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Ad Hoc and Sensor Networking Symposium

AHSN-01: Mobility in Sensor Networks

Room: Seminar 1
Time: Mon, 15 Jun, 10:50 am - 12:20 pm
Chair: Waleed Alsalih (Queen's University)

1. **Distributed Scalable Multi-Target Tracking with a Wireless Sensor Network**
   A. Oka, L. Lampe (University of British Columbia)

2. **Routing to a Mobile Data Collector on a Predefined Trajectory**
   W. Alsalih, H. Hassanein, S. Akl (Queen's University)

3. **A Case Study for Evaluating IEEE 802.15.4 Wireless Sensor Network Formation with Mobile Sinks**
   A. Abbagnale, E. Cipollone, F. Cuomo (University of Rome "Sapienza")

4. **Coverage-Aware Connectivity Restoration in Mobile Sensor Networks**
   N. Tamboli, M. Younis (University of Maryland, Baltimore County)

5. **Mobility-based Generic Infrastructure for Large Scale Sensor Network Architecture**
   S. Hashish, A. Karmouch (University of Ottawa)

AHSN-02: Localization and Synchronization

Room: Seminar 1
Time: Mon, 15 Jun, 2:00 pm - 3:30 pm
Chair: Min Chen (University of British Columbia)

1. **Wireless Sensor Networks Localization with Isomap**
   C. Wang, J. Chen, Y. Sun (Zhejiang University), X. Shen (University of Waterloo)

2. **Improved Estimation of Clock Offset in Sensor Networks**
   Q. Chaudhari, E. Serpedin (Texas A&M University), Y.-C. Wu (The University of Hong Kong)

3. **A Linear Time Synchronization Algorithm for Underwater Wireless Sensor Networks**
   L. Liu, Y. Xiao, J. Zhang (The University of Alabama)

4. **Revisiting Relative Location Estimation in Wireless Sensor Networks**
   C.-H. Chang, W. Liao (National Taiwan University)

5. **Localization of a Swarm of Mobile Agents via Unscented Kalman Filtering**
   G. Binazzi, L. Chisci, F. Chiti, R. Fantacci, S. Menci (University of Florence)

AHSN-03: Optimization through Selective Engagement

Room: Seminar 1
Time: Mon, 15 Jun, 4:00 pm - 5:30 pm
Chair: Suleyman Uludag (The University of Michigan - Flint)

1. **Optimal Sleep-Wake Policies for an Energy Harvesting Sensor Node**
   V. Joseph, V. Sharma, U. Mukherji (Indian Institute of Science Bangalore)

2. **Location Based Sleep Scheduling for Target Tracking Applications in Smart Space Environments**
   B. Harrison, A. Marshall (Queen's University Belfast)

3. **Adaptive Sensor Activation for Target Tracking in Wireless Sensor Networks**
   J. Chen, K. Cao, Y. Sun (Zhejiang University), X. Shen (University of Waterloo)

4. **Sleeping Schedule-Aware Minimum Latency Broadcast in Wireless Ad Hoc Networks**
   J. Hong (Nanjing University), J. Cao (Hong Kong Polytechnic University), W. Li, S. Lu, D. Chen (Nanjing University)

5. **Starburst SSD: An Efficient Protocol for Selective Dissemination**
   T. Azim (Stanford University), Q. Mansoor (National University of Sciences and Technology), P. Levis (Stanford University)

AHSN-P1: AHSN Poster Session 1

Room: Poster Area 2
Time: Mon, 15 Jun, 4:00 pm - 5:30 pm
Chair: Farid Naït-Abdesselam (University of Lille)

1. **A Lightweight Skeleton Construction Algorithm for Self-Organizing Sensor Networks**
   H. AbdelSalam, S. Olariu (Old Dominion University)

2. **A Novel Scheme for Spatial Localization of Passive RFID Tags; Communication Range Recognition (CRR) Scheme**
   T. Wada, N. Uchitomi, Y. Ota, T. Hori (Kansai University), K. Mutsuura (Shinshu University), H. Okada (Kansai University)

3. **Optimal Utility-Energy Tradeoff in Delay Constrained Random Access Networks**
   A. Khodaian, B. H. Khalaj, H. Shah-Mansouri (Sharif University of Technology, Iran)

4. **Optimum Internet Gateway Selection in Ad Hoc Networks**
   F. Hoffmann, D. Medina (German Aerospace Center (DLR))

5. **Approximating Maximum Directed Flow in a Large Wireless Network**
   J. Nousiainen, P. Lassila (Helsinki University of Technology)

6. **Evaluate Reliability of Wireless Sensor Networks with OBDD**
   Y. Xiao, X. Li, Y. Li (State Key Laboratory of Networking and Switching, Beijing University of Posts and Telecommunications), S. Chen (State Key Laboratory of Wireless Mobile Communication, China Academy of Telecommunications Technolog)

7. **TAP: An Adjustable Planar Structure for Adaptive Topology Control in Wireless Ad Hoc Networks**
   Z. Zhang, G. Zhang, X. Zhang, J. Fan (Soochow University)

8. **A FCM-Based Peer Grouping Scheme for Node Failure Recovery in Wireless P2P File Sharing**
   X. Li, H. Ji (Beijing University of Posts and Telecommunications), F. R. Yu (Carleton University), R. Zheng (Beijing University of Posts and Telecommunications)

9. **Multi-Hop Aggregate Information Efficiency in Wireless Ad Hoc Networks**
   P. Nardelli, G. de Abreu (University of Oulu), P. Cardieri (University of Campinas)

10. **A Body Surface Coordinator for Implanted Biosensor Networks**
    B. Zhen, K. Takizawa (NICT), T. Aoyagi (Tokyo Institute of Technology), R. Kohno (Division of Physics, Electrical & Computer Engineering)

11. **Reducing Average Power in Wireless Sensor Networks Through Data Rate Adaptation**
    S. Lanzisera, A. Mehta, K. Pister (UC Berkeley)

12. **Fair and Flexible Budget-Based Clustering**
    F. B. Abdesslem (UPMC Univ Paris 06), A. Ziviani (LNCC), M. D. de Amorim (UPMC Univ Paris 06), P. Todorova (Fokus Berlin)

13. **A Study on Collaborative Beamforming with Protocol Defects in Wireless Ad Hoc Networks**
    K.-L. Kuo, H.-Y. Hsieh, P.-C. Yeh (National Taiwan University)

14. **Target Identification and Distributed Cooperative Control of Sensor Networks**
    A. Wang, V. Krishnamurthy (University of British Columbia)

AHSN-04: Cross Layer Optimization in Wireless Sensor Networks

Room: Saal 5
Time: Tue, 16 Jun, 9:00 am - 10:30 am
Chair: Ashfaq Khokhar (University of Illinois at Chicago)

1. **Cross-Layer Design for Energy Conservation in Wireless Sensor Networks**
   F. Bouabdallah, N. Bouabdallah (INRIA-Rennes), R. Boutaba (University of waterloo)

2. **PRMAC: Pipelined Routing Enhanced MAC Protocol for Wireless Sensor Networks**
   T. Canli, A. Khokhar (University of Illinois at Chicago)

3. **Energy Efficient Collision Aware Multipath Routing for Wireless Sensor Networks**
   Z. Wang, E. Bulut, B. K. Szymanski (Rensselaer Polytechnic Institute)

4. **An Energy-Efficient Integrated MAC and Routing Protocol for Wireless Sensor Networks**
   X. Wang, X. Zhang (University of Science and Technology of China), Q. Zhang (The Hong Kong University of Science and Technology), G. Chen (University of Science and Technology of China)

5. **A Combined Approach for Receiver-based MAC and Network Layers in Wireless Sensor Networks**
   M. do Val Machado (UFMG), R. A. F. Mini (PUC Minas), A. A. F. Loureiro (UFMG)

AHSN-05: Cross Layer Optimization

Room: Saal 5
Time: Tue, 16 Jun, 10:50 am - 12:20 pm
Chair: Cheng Li (Memorial Univ. of Newfoundland)

1. **Cross-Layer Design of Networked Control Systems**
   M. Trivellato, N. Benvenuto (University of Padova)

2. **Bidirectional Packet Aggregation and Coding for VoIP Transmission in Wireless Multi-Hop Networks**
   J. Hasegawa, H. Yomo, Y. Kondo, P. Davis, R. Suzuki, S. Obana (ATR), K. Sakakibara (Okayama Prefectual University)

3. **Fast Flooding using Cooperative Transmissions in Wireless Networks**
   M. Baghaie, B. Krishnamachari (University of Southern California)

4. **An Effective Cross-layer Packet Scheduling and Routing Algorithm for Delay-Sensitive Media Transmission over MANET**
   K. J. An, H. Song (POSTECH, Korea)

5. **A PHY-MAC Cross-Layer Protocol for Ad Hoc Networks with Multiple-Antenna Nodes**
   I. Spyropoulos, J. R. Zeidler (University of California, San Diego)

AHSN-P2: AHSN Poster Session 2

Room: Poster Area 2
Time: Tue, 16 Jun, 10:50 am - 12:20 pm
Chair: Jun Zheng (University of Ottawa)

1. **Loop-Free Link Stability Metrics for Proactive Routing in Wireless Ad Hoc Networks**
   T. Yoshihiro (Wakayama University)

2. **Deference Mechanisms Significantly Increase the MAC Delay of Slotted CSMA/CA**
   G. Chalhoub, N. Hadid, A. Guitton, M. Misson (LIMOS)

3. **Virtual Calibration for RSSI-Based Indoor Localization with IEEE 802.15.4**
   P. Barsocchi, S. Lenzi (ISTI-CNR, Pisa), S. Chessa (University of Pisa), G. Giunta (University of Roma Tre)

4. **Radar Sensor Network Using a New Triphase Coded Waveform: Theory and Application**
   L. Xu, Q. Liang (UTA)

5. **Power-Saving Geographic Routing in the Presence of Location Errors**
   B. Peng, A. Kemp, H. Maheshwari (University of Leeds)

6. **Coordinated Transmission in Distributed Ad Hoc Peer-To-Peer (P2P) Communications**
   W. Ni, H. Wang, Z. Li (Nokia)

7. **On Sensor Placement for Directional Wireless Sensor Networks**
   Y. Osais, M. St-Hilaire, F. R. Yu (Carleton University)

8. **A Decision Theoretic Approach to Gaussian Sensor Networks**
   F. Davoli, M. Marchese, M. Mongelli (University of Genova)

9. **On Reliable Transmission by Adaptive Network Coding in Wireless Sensor Networks**
   T.-G. Li, C.-C. Hsu, C.-F. Chou, C.-J. Lin (National Taiwan University)

10. **An Energy-Efficient Cooperative SIMO Transmission Scheme for Wireless Sensor Networks**
    C.-L. Wang, Y.-W. Huang, Y.-C. Huang (National Tsing Hua University)

11. **DVD based Moving Event Localization in Multihop Cellular Sensor Networks**
    D. Chander, B. Jagyasi, U. B. Desai, S. N. Merchant (Indian Institute of Technology Bombay)

12. **Hybrid Resource Allocation in Wireless Ad Hoc Networks**
    C. Liu, M. H. MacGregor, J. Harms, C. Phelps (University of Alberta)

13. **A Dynamic Ultrapeers Selection Policy for Collaborative Virtual Environments over Mobile Ad Hoc Networks**
    A. Boukerche (University of Ottawa), R. Araujo (Federal University of São Carlos SP), A. Zarrad (University of Ottawa)

14. **An Analytical Model for the Contention Access Period of the Slotted IEEE 802.15.4 with Service Differentiation**
    E. D. Ngangue Ndih (Swiss Federal Institute of Technology in Lausanne (EPFL)), N. Khaled (Universidad Carlos III Madrid), G. De Micheli (Swiss Federal Institute of Technology in Lausanne (EPFL))

15. **Load Aware Broadcast in Mobile Ad Hoc Networks**
    M. T. Al Amin, S. Barua, S. Vhaduri, A. Rahman (Bangladesh University of Engineering and Technology)

AHSN-06: Quality of Service

Room: Saal 5
Time: Tue, 16 Jun, 2:00 pm - 3:30 pm
Chair: Kemal Akkaya
(Southern Illinois University Carbondale)

1. **Self-Actuation of Camera Sensors for Redundant Data Elimination in Wireless Multimedia Sensor Networks**
   A. Newell, K. Akkaya (Southern Illinois University Carbondale)

2. **QoS Enhancement and Performance Evaluation of Ad-Hoc Routing Protocols for Rural Public Safety**
   C. Bohannan, L. Zhang, J. Tang, R. S. Wolff, S. Wan, N. Gurdasani, D. Galarus (Montana State University)

3. **Joint Effect of Multiple Correlated Cameras in Wireless Multimedia Sensor Networks**
   R. Dai, I. Akyildiz (Georgia Institute of Technology)

4. **Real-Time Traffic in Ad-Hoc Sensor Networks**
   L. Bononi, L. Donatiello (University of Bologna), M. Furini (University of Modena and Reggio Emilia)

5. **Distributed Quality-Lifetime Maximization in Wireless Video Sensor Networks**
   E. Gurses (University of Waterloo), Y. Lin (Center for Quantifiable QoS in Comm. Systems, NTNU), R. Boutaba (University of Waterloo)

AHSN-07: Cognitive and Mesh Networks

Room: Saal 5
Time: Tue, 16 Jun, 4:00 pm - 5:30 pm
Chair: Shahrokh Valaee
(University of Toronto)

1. **Relay-assisted Routing in Cognitive Radio Networks**
   J. Jia, J. Zhang, Q. Zhang (Hong Kong University of Science and Technology)

2. **Voice Service Support over Cognitive Radio Networks**
   P. Wang, D. Niyato (Nanyang Technological University), H. Jiang (University of Alberta)

3. **Optimizing Access Radio in Multi-Radio Mesh Network**
   Q. Zhang, C. Lim (HKUST)

4. **Contention-Aware Cooperative Routing in Wireless Mesh Networks**
   J. Zhang, Q. Zhang (Hong Kong University of Science and Technology)

5. **Capacity Analysis and Experimental Study with Multiple Interfaces and Multiple Channels in 802.11 Mesh Networks**
   C. Liu (Shanxi Datong University, Tianjin University), Y. Shu, L. Zhang (Tianjin University)

AHSN-08: Topology Management

Room: Konferenz 6
Time: Tue, 16 Jun, 4:00 pm - 5:30 pm
Chair: Ahmed Kamal
(Iowa State University)

1. **Backbone Construction for Heterogeneous Wireless Ad Hoc Networks**
   H. Guo, Y. Qian (National Institute of Standards and Technology), K. Lu (University of Puerto Rico), N. Moayeri (National Institute of Standards and Technology)

2. **A Set of Topological Graphs for 2-D Sensor Ad Hoc Networks**
   T. El Salti, N. Nasser (University of Guelph), T. Taleb (Tohoku University)

3. **On the Minimum k-Connectivity Repair in Wireless Sensor Networks**
   H. Almasaeid, A. Kamal (Iowa State University)

4. **Connectivity of Finite Wireless Networks with Random Communication Range Nodes**
   S. Bermudez, S. Wicker (Cornell University)

5. **Minimum Energy Strong Bidirectional Topology for Ad Hoc Wireless Sensor Networks**
   Y. P. Aneja, A. Bari, A. Jaekel (University of Windsor), R. Chandrasekaran (University of Texas at Dallas), K. P. K. Nair (University of New Brunswick)

AHSN-09: Medium Access Control

Room: Konferenz 5
Time: Wed, 17 Jun, 9:00 am - 10:30 am
Chair: Jalel Ben-othman (University of Versailles)

1. **A Directional MAC Protocol with Deafness Avoidance for UWB Wireless Sensor Networks**
   E. Karapistoli (Aristotle University of Thessaloniki), I. Gragopoulos, I. Tsetsinas (CERTH - Informatics and Telematics Institute), F.-N. Pavlidou (Aristotle University of Thessaloniki)

2. **A High Throughput Load Balance Algorithm for Multichannel Wireless Sensor Networks**
   M. Song, Y. Zhao, J. Wang (Old Dominion University), E. K. Park (University of Missouri at Kansas City)

3. **An Efficient MAC Layer Handoff Scheme for WiFi-Based Multichannel Wireless Mesh Networks**
   Z. Zhang, A. Boukerche (University of Ottawa)

4. **OFDMA Based Multiparty Medium Access Control in Wireless Ad Hoc Networks**
   M. Veyseh (University of California, Santa Cruz), J. J. Garcia-Luna-Aceves (Palo Alto Research Center (PARC)), H. R. Sadjadpour (University of California, Santa Cruz)

5. **An Enhanced Multiple-Feedback Algorithm for RFID MAC Protocols**
   Y.-C. Ko (Samsung Networks Inc., Korea), S. Roy (Univ. of Washington), C.-H. Cho, H.-W. Lee (Korea Univ., Korea)

AHSN-10: Routing Protocols

Room: Konferenz 6
Time: Wed, 17 Jun, 9:00 am - 10:30 am
Chair: Karim Seada (Nokia Research Center)

1. **Energy Saving Ad-hoc On-Demand Distance Vector Routing for Mobile Ad-Hoc Networks**
   P. Ren, J. Feng, P. Hu (Xi'an Jiaotong University), J. Cai (University of Manitoba)

2. **FSA: A Fast Coordination Scheme for Opportunistic Routing**
   Z. Yang, K. Zeng, W. Lou (Worcester Polytechnic Institute)

3. **Efficient Greedy Geographical Non-Planar Routing with Reactive Deflection**
   F. Theoleyre (CNRS), E. Schiller, A. Duda (Grenoble INP)

4. **Efficient Adaptive Routing in Delay Tolerant Networks**
   C. Liu, J. Wu (Florida Atlantic University)

5. **Design of a Delay-Based Routing Protocol for Multi-Rate Multi-Hop Mobile Ad Hoc Networks**
   S. Murthy, P. Hegde, A. Sen (Arizona State University)

AHSN-11: Deployment Strategies

Room: Konferenz 5
Time: Wed, 17 Jun, 10:50 am - 12:20 pm
Chair: Mohamed Ibnkahla (Queen's University)

1. **Localized Sensor Self-deployment for Guaranteed Coverage Radius Maximization**
   X. Li (University of Ottawa), H. Frey (University of Paderborn), N. Santoro (Carleton University), I. Stojmenovic (University of Ottawa)

2. **Problem-Specific Encoding and Genetic Operation for a Multi-Objective Deployment and Power Assignment Problem in Wireless Sensor Networks**
   A. Konstantinidis, K. Yang, Q. Zhang (University of Essex)

3. **Exposure-Path Prevention in Directional Sensor Networks Using Sector Model Based Percolation**
   L. Liu, X. Zhang (Texas A&M University), H. Ma (Beijing University of Posts and Telecomm)

4. **Potential Field Approach to Ensure Connectivity and Differentiated Detection in WSN Deployment**
   N. Aitsaadi (University of Paris 6 - UPMC), N. Achir, K. Boussetta (University of Paris 13), G. Pujolle (University of Paris 6 - UPMC)

5. **Connectivity Optimization for Wireless Sensor Networks Applied to Forest Monitoring**
   F. Al-Turjman, H. Hassanein, M. Ibnkahla (Queen's University)

AHSN-12: Link Layer

Room: Konferenz 6
Time: Wed, 17 Jun, 10:50 am - 12:20 pm
Chair: Falko Dressler (University of Erlangen)

1. **A Robust Approach to Carrier Sense for MIMO Ad Hoc Networks**
   E. Coviello (University of Padova), A. Bhorkar (University of California, San Diego), F. Rossetto (DLR (German Aerospace Center)), B. D. Rao (University of California San Diego), M. Zorzi (University of Padova)

2. **Interferer Classification, Channel Selection and Transmission Adaptation for Wireless Sensor Networks**
   K. Chowdhury, I. Akyildiz (Georgia Institute of Technology)

3. **Idle Channel Time Estimation in Multi-Hop Wireless Networks**
   S. Odou, S. Martin, K. Al Agha (University of Paris-Sud)

4. **Cooperative Communication Techniques for Wireless OFDMA-Based Ad-Hoc Networks**
   S. Sergi, F. Pancaldi, G. M. Vitetta (University of Modena e Reggio Emilia)

5. **On the Log-Normal Fading Networks: Power Control and Spatial Reuse**
   Q. Wang, P. Fan (Tsinghua University), K. Letaief (Hong Kong University of Science and Technology)

AHSN-13: Reliable Data Delivery

Room: Konferenz 5
Time: Wed, 17 Jun, 2:00 pm - 3:30 pm
Chair: Mina Guirguis (Texas State University)

1. **Mechanism for Maximizing Area-Centric Coding Gains in Wireless Multihop Networks**
   Y. Yan (Chinese Academy of Sciences), B. Zhang, Z. Zhao (Graduate University of Chinese Academy of Sciences), X. Shen (School of computing and engineering, University of Missouri), J. Ma (Nokia Research Center)

2. **Reliability and Efficiency Analysis of Distributed Source Coding in Wireless Sensor Networks**
   C. Fischione (KTH), S. Tennina, F. Santucci, F. Graziosi (University of L'Aquila)

3. **Multipath Distributed Data Reliability for Wireless Sensor Networks**
   S. Qaisar, H. Radha (Michigan State University)

4. **HybridCast: A Hybrid Probabilistic/Deterministic Approach for Adjustable Broadcast Reliability in Mobile Wireless Ad Hoc Networks**
   T. Pongthawornkamol, K. Nahrstedt (University of Illinois at Urbana-Champaign), G. Wang (Boeing Phantom Works)

5. **Throughput/Reliability Tradeoffs in Spread Spectrum Multi-Hop Ad-Hoc Wireless Networks with Multi-Packet Detection**
   D. Truhachev (University of Alberta), S. Nagaraj (Qualcomm), C. Schlegel (University of Alberta)

AHSN-14: In-network Data Storage and Query Optimization

Room: Konferenz 6
Time: Wed, 17 Jun, 2:00 pm - 3:30 pm
Chair: Salah A. Aly (Iowa State University)

1. **Querying Peak Regions on Wireless Sensor Network**
   S. Xiong, J. Li (Harbin Institute of Technology), L. Chen (Hong Kong University of Science and Technology), X. Wang (Shanghai Jiaotong University)

2. **Distributed Flooding-Based Storage Algorithms for Large-Scale Wireless Sensor Networks**
   S. A. Aly (Cairo University), M. Youssef (Nile University), H. S. Darwish (Cairo University), M. Zidan (Ain Shams University)

3. **Using Area Hierarchy for Multi-Resolution Storage and Search in Large Wireless Sensor Networks**
   K. Iwanicki, M. van Steen (Vrije Universiteit Amsterdam)

4. **Replica Arrangement Scheme for Location Dependent Information on Sensor Networks with Unpredictable Query Frequency**
   S. Ishihara (Shizuoka University), T. Suda (University of California, Irvine)

5. **Efficient Resource Discovery in Mobile Ad Hoc Networks**
   R. Thanawala, J. Wu (Florida Atlantic University), A. Srinivasan (Bloomsburg University of Pennsylvania)

AHSN-15: Network Longevity

Room: Konferenz 5
Time: Wed, 17 Jun, 4:00 pm - 5:30 pm
Chair: Maggie Cheng (Missouri Univ. of Science and Technology)

1. **Improving Sensor Network Lifetime Through Hierarchical Multihop Clustering**
   M. Cheng, X. Gong (Missouri S&T), S. Huang (City University of Hong Kong)

2. **Minimizing Energy Consumption in IR-UWB Based Wireless Sensor Networks**
   T. Wang, W. Heinzelman, A. Seyedi (University of Rochester)

3. **Investigating Multiple Alternating Cooperative Broadcasts to Enhance Network Longevity**
   A. Kailas, M. A. Ingram (Georgia Tech)

4. **Heuristics for Lifetime Maximization in Wireless Sensor Networks with Multiple Mobile Sinks**
   S. Basagni (Northeastern University), A. Carosi, C. Petrioli (Univesity of Rome La Sapienza), C. Phillips (Sandia National Laboratories)

5. **Lifetime Optimization for Wireless Sensor Networks Using the Nonlinear Battery Current Effect**
   J. Zhang, S. Ci, H. Sharif, M. Alahmad (University of Nebraska Lincoln)

AHSN-16: Modeling

Room: Konferenz 6
Time: Wed, 17 Jun, 4:00 pm - 5:30 pm
Chair: Paolo Santi (IIT-CNR)

1. **Component Based Performance Modelling of Wireless Routing Protocols**
   J. Baras, V. Tabatabaee, P. Purkayastha, K. Somasundaram (University of Maryland)

2. **Latency and Capacity Optimal Broadcasting in Wireless Multihop Networks**
   G. Resta, P. Santi (IIT CNR)

3. **Low Bound of Energy-Latency Trade-Off of Opportunistic Routing in Multi-Hop Networks**
   R. Zhang, J.-M. Gorce, K. Jaffrès-Runser (INSA-Lyon)

4. **Energy Efficient Routing in Ad Hoc Networks with Nakagami-m Fading Channels**
   Q. Li (Carnegie Mellon University), P. Fan (Tsinghua University), D. Wu (University of Florida)

5. **Throughput Scaling of Wireless Networks With Random Connections**
   S. Cui (Qualcomm, Inc), A. M. Haimovich (New Jersey Institute of Technology), O. Somekh, H. V. Poor (Princeton University), S. Shamai (Technion)

Communication and Information Systems Security Symposium

CISS-01: Wireless Network Security

Room: Konferenz 5
Time: Mon, 15 Jun, 10:50 am - 12:20 pm
Chair: Jian Ren (Michigan State University)

1. **DSC: Cooperation Incentive Mechanism for Multi-Hop Cellular Networks**
   M. Mahmoud, X. Shen (University of Waterloo)
2. **Fragmentation and AES Encryption Overhead in Very High-Speed Wireless LANs**
   A. Olteanu, Y. Xiao (The University of Alabama)
3. **Spectrally Efficient Anti-Jamming System Design using Message-Driven Frequency Hopping**
   L. Zhang, J. Ren, T. Li (Michigan State University)
4. **Towards a Taxonomy of Wired and Wireless Anonymous Networks**
   D. Kelly, R. Raines, R. Baldwin, B. Mullins, M. Grimaila (Air Force Institute of Technology)
5. **Verification of Secret Key Generation from UWB Channel Observations**
   M. G. Madiseh, S. He, M. McGuire, S. Neville, X. Dong (University of Victoria)

CISS-02: Sensor Network Security

Room: Konferenz 5
Time: Mon, 15 Jun, 2:00 pm - 3:30 pm
Chair: Rahul Khanna (Intel)

1. **Reduced Complexity Intrusion Detection in Sensor Networks using Genetic Algorithm**
   R. Khanna (Intel Corporation), H. Liu (Oregon State University), H.-H. Chen (National Cheng Kung University)
2. **Protecting Location Privacy in Large-Scale Wireless Sensor Networks**
   L. Kang (Xidian University)
3. **An Approach for Increasing Base-Station Anonymity in Sensor Networks**
   U. Acharya, M. Younis (University of Maryland, Baltimore County)
4. **A Unified Approach to Network Traffic and Network Security Visualisation**
   H. Read, A. Blyth, I. Sutherland (University of Glamorgan)
5. **Routing-Based Source-Location Privacy in Wireless Sensor Networks**
   J. Ren, Y. Li, T. Li (Michigan State University)

CISS-P1: Information Systems Security I

Room: Poster Area 1
Time: Mon, 15 Jun, 4:00 pm - 5:30 pm
Chair: Gail-Joon Ahn (Arizona State University)

1. **Towards a Denial-of-Service Resilient Design of Complex IPsec Overlays**
   M. Brinkmeier, M. Rossberg, G. Schaefer (Technische Universität Ilmenau)

2. **Public Key-Based Rendezvous Infrastructure for Secure and Flexible Private Networking**
   A. Kubota, Y. Miyake (KDDI R&D Laboratories Inc.)

3. **Identifying the Use of Data/Voice/Video-Based P2P Traffic by DNS-Query Behavior**
   H.-S. Wu, N.-F. Huang, G.-H. Lin (National Tsing Hua University)

4. **Combining Hidden Markov Models for Improved Anomaly Detection**
   W. Khreich, E. Granger, R. Sabourin (École de Technologie Supérieure (ETS)), A. Miri (University of Ottawa)

5. **Design and Analysis of a Hierarchical IP Traceback System**
   A. Dabir, A. Matrawy (Carleton University)

6. **Dynamic Resiliency Analysis of Key Predistribution in Wireless Sensor Networks**
   A. O. Durahim, A. Levi (Sabanci University)

7. **Defending Wireless Sensor Networks Against Correlation and Middle-Man Attack**
   J. Wang, H. Choi, C. Y. Jung (Virginia Commonwealth Univ)

8. **Avoiding Eclipse Attacks on Kad/Kademlia: An Identity Based Approach**
   R. Fantacci, L. Maccari, M. Rosi, L. Chisci (Università di Firenze), L. M. Aiello, M. Milanesio (Università di Torino)

9. **Implementing Secure P2P-ONS**
   B. Fabian (Humboldt-Universität zu Berlin)

10. **On the Security Performance of Physical-Layer Network Coding**
    K. Lu (University of Puerto Rico at Mayaguez), S. Fu (University of North Texas), Y. Qian (National Institute of Standards and Technology), T. Zhang (New York Institute of Technology)

11. **Privacy-Enhanced User-Centric Identity Management**
    G.-J. Ahn (Arizona State University), M. Ko, M. Shehab (UNC Charlotte)

12. **An Automatic and Dynamic Parameter Tuning of a Statistics-based Anomaly Detection Algorithm**
    Y. Himura (The University of Tokyo), K. Fukuda (National Institute of Informatics / PRESTO, JST), K. Cho (Internet Initiative Japan), H. Esaki (The University of Tokyo)

13. **On the Use of Admission Control for Better Quality of Security**
    S. Radosavac, U. C. Kozat, J. Kempf (Docomo USA Labs)

14. **A Progressive Chaotic MPEG-4 Video Encryption Scheme for Wireless Networks**
    M. Hamdi, N. Boudriga (Communication Networks and Security Research Lab)

CISS-03: Intrusion Detection and Denial of Service

Room: Konferenz 5
Time: Tue, 16 Jun, 9:00 am - 10:30 am
Chair: Christian Callegari (University of Pisa)

1. **Modeling Human Behavior for Defense Against Flash-Crowd Attacks**
   G. Oikonomou (University of Delaware), J. Mirkovic (Information Sciences Institute, University of Southern California)

2. **Static Analysis of Executables for Collaborative Malware Detection on Android**
   A.-D. Schmidt, R. Bye, H.-G. Schmidt, J. Clausen (Technische Universität Berlin), O. Kiraz, K. A. Yüksel (Sabanci University Istanbul), S. A. Camtepe, S. Albayrak (Technische Universität Berlin)

3. **On the Use of Compression Algorithms for Network Anomaly Detection**
   C. Callegari, S. Giordano, M. Pagano (University of Pisa)

4. **Sensitivity Analysis of Burst Detection and RF Fingerprinting Classification Performance**
   R. Klein, M. Temple, M. Mendenhall, D. Reising (AF Institute of Technology)

5. **Information Theoretic Approach for Characterizing Spam Botnets Based on Traffic Properties**
   K. Smith, E. Al-Shaer, K. Elbadawi (DePaul University)

CISS-04: Authentication

Room: Konferenz 5
Time: Tue, 16 Jun, 10:50 am - 12:20 pm
Chair: Silvana Greco Polito (University of Palermo)

1. **Extending the Inter-Domain PCE Framework for Authentication and Authorization in GMPLS Networks**
   S. G. Polito, M. Chamania, A. Jukan (Technische Universität Carolo-Wilhelmina zu Braunschweig)

2. **An Insider-Resistant Group Key Exchange Protocol without Signatures**
   H. Huang (Department of Computer Science and Engineering), Z. Cao (Shanghai Jiao Tong University)

3. **Using Session Identifiers as Authentication Tokens**
   L. Chen, D. Feng, Z. Shi, F. Zhou (Huazhong University of Science and Technology)

4. **Authentication Tests Based on Test Type Matrix**
   A. Zhang, J. Tang, P. Wang (Shanghai Jiao Tong University)

5. **Feature Analysis of Mouse Dynamics in Identity Authentication and Monitoring**
   C. Shen, Z. Cai, X. Guan, H. Sha, J. Du (Xi'an Jiaotong University)

CISS-05: Information Hiding and Watermarking

Room: Konferenz 5
Time: Tue, 16 Jun, 2:00 pm - 3:30 pm
Chair: Min-Jen Tsai
(National Chiao-Tung University)

1. **Robust Multiplicative Audio and Speech Watermarking using Statistical Modeling**
   M. A. Akhaee
   (Sharif University of Technology, Iran),
   N. K. Kalantari
   (Amirkabir University of Technology, Iran),
   F. Marvasti (Sharif University of Technology, Iran)
2. **An M-Sequence Based Steganography Model for Voice Over IP**
   H. Tian, K. Zhou (Huazhong University of Science and Technology), H. Jiang (University of Nebraska-Lincoln), J. Liu (Huazhong University of Science and Technology), Y. Huang (Tsinghua University), D. Feng (Huazhong University of Science and Technology)
3. **Multipurpose Image Watermarking Based on the Wavelet Tree Contrast Level Transformation**
   M.-J. Tsai, C.-H. Shen, J. Liu
   (National Chiao Tung University)
4. **Tracing Stateful Pirate Decoders**
   Y. Wu, F. Bao, Y. Qiu
   (Institute for Infocomm Research)
5. **Information Hiding with Optimal Detector for Highly Correlated Signals**
   S. M. E. Sahraeian (Texas A&M University),
   M. A. Akhaee, F. Marvasti
   (Sharif University of Technology, Iran)

CISS-06: Deployment and Management of Security Policies

Room: Konferenz 5
Time: Tue, 16 Jun, 4:00 pm - 5:30 pm
Chair: Zonghua Zhang
(National Inst. of Inform. and Comm. Techn.)

1. **Using GMM and SVM-Based Techniques for the Classification of SSH-Encrypted Traffic**
   M. Dusi, A. Este, F. Gringoli, L. Salgarelli
   (Universita' degli Studi di Brescia)
2. **Distributed Usage Control Architecture for Business Coalitions**
   M. Stihler, A. O. Santin, A. O. Calsavara,
   A. L. Marcon Jr.
   (Pontifical Catholic University of Paraná)
3. **Security Games with Incomplete Information**
   K. C. Nguyen
   (University of Illinois Urbana-Champaign),
   T. Alpcan (Deutsche Telekom Laboratories),
   T. Basar (University of Illinois Urbana-Champaign)
4. **Sensitive Data Requests: Do Sites Ask Correctly?**
   C. Shue, M. Gupta (Indiana University)
5. **On Achieving Cost-Sensitive Anomaly Detection and Response in Mobile Ad Hoc Networks**
   Z. Zhang (NICT), P.-H. Ho (University of Waterloo),
   F. Naït-Abdesselam (University of Lille)

CISS-P2: Information Systems Security II

Room: Poster Area 1
Time: Tue, 16 Jun, 4:00 pm - 5:30 pm
Chair: Raphael Phan
(Loughborough University)

1. **Optimized TCP/IP Covert Channels Detection, IDS and Firewall Integration and Simulation**
   S. Hammouda (supcom), Z. Trabelsi
   (UAE University)
2. **A Lightweight Fast Handover Authentication Scheme in Mobile Networks**
   Y. Qiu, F. Bao, Y. Wu, Y. Yang
   (Institute for Infocomm Research)
3. **On Hashing with Tweakable Ciphers**
   R. C.-W. Phan (Loughborough University),
   J.-P. Aumasson (FHNW)
4. **Quantum Coin-Flipping-Based Authentication**
   S. Rass, P. Schartner, M. Greiler
   (Klagenfurt University)
5. **Iris Recognition using Combination of Dual Tree Rotated Complex Wavelet and Dual Tree Complex Wavelet**
   R. Bodade (Military College of Telecommunication Engineering, Mhow), S. N. Talbar
   (SGGS Institute of Engineering and Technology, Nanded)
6. **On Accurate and Scalable Anomaly Detection in Next Generation Mobile Network**
   F. Hashim, A. Jamalipour (University of Sydney)
7. **Authentication in 802.11 LANs using a Covert Side Channel**
   T. E. Calhoun Jr., R. Newman, R. Beyah
   (Georgia State University)
8. **Design and Implementation of Physical Layer Private Key Setting for Wireless Networks**
   L. Mucchi (University of Florence), L. S. Ronga (CNIT, University of Florence unit), E. Del Re (University of Florence and CNIT)
9. **SB-RAWVec - A Semi-Blind Watermarking Method for Vector Maps**
   K. Magalhaes, R. Dahab (UNICAMP)
10. **Discernibility Analysis and Accuracy Improvement of Machine Learning Algorithms for Network Intrusion Detection**
    S. Li, Y. Luo (University of Massachusetts Lowell)
11. **Policy-Based Security Configuration Management, Application to Intrusion Detection and Prevention**
    K. Alsubhi, I. Aib (University of Waterloo),
    J. François (CNRS, INRIA, Nancy Université),
    R. Boutaba (University of Waterloo)
12. **JUST-Google: A Search Engine-Based Defense Against Botnet-Based DDoS Attacks**
    B. Al-Duwairi
    (Jordan University of Science and Technology),
    G. Mainimaran (Iowa State University)
13. **Detecting Malicious Packet Dropping in the Presence of Collisions and Channel Errors in Wireless Ad Hoc Networks**
    T. Hayajneh, P. Krishnamurthy, D. Tipper, T. Kim
    (University of Pittsburgh)

14. **Implementation of a Chaotically Encrypted Wireless Communication System**
A. M. Abid, Q. Nasir, A. S. Elwakil (University of Sharjah)

CISS-07: Application Layer Security

Room: Seminar 1
Time: Wed, 17 Jun, 9:00 am - 10:30 am
Chair: Davide Ariu (University of Cagliari)

1. **Distributed Phishing Detection by Applying Variable Selection using Bayesian Additive Regression Trees**
S. Abu-Nimeh, D. Nappa, X. Wang, S. Nair (SMU HACNet Lab)

2. **Revealing Social Networks of Spammers Through Spectral Clustering**
K. Xu (University of Michigan), M. Kliger (Medasense Biometrics Ltd.), Y. Chen, P. Woolf, A. O. Hero III (University of Michigan)

3. **Trust-Based Data Disclosure in Sensor Networks**
E. Aivaloglou, S. Gritzalis (University of the Aegean)

4. **HMM-Web: A Framework for the Detection of Attacks against Web Applications**
I. Corona, D. Ariu, G. Giacinto (University of Cagliari)

5. **A Secure Solution for Ubiquitous Multimedia Broadcasting**
S. Lian, Y. Dong, H. Wang (France Telecom R&D (Orange Labs) Beijing)

CISS-08: Cryptography and Cryptographic Procedures

Room: Seminar 2
Time: Wed, 17 Jun, 9:00 am - 10:30 am
Chair: Aldar Chun-Fai Chan (National University of Singapore)

1. **Efficient and Adaptively Secure Append-Only Signature**
Y. Cui (AIST), M. Li (University of Tokyo), K. Yokoyama (Chuo University), H. Imai (Chuo University /AIST)

2. **A Scalable Block Cipher Design using Filter Banks and Lifting over Finite Fields**
S. Saraireh, M. Benaissa (Uinveristy of Sheffield)

3. **Error-Tolerant Searchable Encryption**
J. Bringer, H. Chabanne, B. Kindarji (Sagem Sécurité - Télécom ParisTech)

4. **Symmetric-Key Homomorphic Encryption for Encrypted Data Processing**
A. C.-F. Chan (National University of Singapore)

5. **Cryptanalysis of Substitution Cipher Chaining Mode (SCC)**
M. A. El-Fotouh, K. Diepold (Technische Universität München)

CISS-09: IP Security

Room: Seminar 1
Time: Wed, 17 Jun, 10:50 am - 12:20 pm
Chair: Huw Read (University of Glamorgan)

1. **Performance of Host Identity Protocol on Symbian OS**
A. Khurri, D. Kuptsov, A. Gurtov (Helsinki Institute for Information Technology)

2. **End-Host Authentication and Authorization for Middleboxes based on a Cryptographic Namespace**
T. Heer, R. Hummen (RWTH Aachen University), M. Komu (Helsinki University of Technology), S. Götz, K. Wehrle (RWTH Aachen University)

3. **Performance-Aware Security of Unicast Communication in Hybrid Satellite Networks**
A. Roy-Chowdhury, J. Baras (University of Maryland)

4. **CLACK: A Network Covert Channel Based on Partial Acknowledgment Encoding**
X. Luo, E. W. W. Chan, R. K. C. Chang (The Hong Kong Polytechnic University)

5. **VoIP Malware: Attack Tool & Attack Scenarios**
M. Nassar, R. State, O. Festor (INRIA)

CISS-10: Special Topics on Information Security

Room: Seminar 2
Time: Wed, 17 Jun, 10:50 am - 12:20 pm
Chair: Jianku Hu (RMIT University)

1. **Message Origin Authentication and Integrity Protection in Chaos-based Optical Communication**
P. Rizomiliotis (University of the Aegean), A. Bogris, D. Syvridis (University of Athens)

2. **Security in Advanced Optical Communication Networks**
S. Kartalopoulos (The University of Oklahoma)

3. **EPSON: Enhanced Physical Security in OFDM Networks**
F. He, H. Man (Stevens Institute of Technology), D. Kivanc (WVU Institute of Technology), B. McNair (Stevens Institute of Technology)

4. **Biometric Mobile Template Protection: A Composite Feature based Fingerprint Fuzzy Vault**
K. Xi, J. Hu (RMIT University)

5. **(A Novel) Complexity Metric of FH/SS Sequences Using Approximate Entropy**
Z. Li, J. Cai, X. Lu, J. Si (State Key Laboratory of Integrated Services Networks XiDian University)

CISS-11: Privacy and Peer to Peer Security

Room: Seminar 1
Time: Wed, 17 Jun, 2:00 pm - 3:30 pm
Chair: Madhumita Chatterjee (IIT Bombay)

1. **Anonymous and Authenticated Routing in Multi-Hop Cellular Networks**
M. Mahmoud, X. Shen (University of Waterloo)

2. **Preserving Privacy for Location-Based Services with Continuous Queries**
Y. Wang, L. Wang, B. C. M. Fung (Concordia University)

3. **A Chaotic Maps-Based Key Agreement Protocol that Preserves User Anonymity**
H.-R. Tseng, R.-H. Jan, W. Yang (National Chiao Tung University)

4. **Speeding Up Homomorpic Hashing Using GPUs**
   K. Zhao, X. Chu (Hong Kong Baptist University), M. Wang (University of Calgary), Y. Jiang (Tsinghua University)
5. **Dynamic Policy Based Model for Trust Based Access Control in P2P Applications**
   M. Chatterjee, G. Sivakumar, B. Menezes (Indian Institute of Technology)

CISS-12: Distributed Systems Security

Room: Seminar 2
Time: Wed, 17 Jun, 2:00 pm - 3:30 pm
Chair: Kaliappa Ravindran
(City University of New York)

1. **Pollution Resilience for DNS Resolvers**
   A. Kalafut, M. Gupta (Indiana University)
2. **Secure Browser-Based Access to Web Services**
   L. Lo Iacono, H. Rajasekaran (NEC Europe Ltd.)
3. **Flexible Single Sign-On for SIP: Bridging the Identity Chasm**
   P. Nie, J.-M. Tapio, S. Tarkoma, J. Heikkinen (Helsinki University of Technology)
4. **Reconfigurable Peer-to-Peer Connectivity Overlays for Information Assurance Applications**
   K. Ravindran (City University of New York)
5. **Extracting Attack Sessions from Real Traffic with Intrusion Prevention Systems**
   I.-W. Chen, P.-C. Lin, C.-C. Luo, T.-H. Cheng, Y.-D. Lin (National Chiao Tung University), Y.-C. Lai (National Taiwan University of Science and Technology), F. C. Lin (Cisco)

CISS-13: Metrics and Performance Evaluation

Room: Seminar 1
Time: Wed, 17 Jun, 4:00 pm - 5:30 pm
Chair: Felix Gomez Marmol
(University of Murcia)

1. **Security Analysis of Enterprise Network Based on Stochastic Game Nets Model**
   Y. Wang, C. Lin, Y. Wang, K. Meng (Tsinghua University)
2. **Compact DFA Structure for Multiple Regular Expressions Matching**
   W. Lin (Tsinghua University and City University of Hong Kong), Y. Tang, B. Liu (Tsinghua University), D. Pao (City University of Hong Kong), X. Wang (Dublin City University)
3. **Lightweight Static Analysis to Detect Polymorphic Exploit Code with Static Analysis Resistant Technique**
   D. Kim, I. Kim, J. Oh, H. Cho (Electronics and Telecommunications Research Institute, Korea)
4. **Monitoring Abnormal Traffic Flows Based on Independent Component Analysis**
   T. Qin, X. Guan, W. Li, P. Wang (Xi'an Jiaotong University)
5. **TRMSim-WSN, Trust and Reputation Models Simulator for Wireless Sensor Networks**
   F. G. Marmol, G. M. Perez (University of Murcia)

CISS-14: Vulnerabilities and Malicious Behavior

Room: Seminar 2
Time: Wed, 17 Jun, 4:00 pm - 5:30 pm
Chair: Jon Wallace
(Jacobs University Bremen)

1. **BlueBat: Towards Practical Bluetooth Honeypots**
   A. Galante, A. Kokos, S. Zanero (Politecnico di Milano)
2. **An Automated Signature Generation Approach for Polymorphic Worm Based on Color Coding**
   J. Wang, J. Wang (Central South University), J. Chen, X. Zhang (Texas A&M University)
3. **A Mathematical View of Network-Based Suppressions of Worm Epidemics**
   N. Jamil (Southern Methodist University), T. Chen (Swansea University)
4. **A First Order Logic Security Verification Model for SIP**
   D. Geneiatakis, C. Labrinoudakis, G. Kambourakis, A. Kafkalas (University of the Aegean), S. Ehlert (Fraunhofer FOKUS)
5. **Secure Physical Layer Key Generation Schemes: Performance and Information Theoretic Limits**
   J. Wallace (Jacobs University Bremen)

Communication Theory Symposium

CT-01: Relaying

Room: Konferenz 3
Time: Mon, 15 Jun, 10:50 am - 12:20 pm
Chair: Aylin Yener
(Pennsylvania State University)

1. **On Quantizer Design for Soft Values in the Multiple-Access Relay Channel**
G. Zeitler, R. Koetter (Technische Universität München), G. Bauch (Universität der Bundeswehr München), J. Widmer (DoCoMo Eurolabs)

2. **Near-Optimal Relaying Strategy for Cooperative Broadcast Channels**
H. Ning, C. Ling, K. K. Leung (Imperial College London)

3. **Optimization for Fractional Cooperation in Multiple-Source Multiple-Relay Systems**
J. P. K. Chu (University of Toronto), A. W. Eckford (York University), R. S. Adve (University of Toronto)

4. **Opportunities, Constraints, and Benefits of Relaying in the Presence of Interference**
P. Rost, G. Fettweis (Technische Universität Dresden), J. N. Laneman (University of Notre Dame)

5. **Information Combining for Relay Networks**
V. Kuehn, S. Vorkoeper (University of Rostock)

CT-02: Two-way Relaying

Room: Konferenz 3
Time: Mon, 15 Jun, 2:00 pm - 3:30 pm
Chair: Sennur Ulukus
(University of Maryland)

1. **Power Allocation for Multi-Access Two-Way Relaying**
M. Chen, A. Yener (The Pennsylvania State University)

2. **Adaptive Power Allocation in Two-Way Amplify-and-Forward Relay Networks**
X. J. Zhang, Y. Gong (Nanyang Technological University)

3. **On the Capacity of Bidirectional Broadcast Channels under Channel Uncertainty**
R. F. Wyrembelski, I. Bjelakovic (Technical University of Berlin), T. J. Oechtering (Royal Institute of Technology), H. Boche (Technical University of Berlin)

4. **A Generalized Two-Way Relay Channel with Private Information for the Relay**
C. K. Ho, K. T. Gowda, S. Sun (Institute for Infocomm Research)

5. **Capacity Analysis for MIMO Two-Hop Amplify-and-Forward Relaying Systems with the Source to Destination Link**
A. Firag, P. J. Smith (University of Canterbury), M. R. McKay (Hong Kong University of Science and Technology)

CT-03: Network Information Theory

Room: Konferenz 3
Time: Mon, 15 Jun, 4:00 pm - 5:30 pm
Chair: Raviraj Adve (University of Toronto)

1. **Achievable Rates for the Gaussian Relay Interferer Channel with a Cognitive Source**
A. Zaidi, L. Vandendorpe (Université Catholique de Louvain)

2. **On the Capacity Region of the Gaussian Multiple Access Channel with Noisy Feedback**
R. Tandon, S. Ulukus (University of Maryland)

3. **The Interference-Multiple-Access Channel**
E. Perron, S. Diggavi, E. Telatar (EPFL)

4. **Ergodic Secrecy Capacity Region of the Fading Broadcast Channel**
E. Ekrem, S. Ulukus (University of Maryland, College Park)

5. **ARQ-Based Secret Key Sharing**
M. A. Latif, A. Sultan (Nile University), H. El Gamal (Ohio State University)

CT-04: Ad Hoc Network Capacity

Room: Konferenz 3
Time: Tue, 16 Jun, 9:00 am - 10:30 am
Chair: Cedric Westphal
(Docomo Labs USA)

1. **Spatial Multiplexing with MRC and ZF Receivers in Ad Hoc Networks**
R. H. Y. Louie (University of Sydney), M. R. McKay (Hong Kong University of Science & Technology), I. B. Collings (CSIRO)

2. **Transmission Capacities for Overlaid Wireless Ad Hoc Networks with Outage Constraints**
C. Yin (Beijing University of Posts and Telecommunications), L. Gao, T. Liu, S. Cui (Texas A&M University)

3. **Transmission Capacity of Two-Way Communication in Wireless Ad Hoc Networks**
K. T. Truong (The University of Texas at Austin), S. Weber (Drexel University), R. W. Heath Jr. (The University of Texas at Austin)

4. **A Study of the Percolation Threshold for k-Collaborative Wireless Networks**
C. Westphal (Docomo)

5. **Network Coding Does Not Change the Multicast throughput Order of Wireless Ad Hoc Networks**
S. Karande, Z. Wang, H. R. Sadjadpour, J. J. Garcia-Luna-Aceves (University of California, Santa Cruz)

CT-P1: Poster Session I

Room: Poster Area 2
Time: Tue, 16 Jun, 9:00 am - 10:30 am
Chair: Virgilio Rodriguez (RWTH Aachen)

1. **Arbitrarily Tight Upper and Lower Bounds on the Gaussian Q-Function and Related Functions**
   G. T. Freitas de Abreu (University of Oulu)

2. **A Transmission Scheme for Continuous ARQ Protocols over Underwater Acoustic Channels**
   M. Gao, W.-S. Soh (National University of Singapore), M. Tao (Shanghai Jiao Tong University)

3. **Improving the Performance of LP Decoders for Cyclic Codes**
   M. R. Heidarpour, M. Modarres-Hashemi, M. Khosravifard (Isfahan University of Technology, Iran), T. A. Gulliver (University of Victoria)

4. **Low Complexity Encoder for Generalized Quasi-Cyclic Codes Coming from Finite Geometries**
   V. Tam Van, H. Matsui, S. Mita (Toyota Technological Institute)

5. **Design of Two-Dimensional Wavelength-Time Codes for Fiber-Optic CDMA Systems**
   C.-H. Tsai, T.-Y. Liao (National Chung Hsing University), C.-Y. Chang (National United University), G.-C. Yang (National Chung Hsing University), W. C. Kwong (Hofstra University)

6. **Performance Analysis of the Signal-to-Noise Ratio Assisted Crosstalk Channel Estimation for DSL Systems**
   M. Guenach (Alcatel-Lucent Bell Labs), J. Louveaux, L. Vandendorpe (Universite Catholique de Louvain), P. Whiting, J. Maes, M. Peeters (Alcatel-Lucent Bell Labs)

7. **Low-Complexity Multisampling Multiuser Detector for Time-Hopping UWB Systems**
   I. Hosseini, N. C. Beaulieu (University of Alberta)

8. **Parametric Construction of Improved Nyquist Filters Based on Inner and Outer Functions**
   S. D. Assimonis (Aristotle University of Thessaloniki), M. Matthaiou (Munich University of Technology (TUM)), G. K. Karagiannidis (Aristotle University of Thessaloniki), J. A. Nossek (Munich University of Technology (TUM))

9. **Green DSL: Energy-Efficient DSM**
   P. Tsiaflakis (K.U.Leuven), Y. Yi (KAIST), M. Chiang (Princeton University), M. Moonen (K.U.Leuven)

10. **Optimal Transmitters for Hypothesis Testing over a Rayleigh Fading MAC**
    O. Dabeer (Tata Institute of Fundamental Research)

11. **Errorless Codes for Over-Loaded CDMA with Active User Detection**
    P. Pad, M. Soltanolkotabi, S. Hadikhanlou, A. Enayati, F. Marvasti (Advanced Communications Research Institute (ACRI), Iran)

12. **Near Successive Refinement of Gaussian Vectors in Grassmannian Space**
    F. Tosato (Toshiba Research Europe)

13. **Compressed Sensing Maximum Likelihood Channel Estimation for Ultra-Wideband Impulse Radio**
    T. C.-K. Liu, X. Dong, W.-S. Lu (University of Victoria)

14. **A Greedy Cophasing Scheme for MIMO Beamforming Systems Using Quantized Feedback**
    Y. G. Kim (University of Seoul), N. C. Beaulieu (University of Alberta)

CT-05: Wireless Networks

Room: Konferenz 3
Time: Tue, 16 Jun, 10:50 am - 12:20 pm
Chair: Mustafa Cenk Gursoy (University of Nebraska-Lincoln)

1. **Completion Time Minimization and Robust Power Control in Wireless Packet Networks**
   C. T. K. Ng, M. Médard, A. Ozdaglar (Massachusetts Institute of Technology)

2. **Energy Efficiency of Fixed-Rate Wireless Transmissions under QoS Constraints**
   D. Qiao, M. C. Gursoy, S. Velipasalar (University of Nebraska-Lincoln)

3. **Energy-Aware Utility Regions: Multiple Access Pareto Boundary**
   E. A. Jorswieck (Dresden University of Technology), H. Boche (Technical University of Berlin)

4. **A Generalised Multi-Receiver Radio Network and its Decomposition Into Independent Transmitter-Receiver Pairs: Simple Feasibility Condition and Power Levels in Closed Form**
   V. Rodriguez, R. Mathar (RWTH Aachen)

5. **Maximizing the Sum Rate in Symmetric Networks of Interfering Links**
   S. R. Bhaskaran, S. V. Hanly, N. Badruddin, J. S. Evans (University of Melbourne)

CT-06: Network Coding

Room: Konferenz 3
Time: Tue, 16 Jun, 2:00 pm - 3:30 pm
Chair: Todd Coleman (University of Illinois)

1. **Comparison of Analog and Digital Relay Methods with Network Coding for Wireless Multicast**
   M. Riemensberger (Technische Universität München), Y. E. Sagduyu, M. L. Honig (Northwestern University), W. Utschick (Technische Universität München)

2. **Random Linear Network Coding for Time Division Duplexing: Energy Analysis**
   D. E. Lucani (RLE - MIT), M. Stojanovic (Northeastern University), M. Médard (RLE - MIT)

3. **A Game-Theoretic Analysis of Inter-Session Network Coding**
   A. H. Mohsenian-Rad (University of British Columbia), J. Huang (Chinese University of Hong Kong), V. W.S. Wong (University of British Columbia), S. Jaggi (Chinese University of Hong Kong), R. Schober (University of British Columbia)

4. **An Analytical Approach for Throughput Evaluation of Wireless Network Coding**
   M. H. Amerimehr, F. Ashtiani, M. B. Iraji (Sharif University of Technology, Iran)

5. **On Capacity Region of Two-Way Multi-Antenna Relay Channel with Analogue Network Coding**
   R. Zhang, C. C. Chai, Y.-C. Liang (Institute for Infocomm Research), S. Cui (Texas A&M University)

CT-07: Cognitive Radio

Room: Konferenz 3
Time: Tue, 16 Jun, 4:00 pm - 5:30 pm
Chair: Keith Q. T. Zhang (City University of HongKong)

1. **Protecting Primary Users in Cognitive Radio Networks: Peak or Average Interference Power Constraint?**
   R. Zhang (Institute for Infocomm Research), X. Kang (National University of Singapore), Y.-C. Liang (Institute for Infocomm Research)

2. **Blind Cognitive MAC Protocols**
   O. Mehanna, A. Sultan (Nile University), H. El Gamal (Ohio State University)

3. **Advanced Detection Techniques for Cognitive Radio**
   Q. T. Zhang (City University of Hong Kong)

4. **Composite Hypothesis Testing for Cooperative Spectrum Sensing in Cognitive Radio**
   S. Zarrin, T. J. Lim (University of Toronto)

5. **Distributed Beamforming and Rate Allocation in Multi-Antenna Cognitive Radio Networks**
   A. Tajer (Columbia University), N. Prasad (NEC Labs), X. Wang (Columbia University)

CT-P2: Poster Session II

Room: Poster Area 2
Time: Tue, 16 Jun, 4:00 pm - 5:30 pm
Chair: Ying Jun (Angela) Zhang (The Chinese University of Hong Kong)

1. **Enabling Differentiated QoS Based on Cross-Layer Optimization in Wireless Ad Hoc Networks**
   P. Goudarzi, F. Ayatollahi, M. R. N. Ranjbar (ITRC, Iran)

2. **Approximate Expressions for Cramer-Rao Bounds of Code Aided QAM Dynamical Phase Estimation**
   J. Yang (ENS Cachan), B. Geller (ENSTA ParisTech), A. Wei (Université Toulouse II)

3. **Optimum TCM Codes Design for Gaussian Channels by Considering Both Euclidean and Hamming Distances**
   X. Zhang, Y. Zhao (State Key Laboratory of Advanced Optical Communication Systems & Networks, School of Electronics Engineering & Computer Science, Peking University), L. Zou (Thomson Broadband R&D (Beijing) Co. Ltd)

4. **Capacity with Probabilistic Delay Constraint for Voice Traffic in a Rayleigh Channel**
   B. Soret, M. C. Aguayo-Torres, J. T. Entrambasaguas (University of Malaga)

5. **Rate Allocation for the Multi-Source Downlink Channel with Minimax Optimization**
   W. P. Tam, T. M. Lok (The Chinese University of Hong Kong)

6. **Construction of High Rate Super-Orthogonal Space-Time Block Codes**
   Y. Wu, R. Calderbank (Princeton University)

7. **Error Resilient Non-Asymmetric Slepian-Wolf Coding**
   C. Herzet, V. Toto-Zarasoa, A. Roumy (INRIA)

8. **Linear MMSE MIMO Channel Estimation with Imperfect Channel Covariance Information**
   A. Assalini, E. Dall'Anese, S. Pupolin (University of Padua)

9. **Optimal Transmission for Dying Channels**
   M. Zeng (Texas A&M University), R. Zhang (Institute for Infocomm Research), S. Cui (Texas A&M University)

10. **Multi-Dimensional Nested Lattice Quantization for Wyner-Ziv Coding**
    S. Gao, C. Ling (Imperial College London)

11. **Performance Comparison Among Conventional Selection Combining, Optimum Selection Combining and Maximal Ratio Combining**
    N. Kong (CarrierComm Inc)

12. **A Unified Framework for Interference Modeling for Multi-User Wireless Networks**
    H. Boche (Fraunhofer Institut HHI), M. Schubert (Fraunhofer Institut MCI)

13. **A Mutual Information Approach for Comparing LLR Metrics for Iterative Decoders**
    J. Zhang, M. A. Armand, P. Y. Kam (National University of Singapore)

14. **Analysis of Probabilistic Flooding: How Do We Choose the Right Coin?**
    S. Crisóstomo (Universidade do Porto, Portugal, and Instituto de Telecomunicações, Portugal, and University of Klagenfurt, Austria), U. Schilcher (University of Klagenfurt, Austria), C. Bettstetter (University of Klagenfurt, Austria, and Lakeside Labs GmbH, Klagenfurt, Austria), J. Barros (Universidade do Porto, Portugal, and Instituto de Telecomunicações, Portugal)

15. **Spectrum Balancing Algorithms for Power Minimization in DSL Networks**
    M. Monteiro, N. Lindqvist, A. Klautau (Federal University of Para)

CT-08: MIMO Systems

Room: Konferenz 2
Time: Wed, 17 Jun, 9:00 am - 10:30 am
Chair: Nihar Jindal (University of Minnesota)

1. **Exploiting Connections Between MIMO MMSE Achievable Rate and MIMO Mutual Information**
   M. R. McKay (Hong Kong University of Science & Technology), I. B. Collings (CSIRO), A. M. Tulino (Universita di Napoli)

2. **Transmit Precoding for MIMO Systems with Partial CSI and Discrete-Constellation Inputs**
   C. Xiao, Y. R. Zheng
   (Missouri University of Science and Technology)

3. **On the Optimal Transmission for the MIMO Bidirectional Broadcast Channel**
   T. J. Oechtering (Royal Institute of Technology), R. F. Wyrembelski (Technical University of Berlin), H. Boche (Fraunhofer German-Sino Lab for Mobile Communications)

4. **A Low ML-Decoding Complexity, High Coding Gain, Full-Rate, Full-Diversity STBC for 4 Œ 2 MIMO System**
   K. P. Srinath, B. S. Rajan (IISc)

5. **Optimal Weighted Antenna Selection for Imperfect Channel Knowledge from Training**
   V. Kristem, N. B. Mehta
   (Indian Institute of Science (IISc)), A. F. Molisch
   (University of Southern California)

CT-09: Capacity

Room: Konferenz 3
Time: Wed, 17 Jun, 9:00 am - 10:30 am
Chair: Tolga Duman
(Arizona State University)

1. **Upper Bounding the Deletion Channel Capacity by Auxiliary Memoryless Channels**
   D. Fertonani, T. M. Duman
   (Arizona State University)

2. **A Discrete Channel Model for Capturing Memory and Soft-Decision Information: A Capacity Study**
   C. Pimentel (Federal University of Pernambuco), F. Alajaji (Queen"s University)

3. **Novel Shaping and Complexity-Reduction Techniques for Approaching Capacity over Queuing Timing Channels**
   N. Kiyavash, T. P. Coleman, M. Rodrigues
   (University of Illinois)

4. **Capacity of Optical Intensity Channels with Peak and Average Power Constraints**
   A. A. Farid, S. Hranilovic (McMaster University)

5. **Low SNR Capacity of Double-Scattering MIMO Channels with Transmitter Channel Knowledge**
   S. Jin (University College London), M. R. McKay (Hong Kong University of Science and Technology), K.-K. Wong (University College London), X. Li (Southeast University)

CT-10: Multiuser or Network MIMO

Room: Konferenz 2
Time: Wed, 17 Jun, 10:50 am - 12:20 pm
Chair: Tobias Oechtering
(Royal Institute of Technology)

1. **On Uplink Network MIMO under a Constrained Backhaul and Imperfect Channel Knowledge**
   P. Marsch, G. Fettweis
   (Technische Universität Dresden)

2. **Rethinking MIMO for Wireless Networks: Linear Throughput Increases with Multiple Receive Antennas**
   N. Jindal (University of Minnesota), J. G. Andrews (University of Texas at Austin), S. Weber (Drexel University)

3. **Distributed Interference Pricing for the MIMO Interference Channel**
   C. Shi (Northwestern University), D. A. Schmidt (Technische Universität München), R. A. Berry, M. L. Honig (Northwestern University), W. Utschick (Technische Universität München)

4. **The Multicell Processing Capacity of the Cellular MIMO Uplink Channel under Correlated Fading**
   S. Chatzinotas, M. A. Imran, R. Hoshyar
   (University of Surrey)

5. **Effects of Imperfect Channel State Information on Achievable Rates of Precoded Multi-User MIMO Broadcast Channels with Limited Feedback**
   B. Song, M. Haardt
   (Ilmenau University of Technology)

CT-11: Modulation and Coding

Room: Konferenz 3
Time: Wed, 17 Jun, 10:50 am - 12:20 pm
Chair: Negar Kiyavash
(Univ. of Illinois at Urbana-Champaign)

1. **Distributed Turbo Trellis Coded Modulation for Cooperative Communications**
   S. X. Ng (University of Southampton), Y. Li (University of Sydney), L. Hanzo
   (University of Southampton)

2. **Unequal Error Protection in BICM with QAM Constellations: Interleaver and Code Design**
   A. Alvarado, E. Agrell
   (Chalmers University of Technology), L. Szczecinski (INRS-EMT), A. Svensson
   (Chalmers University of Technology)

3. **Adaptive Modulation in Spectrum-Sharing Systems with Delay Constraints**
   L. Musavian (Loughborough University), S. Aissa (INRS-EMT)

4. **Performance Evaluation of QAM-Based BICM: An Analytical Approach**
   A. Kenarsari-Anhari, L. Lampe
   (University of British Columbia)

5. **Physical-Layer Security: Combining Error Control Coding and Cryptography**
   W. K. Harrison, S. W. McLaughlin
   (Georgia Institute of Technology)

CT-12: OFDM/OFDMA

Room: Konferenz 2
Time: Wed, 17 Jun, 2:00 pm - 3:30 pm
Chair: Robert Fischer
(University Erlangen-Nuremberg)

1. **Slow Adaptive OFDMA via Stochastic Programming**
   W. L. Li, Y. J. Zhang
   (The Chinese University of Hong Kong), M. Z. Win (Massachusetts Institute of Technology)

2. **Low-Complexity Energy-Efficient OFDMA**
   G. Miao (Georgia Institute of Technology), N. Himayat (Intel), G. Y. Li (Georgia Institute of Technology), S. Talwar (Intel)

3. **Successive PAR Reduction in (MIMO) OFDM**
   R. F.H. Fischer, C. Siegl (University Erlangen)

4. **Constellation Rotated Vector OFDM and Its Performance over Rayleigh Fading Channels**
   C. Han, T. Hashimoto (University of Electro-Communications), N. Suehiro (University of Tsukuba)

5. **2nd Order Cyclostationarity of OFDM Signals: Impact of Pilot Tones and Cyclic Prefix**
   M. Adrat, J. Leduc, S. Couturier, M. Antweiler (FGAN), H. Elders-Boll (Cologne University of Applied Sciences)

CT-13: Channel Coding

Room: Konferenz 3
Time: Wed, 17 Jun, 2:00 pm - 3:30 pm
Chair: Leszek Szczecinski (INRS-EMT)

1. **Correcting Suboptimal Metrics in Iterative Decoders**
   A. Alvarado (Chalmers University of Technology), V. Núñez (Universidad Técnica Federico Santa María), L. Szczecinski (INRS-EMT), E. Agrell (Chalmers University of Technology)

2. **A Cross-Layer Perspective on Rateless Coding for Wireless Channels**
   T. A. Courtade, R. D. Wesel (University of California, Los Angeles)

3. **Vertex Packing Decoding**
   M. Lunglmayr (Klagenfurt University), J. Berkmann (Infineon Technologies AG), M. Huemer (Klagenfurt University)

4. **Burst Erasure Correction Capabilities of (n,n-1) Convolutional Codes**
   H. Deng, M. Kuijper, J. Evans (University of Melbourne)

5. **New Constructions of Low-Complexity Convolutional Codes**
   A. Katsiotis (National and Kapodistrian University of Athens), P. Rizomiliotis (University of the Aegean), N. Kalouptsidis (National and Kapodistrian University of Athens)

CT-14: Fading Channels

Room: Konferenz 2
Time: Wed, 17 Jun, 4:00 pm - 5:30 pm
Chair: Norman Beaulieu (University of Alberta)

1. **A Design of Space-Time Codes for CPFSK Modulation over Multipath Fading Channels**
   C.-C. Lu, S.-C. Chou, D.-T. Huang (National Tsing Hua University)

2. **Deterministic Combining for Fading Channels**
   R. K. Mallik (Indian Institute of Technology - Delhi), J. H. Winters (Jack Winters Communications, LLC)

3. **Large SNR Analysis of Diversity Schemes on Rayleigh Channels with Arbitrary Correlation**
   S. Liu (University of Alberta), J. Cheng (The University of British Columbia), N. C. Beaulieu (University of Alberta)

4. **Low Complexity Markov Chain Monte Carlo Detector for Channels with Intersymbol Interference**
   R.-H. Peng, R.-R. Chen, B. Farhang-Boroujeny (University of Utah)

5. **Block Detection of Multiple Symbol DPSK in a Statistically Unknown Time-Varying Channel**
   N. Ricklin, J. R. Zeidler (University of California, San Diego)

CT-15: LDPC Codes

Room: Konferenz 3
Time: Wed, 17 Jun, 4:00 pm - 5:30 pm
Chair: Lutz Lampe (University of British Columbia)

1. **Design and Analysis of EšRC Codes Using EXIT Chart**
   C. Shi, A. Ramamoorthy (Iowa State University)

2. **Low-Complexity List-Based Frame Synchronization for LDPC Coded Transmission**
   C. Stefanovic, D. Vukobratovic, D. Bajic (University of Novi Sad)

3. **Performance Analysis of Verification-Based Decoding for Packet-Based LDPC Codes over Binary Symmetric Channel**
   B. Zhu, D. Huang (The University of Western Australia), S. Nordholm (Western Australian Telecommunications Research Institute)

4. **Practical Dirty Paper Coding with Nested Binary LDGM-LDPC Codes**
   Q. Wang, C. He (Shanghai Jiao Tong University)

5. **Evaluation of the Extremely Low Block Error Rate of Irregular LDPC Codes**
   X. Zheng, F. C. M. Lau, C. K. Tse (Hong Kong Polytechnic University), Y. He (Shenzhen University), M. Z. Wang (Hong Kong Polytechnic University)

Communications Software and Services Symposium

CSWS-P1: Software and Protocol Technologies

Room: Poster Area 1
Time: Mon, 15 Jun, 2:00 pm - 3:30 pm
Chair: Wolfgang Kellerer (DOCOMO Comm. Labs Europe)

1. **Efficient Detection of Bots in Subscribers' Computers**
   J. Brustoloni, N. Farnan, R. Villamarin-Salomon, D. Kyle (University of Pittsburgh)
2. **Tale in the Multi-Core Era: Is Java Still Competitive to Host SIP Applications?**
   Y. Zhao, K. Zheng, H. Wang, Z. Gao (IBM China Research Lab)
3. **On Contextcast: A Context-Aware Communication Mechanism**
   L. Geiger, F. Dürr, K. Rothermel (Institute of Parallel and Distributed Systems, Universität Stuttgart)
4. **Service Coalitions for Future Internet Services**
   J. Rubio-Loyola (Universitat Pompeu Fabra), C. Mérida-Campos, S. Willmott, A. Astorga, J. Serrat (Universitat Politècnica de Catalunya), A. Galis (University College London)
5. **Investigation of H.264 Video Streaming over an IEEE 802.11e EDCA Wireless Testbed**
   R. Haywood, S. Mukherjee, X.-H. Peng (Aston University)
6. **Towards a GNU/Linux IEEE 802.21 Implementation**
   E. Piri, K. Pentikousis (VTT Technical Research Centre of Finland)
7. **HELP:// Hypertext in-Emergency Leveraging Protocol**
   M. Guirguis, H. Goto (Texas State University)
8. **Effects of User Behavior on MMORPG Traffic**
   G. Szabó, A. Veres (Ericsson Research), S. Molnár (BUTE)
9. **On the Use of an ADSL2+ Testbed for Video Quality Assessment**
   G. Gonçalves, G. G. B. Santos, J. F. Fidalgo, J. Kelner, D. H. F. Sadok (Federal University of Pernambuco), S. F. de L. Fernandes (University of Ottawa)
10. **Atomic Distributed Semaphores for Accessing Networked Data**
    A. Y. C. Yu (Genesys Lab), K. L. E. Law (Ryerson University)

CSWS-01: Multimedia Applications and Services

Room: Konferenz 6
Time: Tue, 16 Jun, 9:00 am - 10:30 am
Chair: Stefan Arbanowski (Fraunhofer Institut FOKUS)

1. **Limited Chain Relay - a Novel Multimedia Distribution Algorithm and its Analysis**
   V. Ramaswami, R. Jana (AT&T Labs Research), S. Ahn (University of Seoul, Korea)
2. **Automated Real-Time Recommendations for IPTV**
   E. Bonilla, M. Stier, S. Niccolini, M. Brunner (NEC Europe Ltd.)
3. **Pick Your Layers Wisely - a Quality Assessment of H.264 Scalable Video Coding for Mobile Devices**
   A. Eichhorn, P. Ni (Simula Research Laboratory)
4. **Subset Selection in Type-II Hybrid ARQ/FEC for Video Multicast**
   S. M. Amiri, I. V. Bajic (Simon Fraser University)
5. **Improved Joint Source-Channel Decoding of JPEG2000 Images and Reed-Solomon Codes**
   S. Bahmani, I. V. Bajic, A. HajShirmohammadi (Simon Fraser University)

CSWS-02: Peer-to-Peer Services

Room: Seminar 5
Time: Wed, 17 Jun, 9:00 am - 10:30 am
Chair: Saverio Niccolini (NEC Europe Ltd.)

1. **ACNS: Adaptive Complementary Neighbor Selection in BitTorrent-Like Applications**
   Z. Zhou, Z. Li, G. Xie (Institute of Computing Technology, Chinese Academy of Sciences)
2. **A Resource-Efficient Traffic Localization Scheme for Multiple BitTorrents**
   N.-F. Huang, Y.-M. Chu, C.-H. Tsai, W.-Z. Huang, W.-J. Tzeng (National Tsing-Hua University)
3. **fP2P-HN: A P2P-Based Route Optimization Solution for Mobile IP and NEMO Clients**
   A. Cabellos-Aparicio (Technical University of Catalonia), R. Cuevas (Universidad Carlos III de Madrid), J. Domingo-Pascual (Technical University of Catalonia), A. Cuevas, C. Guerrero (Universidad Carlos III de Madrid)
4. **Understanding the Roles of Servers in Large-Scale Peer-Assisted Online Storage Systems**
   F. Liu, Y. Sun, B. Li (Hong Kong University of Science & Technology), X. Zhang (Roxbeam Inc.)
5. **Evidences Behind Skype Outage**
   D. Rossi (TELECOM ParisTech), M. Mellia, M. Meo (Politecnico di Torino)

CSWS-03: Peer-to-Peer Media Delivery

Room: Seminar 5
Time: Wed, 17 Jun, 10:50 am - 12:20 pm
Chair: Zoran Despotovic (DOCOMO Comm. Labs Europe)

1. **SALSA: Super-Peer Assisted Live Streaming Architecture**
   J. Kim (Seoul National University), Y. Lee (University of Missouri at Kansas City), S. Bahk (Seoul National University)

2. **Scalable Video-On-Demand Streaming in Mobile Wireless Hybrid Networks**
   T. T. Do, K. A. Hua, A. Aved, F. Liu (University of Central Florida), N. Jiang (Microsoft Corporation)

3. **Supporting VCR-Like Operations in Derivative Tree-Based P2P Streaming Systems**
   T. Xu, J. Chen, W. Li, S. Lu (Nanjing University), Y. Guo (Thomson), M. Hamdi (Hong Kong University of Science and Technology)

4. **How Can Network Coding Help P2P Content Distribution?**
   G. Ma, Y. Xu, K. Ou, W. Luo (University of Science and Technology of China)

5. **Rate Distortion Optimization for Mesh-Based P2P Video Streaming**
   T. Hossain, Y. Cui, Y. Xue (Vanderbilt University)

CSWS-04: Fixed and Mobile Service Platforms

Room: Seminar 5
Time: Wed, 17 Jun, 2:00 pm - 3:30 pm
Chair: Jalel Ben-othman (University of Versailles)

1. **A Group Based Service Triggering Algorithm for IMS Network**
   Z. Xun, J. Liao, X. Zhu, C. Wang, Y. Cao (Beijing University of Posts and Telecommunications)

2. **IGCP: A Platform for Interactive Communication in Groupware Applications**
   L. Czekierda, M. Jedynak, T. Masternak (AGH University of Science and Technology)

3. **De-Registration Based S-CSCF Load Balancing in IMS Core Network**
   L. Xu, C. Huang, J. Yan (Carleton University), T. Drwiega (Nortel Networks)

4. **Managing Distributed Feature Interactions in Enterprise SIP Application Servers**
   M. Kolberg (University of Stirling), J. F. Buford, K. Dhara, X. Wu, V. Krishnaswamy (Avaya Labs Research)

5. **Design, Implementation, and Performance Evaluation of an Advanced SIP-Based Call Control for VoIP Services**
   M. Femminella, R. Francescangeli, F. Giacinti, E. Maccherani, A. Parisi, G. Reali (University of Perugia)

CSWS-05: Network and Service Management

Room: Seminar 5
Time: Wed, 17 Jun, 4:00 pm - 5:30 pm
Chair: Giorgio Nunzi (NEC Europe Ltd.)

1. **An Economic Model for Pricing Tiered Network Services**
   Q. Lv, G. N. Rouskas (North Carolina State University)

2. **PreQuEst: A Scalable and Proactive Quality Enrichment for Presence Services**
   D. Costantini, S. Niccolini (NEC Europe Ltd.), P. Bellavista (Universita' degli studi di Bologna)

3. **QoS Swarm State Dependent Routing for Irregular Traffic in Telecommunication Networks**
   F. Baguenine, A. Mellouk (University Paris 12)

4. **Intelligent Service Monitoring and Support**
   A. Al-Fuqaha (Western Michigan University), A. Rayes (Cisco Systems), M. Guizani, M. Khanvilkar, M. Ahmed (Western Michigan University)

5. **A User-Decided Service Model and Resource Management in a Cooperative WiMAX/HSDPA Network**
   Y.-C. Pan, Y. S. Sun, C. Hsu (National Taiwan University), M. C. Chen (Academia Sinica Taiwan)

Next Generation Networking Symposium

NGN-P1: Poster

Room: Poster Area 2
Time: Mon, 15 Jun, 10:50 am - 12:20 pm
Chair: Christian Hoene (University of Tübingen)

1. **Supporting Dynamic Inter-Domain Network Composition: Domain Discovery**
   V. Jesus, R. Aguiar (University of Aveiro), P. Steenkiste (Carnegie Mellon University)

2. **Integration of IMS and DVB-RCS for Interactive Content Delivery**
   W. Ooms, F. Walraven, M. van der Werff (TNO)

3. **Self-Protecting Networking Using Dynamic p-cycle Construction Within Link Capacity Constraint**
   W. Zhang, X. Du, K. Nygard (North Dakota State University), T. Wang (Yahoo! Inc)

4. **Spatial and Temporal Packet Recovery Schemes for DVB-H Systems through IP-Relay Wireless Networks**
   W.-H. Yang, Y.-C. Wang, Y.-C. Tseng (National Chiao-Tung University), B.-S. Lin (Industrial Technology Research Institute)

5. **Evaluating Algorithms for Composable Service Placement in Computer Networks**
   X. Huang, S. Ganapathy, T. Wolf (University of Massachusetts)

6. **A Provider-Level Reputation System for Assessing the Quality of SPIT Mitigation Algorithms**
   C. Sorge, J. Seedorf (NEC Laboratories Europe)

7. **NetCluster: A Clustering-Based Framework for Internet Tomography**
   E. Baralis, A. Bianco, T. Cerquitelli, L. Chiaraviglio, M. Mellia (Politecnico di Torino)

8. **An Adaptive Peer Selection Scheme with Dynamic Network Condition Awareness**
   C. Wang, N. Wang, M. Howarth (University of Surrey), G. Pavlou (University College London)

9. **Reducing Power Consumption in Backbone Networks**
   L. Chiaraviglio, M. Mellia, F. Neri (Politecnico di Torino)

10. **Recover-Forwarding Method in Link Failure with Pre-Established Recovery Table for Wide Area Ethernet**
    M. Terasawa, M. Nishida, S. Shimizu, Y. Arakawa, S. Okamoto, N. Yamanaka (Keio University)

11. **Distributed Reallocation Scheme for Virtual Network Resources**
    C. Cassales Marquezan, J. C. Nobre (Federal University of Rio Grande do Sul), G. Nunzi, D. Dudkowski (NEC Europe Network Laboratories), L. Z. Granville (Federal University of Rio Grande do Sul), M. Brunner (NEC Europe Network Laboratories)

12. **A New Efficient Mechanism for Establishing IP Connectivity between Ambient Networks**
    R. Campos, M. Ricardo (INESC Porto)

13. **Programmable and Scalable Per-Flow Traffic Management Scheme Using a Control Server**
    Y. Shinohara (Osaka University), H. Shimonishi (NEC Corporation), H. Tode (Osaka Prefecture University), K. Murakami (Osaka University)

14. **Statistical Learning for Automated RRM: Application to eUTRAN Mobility**
    M. I. Tiwana, B. Sayrac, Z. Altman (Orange Labs)

15. **Support for Dynamic Adaptation in Next Generation Packet Processing Systems**
    Q. Wu, T. Wolf (University of Massachusetts)

NGN-01: Routing

Room: Seminar 6
Time: Tue, 16 Jun, 9:00 am - 10:30 am
Chair: Michael Menth (University of Würzburg)

1. **Loop-Free Forwarding Table Updates with Minimal Link Overflow**
   L. Shi (University of Goettingen), J. Fu (Royal Institute of Technology), X. Fu (University of Goettingen)

2. **Efficient Load-Balanced IP Routing Scheme Based on Shortest Paths in Hose Model**
   E. Oki, A. Iwaki (University of Electro-Communications), A. Masuda, K. Shiomoto (NTT)

3. **DTIA: An Architecture for Inter-Domain Routing**
   P. Amaral, L. Bernardo, P. Pinto (Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa)

4. **An Evolutionary Approach to End-to-End Addressing and Routing in all-Ethernet Wide-Area Networks**
   A. Gumaste, M. Chamania (IIT Bombay), A. Jukan (TU Bruanchwieg)

5. **Multihomed SIP-Based Network Mobility using IEEE 802.21 Media Independent Handover**
   C.-M. Huang (National Cheng Kung University), C.-H. Lee (Kaohsiung Medical University), P.-H. Tseng (National Cheng Kung University)

NGN-02: Architecture

Room: Seminar 6
Time: Tue, 16 Jun, 10:50 am - 12:20 pm
Chair: Eiji Oki (The University of Electro-Comm.)

1. **On the Cache-and-Forward Network Architecture**
   L. Dong, H. Liu, Y. Zhang, S. Paul, D. Raychaudhuri (Rutgers University)

2. **Selecting Concurrent Network Architectures at Runtime**
   L. Völker, D. Martin, C. Werle, M. Zitterbart (Universität Karlsruhe (TH)), I. El-Khayat (Ericsson GmbH)

3. **Scalable Alternatives to Virtual Output Queuing**
   W. Olesinski, H. Eberle, N. Gura (Sun Microsystems Laboratories)

4. **Service Engineering for Inter-Domain Overlay Networks**
   E. Gurses, J. Xiao, R. Boutaba (University of Waterloo)

5. **Do Next Generation Networks Need Path Diversity?**
   L. Muscariello, D. Perino (Orange Labs), D. Rossi (Telecom ParisTech)

NGN-03: Security

Room: Seminar 6
Time: Tue, 16 Jun, 2:00 pm - 3:30 pm
Chair: Latif Ladid (IPv6 Forum)

1. **IPsec-Based Anonymous Networking: A Working Implementation**
   C. Kiraly, R. Lo Cigno (University of Trento)

2. **Distributed Intrusion Detection with Intelligent Network Interfaces for Future Networks**
   Y. Luo, K. Xiang, J. Fan, C. Zhang (University of Massachusetts Lowell)

3. **Secure Signaling in Next Generation Networks with NSIS**
   R. Bless, M. Röhricht (Universität Karlsruhe (TH))

4. **Simulation of SPIT Filtering: Quantitative Evaluation of Parameter Tuning**
   F. Menna, R. Lo Cigno (University of Trento), S. Niccolini, S. Tartarelli (NEC Europe Ltd.)

5. **Enhanced MILSA Architecture for Naming, Addressing, Routing and Security Issues in the Next Generation Internet**
   J. Pan, R. Jain, S. Paul (Washington University in Saint Louis), M. Bowman (Intel Systems Technology Lab), X. Xu (Huawei Technologies Co., Ltd.), S. Chen (Beijing University of Posts and Telecommunications)

NGN-04: Peer-to-peer networks

Room: Seminar 6
Time: Tue, 16 Jun, 4:00 pm - 5:30 pm
Chair: Zoran Despotovic (DOCOMO Comm. Labs Europe)

1. **Peer-to-Peer Application Recognition Based on Signaling Activity**
   C.-C. Wu (National Taiwan University), K.-T. Chen (Academia Sinica), Y.-C. Chang, C.-L. Lei (National Taiwan University)

2. **Modeling Random Walk Search Algorithms in Unstructured P2P Networks with Social Information**
   J. Xie, K.-S. Lui (University of Hong Kong)

3. **A Stochastic Analysis of Secure Joint Decision Processes in Peer-to-Peer Systems**
   A. König, M. Hollick, R. Steinmetz (Technische Universität Darmstadt)

4. **A Cooperative Scheme for Dynamic Window Resizing in P2P Live Streaming**
   Z. Ouyang, L. Xu, B. Ramamurthy (University of Nebraska-Lincoln)

5. **Achieving and Maintaining Cost-Optimal Operation of a Hierarchical DHT System**
   S. Zöls, Q. Hofstätter (Technische Universität München), Z. Despotovic, W. Kellerer (DOCOMO Communications Laboratories Europe)

NGN-05: Peformance-1

Room: Seminar 6
Time: Wed, 17 Jun, 9:00 am - 10:30 am
Chair: Jing Wu (Comm. Research Centre Canada)

1. **Measuring the Impacts of Multipath Overlays on the Performance of Inter-Domain Routing**
   B. Yuan, G. Zhang, Y. Li, G. Zhang, Z. Li (Institute of Computing Technology, Chinese Academy of Sciences)

2. **Green Support for PC-Based Software Router: Performance Evaluation and Modeling**
   R. Bolla, R. Bruschi, A. Ranieri (University of Genoa)

3. **An Adaptive Resource/Performance Trade-Off for Resolving Complex Queries in P2P Networks**
   T. Biermann, C. Dannewitz, H. Karl (University of Paderborn)

4. **Improving Throughput in High Bandwidth-Delay Product Networks with Random Packet Losses**
   Q. Fu (Victoria University of Wellington)

5. **PCN-Based Flow Termination with Multiple Bottleneck Links**
   F. Lehrieder, M. Menth (University of Würzburg)

NGN-06: Peformance-2

Room: Seminar 6
Time: Wed, 17 Jun, 10:50 am - 12:20 pm
Chair: Kurt Tutschku (University of Vienna)

1. **A Performance Analysis on Route Optimization for Proxy Mobile IPv6**
   J.-H. Lee (Sungkyunkwan University, Korea), S. Gundavelli (Cisco Systems), T.-M. Chung (Sungkyunkwan University, Korea)

2. **Distributed ECN-Based Congestion Control**
   X. Li, H. Yousefi'zadeh (University of California, Irvine)

3. **Modeling of User-Perceived Web-Browsing Performance over a WLAN/3G Inter-Working Environment**
   T. Ali, M. Saquib (University of Texas at Dallas), C. Sengupta, Y. K. Lee (SNRLabs, Richardson)

4. **Adaptive Bandwidth Control to Handle Long-Duration Large Flows**
   R. Kawahara, T. Mori, N. Kamiyama, S. Harada, H. Hasegawa (NTT)

5. **A Study on Cross-Layer Multi-Constraint Path Computation for IP-Over-Optical Networks**
   X. Yang, T. Lehman (University of Southern California), K. Ogaki, T. Otani (KDDI R&D Laboratories)

Optical Networks and Systems Symposium

ONS-01: Network Survivability

Room: Seminar 3
Time: Mon, 15 Jun, 10:50 am - 12:20 pm
Chair: Hassan Naser (Lakehead University)

1. **CAPEX Costs of Lightly Loaded Restorable Networks Under a Consistent WDM Layer Cost Model**
   A. Grue (University of Alberta and TRLabs), W. Grover (Univ. of Alberta and TRLabs), M. Clouqueur, D. Schupke (Nokia Siemens Networks), D. Baloukov, D. Onguetou, B. Forst (TRLabs and University of Alberta)

2. **Practical Scalability of Wavelength Routing Switches**
   M. Rodelgo-Lacruz (Gradiant), C. López-Bravo, F. J. González-Castaño (University of Vigo), H. J. Chao (Polytechnic Institute of NYU)

3. **CAPEX-Aware Design of Survivable DWDM Mesh Networks**
   C. Pluntke, M. Menth, M. Duelli (University of Wuerzburg)

4. **The Effects of Multi-Layer Traffic on the Survivability of IP-Over-WDM Networks**
   P. Pacharintanakul, D. Tipper (University of Pittsburgh)

5. **Availability Evaluation of Hybrid Wireless-Optical Broadband Access Networks**
   M. Kiese, E. Georgieva (Technische Universität München), D. Schupke (Nokia Siemens Networks), B. Mukherjee (University of California, Davis), J. Eberspächer (Technische Universität München)

ONS-02: Protection and Restoration

Room: Seminar 3
Time: Mon, 15 Jun, 2:00 pm - 3:30 pm
Chair: Jing Wu (Comm. Research Centre Canada)

1. **A Resilient Transparent Optical Network Design with a Pre-Configured Extended-Tree Scheme**
   S. Sebbah, B. Jaumard (Concordia University)

2. **Evaluation of Link Protection Schemes in Physically Impaired Optical Networks**
   A. Askarian, S. Subramaniam (The George Washington University), M. Brandt-Pearce (University of Virginia)

3. **Solution of a 200-Node p-Cycle Network Design Problem with GA-Based Pre-Selection of Candidate Structures**
   D. P. Onguetou, W. D. Grover (TRLabs and University of Alberta)

4. **Lightpath Establishment in WDM Networks with Best Effort Shared Path Protection in Impaired-Transmissions**
   S. R. A. dos Santos Rosa, A. C. Drummond, N. L. S. da Fonseca (University of Campinas)

5. **Network Coding-Based Protection Strategy Against Node Failures**
   S. Aly, A. Kamal (Iowa State University)

ONS-03: Network Architecture

Room: Seminar 3
Time: Mon, 15 Jun, 4:00 pm - 5:30 pm
Chair: Kyriakos Vlachos (University of Patras)

1. **Differentiated Static Resource Allocation in WDM Networks**
   J. Y. Zhang (University of Ottawa), J. Wu (Communications Research Centre Canada), G. Bochmann (University of Ottawa), M. Savoie (Communications Research Centre Canada)

2. **Optical Broadcast-And-Select Network Architecture with Centralized Multi-Carrier Light Source**
   Y. Cai, E. Oki, M. Matsuura, N. Kishi, T. Miki (University of Electro-Communications)

3. **Fast Spanning Tree Reconnection for Resilient Metro Ethernet Networks**
   J. Qiu, Y. Liu, G. Mohan, K. C. Chua (National University of Singapore)

4. **A Service-Transparent and Self-Organized Optical Network Architecture**
   K. Vlachos, A. Siokis (University of Patras)

5. **Multi-Point Ethernet over Next-Generation SONET/SDH**
   C. Xie, N. Ghani, Q. Liu, W. Shu (University of New Mexico), A. Gumaste (IIT Bombay/Iowa State), Y. Qiao, M. Wu (Shanghai Jiao Tong University)

ONS-P1: Poster Session

Room: Poster Area 1
Time: Tue, 16 Jun, 10:50 am - 12:20 pm
Chair: Luca Valcarenghi (Scuola Superiore Sant'Anna)

1. **Performance Analysis of Coherent Free Space Optical Communication Systems with K-Distributed Turbulence**
   M. Niu, J. Cheng, J. Holzman, L. McPhail (University of British Columbia)

2. **Implementation and Evaluation of Layer-1 Bandwidth-On-Demand Capabilities in SINET3**
   S. Urushidani, K. Fukuda, Y. Ji, M. Koibuchi, S. Abe, M. Nakamura, S. Yamada (National Institute of Informatics), K. Shimizu, R. Hayashi, I. Inoue, K. Shiomoto (NTT), H. Tanuma (NEC)

3. **Performance Evaluation of Optical OFDM Systems with Nonlinear Clipping Distortion**
   L. Chen, B. Krongold, J. Evans (The University of Melbourne)

4. **Constructions on 2D Wavelength-Time Codes for CDMA Fiber-Optic Systems**
   C.-H. Hsieh, G.-C. Yang (National Chung Hsing University), C.-Y. Chang (National United University), W. C. Kwong (Hofstra University)

5. **Short-Length Raptor Codes for Mobile Free-Space Optical Channels**
   W. Zhang, S. Hranilovic (McMaster University)

6. **Theoretical Performance of Multi-Weight Spreading Codes for Multimedia Optical Access Network**
   M. Morelle, S. Sahuguede, A. Julien-Vergonjanne, J.-P. Cances (University of Limoges / XLIM)

7. **Chip-Level Modulated BPPM Fiber-Optic Code Division Multiple Access**
   T. Khattab (Qatar University), M. Elkashlan (Commonwealth Scientific and Industrial Research Organisation), H. Alnuweiri (Texas A&M University in Qatar)

8. **Designing Demand-Wise Shared Protection Networks with Specified Minimum Dual-Failure Restorability**
   J. Akpuh, J. Doucette (University of Alberta)

9. **A Handover Scheme Based on Moving Extended Cells for 60 GHz Radio-Over-Fiber Networks**
   K. Tsagkaris (University of Piraeus), N. Tselikas (University of Peloponnese), N. Pleros (Aristotle University of Thessaloniki)

10. **A Novel Graph Model for Dynamic Multicast Flow Aggregation in Optical Networks**
    Y. Zhu, A. N. Patel, J. P. Jue (The University of Texas at Dallas)

11. **Resource Management in Stargate-Based Ethernet Passive Optical Networks (SG-EPONs)**
    L. Meng, C. Assi (Concordia University), M. Maier (INRS), A. Dhaini (Concordia University)

12. **EM-Based Maximum-Likelihood Sequence Detection for MIMO Optical Wireless Systems**
    N. Chatzidiamantis (Aristotle University of Thessaloniki), M. Uysal (University of Waterloo), T. Tsiftsis, G. Karagiannidis (Aristotle University of Thessaloniki)

13. **Adaptive 2.5 Gbit/s Optical Wireless Systems Employing a Two Dimensional Beam Clustering Method and Imaging Diversity Receivers**
    F. Alsaadi, J. Elmirghani (University of Leeds)

14. **A Fault-Tolerant Backbone Network Architecture Targeting Time-Critical Communication for Avionic WDM LANs**
    D. Wang, A. Kumar, M. Sivakumar, J. McNair (University of Florida)

15. **Design of Survivable Hybrid Wireless-Optical Broadband-Access Network**
    T. Feng, L. Ruan (Iowa State University)

16. **A Study of Network Throughput Gain in Optical-Wireless (FiWi) Networks Subject to Peer-to-Peer Communications**
Z. Zheng, J. Wang (Department of Computer Science, City University of Hong Kong), J. Wang (Department of Computer Science, University of Science& Technology of China)

ONS-04: Optical Switching

Room: Seminar 3
Time: Wed, 17 Jun, 9:00 am - 10:30 am
Chair: Ashwin Gumaste (IIT Bombay and MIT)

1. **Joint Path and Wavelength Selection using Q-learning in Optical Burst Switching Networks**
T. Venkatesh (IIT Madras), Y. V. Kiran (Create-Net), C. S. R. Murthy (IIT Madras)

2. **Performance Analysis of Optical Flow Switching**
G. Weichenberg, V. W. S. Chan, M. Medard (MIT)

3. **VB-Rescheduling: An Efficient Data Channel Rescheduling Algorithm Based on Virtual Burst for OBS Networks**
X. Yang, Y. Peng, K. Long (Univ. of Electronic Science and Technology of China), F. Dong, S. Huang, X. Duan (Chongqing Univ. of Posts and Telecom (CQUPT))

4. **A Multi-Agent Reinforcement Learning Approach to Path Selection in Optical Burst Switching Networks**
Y. V. Kiran (Create-Net), T. Venkatesh, C. S. R. Murthy (IIT Madras)

5. **Optimal FDL Design for Time-Wavelength Crossconnects and Optical Packet Switches**
A. Gadkar, S. Subramaniam (The George Washington University)

ONS-05: Routing and Wavelength Assignment

Room: Seminar 3
Time: Wed, 17 Jun, 10:50 am - 12:20 pm
Chair: Matthias Gunkel (Deutsche Telekom)

1. **On the Use of Multi-Objective Optimization Algorithms for Solving the Impairment Aware-RWA Problem**
D. Monoyios, K. Vlachos (University of Patras), M. Aggelou, I. Tomkos (Athens Information Technology)

2. **A Multicost Approach to Online Impairment-Aware RWA**
K. Christodoulopoulos, K. Manousakis, E. Varvarigos (University of Patras and Research Academic Computer Technology Institute), M. Angelou, I. Tomkos (Athens Information Technology)

3. **Dynamic Lightpath Allocation in Translucent WDM Optical Networks**
S. Bandyopadhyay, Q. Rahman (University of Windsor), S. Banerjee, S. Murthy, A. Sen (Arizona State University)

4. **On the Efficiency of Dynamic Routing of Connections with Known Duration**
D. Lucerna, A. Baruffaldi (Politecnico di Milano), M. Tornatore (University of California), A. Pattavina (Politecnico di Milano)

5. **Noise-Aware Wavelength Assignment for Wavelength Switched Optical Networks**
L. Wang, J. Zhang, G. Gao, X. Chen, X. Chen, W. Gu (Beijing University of posts and telecommunications)

ONS-06: Resource Allocation

Room: Seminar 3
Time: Wed, 17 Jun, 2:00 pm - 3:30 pm
Chair: Eiji Oki (The University of Electro-Comm.)

1. **Resource Criticality Analysis of Static Resource Allocations in WDM Networks**
J. Y. Zhang (University of Ottawa), J. Wu (Communications Research Centre Canada), G. Bochmann (University of Ottawa), M. Savoie (Communications Research Centre Canada)

2. **Deterministic QoS Provisioning with Network Calculus Based Admission Control in WDM EPON Networks**
D. Xue (Nanyang Technological University), Y. Qin (HIT Shenzhen Graduate School), C. K. Siew (Nanyang Technological University)

3. **Joint Computing and Network Resource Scheduling in a Lambda Grid Network**
V. Lakshmiraman, B. Ramamurthy (University of Nebraska-Lincoln)

4. **A Distributed Algorithm for Least Constraining Slot Allocation in MPLS Optical TDM Networks**
H. Zeineddine, G. V. Bochmann (University of Ottawa)

5. **Service Cluster: A New Framework for SLA-Oriented Provisioning in WDM Mesh Networks**
M. Xia, C. Martel, M. Tornatore, B. Mukherjee (University of California, Davis)

ONS-07: Traffic Grooming and Resource Management

Room: Seminar 3
Time: Wed, 17 Jun, 4:00 pm - 5:30 pm
Chair: Suresh Subramaniam (The George Washington University)

1. **Active Queue Management for MAC Client Implementation of Resilient Packet Rings**
M. Yilmaz (Cisco), N. Ansari (New Jersey Institute of Technology), J.-H. Kao, P. Yilmaz (Cisco)

2. **Approximation Algorithms for Traffic Grooming in WDM Rings**
K. Corcoran (University of Oregon), S. Flaxman (EPFL), M. Neyer (University of North Carolina), P. Scherpelz (University of Chicago), C. Weidert (Simon Fraser University), R. Libeskind-Hadas (Harvey Mudd College)

3. **MultiHop Light-Trails (MLT) - A Solution to Extended Metro Networks**
   A. Gumaste (IIT Bombay/MIT, Cambridge, USA), J. Wang (City U), A. Karandikar (IIT Bombay), N. Ghani (UNM)

4. **On-Line Dynamic Traffic Grooming Algorithms for WDM Mesh Networks**
   A. C. Drummond, N. L. S. da Fonseca (University of Campinas)

5. **Waveguide-Grating-Routers-Based Realization of Time-Spreading and Wavelength-Group-Hopping Over Fiber-to-the-Home Networks**
   Y.-T. Chang (Kao Yuan University), J.-F. Huang, L.-W. Chou, K.-J. Wang (National Cheng Kung University)

QoS and Modelling Symposium

CQRM-01: Traffic Control Mechanisms

Room: Seminar 6
Time: Mon, 15 Jun, 10:50 am - 12:20 pm
Chair: Admela Jukan (TU Carolo-Wilhelmina zu Braunschweig)

1. **Delay-Based Congestion Avoidance for QoS Provisioning in Wired/Wireless Networks**
   Q. Fu (Victoria University of Wellington)

2. **Analytical and Experimental Comparison of Packet Loss Recovery Methods Based on AMR-WB for VoIP**
   Z. Li (Beijing Institute of Technology), S. Bruhn (Ericsson Research), S. Zhao, J. Kuang (Beijing Institute of Technology)

3. **Rate and End-to-End Delay Control for Multicast and Unicast Flows**
   Z. Rosberg, C. Russell (CSIRO ICT Centre), V. Sivaraman (UNSW)

4. **Load Balancing vs. Distributed Rate Limiting: An Unifying Framework for Cloud Control**
   R. Stanojevic, R. Shorten (NUIM)

5. **Proposal of the Architecture of a QoS Assured Network by Cooperating between IP Flow Control and MPLS DiffServ-TE**
   S. Kashihara, M. Miyazawa, K. Ogaki, T. Otani (KDDI R&D Laboratories Inc.)

CQRM-02: Resource Allocation and Scheduling

Room: Seminar 6
Time: Mon, 15 Jun, 2:00 pm - 3:30 pm
Chair: Ralf Lehnert (Technische Universität Dresden)

1. **On Fair Bandwidth Allocation in Connection-Less Networks**
   B. Behsaz, P. Gburzynski, M. MacGregor (University of Alberta)

2. **Cost and Target-Based Scheduling for Switch Power Control**
   B. Yolken, D. Tsamis, N. Bambos (Stanford University)

3. **Co-Opetition Strategy for Collaborative Multiuser Multimedia Resource Allocation**
   Z. Guan, D. Yuan, H. Zhang (Shandong University)

4. **Joint Power Allocation and Scheduling of Multi-Antenna OFDM System in Broadcast Channel**
   F. She, W. Chen, H. Luo, T. Huang, X. Wang (Shanghai Jiaotong University)

5. **Capacity Allocation for Long Tailed Traffic in Packet Switching Networks**
   X. Liu (University of Arkansas at Little Rock)

CQRM-03: Traffic Engineering

Room: Seminar 6
Time: Mon, 15 Jun, 4:00 pm - 5:30 pm
Chair: Tetsuya Yokotani
(Mitsubishi Electric Corp.)

1. **Marking Conversion for Pre-Congestion Notification**
   F. Lehrieder, M. Menth (University of Würzburg)

2. **Routing Games for Traffic Engineering**
   F. Larroca, J.-L. Rougier (Telecom ParisTech)

3. **Prioritized Flow Optimization with Generalized Routing for Scalable Multirate Multicasting**
   J. Zou (Shanghai University), H. Xiong, L. Song (Shanghai Jiao Tong University), Z. He (University of Missouri-Columbia), T. Chen (Carnegie Mellon University)

4. **Effective Caching for Parallel Packet Forwarding**
   W. Jiang, S. Liu (University of Southern California)

5. **Approximation Algorithm for QoS Routing with Multiple Additive Constraints**
   R. Hou, K.-S. Lui, K.-C. Leung (The University of Hong Kong), F. Baker (Cisco Research Center)

CQRM-04: QoS in Emerging Wireless Networks

Room: Seminar 3
Time: Tue, 16 Jun, 9:00 am - 10:30 am
Chair: Fabrizio Granelli (University of Trento)

1. **Context-Aware Receiver-Driven Retransmission Control in Wireless Local Area Networks**
   D. Kliazovich, N. Ben Halima, F. Granelli (University of Trento)

2. **3G/HSPA Performance in Live Networks from the End User Perspective**
   J. Prokkola, P. H. J. Perälä, M. Hanski, E. Piri (VTT Technical Research Centre of Finland)

3. **Distributed Multi-Source Transmission in Wireless Mobile Peer-to-Peer Networks: A Restless Bandit Approach**
   P. Si (Beijing University of Posts and Telecommunications), F. R. Yu (Carleton University), H. Ji (Beijing University of Posts and Telecommunications), V. C. M. Leung (The University of British Columbia)

4. **Content Clustering Based Video Quality Prediction Model for MPEG4 Video Streaming over Wireless Networks**
   A. Khan, L. Sun, E. Ifeachor (University of Plymouth)

5. **Optimal Rate Allocation for Loss Sensitive Applications in Wireless Ad Hoc Networks**
   P. Goudarzi, M. Hosseinpour (ITRC, Iran)

CQRM-05: QoS Analysis and Control

Room: Seminar 3
Time: Tue, 16 Jun, 10:50 am - 12:20 pm
Chair: Toshinori Tsuboi
(Tokyo University of Technology)

1. **End-to-End Delay Approximation in Cascades of Generalized Processor Sharing Schedulers**
   P. Giacomazzi, G. Saddemi (Politecnico di Milano)

2. **Impact of Alliances on End-to-End QoS Satisfaction in an Interdomain Network**
   D. Barth, T. Mautor, D. V. Monteiro (University of Versailles)

3. **Statistical Analysis of IP Delay Measurements as a Basis for Network Alert Systems**
   T. Holleczek (ETH Zurich), V. Venus, S. Naegele-Jackson (University of Erlangen-Nuremberg)

4. **Speech Quality While Roaming in Next Generation Networks**
   S. Möller, M. Wältermann, B. Lewcio, N. Kirschnick, P. Vidales (Deutsche Telekom Laboratories, Technische Universität Berlin)

5. **Mean Waiting Delay for Web Object Transfer in Wireless SCTP Environment**
   Y.-J. Lee (Korea National University of Education, Korea), M. Atiquzzaman (Univ. of Oklahoma)

CQRM-06: Network Design and Control

Room: Seminar 3
Time: Tue, 16 Jun, 2:00 pm - 3:30 pm
Chair: Peter Reichl
(Telecomm. Research Center Vienna)

1. **Approximate Flow-Aware Networking**
   J. Domzal, A. Jajszczyk (AGH University of Science and Technology in Krakow)

2. **Efficiently Constructing Candidate Set for Network Topology Design**
   N. Kamiyama (NTT Service Integration Laboratories)

3. **SIP Network Design to Prevent Congestion Caused by Disaster**
   D. Satoh (NTT Advanced Technology), K. Ashitagawa (Astronomical Observatory of Japan)

4. **Theoretical Analysis of Selective Relaying, Cooperative Multi-Hop Networks with Fairness Constraints**
   E. Liu (Imperial College), Q. Zhang (Johns Hopkins University), K. K. Leung (Imperial College)

5. **Dimensioning of a Multi-rate Network Transporting Variable Bit Rate TV Channels**
   Z. Avramova, S. Wittevrongel, H. Bruneel (Ghent University), D. De Vleeschauwer (Alcatel-Lucent Bell)

CQRM-07: QoS for Emerging Video Services

Room: Seminar 3
Time: Tue, 16 Jun, 4:00 pm - 5:30 pm
Chair: Marina Aguado
(University of the Basque Country)

1. **How Scalable Could P2P Live Media Streaming System be with the Stringent Time Constraint?**
   Z. Chen (Tsinghua University), B. Li (Hong Kong University of Science and Technology), G. Keung (HKUST), H. Yin, C. Lin, Y. Wang (Tsinghua University)
2. **Efficient Utilization of Error Protection Techniques for Transmission of Data-Partitioned H.264 Video in a Capacity Constrained Network**
   A. T. Connie, Y. P. Fallah, P. Nasiopoulos, V. C. M. Leung (University of British Columbia)
3. **Caching Video Contents in IPTV Systems with Hierarchical Architecture.**
   L. Chen (IBM Zurich), M. Meo (Politecnico di Torino), A. Scicchitano (IBM Zurich)
4. **QoS of Video Delivered over 802.11e WLANs**
   R. MacKenzie (University of Leeds), D. Hands (British Telecommunications PLC), T. O'Farrell (Swansea University)
5. **Weighted Size-Aware Packet Distribution for Multipath Live Streaming**
   Y. Zhang, C. Wang, Y. Gao (Northeastern University)

CQRM-P1: Communications QoS, Reliability, and Performance Modeling

Room: Poster Area 1
Time: Wed, 17 Jun, 10:50 am - 12:20 pm
Chair: Hiromi Ueda (Tokyo University of Technology)

1. **Game Theory as a Tool for Modeling Cross-Layer Interactions**
   C. Facchini, F. Granelli (University of Trento)
2. **A Recursive Distributed Topology Discovery Service for Network-Aware Grid Clients**
   F. Paolucci, L. Valcarenghi, P. Castoldi (Scuola Superiore Sant'Anna), F. Cugini (CNIT)
3. **A Laplace Transform-Based Method to Stochastic Path Finding**
   S. Uludag, Z. E. Uludag (The University of Michigan - Flint), K. Nahrstedt (University of Illinois at Urbana-Champaign), K.-S. Lui (University of Hong Kong), F. Baker (Cisco)
4. **A Behaviour Study of Network-Aware Stealthy Worms**
   C. Smith, A. Matrawy (Carleton University)
5. **Push Popular Segments in P2P VoD System: Possibility and Design**
   J. Xie (Nanjing University), E. Chan (City University of Hong Kong), G. Chen (Nanjing University), Y. Guo (Corporate Research Thomson)
6. **Design and Deployment of a Network-Aware Grid for e-Science Applications**
   M. A. Marchenko (ICMMG SB RAS - Novosibirsk), D. Adami (CNIT-University of Pisa), C. Callegari, S. Giordano, M. Pagano (University of Pisa)
7. **Practical Packet Pacing in Small-Buffer Networks**
   Y. Cai, Y. S. Hanay, T. Wolf (University of Massachusetts)
8. **Bit-Wise Exponential ESM (BE-ESM) Method for Accurate Link Level Performance Evaluation**
   Z. Pan, Y. Zhou, C. I (Applied Science and Technology Research Institute Co. Ltd)
9. **Concurrent Heap-Based Network Sort Engine -Toward Enabling Massive and High Speed Per-Flow Queuing-**
   M. Suzuki, K. Minami (NTT)
10. **Fast RFID Counting Under Unreliable Radio Channels**
    W.-K. Sze, W.-C. Lau, O.-C. Yue (The Chinese University of Hong Kong)
11. **A Modular Reference Application for IEEE 802.11n Wireless LAN MACs**
    H.-P. Loeb (Infineon Technologies), C. Sauer (Cadence Design Systems)
12. **Preprocessing DNS Log Data for Effective Data Mining**
    M. E. Snyder (Missouri S&T), R. Sundaram (Northeastern University), M. Thakur (Google Inc.)
13. **Deadline-Guarantee-Enhanced Co-Allocation for Parameter Sweep Application in Grid**
    P. Xiao, Z. Hu (Central South University)
14. **The Importance of Being Really Random: Methodological Aspects of IP-Layer 2G and 3G Network Delay Assessment**
    J. Fabini, L. Wallentin (Vienna University of Technology), P. Reichl (Telecommunications Research Center Vienna (ftw.))
15. **Bandwidth and Computing Resources Provisioning for Grid Applications and Services**
    A. Filali, A. S. Hafid, M. Gendreau (University of Montreal)

CQRM-08: Network Survivability

Room: Seminar 6
Time: Wed, 17 Jun, 2:00 pm - 3:30 pm
Chair: Tutomu Murase (NEC Corp.)

1. **A Partial-Protection Approach Using Multipath Provisioning**
   A. Das, C. Martel, B. Mukherjee (UC Davis)
2. **Probabilistic Diagnosis of Link Loss Using End-to-End Path Measurements and Maximum Likelihood Estimation**
   B. Sun, Z. Zhang (Florida State University)
3. **On Increasing Information Availability in Gnutella-Like Peer-to-Peer Networks**
   S. Misra (Indian Institute of Technology-Kharagpur), S. K. Dhurandher (University of Delhi), M. S. Obaidat (Monmouth University), I. Singh (University of Minnesota), B. Bhambhani, R. Agarwal (University of Delhi)
4. **GMPLS Network Reliability Enhancement by Using the Dominating Nodes Approach**
   P. Rozycki, J. Korniak (University of Information Technology and Management, Rzeszow), A. Jajszczyk (AGH University of Science and Technology Krakow)

5. **Merging Spanning Trees in Tomographic Network Topology Discovery**
   A. Di Pietro, D. Ficara, S. Giordano, F. Oppedisano, G. Procissi, F. Vitucci (University of Pisa)

CQRM-09: Network Modeling and Simulation Tools

Room: Seminar 6
Time: Wed, 17 Jun, 4:00 pm - 5:30 pm
Chair: Andreas Mitschele-Thiel (Technische Universität Ilmenau)

1. **A Fluid Background Traffic Model**
   T. Li, J. Liu (Florida International University)
2. **A Performance Comparison of Recent Network Simulators**
   E. Weingärtner, H. vom Lehn, K. Wehrle (RWTH Aachen University)
3. **On Modeling Clustering Indexes of BT-Like Systems**
   Q. H. Li, J. C.S. Lui (The Chinese University of Hong Kong)
4. **A New NS2 Module for the Simulation of MPLS Networks with Point-to-Multipoint LSP Support**
   D. Adami (CNIT), C. Callegari, S. Giordano, M. Pagano (University of Pisa)
5. **A Comprehensive Analytical Model for Weighted Fair Queuing under Multi-Class Self-Similar Traffic**
   X. Jin, G. Min, L. Wang (University of Bradford)

Signal Processing for Communications Symposium

SPC-01: Blind and semi-blind algorithms

Room: Konferenz 4
Time: Mon, 15 Jun, 10:50 am - 12:20 pm
Chair: Jiangzhou Wang (University of Kent)

1. **Blind Frame Synchronization of Product Codes Based on the Adaptation of the Parity Check Matrix**
   R. Imad, S. Houcke, C. Jego (Institut TELECOM, TELECOM Bretagne)
2. **An Efficient Regularized Semi-Blind Estimator**
   A. Kammoun (ENST), K. Abed-Meraim (Sharjah University), S. Affes (INRS)
3. **PARAFAC2 Receivers for Orthogonal Space-Time Block Codes**
   M. Sørensen (University of Nice), P. Comon (CNRS), S. Icart, L. Deneire (University of Nice)
4. **A Blind Channel Estimation Algorithm for Space-Time Coded MC-CDMA Receivers**
   C. Medina, T. Vinhoza, R. Sampaio-Neto (Pontifícia Universidade do Rio de Janeiro)
5. **Blind Multipath MIMO Channel Parameter Estimation Using the Parafac Decomposition**
   C. E. R. Fernandes (Universidade Federal do Ceará), G. Favier (Université de Nice Sophia Antipolis), J. C. M. Mota (Universidade Federal do Ceará)

SPC-02: FPGA-based implementations

Room: Konferenz 4
Time: Mon, 15 Jun, 2:00 pm - 3:30 pm
Chair: Yuriy Zakharov (University of York)

1. **FPGA Implementation of RLS Adaptive Filter Using Dichotomous Coordinate Descent Iterations**
   J. Liu, Y. Zakharov (University of York)
2. **FPGA Design of Box-Constrained MIMO Detector**
   Z. Quan, J. Liu, Y. Zakharov (University of York)
3. **Prototyping of a Pass-Band Chaos-Based CDMA System in FPGA Technology**
   C.-Y. Hsu, S. M. Berber (Auckland University)
4. **Efficient FPGA Implementation of MIMO Decoder for Mobile WiMAX System**
   M. Khairy, M. Abdallah, S. Habib (Faculty of Engineering, Cairo University)
5. **FPGA Implementation of Trellis Shaping to Control Peak Power for PSK Signals**
   H. Kitagawa, M. Tanahashi, H. Ochiai (Yokohama National University)

SPC-03: Synchronisation algorithms

Room: Konferenz 4
Time: Mon, 15 Jun, 4:00 pm - 5:30 pm
Chair: Tomoaki Ohtsuki (Keio University)

1. **Extended Kalman Filter for Oversampled Dynamical Phase Offset Estimation**
   J. Vilá Valls, J.-M. Brossier, L. Ros (GIPSA-Lab)

2. **Smoothing PLLs for QAM Dynamical Phase Estimation**
   J. Yang (ENS Cachan), B. Geller (ENSTA ParisTech), C. Herzet (INRIA Rennes), J.-M. Brossier (Grenoble INP)

3. **Mean Time to Loss of Lock and Average Switching Rate of an Automatic Frequency Control Loop with an Interferer and Noise in a Fading Channel**
   A. Emad, N. C. Beaulieu (University of Alberta)

4. **Time and Frequency Synchronization for Power Line OFDM Systems with Colored Noise**
   R. Mo, S. W. Oh, Y. Zeng (Institute for Infocomm Research)

5. **CFO Estimation Schemes for Differential OFDM Systems**
   X. N. Zeng, A. Ghrayeb (Concordia University)

SPC-04: Performance analysis

Room: Konferenz 5
Time: Mon, 15 Jun, 4:00 pm - 5:30 pm
Chair: Nadia Khaled (Universidad Carlos III de Madrid)

1. **Asymptotic Analysis and Design of Multiuser Cooperative DS-CDMA Systems**
   K. Zarifi, S. Affes (University of Quebec), A. Ghrayeb (Concordia University)

2. **Asymptotics of Multi-Fold Vandermonde Matriceswith Applications to Communications and Radar Problems**
   G. Alfano, C.-F. Chiasserini, A. Nordio (Politecnico di Torino), A. Tulino (Universita' di Napoli Federico II)

3. **The Modified Bayesian Cramér-Rao Bound for MIMO Channel Tracking**
   L.-K. Chiu, S.-H. Wu (National Chiao Tung University)

4. **On the Performance Improvements of Max-SINR Equalizers in Wireless Communications**
   F. Benedetto, G. Giunta (University of Roma Tre), L. Vandendorpe (Université catholique de Louvain)

5. **CRBs for UWB Multipath Channel Estimation: Impact of the Overlapping Between the MPCs on MPC Gain and TOA Estimation**
   A. Mallat, C. Oestges, L. Vandendorpe (Ecole polytechnique de Louvain)

SPC-05: Beamforming

Room: Konferenz 4
Time: Tue, 16 Jun, 9:00 am - 10:30 am
Chair: Hung Nguyen (The Aerospace Corporation)

1. **Subband Adaptive Array with Reduced Pilot Signal Using Maximal Ratio Combining Scheme**
   T. Taniguchi (The University of Electro-Communications), N. B. Ramli (Multimedia College, Telekom Malaysia Berhad), Y. Karasawa (The University of Electro-Communications)

2. **General-Rank Beamforming for Multi-Antenna Relaying Schemes**
   V. Havary-Nassab (University of Toronto), S. Shahbazpanahi, A. Grami (UOIT)

3. **Weighted Sum-Rate Maximization using Weighted MMSE for MIMO-BC Beamforming Design**
   S. S. Christensen (Nokia Denmark), R. Agarwal (Stanford University), E. de Carvalho (Aalborg University), J. Cioffi (Stanford University)

4. **Beamforming in Dual-Hop Fixed Gain Relaying Systems**
   D.B. da Costa, S. Aïssa (University of Quebec)

5. **Distributed Beamforming in Relay-Assisted Multiuser Communications**
   D. H. N. Nguyen, H. H. Nguyen (University of Saskatchewan), H. D. Tuan (University of New South Wales)

SPC-P1: OFDM and MIMO

Room: Poster Area 1
Time: Tue, 16 Jun, 9:00 am - 10:30 am
Chair: Zoran Cvetkovic (King's College London)

1. **A Simplified Suboptimal Algorithm for Tone Reservation OFDM**
   A. Ghassemi, T. A. Gulliver (University of Victoria)

2. **Power Allocation for Improved DF Relayed OFDM Transmission : The Individual Power Constraint Case**
   L. Vandendorpe, J. Louveaux, O. Oguz, A. Zaidi (UCL)

3. **Adaptive Puncturing for Coded OFDMA Systems**
   M. Abdelhakim (Cairo University), M. Nafie (Nile University), A. Shalash (Cairo University), A. Elezabi (American University in Cairo)

4. **Initial Synchronization for Multi-Cell OFDMA Systems**
   Y.-C. Liu, K.-C. Lin, Y. T. Su (National Chiao Tung University)

5. **IQ Imbalance Correction for OFDMA Uplink Systems**
   H. A. Mahmoud, H. Arslan (University of South Florida), M. K. Ozdemir, F. E. Retnasothie (Logus Broadband Wireless Solutions)

6. **Low Complexity Antenna Selection Scheme for Multiuser MIMO Broadcast Systems**
   E. Kurniawan, A. S. Madhukumar (Nanyang Technological University), F. Chin (Institute for Infocomm Research)

7. **Symbol Based Search Space Constraining for Complexity/Performance Scalable Near ML Detection in Spatial Multiplexing MIMO OFDM Systems**
   E. L. Estraviz, V. Ramon, A. Bourdoux, L. Van der Perre (IMEC)

8. **Low Complexity Decision Directed Channel Tracking for High Mobility OFDM Systems**
   S. Kalyani (Centre of Excellence in Wireless Technology), K. Giridhar (Indian Institute of Technology Madras)

9. **Joint Linear Filter Design in Multi-User Non-Regenerative MIMO-Relay Systems**
   G. Li, Y. Wang, T. Wu, J. Huang (Beijing University of Posts and Telecommunications)

10. **Iterative Receiver for Multi-Input Multi-Output (MIMO) Two-Way Wireless Relay Systems**
    T.-H. Pham (National University of Singapore), Y.-C. Liang (Institute for Infocomm Research), A. Nallanathan (King's College London), G. H. Krishna (National University of Singapore)

11. **Co-Channel Interference Mitigation for 3G LTE MIMO-OFDM Systems**
    M. R. Raghavendra (Motorola), M. Juntti, M. Myllylä (University of Oulu)

12. **A Stochastic MIMO Model for Far-End Crosstalk in VDSL Cable Binders**
    W. Xu (Infineon Technologies AG), C. Schroeder, P. Hoeher (University of Kiel)

13. **Pilot-Aided Active Constellation Extension Algorithm with Low Peak Power in OFDM**
    K. Bae, E. J. Powers (The University of Texas at Austin)

SPC-06: Implementation and platforms

Room: Konferenz 4
Time: Tue, 16 Jun, 10:50 am - 12:20 pm
Chair: Said Boussakta (University of Newcastle upon Tyne)

1. **An Efficient Software Radio Framework for WiMAX Physical Layer on Cell Multicore Platform**
   J. Chen, Q. Wang, Z. Zhu, Y. H. Lin (IBM China Research Lab)

2. **Architecture of Run-time Reconfigurable Channel Decoder**
   R. Rajore, S. Nandy, H. S. Jamadagni (Indian Institute of Science, Bangalore)

3. **A System Level Algorithmic Approach toward Energy-Aware SDR Baseband Implementations**
   M. Li, D. Novo, B. Bougard, C. Desset, A. Dejonghe, L. Van Der Perre, F. Catthoor (IMEC)

4. **Rapid Prototyping of Clarkson's Lattice Reduction for MIMO Detection**
   L. G. Barbero (ECIT Institute, Queen's University Belfast), D. L. Milliner (Georgia Institute of Technology), T. Ratnarajah (ECIT Institute, Queen's University Belfast), J. R. Barry (Georgia Institute of Technology), C. Cowan (ECIT Institute, Queen's University Belfast)

5. **On the Effect of Power Amplifier Nonlinearity on MIMO Transmit Diversity Systems**
   J. Qi, S. Aïssa (INRS-EMT, University of Quebec)

SPC-07: Precoding-related algorithms

Room: Konferenz 4
Time: Tue, 16 Jun, 2:00 pm - 3:30 pm
Chair: Mustafa Gurcan (Imperial College London)

1. **A Hybrid MC-CDMA Precoding Scheme Employing Code Hopping and Partial Beamforming**
   C. Masouros, E. Alsusa (University of Manchester)

2. **Selective Channel Inversion Precoding for the Downlink of MIMO Wireless Systems**
   C. Masouros, E. Alsusa (University of Manchester)

3. **Efficient GSVD Based Multi-User MIMO Linear Precoding and Antenna Selection Scheme**
   J. Park, J. Chun (KAIST, Korea), H. Park (Georgia Institute of Technology)

4. **Link Adaptation in Linearly Precoded Closed-Loop MIMO-OFDM Systems with Linear Receivers**
   E. Ohlmer, G. Fettweis (Technische Universität Dresden)

5. **Utility Maximization in the Multi-User MISO Downlink with Linear Precoding**
   J. Brehmer, W. Utschick (Technische Universität München)

SPC-P2: Theoretical and implementation topics

Room: Poster Area 1
Time: Tue, 16 Jun, 2:00 pm - 3:30 pm
Chair: Matthias Hesse (CNRS)

1. **Improved Fast Recursive Algorithms for V-BLAST and G-STBC with Novel Efficient Matrix Inversion**
   H. Zhu (Huawei Technologies Co. Ltd.), W. Chen (Shanghai Jiaotong University), F. She (Huawei Technologies)

2. **Efficient Implementation of Binary Sequence Generator for WiMAX and WRAN on Programmable Digital Signal Processor**
   L. T. Tie, S. W. Oh, J. M. Kua (Institute for Infocomm Research)

3. **Maximum a Posteriori Bit-Unstuffing**
   J. Hicks (The Aerospace Corporation), T. Meehan (Vista Research), F. Kragh (Naval Postgraduate School)

4. **Highly Integrated Fractional-n Synthesizer for Locatable Wireless Sensor Nodes**
   T. Ußmüller, R. Weigel (University of Erlangen-Nuremberg), R. Eickhoff (Technische Universität Dresden)

5. **Generalized Differential Vector Signaling**
   A. Abbasfar (Rambus Inc.)

6. **Graph Matching Based Side Information Generation for Distributed Multi-View Video Coding**
   H. Lv, H. Xiong, L. Song (Shanghai Jiao Tong University), Z. He (University of Missouri-Columbia), T. Chen (Carnegie Mellon University)

7. **Algebraic Reduction for the Golden Code**
   G. Rekaya-Ben Othman, L. Luzzi, J.-C. Belfiore (Telecom ParisTech)

8. **An Advanced Method for Watermarking Digital Signals in Bit-Plane Structure**
   T. Kimoto (Toyo University)

9. **Efficient Sample Rate Conversion in Software Radio Employing Folding Number System**
   D.-M. Pham, A. B. Premkumar, A. S. Madhukumar (Nanyang Technological University)

10. **Multiuser Extensions for Closed Loop Transmit Diversity in HSDPA**
    S. P. Shenoy (EURECOM), I. Ghauri (Infineon Technologies France), D. T. M. Slock (EURECOM)

11. **Crosstalk Cancellation in Upstream Coordinated DSL Using an Iterative MMSE Receiver**
    I. Wahibi, M. Ouzzif, J. Le Masson (Orange Labs), S. Saoudi (Telecom Bretagne)

12. **An SNR-Assisted Crosstalk Channel Estimation Technique**
    J. Louveaux, A. Kalakech (Université catholique de Louvain), M. Guenach, J. Maes, M. Peeters (Alcatel-Lucent), L. Vandendorpe (Université catholique de Louvain)

13. **Channel Estimation and Performance of Mismatched Decoding in Wireless Relay Networks**
    D. H. N. Nguyen, H. H. Nguyen (University of Saskatchewan)

SPC-08: Iterative receivers and sequential methods

Room: Konferenz 4
Time: Tue, 16 Jun, 4:00 pm - 5:30 pm
Chair: Mathini Sellathurai (Queen's University of Belfast)

1. **Iterative Detection and Decoding for Hard-Decision Forwarding Aided Cooperative Spatial Multiplexing**
   K. C. Lee (Samsung, Korea), L. Hanzo (Unversity of Southampton)

2. **Performance of Sequential Probability Ratio Test for GPS Acquisition**
   N. O'Mahony (University College Cork), C. O'Driscoll (University of Calgary), C. C. Murphy (University College Cork)

3. **Improved Decision-Directed Recursive Least Squares MIMO Channel Tracking**
   E. Eitel (University of Stuttgart), R. H. A. Salem (German University of Cairo), J. Speidel (University of Stuttgart)

4. **Markov Chain Monte Carlo Detection Methods for High SNR Regimes**
   S. Akoum (University of Texas at Austin), R. Peng, R.-R. Chen, B. Farhang-Boroujeny (University of Utah)

5. **Iterative Receiver Design for MIMO Systems with Improper Signal Constellations**
   P. Xiao, M. Sellathurai (Queen's University Belfast)

SPC-09: Equalisation

Room: Konferenz 4
Time: Wed, 17 Jun, 9:00 am - 10:30 am
Chair: Hai Lin (Osaka Prefecture University)

1. **Per-Tone Equalizer Design and Analysis of Filtered Multitone Communication Systems Over Time-Varying Frequency-Selective Channels**
   P. Amini, B. Farhang-Boroujeny (University of Utah)

2. **Low-Complexity Equalization Based on Least Squares Support Vector Classifiers for DS-UWB Systems**
   M. Musbah, X. Zhu (University of Liverpool)

3. **Space-Frequency-Coded MIMO OFDM Receivers Based on Gaussian Message Passing**
   C.-P. Chou, C.-H. Wu, T.-H. Liu (National Chung Cheng University), Y.-T. Hwang (National Chung Hsing University)

4. **Channel Spectral Flattening in Time Domain Equalizer Design for OFDM Systems**
   I. Y. Chen (DSO National Laboratories), W. H. Chin (Toshiba Research Europe Limited)

5. **SVD-Based Receiver for Downlink MIMO MC-CDMA Systems**
   H. Zamiri-Jafarian, M. Rajabzadeh (Ferdowsi University of Mashhad, Iran)

SPC-10: Channel Estimation

Room: Konferenz 4
Time: Wed, 17 Jun, 10:50 am - 12:20 pm
Chair: Feifei Gao (Jacobs University, Bremen)

1. **Steady-State Kalman Filtering for Channel Estimation in OFDM Systems Utilizing SNR**
   M. Liyanage, I. Sasase (Keio University)

2. **Channel Estimation for Amplify-and-Forward Two-Way Relay Network with Power Allocation**
   B. Jiang (National Mobile Communication Research Laboratory, Southeast University), F. Gao (School of Engineering and Science Electrical Engineering, Jacobs University Bremen), X. Gao (National Mobile Communications Research Laboratory, Southeast University), A. Nallanathan (Division of Engineering, King's College London)

3. **Decision Directed Channel Estimation for OFDM Systems Employing Fast Data Projection Method Algorithm**
   O. O. Oyerinde, S. H. Mneney (University of KwaZulu-Natal)

4. **Channel Estimation and Tracking Schemes for the Pulse-Shaping OFDM Systems**
   B. Mongol (Nagoya University, Graduate School of Engineering), T. Yamazato, M. Katayama (Nagoya University, Ecotopia Science Institute)

5. **Channel Estimation Based on Divergence Minimization for OFDM Systems with Co-Channel Interference**
   C. Navarro Manchón, B. Fleury, G. E. Kirkelund, P. Mogensen, L. Deneire, T. Sørensen (Aalborg University), C. Rom (Infineon Technologies Denmark A/S)

SPC-11: Detection and decoding

Room: Konferenz 4
Time: Wed, 17 Jun, 2:00 pm - 3:30 pm
Chair: Wai Pang Ng (Northumbria University)

1. **Reduced-Rank Adaptive Least Bit Error-Rate Detection in Hybrid Direct-Sequence Time-Hopping Ultrawide Band Systems**
   Q. Z. Ahmed, L.-L. Yang, S. Chen (Unversity of Southampton)

2. **Complexity Reduced Soft-In Soft-Out Sphere Detection Based on Search Tuples**
   B. Mennenga, A. von Borany, G. Fettweis (Technische Universität Dresden)

3. **An Improved Split-Row Threshold Decoding Algorithm for LDPC Codes**
   T. Mohsenin, D. Truong, B. Baas (UC Davis)

4. **Application of Analytic Wavelet Transform for Signal Detection in Nyquist Folding Analog-to-Information Receiver**
   O. O. Odejide, C. M. Akujuobi, A. Annamalai (Prairie View A&M University), G. Fudge (Private Consultant)

5. **Sub-Noise Primary User Detection by Cross-Correlation**
   M. Heskamp, C. Slump (University of Twente)

SPC-12: Optimisation

Room: Konferenz 4
Time: Wed, 17 Jun, 4:00 pm - 5:30 pm
Chair: Claude Desset (IMEC)

1. **Particle Swarm Optimisation Aided Minimum Bit Error Rate Multiuser Transmission**
   W. Yao, S. Chen (University of Southampton), S. Tan (Unversity of Southampton), L. Hanzo (University of Southampton)

2. **Effective Capacity Maximization in Multi-Antenna Channels with Covariance Feedback**
   E. Jorswieck, R. Mochaourab, M. Mittelbach (Dresden University of Technology)

3. **Multi-User Joint Subchannel and Power Resource-Allocation for Powerline Relay Networks**
   H. Zou, A. Chowdhery, S. Jagannathan, J. M. Cioffi (Stanford University), J. Le Masson (Orange Labs)

4. **Analog Antenna Combining for Maximum Capacity Under OFDM Transmissions**
   J. Vía, V. Elvira, I. Santamaría (University of Cantabria), R. Eickhoff (Dresden University of Technology)

5. **A User Grouping Method for Maximum Weighted Sum Capacity Gain**
   C. Guthy, W. Utschick (Technische Universität München), G. Dietl (DOCOMO Communications Laboratories Europe)

Symposium on Selected Areas in Communications

SAC-01: Situation Management

Room: Seminar 5
Time: Mon, 15 Jun, 10:50 am - 12:20 pm
Chair: Gabriel Jakobson (Altusys Corp.)

1. **Situation Understanding Based on Heterogeneous Sensor Networks and Human-Inspired Favor Weak Fuzzy Logic System**
   Q. Liang (University of Texas at Arlington)
2. **Spatial-Temporal Event Correlation**
   J. Buford, X. Wu, V. Krishnaswamy (Avaya Labs Research)
3. **Modeling of a Public Safety Communication System for Emergency Response**
   C. Chen, C. Pomalaza-Ráez (Indiana University - Purdue University Fort Wayne), M. Colone, R. Martin, J. Isaacs (ITT Corporation)
4. **Battle Management Language (BML) as an Enabler**
   K. Rein, U. Schade (FGAN FKIE), M. Hieb (George Mason University)
5. **Adaptive Mixture-Based Neural Network Approach for Higher-Level Fusion and Automated Behavior Monitoring**
   D. Garagic, B. Rhodes, N. Bomberger, M. Zandipour (BAE Systems - AIT)

SAC-02: Data Storage

Room: Seminar 5
Time: Mon, 15 Jun, 2:00 pm - 3:30 pm
Chair: Sedat Oelcer (IBM Zurich Research Laboratory)

1. **Matched Spectral-Null Code with Run-Length Limitation for Optical Recording Channels**
   S. Higashino, S. Kobayashi, T. Yamagami (Sony Corp.)
2. **Rewritable Channels With Data-Dependent Noise**
   T. Mittelholzer (IBM Zurich Research Lab), M. Franceschini, L. A. Lastras-Montaño, I. Elfadel, M. Sharma (IBM Watson Research Center)
3. **Joint Message-Passing Symbol-Decoding of LDPC Coded Signals Over Partial-Response Channels**
   R. Radhakrishnan, B. Vasic (University of Arizona)
4. **Probabilistic Data Detection for Probe-Based Storage Channels in the Presence of Jitter**
   H. Pozidis, G. Cherubini (IBM Research, Zurich Research Laboratory)
5. **Stochastic Decoding of LDPC Codes Over GF(q)**
   G. Sarkis, S. Mannor, W. Gross (McGill University)

SAC-03: Networked Services

Room: Seminar 5
Time: Mon, 15 Jun, 4:00 pm - 5:30 pm
Chair: Madjid Merabti (Liverpool John Moores University)

1. **A Polite Cross-Layer Protocol for Contention-Based Home Power-Line Communications**
   A. Chowdhery, S. Jagannathan, J. M. Cioffi (Stanford University), M. Ouzzif (Orange Labs R&D, Lannion)
2. **A Distributed Protocol for Virtual Device Composition in Mobile Ad Hoc Networks**
   E. Karmouch, A. Nayak (University of Ottawa)
3. **Statistical MIMO Channel Model for Gain Quantification of DSL Crosstalk Mitigation Techniques**
   J. Maes, M. Guenach, M. Peeters (Alcatel-Lucent Bell Labs)
4. **A Novel Interactive Streaming Protocol for Image-Based 3D Virtual Environment Navigation**
   A. Boukerche, R. Jarrar, R. W. Pazzi (University of Ottawa)
5. **End-to-End QoS Provisioning for Real-Time Video Streaming over SP-Driven P2P Networks Using Admission Control**
   M. Mushtaq, T. Ahmed (CNRS LaBRI Lab., University of Bordeaux 1)

SAC-04: Vehicular Communications and Networks

Room: Seminar 5
Time: Tue, 16 Jun, 9:00 am - 10:30 am
Chair: Yacine Ghamri Doudane (LRSM, Ensiie)

1. **VLS: A Map-Based Vehicle Location Service for City Environments**
   X.-Y. Bai (Institute of Computing Technology, Chinese Academy of Sciences), X.-M. Ye (Inner Mongolia University), J. Li, H. Jiang (Institute of Computing Technology, Chinese Academy of Sciences)
2. **Wireless Location Privacy Protection in Vehicular Ad-Hoc Networks**
   J.-H. Song, V. W. S. Wong, V. C. M. Leung (University of British Columbia)
3. **A New Architecture for Data Collection in Vehicular Networks**
   I. Salhi, M. Cherif, S.-M. Senouci (France Telecom R&D)
4. **A Link-Reliability-Based Approach to Providing QoS Support for VANETs**
   A. Boukerche, C. Rezende, R. W. Pazzi (University of Ottawa)
5. **A Distributed Approach for Location Lookup in Vehicular Ad Hoc Networks**
   H. Saleet (University of Waterloo), R. Langar (LIP6, UPMC - Paris Universitas), O. Basir, R. Boutaba (University of Waterloo)

SAC-05: Cognitive Networks 1: Spectrum Sensing

Room: Seminar 5
Time: Tue, 16 Jun, 10:50 am - 12:20 pm
Chair: Rajeev Jain
(University of California Los Angeles)

1. **Proactive Detection of Spectrum Holes in Cognitive Radio**
   G. Zhao (Beihang University), G. Li (Georgia Tech), C. Yang (Beihang University), J. Ma (Georgia Tech)
2. **Blind Spectrum Sensing for Cognitive Radio Based on Signal Space Dimension Estimation**
   B. Zayen, A. Hayar (Eurecom), K. Kansanen (Norwegian Univ. of Science and Technology)
3. **Spectrum Sensing Using Hidden Markov Modeling**
   A. Coulson (Industrial Research Ltd)
4. **Cooperative Spectrum Sensing with Noisy Hard Decision Transmissions**
   T. C. Aysal, K. Sithamparanathan, R. Piesiewicz (Create-Net)
5. **Spectrum Sensing Design Framework Based on Cross-Layer Optimization of Detection Efficiency**
   J. Park, R. Jain, D. Cabric (University of California Los Angeles)

SAC-06: Cognitive Networks 2: Modeling and Security in Dynamic Spectrum Access

Room: Seminar 5
Time: Tue, 16 Jun, 2:00 pm - 3:30 pm
Chair: Koduvayur Subbalakshmi
(Stevens Institute of Technology)

1. **Detecting Primary User Emulation Attacks in Dynamic Spectrum Access Networks**
   Z. Jin, S. Anand, K. P. Subbalakshmi (Stevens Institute of Technology)
2. **A New Cooperative Detection Technique with Malicious User Suppression**
   T. Zhao, Y. Zhao (State Key Laboratory of Advanced Optical Communication Systems & Networks, School of Electronics Engineering & Computer Science, Peking University)
3. **Towards Secure Spectrum Decision**
   G. Jakimoski, K. P. Subbalakshmi (Stevens Institute of Technology)
4. **Modeling and Analysis for Proactive-Decision Spectrum Handoff in Cognitive Radio Networks**
   C.-W. Wang, L.-C. Wang (National Chiao Tung University)
5. **Spatial Statistics of Spectrum Usage: From Measurements to Spectrum Models**
   M. Wellens, J. Riihijärvi, M. Gordziel, P. Mähönen (RWTH Aachen University)

SAC-07: Cognitive Networks 3: Spectrum Management and Policy Issues

Room: Seminar 5
Time: Tue, 16 Jun, 4:00 pm - 5:30 pm
Chair: Costas Georghiades
(Texas A&M Univeristy)

1. **Probability-Based Combination for Cooperative Spectrum Sensing in Cognitive Radio Networks**
   X. Zhou, J. Ma, G. Y. Li (Georgia Institute of Technology), Y. H. Kwon, A. Soong (Huawei Technologies)
2. **Broker Coordination in Demand Responsive Dynamic Spectrum Access Settings**
   O. Ileri, J. Zander (Royal Institute of Technology (KTH))
3. **Cognitive Radio Policy Languages**
   J. Mitola III (Stevens Institute of Technology)
4. **A Neural Network Based Cognitive Controller for Dynamic Channel Selection**
   N. Baldo (Centre Tecnològic de Telecomunicacions de Catalunya), B. R. Tamma, B. S. Manoj, R. Rao (University of California San Diego), M. Zorzi (University of Padova)
5. **Throughput Analysis of a Randomized Sensing Scheme in Cell-Based Ad-Hoc Cognitive Networks**
   A. Banaei, C. Georghiades (Texas A&M University)

SAC-P1: Poster Session: Selected Topics in Communications

Room: Poster Area 1
Time: Wed, 17 Jun, 9:00 am - 10:30 am
Chair: Yacine Ghamri Doudane
(LRSM, Ensiie)

1. **Spectogram Reconstruction from Random Sampling: Application to the GSM Band Sensing**
   L. Gueguen, B. Sayrac (Orange Labs), D. Depierre (THALES Land & Joint Systems)
2. **A Cooperative Vehicular Network Framework**
   O. Trullols-Cruces, J. Morillo-Pozo, J. M. Barcelo, J. Garcia-Vidal (Universitat Politecnica de Catalunya (UPC))
3. **Analysis of Diversity Combining in Energy Detection for Cognitive Radio over Nakagami Channels**
   S. Herath, N. Rajatheva (Asian Institute of Technology)
4. **UWB Radar Sensor Networks Detection of Targets in Foliage Using Short-Time Fourier Transform**
   J. Liang, Q. Liang (Univ. of Texas at Arlington)
5. **Decentralized Control and Optimization of Networks with QoS-Constrained Services**
   I. Saniee (Bell Labs, Alcatel-Lucent)
6. **Detecting Low-Power Primary Signals via Distributed Sensing to Support Opportunistic Spectrum Access**
   V. Fodor, I. Glaropoulos (KTH, Royal Institute of Technology), L. Pescosolido (University of Rome)
7. **Cooperative Shared Spectrum Sensing for Dynamic Cognitive Radio Networks**
   A. Biswas, T. C. Aysal, K. Sithamparanathan, D. Kliazovichz, R. Piesiewicz (Create-Net)

8. **Stateful Scheduling with Network Coding for Roadside-to-Vehicle Communication**
   H. Lu (University of Science and Technology of China), F. Wu (Microsoft Research Asia), C. Chen (State University of New York at Buffalo)

9. **Subcarrier Sensing for Distributed OFDMA in Powerline Communication**
   Y. Zeng, S. W. Oh, R. Mo (Institute for Infocomm Research, Singapore)

10. **IPTV Quality of Service Management in Home Networks**
    C. Mingardi (Aspiag Service Srl), M. Brunner (NEC)

Wireless Communications Symposium

WCS-01: MIMO I

Room: Saal 2
Time: Mon, 15 Jun, 10:50 am - 12:20 pm
Chair: Witold Krzymien (University of Alberta / TRLabs)

1. **QoS-Aware Optimal Power Allocation with Channel Inversion Regularization Precoding in MU-MIMO**
   X. Jin, Y. Yang, L. Tian, D. Pang (Institute of Computing Technology, Chinese Academy of Sciences, Graduate University of Chinese Acade), J. Shi (Institute of Computing Technology, Chinese Academy of Sciences), E. Dutkiewicz (Macquarie University)

2. **A Training-Based Iterative Detection/Channel Estimation Scheme for Large Non-Orthogonal STBC MIMO Systems**
   A. Zaki, S. Mohammed, A. Chockalingam, B. S. Rajan (Indian Institute of Science)

3. **A New Reduced Complexity ML Detection Scheme for MIMO Systems**
   J.-S. Kim, S.-H. Moon, I. Lee (Korea University, Korea)

4. **A Semidefinite Relaxation Approach to Efficient Soft Demodulation of MIMO 16-QAM**
   M. Nekuii, T. Davidson (McMaster University)

5. **Markov Chain Minimum Bit Error Rate Detection for Multi-Functional MIMO Uplink**
   S. Sugiura, S. Chen, L. Hanzo (Unversity of Southampton)

WCS-02: Cooperative Networks I

Room: Saal 4
Time: Mon, 15 Jun, 10:50 am - 12:20 pm
Chair: Sergey Loyka (University of Ottawa)

1. **Minimum Sum Expected Distortion in Cooperative Networks**
   S. Ren (University of California, Los Angeles), K.B. Letaief (The Hong Kong University of Science and Technology)

2. **A Novel Cooperative Diversity Based on Multilevel Coded Modulation**
   K. Ishii (Kagawa University), K. Ishibashi (Shizuoka University), H. Ochiai (Yokohama National University)

3. **Denoising Strategy for Convolutionally-Coded Bidirectional Relaying**
   T. Koike-Akino (Harvard University), P. Popovski (Aalborg University), V. Tarokh (Harvard University)

4. **On the Performance of Selection Cooperation ARQ**
   P. A. Anghel, M. Kaveh (University of Minnesota)

5. **A Distributed Linear Convolutive Space-Frequency Coding for Cooperative Communication Systems with Multiple Frequency Offsets**
   H. Wang (Xi'an Jiaotong University), X.-G. Xia (University of Delaware), Q. Yin, L. Bai (Xi'an Jiaotong University)

WCS-03: Capacity and Performance Analysis

Room: Saal 5
Time: Mon, 15 Jun, 10:50 am - 12:20 pm
Chair: David Griffith (NIST)

1. **Crystallized Rates Region of the Interference Channel via Correlated Equilibrium with Interference as Noise**
   M. Charafeddine (Stanford University), Z. Han (University of Houston), A. Paulraj, J. Cioffi (Stanford University)
2. **Sum Rates and User Scheduling for Multi-User MIMO Vector Perturbation Precoding**
   A. Razi (The University of New South Wales), D. J. Ryan (Norwegian University of Science and Technology), I. B. Collings (CSIRO, ICT Centre), J. Yuan (The University of New South Wales)
3. **Constrained Ergodic Rates Maximization for Mobile WiMAX with Statistical Channel Information**
   F. Brah, L. Vandendorpe (Université catholique de Louvain)
4. **Throughput Optimization in High Speed Downlink Packet Access (HSDPA)**
   T. Cui (California Institute of Technology), F. Lu, A. Goteti, V. Sethuraman, S. Rao, P. Subrahmanya (Qualcomm Inc.)
5. **Throughput Enhancement in Multi-Carrier Systems Employing Overlapping Weyl-Heisenberg Frames**
   T. Kurt (Airties Wireless Networks), G. Kurt (Turkcell Ilet. Hiz.), A. Yongacoglu (University of Ottawa)

WCS-P1: Topics in Transmission Technologies

Room: Poster Area 1
Time: Mon, 15 Jun, 10:50 am - 12:20 pm
Chair: Mustafa Cenk Gursoy (University of Nebraska-Lincoln)

1. **Characterization of the Dynamic Narrowband On-Body to Off-Body Area Channel**
   D. Smith, L. Hanlen, J. Zhang, D. Miniutti, D. Rodda, B. Gilbert (National ICT Australia (NICTA))
2. **Diversity Analysis of Smart Relaying with Equal Gain Combining**
   N. Vien, H. Nguyen (University of Saskatchewan), T. Le-Ngoc (McGill University)
3. **The α - η - μ and α - λ - μ Joint Envelope-Phase Fading Distributions**
   A. Papazafeiropoulos, S. Kotsopoulos (University of Patras)
4. **Channel Modeling and Performance Evaluation on UWB-Based Wireless Body Area Networks**
   K. Takizawa, T. Aoyagi, R. Kohno (NICT)
5. **Bit-Interleaved Coded Modulation for Hybrid RF/FSO Systems**
   B. He, R. Schober (University of British Columbia)
6. **Mapping Techniques for UWB Positioning**
   E. Arias-de-Reyna (University of Seville), U. Mengali (University of Pisa)
7. **Underground Wireless Communication using Magnetic Induction**
   Z. Sun, I. Akyildiz (Georgia Institution of Technology)
8. **Capacity Evaluation of a Land Mobile Satellite System Utilizing Multiple Element Antennas**
   N. Moraitis, A. Kyriazos, P. Constantinou (National Technical University of Athens), D. Vouyioukas (University of the Aegean)
9. **A Compressed Sensing Based Ultra-Wideband Communication System**
   P. Zhang, Z. Hu, R. Qiu (Tennessee Tech Univ), B. Sadler (US Army Research Laboratory)
10. **A Simple Near-Capacity Bandwidth-Efficient Coded Modulation Scheme in Rayleigh Fading**
    N. H. Tran, T. Le-Ngoc (McGill University), T. Matsumoto (University of Oulu)
11. **Design and Evaluation of a Multilevel Decoder for Satellite Communications**
    A. Vargas, M. Breiling (Fraunhofer Institute), W. Gerstacker (University of Erlangen)
12. **Differential (De)Modulation for Orthogonal Bi-Pulse Noncoherent UWB**
    M. Ouertani (Institut Supérieur d'informatique), H. Xu (University of Florida), H. Besbes (Ecole Supérieure des Communications de Tunis, Sup'Com), L. Yang (University of Florida), A. Bouallègue (Ecole Nationale d'ingénieur de Tunis, ENIT)
13. **Analysis of Turbo Codes Over Hybrid Optical/RF Channels**
    H. Tapse, D. Borah (New Mexico State University)
14. **Local Information Busy Burst Thresholding**
    S. Sinanovic (University of Edinburgh), H. Burchardt (Technische Universitaet Muenchen), N. Serafimovski (Jacobs University Bremen), G. Auer (DOCOMO Euro-Labs), H. Haas (University of Edinburgh)
15. **Three Layered Hidden Markov Models for Binary Digital Wireless Channels**
    O. S. Salih, C.-X. Wang (Joint Research Institute for Signal and Image Processing, Heriot-Watt University, Edinburgh), D. I. Laurenson (Joint Research Institute for Signal and Image Processing, University of Edinburgh, Edinburgh)

WCS-04: Cooperative Networks II

Room: Saal 2
Time: Mon, 15 Jun, 2:00 pm - 3:30 pm
Chair: Meixia Tao (Shanghai Jiao Tong University)

1. **Analysis, Insights and Generalization of a Fast Decentralized Relay Selection Mechanism**
   V. Shah, N. Mehta (Indian Institute of Science (IISc)), R. Yim (Mitsubishi Electric Research Labs (MERL))

2. **Performance Evaluation of HARQ Schemes for Cooperative Regenerative Relaying**
   R. Hoshyar, R. Tafazolli (University of Surrey)

3. **On the Performance of Amplify-and-Forward Cooperative Diversity with the Nth Best-Relay Selection Scheme**
   S. S. Ikki, M. H. Ahmed (Memorial University of Newfoundland)

4. **Performance Analysis of Decode-and-Forward Relay Network Under Adaptive M-QAM**
   P. Kalansuriya, C. Tellambura (University of Alberta)

5. **Fundamental Power-Allocation for Cooperative Relay Networks**
   R. Kwak, J. Cioffi (Stanford University)

WCS-05: Wireless Channels

Room: Saal 4
Time: Mon, 15 Jun, 2:00 pm - 3:30 pm
Chair: George Karagiannidis (Aristotle University of Thessaloniki)

1. **The Effect of Fading Correlation on Average Source MMSE Distortion**
   D. Tuninetti, S. Zhao, R. Ansari, D. Schonfeld (UIC)

2. **The Two-Way MIMO Wire-Tap Channel**
   O. Souihli, T. Ohtsuki (Keio University)

3. **Degrees of Freedom and Sum Rate Maximization for Two Mutually Interfering Broadcast Channels**
   S.-H. Park, I. Lee (Korea University, Korea)

4. **A Flexible Antenna Selection Scheme for 60 GHz Multi-Antenna Systems Using Interleaved ADCs**
   W. Van Thillo, S. Pollin, J. Nsenga, V. Ramon, A. Bourdoux, F. Horlin, R. Lauwereins (IMEC), A. Bahai (UC Berkeley)

5. **Second Order Statistics of Non-Isotropic Mobile-to-Mobile Ricean Fading Channels**
   X. Cheng, C.-X. Wang (Joint Research Institute for Signal and Image Processing, School of Engineering and Physical Sciences, Heriot-Watt University), D. Laurenson (Joint Research Institute for Signal and Image Processing, Institute for Digital Communications, University of Edinburgh), A. Vasilakos (Department of Computer and Telecommunications Engineering, University of Western Macedonia)

WCS-06: OFDM

Room: Saal 5
Time: Mon, 15 Jun, 2:00 pm - 3:30 pm
Chair: Dhammika Jayalath (Queensland University of Technology)

1. **Power Allocation for Broadcasting in Multiuser OFDM Systems with Sublinear Complexity**
   C. Liu (Institute for Theoretical Information Technology, RWTH-Aachen University), A. Schmeink (UMIC Research Centre, RWTH-Aachen University), R. Mathar (Institute for Theoretical Information Technology, RWTH-Aachen University)

2. **BICMB-OFDM Link Resource Adaptation**
   I. Stupia, F. Giannetti, V. Lottici (University of Pisa), L. Vandendorpe, J. Louveaux (Catholic University of Louvain)

3. **Polynomial Eigen-Beamformer in Time Domain for MIMO-OFDM Systems**
   H. Zamiri-Jafarian, M. Moghaddari (Ferdowsi University of Mashhad, Iran)

4. **Minimum Distance Based Precoder for MIMO-OFDM Systems Using a 16-QAM Modulation**
   Q.-T. Ngo, O. Berder, B. Vrigneau, O. Sentieys (INRIA / University of Rennes 1)

5. **Subcarrier Allocation for OFDMA Relay Networks with Proportional Fair Constraint**
   B. Fan, W. Wang, Y. Lin (Beijing University of Posts & Telecommunications), L. Huang (Orange Labs, France Telecom R&D, Beijing, China), K. Zheng (Beijing University of Posts & Telecommunications)

WCS-P2: Topics in Resource Allocation, Management

Room: Poster Area 2
Time: Mon, 15 Jun, 2:00 pm - 3:30 pm
Chair: Yi Qian (NIST)

1. **Power Allocation for Wireless Communications Using Variable Time-Fraction Collaboration**
   P. Tooher, M. R. Soleymani (Concordia University)

2. **Dynamic Pre-Allocation HARQ (DP-HARQ) in IEEE 802.16j Mobile Multihop Relay (MMR)**
   K.-W. Cheng (National Tsing Hua University), J.-C. Chen (Telcordia Technologies)

3. **Protocols and Resource Allocation for the Two-Way Relay Channel with Half-Duplex Terminals**
   A. Agustin, J. Vidal, O. Muñoz (UPC)

4. **Quality of Service in 802.11 Networks: Modeling and Experimental Evaluation**
   F. Babich, M. Comisso, M. D'Orlando, A. Dorni (University of Trieste)

5. **Dynamic Coexistence of Frequency Hopping Networks using Parallel and Gaussian Allocations**
   M. Hasan, R. Prakash, J. Jue (The University of Texas at Dallas)

6. **Optimal Cross-Layer Bandwidth Adaptation for Maximum-Throughput VBR Media Wireless Content Delivery**
   E. Baccarelli, M. Biagi, N. Cordeschi, C. Pelizzoni ("Sapienza" University of Rome)

7. **Fairness-Aware Joint Routing and Scheduling in OFDMA-Based Cellular Fixed Relay Networks**
   M. Salem, A. Adinoyi, M. Rahman, H. Yanikomeroglu, D. Falconer (Carleton University), Y.-D. Kim, W. Kim, E. Kim (Samsung Electronics, Korea)

8. **Traffic-Matching Revenue-Rate Maximization Scheduling for Downlink OFDMA**
   Y. Ma, A. Leith (Iowa State University), Y. Qian (National Institute of Standards and Technology)

9. **A Mathematical Perspective of Self-Optimizing Wireless Networks**
   I. Viering (Nomor Research), M. Döttling, A. Lobinger (Nokia Siemens Networks)

10. **Power Optimal Signaling for Fading Multi-Access Channel in Presence of Coding Gap**
    A. Sethi, P. Chaporkar, A. Karandikar (Indian Institute of Technology Bombay)

11. **General Order Selection Allocation for Decentralized Multiple Access Networks**
    M. Elkashlan, Z. Chen, I. Collings (CSIRO, ICT Centre), W. Krzymien (University of Alberta / TRLabs)

12. **Resources Allocation for the Transmission of Scalable Images on OFDM Systems**
    H. Houas, I. Fijalkow (ETIS, UMR CNRS 8051, ENSEA-University of Cergy-Pontoise), C. Baras (GIPSA-lab)

13. **Fast Power Control for Cross-Layer Optimal Resource Allocation in DS-CDMA Wireless Networks**
    M. Belleschi, L. Balucanti (University of Siena), P. Soldati, M. Johansson (Royal Institute of Technology KTH), A. Abrardo (University of Siena)

14. **How Much Multiuser Diversity Gain Is Required Over Large-Scale Fading?**
    Y. Ko, S. A. Vorobyov, M. Ardakani (University of Alberta)

WCS-07: Synchronization

Room: Saal 2
Time: Mon, 15 Jun, 4:00 pm - 5:30 pm
Chair: Davide Dardari (University of Bologna)

1. **Data-Aided Symbol Timing Estimation for Multiple-Access OFDM/OQAM Systems**
   T. Fusco, A. Petrella, M. Tanda (University of Naples)

2. **Joint Synchronization Using Cyclic Property**
   A. Xu, K. Peng, Z. Yang (Tsinghua National Laboratory for Information Science and Technology (TNList))

3. **A New Joint Estimation Scheme for Carrier Frequency Offset and I/Q Imbalance**
   L. Lanante Jr., M. Kurosaki, H. Ochi (Kyushu Institute of Technology)

4. **Joint Synchronization and Channel Estimation for OFDM Transmissions over Doubly Selective Channels**
   H. Nguyen-Le, T. Le-Ngoc (McGill University)

5. **Application of Phase Shift in Coherent Multi-Relay MIMO Communications**
   Y. Zheng, H. Mehrpouyan, S. D. Blostein (Queen's University)

WCS-08: MIMO Cooperative Networks

Room: Saal 4
Time: Mon, 15 Jun, 4:00 pm - 5:30 pm
Chair: Walaa Hamouda (Concordia University)

1. **Pilot Matrix Design for Interim Channel Estimation in Two-Hop MIMO AF Relay Systems**
   J. Ma (Georgia Tech), P. Orlik, J. Zhang (Mitsubishi Electric Research Laboratories), G. Y. Li (Georgia Tech)

2. **Limited-Feedback Modified Block Diagonalization for Multiuser MIMO Downlink with Time-Varying Channels**
   Y. Xiao, W. Miao, M. Zhao, S. Zhou, J. Wang (Tsinghua University)

3. **Degrees of Freedom of Cooperative MIMO in Cellular Networks**
   S.-H. Lee, S.-Y. Chung (KAIST, Korea)

4. **Joint Precoding for MIMO-Relay Systems with Partial Channel State Information**
   H. W. Je, D. H. Kim, K. B. Lee (Seoul National University, Korea)

5. **Power Allocations for Adaptive Distributed MIMO Multi-Hop Networks**
   Y. Lang, D. Wübben, K.-D. Kammeyer (University of Bremen)

WCS-09: Channel Measurement and Modeling

Room: Saal 5
Time: Mon, 15 Jun, 4:00 pm - 5:30 pm
Chair: Norman Beaulieu (University of Alberta)

1. **Measurement-Based Modeling of Vehicle-to-Vehicle MIMO Channels**
   J. Karedal, F. Tufvesson (Lund University), N. Czink (Forschungszentrum Telekommunikation Wien, Austria, and Stanford University), A. Paier (Technische Universität Wien), C. Dumard, T. Zemen (Forschungszentrum Telekommunikation Wien), C. Mecklenbräuker (Forschungszentrum Telekommunikation Wien and Technische Universität Wien), A. Molisch (University of Southern California)

2. **Intercell Interference Measured in Urban Areas**
   S. Jaeckel, L. Thiele, A. Brylka, L. Jiang, V. Jungnickel (Fraunhofer Inst. for Telecommunications), C. Jandura, J. Heft (Technical University of Dresden)

3. **Receive Antenna Gain of Uniform Linear Arrays of Isotrops**
   M. Ivrlac, J. Nossek (Technische Universität München)

4. **Bivariate Nakagami-q (Hoyt) Distribution**
   R. de Souza (Instituto Nacional de Telecomunicações), M. D. Yacoub (State University of Campinas)

5. **Measuring Indoor Mobile Wireless Link Quality**
   A. Wapf, M. Souryal (NIST)

WCS-10: Cognitive Radio I

Room: Saal 1
Time: Tue, 16 Jun, 9:00 am - 10:30 am
Chair: Mathini Sellathurai (Queen's University of Belfast)

1. **Cyclostationary Signatures in OFDM-Based Cognitive Radios with Cyclic Delay Diversity**
   H. Guo, H. Hu (Shanghai Institute of Microsystem and Information Technology (SIMIT), Chinese Academy of Science (CAS) and Shanghai Research Center for Wireless Communications (SHRCWC)), Y. Yang (Shanghai Research Center for Wireless Communication (SHRCWC), China and UCL, London)

2. **Restless Watchdog: Monitoring Multiple Bands with Blind Period in Cognitive Radio Systems**
   H. Li (The University of Tennessee)

3. **Spectrum Handoff in Cognitive Radio Networks: Opportunistic and Negotiated Situations**
   Y. Zhang (Simula Research laboratory)

4. **Null Space-Based Precoding Scheme for Secondary Transmission in a Cognitive Radio MIMO System Using Second-Order Statistics**
   H. Yi, H. Hu, Y. Rui, K. Guo, J. Zhang (Shanghai Research Center for Wireless Communications)

5. **Optimization of Cooperative Sensing in Cognitive Radio Networks: A Sensing-Throughput Tradeoff View**
   E. C. Y. Peh (Nanyang Technological University), Y.-C. Liang (Institute for Infocomm Research), Y. L. Guan (Nanyang Technological University)

WCS-11: OFDMA I

Room: Saal 2
Time: Tue, 16 Jun, 9:00 am - 10:30 am
Chair: Stefan Kaiser (DoCoMo Euro-Labs)

1. **Throughput Improvement Through Precoding in OFDMA Systems with Limited Feedback**
   S. Sorour, A. A. Yazdi, S. Valaee (University of Toronto), R. Y. Kim (LG Electronics Inc., Korea)

2. **Downlink OFDMA Resource Allocation Under Partial Channel State Information**
   S. Stefanatos, N. Dimitriou (Institute of Accelerating Systems and Applications)

3. **Dynamic Resource Allocation for Downlink Multi-User MIMO-OFDMA/SDMA Systems**
   C. Zhong, C. Li, R. Zhao, L. Yang (School of Information Science and Engineering, Southeast University), X. Gao (National Mobile Communications Research Laboratory, Southeast University)

4. **Low Complexity Resource Allocation Algorithm for IEEE 802.16 OFDMA System**
   S. M. Alavi, C. Zhou, Y. Cheng (Illinois Institute of Technology)

5. **An Interior Point Penalty Method for Utility Maximization Problems in OFDMA Networks**
   M. Mehrjoo, S. Moazeni, X. Shen (University of Waterloo)

WCS-12: Precoding

Room: Saal 4
Time: Tue, 16 Jun, 9:00 am - 10:30 am
Chair: Are Hjørungnes (University of Oslo)

1. **Precoded Spatial Multiplexing Systems in the Presence of Feedback Delay using Kalman Filter**
   A. Khrwat, B. Sharif, C. Tsimenidis, S. Boussakta (Newcastle University)

2. **Interference Cancellation and Detection Using Precoders**
   F. Li, H. Jafarkhani (University of California, Irvine)

3. **Cooperative Precoding and Beamforming for Co-Existing Multi-User MIMO Systems**
   W. Hardjawana, B. Vucetic, Y. Li (The University of Sydney)

4. **Two-Tx Precoding Codebooks for Variable Spatial Correlation**
   O. Tirkkonen, K. Hugl (Nokia Research Center), Y. Teng (Nokia Siemens Networks)

5. **Linear Precoding for Multiuser MIMO Systems with Multiple Base Stations**
   I. Azzam (Research in Motion), R. Adve (University of Toronto)

WCS-13: UWB Communications I

Room: Saal 1
Time: Tue, 16 Jun, 10:50 am - 12:20 pm
Chair: Norman Beaulieu (University of Alberta)

1. **Three-Stage Concatenated Ultra-Wide Bandwidth Time-Hopping Spread-Spectrum Impulse Radio Using Iterative Detection**
   R. A. Riaz, R. Maunder, M. F. U. Butt, S. X. Ng, S. Chen, L. Hanzo (University of Southampton)

2. **Superior NDA ML Delay and Gain Estimators for UWB Channels**
   Y. Chen (University of Warwick), N. Beaulieu (University of Alberta)

3. **Improved Link Adaptation for the WiMedia MB-OFDM UWB System**
   D. Wang, H. Zhai (Philips Research North American), S. Fu (University of North Texas)

4. **A New Joint Timing and Channel Estimation Method for Block Transmission UWB Systems**
   Y. Yao, X. Dong (University of Victoria), N. Tin (Bell Canada)

5. **A Novel High Data Rate Prerake UWB System Using Orthogonal Codes and Chip-Interleaving**
   W. Cao (National University of Singapore), Q. Zhang (Shenzhen Institute of Advanced Technology), A. Nallanathan (King's College London), H. K. Garg (National University of Singapore)

WCS-14: MIMO-OFDM

Room: Saal 2
Time: Tue, 16 Jun, 10:50 am - 12:20 pm
Chair: Camillo Gentile (NIST)

1. **Efficient Link-to-Systemlevel Modeling for Accurate Simulations of MIMO-OFDM Systems**
   V. Pauli, I. Viering, C. Buchner, E. Saad, G. Liebl (Nomor Research GmbH), A. Klein (Nokia Siemens Networks)

2. **Low Complexity Variational Bayes Iterative Receiver for MIMO-OFDM Systems**
   C.-L. Xiong (School of Electronic Science and Engineering, National University of Defense Technology), H. Wang (Department of Communications, Optics & Materials Technical University of Denmark), X.-Y. Zhang, J.-B. Wei, C.-J. Tang (School of Electronic Science and Engineering, National University of Defense Technology)

3. **Dual-Turbo Receiver Architecture for Turbo Coded MIMO-OFDM Systems**
   W. Wang, X. Gao, X. Wu, X. You, C. Zhao (Southeast University)

4. **Pilot Design of MIMO-OFDM with Beamforming**
   G. Auer, I. Cosovic (DOCOMO Euro-Labs)

5. **Bandwidth Efficiency of Practical MIMO-OFDM Systems with Adaptive MIMO Schemes**
   A. Camargo, D. Yao, A. Czywik (University of Duisburg-Essen)

WCS-15: Cooperative Networks III

Room: Saal 4
Time: Tue, 16 Jun, 10:50 am - 12:20 pm
Chair: Ranjan Mallik (Indian Institute of Technology - Delhi)

1. **Performance Analysis of Generalized Selection Combining for Amplify-and-Forward Cooperative-Diversity Networks**
   S. Ikki, M. Ahmed (Memorial University of Newfoundland)

2. **Optimization of Split-and-Combine Relaying**
   R. Yim (Mitsubishi Electric Research Labs), A. F. Molisch (University of Southern California), J. Zhang (Mitsubishi Electric Research Labs)

3. **Performance of Dual-Hop Transmissions with Fixed Gain Relays over Generalized-K Fading Channels**
   L. Wu, J. Lin, K. Niu, Z. He (Beijing University of Posts and Telecommunications)

4. **Dual Hop MIMO Relaying with Orthogonal Space-Time Block Codes**
   P. Dharmawansa, M. McKay (Hong Kong University of Science & Technology), R. Mallik (Indian Institute of Technology - Delhi)

5. **Selection Cooperation with Transparent Amplify-and-Forward Relaying in MIMO Relay Channels**
   S. Muhaidat, J. K. Cavers, P. Ho (Simon Fraser University)

WCS-16: Estimation and Detection

Room: Saal 1
Time: Tue, 16 Jun, 2:00 pm - 3:30 pm
Chair: David Griffith (NIST)

1. **Impact of Imperfect Channel State Information on ARQ Schemes over Rayleigh Fading Channels**
   L. Cao, P.-Y. Kam (National University of Singapore), M. Tao (Shanghai Jiao Tong University)

2. **Signal Classification Using a Peak-to-Average Power Ratio Statistic**
   R. J. Baxley (Georgia Tech), B. T. Walkenhorst (Georgia Tech Research Institute), G. T. Zhou (Georgia Tech)

3. **Joint Transmission with Significant CSI in the Downlink of Distributed Antenna Systems**
   X. Wei, T. Weber (University of Rostock), A. Wolfgang, N. Seifi (Chalmers University of Technology)

4. **A Data-Aided Symbol Timing Estimation Algorithm for OFDM/OQAM Systems**
   T. Fusco, A. Petrella (University of Naples), M. Tanda (Universty of Naples)

5. **Blind Detection of Interleaver Parameters for Non-Binary Coded Data Streams**
   L. Lu, K. H. Li, Y. L. Guan (Nanyang Technological University)

WCS-17: MIMO Beamforming

Room: Saal 2
Time: Tue, 16 Jun, 2:00 pm - 3:30 pm
Chair: Matthew McKay (Hong Kong Univ. of Science and Techn.)

1. **Low Complexity Coordinated Beamforming in 2-User MIMO Systems**
   K.-H. Park, Y.-C. Ko (Korea University, Korea), M.-S. Alouini (Taxas A&M University at Qatar), J. S. Kim (Samsung Electronics, Korea)

2. **Multiuser MIMO Downlink Beamforming Based on Group Maximum SINR Filtering with Per Stream Power Allocation**
   Y.-H. Yang, S.-C. Lin, H.-J. Su (National Taiwan University)

3. **On Opportunistic Beamforming in Fast Fading Scenarios**
   M. Ivrlac, Mario Castañeda, J. Nossek (Technische Universität München)

4. **Reflected Simplex Codebooks for Limited Feedback MIMO Beamforming**
   D. Ryan (NTNU), I. Collings (CSIRO ICT Centre), J.-M. Valin (Octasic Semiconductor)

5. **Performance Analysis of Optimal Joint Beamforming in Multi-Keyhole MIMO Channels**
   C. Zhong, S. Jin, K. K. Wong (University College London), M. McKay (Hong Kong University of Science and Technology)

WCS-18: Transmission Technologies, Power and Bandwidth Efficiencies

Room: Saal 4
Time: Tue, 16 Jun, 2:00 pm - 3:30 pm
Chair: Ralf Irmer (Vodafone Group)

1. **Power Optimization of Device-to-Device Communication Underlaying Cellular Communication**
   C.-H. Yu, O. Tirkkonen (Helsinki University of Technology), K. Doppler, C. Ribeiro (Nokia Research Center)

2. **Spectrally Efficient FDM Signals: Bandwidth Gain at the Expense of Receiver Complexity**
   I. Kanaras, A. Chorti (University College London), M. Rodrigues (University of Porto), I. Darwazeh (University College London)

3. **Coded Pulse-Position Modulation for Free-Space Optical Communications**
   T. T. Nguyen, L. Lampe (The University of British Columbia)

4. **Interference-Aware Energy-Efficient Power Optimization**
   G. Miao (Georgia Institute of Technology), N. Himayat (Intel), G. Y. Li (Georgia Institute of Technology), A. T. Koc, S. Talwar (Intel)

5. **On the Interaction Between Channel Coding and Hierarchical Modulation**
   S. M. Sadough (Shahid Beheshti University, Iran), P. Duhamel (Laboratoire des Signaux et Systèmes)

WCS-P3: Topics in Cooperative Communications

Room: Poster Area 2
Time: Tue, 16 Jun, 2:00 pm - 3:30 pm
Chair: Sami Muhaidat (Simon Fraser University)

1. **Interference Subtraction with Supplementary Cooperation in Wireless Cooperative Networks**
   Z. Sheng (Imperial College London), Z. Ding (Lancaster University), K. K. Leung (Imperial College London)

2. **On the Performance of HARQ with Hybrid Relaying Schemes**
   Y. Qi, R. Hoshyar, R. Tafazolli (University of Surrey)

3. **Dynamic Decode-and-Forward and Amplify-and-Forward Cooperative Strategy Using Distributed Space-Time Code in Uplink MIMO Systems with Multiple Relays**
   Y. Yang, L. Luo, R. Cheng (Hong Kong University of Science and Technology)

4. **Performance of Cooperative Diversity Networks: Analysis of Amplify-and-Forward Relaying under Equal-Gain and Maximal-Ratio Combining**
   D. Costa, S. Aissa (University of Quebec)

5. **Bayesian Potential Games to Model Cooperation for Cognitive Radios with Incomplete Information**
   L. Giupponi, C. Ibars (Centre Tecnologic de Telecomunicacions de Catalunya (CTTC))

6. **Rate-Per-Link Adaptation in Cooperative Wireless Networks with Multi-Rate Combining**
   H. Lichte, S. Valentin, H. von Malm, H. Karl (University of Paderborn), A. Bin Sediq (Carleton University), I. Aad (DOCOMO Communications Laboratories Europe GmbH)

7. **Interference and Deployment Issues for Cognitive Radio Systems in Shadowing Environments**
   M. F. Hanif (University of Canterbury, Christchurch), M. Shafi (Telecom New Zealand), P. J. Smith (University of Canterbury, Christchurch), P. Dmochowski (Victoria University of Wellington)

8. **Asymptotic Analysis of Multiuser Diversity and Selection Diversity in Multiple-Relay Networks**
   S. Chen, W. Wang, X. Zhang (Beijing University of Posts and Telecommunications)

9. **Centralized and Distributed Power Allocation in Multi-User Wireless Relay Networks**
   K. T. Phan (California Institute of Technology (Caltech)), L. B. Le (Massachusetts Institute of Technology (MIT)), S. A. Vorobyov (University of Alberta), T. Le-Ngoc (McGill University)

10. **Joint Detection and Estimation for Cooperative Communications in Cluster-Based Networks**
    T.-Y. Wang (National Sun Yat-sen University), J.-W. Pu (National Taiwan University), C.-P. Li (National Sun Yat-sen University)

11. **On the Impact of Correlation on Distributed Detection in Wireless Sensor Networks with Relays Deployment**
    M. Baidas, A. Ibrahim (University of Maryland (College Park)), K. Seddik (Alexandria University), K. J. R. Liu (University of Maryland (College Park))

12. **Unified Performance Analysis of Two Hop Amplify and Forward Relaying**
    D. Senaratne, C. Tellambura (University of Alberta)

13. **Routing and Spectral Efficiency in Fading with Alamouti Coding at Two Parallel Relays**
    S. Maiya, T. Fuja (University of Notre Dame)

14. **Performance Analysis of Multi-Branch Decode-And-Forward Cooperative Diversity Networks Over Nakagami-m Fading Channels**
    S. Ikki, M. H. Ahmed (Memorial University of Newfoundland)

15. **Diversity Analysis of Bit-Interleaved Coded Multiple Beamforming**
    H. J. Park, E. Ayanoglu (University of California, Irvine)

WCS-19: CDMA

Room: Saal 1
Time: Tue, 16 Jun, 4:00 pm - 5:30 pm
Chair: Matthew Valenti (West Virginia University)

1. **Novel Switched Interleaving Techniques with Limited Feedback for DS-CDMA Systems**
   Y. Cai, R. de Lamare, R. Fa (University of York)

2. **Partial Multiuser Detection for CS-CDMA/CP Over Multipath Channels and its Comparison with DS-CDMA**
   L. Yue, N. Weerasinghe, C. Han, T. Hashimoto (University of Electro-Communications)

3. **Shedding New Light on Sequence Design Criteria for Multipath Channels**
   X. Dai, Y. Yu, C. Sun, S. Sun, Y. Wang (Datang Mobile Communications Equipment Com., Ltd.)

4. **Power Allocation in Wireless Relay Networks with Partial Channel State Information**
   T. T. Pham, H. H. Nguyen (University of Saskatchewan), H. D. Tuan (The University of New South Wales (UNSW))

5. **Joint Transmitter-Receiver Beamforming in Downlink Cyclic Prefix-Free Spatio-Temporal MC-CDMA**
   H. H. Peh (Institute for Infocomm Research), A. Manikas (Imperial College London), T. T. Tjhung (Institute for Infocomm Research), W.-C. Wong (National University of Singapore)

WCS-20: Cooperative Communication in OFDM Systems

Room: Saal 2
Time: Tue, 16 Jun, 4:00 pm - 5:30 pm
Chair: Leila Musavian (Loughborough University)

1. **Fairness-Aware Resource Allocation in OFDMA Cooperative Relaying Network**
   H. Li, H. Luo, X. Wang, C. Lin, C. Li (Shanghai Jiaotong University)

2. **Dynamic Resource Allocation with Limited Feedback for OFDM Based Cooperative Networks**
   N. Zhou, X. Zhu, J. Gao, Y. Huang (University of Liverpool)

3. **Adaptive Resource Allocation for Multi-Destination Relay Systems Based on OFDM Modulation**
   N. Zhou, X. Zhu, Y. Huang (University of Liverpool), H. Lin (Osaka Prefecture University)

4. **Cooperative Amplify-and-Forward Beamforming for OFDM Systems with Multiple Relays**
   Y.-W. Liang, R. Schober (University of British Columbia)

5. **On Channel Estimation for OFDM Based Two-Way Relay Networks**
   F. Gao (Jacobs University, Bremen), R. Zhang, Y.-C. Liang (Institute for Infocomm Research)

WCS-21: MIMO II

Room: Saal 3
Time: Tue, 16 Jun, 4:00 pm - 5:30 pm
Chair: Markku Juntti (University of Oulu)

1. **Dynamic Channel Feedback Control for Limited-Feedback Multi-User MIMO Systems**
   I. Sohn (School of Electrical and Engineering and INMC, Seoul National University, Korea), C. S. Park (Samsung Advanced Institute of Technology, Korea), K. B. Lee (School of Electrical Engineering and INMC, Seoul National University, Korea)

2. **Repeater-Assisted Capacity Enhancement (RACE) for MIMO Links in a Line-of-Sight Environment**
   B. Walkenhorst, M. A. Ingram (Georgia Institute of Technology)

3. **Code Book Based CL-MIMO for DL Wimax Rel. 1.5: System Level Performance Analysis**
   K. Sivanesan, J. Xiao, R.Q. Hu, G. Wu (Nortel)

4. **Picocells with MIMO and Cell Bonding for WLAN Systems**
   J. Winters (Jack Winters Communications, LLC), A. Kobyakov, M. Sauer (Corning Incorporated)

5. **Parallel Detection Algorithm with Selective Interference Cancellation for V-BLAST Systems**
   C. Xiong, X. Zhang (Beijing Univ. of Posts and Telecoms)

WCS-22: Coding I

Room: Saal 4
Time: Tue, 16 Jun, 4:00 pm - 5:30 pm
Chair: Zhifeng Tao (Mitsubishi Electric Research Laboratories)

1. **Analysis of Delay Statistics for the Queued-Code**
   S. Goel, R. Negi (Carnegie Mellon University)

2. **Performance Gain of Space-Time-Frequency Concatenated LDPC Codes**
   K. P. Mare, B. P. Salmon, B. T. Maharaj (University of Pretoria)

3. **A Low Complexity Iterative Technique for Soft Decision Decoding of Reed-Solomon Codes**
   F. Shayegh, M. R. Soleymani (Concordia University)

4. **On Construction of Moderate-Length LDPC Codes over Correlated Erasure Channels**
   G. Liva, B. Matuz, Z. Katona (DLR), E. Paolini, M. Chiani (Univ. of Bologna)

5. **Effective Capacity of Superposition Coding Based Mobile Multicast in Wireless Networks**
   Q. Du, X. Zhang (Texas A&M University)

WCS-23: MIMO Estimation and Detection

Room: Saal 1
Time: Wed, 17 Jun, 9:00 am - 10:30 am
Chair: Huaping Liu (Oregon State University)

1. **Performance Analysis of the DD ML MIMO Channel Tracking Algorithm**
   E. Karami (University of Oulu, Ph.D.)

2. **Bit Loading for MIMO with Statistical Channel Information at the Transmitter and ZF Receivers**
   A. Garcia Armada, L. Hong (University Carlos III of Madrid), A. Lozano (Universitat Pompeu Fabra)

3. **New Approaches for Lowering Path Expansion Complexity of K-Best MIMO Detection Algorithms**
   J. Pons (Conexant), P. Duvaut (UCP ENSEA)

4. **A K-Best Version of the Turbo-LORD MIMO Detector in Realistic Settings**
   A. Tomasoni (Politecnico di Milano), M. Siti (STMicroelectronics), M. Ferrari (CNR-IEIIT), S. Bellini (Politecnico di Milano)

5. **Space-Time Block Codes with Symbol-by-Symbol Maximum Likelihood Detections**
   M.-Y. Chen, J. M. Cioffi (Stanford University)

WCS-24: Coding II

Room: Saal 2
Time: Wed, 17 Jun, 9:00 am - 10:30 am
Chair: Takaya Yamazato
(Nagoya University)

1. **Separable Implementation of L2-Orthogonal STC CPM with Fast Decoding**
   M. Hesse (University of Nice Sophia Antipolis / CNRS), J. Lebrun (CNRS), L. Lampe (University of British Columbia), L. Deneire (University of Nice Sophia Antipolis)

2. **Distributed Turbo Coding with Information Transfer via Timing of the Half-Duplex Relay-Phases**
   C. Hausl, T. Lutz, R. Koetter (Technische Universität München)

3. **Space-Time Coding and Processing with Differential Chaos Shift Keying Scheme**
   H. Ma, H. Kan (Fudan University)

4. **Stereo Image Transmission Over Fading Channels with Multiterminal Source Coding**
   C. Khirallah, V. Stankovic, L. Stankovic (University of Strathclyde), S. Cheng (University of Oklahoma)

5. **Matched Rotation Precoding: A New Paradigm in Space-Frequency Coding**
   M. Zhang, T. Abhayapala (The Australian National University), D. Jayalath (Queensland University of Technology), D. Smith (National ICT Australia), C. Athaudage (University of Melbourne)

WCS-25: Performance Analysis

Room: Saal 4
Time: Wed, 17 Jun, 9:00 am - 10:30 am
Chair: Robert Schober
(University of British Columbia)

1. **Error Probability of Energy Detected Multilevel PAM Signals in Lognormal Multipath Fading Channels**
   A. Anttonen, A. Mämmelä, A. Kotelba (Technical Research Centre of Finland)

2. **Sphere Packing Optimization and EXIT Chart Analysis for Multi-Dimensional QAM Signaling**
   T. Koike-Akino, V. Tarokh (Harvard University)

3. **Performance Analysis of Slotted Aloha with Multi-Access-Point Diversity**
   D. Zheng, Y.-D. Yao (Stevens Institute of Technology)

4. **Adaptive Coherent Lp-Norm Combining**
   A. Nasri, A. Nezampour, R. Schober (The University of British Columbia)

5. **An Accurate Approximation to the Distribution of the Sum of Equally Correlated Nakagami-m Envelopes and its Application in Equal Gain Diversity Receivers**
   Z. Hadzi-Velkov, N. Zlatanov (Ss. Cyril and Methodius University, Macedonia), G. Karagiannidis (Aristotle University of Thessaloniki)

WCS-26: Resource Allocation

Room: Saal 5
Time: Wed, 17 Jun, 9:00 am - 10:30 am
Chair: Zhifeng Tao
(Mitsubishi Electric Research Laboratories)

1. **Message Passing Resource Allocation for the Uplink of Multicarrier Systems**
   A. Abrardo, P. Detti (University of Siena), M. Moretti (University of Pisa)

2. **Resource Allocation in an LTE Cellular Communication System**
   R. Kwan (University of Bedfordshire), C. Leung (University of British Columbia), J. Zhang (University of Bedfordshire)

3. **Adaptive Bitrate and Resource Allocation for Relay-Assisted ARQ Transmissions**
   A. Agustin, J. Vidal, O. Muñoz (UPC)

4. **Adaptive Antenna Array Interference Mitigation Diversity for Decentralized Dynamic Spectrum Allocation in License-Exempt Spectrum**
   A. Kuzminskiy (Alcatel-Lucent), Y. Abramovich (Defence Science and Technology Organization)

5. **Utility-Based User Grouping and Bandwidth Allocation for Wireless Multicast Systems**
   J. Liu, W. Chen, Z. Cao (Tsinghua University), Y. J. Zhang, S. C. Liew (The Chinese University of Hong Kong)

WCS-27: Scheduling

Room: Saal 1
Time: Wed, 17 Jun, 10:50 am - 12:20 pm
Chair: Qinqing Zhang
(Johns Hopkins University)

1. **Fast Distributed Multi-Cell Scheduling with Delayed Limited-Capacity Backhaul Links**
   R. Bendlin, Y.-F. Huang (University of Notre Dame), M. Ivrlac, J. Nossek (Munich University of Technology)

2. **To Sort or not to Sort: Optimal Sensor Scheduling for Successive Compress-and-Estimate Encoding**
   J. Matamoros, C. Antón-Haro (CTTC)

3. **Resource Allocation for Frequency-Selective Fading, Multi-Carrier Systems with Fairness Constraints**
   E. Liu (Imperial College), Q. Zhang (Johns Hopkins University), K. Leung (Imperial College)
4. **Weighted Sum-Rate Maximization Scheduling for MIMO Ad Hoc Networks**
   Y. Ma (Iowa State University), R. Schober (Univ. of British Columbia), S. Pasupathy (Univ. of Toronto)
5. **Delay Constrained Scheduling over Fading Channels: Optimal Policies for Monomial Energy-Cost Functions**
   J. Lee, N. Jindal (University of Minnesota)

WCS-28: Cooperative Networks IV

Room: Saal 2
Time: Wed, 17 Jun, 10:50 am - 12:20 pm
Chair: Luc Vandendorpe (University of Louvain)

1. **Distributed Gradient Based Gain Allocation for Coherent Multiuser AF Relaying Networks**
   C. Esli, J. Wagner, A. Wittneben (ETH Zurich)
2. **Performance Analysis of Maximum Likelihood Decode and Forward Cooperative Systems in Rayleigh Fading**
   G. V. V. Sharma, V. Ganwani, U. B. Desai, S. N. Merchant (IIT Bombay)
3. **Distributed Uplink Signal Processing of Cooperating Base Stations based on IQ Sample Exchange**
   C. Hoymann, L. Falconetti (Ericsson Research), R. Gupta (University of Washington)
4. **Performance Analysis of Cooperative Communication Systems with Imperfect Channel Estimation**
   Y. Wu, M. Pätzold (University of Agder)
5. **Zero Forcing Processing in Two Hop Networks with Multiple Source, Relay and Destination Nodes**
   R. Louie, Y. Li, B. Vucetic (University of Sydney)

WCS-29: OFDMA II

Room: Saal 4
Time: Wed, 17 Jun, 10:50 am - 12:20 pm
Chair: Emad Alsusa (Manchester University)

1. **Optimal Diversity-Multiplexing Tradeoff in OFDMA Systems**
   B. Bai, W. Chen, Z. Cao (Tsinghua University), K. B. Letaief (The Hong Kong University of Science and Technology)
2. **A Graph Approach to Dynamic Fractional Frequency Reuse (FFR) in Multi-Cell OFDMA Networks**
   R. Chang (University of Southern California), Z. Tao, J. Zhang (Mitsubishi Electric Research Labs), C.-C. J. Kuo (University of Southern California)
3. **User Profiling: A Method for Limited Feedback in OFDMA Systems**
   V. Majjigi, R. Agarwal, J. Cioffi (Stanford University)
4. **A Self-Organized Spectrum Assignment Strategy in Next Generation OFDMA Networks Providing Secondary Spectrum Access**
   F. Bernardo, R. Agustí, J. Pérez-Romero, O. Sallent (Universitat Politecnica de Catalunya)
5. **Reduced Feedback Designs for SDMA-OFDMA Systems**
   B. Ozbek (Izmir Institute of Technology), D. Le Ruyet (CNAM-Paris)

WCS-30: Cellular Communication Systems

Room: Saal 5
Time: Wed, 17 Jun, 10:50 am - 12:20 pm
Chair: Mikael Sternad (Uppsala University)

1. **Signal Detection in Distributed Cooperative Cellular Systems without Perfect Synchronisation**
   Z. Wu, X. Wang (Shanghai University), L. Zhou (Shanghai Jiao Tong University)
2. **Four-Antenna Based Structure for Cellular Networks with Frequency Reuse Factor of One**
   W. Wang, J. Cai (University of Manitoba), Z. Guo (Lenovo Corporate Research), C. Chen (Beijing Jiaotong University), X. Shen (University of Waterloo)
3. **Controller Design for Rate Assignment in Wireless Networks**
   K. Jalaleddini, K. Moezzi, A. G. Aghdam (Concordia Univeristy), M. Alasti (NextWave Broadband), V. Tarokh (Harvard University)
4. **Contrasting Open-Loop and Closed-Loop Power Control Performance in UTRAN LTE Uplink by UE Trace Analysis**
   R. Müllner, C. F. Ball, K. Ivanov (Nokia Siemens Networks), J. Lienhart, P. Hric (Siemens AG)
5. **Carrier Frequency Dependent Downlink Spectral Efficiency of Cellular LTE Deployments**
   M. Krondorf, G. Fettweis (Technische Universität Dresden)

WCS-31: Cooperative Networks V

Room: Saal 1
Time: Wed, 17 Jun, 2:00 pm - 3:30 pm
Chair: Raviraj Adve (University of Toronto)

1. **Performance Measure Analysis of Amplify-and-Forward Relaying Over Non-Identical Nakagami-m Fading Channel**
   F. Liu, X. Zhang, Z. Chen, Y. Wang, D. Yang (Beijing University of Posts and Telecommunications)
2. **Adaptive Compress-and-Forward Relaying in Fading Environments with or without Wyner-Ziv Coding**
   H. Sneessens, L. Vandendorpe (Université catholique de Louvain), J. N. Laneman (University of Notre Dame)
3. **Optimal Relay Assignment and Power Allocation in Selection Based Cooperative Cellular Networks**
   S. Kadloor, R. Adve (University of Toronto)

4. **Controlling Error Propagation in Network-Coded Cooperative Wireless Systems**
   G. Al-Habian, A. Ghrayeb (Concordia University), M. Hasna (Qatar University)
5. **Mitigating Channel Estimation Error via Cooperative Communications**
   A. Ibrahim, K. J. R. Liu (University of Maryland)

WCS-32: UWB Communications II

Room: Saal 2
Time: Wed, 17 Jun, 2:00 pm - 3:30 pm
Chair: Cheng-Xiang Wang (Heriot-Watt University)

1. **Statistical Analysis of Multiple Access Interference in Asynchronous UWB Impulse Radio**
   H. Shao, N. Beaulieu (University of Alberta)
2. **Differential Space-Time-Frequency Codes for MB-OFDM UWB with Dual Carrier Modulation**
   L. C. Tran (University of Communications and Transport), A. Mertins (University of Lübeck)
3. **An Ultra-Wideband Radar System for Through-the-Wall Imaging using a Mobile Robot**
   A. J. Braga, C. Gentile (National Institute of Standards and Technology)
4. **Hybrid ARQ with Rate Adaptation in Multiband OFDM UWB Systems**
   C.-X. Wang (Heriot-Watt University), H.-G. Ryu (Chungbuk National University, Korea), H.-H. Chen (National Cheng Kung University), Y. He (Shenzhen University)
5. **Non-Coherent Receiver with Fractional Sampling for Impulsive UWB Systems**
   J. Zhang, L. Hanlen (NICTA and The Australian National University)

WCS-33: Distributed Space-Time Coding

Room: Saal 4
Time: Wed, 17 Jun, 2:00 pm - 3:30 pm
Chair: Kai Kit Wong (University College London)

1. **A Novel Power Allocation Scheme for Distributed Space-Time Coding**
   D. H. N. Nguyen, H. H. Nguyen (University of Saskatchewan), H. D. Tuan (University of New South Wales)
2. **Diversity Analysis of a Randomized Distributed Space-Time Coding in an Amplify and Forward Relay Channel**
   D. Gregoratti, X. Mestre (Centre Tecnològic de Telecomunicacions de Catalunya (CTTC))
3. **Delay-Tolerant Distributed Linear Convolutional Space-Time Code under Frequency-Selective Channels**
   Z. Zhong, S. Zhu (Xi'an Jiaotong University), N. Arumugam (King's College London)
4. **Distributed Space-Time Code for Asynchronous Two-way Wireless Relay Networks under Frequency-Selective Channels**
   Z. Zhong, S. Zhu, G. Lv (Xi'an Jiaotong University)
5. **Interference Cancellation in Distributed Space-Time Coded Wireless Relay Networks**
   Y. Jing (University of Alberta), H. Jafarkhani (University of California, Irvine)

WCS-P4: Topics in Multicarrier Communications

Room: Poster Area 1
Time: Wed, 17 Jun, 2:00 pm - 3:30 pm
Chair: Takaya Yamazato (Nagoya University)

1. **Non-Regenerative Multicarrier MIMO Relay Communications Based on Minimization of Mean-Squared Error**
   Y. Rong (Curtin University of Technology)
2. **Spatial Interference Cancellation and Pairwise Error Probability Analysis**
   R. Ghaffar, R. Knopp (Eurecom)
3. **Robust AMC Scheme against Feedback Delay in Vehicular Environment**
   Y. Wang, Q. Cui, X. Tao, M. Zhou, X. Xu (Beijing University of Posts and Telecommunications)
4. **On the Multi-Rate Division with Limited Feedback for One Source Multiple Destinations Wireless Transmission Systems**
   C. Zhi, P. Fan (Tsinghua University), K.S. Letaief (Hong Kong University of Science and Technology)
5. **Iteratively Detected Generalised MC DS-CDMA Using Layered Steeered Space-Time Spreading**
   M. El-Hajjar, O. Alamri, R. Maunder, L. Hanzo (University of Southampton)
6. **Adaptive Intra-Symbol SMSE Waveform Design Amidst Coexistent Primary Users**
   E.C. Like, M. Temple, S. Gustafson (Air Force Institute of Technology)
7. **Optical Techniques for Up-Conversion of MB-OFDM Signals in 60 Ghz band using Fiber Bragg Grating**
   G. H. Nguyen, V. Dobremez, B. Cabon, Y. Le Guennec (IMEP-LAHC)
8. **Adaptive Spreading Code Assignment for Up-Link MC-CDMA**
   H. Zhang (Southeast UNniversity), Y. Li (Georgia Institute of Technology), Y. Yuan-Wu (Orange Labs, RESA/WIN)
9. **A Fast Converging Adaptive Pre-Distorter for Multi-Carrier Transmitters**
   M. Omer (Georgia Institute of Technology), M. Sajadieh (Intel), J. Stevenson Kenney (Georgia Institute of Technology)
10. **Interference Mitigation Using Conjugate Data Repetition**
    K. Kuchi, R. Vinod, M. K. Dileep, M. S. Padmanabhan, B. Dhivagar, J. Klutto Milleth, B. Ramamurthi, K. Giridhar (CEWiT)
11. **Joint Reduction of Peak to Average Power Ratio and Symbol Loss Rate in Multicarrier Systems**
    A. Alamdar Yazdi, S. Sorour, S. Valaee (University of Toronto), R. Y. Kim (LG Electronics, Inc., Korea)

12. **Energy Efficient Error Correction in Mobile TV**
X. Shao, R. Schiphorst, C. H. Slump
(University of Twente)

13. **Optimal Output Back-Off in OFDM Systems with Nonlinear Power Amplifiers**
M. Senst, G. Ascheid (RWTH Aachen University)

14. **Transmission Control with Imperfect CSI in Channel-Aware Slotted ALOHA Networks**
S.-H. Wang, Y.-W. Hong
(Inst. of Communications Engineering, NTHU)

15. **Estimating Statistical Eigen-Beamforming Gains Using Spatial Channel Correlation**
T. Thomas, W. Hillery, J. Kepler, V. Desai
(Motorola)

WCS-34: OFDM Estimation and Synchronization

Room: Saal 1
Time: Wed, 17 Jun, 4:00 pm - 5:30 pm
Chair: B. Sundar Rajan
(Indian Institute of Science)

1. **Interference-Aware Location Estimation in Cellular OFDM Communications Systems**
C. Mensing, S. Sand, A. Dammann
(German Aerospace Center (DLR)), W. Utschick
(Munich University of Technology)

2. **Robust Cyclic Space-Frequency Filtering for BICM-OFDM with Outdated CSIT**
H. Chen, R. Schober
(University of British Columbia), W. Gerstacker
(University of Erlangen-Nuernberg)

3. **Novel Preamble-Based Channel Estimation for OFDM/OQAM Systems**
J. Du, S. Signell
(KTH - Royal Institute of Technology)

4. **Comparing Effects of Carrier Frequency Offset on Generalized Multi-Carrier and OFDM Systems**
R. Yun, H. Honglin, M. Li, X. Zhang, H. Yi, Y. Yang
(Chinese Academy of Sciences)

5. **On the Performance of OFDM in Zero-IF Receivers Impaired by Tx Leakage**
A. Frotzscher, M. Krondorf, G. Fettweis
(Technische Universität Dresden)

WCS-35: Cognitive Radio II

Room: Saal 2
Time: Wed, 17 Jun, 4:00 pm - 5:30 pm
Chair: Ekram Hossain
(University of Manitoba)

1. **Exploiting the Operating Point in Sensing-Based Opportunistic Spectrum Access Scenarios**
X. Gelabert, O. Sallent, J. Pérez-Romero, R. Agustí
(Universitat Politècnica de Catalunya (UPC))

2. **Rate and Power Adaptation for Increasing Spectrum Efficiency in Cognitive Radio Networks**
V. Asghari, S. Aïssa (University of Quebec)

3. **Energy Detection Spectrum Sensing with Discontinuous Primary User Signal**
F. Penna (Politecnico di Torino), C. Pastrone, M. A. Spirito
(Istituto Superiore Mario Boella (ISMB)), R. Garello
(Politecnico di Torino)

4. **Decentralized Fair Resource Allocation for Relay-Assisted Cognitive Cellular Downlink Systems**
R. Wang, V. K.N. Lau, C. Ying, K. Huang (HKUST), B. Chen, X. Yang (Huawei Co., Ltd.)

5. **Optimal Power Allocation for Cognitive Radio under Primary User's Outage Loss Constraint**
X. Kang (National University of Singapore), R. Zhang, Y.-C. Liang
(Institute for Infocomm Research), H. K. Garg
(National University of Singapore)

WCS-36: Wireless Ad Hoc Networks

Room: Saal 4
Time: Wed, 17 Jun, 4:00 pm - 5:30 pm
Chair: Giuseppe Abreu
(CWC, University of Oulu)

1. **Achieving Exponential Diversity in Wireless Multihop Systems with Regenerative Relays**
A. Müller, J. Speidel (University of Stuttgart)

2. **A Game Theory Approach to Selection Diversity in Wireless Ad-Hoc Networks**
S. Sergi, F. Pancaldi, G. M. Vitetta
(University of Modena e Reggio Emilia)

3. **Distributed Communication Control Mechanisms for Ad Hoc Networks**
S. Akbarzadeh, L. Cottatellucci (EURECOM), E. Altman (INRIA), C. Bonnet (EURECOM)

4. **Transmission Capacity of Wireless Ad Hoc Networks: Successive Interference Cancellation vs. Joint Detection**
J. Blomer, N. Jindal (University of Minnesota)

5. **Distributed Power Control for Interference-Limited Cooperative Relay Networks**
S. Zhou, H. Xiao, Z. Niu (Tsinghua University)

WCS-P5: Topics in MIMO

Room: Poster Area 1
Time: Wed, 17 Jun, 4:00 pm - 5:30 pm
Chair: Jiangzhou Wang (University of Kent)

1. **Design of a Codebook Structure for a Progressively Linear Pre-Coded Closed-Loop MIMO Hybrid ARQ System**
J. W. Kim, Chung G. Kang
(Korea University, Korea), B. J. Kwak, D. S. Kwon
(ETRI, Korea)

2. **Lattice Reduction aided Multi-User MIMO Successive Interference Cancellation Combined with Linear Pre-Equalization**
J. Park, J. Chun (KAIST, Korea)

3. **An Iterative List-Based Multiuser Detector for Overloaded Receivers in a Rayleigh Fading Channel**
M. Krause, D. P. Taylor, P. A. Martin
(University of Canterbury)

4. **Optimum Power and Rate Allocation for Coded V-BLAST**
V. Kostina (Princeton University), S. Loyka
(University of Ottawa)

5. **On Low-Density MIMO Codes**
F. Kienle (Technical University of Kaiserslautern)

6. **Antenna Diversity Schemes for Uplink Frequency-Domain Multiuser Detection in CP-Assisted DS-CDMA Systems**
   J. Luo, A. Kortke, W. Keusgen
   (Fraunhofer Heinrich-Hertz-Institut)

7. **Multi-Hop Capacity Of MIMO-Multiplexing Relaying in WiMAX Mesh Networks**
   A. Sulyman, G. Takahara, H. Hassanein
   (Queen's University), M. Kousa (KFUPM)

8. **Capacity and Performance of Adaptive MIMO System Based on Beam-Nulling**
   M. Gheryani, Z. Wu, Y. Shayan
   (Concordia University)

9. **MMSE-Based Non-Regenerative Multicarrier MIMO Wireless Relay Communications with Direct Source-Destination Link**
   Y. Rong (Curtin University of Technology)

10. **Improved Vector Perturbation with Modulo Loss Reduction for Multiuser Downlink Systems**
    H.-S. Han, S.-H. Park, I. Lee
    (Korea university, Korea)

11. **CRBS for the Joint Estimation of TOA and AOA in Wideband MISO and MIMO Systems: Comparison with SISO and SIMO Systems**
    A. Mallat, L. Vandendorpe
    (Ecole polytechnique de Louvain)

12. **Joint Transmit and Receive Analog Beamforming in 60 GHz MIMO Multipath Channels**
    J. Nsenga, W. Van Thillo (IMEC), F. Horlin (ULB), V. Ramon, A. Bourdoux, R. Lauwereins (IMEC)

13. **Experimental Investigations on MIMO Radio Channel Characteristics on UHF Band**
    R. Parviainen, J. Ylitalo, J.-P. Nuutinen
    (Elektrobit), P. Talmola, J. Henriksson (Nokia), H. Himmanen (University of Turku), R. Ekman (Turku University of Applied Sciences), E. Huuhka (Digita)

14. **Nash Bargaining Over MIMO Interference Systems**
    Z. Chen (Heriot-Watt University), S. Vorobyov (University of Alberta), C.-X. Wang (Heriot-Watt University), J. Thompson (University of Edinburgh)

15. **Multiple-Ring Based Modeling and Simulation of Wideband Space-Time-Frequency MIMO Channels**
    X. Cheng, C.-X. Wang
    (Joint Research Institute for Signal and Image Processing, School of Engineering and Physical Science, Heriot-Watt University), D. Laurenson (Joint Research Institute for Signal and Image Processing, Institute for Digital Communications, University of Edinburgh)

Wireless Networking

WN-01: Cognitive Radio Networks

Room: Konferenz 1
Time: Mon, 15 Jun, 10:50 am - 12:20 pm
Chair: Jelena Misic (University of Manitoba)

1. **Adoption of Cognitive Radio Scheme to Class-Based Call Admission Control**
   D. Xue, H. Yu, X. Wang (Shanghai Jiaotong University), H.-H. Chen (National Cheng Kung Univiversity)
2. **Efficient Recovery Algorithms for Wireless Mesh Networks with Cognitive Radios**
   R. Hincapie (Universidad Pontificia Bolivariana), L. Zhang, J. Tang (Montana State University), G. Xue (Arizona State University), R. Wolff (Montana State University), R. Bustamante (Universidad de los Andes)
3. **Optimal Channel Sensing in Wireless Communication Networks with Cognitive Radio**
   J. Cai, A. S. Alfa (University of Manitoba)
4. **A Testbed Development Framework for Cognitive Radio Networks**
   J. Jia, Q. Zhang (Hong Kong University of Science and Technology)
5. **Multi-Channel Wireless Traffic Sensing and Characterization for Cognitive Networking**
   B. R. Tamma (University of California San Diego), N. Baldo (Centre Tecnològic de Telecomunicacions de Catalunya), B. S. Manoj, R. Rao (University of California San Diego)

WN-02: Cooperative Communications and Networking I

Room: Konferenz 2
Time: Mon, 15 Jun, 10:50 am - 12:20 pm
Chair: Lorenzo Mucchi (University of Florence)

1. **CARD: Cooperative Access with Relay's Data for Multi-Rate Wireless Local Area Networks**
   S. Sayed, Y. Yang (UCL), H. Hu (Shanghai Research Center for Wireless Communications (WiCO))
2. **Downlink Power Distribution in a Wireless CDMA Network with Cooperative Relaying**
   B. Wang, D. Zhao (McMaster University)
3. **Cooperative Content Dissemination in Intermittently Connected Networks**
   Y. Ma, A. Jamalipour (University of Sydney)
4. **Performance Evaluation of Multiple-Relay Cooperative ARQ Strategies for Mobile Networks**
   J. J. Alcaraz, J. García-Haro (Technical University of Cartagena)
5. **FRAME: An Innovative Incentive Scheme in Vehicular Networks**
   F. Li, J. Wu (Florida Atlantic University)

WN-03: Wireless Mesh Networks I

Room: Konferenz 1
Time: Mon, 15 Jun, 2:00 pm - 3:30 pm
Chair: Vincent Wong (University of British Columbia)

1. **Analyzing Selfish Topology Control in Multi-Radio Multi-Channel Multi-Hop Wireless Networks**
   R. Komali (RWTH Aachen University), A. MacKenzie (Virginia Tech)
2. **Using Partially Overlapped Channels for End-to-End Flow Allocation and Channel Assignment in Wireless Mesh Networks**
   V. Bukkapatanam, A. A. Franklin, C. S. R. Murthy (Indian Institute of Technology Madras)
3. **Bandwidth-Guaranteed Multicast in Multi-Channel Multi-Interface Wireless Mesh Networks**
   H. S. Chiu, K. L. Yeung, K.-S. Lui (The University of Hong Kong)
4. **Evaluation of Channel Assignment in Wireless Mesh Networks**
   Y. Xiang, H. Cui (Tsinghua University), B. Ishibashi, R. Boutaba (University of Waterloo)
5. **A Dynamic Frame Partitioning Scheme for IEEE 802.16 Mesh and Multihop Relay Networks**
   Q. Albluwi (Queen's University), N. Abu Ali (UAE University), H. Hassanein (Queen's University)

WN-04: Wireless Network Performance, Resource Allocation, and QoS I

Room: Konferenz 2
Time: Mon, 15 Jun, 2:00 pm - 3:30 pm
Chair: Amir Hamed Mohsenian Rad (University of British Columbia)

1. **Back-of-the-Envelope Computation of Throughput Distributions in CSMA Wireless Networks**
   S. Liew, C. Kai (The Chinese University of Hong Kong), J. Leung, B. Wong (Altai Technologies)
2. **Cooperative Cognitive Radio with Priority Queueing Analysis**
   C. Zhang, X. Wang, J. Li (Shanghai Jiaotong University)
3. **Joint BS Assignment and End-to-End Scheduling for Wireless Cellular Networks with Heterogeneous Services**
   W. Saad, Z. Dawy (American University of Beirut), S. Sharafeddine (Lebanese American University)
4. **Analysis of Selective Retransmission Techniques for Differentially Encoded Data**
   L. Badia (IMT Lucca), M. Levorato, M. Zorzi (University of Padova)
5. **Downlink Resource Allocation for OFDMA-Based Multiservice Networks with Imperfect CSI**
   M. K. Awad, V. Mahinthan, M. Mehrjoo, X. Shen, J. W. Mark (University of Waterloo)

WN-05: Mobility Management

Room: Konferenz 1
Time: Mon, 15 Jun, 4:00 pm - 5:30 pm
Chair: Seshadri Mohan
(University of Arkansas at Little Rock)

1. **Application Layer Signaling for Proactive Handoff Management in All-IP Wireless Networks**
   S. Zaghloul, J. Aznar, A. Jukan (TU-Braunschweig)

2. **Fast Handover for Multiple-Interface Mobile Devices Connecting to a Single Foreign Agent in MIPv4 with MIH Support**
   B. Chen, I. Marsic (Rutgers University), D. Faucher, C. Purzynski, R. Miller, S. Sameer (Bell Labs)

3. **The Spatial Effect of Mobility on the Mean Number of Handoffs: A New Theoretical Result**
   W. Bziuk, S. Zaghloul, A. Jukan (TU Braunschweig)

4. **Introduction of Measurement-Based Estimation of Handover Attempts for Automatic Planning of Mobile Radio Networks**
   A. Hecker, T. Kürner (TU Braunschweig)

5. **On the Stability of Ad Hoc Group Mobility Models**
   Y. Gu, R. V. Prasad, I. Niemegeers (Delft University of Technology)

WN-06: Broadband Wireless, WiMax, and LTE I

Room: Konferenz 2
Time: Mon, 15 Jun, 4:00 pm - 5:30 pm
Chair: Dusit Niyato
(Nanyang Technological University)

1. **Performance Evaluation of Contention-Based Access in IEEE 802.16 Networks with Subchannelization**
   H. Fattah, H. Alnuweiri (Texas A&M University)

2. **A Game-Based Self-Organizing Uplink Tree for VoIP Services in IEEE 802.16j Networks**
   W. Saad (UNIK - Graduate University Center, University of Oslo), Z. Han (University of Houston), M. Debbah (SUPELEC), A. Hjø rungnes (UNIK - Graduate University Center, University of Oslo), T. Basar (University of Illinois at Urbana-Champaign)

3. **Femtocell Coverage Optimization using Switched Multi-Element Antennas**
   H. Claussen, F. Pivit (Bell Laboratories, Alcatel-Lucent)

4. **Experimental and Simulation Study of a WiMAX System in the Sea Port Scenario**
   R. G. Garroppo, S. Giordano, D. Iacono (University of Pisa)

5. **Joint Bandwidth Reservation and Admission Control in IEEE 802.16e Based Networks**
   L. Xie (Motorola Research & Development Center), J. Xiang, Y. Zhang (Simula Research Laboratory), J. Zhang (Nokia Siemens Networks)

WN-07: Cooperative Communications and Networking II

Room: Konferenz 1
Time: Tue, 16 Jun, 9:00 am - 10:30 am
Chair: Seshadri Mohan
(University of Arkansas at Little Rock)

1. **Interference Aware Subcarrier Assignment for Throughput Maximization in OFDMA Wireless Relay Mesh Networks**
   P. Thulasiraman, X. Shen (University of Waterloo)

2. **Uplink Capacity of Multi-Class IEEE 802.16j Relay Networks with Adaptive Modulation and Coding**
   H. Wang (Technical University of Denmark), C. Xiong (National University of Defense Technology), V. B. Iversen (Technical University of Denmark)

3. **Multiuser MAC Protocols for 802.11n Wireless Networks**
   E. Kartsakli (Technical University of Catalonia (UPC)), N. Zorba (Centre Tecnològic de Telecomunicacions de Catalunya (CTTC)), L. Alonso (Technical University of Catalonia (UPC)), C. Verikoukis (Centre Tecnològic de Telecomunicacions de Catalunya (CTTC))

4. **QoS-Aware Relay Node Placement in a Segmented Wireless Sensor Network**
   S. Lee, M. Younis (University of Maryland Baltimore County)

5. **Exploiting Cooperative Diversity and Spatial Reuse in Multihop Cellular Networks**
   Y. Wu, Z. Niu (Tsinghua University)

WN-08: Routing, Scheduling, and Medium Access Control I

Room: Konferenz 2
Time: Tue, 16 Jun, 9:00 am - 10:30 am
Chair: Yuming Jiang
(Norwegian Univ. of Science and Techn.)

1. **Using Ant-Like Agents for Fault-Tolerant Routing in Mobile Ad-Hoc Networks**
   S. Misra (Indian Institute of Technology-Kharagpur), S. Dhurandher (University of Delhi), M. S. Obaidat (Monmouth University), K. Verma, P. Gupta (University of Delhi)

2. **A Spatial Learning Algorithm for IEEE 802.11 Networks**
   M. Timmers (IMEC - KULeuven), S. Pollin, A. Dejonghe (IMEC), L. Van der Perre, F. Catthoor (IMEC - KULeuven)

3. **Cooperation or Not in Mobile Ad Hoc Networks: A MAC Perspective**
   H. Shan (Communication Science and Engineering Department, Fudan University), W. Zhuang (Department of Electrical and Computer Engineering, University of Waterloo), Z. Wang (Communication Science and Engineering Department, Fudan University)

4. **Maximizing Throughput with Multiple Power Levels in a Random Access Infrastructure-less Radio System**
   J. Sarker, H. Mouftah (University of Ottawa)

5. **Network Coding-Aware Scheduling for Reliable Many-to-One Flows**
   O. Al-Kofahi, A. Kamal (Iowa State University)

WN-09: Cross-Layer Design and Optimization I

Room: Konferenz 1
Time: Tue, 16 Jun, 10:50 am - 12:20 pm
Chair: Claudio Sacchi (University of Trento)

1. **Analysis of Network Coding in Slotted ALOHA with Two-Hop Bidirectional Traffic**
   D. Umehara, T. Hirano, S. Denno, M. Morikura (Kyoto University), T. Sugiyama (NTT)

2. **Cross-Layer Design for MIMO Spatial Multiplexing in Correlated Ricean Fading**
   H. Abou Saleh, W. Hamouda (Concordia University)

3. **Throughput-Gain Analysis of Network Coding in Multi-Channel Multi-Radio Wireless Networks**
   H. Su, X. Zhang (Texas A&M University)

4. **A Directional Broadcast Protocol for Emergency Message Exchange in Inter-Vehicle Communications**
   Y. Bi, H. Zhao (Northeastern University), X. Shen (University of Waterloo)

5. **Downlink Scheduling for QoS-Guaranteed Services in Multi-User MIMO Systems with Limited Feedback**
   D. Pang, L. Tian, J. Hu, J. Zhou, J. Shi (Institute of Computing Technology, Chinese Academy of Sciences), E. Dutkiewicz (Macquarie University, Sydney)

WN-10: Wireless Network Security and Reliable Access

Room: Konferenz 2
Time: Tue, 16 Jun, 10:50 am - 12:20 pm
Chair: Li-Chun Wang (National Chiao Tung University)

1. **Network Coding for Bit Error Recovery in IEEE 802.11 Mesh Networks**
   M. Kurth, U. Hermann, A. Zubow, J.-P. Redlich (Humboldt University Berlin)

2. **A Fuzzy Logic based Scheme to Detect Adaptive Cheaters in Wireless LAN**
   S. Djahel, F. Naït-Abdesselam (University of Lille)

3. **An Effective SIP Security Solution for Heterogeneous Mobile Networks**
   L. Zhang, H. Miyajima, H. Hayashi (Softbank Mobile Corp)

4. **Detection of Jamming Attacks in Wireless Ad Hoc Networks using Error Distribution**
   A. Hamieh, J. Ben-Othman (CNRS-PRiSM Laboratory, University of Versailles)

5. **SEAS: A Secure and Efficient Anonymity Scheme for Low-Cost RFID tags**
   S. Misra, M. Verma, D. Huang, G. Xue (Arizona State University)

WN-11: Broadband Wireless, WiMax, and LTE II

Room: Konferenz 1
Time: Tue, 16 Jun, 2:00 pm - 3:30 pm
Chair: Habib Hamam (University of Moncton)

1. **Joint Optimization of Placement and Bandwidth Reservation for Relays in IEEE 802.16j Mobile Multihop Networks**
   D. Niyato (Nanyang Technological University), E. Hossain (University of Manitoba), D.-I. Kim (Sungkyunkwan University, Korea), Z. Han (University of Houston)

2. **Efficient Algorithms for Non-Realtime Video Multicasting in Wireless Networks**
   Q.-D. Ho, T. Le-Ngoc (McGill)

3. **A New MAC Protocol with Collision Resolution for 802.16e Wireless Mesh Networks**
   J. Liu (University of Electronic Science and Technology), B. Bing (Georgia Tech)

4. **SDMA for 60GHz Gigabit Wireless Networks**
   C. Yiu, S. Singh (Portland State University)

5. **A Cycle Synchronizing Approach for Sleep Mode Operation in WiMAX System**
   Y. Wu, Y. Le, D. Zhang (Nokia Siemens Networks)

WN-12: Wireless Network Performance, Resource Allocation, and QoS II

Room: Konferenz 2
Time: Tue, 16 Jun, 2:00 pm - 3:30 pm
Chair: Geyong Min (University of Bradford)

1. **Optimising Radio Access in a Heterogeneous Wireless Network Environment**
   W. Luo, E. Bodanese (Queen Mary, University of London)

2. **Variable-Width Channel Allocation in Wireless LAN: A Game-Theoretic Perspective**
   W. Yuan (Dept. of Electronics & Information Eng., Huazhong University of Science and Technology), W. Liu, W. Cheng, S. Wang (Huazhong University of Science and Technology)

3. **Destination-Driven On-Demand Multicast Routing Protocol for Wireless Ad Hoc Networks**
   K. Tian (State key Lab of Networking & Switching Tech., Beijing University of Posts and Telecommunications), B. Zhang (College of Comp. & Commun. Eng., Graduate University of Chinese Academy of Sciences), H. Mouftah (SITE, University of Ottawa), Z. Zhao (College of Comp. & Commun. Eng., Graduate University of Chinese Academy of Sciences), J. Ma (Nokia Research Center)

4. **On Average Packet Delay Bounds and Loss Rates of Network-Coded Multicasts over Wireless Downlinks**
   W.-L. Yeow, A. T. Hoang, C.-K. Tham (Institute for Infocomm Research)

5. **OFDMA-TDD Networks with Busy Burst Enabled Grid-of-Beam Selection**
   B. Ghimire (The University of Edinburgh), G. Auer (DOCOMO Euro-labs), H. Haas (The University of Edinburgh)

WN-13: WLAN and Home/Personal Wireless Networks

Room: Konferenz 1
Time: Tue, 16 Jun, 4:00 pm - 5:30 pm
Chair: Alfredo Todini
(University of Rome "Sapienza")

1. **Random Access Protocols for WLANs Based on Mechanism Design**
   M. H. Cheung, A. H. Mohsenian-Rad, V. W. S. Wong, R. Schober (University of British Columbia)

2. **Reservation-Based Directional Medium Access Control (RDMAC) Protocol for Multi-Hop Wireless Networks with Directional Antennas**
   J.-J. Chang, W. Liao (National Taiwan University), T.-C. Hou (National Chung-Cheng University)

3. **Capacity of Hierarchical WiFi/WiMAX Networks**
   S. E. Elayoubi, M. Francisco (Orange Labs)

4. **Analysis of Duopoly Price Competition between WLAN Providers**
   Z. Kong (University of Hong Kong), B. Tuffin (INRIA Rennes), Y.-K. Kwok (Colorado State University), J. Wang (University of Kent)

5. **Adaptive Hybrid Call Admission Control Policy for UMTS with Underlying Tunnel-WLANs Heterogeneous Networks**
   T. Bejaoui, L. Mokdad (University of Paris-Dauphine)

WN-14: Wireless Ad Hoc Networks

Room: Konferenz 2
Time: Tue, 16 Jun, 4:00 pm - 5:30 pm
Chair: Homayoun Yousefi'zadeh
(University of California, Irvine)

1. **A New Mechanism to Detect Selfish Behavior in IEEE 802.11 Ad Hoc Networks**
   C. Liu, Y. Shu, M. Li (Tianjin University), O. Yang (University of Ottawa)

2. **Detecting Greedy Behaviors by Linear Regression in Wireless Ad Hoc Networks**
   A. Hamieh, J. Ben-Othman, A. Gueroui (PRISM, University of Versailles), F. Naït-Abdesselam (LIFL-IRCICA, University of Sciences and Technologies of Lille)

3. **Model-Tree-based Rate Adaptation Scheme for Vehicular Networks**
   Q. Xia, J. Pu, M. Hamdi (Hong Kong University of Science and Technology)

4. **Characterising the Behaviour of IEEE 802.11 Broadcast Transmissions in Ad Hoc Wireless LANs**
   J. C.-P. Wang, M. Abolhasan, D. Franklin, F. Safaei (University of Wollongong)

5. **Multiple Description Coding Based Video Multicast Over Heterogeneous Wireless Ad Hoc Networks**
   O. Badarneh (Ecole de Technologie Superieure), Y. Qian (National Institute of Standards and Technology), B. Rong (Ecole de Technologie Superieure), A. Elhakeem (Concordia University), M. Kadoch (Ecole de Technologie Superieure)

WN-15: Wireless Mesh Networks II

Room: Konferenz 1
Time: Wed, 17 Jun, 9:00 am - 10:30 am
Chair: Igor Bisio (University of Genoa)

1. **Recipient Maximization Routing Scheme for Multicast over IEEE 802.16j WiMAX Relay Networks**
   W.-H. Kuo (Yuan-Ze University, Taiwan)

2. **Routing-Aware Channel Selection in Multi-Radio Mesh Networks**
   G. Athanasiou, I. Broustis (University of Thessaly), T. Korakis (Polytechic University), L. Tassiulas (University of Thessaly)

3. **On the Benefits of Nondeterminism in Location-based Forwarding**
   I. T. Haque, I. Nikolaidis, P. Gburzynski (University of Alberta)

4. **Asymptotic Throughput for Hybrid Wireless Networks under Gaussian Channel Model**
   C. Wang, C. Jiang (Tongji University), X.-Y. Li (Illinois Institute of Technology), G. Dai (Hangzhou Dianzi University)

5. **TFRC-Based Rate Control for Real-Time Video Streaming Over Wireless Multi-Hop Mesh Networks**
   H. Luo, D. Wu, S. Ci, H. Sharif (The University of Nebraska-Lincoln), H. Tang (Chinese Academy of Sciences)

WN-P1: Relays, Gateways, and Satellite Systems

Room: Poster Area 2
Time: Wed, 17 Jun, 9:00 am - 10:30 am
Chair: Markus Werner (TriaGnoSys GmbH)

1. **Improving Performance of TCP-Based Applications Over DVB-RCS Links**
   M. Luglio, C. Roseti, F. Zampognaro (University of Rome)

2. **Evaluation of SIP Signaling and QoS for VoIP over Satellite Networks**
   M. Ali, L. Liang, Z. Sun, H. Cruickshank (University of Surrey)

3. **Tailoring ELB for Multi-Layered Satellite Networks**
   T. Taleb, Z. Fadlullah (Tohoku University), T. Takahashi (NTT), R. Wang (Lamar University), Y. Nemoto, N. Kato (Tohoku University)

4. **Performance Evaluation of MoIP Applications over Satellite: An Experimental Study**
   D. Adami (CNIT-University of Pisa), R. G. Garroppo, S. Giordano (University of Pisa)

5. **Reduced-Delay Interference-Aware Opportunistic Relaying**
   A. Bletsas, A. G. Dimitriou, J. Sahalos (Aristotle University of Thessaloniki)

6. **Performance of VoIP with DCCP for Satellite Links**
   G. Sarwar (NICTA), R. Boreli (NICTA, University of NSW), E. Lochin (Universitt'e de Toulouse, DMIA-ISAE, LAAS-CNRS)

7. **Positioning in Multibeam Geostationary Satellite Networks**
   D. Petraki, M. Anastasopoulos (National Technical University of Athens), T. Taleb (Tohoku University), A. Vasilakos (University of Western Macedonia)

8. **Link-Layer Handover in Earth-Fixed LEO Satellite Systems**
   Ö. Korçak, F. Alagöz (Bogazici University)

9. **Robust PIM-SM Multicasting using Anycast RP in Wireless Ad Hoc Networks**
   J. Kang, J. Sucec, V. Kaul, S. Samtani, M. Fecko (Telcordia Technologies)

10. **BER Performance of Multibeam Satellite Systems with Tomlinson-Harashima Precoding**
    M. Poggioni (University of Perugia), M. Berioli (DLR), P. Banelli (University of Perugia)

11. **Joint Scheduling and Relay Selection in One- and Two-Way Relay Networks with Buffering**
    L. Ding, M. Tao, F. Yang, W. Zhang (Shanghai Jiao Tong University)

12. **Impact of Gateways Placement on Clustering Algorithms in Wireless Mesh Networks**
    S. Waharte, R. Boutaba (University of Waterloo), P. Anelli (Universite de la Reunion)

13. **A Multihoming Support Scheme with Localized Shim Protocol in Proxy Mobile IPv6**
    Y. Li, D.-W. Kum, W.-K. Seo, Y.-Z. Cho (Kyungpook National University, Korea)

14. **Comparative Performance Evaluation of TCP Variants on Satellite Environments**
    C. Caini, R. Firrincieli (University of Bologna), D. Lacamera (SADEL)

WN-16: Cross-Layer Design and Optimization II

Room: Konferenz 1
Time: Wed, 17 Jun, 10:50 am - 12:20 pm
Chair: Ben Liang (University of Toronto)

1. **A Cross Layer Fast Handover Scheme in VANET**
   K.-L. Chiu, R.-H. Hwang (National Chung-Cheng University), Y.-S. Chen (National Taipei University)

2. **Joint Flow Control, Routing and Medium Access Control in Random Access Multi-Hop Wireless Networks**
   S. Supittayapornpong, P. Saengudomlert (Asian Institute of Technology)

3. **Integration of Handover in a Cross-Layer Mechanism for Mobile Multimedia Systems**
   D. Triantafyllopoulou, N. Passas (University of Athens), A. Kaloxylos (University of Peloponnese)

4. **Markov Modeling for Data Block Transmission of OFDM Systems over Fading Channels**
   R. Zhang, L. Cai (University of Victoria)

5. **Cross-Layer Optimized Routing for Wireless Sensor Networks Using Dynamic Programming**
   L. Song (Peking University), Y. Zhang (Simula Research Laboratory), R. Yu, W. Yao (South China University of Technology), Z. Wu (Shanghai University)

WN-P2: Next Generation Wireless Networks

Room: Poster Area 2
Time: Wed, 17 Jun, 10:50 am - 12:20 pm
Chair: Jaewon Kang (Telcordia Technologies)

1. **SAMPLER: An Optimal MAC Algorithm for Wireless Instrumentation Systems**
   S. Ray (Redback Networks), R. Guha (Telcordia Technologies), W. Yasen (University of Bridgeport), M. Austin (Pratt and Whitney)

2. **Energy Savings for Wireless Terminals through Smart Vertical Handover**
   C. Desset, N. Ahmed, A. Dejonghe (IMEC)

3. **Distributed and Power Efficient Routing in Wireless Cooperative Networks**
   Z. Sheng (Imperial College London), Z. Ding (Lancaster University), K. K. Leung (Imperial College London)

4. **A Novel Interface Selection Scheme for Multi-Interface Wireless Mesh Networks**
   A. Barbieri, R. Fantacci, L. Maccari (Università di Firenze)

5. **Demonstration of IPv6 Network Mobility in Aeronautical Communications Network**
   E. H. Fazli, A. Via, S. Duflot, M. Werner (TriaGnoSys GmbH)

6. **Minimum-Latency Gossiping in Multi-Hop Wireless Mesh Networks**
   Q. Xin, Y. Zhang, J. Xiang (Simula Research Laboratory)

7. **Carrier-Sense ARQ: Squeezing Out Bluetooth Performance While Preserving Standard Compliancy**
   A. Zanella (University of Padova)

8. **A Novel Relay Placement Mechanism for Capacity Enhancement in IEEE 802.16j WiMAX Networks**
   C.-Y. Chang (Tamkang University), C.-T. Chang (Hsiuping Institute of Technology), M.-H. Li, C.-H. Chang (Tamkang University)

9. **On Concurrent Multipath Transfer in SCTP-Based Handover Scenarios**
   L. Budzisz, R. Ferrús, F. Casadevall (UPC Barcelona), P. Amer (University of Delaware)

10. **CoopMAX: A Cooperative MAC with Randomized Distributed Space-Time Coding for an IEEE 802.16 Network**
    C. Nie, P. Liu, T. Korakis, E. Erkip, S. Panwar (Polytechnic Institute of NYU)

11. **On the Performance of "Compensation-Based" and "Greedy" Scheduling Policies in IEEE 802.16 Networks**
S. Pizzi, A. Molinaro, A. F. Iera (University Mediterranea of Reggio Calabria)

12. **Performance Analysis of Double-Channel 802.11n Contending with Single-Channel 802.11**
S. Pollin (UC Berkeley / IMEC), A. Bahai (UC Berkeley)

13. **Performance Analysis of Trust-Based Node Evaluation Schemes in Wireless and Mobile Ad Hoc Networks**
Y. Ren, A. Boukerche (University of Ottawa)

14. **A TCP-Driven MAC Resource Allocation Scheme in a WiMAX Network**
Y.-S. Chiu (Simon Fraser University), T. Randhawa (Mobile NewMedia Ltd.), R. H. S. Hardy (Simon Fraser University)

WN-17: Wireless Network Performance, Resource Allocation, and QoS III

Room: Saal 5
Time: Wed, 17 Jun, 2:00 pm - 3:30 pm
Chair: Alfredo Todini (University of Rome "Sapienza")

1. **Modeling and Evaluation of Homing-Pigeon Based Delay Tolerant Networks with Periodic Scheduling**
H. Guo (National Institute of Standards and Technology), J. Li (Howard University), Y. Qian (National Institute of Standards and Technology)

2. **RF in the Jungle: Effect of Environment Assumptions on Wireless Experiment Repeatability**
R. Burchfield, E. Nourbakhsh, J. Dix, K. Sahu, S. Venkatesan, R. Prakash (University of Texas at Dallas)

3. **Experimental Triple-Play Service Delivery Using Commodity Wireless LAN Hardware**
D. J. Dechene, A. Shami (The University of Western Ontario)

4. **Adaptive Exponential Beacon Period Protocol for Power Saving in Delay Tolerant Networks**
B. J. Choi, X. Shen (University of Waterloo)

5. **Tri-Message: A Lightweight Time Synchronization Protocol for High Latency and Resource-Constrained Networks**
C. Tian, H. Jiang (Huazhong University of Science and Technology), X. Liu (McGill University), X. Wang (Shanghai Jiaotong University), W. Liu, Y. Wang (Huazhong University of Science and Technology)

WN-18: Wireless Sensor Networks

Room: Konferenz 1
Time: Wed, 17 Jun, 2:00 pm - 3:30 pm
Chair: Hung Nguyen (The Aerospace Corporation)

1. **Density-Varying High-End Sensor Placement in Heterogeneous Wireless Sensor Networks**
X. Du (North Dakota State University), X. Liu (McGill University), Y. Xiao (The University of Alabama)

2. **An Optimal Sensor Network for Intrusion Detection**
A. Olteanu, Y. Xiao (The University of Alabama), K. Wu (University of Victoria), X. Du (North Dakota State University)

3. **Energy-Efficient Itinerary Planning for Mobile Agents in Wireless Sensor Networks**
M. Chen, V. Leung (University of British Columbia), S. Mao (Auburn University), T. Kwon (Seoul National University, Korea), M. Li (California State University)

4. **Adaptive Time Synchronization for Wireless Sensor Networks with Self-Calibration**
R. Venkatesan, T. Bian, C. Li (Memorial University of Newfoundland)

5. **Level Biased Random Walk for Information Discovery in Wireless Sensor Networks**
K. K. Rachuri, C. S. R. Murthy (IIT Madras)

WN-P3: Topics in Wireless Networks I

Room: Poster Area 2
Time: Wed, 17 Jun, 2:00 pm - 3:30 pm
Chair: Igor Bisio (University of Genoa)

1. **Energy Efficient Cooperative Broadcasting in Wireless Networks**
J. Si, Z. Li, Z. Liu, X. Chen (State Key Lab of Integrated Services Networks Xidian University)

2. **Interference-Aware Channel Assignments with Seamless Multi-Channel Monitoring in Wireless Mesh Networks**
S. Kim (Information and Communications University, Korea), J. Cha (Electronics and Telecommunications Research Institute, Korea), J. Ma (Information and Communications University, Korea)

3. **Low Energy and Low Latency in Wireless Sensor Networks**
A. Cortes Cabezas, R. Gamboa Medina, N. M. Peña (Universidad de los Andes), M. A. Labrador (University of South Florida)

4. **Energy Saving MAC for MIMO Systems**
S. Ryoo, S. Bahk (Seoul National University, Korea)

5. **Distributed Multi-User Scheduling for Improving Throughput of Wireless LAN**
S. Tang, R. Miura, S. Obana (ATR Adaptive Communications Research Laboratories)

6. **A Mathematical Optimization Approach for Radio Network Planning of GSM/UMTS Co-Siting**
L. Al-Kanj, Z. Dawy, G. Turkiyyah (American University of Beirut)

7. **Using Limited Feedback in Power Allocation Design for a Two-Hop Relay OFDM System**
M. Hajiaghayi (University of Toronto), M. Dong (University of Ontario Institute of Technology), B. Liang (University of Toronto)

8. **Virtual Time-Slot Allocation Scheme for Throughput Enhancement in a Millimeter-Wave GBPS WPAN Cross Layer Design**
   C.-S. Sum, Z. Lan, R. Funada, J. Wang, T. Baykas, M. A. Rahman, H. Harada, S. Kato (NICT)

9. **Non Disruptive Data Services Towards Real-time Traffic in Wireless Ad Hoc Networks**
   J. Leguay (Thales Communications), H. Khalife (Universite Pierre et Marie Curie), G. Sotiropoulos, V. Conan (Thales Communications), N. Malouch (Universite Pierre et Marie Curie)

10. **Radio Resource Allocation Schemes in Hybrid Mode Wireless Communication Systems**
    S. Y. Baek, D. K. Sung (KAIST, Korea)

11. **Channel Access Throttling for Overlapping BSS Management**
    B. Han (University of Maryland at College Park), L. Ji, S. Lee, R. Miller (AT&T Labs), B. Bhattacharjee (University of Maryland at College Park)

12. **An Upper Bound on the Performance of Non-Repetitive Flooding Over CSMA in Wireless Ad-Hoc Networks**
    H. Shah-Mansouri, M. R. Pakravan (Sharif University of Technology, Iran)

13. **Decomposition for Low-Complexity Near-Optimal Routing in Multi-Hop Wireless Networks**
    V. Kolar (RWTH Aachen University), N. B. Abu-Ghazaleh (State University of New York, Binghamton), P. Mahonen (RWTH Aachen University)

14. **Channel-Assignment and Scheduling in Wireless Mesh Networks Considering Switching Overhead**
    M. Yun, Y. Zhou (George Washington University), A. Arora (Bowie State University), H.-A. Choi (George Washington University)

15. **A Novel Ray Tracing Based Multipath Modeling Approach for Site-Specific WLAN Simulations**
    T. Zhou, H. Sharif, M. Hempel, P. Mahasukhon, W. Wang, S. Ci (University of Nebraska-Lincoln)

WN-19: Routing, Scheduling, and Medium Access Control II

Room: Saal 5
Time: Wed, 17 Jun, 4:00 pm - 5:30 pm
Chair: Franco Davoli (University of Genoa)

1. **Performance Evaluation of Interactive Data Services Under Sharing and Preemptive Scheduling Disciplines**
   W. Song (University of California, Berkeley), W. Zhuang (University of Waterloo), D. Zhao (McMaster University)

2. **An Energy-Aware Routing Protocol for Ad-Hoc Networks Based on the Foraging Behavior in Ant Swarms**
   S. Dhurandher (University of Delhi), S. Misra (Indian Institute of Technology-Kharagpur), M. S. Obaidat (Monmouth University), P. Gupta, K. Verma, P. Narula (University of Delhi)

3. **A Modified Exclusion Mechanism and Optimal Routing Algorithm in UWB Networks**
   F. Li, X. Wang (Shanghai Jiaotong University), H.-H. Chen (National Cheng Kung Univiversity)

4. **Distributed Delay Estimation and Call Admission Control in IEEE 802.11 Wireless LANs**
   K. Yasukawa (Ericsson), A. Forte, H. Schulzrinne (Columbia University)

5. **Performance Analysis of the EDCA Medium Access Mechanism Over the Control Channel of an IEEE 802.11p WAVE Vehicular Network**
   J. R. Gallardo, D. Makrakis, H. T. Mouftah (University of Ottawa)

WN-20: Inter-networking of Heterogeneous Networks

Room: Konferenz 1
Time: Wed, 17 Jun, 4:00 pm - 5:30 pm
Chair: Marina Aguado (University of the Basque Country)

1. **IDC: An Energy Efficient Communication Scheme for Connected Mobile Platforms**
   A. Kulkarni (University of Texas at Dallas), R. Wang, C. Maciocco, S. Bakshi, J. Tsai (Intel)

2. **Approximated Matching-Based Spectrum Access Algorithm for Heterogenous Cognitive Networks**
   H. Gang, L. Liu (NUDT), Q. Zhang (HKUST), M. Xu (NUDT)

3. **Optimal Network Selection in Heterogeneous Wireless Multimedia Networks**
   P. Si (Beijing University of Posts and Telecommunications), F. R. Yu (Carleton University), H. Ji (Beijing University of Posts and Telecommunications), V. C. M. Leung (The University of British Columbia)

4. **Dynamic Resource Modeling for Heterogeneous Wireless Networks**
   D. Tsamis (Stanford University), T. Alpcan (Deutsche Telekom Laboratories), J. P. Singh (Deutsche Telekom Inc. R&D Lab), N. Bambos (Stanford University)

5. **Buffer Schemes for VBR Video Streaming Over Heterogeneous Wireless Networks**
   G. Ji, B. Liang (University of Toronto), A. Saleh (Bell Mobility)

WN-P4: Topics in Wireless Networks II

Room: Poster Area 2
Time: Wed, 17 Jun, 4:00 pm - 5:30 pm
Chair: R Venkatesha Prasad (Delft University of Technology)

1. **A 3-D Markov Chain Queueing Model of IEEE 802.11 DCF with Finite Buffer and Load**
   R. P. Liu, G. Sutton, I. B. Collings (CSIRO)

2. **Coverage Prediction in Urban Environments for Inter-System Mobility Simulations**
   T. Balercia (Ruhr Universität Bochum), V. Frascolla (Comneon GmbH), A. Bilgic (Ruhr Universität Bochum)

3. **On Pareto-Efficiency between Revenue and Utility in Resource Allocation**
   K.-D. Lee (LGE Mobile Research), T.-S. P. Yum (The Chinese University of Hong Kong)

4. **A Load-Balanced Route Selection for Network Coding in Wireless Mesh Networks**
   K. Fan, Xi Wei, D. Long (Sun Yat-sen University)

5. **Multiple Backhaul Mobile Access Router Striping**
   R. Melervey (Raytheon), Y. Sun (Cisco), T. La Porta (Penn State)

6. **Improved Topology Control Method for Maximizing Traffic Delivery Ratio in Wireless Mesh Networks with Directional Antennas**
   J. Zhang, Z. Zheng, X. Jia (City University of Hong Kong)

7. **System Design and Resource Allocation in 802.16j Multi-Hop Relay Systems Under the User Rate Fairness Constraint**
   H. Zeng, C. Zhu (Fujitsu Labs of America)

8. **Impact of Topology and Shadowing on the Outage Probability of Cellular Networks**
   J.-M. Kelif (Orange Labs), M. Coupechoux (TELECOM ParisTech and CNRS LTCI)

9. **Performance Improvement of Error-Prone Multi-Rate WLANS through Adjustment of Access/Frame Parameters**
   B. H. Jung (KAIST, Korea), S. J. Kim (NCSU), H. Jin, H. Y. Hwang, J. W. Chong, D. K. Sung (KAIST, Korea)

10. **Inadequacy of the Queue-Based Max-Weight Optimal Scheduler on Wireless Links with TCP Sources**
    A. Todini, A. Baiocchi, D. Venturi (University of Rome "Sapienza")

11. **Evaluation of Prefix Delegation-Based Route Optimization Schemes for NEMO**
    A. Shahriar, M. Atiquzzaman (University of Oklahoma)

12. **Base Station Pilot Management for User-deployed Cellular Networks**
    Y.-Y. Li, E. Sousa (University of Toronto)

13. **Fast Connected Dominating Set Construction in Mobile Ad Hoc Networks**
    K. Sakai (Auburn University), M.-T. Sun (National Central University), W.-S. Ku (Auburn University)

14. **Improving IEEE 802.11 Performance in Chain Topologies through Virtual Polling and Network Coding**
    I. Tinnirello, L. Scalia, F. Campoccia (Universita' di Palermo)

15. **System Spectral Efficiency and Stability of 3G Networks: A Comparative Study**
    Y. Gao, X. Zhang (Beijing University of Posts and Telecommunications (BUPT)), Y. Jiang, J.-W. Cho (Norwegian University of Science and Technology (NTNU))

16. **Two Phase Spectrum Sharing for Frequency-Agile Radio Networks**
    Z. Feng, Y. Yang (Virginia Tech)

List of Authors

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Second International Workshop on Multiple Access Communications

Date: Sunday, 14 June 2009
Room: Saal 1
Organizers:

- Alexey Vinel, Russian Academy of Science
- Adolf Finger, Technische Universität Dresden
- Vladimir Vishnevsky, Russian Academy of Science
- Felix Taubin, Saint-Petersburg State University of Aerospace Instrumentation

Program

PHY-Techniques / Cross-Layer Techniques

Chair: Adolf Finger
Start time: Sun, 14 Jun, 9:00 am

- **Invited talk: "Maximizing Admissions and Throughput in Opportunistic Interference Networks"**
  J. Thomas (University of Maryland)
- **On Error Probabilities for DS-CDMA/MRC in Frequency Selective Nakagami Fading**
  M. A. Rahman (National Institute of Information and Communications Technology), S. Sasaki (Niigata University), J. Wang (Tsinghua University), T. Baykas, C. S. Sum, R. Funada, H. Harada, S. Kato (National Institute of Information and Communications Technology)
- **Capacity Analysis of Downlink MIMO-OFDMA Resource Allocation with Resource Wise 1-bit Feedback**
  J. Leinonen (University of Oulu), J. Hämäläinen (Teknillinen Korkeakoulu (TKK)), M. Juntti (University of Oulu)
- **Superposition-Coding Aided Multiplexed Hybrid ARQ Scheme for Improved Link-layer Transmission Efficiency**
  R. Zhang, L. Hanzo (School of ECS, University of Southampton)
- **On the Performance of a FH-MC-CDMA System**
  D. S. Osipov (IITP RAS)
- **A Multi-User Multi-Rate OFDMA Transmission System based on Orthogonal Subcarrier Grouping**
  L. D'Orazio (Siemens S.p.A.), M. Panizza, C. Sacchi (University of Trento)
- **Multiuser MIMO-OFDMA with Different QoS Using a Prioritized Channel Adaptive Technique**
  K. Hassan, G. Sidhu, W. Henkel (Jacobs University Bremen gGmbh)
- **cdma2000 1x Rev. E Forward Link Voice Capacity**
  Y. Jou, P. Black, Q. Wu, R. Attar, W. Zhao, B. Ahuja, J. Han (Qualcomm)
- **Adaptive Equalization at HSDPA Symbol Level**
  A. Bastug (VESTEK Electronics), A. Ancora (ST-NXP Wireless), D. T. M. Slock (Eurecom Institute)
- **On Frame Synchronization for Multiple Access Channels**
  D. Shen (Massachusetts Institute of Technology), W. Zhang (NEC Europe Ltd.), D. P. Reed, A. B. Lippman (Massachusetts Institute of Technology)
- **Resource Allocation and Scheduling in FDD Multihop Cellular Systems**
  R. Schoenen, A. Otyakmaz (RWTH Aachen, FB6, ComNets), Z. Xu (Nokia)

MAC Layer Protocols

Chair: Alexey Vinel
Start time: Sun, 14 Jun, 2:00 pm

- **Invited talk: "Advanced Features of Quality Achievement in Next Generation 802.11 WLANs"**
  Y. Koucheryavy (Tampere University of Technology)
- **Traffic Prioritization for Carrier Sense Multiple Access with Enhanced Collision Avoidance**
  J. Barcelo, B. Bellalta, C. Cano, A. Sfairopoulou, M. Oliver, J. Zuidweg (Universitat Pompeu Fabra)
- **Overall Delay Analysis of IEEE 802.16 Network**
  S. Andreev (Saint-Petersburg State University of Aerospace Instrumentation), Z. Saffer (Budapest University of Technology and Economics), A. Anisimov (State University of Aerospace Instrumentation)
- **Analytical Model of Single-hop IEEE 802.15.4 Data Aggregation in Wireless Sensor Networks**
  X. Li, D. K. Hunter (University of Essex)
- **Evaluation of Medium Access Technologies for Next Generation Millimeter-Wave WLAN and WPAN**
  C. Cordeiro (Intel Corporation)
- **Performance Analysis of Sleep Mode Operation for IEEE 802.16m Advanced WMAN**
  S. Baek (Korea University, Korea), J. J. Son (Samsung Electronics, Korea), B. D. Choi (Korea University)
- **Performance Analysis of IEEE 802.15.4 Non-beacon Mode where Downlink Data Packets are Transmitted by Piggyback Method**
  J. S. Park (KT), T. O. Kim, K. J. Kim, B. D. Choi (Korea University)
- **An Auction Mechanism for Channel Access in Vehicle-to-Roadside Communications**
  K. Akkarajitsakul, E. Hossain (University of Manitoba)

Queuing Systems
Chair: Bong Dae Choi
Start time: Sun, 14 Jun, 4:30 pm

- **Invited talk: "Optimal traffic splitting in mobile networks with concurrent access"**
  R. van der Mei (Centrum voor Wiskunde en Informatica)
- **Approximate Analysis for M/G/1-Polling System with Adaptive Polling Mechanism**
  V. M. Vishnevsky (Institute for Information Transmission Problems of the Russian Academy of Sciences), A. N. Dudin, V. I. Klimenok (Belarusian State University), O. V. Semenova, S. A. Shpilev (Institute for Information Transmission Problems of the Russian Academy of Sciences)
- **Queueing Model with Gated Service and Adaptive Vacations**
  V. M. Vishnevsky, O. V. Semenova (Institute for Information Transmission Problems of the Russian Academy of Sciences), A. N. Dudin, V. I. Klimenok (Belarusian State University)
- **Multi-User Queuing Analysis Considering AMC for Wireless VoIP Services**
  H. Lee, D.-H. Cho (KAIST, Korea)

First International Workshop on Medical Applications Networking

Date: Sunday, 14 June 2009
Room: Saal 2
Organizers:

- Joel Rodrigues, Institute of Telecommunications & University of Beira Interior
- Pascal Lorenz, University of Haute Alsace
- Tsong-Ho Wu, Telcordia Technologies

Program

Welcome
Start time: Sun, 14 Jun, 9:00 am

- J. Rodrigues (Institute of Telecommunications & University of Beira Interior)
- P. Lorenz (University of Haute Alsace)
- T.-H. Wu (Telcordia Technologies)

Opening
Start time: Sun, 14 Jun, 9:00 am

- A. T. Drobot (President Advanced Technology Solutions and Chief Technology Officer, Telcordia Technologies)

e-Health
Start time: Sun, 14 Jun, 9:55 am

- **Design of SpO2 Non-Invasive System for Oxygen LevelŚs Measurement Purpose**
  Z. Dubcova, R. Hudec, M. Vestenicky (University of Zilina)
- **Preserving Privacy in Assistive Technologies**
  S. K. Goo, J. M. Irvine, I. Andonovic (University of Strathclyde), A. Tomlinson (RHUL, University of London)

Medical Applications
Start time: Sun, 14 Jun, 10:50 am

- **A Fast Search Method for Encrypted Medical Data**
  Y. Tian, H. Lei (NEC Labs China), L. Wang (Beijing University of Posts and Telecommunications), K. Zeng, T. Fukushima (NEC Labs China)
- **Effective Movement Classification for Context Awareness in Medical Applications Networking**
  H. Hellbrück, H. Xin (University of Applied Sciences Lübeck), M. Lipphardt (University of Luebeck)
- **Weight Clustering Histogram Equalization for Medical Image Enhancement**
  N. Sengee, B. Bazarragchaa, T. Y. Kim, H. K. Choi (Inje University)

- **Computerized Renal Cell Carcinoma Nuclear Grading Using 3D Textural Features**
  T.-Y. Kim (George Washington University), H.-K. Choi (Inje University)

- **A Tunable System for Contact-less Heartbeat Detection and a Modeling Approach**
  D. Obeid (INSA-Rennes), S. Sadek (Lebanese University), G. Zaharia, G. El Zein (INSA-Rennes)

- **Pilot Study on a Community-Based Ubiquitous Healthcare System for Current and Retired University Employees**
  M.-J. Su, H.-W. Zhang (National Taiwan University), Y.-J. Lin (Centrol Taiwan University of Science and Technology), Y.-H. Su (National HsinChu University of Education), S.-J. Chen (National Taiwan University), H.-S. Chen (National Taiwan University, College of Medicine)

Medical Communications

Chair: Pascal Lorenz
Start time: Sun, 14 Jun, 2:00 pm

- **Wireless Sensor Networks in Intensive Care Units**
  R. Silva, J. Sá Silva (University of Coimbra), Á. Silva (Instituto de Ciências Biomédicas Abel Salazar), F. Pinto (Portugal Telecom Inovação, Aveiro), M. Simek (Brno University), F. Boavida (University of Coimbra)

- **Performance Evaluation of IEEE 802.15.4 for Wireless Body Area Network (WBAN)**
  C. Li (Xidian University), H.-B. Li, R. Kohno (NICT)

- **Fuzzy-logic Scheduling for Highly Reliable and Energy-efficient Medical Body Sensor Networks**
  B. Otal, C. Verikoukis (Centre Tecnològic de Telecomunicacions de Catalunya (CTTC)), L. Alonso (Universitat Politècnica de Catalunya (UPC))

- **Path Selection Techniques for SCTP Multihoming**
  K. Kamphenkel (Siemens AG - University of Tübingen), S. Laumann (Siemens AG), J. Bauer (University Hospital Tübingen), G. Carle (Technical University of Munich)

- **Markovian Models for Medical Signals on Wireless Sensor Networks**
  P. Salvador, A. Nogueira, R. Valadas (University of Aveiro/Instituto de Telecomunicações)

- **WBAN Implementation on Magnetic Induction Radio IC for Medical Remote Monitoring**
  W. Torfs, P. De Cleyn, C. Blondia (University of Antwerp - IBBT)

Healthcare

Chair: Tsong-Ho Wu
Start time: Sun, 14 Jun, 4:00 pm

- **A Hybrid Architectural Style for Complex Healthcare Scenarios**
  L. Griffin, C. Foley, E. de Leastar (Waterford Institute of Technology)

- **Medical and Home Automation Sensor Networks for Senior Citizens Telehomecare**
  S. Nourizadeh (Loria - MEDETIC), C. Deroussent (MEDETIC), Y. Q. Song, J. P. Thomesse (Loria)

Special Panel on eHealth Priority R&D Areas

Start time: Sun, 14 Jun, 4:30 pm

- H.-C. Sim (National Library of Medicine, NIH)
- S. Lee (Kyung Hee University)
- J. Song (Tsinghua University)
- K. Sezaki (University of Tokyo)

Closing

Start time: Sun, 14 Jun, 5:30 pm

- J. Rodrigues (Institute of Telecommunications & University of Beira Interior)
- P. Lorenz (University of Haute Alsace)
- T.-H. Wu (Telcordia Technologies)

2009 IEEE Vehicular Networking & Applications Workshop

Date: Sunday, 14 June 2009
Room: Saal 3
Organizers:

- Russell Hsing, Telcordia Technologies
- C.K. Toh, University of Hong Kong
- Daniel Wong, 3G Wireless and Software

Program

Vehicular Networks

Chair: Pietro Manzoni
Start time: Sun, 14 Jun, 9:00 am

- **Keynote speech**
  R. Hsing (Telcordia Technologies)
- **Wireless Media Streaming over IP-based In-Vehicle Networks**
  M. Rahmani, M. Pfannenstein (BMW Research and Technology), E. Steinbach (Technische Universität München), G. Giordano, E. Biersack (Eurecom)
- **A Novel Localized Data Aggregation Algorithm for Advanced Vehicular Traffic Information Systems**
  K. Shafiee, V. C. M. Leung (The University of British Columbia)

Protocols

Chair: Chung-Ming Huang
Start time: Sun, 14 Jun, 10:50 am

- **A Probabilistic Protocol for Multi-Hop Routing in VANETs**
  J. Fukuyama (Toyota InfoTechnology Center USA)
- **Position-Based Data Traffic Prioritization in Safety-Critical, Real-Time Vehicle-to-Infrastructure Communication**
  A. Böhm, M. Jonsson (Halmstad University)
- **Study of Beaconing for Car-to-Car Communication in Vehicular Ad-Hoc Networks**
  A. Vinel (Saint-Petersburg Institute for Informatics and Automation), D. Staehle (University of Wuerzburg), A. Turlikov (Saint-Petersburg State University of Aerospace Instrumentation)
- **A WAVE-Compliant MAC Protocol to Support Vehicle-to-Infrastructure Non-Safety Applications**
  M. Amadeo, C. Campolo, A. Molinaro, G. Ruggeri (University Mediterranea of Reggio Calabria)

Panel

Start time: Sun, 14 Jun, 2:00 pm

- A. Festag (NEC Laboratories Europe)
- J. M. Barrios (Applus+ IDIADA)
- H. Hartenstein (Universität Karlsruhe)

Vehicular Networks 2

Chair: Georg Carle
Start time: Sun, 14 Jun, 4:00 pm

- **Supporting Safety Driving with Inter-Vehicle CDMA Networks under Realistic Accident Scenarios**
  H. Yomo, M. Miyamoto, O. Shagdar, T. Ohyama, M. N. Shirazi, R. Miura, S. Obana (ATR)
- **The Effect of VII Market Penetration on Safety and Efficiency of Transportation Networks**
  M. Nekoui, H. Pishro-Nik (University of Massachusetts, Amherst)
- **CAR-2-X Communication SDK - A Software Toolkit for Rapid Application Development and Experimentations**
  A. Festag, R. Baldessari, W. Zhang, L. Le (NEC Europe Ltd.)
- **Automated Ride Share Selection using Vehicular Area Networks**
  A. Arora (Bowie State University), M. Yun, T. Kim, Y. Zhou, H.-A. Choi (George Washington University)

Workshop on Cooperative Mobile Networks 2009

Date: Sunday, 14 June 2009
Room: Saal 4
Organizers:

➤ F. Fitzek, Aalborg University

➤ M. Katz, VTT

Program

Keynote
Start time: Sun, 14 Jun, 9:00 am

➤ I. Maric (Stanford University)

Session 1
Chair: Frank Fitzek
Start time: Sun, 14 Jun, 10:50 am

- **Cooperative Multiaccess for Wireless Metropolitan Area Networks: An Information-Centric Approach**
  K. Pentikousis (VTT Technical Research Centre of Finland), F. Fitzek (Hamburg University of Technology), O. Mämmelä (VTT Technical Research Centre of Finland)

- **Performance Analysis and Resource Allocation in CDMA Cellular Networks with Relay Stations**
  F. Librino, M. Levorato, M. Zorzi (University of Padova)

- **On Radio Resource Allocation in Proactive Cooperative Relaying**
  N. Marchenko, C. Bettstetter, E. Yanmaz (University of Klagenfurt)

- **Routing Algorithm Limiting Next Hop Selection Distance in Multi Hop Ad Hoc Networks**
  Y. S. Wu, D.-H. Lee, J.-I. Jung (Hanyang University)

- **Network Coding for Mobile Devices - Systematic Binary Random Rateless Codes**
  J. Heide, M. V. Pedersen, F. H. P. Fitzek, T. Larsen (Aalborg University)

Session 2
Chair: Marcos Katz
Start time: Sun, 14 Jun, 2:00 pm

- **Ergodic and Outage Capacity Analysis of Cooperative Diversity Systems under Rayleigh Fading Channels**
  S. Chen, W. Wang, X. Zhang (Beijing University of Posts and Telecommunications)

- **Guided Incentive Mechanisms for Relays to Extend the Wireless Coverage**
  K. Seada (Nokia Research Center)

- **An Optimal Transmit Power Allocation for the Two-Way Relay Channel Using Physical-Layer Network Coding**
  W. Shin, N. Lee, J. B. Lim, C. Shin (Samsung Electronics Co., Ltd., Korea)

- **Performance Analysis of Incremental Selection Decode-and-Forward Relaying over Rayleigh Fading Channels**
  V. N. Q. Bao, H. Y. Kong (University of Ulsan, Korea)

- **Reactive Robust Routing with Opportunistic Large Arrays**
  L. Thanayankizil (Georgia Institute of technology), M. A. Ingram (Georgia Institute of Technology)

Session 3
Chair: Frank Fitzek
Start time: Sun, 14 Jun, 4:00 pm

- **Combining for Cooperative WLANs - A Reality Check Based on Prototype Measurements**
  S. Valentin, D. H. Woldegebreal, T. Volkhausen, H. Karl (University of Paderborn)

- **Avoiding Redundant Channel Blocking in Cooperative Multi-Channel MAC Protocols through Virtual Topology Inferencing**
  S. Ivanov, D. Botvich, S. Balasubramaniam (Waterford Institute of Technology), N. Popova (Moscow State University)

Panel
Start time: Sun, 14 Jun, 4:30 pm

➤ Moderated by F. Fitzek and M. Katz

2009 Joint Workshop on Cognitive Wireless Networks and Systems - Cognitive Radio Networking

Date: Sunday, 14 June 2009
Room: Saal 5
Organizers:

- Panagiotis Demestichas, University of Piraeus
- Ignas Niemegeers, Delft University of Technology
- Joseph Evans, University of Kansas
- Matthias Siebert, T-Mobile International
- Didier Bourse, Motorola
- Victor Leung, University of British Columbia
- Hiroshi Harada, NICT
- Przemyslaw Pawelczak, Delft University of Technology
- R. Venkatesha Prasad, Delft University of Technology
- Petri Mahonen, RWTH Aachen
- Ingo Gaspard, Deutsche Telekom Laboratories

Program

Welcome

Start time: Sun, 14 Jun, 9:00 am

- V. Prasad (Delft University of Technology)

Oral Session-1

Chair: Oral Session-1
Start time: Sun, 14 Jun, 9:10 am

- **Sensing After Transmission in Cognitive Wireless Personal Area Networks**
  J. Mišić, V. B. Mišić (University of Manitoba)
- **Acquiring and Learning User Information in the Context of Cognitive Device Management**
  V. Stavroulaki, Y. Kritikou, E. Darra (University of Piraeus)
- **Dynamic Rate Allocation, Routing and Spectrum Sharing for Multi-hop Cognitive Radio Networks**
  Y. Wu (Shanghai Jiao Tong University), D. H. K. Tsang (Hong Kong University of Science and Technology)
- **A General Power Allocation Algorithm for OFDM-Based Cognitive Radio Systems**
  P. Wang (Beijing University of Posts and Telecommunications), X. Zhong (Tsinghua University), L. Xiao (Quee Mary University of London), S. Zhou, J. Wang (Tsinghua University)

Panel Discussion

Start time: Sun, 14 Jun, 10:50 am

- J. Mitola (Stevens Institute of Technology)
- C. Mouli (Stevens Institute of Technology)
- J. Evans (University of Kansas)
- P. Mahonen (RWTH Aachen)

Poster Session

Chair: Poster Session
Start time: Sun, 14 Jun, 2:00 pm

- **Protection of Wireless Microphones in IEEE 802.22 Cognitive Radio Network**
  Y.-C. Wu (Shanghai Jiao Tong University), H. Wang, P. Zhang (Huawei Technologies)
- **Spectral Efficiency Optimized Adaptive Transmission for Interfering Cognitive Radios**
  M. Taki (ECE-UT, Iran), F. Lahouti (UT, Iran)
- **Dynamic Spectrum Sharing Algorithm Between Two UMTS Operators in the UMTS Extension Band**
  G. Salami, S. Thilakawardana (University of Surrey, Guildford), R. Tafazolli (University of Surrey)
- **Channel Assignment Based on Routing Decisions (CARD): Traffic-Dependent Topology Control for Multi-Channel Networks**
  R. E. Irwin, L. A. DaSilva (Virginia Tech)
- **Cognitive Pilot Channel Enabling Spectrum Awareness**
  O. Sallent, J. Pérez-Romero, R. Agusti (Universitat Politecnica de Catalunya (UPC)), P. Cordier (France Telecom Research &Development)
- **An Optimal Opportunistic Spectrum Access Approach**
  Q. Xiao, Q. Gao (Tsinghua University), L. Xiao (Quee Mary University of London), S. Zhou, J. Wang (Tsinghua University)
- **Mobility-Aware Routing Protocol for Mobile Cognitive Networks**
  S. Ju, J. B. Evans (University of Kansas)
- **Unified Approach for Energy Detection of Unknown Deterministic Signal in Cognitive Radio over Fading Channels**
  S. P. Herath, N. Rajatheva (Asian Institute of Technology), C. Tellambura (University of Alberta)

Oral Session-2

Chair: Oral Session-2
Start time: Sun, 14 Jun, 4:00 pm

- **Collaborative Spectrum Sensing for Cognitive Radio**
  K. Arshad, K. Moessner (University of Surrey)
- **Reliability of Spectrum Sensing Under Noise and Interference Uncertainty**
  Y. Zeng, Y.-C. Liang, A. T. Hoang, E. C. Y. Peh (Institute for Infocomm Research, Singapore)

- **A Hybrid Cognitive Engine for Improving Coverage in 3G Wireless Networks**
  L. Morales-Tirado (Virginia Tech), J. E. Suris-Pietri (University of Puerto Rico), J. H. Reed (Virginia Tech)
- **Quantifying the Availability of TV White Spaces for Cognitive Radio Operation in the UK**
  M. Nekovee (British Telecom Research)

Closing Remarks
Start time: Sun, 14 Jun, 5:20 pm

➤ P. Demestichas, University of Piraeus, Greece

First International Workshop on Green Communications

Date: Thursday, 18 June 2009
Room: Seminar 5&6
Organizers:

➤ Jürgen Quittek, NEC Europe Ltd.

➤ Robert Saracco, Telecom Italia

➤ Ken Christensen, University of South Florida

➤ Ernesto Zimmermann, TU Dresden

Program

Welcome and Introduction
Start time: Thu, 18 Jun, 9:00 am

➤ J. Quittek (NEC Europe Ltd.)

Keynote 1
Start time: Thu, 18 Jun, 9:05 am

➤ D. Zuckerman (IEEE Communications Society President)

Keynote 2
Start time: Thu, 18 Jun, 9:30 am

➤ B. Nordman (Lawrence Berkeley National Laboratory)

Best Paper
Chair: Juergen Quittek
Start time: Thu, 18 Jun, 10:00 am

- **Time for a "Greener" Internet**
  M. Baldi (Politecnico di Torino), Y. Ofek (University of Trento)

Technical Session 1
Chair: Ken Christensen
Start time: Thu, 18 Jun, 10:50 am

- **Performance Constrained Power Consumption Optimization in Distributed Network Equipment**
  R. Bolla, R. Bruschi, F. Davoli, A. Ranieri (University of Genoa)
- **Energy-Aware Backbone Networks: A Case Study**
  L. Chiaraviglio, M. Mellia, F. Neri (Politecnico di Torino)
- **Power Efficient Approach and Performance Control for Routers**
  M. Yamada, T. Yazaki (Hitachi, LTD.), N. Matsuyama, T. Hayashi (ALAXALA Networks Corporation)
- **On Power Optimization in DSL Systems**
  M. Guenach, C. Nuzman, J. Maes, M. Peeters (Alcatel-Lucent Bell Labs)

- **Energy Profile Aware Routing**
  J. C. Cardona Restrepo (Munich University of Technology), C. G. Gruber (Nokia Siemens Networks), C. Mas Machuca (Munich University of Technology)

Keynote 3
Start time: Thu, 18 Jun, 2:00 pm

➤ D. Lister (Head of Radio Technologies at Vodafone R&D)

Technical Session 2
Chair: Ernesto Zimmermann
Start time: Thu, 18 Jun, 2:30 pm

- **On the User Performance of LTE UE Power Savings Schemes with Discontinuous Reception in LTE**
  J. Wigard, T. Kolding (Nokia Siemens Networks), L. Dalsgaard (Nokia), C. Coletti (University of L'Aquila)
- **Performance of the IEEE 802.16e Sleep Mode Mechanism in the Presence of Bidirectional Traffic**
  K. De Turck (Ghent University), S. Andreev (Saint-Petersburg State University of Aerospace Instrumentation), S. De Vuyst, D. Fiems, S. Wittevrongel, H. Bruneel (Ghent University)
- **A Novel Wireless Wake-Up Mechanism for Energy-Efficient Ubiquitous Networks**
  T. Takiguchi, S. Saruwatari, T. Morito, S. Ishida, M. Minami, H. Morikawa (Morikawa Laboratory, RCAST, The University of Tokyo)

Technical Session 3
Chair: Dominique Dudkowski
Start time: Thu, 18 Jun, 3:50 pm

- **Optimal Energy Savings in Cellular Access Networks**
  M. Ajmone Marsan, L. Chiaraviglio, D. Ciullo, M. Meo (Politecnico di Torino)
- **A Simulation Study of a New Green BitTorrent**
  J. Blackburn, K. Christensen (University of South Florida)
- **Distributed Multi-Cell Power Allocation Algorithm for Energy Efficiency in OFDMA Relay Systems**
  L. Xiao (Queen Mary University of London), L. Cuthbert (Queen Mary Univerisity of London), T. Zhang (Beijing University of Posts and Telecommunications)
- **Energy-Efficient Multiaccess Dissemination Networks**
  K. Pentikousis (VTT Technical Research Centre of Finland)
- **Inverse Class F Power Amplifier for WiMAX Applications with 74% Efficiency at 2.45 GHz**
  F. M. Ghannouchi, M. M. Ebrahimi (University of Calgary), M. Helaoui (Green Radio Technologies Inc.)

International Workshop on LTE Evolution

Date: Thursday, 18 June 2009
Room: Saal 2
Organizers:

➤ Holger Boche, Heinrich-Hertz-Institut

➤ Zhongrong Liu, T-Mobile

➤ Ralf Irmer, Vodafone R&D

➤ Patrick Marsch, TU Dresden

Program

Opening 1
Start time: Thu, 18 Jun, 8:00 am

➤ T. Gill (Head of Radio, Vodafone R&D)

Opening 2
Start time: Thu, 18 Jun, 8:00 am

➤ K.-J. Krath (Senior Vice President Radio Networks Engineering & Quality, T-Mobile)

Posters and Demos (all day)
Chair: Patrick Marsch
Start time: Thu, 18 Jun, 8:00 am

- **Cellular Interference Alignment with Imperfect Channel Knowledge**
  R. Tresch, M. Guillaud (Telecommunications Research Center Vienna)
- **A Fractional Soft Handover Scheme for 3GPP LTE-Advanced System**
  J. Chang (Huawei Technologies), Y. Li (Tsinghua University), S. Feng, H. Wang, C. Sun, P. Zhang (Huawei Technologies)
- **Device-to-Device Communications; Functional Prospects for LTE-Advanced Networks**
  K. Doppler, M. P. Rinne (Nokia Research Center), P. Jänis (Helsinki University of Technology), C. Ribeiro, K. Hugl (Nokia Research Center)
- **Performance Analysis of Layer 1 Relays**
  J. Zheng, P. Sartori, B. Wei (Huawei)
- **Performance Analysis for Partial Feedback Downlink MIMO with Unitary Codebook Beamforming for LTE**
  M. Nicolaou, A. Doufexi, S. Armour (University of Bristol), Y. Sun (Toshiba Research Europe Limited)
- **On the Achievable Rate of ZF-DPC for MIMO Broadcast Channels with Finite Rate Feedback**
  W. Miao, X. Chen, Y. Li, S. Zhou, J. Wang (Tsinghua University)
- **On MAC Layer Throughput Enhancements in LTE-A by Downlink Macro Diversity**
  S. Brueck, J. Giese, L. Zhao, A. Dekorsy (Qualcomm)

- **MU-MIMO with Localized Downlink Base Station Cooperation and Downtilted Antennas**
  L. Thiele, T. Wirth, M. Schellmann, Y. Hadisusanto, V. Jungnickel (Fraunhofer Institute for Telecommunications, Heinrich-Hertz-Institut)

Concepts for the Cellular Uplink

Chair: Wolfgang Stoermer
Start time: Thu, 18 Jun, 9:00 am

- **Invited Talk**
  D. Gerstenberger (Senior Specialist R&D, Ericsson and 3GPP TSG RAN WG1 chairman)
- **Distributed Uplink Macro Diversity for Cooperating Base Stations**
  L. Falconetti, C. Hoymann (Ericsson Research), R. Gupta (University of Washington)
- **Application of BBU+RRU Based Comp System to LTE-Advanced**
  Q. Wang, D. Jiang (China Mobile Research Institute), J. Jin (Beijing University of Posts and Telecommunications), G. Liu, Z. Yan, D. Yang (China Mobile Research Institute)
- **Software Defined Hybrid MMSE/QRD-M Turbo Receiver for LTE Advanced Uplink on a Cell Processor**
  A. Ibing, D. Kühling, D. Wieruch, H. Boche (Fraunhofer Institute for Telecommunications, Heinrich-Hertz Institut)

Concepts for the Cellular Downlink

Chair: Patrick Marsch
Start time: Thu, 18 Jun, 10:50 am

- **Invited Talk**
  R. Valenzuela (Wireless Communications Research Director, Bell Labs, Alcatel-lucent)
- **On the Value of Coherent and Coordinated Multi-cell Transmission**
  A. Tölli, H. Pennanen, P. Komulainen (University of Oulu)
- **Integrated Fractional Load and Packet Scheduling for OFDMA Systems**
  G. Monghal, S. Kumar (Aalborg University), K. I. Pedersen (Nokia Siemens Networks), P. E. Mogensen (Aalborg University)
- **A Novel Cooperative Multi-Cell MIMO Scheme for the Downlink of LTE-Advanced System**
  J. Jin (Beijing University of Posts and Telecommunications), Q. Wang, G. Liu (Research Institution of China Mobile), H. Yang, Y. Wang, X. Zhang (Beijing University of Posts and Telecommunications)

Panel Discussion

Start time: Thu, 18 Jun, 2:00 pm

- ➤ K.-J. Krath (Senior Vice President Radio Networks Engineering & Quality, T-Mobile)
- ➤ D. Gerstenberger (Senior Specialist R&D, Ericsson and 3GPP TSG RAN WG1 chairman)
- ➤ G. Fettweis (Vodafone Chair, Technische Universität Dresden)
- ➤ R. Valenzuela (Wireless Communications Research Director, Bell Labs, Alcatel-lucent)
- ➤ T. Gill (Head of Radio, Vodafone R&D)

Concepts connected to Relaying

Chair: Ralf Irmer
Start time: Thu, 18 Jun, 4:00 pm

- **Invited Talk**
  G. Fettweis (Vodafone Chair, Technische Universität Dresden)
- **Business Impact of Relay Deployment for Coverage Extension in 3GPP LTE-Advanced**
  E. Lang, S. Redana, B. Raaf (Nokia Siemens Networks)
- **Incremental Deployment with Self-Backhauling Base Stations in Urban Environment**
  B. Timus, J. Zander (Royal Institute of Technology (KTH))
- **Handover Framework for Relay Enhanced LTE Networks**
  O. Teyeb (Aalborg University), V. V. Phan, B. Raaf (Nokia Siemens Network), S. Redana (Nokia Siemens Networks)

Next Generation Public Safety Communication Networks and Technologies

Date: Thursday, 18 June 2009
Room: Saal 3
Organizers:

- Thomas Engel, Universite du Luxembourg
- Latif Ladid, President IPv6 Forum
- Adrian Boukalov, Universite du Luxembourg

Program

Opening
Start time: Thu, 18 Jun, 9:00 am

- A. Boukalov (Universite du Luxembourg)

Workshops morning session 1
Start time: Thu, 18 Jun, 9:05 am

- **Increasing Public Safety Communications Interoperability: The CHORIST Broadband and Wideband Rapidly Deployable Systems**
  H. Aiache (THALES Communications), R. Knopp (Institut Eurécom), K. Koufos, H. Salovuori (), P. Simon (EADS Secure Networks)
- **An Open Architecture Framework for Safety and Security**
  P. Bikar (Cisco Systems)
- **Mobility, Access Heterogeneity and Security for Next Generation Public Safety Communications**
  G. Iapichino (Institut Eurecom)
- **Open Multi-Purpose Gateway for Emergency Services Internetworking**
  S. Varakliotis, N. Stephan, P. T. Kirstein (University College London)

Workshops morning session 2
Start time: Thu, 18 Jun, 10:50 am

- **Telephony over Metropolitan Area Ad Hoc Networks: From Concept to Field Test**
  E. Glatz (ETH Zurich), U. Fiedler (Bern University of Applied Sciences)
- **Leveraging Femtocells for Dissemination of Early Warning Messages**
  E. Mutafungwa, J. Hämäläinen (Teknillinen Korkeakoulu (TKK))
- **Determining Host Location on the Internet: The Case of VoIP Emergency Calls**
  S. Ashtarifar, A. Matrawy (Carleton University)
- **A Novel Dynamic Hierarchy AAA Scheme for Interworking Authentication in Heterogeneous Networks**
  L. Wang, M. Song, J. Song (Beijing University of Posts and Telecommunications), Y. Zhang (Rutgers Univ.), P. Wang, J. Li (Beijing University of Posts and Telecommunications)

Workshops afternoon session
Start time: Thu, 18 Jun, 2:00 pm

- **Autonomous Migration with Admission Control for Mobiles Affected by Access Network Failures**
  D. Griffith (National Institute of Standards and Technology)
- **Deploying CCTV as an Ethernet Service Over the Wimax Mobile Network in the Public Transport Scenario**
  M. Aguado, E. Jacob, J. Matias, C. Conde (University of the Basque Country), M. Berbineau (INRETS)
- **Stochastic Routing in Wireless Sensor Networks**
  F. Sivrikaya, T. Geithner, C. Truong, M. A. Khan, S. Albayrak (Technische Universität Berlin)
- **Clone-Resistant Network Unit Identification**
  W. Adi (Braunschweig University of Technology)
- **GAISS - Live Asset Tracking and Statistical**
  J. Ronan (Waterford Institute of Technology)
- **Experimental Evaluation of Flooding Attacks in Mobile Ad Hoc Networks**
  P. Yi, Y. Wu (Shanghai Jiao Tong University), J. Ma (Fudan University)

Panel
Start time: Thu, 18 Jun, 4:00 pm

- H. Aiache (Thales Communications)
- P. Bikar (Cisco Systems)
- C. Bonnet (Institut Eurecom)
- N. Stephan (University College London)
- L. Ladid (President IPv6)

International Workshop on Synergies in Communications and Localization

Date: Thursday, 18 June 2009
Room: Seminar 3&4
Organizers:

- Ronald Raulefs, German Aerospace Center (DLR)
- Marco Luise, University of Pisa
- Simon Plass, Xcitec GmbH

Program

Keynote 1
Start time: Thu, 18 Jun, 8:15 am

- Moe Win (MIT)

Positioning with GNSS and Comm. Systems
Start time: Thu, 18 Jun, 9:00 am

- **GNSS Positioning in Critical Scenarios: Hybrid Data Fusion with Communications Signals**
  C. Mensing, S. Sand, A. Dammann (German Aerospace Center (DLR))
- **On the Performance of Hybrid GPS/GSM Mobile Terminal Tracking**
  C. Fritsche, A. Klein (TU Darmstadt)
- **Assessing GPS Robustness in Presence of Communication Signals**
  B. Motella (Istituto Superiore Mario Boella), S. Savasta, D. Margaria, F. Dovis (Politecnico di Torino)
- **Improving the Performance of TOA Over Wireless Systems to Track Mobile Targets**
  M. Ciurana, F. Barcelo-Arroyo, M. Llombart (UPC)

Cooperative Positioning and Cognitive Radio
Start time: Thu, 18 Jun, 10:50 am

- **Cluster-Based Ranging for Accurate Localization in Wireless Sensor Neworks**
  S. Sergi, F. Pancaldi, G. M. Vitetta (University of Modena e Reggio Emilia)
- **Fundamental Performance Limits of TOA-Based Cooperative Localization**
  M. Nicoli, D. Fontanella (Politecnico di Milano)
- **Coexistence Strategies and Capacity Theorems of Interference Awareness Cognitive Radio**
  N. Yi, Y. Ma, R. Tafazolli (University of Surrey)
- **Performance Limits on Ranging with Cognitive Radio**
  D. Dardari (University of Bologna), Y. Karisan, S. Gezici (Bilkent University), A. A. D'Amico, U. Mengali (University of Pisa)

Keynote: Creating Smart Positioning Solutions
Start time: Thu, 18 Jun, 2:00 pm

- D. Park (CEO, Geospatial Research Centre (NZ))

Expert Panel
Start time: Thu, 18 Jun, 2:45 pm

- Expert Panel, moderated by R. Raulefs, M. Luise, and S. Plass

Fingerprinting and Positioning Algorithms
Start time: Thu, 18 Jun, 4:00 pm

- **High-Performance Indoor Localization with Full-Band GSM Fingerprints**
  B. Denby (Université Pierre et Marie Curie), Y. Oussar, I. Ahriz, G. Dreyfus (Laboratoire dŠÉlectronique, ESPCI, ParisTech)
- **A Scheme for Indoor Localization through RF Profiling**
  I. T. Haque, I. Nikolaidis, P. Gburzynski (University of Alberta)
- **Joint Estimation of Position and Channel Propagation Model Parameters in a Bluetooth Network**
  J. Rodas, C. J. Escudero (Universidade da Coruña)
- **Solving the Source Localization Problem via Global Distance Continuation**
  G. Destino, G. T. Freitas de Abreu (University of Oulu)

International Workshop on the Network of the Future 2009

Date: Thursday, 18 June 2009
Room: Saal 1
Organizers:

- N. Niebert, Ericsson
- R.Winter , NEC
- M. Presser, University of Surrey

Program

Opening

Start time: Thu, 18 Jun, 8:30 am

- **Welcome**
  N. Niebert (Ericsson)
- **Keynote: On new Networking Driven by Ubiquitous Wireless Access**
  D. Raychaudhuri (WINLAB, Rutgers University)
- **Invited Talk: The Research Program for the Network of the Future**
  R. Zimmermann (European Commission)
- **New Design Principles for the Internet**
  A. Ford (Roke Manor Research), P. Eardley (BT Group), B. van Schewick (Stanford Law School)
- **A Node Architecture for 1000 Future Networks**
  L. Völker, D. Martin (Universität Karlsruhe (TH)), I. El Khayat (Ericsson GmbH), C. Werle, M. Zitterbart (Universität Karlsruhe (TH))

Poster Session

Start time: Thu, 18 Jun, 10:10 am

- **Identifier-Based Discovery Mechanism Design in Large-Scale Networks**
  J. Khoury, C. T. Abdallah (University of New Mexico)
- **Detecting Triangle Inequality Violations for Internet Coordinate Systems**
  M. A. Kaafar, F. Cantin, B. Gueye, G. Leduc (University of Liege)
- **Self-Management for a Network of Information**
  K. Pentikousis (VTT Technical Research Centre of Finland), C. Meirosu (Ericsson Research), A. Miron (Technion, Israel Institute of Technology Computer Science), M. Brunner (NEC Laboratories Europe)
- **Loop-Freeness in Multipath BGP through Propagating the Longest Path**
  I. van Beijnum (IMDEA Networks), J. Crowcroft (University of Cambridge), F. Valera, M. Bagnulo (Universidad Carlos III de Madrid)
- **TORI: User Provided Future Networking Testbeds**
  M. Stiemerling, M. Brunner, S. Kiesel (NEC Europe Ltd.), X. Fu (University of Göttingen)
- **A Requirements Analysis for the Protocol Stack of the Future Internet**
  R. L. Aguiar (Universidade de Aveiro), H. J. Einsiedler, S. Gutknecht, T. Dörflinger (Deutsche Telekom Laboratories), J. I. Moreno (Universidad Carlos III de Madrid)
- **Attachment to a Native Publish/Subscribe Network**
  J. Kjällman (Ericsson Research)
- **Vertical and Horizontal End-to-End Arguments in the Internet**
  M. Bärwolff (MIT)
- **Bandwidth-Based Congestion Control for TCP: Measurement Noise-Aware Parameter Settings and Self-Induced Oscillation**
  M. Kodama, G. Hasegawa, M. Murata (Osaka University)
- **Pre-Congestion Notification Using Packet-Specific Dual Marking**
  M. Menth (University of Wuerzburg), J. Babiarz (Nortel), P. Eardley (BT Group)
- **Towards End-to-End Connectivity for Overlays across Heterogeneous Networks**
  S. Mies, O. P. Waldhorst, H. Wippel (Universität Karlsruhe (TH))
- **Context-Aware Session and Network Control in Future Internet**
  A. Neto, S. Sargento (Telecommunications Institute, University of Aveiro), F. C. Pinto (Portugal Telecom Inovação, Aveiro), E. Logota (Telecommunications Institute, University of Aveiro)
- **Performance Evaluation of the "Cache-and-Forward (CNF)" Network for Mobile Content Delivery Services**
  H. Liu (Corporate Research Lab, Thomson Inc), Y. Zhang (Rutgers Univ.), D. Raychaudhuri (WINLAB, Rutgers University)

Session 1: New Networking Paradigms

Start time: Thu, 18 Jun, 10:50 am

- **Network Virtualization from a Signaling Perspective**
  R. Bless, C. Werle (Universität Karlsruhe (TH))
- **Virtual Resource Description and Clustering for Virtual Network Discovery**
  I. Houidi, W. Louati, D. Zeghlache (TELECOM & Management SudParis), S. Baucke (Ericsson)
- **Exploring the Pub/Sub Routing&Forwarding Space**
  A. Zahemszky, A. Császár, P. Nikander (Ericsson Research), C. Esteve Rothenberg (University of Campinas (Unicamp))

- **Private Domains in Networks of Information**
  R. Rembarz, D. Catrein, J. Sachs (Ericsson Research)

- **Augmented Internet: An Information-Centric Approach for Real-World / Internet Integration**
  C. Dannewitz (University of Paderborn)

- **A Scalable and Distributed Architecture for BGP in Next Generation Routers**
  K. K. Nguyen, B. Jaumard (Concordia University)

- **Cooperation and Coding Framework**
  T. Biermann (University of Paderborn), Z. A. Polgar (Technical University of Cluj-Napoca), H. Karl (University of Paderborn)

Session 2: Key Technical Solutions

Start time: Thu, 18 Jun, 3:00 pm

- **Keynote: A new generation network**
  H. Harai (NICT)

- **Invited Talk: The new Internet World**
  R. Tafazolli (University of Surrey)

- **Channel Assignment, Stream Control, Scheduling and Routing in Multi-Radio MIMO Wireless Mesh Networks**
  L. Luo, D. Raychaudhuri (WINLAB, Rutgers University), H. Liu (Corporate Research Lab, Thomson Inc)

- **Decentralized In-Network Management for the Future Internet**
  A. Gonzalez Prieto (KTH), D. Dudkowski (NEC Laboratories Europe), C. Meirosu (Ericsson Research), C. Mingardi, G. Nunzi, M. Brunner (NEC Laboratories Europe), R. Stadler (KTH)

List of Authors