Tecnica Federico Santa Maria, Chile) T. Wigren (Ericsson AB, Sweden)

Tradeoff Power Control for Cellular Systems

Changho Suh (University of California at Berkeley, USA) Ali Koc, Shilpa Talwar (Intel, USA)

Distributed Power Control in Femtocell-Underlay Cellular Networks

Vikram Chandrasekhar (Texas Instruments, USA) Jeffrey G. Andrews (The University of Texas at Austin, USA) Zukang Shen (Datang Mobile Telecommunications Equipment Co. Ltd., USA) Tarik Muharemovic, Alan Gatherer (Texas Instruments, USA)

Conjectural Equilibrium in Water-filling Games Yi Su, Mihaela van der Schaar (University of California, Los Angeles, USA)

Analysis and Efficient Computation of Instantaneous Power Distribution of Single-Carrier Signals Makoto Tanahashi, Hideki Ochiai (Yokohama National University, Japan)

Thursday, 3 December 2009 10:15 - 12:15 Location: Coral Ballroom #1 WNS-13: Vehicular Ad Hoc Networks Chair: Soumaya Cherkaoui (University of Sherbrooke, Canada)

Detection of Radio Interference Attacks in VANET

Ali Hamieh, Jalel Ben-othman, (University of Versailles, France) Lynda Mokdad (University of Paris 12, France)

Competitive Wireless Access for Data Streaming Over Vehicle-to-Roadside Communications Dusit Niyato (Nanyang Technological University, Singapore) Ekram Hossain (University of Manitoba, Canada) Ping Wang (Nanyang Technological University, Singapore)

On a Stochastic Delay Bound for Disrupted Vehicle-to-Infrastructure Communication with Random Traffic Atef Abdrabou, Weihua Zhuang (University of Waterloo, Canada)

A New Hierarchical and Adaptive Protocol for Minimum-Delay V2V Communication Mohammed Elbes, Ala Al-Fuqaha, Mohsen Guizani (Western Michigan University, USA) Ammar Rayes (Cisco Systems, USA) Jun Oh (Western Michigan University, USA)

A Mobicast Routing Protocol in Vehicular Ad-Hoc Networks Yuh-Shyan Chen (National Taipei University, Taiwan) Yun-Wei Lin, SingLing Lee (National Chung Cheng University, Taiwan)

Provisioning of On-demand Services in Vehicular Networks Etienne Coronado, Soumaya Cherkaoui (University of Sherbrooke, Canada)

Thursday, 3 December 2009 10:15 - 12:15 Location: Coral Ballroom #2 WNS-14: Cognitive Networking Chair: Lijun Qian (PrairieView A&M University, USA)

Coexistence Problem in IEEE 802.22 Wireless Regional Area Networks Raed Al-Zubi, Mohammad Siam, Marwan Krunz (University of Arizona, USA)

On Study of Achievable Capacity with Hybrid Relay in Cognitive Radio Networks Lei Sun, Wenye Wang (North Carolina State University, USA)

A Rateless Coding based Multi-Relay Cooperative Transmission Scheme for Cognitive Radio Networks Xijun Wang, Wei Chen, Zhigang Cao (Tsinghua University, China)

Design and Analysis of A Sensing Error-Aware MAC Protocol for Cognitive Radio Networks Donglin Hu, Shiwen Mao (Auburn University, USA)

A Novel Cognitive Networking Scenario for IEEE 802.16 Networks Romano Fantacci, Daniele Tarchi (University of Florence, Italy)

Network Selection in Cognitive Radio Systems Chonggang Wang (NEC Laboratories America, USA) Kazem Sohraby (University of Arkansas, USA) Rittwik Jana, Lusheng Ji, Mahmoud Daneshmand (AT&T Labs Research, USA)

Thursday, 3 December 2009 10:15 - 12:15 Location: Coral Ballroom Lounge WNS-21: Topics in Wireless Networking I (Poster) Chair: Thierry Gayraud (LAAS-CNRS, Université de Toulouse, France)

Bandwidth Adaptation for Vertical QoS Mapping in Protocol Stacks for Wireless Links Franco Davoli, Mario Marchese, Maurizio Mongelli (University of Genoa, Italy)

Stochastic Rate Control for Scalable VBR Video Streaming over Wireless Networks Guang Ji, Ben Liang (University of Toronto, Canada)

Rethinking Thresholds-based Rate Adaptation Algorithms: A Reverse Engineering Perspective

Yang Song (University of Florida, USA) Xiaoyan Zhu (Xidian University, China) Yuguang Fang (University of Florida, USA) Hailin Zhang (Xidian University, China)

An Efficient Hybrid Adaptive Location-aided Gateway Advertisement and Discovery Protocol for Heterogeneous Wireless and Mobile Networks

Azzedine Boukerche, Kaouther Abrougui, Richard W. Pazzi (University of Ottawa, Canada)

Relative-Closest Connect-First Method For Topology Control in Wireless Mesh Networks Jun Zhang, Baobing Wang, Xiaohua Jia (City University of Hong Kong, Hong Kong)

Bayesian-Based Game Theoretic Model to Guarantee Cooperativeness in Hybrid RF/FSO Mesh Networks Osama Awwad, Ala Al-Fuqaha (Western Michigan University, USA) Bilal Khan (City University of New York, USA) Diss Benhaddou (University of Houston, USA) Mohsen Guizani (Western Michigan University, USA) Ammar Rayes (Cisco Systems, USA)

Thursday, 3 December 2009

14:00 - 16:00 Location: Honolulu Suite #1 AHSN-20: Localization II

Chair: Michael Buehrer (Virginia Polytechnic Institute and State University, USA)

Effect of Pivot Nodes Selection Schemes on Self-Localization Performance in a Mobile Sensor Network Shinsuke Hara, Tatsuya Ishimoto (Osaka City University, Japan)

Error Propagation in Sensor Network Localization with Regular Topologies Baoqi Huang, Changbin Yu, Brian D. O. Anderson (Australian National University, Australia)

An Optimization Approach to Single-Source Localization using Direction and Range Estimates Jesse D. Reed, R. Michael Buehrer, Claudio R. C. M. Da Silva (Virginia Polytechnic Institute and State University, USA)

Design and Evaluation of a New Localization Scheme for Underwater Acoustic Sensor Networks Tao Bian, R. Venkatesan, Cheng Li (Memorial University, Canada)

A Graph Embedding Method for Wireless Sensor Networks Localization Chengqun Wang, Jiming Chen, Youxian Sun (Zhejiang University, China) Xeumin (Sherman) Shen (University of Waterloo, Canada)

Robust Maximum Likelihood Acoustic Source Localization in Wireless Sensor Networks Yong Liu (Northwestern Polytechnical University/University of Wisconsin in China) Yuhen Hu (University of Wisconsin-Madison, USA) Quan Pan (Northwestern Polytechnical University, China)

Thursday, 3 December 2009 14:00 - 16:00 Location: Honolulu #2 AHSN-21: Security I Chair: Mohamed Younis (University of Maryland Baltimore County, USA)

Secure Unified Cellular Ad Hoc Network Routing Jason J. Haas, Yih-Chun Hu (University of Illinois at Urbana-Champaign, USA)

Channel-Aware Detection of Gray Hole Attacks in Wireless Mesh Networks Devu Manikantan Shila, Yu Cheng, Tricha Anjali (Illinois Institute of Technology, USA)

Secure Framework for Voice Transmission over Multipath Wireless Ad-hoc Network Binod Vaidya (Institute of Telecommunications, Portugal) Mieso K. Denko (University of Guelph, Canada) Joel J. C. P. Rodrigues (University of Beira Interior, Portugal)

Tiered Authentication of Multicast Traffic in Wireless Ad-Hoc Networks Mohamed Younis (University of Maryland Baltimore County, USA) Osama Farrag (Johns Hopkins University, USA)

An Effective Strategy for Greedy Behavior in Wireless Ad hoc Networks Soufiene Djahel, Farid Naït-Abdesselam (University of Lille, France) Damla Turgut (University of Central Florida, USA)

Performance Sensitivities of Wireless Mesh Networks Under Path-based DoS Attacks Avesh K. Agarwal, Wenye Wang (North Carolina State University, USA)

Thursday, 3 December 2009 14:00 - 16:00 Location: Iolani Suite 5-6 CISS-08: Information Hiding and Information Gathering

Chair: Yong Xiang (Deakin University, Australia)

A Novel Pseudonoise Sequence for Time-Spread Echo Based Audio Watermarking Iynkaran Natgunanathan, Yong Xiang (Deakin University, Australia)

Embedding a Covert Channel in Active Network Connections

Hassan Khan, Yousra Javed, Fauzan Mirza, Syed Ali Khayam (National University of Sciences & Technology, Pakistan)

Robust Image Data Hiding Using Geometric Mean Quantization Mohammad Ali Akhaee, Shahrokh Ghaemmaghami, Amir Nikooienejad, Farokh Marvasti (Sharif University of Technology, Iran)

An Anonymous Communication Mechanism without Key Infrastructure based on Multi-paths Network Coding Weiping Wang, Guihua Duan, Jianxin Wang (Central South University, China) Jianer Chen (Texas A&M University, USA)

Using Network Motifs to Identify Application Protocols Edward G. Allan, Jr., William H. Turkett, Jr., Errin W. Fulp (Wake Forest University, USA)

A New Data Streaming Method for Locating Hosts with Large Connection Degree Xiaohong Guan, Pinghui Wang, Tao Qin (Systems Engineering Institution, China)

Thursday, 3 December 2009 14:00 - 16:00 Location: Kahili 1 CQPRM-10: Service Oriented Networking Chair: Katsunori Yamaoka (Tokyo Institute of Technology, Japan)

Service Differentiation based on Flexible Time Constraints in Market-Oriented Grids Rosy Aoun, Maurice Gagnaire (Telecom Paristech, France)

Experimental Evaluation of PCE-Based Batch Provisioning of Grid Service Interconnections Luca Valcarenghi (Scuola Superiore Sant'Anna, Italy) Pawel Korus (AGH University of Science and Technology, Poland) Francesco Paolucci (Scuola Superiore Sant'Anna, Italy) Filippo Cugini (Consorzio Nazionale Interuniversitario per le Telecomunicazioni, Italy) Miroslaw Kantor, Krzysztof Wajda (AGH University of Science and Technology, Poland) Piero Castoldi (Scuola Superiore Sant'Anna, Italy)

Evaluation of Multi-Point to Single-Point Service Traffic Shaping in an Enterprise Network Keerthana Boloor (North Carolina State University, USA) Marcelo Dias de Amorim (UPMC Paris Universitas, France) Bob Callaway (IBM, USA) Adolfo Rodriguez (IBM, Duke University, USA) Ioannis Viniotis (North Carolina State University, USA)

Context-aware Multimedia Processing System in a Pervasive Environment

Zhuzhong Qian (Nanjing University, China) Song Guo, Minyi Guo (University of Aizu, Japan) Sanglu Lu (Nanjing University, China)

Design and Configuration of PCN Based Admission Control in Multimedia Aggregation Networks Steven Latré, Bart De Vleeschauwer, Wim Van de Meerssche, Filip De Turck, Piet Demeester (Ghent University, Belgium)

Koen De Schepper, Christian Hublet, Wouter Rogiest, Stefan Custers, Werner Van Leekwijck (Alcatel-Lucent Bell Labs, Belgium)

More Adaptive Robust Stable Routing

Mateusz Zotkiewicz (Warsaw University of Technology, Poland) Walid Ben-Ameur (TELECOM & Management SudParis, France)

Thursday, 3 December 2009 14:00 - 16:00 Location: Coral Ballroom Lounge QPRM-13: Topics in Communications QoS, Reliability & Performance Modeling II (Poster) Chair: Nelson L. S. da Fonseca (State University of Campinas, Brazil)

Hybrid Video-Quality-Estimation Model for IPTV Services Kazuhisa Yamagishi, Taichi Kawano, Takanori Hayashi (NTT, Japan)

A Framework for Modeling the Lifetime and Residual Energy Distribution in Wireless Networks Krishna Ramachandran, Biplab Sikdar (Rensselaer Polytechnic Institute, USA)

An Optimal Batch Scheduling Algorithm for OBS Networks Gustavo C. Figueiredo, Eduardo Xavier, Nelson L. S. Fonseca (State University of Campinas, Brazil)

Revenue Maximization for Communication Networks with Usage-Based Pricing Shuqin Li, Jianwei Huang, Shuo-Yen Li (The Chinese University of Hong Kong, Hong Kong)

PEMP: Peering Equilibrium MultiPath Routing

Stefano Secci, Jean-Louis Rougier (Telecom ParisTech, France) Achille Pattavina (Politecnico di Milano, Italy) Fioravante Patrone (Università di Genova, Italy) Guido Maier (Politecnico di Milano, Italy)

Providing End-to-End Statistical Delay Guarantees with Non-Gaussian Input Traffic Paolo Giacomazzi, Gabriella Saddemi (Politecnico di Milano, Italy)

Thursday, 3 December 2009 14:00 - 16:00 Location: Sea Pearl Suite 3-4 CTS-10: Iterative Detection and Decoding Chair: Lutz Lampe (University of British Columbia, Canada)

Achievable Rates of Coded Linear Systems with Iterative MMSE Detection Xiaojun Yuan, Ping Li (City University of Hong Kong, Hong Kong)

EXIT Chart Evaluation of a Receiver Structure for Multi-User Multi-Antenna OFDM Systems Peter Hammarberg, Fredrik Rusek (Lund University, Sweden) Pierluigi Salvo Rossi (Second University of Naples, Italy) Ove Edfors (Lund University, Sweden)

Rateless Codes with Optimum Intermediate Performance

Ali Talari, Nazanin Rahnavard (Oklahoma State University, USA)

Rateless Multilevel Coding and Applications

Trung Thanh Nguyen, Lutz Lampe (University of British Columbia, Canada)

Near-Shannon-Limit Linear-Time-Encodable Nonbinary Irregular LDPC Codes Jie Huang, Shengli Zhou, Peter Willett (University of Connecticut, USA)

Exploiting Opportunistic Multiuser Detection in Decentralized Multiuser MIMO Systems Rui Zhang (Institute of Infocomm Research, Singapore) John M. Cioffi (Stanford University, USA)

Thursday, 3 December 2009 14:00 - 16:00 Location: Sea Pearl Suite 5-6 CTS-11: Relay Networks I Chair: Martin Haenggi (University of Notre Dame, USA)

Asymptotic Capacity of Large Fading Relay Networks under Random Attacks

Chuan Huang (Texas A&M University, USA) Jinhua Jiang (Stanford University, USA) Shuguang Cui (Texas A&M University, USA)

Multihop MIMO Relay Networks with ARQ

Yao Xie (Stanford University, USA) Deniz Gunduz (Princeton University, USA) Andrea Goldsmith (Stanford University, USA)

Analog Source Exchange with the Help of a Relay Tung T. Kim, H. Vincent Poor (Princeton University, USA)

Beamforming in Wireless Relay-Interference Networks with Quantized Feedback Erdem Koyuncu, Hamid Jafarkhani (University of California, Irvine, USA)

Distributed Averaging in Dense Wireless Networks

Sundaram Vanka, Martin Haenggi, Vijay Gupta (University of Notre Dame, USA)

Quantization of Channel State Information for Detect-and-Forward Relaying Schemes Mustapha Benjillali, Leszek Szczecinski (INRS-EMT, Canada)

Thursday, 3 December 2009 14:00 - 16:00 Location: Lehua Suite NGNI-08: Session Management Chair: Jaafar Elmirghani (University of Leeds, UK)

A Method of Constructing QoS Overlay Network and its Evaluation Ryoichi Kawahara, Satoshi Kamei, Noriaki Kamiyama, Haruhisa Hasegawa, Hideaki Yoshino (NTT, Japan) Eng Keong Lua (Carnegie Mellon University, USA) Akihiro Nakao (University of Tokyo, Japan)

Sketch-Based SIP Flooding Detection Using Hellinger Distance Jin Tang, Yu Cheng, Chi Zhou (Illinois Institute of Technology, USA)

MultiNet: Multiple Virtual Networks for a Reliable Live Streaming Service

Yanfeng Zhang (Northeastern University, China) Lixin Gao (University of Massachusetts at Amherst, USA) Cuirong Wang (Northeast University, China)

Queueing strategies for local overload control in SIP server

Rosario G. Garroppo, Stefano Giordano, Stella Spagna (University of Pisa, Italy) Saverio Niccolini (NEC Europe Ltd., Germany)

Session Control Cooperating Core and Overlay Networks for "Minimum Core" Architecture Takayuki Warabino, Yoji Kishi, Hidetoshi Yokota (KDDI R&D Laboratories, Japan)

Evaluating DoS Attacks Against SIP-Based VoIP Systems M. Zubair Rafique, Muhammad Ali Akbar, Muddassar Farooq (nexGIN RC (FAST-NUCES), Pakistan)

Thursday, 3 December 2009 14:00 - 16:00 Location: Coral Ballroom Lounge ONS-08: Topics in Optical Networking (Poster) Chair: Naoaki Yamanaka (Keio University, Japan)

Scheduling Algorithms in LiTPiC – Digital Optical Networks using Light-trails and Photonic Integrated Circuits Ashwin Gumaste (Indian Institute of Technology, India) Arun Somani (Iowa State University, USA)

Distributed Routing Path Optimization for OBS Networks based on Ant Colony Optimization João Pedro (Nokia Siemens Networks S.A., Portugal) João Pires (Instituto de Telecomunicações/Instituto Superior Técnico, Portugal) Joao Paulo Carvalho (INESC-id, Portugal)

Design and Experimentation of an Optical-Header Processing and Access Control System for a Packet-Switched WDM Metro Ring Network

Maria C. Yuang (National Chung Tung University, Taiwan) Ya-Shian Wang (Chunghwa Telecom Co., Ltd., Taiwan) Lin Yu-Min (Industrial Technology Research Institute, Taiwan)

Emulation of Optical PIFO Buffers

Houman Rastegarfar, Monia Ghobadi, Yashar Ganjali (University of Toronto, Canada)

Altering Grooming Decisions to Enhance p-Cycle Design Efficiency Diane Prisca Onguetou, Wayne D. Grover (University of Alberta, Canada)

ONU Placement in Fiber-Wireless (FiWi) Networks Considering Peer-to-Peer Communications Zeyu Zheng, Jianping Wang (City University of Hong Kong, Hong Kong) Xiumin Wang (University of Science and Technology of China, China)

Thursday, 3 December 2009 14:00 - 16:00 Location: Sea Pearl Suite 1-2 SAC(CRN)-08: Cooperation in Cognitive Radio Networks-2 Chair: Mainak Chatterjee (University of Central Florida, USA)

Cooperative Quickest Spectrum Sensing in Cognitive Radios with Unknown Parameters Sepideh Zarrin, Teng Joon Lim (University of Toronto, Canada)

Cooperative Covariance and Eigenvalue Based Detections For Robust Sensing

Yonghong Zeng, Ying-Chang Liang (Institute for Infocomm Research, Singapore) Edward C. Y. Peh (Nanyang Technological University, Singapore) Anh Tuan Hoang (Institute for Infocomm Research, Singapore)

Misbehaviour Detection in Cognitive and Cooperative Networks

Lorenza Giupponi, Christian Ibars (Centre Tecnologic de Telecomunicacions de Catalunya, Spain)

A Novel Spectrum Sharing Technique based on Channel Occupancy Rate Information

Kenta Umebayashi, Kohei Kasahara, Yukihiro Kamiya, Yasuo Suzuki (Tokyo University of Agriculture and Technology, Japan)

Optimal Linear Soft Fusion Schemes for Cooperative Sensing in Cognitive Radio Networks

Bin Shen, Kyungsup Kwak (Inha University, Korea) Zhiquan Bai (Shadong University, China)

Bargaining to Improve Channel Sharing between Selfish Cognitive Radios

Hua Liu (University of Southern California, USA) Allen B. MacKenzie (Virginia Polytechnic Institute and State University, USA) Bhaskar Krishnamachari (University of Southern California, USA)

Thursday, 3 December 2009 14:00 - 16:00 Location: Iolani Suite 1-2 SPC-08: SIMO, MISO and MIMO Systems 1

Chairs: Jinho Choi (Swansea University, UK), Tomohiko Taniguchi (Fujitsu Laboratories Ltd., Japan)

Analytical Comparison of Power Allocation Methods in MIMO Systems with Singular Value Decomposition Alberto Zanella (WiLab/IEIIT-BO CNR, Italy) Marco Chiani (WiLab/DEIS University of Bologna, Italy)

On the Relation of MIMO APP Detection and SIMO Maximum Ratio Combining Andreas Ibing, David Kühling, Holger Boche (Fraunhofer Institute for Telecommunications, Heinrich-Hertz Institut, Germany)

An Efficient Parallel Algorithm with Partial Decision Feedback for Near-Optimal MIMO Detection Cong Xiong, Xin Zhang, Kai Wu, Dacheng Yang (Beijing University of Posts and Telecommunications, China)

An Efficient Adaptive Frequency Diversity Scheme for IEEE 802.11n Networks Felip Riera-Palou, Guillem Femenias (University of the Balearic Islands, Spain)

Low Complexity SIC-based MIMO Detection With List Generation In The LR Domain Jinho Choi (Swansea University, UK) Huan X. Nguyen (Glasgow Caledonian University, UK)

Simplified Maximum-Likelihood Precoder Selection for Limited Feedback Spatial Multiplexing Systems Jong-Ho Lee (Georgia Institute of Technology, USA) Sung-yoon Jung (Yeungnam University, Korea)

Daeyoung Park (Inha University, Korea)

Thursday, 3 December 2009 14:00 - 16:00 Location: Iolani Suite 3-4 SPC-09: Transmitter and Receiver Techniques 1 Chair: Guido Dietl (DOCOMO Euro-Labs, Germany), Tomohiko Taniguchi (Fujitsu Laboratories Ltd., Japan)

Least Squares Estimation for the Digital Compensation of Tx Leakage in zero-IF Receivers Andreas Frotzscher, Gerhard Fettweis (Technische Universität Dresden, Germany)

A Reduced-complexity MIMO Receiver via Channel Ordering Boon Sim Thian, Andrea Goldsmith (Stanford University, USA)

Multi-window Spectrum Sensing of Unsynchronized OFDM Signal at Very Low SNR Cong Wang, Xianbin Wang, Hao Li (University of Western Ontario, Canada) Paul Ho (Simon Fraser University, Canada)

Design of Low Hardware Complexity Filter Banks for Communications Systems Employing Folding Number System

Duc-Minh Pham, A. B. Premkumar, A. S. Madhukumar (Nanyang Technological University, Singapore)

Exploiting the Diversity Gain of Transmitter I/Q Imbalance in Single-Antenna OFDM Systems Edward K. S. Au (Huawei Technologies, China) Zhongding Lei, Francois Chin (Institute for InfoComm Research, Singapore)

Performance of Ultralow-power IR-UWB Correlator Receivers for Highly Accurate Wearable Human Locomotion Tracking and Gait Analysis Systems

Heba Shaban (Virginia Polytechnic Institute and State University (VT-MENA), Egypt) Mohamad Abou El-Nasr (Arab Academy for Science and Technology, Egypt) R. Michael Buehrer (Virginia Polytechnic Institute and State University, USA)

Thursday, 3 December 2009 14:00 - 16:00 Location: S. Pacific Ballroom #1 WCS-29: Cooperative Communication: Performance Analysis Chair: Are Hjørungnes (University of Oslo, Norway)

Exact Capacity Analysis of Rate Adaptive, Power Nonadaptive, Multibranch, Multihop, Decode-and-Forward Relaying Networks

Reza Nikjah, Norman C. Beaulieu (University of Alberta, Canada)

Exact Closed-Form Expressions for the Outage Probability and Ergodic Capacity of Decode-and-Forward Opportunistic Relaying Reza Nikjah, Norman C. Beaulieu (University of Alberta, Canada)

Performance Analysis of Incremental-Best-Relay Amplify-and-Forward Technique Salama S. Ikki, Murat Uysal (University of Waterloo, Canada) Mohamed H. Ahmed (Memorial University, Canada)

Performance Analysis of Incremental-Relay-Selection Decode-and-Forward Technique Salama S. Ikki, Murat Uysal (University of Waterloo, Canada) Mohamed Ahmed (Memorial University, Canada)

SER Performance Analysis for Physical Layer Network Coding over AWGN Channel Kejie Lu (University of Puerto Rico at Mayaguez, Puerto Rico) Shengli Fu (University of North Texas, USA) Yi Qian (National Institute of Standards and Technology, USA) Hsiao-Hwa Chen (National Cheng Kung University, Taiwan)

Performance Analysis of Physical Layer Network Coding in Two-Way Relay Channels Raymond H. Y. Louie, Yonghui Li, Branka Vucetic (University of Sydney, Australia)

Thursday, 3 December 2009 14:00 - 16:00 Location: S. Pacific Ballroom #2 WCS-30: Spectrum Sharing Chair: Xianbin Wang (University of Western Ontario, Canada)

Power Allocation for OFDM-Based Cognitive Radio Systems with Hybrid Protection to Primary Users Xin Kang, Hari Krishna Garg (National University of Singapore, Singapore) Ying-Chang Liang, Rui Zhang (Institute of Infocomm Research, Singapore)

Cognitive Radio Enhancements for Legacy Networks using Cooperative Diversity

Zhanwei Sun (University of Notre Dame, USA) Ioannis Krikidis (University of Edinburgh, UK) J. Nicholas Lanaman (University of Notre Dame, USA) John S. Thompson (University of Edinburgh, UK)

An Auction-Based Incentive Mechanism for Non-Altruistic Cooperative ARQ via Spectrum-Leasing

Igor Stanojev (Politecnico di Milano, Italy) Osvaldo Simeone (New Jersey Institute of Technology, USA) Umberto Spagnolini (Politecnico di Milano, Italy) Yeheskel Bar-Ness (New Jersey Institute of Technology, USA) Raymond L. Pickholtz (George Washington University, USA)

Centralized Inter-Network Spectrum Sharing with Opportunistic Frequency Reuse Wei Ni, Jain B. Collings (Commonwealth Scientific and Industrial Research Organization, Australia)

A Game Theoretic Approach to Multi-User Spectrum Allocation Peter von Wrycza, M. R. Bhavani Shankar, Mats Bengtsson, Björn Ottersten (Royal Institute of Technology, Sweden)

Opportunistic Exploitation of Bandwidth Resources Through Reinforcement Learning Bechir Hamdaoui, Pavithra Venkatraman (Oregon State University, USA) Mohsen Guizani (Western Michigan University, USA)

Thursday, 3 December 2009 14:00 - 16:00 Location: S. Pacific Ballroom #3 WCS-31: OFDM Chair: Hlaing Minn (University of Texas at Dallas, USA)

Subchannel Allocation in Relay-Enhanced OFDMA Downlink With Imperfect Feedback Juoko Leinonen (University of Oulu, Finland) Taneli Riihonen, Jyri Hämäläinen (Helsinki University of Technology, Finland) Markku Juntti (University of Oulu, Finland)

A Novel Iterative Decision-Directed Differential Detection Technique For Differential OFDM Systems Liang Zhang, Louis Thibault, Zhihong Hong (Communications Research Centre, Canada)

Optimal Pilot Power Allocation for OFDM Systems with Transmitter and Receiver IQ Imbalances V. K. Varma Gottumukkala, Hlaing Minn (University of Texas at Dallas, USA)

Effect of Nonlinear Amplifier in Companded OFDM with Application to 802.11n WLAN David W. Chi, Pankaj Das (University of California at San Diego, USA)

Low Complexity Semi-blind Bayesian Iterative Receiver for MIMO-OFDM Systems Chun-lin Xiong, Xin Wang, Degang Wang, Ji-Bo Wei (National University of Defense Technology, China)

A Theoretical Treatment of PA Power Optimization in Clipped MIMO-OFDM Systems Hun Seok Kim, Babak Daneshrad (University of California, Los Angeles, USA)

Thursday, 3 December 2009 14:00 - 16:00 Location: Kahili 2 WCS-32: Space-time Coding Chair: John Barry (Georgia Institute of Technology, USA)

Unitary Space-Time Modulation for Single-Carrier Transmission Over Frequency-Selective Channels Der-Feng Tseng (National Taiwan University of Science and Technology, Taiwan)

Transmit Diversity Scheme over Single SC-FDM Symbol for LTE-Advanced Xiliang Luo, Peter Gaal, Wanshi Chen, Xiaoxia Zhang, Juan Montojo (Qualcomm Inc., USA)

Bandwidth Efficient Block Spreading Linear Dispersion Codes in Frequency Selective Fading Channels Yue Wang, Justin P. Coon (Toshiba Research Europe Limited, UK)

A Systematic Design of Space-Time Block Codes Achieving Full-Diversity with Partial Interference Cancellation Group Decoding

Wei Zhang (University of New South Wales, Australia) Xiang-Gen Xia (University of Delaware, USA)

Embedded Orthogonal Space-Time Codes for High Rate and Low Decoding Complexity Mohanned Sinnokrot, John R. Barry, Vijay K. Madisetti (Georgia Institute of Technology, USA)

A Simple Design of Space-Time Block Codes Achieving Full Diversity with Linear Receivers Huiming Wang (Xi'an Jiaotong University, China) Xiang-Gen Xia (University of Delaware, USA) Qinye Yin (Xi'an Jiaotong University, China) Bin Li (Huwei Technologies, China)

Thursday, 3 December 2009 14:00 - 16:00 Location: Honolulu Suite #3 WNS-15: Medium Access Control Chair: Mehmet Can Vuran (University of Nebraska-Lincoln, USA)

FD-MAC: A Flow-Driven MAC Protocol for Mobile Ad Hoc Networks Hai Wang, Shiying Tan (Nanjing Institute of Communications Engineering, China) Jun Zheng (Southeast University, China)

LA-MAC: A Load Adaptive MAC Protocol for MANETs Weihong Hu, Xiaolong Li, Homayoun Yousefi'zadeh (University of California, Irvine, USA)

Robust Cooperative Relaying in a Wireless LAN: Cross-layer Design and Performance Analysis Pei Liu, Chun Nie, Elza Erkip, Shivendra Panwar (Polytechnic Institute of New York University, USA)

Cooperative Content Distribution in Multi-Rate Wireless Networks

Eric M. K. Lo, Jin Zhang, Qian Zhang (Hong Kong University of Science and Technology, Hong Kong)

A Distributed Contention Resolution Algorithm in Multi-packet Reception ALOHA systems Jun Bae Seo, Victor C. M. Leung (University of British Columbia, Canada)

Fairness Index Based on Variational Distance

Jing Deng (University of North Carolina at Greensboro, USA) Yunghsiang Han (National Taipei University, Taiwan) Ben Liang (University of Toronto, Canada)

Thursday, 3 December 2009 14:00 - 16:00 Location: Coral Ballroom #1 WNS-16: Localization and Location Tracking Chair: Athanassios Manikas (Imperial College London, UK)

Indoor Localization Using Improved RSS-Based Lateration Methods Jie Yang, Yingying Chen (Stevens Institute of Technology, USA)

Site-Specific RSS Signature Modeling for WiFi Localization Brian Roberts, Kaveh Pahlavan (Worcester Polytechnic Institute, USA)

Improving Neighbor Localization in Vehicular Ad Hoc Networks to Avoid Overhead from Periodic Messages Azzedine Boukerche, Cristiano Rezende, Richard Pazzi (University of Ottawa, Canada)

A P2P Location Calibration Mechanism in Wireless Network Jianfeng Chen, Xiaojun Ma (Thomas Broadband R&D Co. Ltd, China)

Location Prediction Model Based on Bayesian Network Theory

Yucheng Zhang, Jinglong Hu (Institute of Computing Technology, China) Jiangtao Dong (54th Research Institute of CETC, China) Yao Yuan (Institute of Computing Technology, China) Jihua Zhou (Chongqing Jinmei Communication Co. Ltd., China) Jinglin Shi (Institute of Computing Technology, China)

Fault-Tolerant Prediction-based Scheme for Target Tracking Application

Oualid Demigha (Polytechnic Military School, Algeria) Nadjib Badache (Houari Boumediene University of Sciences and Technology, Algeria) Mohamed Aissani, Abdelhamid Mellouk (LiSSi Laboratory, France)

Thursday, 3 December 2009 14:00 - 16:00 Location: Coral Ballroom #2 WNS-17: Wireless PANs and Wireless Sensor Networks Chair: Gianluigi Ferrari (University of Parma, Italy)

End-to-End Delay and Network Lifetime Analysis in a Wireless Sensor Network Performing Data Aggregation Laura Galluccio, Sergio Palazzo (University of Catania, Italy)

Maximizing Lifetime of Sensor-Target Surveillance in Wireless Sensor Networks Hai Liu, Xiaowen Chu, Yiu-Wing Leung (Hong Kong Baptist University, Hong Kong) Xiaohua Jia (City University of Hong Kong, Hong Kong) Peng-Jun Wan (Illinois Institute of Technology, USA)

Lifetime Maximization in Wireless Sensor Networks with an Estimation Mission Iordanis Koutsopoulos (University of Thessaly, Greece) Maria Halkidi (University of Piraeus, Greece) Dynamic Reconfiguration in Beaconless IEEE 802.15.4 Networks Under Varying Traffic Loads Dawn Rohm, Mukul Goyal, Weigao Xie, Balaji Polepalli, Hossein Hosseini (University of Wisconsin-Milwaukeee, USA) August Divjak, Yusuf Bashir (Johnson Controls Inc, USA)

A Simulation Study of CSMA/CA Performance in 60 GHz WPANs

Wei Zhou (Iowa State University, USA) Saishankar Nandagopalan (Broadcom, USA) Daji Qiao (Iowa State University, USA)

Beam Codebook Based Beamforming Protocol for Multi-Gbps Millimeter-Wave WPAN Systems Junyi Wang, Zhou Lan, Chang-Woo Pyo, Tuncer Baykas, Chin-Sean Sum, M. Azizur Rahman, Ryuhei Funada, Fumihide Kojima (National Institute of Information Communications Technology, Japan) Ismail Lakkis (Tensorcom, Japan) Hiroshi Harada, Shuzo Kato (National Institute of Information & Communications Technology, Japan)

Thursday, 3 December 2009 14:00 - 16:00 Location: Coral Ballroom Lounge WNS-22: Topics in Wireless Networking II (Poster) Chair: Shiwen Mao (Auburn University, USA)

Congestion Relief in CDMA Cellular Networks using Multihop Inter-cell Relay Ayman Radwan, Hossam S, Hassanein (Queen's University, Canada)

Towards Efficient and Secure Rekeying for IEEE 802.16e WiMAX Networks Jeremy Brown (North Dakota State University, USA) Xiaojiang Du (Temple University, USA)

To Do or Not to Do: Metadata-guided Query Evaluation in Content Caching Networks Hui Wang, Ruilin Liu, Xiuyuan Zheng, Yingying Chen, Hongbo Liu (Stevens Institute of Technology, USA)

Price War with Partial Spectrum Sharing for Competitive Wireless Service Providers Patrick Maillé (Telecom Bretagne, France) Bruno Tuffin (INRIA Rennes, France)

TAS Protocols of a PASD System with Limited Feedback Information Sang Joon Kim (Harvard University, USA) Saeed Ghassemzadeh, Robert Miller (AT&T Labs - Research, USA) Vahid Tarokh (Harvard University, USA)

A Distributed Constraint Satisfaction Problem for Virtual Device Composition in Mobile Ad Hoc Networks Eric Karmouch, Amiya Nayak (University of Ottawa, Canada)

Thursday, 3 December 2009 16:30 - 18:30 Location: Honolulu Suite #1 AHSN-22: Security II Chair: Dijiang Huang (Arizona State University, USA)

MPC: Mitigating Stealthy Power Control Attacks in Wireless Ad Hoc Networks Issa Khalil (United Arab Emirates University, UAE)

Tame Pool-based Pairwise Key Predistribution for Large-scale Sensor Networks Yen-Hua Liao (National Chengchi University, Taiwan) Intrusion Detection in Gaussian Distributed Heterogeneous Wireless Sensor Networks Yun Wang (University of Cincinnati, USA) Chin-Laung Lei, Ai-Nung Wang (National Taiwan University, Taiwan) Wen-Chi Tsai (National Chengchi University, Taiwan)

CAT: Building Couples to Early Detect Node Compromise Attack in Wireless Sensor Networks Xiaodong Lin (University of Ontario Institute of Technology, Canada)

On The Connectivity of Key-Distribution Strategies in Wireless Sensor Networks

H. Shafiei (IPM, Iran) Ahmad Khonsari (University of Tehran, Iran) Mohammad S. Talebi (IPM, Iran) Mohamed Ould-Khaoua (Sultan Qaboos University, Oman) Nazanin Dehghani (University of Tehran, Iran)

Distributed Data-theft Detection in Wireless Sensor Networks Mukesh Jagasia, Dijiang Huang (Arizona State University, USA)

Thursday, 3 December 2009 16:30 - 18:30 Location: Honolulu Suite #2 AHSN-23: Topology Management Chair: Stefano Basagni (Northeastern University, USA)

An Adaptive Self-Organizing Protocol with Multiple Stages for Wireless Mesh Networks Martin Krebs, Markus Kucay (RWTH Aachen University, Germany)

Energy-aware Self-adjusted Topology Control Algorithm for Heterogeneous Wireless Ad Hoc Networks Ye Tian, Min Sheng, Jiandong Li, Yan Zhang (Xidian University, China)

Multiobjective K-connected Deployment and Power Assignment in WSNs using Constraint Handling Andreas Konstantinidis, Kun Yang, Qingfu Zhang (University of Essex, UK) Fernando Gordejuela-Sanchez (University of Bedfordshire, UK)

Collaborative Pairwise Detection Schemes for Improving Coverage in WSNs Michalis P. Michaelides, Christos G. Panayiotou (University of Cyprus, Cyprus)

A Mapping of Wireless Network Boundaries using Localised Alpha-Shapes Marwan Fayed, Hussein Mouftah (University of Ottawa, Canada)

Increased Connectivity at Lower Cost: The Case for Multi-radio Nodes in Multi-hop Wireless Networks Stefano Basagni (Northeastern University, USA) Andras Farago (University of Texas at Dallas, USA) Maurizio A. Nanni (Northeastern University, USA) Dung T. Tran (University of Texas at Dallas, USA)

Thursday, 3 December 2009 16:30 - 18:30 Location: Kahili 1 CQPRM-11: Next Generation Wireless Networks Performance Chair: Michael Devetsikiotis (North Carolina State University, USA)

Optimal Resource Scheduling in Wireless Multi-Service Systems With Random Channel Connectivity Hussein Al-Zubaidy, Ioannis Lambadaris (Carleton University, Canada) Ioannis Viniotis (North Carolina State University, USA)

Uplink Capacity of 802.16j Mobile Multihop Relay Networks with Transparent Relays Hua Wang (Technical University of Denmark, Denmark) Jeffrey G. Andrews (University of Texas at Austin, USA) Villy B. Iversen (Technical University of Denmark, Denmark)

On the Design of Bi-connected Wireless Mesh Network Infrastructure with QoS Constraints Djohara Benyamina, Abdelhakim Hafid, Michel Gendreau (University of Montreal, Canada)

VoIP Capacity over PCF with Imperfect Channel Md. Atiur Rahman Siddique, Joarder Kamruzzaman (Monash University, Australia)

Optimizing Power Utilization in Vehicular Ad Hoc Networks through Angular Routing: A Protocol and its Performance Evaluation

Sudip Misra (Indian Institute of Technology, India) Sanjay K. Dhurandher (University of Delhi, India) Mohammad S. Obaidat (Monmouth University, USA) Mukta Gupta, Khushboo Diwakar, Pooja Gupta (University of Delhi, India)

Performance Modeling for Heterogeneous Wireless Networks with Multiservice Overflow Traffic Qian Huang, King-Tim Ko (City University of Hong Kong, Hong Kong) Villy B. Iversen (Technical University of Denmark, Denmark)

Thursday, 3 December 2009

16:30 - 18:30 Location: Sea Pearl Suite 3-4 CTS-12: MIMO and Space-Time Coding Chair: Oussama Damen (University of Waterloo, Canada)

STBCs with Reduced Sphere Decoding Complexity for Two-User MIMO-MAC Jagadeesh Harshan, B. Sundar Rajan (Indian Institute of Science, India)

Efficient Soft-Output Demodulators for the Golden Code

Narayan Prasad , Meilong Jiang (NEC Labs, USA) Xiaodong Wang (Columbia University, USA)

Kalman Filter-Based Channel Tracking in MIMO-OSTBC Systems Murilo B. Loiola, Renato Lopes, João Romano (Unicamp, Brazil)

Performance Analysis of Channel Inversion over MIMO Channels Damith Senaratne, Chintha Tellambura (University of Alberta, Canada)

Gaussian MIMO Multi-receiver Wiretap Channel Ersen Ekrem, Sennur Ulukus (University of Maryland, USA)

On Downlink Network MIMO under a Constrained Backhaul and Imperfect Channel Knowledge Patrick Marsch, Gerhard Fettweis (Technische Universität Dresden, Germany)

Thursday, 3 December 2009 16:30 - 18:30 Location: Sea Pearl Suite 5-6 CTS-13: Relay Networks II Chair: Mustafa Cenk Gursoy (University of Nebraska-Lincoln, USA)

Optimum/Sub-Optimum Detection for Multi-Branch Cooperative Diversity Networks with Limited CSI Peng Liu, Il-Min Kim (Queen's University, Canada)

Precoder Design for Correlated Multi-Antenna Cooperative Systems with Partial Decode and Forward Protocol and MMSE-SIC Receivers

Shunqing Zhang, Eddy Chiu, Vincent K. N. Lau (The Hong Kong University of Science and Technology, Hong Kong)

Performance of Asynchronous Amplify-and-Forward Cooperative Relay Networks Michel Nahas, Ahmed Saadani (Orange Labs, France) Walid Hachem (National Center For Scientific Research, France)

Multiple Relay Channels With Delays: With and Without Side Information Mohammad Bagher Iraji, Reza Khosravi-Farsani, Mohammad Reza Aref (Sharif University of Technology, Iran)

Superimposed XOR: A New Physical Layer Network Coding Scheme for Two-Way Relay Channels Jianquan Liu, Meixia Tao, Youyun Xu (Shanghai Jiaotong University, China) Xiaodong Wang (Columbia University, USA)

Randomization for Security in Half-Duplex Two-Way Gaussian Channels Aly El Gamal, Moustafa Youssef (Nile University, Egypt) Hesham El Gamal (Ohio State University, USA)

Thursday, 3 December 2009 16:30 - 18:30 Location: Sea Pearl Suite 1-2 NGNI-09: Splicing, Bandwidth and Congestion control Chair: Stefano Giordano (University of Pisa, Italy)

On the Safety and Security of Path Splicing: A Case Study for Path Splicing on the GÉANT Network Christopher Page, Mina Guirguis (Texas State University, USA)

S-XCP: Improving XCP to Achieve Efficient and Fair Bandwidth Allocation Hairui Zhou, Guanzhong Dai (Northwestern Polytechnical University, China) Fanghong Ye (Muenster University, Germany) Huixiang Zhang (Northwestern Polytechnical University, China)

General Congestion Control for High Bandwidth-Delay Product Networks Chengnian Long, Xudong Chai, Xinping Guan (Shanghai Jiao Tong University, China) Qian Zhang (Hong Kong University of Science and Technology, Hong Kong)

Delay-based Cloud Congestion Control Mitchell Gusat (IBM, Switzerland) Robert Birke (Politecnico di Torino, Italy) Cyriel Minkenberg (IBM, Switzerland)

Predicting Available Bandwidth of Internet Path with Ultra Metric Space-based Approaches Changyou Xing, Ming Chen, Li Yang (PLA University of Science and Technology, China)

Path Splicing with Guaranteed Fault Tolerance

Thomas Erlebach (University of Leicester, UK) Anna Mereu (University of Cagliari, Italy)

Thursday, 3 December 2009 16:30 - 18:30 Location: Lehua Suite NGNI-10: Wireless & Mobility

Chair: Chonggang Wang (NEC Laboratories America, USA)

Receiver-Driven Queue Management For Achieving RTT-fairness in Wi-Fi Networks

Dzmitry Kliazovich (University of Trento, Italy) Pedro Henrique Gomes (State University of Campinas, Brazil) Fabrizio Granelli (University of Trento, Italy) Nelson L. S. da Fonseca (State University of Campinas, Brazil)

Preventing Unauthorized Messages in DTN Based Mobile Ad hoc Networks Hany Samuel, Weihua Zhuang (University of Waterloo, Canada)

A Game-Theoretic Framework for Intra-ONU Scheduling in Integrated EPON/WiMAX Networks Hui-Tang Lin, Ying-You Lin (National Cheng Kung University, Taiwan) Wang-Rong Chang (Industrial Technology Research Institute-South, Taiwan) Song-Ming Chen (National Cheng Kung University, Taiwan)

A Weighted Bipartite Graph Based Network Selection Scheme for Multi-Flows in Heterogeneous Wireless Network

Yucheng Zhang, Yao Yuan (Institute of Computing Technology, China) Jihua Zhou (Chongqing Jinmei Communication Co. Ltd., China) Jinglong Hu (Institute of Computing Technology, China) Jiangtao Dong (54th Research Institute of CETC, China) Jinglin Shi (Institute of Computing Technology, China)

Integrated BS/ONU Placement in Hybrid EPON-WiMAX Access Networks

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

On the Merits of Migrating to a Fully Packet-Based Mobile Backhaul RAN Infrastructure

Sherif Sherif (City University of New York, USA) Georgios Ellinas (University of Cyprus, Cyprus) Antonis Hadjiantonis (University of Nicosia, Cyprus) Roger Dorsinville, Mohamed Ali (City University of New York, USA)

Thursday, 3 December 2009 16:30 - 18:30 Location: Iolani Suite 1-2 SPC-10: SIMO, MISO and MIMO Systems 2

Chair: Tiffany Jing Li (Lehigh University, USA), Hsiao-Chun Wu (Louisiana State University, USA)

Near-Capacity Iteratively Decoded Markov-Chain Monte-Carlo Aided BLAST System Wei Liu, Lingkun Kong, Soon Xin Ng (University of Southampton, UK) Jian-Dong Li (Xidian University, China) Lajos Hanzo (University of Southampton, UK)

Iteratively Detected Three-Stage Multi-Dimensional Sphere Packing Modulation Aided Multi-Functional MIMO Mohammed El-Hajjar, Osamah Alamri, Lajos Hanzo (University of Southampton, UK)

Statistical Characterization of Power Amplifier Nonlinearity at 60 GHz: MIMO Beam-forming Analysis Navid Lashkarian (San Jose State University, USA) Babak Heydari (University of California-Berkeley, USA) Payman Jula (Simon Fraser University, Canada)

On the Performance of Adaptive Decode-and-Forward Cooperative Diversity with the N^{th} Best-Relay Selection Scheme

Salama S. Ikki (University of Waterloo, Canada) Mohamed H. Ahmed (Memorial University, Canada)

A Low-Complexity SLM PAPR Reduction Scheme for Interleaved OFDMA Uplink Sen-Hung Wang, Jia-Cheng Xie, Chih-Peng Li (National Sun Yat-Sen University, Taiwan)

Optimizing Training-based Transmission for Correlated MIMO Systems with Hybrid Feedback Xiangyun Zhou, Tharaka A. Lamahewa, Parastoo Sadeghi, Salman Durrani (Australian National University, Australia)

Thursday, 3 December 2009 16:30 - 18:30 Location: Iolani Suite 3-4

SPC-11: Transmitter and Receiver Techniques 2

Chair: Xianbin Wang (University of Western Ontario, Canada), Tomohiko Taniguchi (Fujitsu Laboratories Ltd., Japan)

Searching in the Delta Lattice: An Efficient MIMO Detection for Iterative Receivers

I-Wei Lai, Chun-Hao Liao, Martin Witte, David Kammler, Filippo Borlenghi, Konstantinos Nikitopoulos, Venkatesh Ramakrishnan, Dan Zhang (Institute for Integrated Signal Processing Systems, Germany) Tzi-Dar Chiueh (National Taiwan University, Taiwan) Gerd Ascheid, Heinrich Meyr (Institute for Integrated Signal Processing Systems, Germany)

Iterative Receiver Techniques for SC-FDMA Uplink Block Transmission: Design and Performance Evaluation Luis Charrua, Paulo Torres, Victor Gonçalves, A. Gusmão (Technical University of Lisbon, Portugal)

A Novel Synchronization Algorithm Dispensing with Searching for UWB Signals Zhiyuan Ren, Tiejun Lv (Beijing University of Posts and Telecommunications, China)

Soft Decision Aided Suboptimal ML Detection Receiver for Clipped COFDM Transmissions Romain Déigrafin Maxime Colos, Guillaume Colle (CRoSTIC, SucCom, France)

Romain Déjardin, Maxime Colas, Guillaume Gelle (CReSTIC – SysCom, France)

SNR Estimation for a Non-Coherent Binary Frequency Shift Keying Receiver

Syed Ali Hassan, Mary Ann Ingram (Georgia Institute of Technology, USA)

Bayesian Robust Linear Transceiver Design for Dual-Hop Amplify-and-Forward MIMO Relay Systems Chengwen Xing, Shaodan Ma, Yik-Chung Wu (University of Hong Kong, Hong Kong)

Thursday, 3 December 2009 16:30 - 18:30 Location: Iolani Suite 5-6 SPC-12: Signal Detection and Synchronization 2

Chair: Tadashi Fujino (University of Electro-Communications, Japan), Hsiao-Chun Wu (Louisiana State University, USA)

Near-Optimal Detection in MIMO Systems using Gibbs Sampling Morten Hansen (Technical University of Denmark, Denmark) Babak Hassibi, Alexandros Dimakis, Weiyu Xu (California Institute of Technology, USA)

A Gram-Schmidt Based Lattice-Reduction Aided MMSE Detection in MIMO Systems Tadashi Fujino, Shinjiro Wakazono, Yusuke Sasaki (University of Electro-Communications, Japan) *Implementation of a High-throughput and Area-efficient MIMO Detector Based on Modified Dijkstra's Search* Tae-hwan Kim, In-Cheol Park (Korea Advanced Institute of Science and Technology, Korea)

Optimal Detector for Multitaper Spectrum Estimator in Cognitive Radios Tsung-Wei Chiang, Jung-Mao Lin, Hsi-Pin Ma (National Tsing Hua University, Taiwan)

On the Optimality of Timing with Dirty Templates Wei Zang, Wenshu Zhang, Liuqing Yang (University of Florida, USA)

Hybrid MIMO Receiver using QR-MLD and QR-MMSE Youngjae Kim, Jong Hyeon Park, Je Woo Kim (Qualcomm Inc., USA)

Thursday, 3 December 2009 16:30 - 18:30 Location: S. Pacific Ballroom #1 WCS-33: Joint Source and Channel Coding Chair: Claudio Silva (Virginia Polytechnic Institute and State University, USA)

Distributed Joint Source-Channel coding for Functions over a Multiple Access Channel R. Rajesh, Vinod Sharma (Indian Institute of Science, India)

Joint Source-Channel Coding over a Fading Multiple Access Channel with Partial Channel State Information R. Rajesh, Vinod Sharma (Indian Institute of Science, India)

Motion-compensated Scalable Video Transmission over MIMO Wireless Channels under Imperfect Channel Estimation

Hobin Kim (University of California, San Diego, USA) Sun Yong Kim (Konkuk University, Korea) Pamela C. Cosman, Laurence B. Milstein (University of California, San Diego, USA)

Progressive Source Transmissions using Joint Source-Channel Coding and Hierarchical Modulation in Packetized Networks

Suayb S. Arslan, Pamela C. Cosman, Laurence B. Milstein (University of California, San Diego, USA)

Robust Transmission of H.264 Coded Video Using Three-Stage Iterative Joint Source and Channel Decoding Nasruminallah Nasruminallah, Mohammed El-Hajjar, Lajos Hanzo (University of Southampton, UK)

Unequal Power Allocation for Transmission of JPEG2000 Images over Wireless Channels Mahin Torki, Atousa HajshirMohammadi (Simon Fraser University, Canada)

Thursday, 3 December 2009 16:30 - 18:30 Location: S. Pacific Ballroom #2 WCS-34: Network Coding Chair: Hai Jiang (University of Alberta, Canada)

A Joint Interchannel and Network Coding Schema for nVoD Services over Wireless Mesh Networks

Rafael Asorey-Cacheda (Universidad de Vigo, Spain) Hong Huang (New Mexico State University, USA) Francisco Javier González-Castaño (Universidad de Vigo, Spain) Eric Jonhson (New Mexico State University, USA) Cristina López-Bravo, Felipe Gil-Castiñeira (Universidad de Vigo, Spain)

XOR-Forwarding for Wireless Networks

Hsiang-Po Wang, Yi-Ta Chuang, Chih-Wei Yi, Yu-Chee Tseng (National Chiao-Tung University, Taiwan)

Pin-Chuan Liu (Industrial Technology Research Institute, Taiwan)

On Performance of Multi-Timeslots Network Coding (MTNC) in Wireless Relay Networks Hongmei Liu, Gang Chuai, Wei Bao, Mugen Peng, Wenbo Wang (Beijing University of Posts and Telecommunications, China)

Analysis and Optimization for Multicast System with Regenerative Network Coding Jun Li, Mingli You, Lin Yang (Alcatel Lucent Shanghai Bell, China)

Outage Probability Analysis of Linear Block Network Coding (LBNC) in Wireless Relay Networks Wei Bao, Wenbo Wang, Hongmei Liu, Mugen Peng (Beijing University of Posts & Telecommunications, China)

Constellation Selection in Network Coded Distributive Antenna System Tafzeel ur Rehman Ahsin, Slimane Ben Slimane (Royal Institute of Technology KTH, Sweden)

Thursday, 3 December 2009 16:30 - 18:30 Location: S. Pacific Ballroom #3 WCS-35: Diversity Techniques Chair: Hamid Jafarkhani (University of California, Irvine, USA)

Predictive Transmit Antenna Selection with Maximal Ratio Combining Shiva Prakash, Ian McLoughlin (Nanyang Technological University, Singapore)

Antenna Diversity for a Mobile Terminal: Theory, Simulation and Measurement Bin Guo (Illinois Institute of Technology, USA) Omid Sotoudeh (Sony Ericsson Mobile Communication, Sweden) Chi Zhou, Yu Cheng (Illinois Institute of Technology, USA)

Exploiting the Interference Diversity Gain in Frequency Domain: The UMTS LTE Scenario Alireza Attar, Vikram Krishnamurthy (University of British Columbia, Canada)

The Impact of Noise on Switching Rate of L-fold Selection Diversity Xin Wang, Norman C. Beaulieu (University of Alberta, Canada)

Asymptotic Performance Analysis of Optimum Combining for Dense Multiple Antenna Reception Under Rayleigh Fading

Payam Dehghani Rahimzadeh, Norman C. Beaulieu (University of Alberta, Canada)

Optimal Use of Antennas in Interference Networks: A Tradeoff between Rate, Diversity and Interference Alignment

Aydin Sezgin (Emmy-Noether Research Group on Wireless Networks, Germany) Syed Ali Jafar, Hamid Jafarkhani (University of California, Irvine, USA)

Thursday, 3 December 2009 16:30 - 18:30 Location: Kahili 2 WCS-36: Interference Suppression and Cancellation Chair: Amir Masoud Nasri Nasrabadi (University of British Columbia, Canada)

Frequency Domain Hybrid--ARQ Chase Combining for Broadband MIMO Communication with Co-Channel Interference

Tarik Ait-idir, Houda Chafnaji (Institut National Polytechnique de Toulouse, Morocco) Samir Saoudi (Institut Telecom/Telecom-Bretagne, France) Analysis of Degrees of Freedom of Interfering MISO Broadcast Channels Seok-Hwan Park, Inkyu Lee (Korea University, Korea)

Performance of STBC with Unequal-Power Co-Channel MIMO Interferers Under Path Loss and Rayleigh Fading

Lu Zhang (University of Delaware, USA) Yongzhao Li (Xidian University, China) Leonard J. Cimini, Jr. (University of Delaware, USA) Nageen Himayat (Intel Corporation, USA)

Uplink Interference Management for HSPA+ and 1xEVDO Femtocells

Yeliz Tokgoz, Farhad Meshkati, Yan Zhou, Mehmet Yavuz, Sanjiv Nanda (Qualcomm, USA)

Interference Subspace Tracking for Network Interference Alignment in Cellular Systems Bo Niu, Alexander M. Haimovich (New Jersey Institute of Technology, USA)

Adaptive Random Beamforming with Interference Suppression and Beam Selection in Cellular Networks Young-Jun Hong (Samsung Electronics Co., Ltd., Korea) Su Min Kim, Dan Keun Sung (Korea Advanced Institute of Science and Technology, Korea)

Thursday, 3 December 2009 16:30 - 18:30 Location: Honolulu Suite #3 WNS-18: Power Saving and Energy Awareness Chair: Ehssan Sakhaee (Osaka University, Japan)

A Transmission Range Reduction Scheme for Reducing Power Consumption in Clustered Wireless Sensor

Networks

Ehssan Sakhaee, Naoki Wakamiya, Masayuki Murata (Osaka University, Japan)

Adaptive Asynchronous Clock based Power Saving Protocols for Delay Tolerant Networks Bong Jun Choi, Xeumin (Sherman) Shen (University of Waterloo, Canada)

Improvement of Capacity and Energy Saving of VoIP over IEEE 802.11 WLANs by A Dynamic Sleep Strategy Chenyuan Zhu, Hui Yu, Xinbing Wang (Shanghai Jiaotong University, China) Hsiao-Hwa Chen (National Cheng Kung University, Taiwan)

Joint Optimization of Power Saving Mechanism in the IEEE 802.16e Mobile WiMAX Gary K. W. Wong, Qian Zhang, Danny H. K. Tsang (Hong Kong University of Science and Technology, Hong Kong)

Energy Efficient Distributed Relay Selection in Wireless Cooperative Networks with Finite State Markov Channels

Yifei Wei, F. Richard Yu (Carleton University, Canada) Mei Song (Beijing University of Posts and Telecommunications, China) Victor C. M. Leung (University of British Columbia, Canada)

Randomized Multi-Channel Interrogation Algorithm for Large-Scale RFID Systems

Amir Hamed Mohsenian Rad, Vahid Shah-Mansouri, Vincent W. S. Wong, Robert Schober (University of British Columbia, Canada)

Thursday, 3 December 2009 16:30 - 18:30 Location: Coral Ballroom #1 WNS-19: Routing in Wireless Networks Chair: Abdelhamid Mellouk (University Paris XII, France)

Greedy Sub-channel Redistribution Routing Scheme in Multi-hop Wireless OFDMA Networks Weiwei Wang, Jun Cai, Attahiru S. Alfa (University of Manitoba, Canada)

On the Efficiency of Random Walk Routing in Multihop Wireless Network

Yanhua Li, Debin Zou, Yuan-an Liu, Zheng Zhou (Beijing University of Posts & Telecommunications, China) Yong Li (Tsinghua University, China)

SARP – A Novel Multi-Copy Routing Protocol for Intermittently Connected Mobile Networks Ahmed Elwhishi, Pin-Han Ho (University of Waterloo, Canada)

Back-Pressure Routing and Optimal Scheduling in Wireless Broadcast Networks Qiao Li, Rohit Negi (Carnegie Mellon University, USA)

Compatibility between Optimal Tree-based Broadcast Routing and Metric Design Chuan Han, Yujun Li, Yaling Yang (Virginia Polytechnic Institute and State University, USA)

New Theoretical Studies and Optimal Cluster-Population Determination for Hierarchical Networks Shih Yu Chang (National Tsing Hua University, Taiwan) Hsiao-Chun Wu (Louisiana State University, USA) Yiyan Wu (Communications Research Centre, Canada) Ai-Chun Pang (National Taiwan University, Taiwan)

Thursday, 3 December 2009 16:30 - 18:30 Location: Coral Ballroom #2 WNS-20: 802.11 Wireless Networks Chair: Seshadri Mohan (University of Arkansas at Little Rock, USA)

Distributed Physical Carrier Sensing Adaptation Scheme in Cooperative MAP WLAN

Yao Hua (Tsinghua University, China) Qian Zhang (Hong Kong University of Science and Technology, Hong Kong) Zhisheng Niu (Tsinghua University, P.R. China)

Local Estimation of Probabilities of Direct and Staggered Collisions in 802.11 WLANs Michael N. Krishnan, Sofie Pollin, Avideh Zakhor (University of California, Berkeley, USA)

Performance Analysis of Selfish Access Strategies on WiFi Infrastructure Networks Laura Giarré (University of Palermo, Italy) Giovanni Neglia (Institut National de Recherche en Informatique et en Automatique, France) Ilenia Tinnirello (University of Palermo, Italy)

A Packet Scheduling Algorithm for Optimizing Downlink Throughput in Wireless LANs with the One-Sender Multiple-Receiver Technique

Zhenghao Zhang, Steven Bronson (Florida State University, USA)

Analysis of Asynchronous Multi-Packet Reception in 802.11 Distributed Wireless Networks Fulvio Babich, Massimiliano Comisso (University of Trieste, Italy)

Efficient Broadcasting in IEEE 802.11 Networks through Irresponsible Forwarding Stefano Busanelli, Gianluigi Ferrari (University of Parma, Italy) Sooksan Panichpapiboon (King Mongkut's Institute of Technology Ladkrabang, Thailand)

Thursday, 3 December 2009 16:30 - 18:30 Location: Coral Ballroom Lounge WNS-23: Network Performance Optimization (Poster) Chair: Wenye Wang (North Carolina State University, USA)

Effective Cell Size Scheme in Multi-hop Cellular Networks Hung Tam, Robert Benkoczi, Hossam Hassanein, Selim Akl (Queen's University, Canada)

HTSMA: a Hybrid Temporal-Spatial Multi-Channel Assignment Scheme in Heterogeneous Wireless Mesh Networks

Yan Jin, Ju-Yeon Jo, Mei Yang, Yoohwan Kim, Yingtao Jiang (University of Nevada, Las Vegas, USA) John Gowens (Army Research Laboratory, USA)

A Cognitive Approach for Performance Enhancement of Wireless Mesh Networks Farshad Javadi, Abbas Jamalipour (University of Sydney, Australia)

Q-DRAM: QoE-based Dynamic Rate Adaptation Mechanism for Multicast in Wireless Networks

Kandaraj Piamrat (Institut National de Recherche en Informatique et en Automatique, France) Adlen Ksentini (IRISA/University of Rennes 1, France) Jean-Marie Bonnin (Telecom Bretagne, France) César Viho (University of Rennes 1, France)

Capacity of Wireless Networks with Heterogeneous Traffic

Mingyue Ji, Zheng Wang, Hamid Sadjadpour (University of California at Santa Cruz, USA) Jose Joaquin Garcia-Luna-Aceves (University of California, Santa Cruz and Palo Alto Research Center, USA)