

VTC2010-Spring Advance Programme

Monday 17 May 2010

Monday 17 May 2010 10:30-12:00 R101

1A: Relay Transmission

Chair: Ai-Chun Pang, National Taiwan University

- 1 Power-Efficient Opportunistic Amplify-and-Forward Single-Relay Aided Multi-User SC-FDMA Uplink**
Jiayi Zhang, Lie-Liang Yang, Lajos Hanzo, University of Southampton
- 2 Relay Selection Scheme for Orthogonal Amplify-and-Forward Relay-enhanced Cellular System in a Multi-cell Environment**
Hyun Seok Ryu, Jun Seok Lee, Chung Gu Kang, Korea University
- 3 Distributed Network Channel Coding for Multiple Access Relay Interference Channels**
Zihuai Lin, Yonghui Li, University of Sydney; Branka Vucetic, University Of Sydney
- 4 Double-Differential Encoding for Dual-Hop Amplify-and-Forward Relaying in IR-UWB Systems**
Maziyar Hamdi, University of British Columbia; Jan Mietzner, EADS Defence & Security; Robert Schober, University British Columbia
- 5 Multiuser Cooperative Relay Communication Employing Hierarchical Modulation**
Roderick Jaehoon Whang, Huaping Liu, Oregon State University; Een-Kee Hong, Kyung Hee University

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1B: Spectrum Sensing for Cognitive Radio I

Chair: Husheng Li, University of Tennessee

- 1 Cooperative Spectrum Sensing in Cognitive Radio Networks With Weighted Decision Fusion Scheme**
Edward Chu Yeow Peh, Ying-Chang Liang, Institute for Infocomm Research; Yong Liang Guan, Nanyang Technological University; Yonghong Zeng, Institute for Infocomm Research
- 2 Decentralized Cooperative Spectrum Sensing for Ad-hoc Disaster Relief Network clusters**
Nuno Pratas, CTIF- Aalborg University; Nicola Marchetti, Aalborg University; Dr. Neeli R. Prasad, Center for Teleinfrastruktur, Aalborg University; Antonio Rodrigues, Instituto Superior Técnico/IT, Portugal; Ramjee Prasad, University of Aalborg/CTIF, Denmark
- 3 Performance Evaluation of Overhead Reduction Method for Cyclostationarity-Inducing Transmission**
Hiroki Harada, Koji Maeda, Tatsuo Furuno, Shunji Miura, Tomoyuki Ohya, NTT DoCoMo, Inc.
- 4 Cooperative Spectrum Sensing in Cognitive Radio under Noise Uncertainty**
Haijun Wang, Yi Xu, Xin Su, Jing Wang, Tsinghua University
- 5 Collaborative Spectrum Sensing in Cognitive Radio Vehicular Ad hoc Networks: Belief Propagation on Highway**
Husheng Li, David K. Irick, The University of Tennessee

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1C: Signal Detection

Chair: Tsung-Hsien Liu, National Chung Cheng University

- 1 Markov Chain Monte Carlo MIMO Detection for Systems with Imperfect Channel State Information**
Martin Senst, Gerd Ascheid, RWTH Aachen University
- 2 A Novel Layered Space-Time-Frequency Architecture with Non-Iterative QRM-MLD Detection**
Huang Yuanliang, Hong Kong Applied Science and Technology Research Institute

3 Flexible Complexity Fast Decoding of Multiplexed

Alamouti Codes in Space-Time-Polarization Systems

Linda M. Davis, Sudharshan Srinivasan, University of South Australia; Songsri Sirianunpiboon, Defence Science & Technology Organisation

4 A Low-Complexity Integration-Based MAP SISO Detector for Channel Coded MIMO-OFDM Systems

Huan-Chun Wang, De-Jhen Huang, National Taiwan University of Science and Technology

5 Iterative Soft-In Soft-Out Sphere Detection for 3GPP LTE

Mohammad Ali Shah, Technical University Dresden; Björn Mennenga, Gerhard Fettweis, Technische Universität Dresden

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1E: OFDM/OFDMA Technologies I

Chair: Xianbin Wang, University of Western Ontario

- 1 Effects of Side Information on Complexity Reduction in Superimposed Pilot Channel Estimation in OFDM Systems**
Sahar Javaher Haghghi, University of Western Ontario; Serguei Primak, Xianbin Wang, University of Western Ontario
- 2 Optimal Distributed Subchannel, Rate and Power Allocation Algorithm in OFDM-based Two-Tier Femtocell Networks**
Jianmin Zhang, Zhang Zhaoyang, Kedi Wu, Aiping Huang, Zhejiang University
- 3 Resource Efficient Opportunistic Multicast Scheduling for IPTV over Mobile WiMAX**
Shiang-Ming Huang, National Chiao Tung University; Chih-Wei Huang, Po-Han Wu, Jenq-Neng Hwang, University of Washington; Yaw-Chung Chen, National Chiao Tung University; Victor Gau, University of Washington
- 4 An Energy-Efficient Cooperative SFBC-OFDM System Using Subcarrier Permutation**
Chin-Liang Wang, Po-Chung Shen, National Tsing Hua University
- 5 Distributed Q-learning for Interference Control in OFDMA-based Femtocell Networks**
Ana Maria Galindo-Serrano, Centre Tecnologic de Telecomunicacions de Catalunya (CTTC); Lorenza Giupponi, CTTC

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1F: Interference Issues in Wireless Networks

Chair: Younghan Han, Korea Advanced Institute of Science and Technology

- 1 Multi-Cell Interference Aware Resource Allocation for Half-Duplex Relay based Cooperation**
Cédric ABGRALL, CEA-LETI MINATEC, Grenoble, France; Emilio Calvanese Strinati, CEA-LETI MINATEC; Jean-Claude BELFIORE, TELECOM ParisTech (ENST)
- 2 Inter-Frequency Re-Selection for CSG Cell Interference Avoidance in LTE Network**
Janne Kurjenniemi, Magister Solutions Ltd.; Olli Alanen, Magister Solutions Ltd; Jorma Kaikkonen, Nokia; Tero Henttonen, Nokia Research Center
- 3 Adaptive Frequency Reuse Scheme for Interference Reduction in Two-Hop Relay Networks**
Jin-Yup Hwang, Korea Advanced Institute of Science and Technology; Yoona Oh, Central R&D Laboratory KT Corporation; Younghan Han, Korea Advanced Institute of Science and Technology
- 4 Evaluating Adjacent Channel Interference in IEEE 802.11 Networks**
Wee Lum Tan, Konstanty S Bialkowski, National ICT Australia; Marius Portmann, NICTA

5 A Cumulant-Based Characterization of the Aggregate Interference Power in Wireless Networks

Muhammad Aljuaid, Halim Yanikomeroglu, Carleton University

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1G: Localization and Tracking

Chair: Ruben M. Lorenzo, University of Valladolid

1 Using a Sensor Network to Localize a Source under Spatially Correlated Shadowing

John Torjus Flåm, Ghassan M. Kraidy, Daniel J. Ryan, Norwegian University of Science and Technology

2 E-Field assessment errors caused by the human body on localization systems

Alfonso Bahillo, Javier Prieto, University of Valladolid; Santiago Mazuelas, Center for the Development of Telecommunications (Valladolid); Ruben M. Lorenzo, Patricia Fernandez, E.J. Abril, University of Valladolid

3 The Dedicated Short-Range Vehicle Tracking

Po-Wen Lu, Chunghwa Telecom; Rongshun Chen, National Tsing Hua University

4 Traffic contracts based optimizations for QoS support in DVB-RCS satellite systems

Fabrice Hobaya, TeSA; Cédric Baudoin, Thales Alenia Space; Emmanuel Chaput, University of Toulouse, ENSEEIHT - IRIT /CNRS - TeSA; Patrick Gélard, Emmanuel Dubois, CNES; André-Luc Beylot, University of Toulouse

5 Attenuation Measurements and Interference Issues for In-Cabin Wireless Networks

Nektarios Moraitis, Philip Constantinou, National Technical University of Athens

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1H: MIMO Channels

Chair: Robert Caiming Qiu, Tennessee Technological University

1 Higher order MIMO outdoor-to-indoor measurements using repeaters

Mikael Coldrey, Patrik Persson, Ericsson Research; Tommy Hult, Lund University; Andreas Wolfgang, Chalmers

2 Multi-polarized Channel Statistics for Outdoor-to-Indoor and Indoor-to-Indoor Channels

Ali Panahandeh, François Quitin, Jean-Michel Dricot, Université Libre de Bruxelles; François Horlin, ULB; Claude Oestges, Université Catholique de Louvain (UCL); Philippe De Doncker, Université Libre de Bruxelles

3 Interference Limited MIMO Measurements

Stephan Jaeckel, Fraunhofer Heinrich Hertz Institute; Lars Thiele, Fraunhofer Institute for Telecommunications, Heinrich-Hertz-Institut; Volker Jungnickel, Fraunhofer Institute for Telecommunications

4 A Dual-link Capacity Analysis of Measured Time-Variant Radio Indoor Channels

Veli-Matti Kolmonen, Helsinki University of Technology; Katsuyuki Haneda, Helsinki University of Technology (TKK); Juho Poutanen, TKK Helsinki University of Technology; Fredrik Tufvesson, Lund University; Pertti Vainikainen, Helsinki University of Technology

5 MIMO System Performance Evaluation of a 4-port Antenna in Indoor Environment for WiMAX Application

Lee Ming, Yu-Chun Lu, Li-Han Tu, National Taiwan University; Yi-Cheng Lin, Department of Electrical Engineering; Shun-Chang Lo, Gene C.-H. Chuang, Industrial Technology Research Institute; Ding-Bing Lin, National Taipei University of Technology; Hsueh-Jyh Li, National Taiwan University

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1I: Performance Analysis of Cooperative Relay Systems

Chair: Che Lin, National Tsing Hua University

1 Outage Probability of OFDM-Based Relay Networks with Relay Selection

Jae Cheol Park, Tan Tai Do, Yun Hee Kim, Kyung Hee University

2 Sum of Ratios of Complex Gaussian RVs and its application to a simple OFDM Relay Network

Juan Jesús Sánchez-Sánchez, Unai Fernandez-Plazaola, M. Carmen Aguayo-Torres, Universidad de Malaga

3 Outage Probability of Selection Cooperation with Channel Estimation Errors

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

4 Outage Performance of Dual-Hop Relay Network with Co-Channel Interference

Shaohua Chen, Beijing University of Post and Telecommunications; Xin Zhang, Fang LIU, Dacheng Yang, Beijing University of Posts and Telecommunications

5 SER of Multiple Fixed Gain Amplify-and-Forward Relays with Receive Diversity

Maged ElKashlan, CSIRO ICT Centre; Phee Lep Yeoh, Raymond Louie, University of Sydney; Iain B. Collings, CSIRO

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1Pa: Cognitive Radio and Cooperative Communications I

1 Cooperative Hybrid ARQ in Wireless Decode-and-Forward Relay Networks

Wei Ni, Zhuo Chen, Iain B. Collings, CSIRO

2 Generalized Joint Channel and Physical Network Coding for Two-way Relay Systems

Yidong Lang, Dirk Wübben, University of Bremen

3 Distributed Relay Selection Scheme in Decode-and-Forward Cooperative Systems

Yinsheng Li, City University of Hong Kong; Q.T. Zhang, City University of HK

4 Two-slot Channel Estimation for Analog Network Coding Based on OFDM in a Frequency-selective Fading Channel

Haris Gacanin, Tohoku University; Tomas Sjodin, Umea University; Fumiyuki Adachi, Tohoku University

5 Cooperative Diversity with Fast HARQ for Delay-Sensitive Flows

Yao-Liang Chung, Zsehong Tsai, National Taiwan University

6 Channel Estimation Based on Pilot Frequency Division Multiplexing for Distributed Space-Frequency Coded Cooperative Communication System

Xiaofan Yu, Chunming Zhao, Chun Pan, Southeast University

7 To Cooperate or Not: A Capacity Perspective

Li Wang, Univ. of Southampton, UK; Lingkun Kong, Soon Xin Ng, Lajos Hanzo, University of Southampton

8 Double Threshold Digital Relaying for Cooperative Wireless Networks

Kuang-Hao (Stanley) Liu, National Cheng Kung University

9 Phase Forward Cooperative Communications with Antenna Selection and Continuous Phase Modulation

Qi Yang, Paul Ho, Simon Fraser University

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1Pb: Multiple Antenna Systems and Space-Time Processing I

1 Improved Sum Power Iterative Water-Filling with Rapid Convergence and Robustness for Multi-Antenna Gaussian Broadcast Channels

Peter He, Lian Zhao, Ryerson University

2 A Novel Subcarrier Mapping Scheme for EUTRA Downlink Transmit Diversity

Anxin Li, DOCOMO Beijing Communications Laboratories Co., Ltd; Yuan Yan, DOCOMO Beijing Labs; Xinying Gao, DOCOMO Beijing Communications Laboratories Co., Ltd; Hidetoshi Kayama, DoCoMo Beijing Communications Laboratories Co., Ltd

- 3 Adaptive Control of Surviving Branches for Fixed-Complexity Sphere Decoder**
Sheng Lei, Cong Xiong, Xin Zhang, Dacheng Yang, Beijing University of Posts and Telecommunications
- 4 Lattice Reduction aided Detection for Underdetermined MIMO Systems: A Pre-voting Cancellation Approach**
Lin Bai, Swansea University; Chen Chen, Peking University; Jinho Choi, University of Wales Swansea
- 5 Novel MMSE Precoder and Decoder Designs for Single-user MIMO Systems under General Power Constraints**
Jialing Li, Polytechnic Institute of New York University; I-Tai Lu, Polytechnic University; Enoch Lu, Polytechnic Institute of New York University
- 6 Group-Decodable Diversity Embedded Space-Time Code**
Tian Peng REN, National University of Defense Technology; Yong Liang Guan, Nanyang Technological University; Chau Yuen, Institute for Infocomm Research; Er Yang Zhang, National University of Defense Technology
- 7 Using Direct Analog Feedback for Multiuser MIMO Broadcast Channel**
Phoenix Yuan, Paul Ho, Simon Fraser University

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1Pc: Transmission Technologies I

- 1 Multiple-Candidate Separation for PTS-based OFDM Systems by Turbo Decoding**
Yung-Chih Tsai, National Taiwan University; Yeong-Luh Ueng, National Tsing Hua University
- 2 Low-Complexity Iterative Carrier Frequency Offset Estimation with ICI Elimination for OFDM Systems**
Yuh-Ren Tsai, National Tsing Hua University; Tsung-Wei, Wu
- 3 OFDM Signal Detection in Doubly Selective Channels with Whitening of Residual Intercarrier Interference and Noise**
Hai-wei Wang, David Lin, Tzu-hsien Sang, National Chiao Tung University

- 4 Performance Analysis of Sign-Based Pre-FFT Synchronization in OFDM Systems**
Leif R. Wilhelmsson, Ericsson Research, Lund, Sweden; Thomas Olsson, Ericsson Research; Viktor Öwall, Lund University; Isael Diaz, Lund University
- 5 Iterative Receiver Employing Multiuser Detection and Channel Estimation for MIMO-OFDM IDMA**
Jun Shikida, Satoshi Suyama, Hiroshi Suzuki, Kazuhiko Fukawa, Tokyo Institute of Technology
- 6 A Differential Cross-Correlation Cell Search Algorithm for IEEE 802.16e OFDMA Systems**
Juinn-Hornng Deng, Shun-Hsiung Chang, Jeng-Kuang Hwang, Shu-Min Liao, Yuan Ze University
- 7 Suboptimum Channel estimate for MIMO-OFDM System in Time-Varying Fast Fading Channels**
Jeich Mar, Chi-Cheng Kuo, Chin-Chung Ko, Yuan-Ze University
- 8 A Data Detection Scheme for Single-Carrier Block Transmission Using Sphere Decoding Algorithm**
Ying-Tsung Lin, Chia-Hsun Kuo, National Chiao-Tung University; Sau-Gee Chen, National Chiao Tung University; Wai-Chi Fang, National Chiao-Tung University
- 9 Joint Channel, Carrier-Frequency-Offset and Noise-Variance Estimation for OFDM Systems Based on Expectation Maximization**
Jiankang Zhang, Univ. of Southampton, UK; Xiaomin Mu, Zhengzhou University; Lajos Hanzo, University of Southampton
- 10A Time Domain Iteration-based Channel Estimation Method in OFDM Systems with Null Subcarriers**
Wanlu Sun, Beijing University of Posts and Telecom.(BUPT); Li LiHua, Beijing University of Posts and Telecommunications

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2A: UWB

Chair: Mamoru Sawahashi, Tokyo City University

- 1 New TOA Estimators within Energy-based Receivers under Realistic UWB Channel Statistics**
Joe Youssef, CEA-Leti Minatoc, Grenoble, France; Benoît Denis, CEA-Leti Minatoc; Christelle Godin, CEA-Leti Minatoc, Grenoble, France; Suzanne Lesecq, CEA-LETI Minatoc, Grenoble, France
- 2 Narrowband Interference Impact on the Performance of UWB Communication Systems in Lognormal Flat Fading Channels**
Ehab Shaheen, Mohamed El-Tanany, Carleton University
- 3 Adaptive Detector for SC-FDE in Multiuser DS-UWB Systems Based on Structured Channel Estimation with Conjugate Gradient Algorithm**
Sheng Li, Rodrigo de Lamare, University of York
- 4 Power Spectral Analysis of Orthogonal Pulse-Based TH-UWB Signals**
sudhan Majhi, IETR; A.S. Madhukumar, Nanyang Technological University; Youssef NASSER, Institute of Electronics and Telecommunications of Rennes; Jean-Francois Helard, INSA Rennes
- 5 Low-Complexity Receivers for Multi-Carrier Pulse Position Modulation**
Huilin Xu, University of Florida; Liuqing Yang, UFL; Chia-Chin Chong, DOCOMO USA Labs

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2B: Spectrum Sensing for Cognitive Radio II

Chair: Husheng Li, University of Tennessee

- 1 Cooperative Correlation Based Spectrum Sensing for DMB-T Systems**
Jiajun Li, Zhenhui Tan, Shaoyi Xu, Haibo Wang, Beijing Jiaotong University
- 2 Optimization of Linear Collaborative Spectrum Sensing with Genetic Algorithms**
Michele Sanna, Maurizio Murrone, DIEE, University of Cagliari
- 3 Defending Against Hit-and-run Attackers in Collaborative Spectrum Sensing of Cognitive Radio Systems**
Husheng Li, Evan Noon, The University of Tennessee
- 4 Sensitivity of Spectrum Sensing Techniques to RF impairments**
Jonathan Verlant-Chenet, Julien Renard, Jean-Michel Dricot, Philippe De Doncker, Université Libre de Bruxelles; Francois Horlin, ULB
- 5 Cooperative Spectrum Sensing with Wavelet Denoising in Cognitive Radio**
Haijun Wang, Yi Xu, Xin Su, Jing Wang, Tsinghua University

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2C: Precoding

Chair: Thomas Edlich, University of Kassel

- 1 Recursive Spatial Multiplexing: Improving Unitary Precoding with Outdated Channel State Information**
Thomas Edlich, Thomas Hunziker, Dirk Dahlhaus, University of Kassel
- 2 Statistical Precoder Design for Spatial Multiplexing Systems in Correlated MIMO Fading Channels**
Sung-Hyun Moon, Jin-Sung Kim, Inkyu Lee, Korea University

3 A Bit Allocation Scheme for MIMO Equal Gain Precoders
Chi-Liang Chao, Chunghwa Telecom Co., Ltd.; Shang-Ho Tsai,
National Chiao-Tung University; Terng-Yin Hsu, National Chiao Tung
University

**4 Improved Iterative Water-Filling with Rapid Convergence
and Parallel Computation for Gaussian Multiple Access
Channels**
Peter He, Lian Zhao, Ryerson University

**5 SVD-based vs. Release 8 codebooks for Single User MIMO
LTE-A Uplink**
Gilberto Berardinelli, Troels B. Sørensen, Aalborg University; Preben
E. Mogensen, Nokia Networks, Aalborg, Denmark; Kari Pajukoski,
Nokia-Siemens Networks, Oulu, Finland

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2E: OFDM/OFDMA Technologies II

Chair: Enoch Lu, Polytechnic Institute of New York University

**1 QoS-Guaranteed Radio Resource Allocation with
Distributed Inter-Cell Interference Coordination for Multi-
Cell OFDMA Systems**
Shuqin Zheng, Tian Hui, Beijing University of Posts and
Telecommunications

**2 Recipient Maximization Multicast Scheme in IEEE 802.16j
WiMAX Relay Networks**
Wen-Hsing Kuo, Yuan Ze University; Jeng Farn Lee, National Chung
Cheng University

3 LDS-OFDM an Efficient Multiple Access Technique
Dr Reza Hoshyar, CCSR, University of Surrey; Razieh Razavi,
Mohammed AL-Imari, University of Surrey

**4 Distributed Channel Selection Principles for Femtocells
with Two-tier Interference**
Li-Chun Wang, National Chiao Tung University; Chiao Lee, National
Chiao-Tung University; Jane-Hwa Huang, National Chi Nan University

**5 Soft Frequency Reuse in the Uplink of an OFDMA
Network**
Florian Wamser, David Mittelstädt, Dirk Staehle, University of
Wuerzburg

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2F: Handover in Wireless Networks

Chair: Abraham Fapojuwo, University of Calgary

1 A Novel Solution for Inter-Technology Handover
Shuqing Xing, Patrick Hosein, Young Hoon Kwon, Huawei
Technologies

**2 A Study of User?Profile Based Dynamic Channel
Allocation in the Dual-band Environment**
Shun-Lung Cheng, Yao-Liang Chung, Zshong Tsai, National Taiwan
University

**3 Comparative Performance Study for Integrated 3G/WLAN
Networks Using Mobile IP, SIP, and m-SCTP Protocols**
Ashraf S. Hasan Mahmoud, King Fahd University of Petroleum &
Minerals; Abdul-Aziz Al-Helali, Talal Al-Kharobi, King Fahd
University of Petroleum and Minerals; Tarek Sheltami R., King Fahd
University of Petroleum & Minerals

4 Access and handover management for femtocell systems
Zhong Fan, Toshiba Research Laboratory; Yong Sun, Toshiba
Research Europe Limited

**5 A New Queuing Policy for handoff calls with Finite Queue
Size in Wireless Cellular Networks**
Lei Zheng, Beijing University of Post and Telecommunications; Ying
Wang, Beijing University of Posts and Telecommunications

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2G: Security/Detection and Tracking

Chair: Chih-Wei Yi, National Chiao Tung University

**1 Certificate Revocation to Cope with False Accusations in
Mobile Ad Hoc Networks**
Kyuil Park, Hiroki NISHIYAMA, Tohoku University; Nirwan Ansari,
New Jersey Institute of Technology; Nei KATO, Tohoku University

2 Large-scale Phenomena Monitoring Scheme in Wireless Sensor Networks

Bomi Park, Soochang Park, Euisin Lee, Chungnam National
University; Sungkee Noh, Electronics and Telecommunications
Research Institute; Sang-Ha Kim, Chungnam National University

**3 Optimization of Linear Wireless Sensor Networks for
Serial Distributed Detection Applications**
Gernot Fabeck, Rudolf Mathar, RWTH Aachen University

**4 A Reduced-Complexity Decentralized Positioning and
Tracking Algorithm for Wireless Sensor Networks**
Dong-Shing Wu, Chin-Liang Wang, National Tsing Hua University

**5 A Novel Image Authentication Approach Using an
Overlap-based Shared Secret for Collaborative Wireless
Sensors**
Tao Ma, Michael Hempel, University of Nebraska - Lincoln;
Dongming Peng, University of Nebraska-Lincoln; Hamid Sharif,
University of Nebraska - Lincoln

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2H: Evaluation Methods and Channel Simulators

Chair: Jenn-Hwan Tarnq, National Chiao Tung University

**1 Design and Simulation of Narrowband Indoor Radio
Propagation Channels Under LOS and NLOS Propagation
Conditions**
Yuanyuan Ma, Matthias Pätzold, University of Agder

**2 3-D Geometry-based Statistical Modeling of Cross-
Polarization Discrimination in Wireless Communication
Channels**
Seok-Chul Kwon, Georgia Institute of Technology; Gordon Stüber,
Georgia Tech

**3 Extension of the dRET Model to include Scattering from
Tree Trunks in Microcell Urban Mobile Scenarios**
Rafael F. S. Caldeirinha, Polytechnic Institute of Leiria, Instituto de
Telecomunicações; Telmo Fernandes, University of Glamorgan; Nuno
Leonor, David Ferreira, Instituto de Telecomunicações

**4 Simulating Mobile Channels for Directional Scenarios by
the Inverse Discrete Fourier Transform**
Jinyun Ren, Rodney G. Vaughan, Simon Fraser University

**5 A novel sampling method for the spatial frequencies of
sinusoid-based shadowing models**
Siegfried Klein, Bell Labs Germany; Serkan Uygungelen, DOCOMO
Euro-Labs; Christian M. Mueller, Universität Stuttgart

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2I: Cooperative Communications with MIMO Transceivers

Chair: Wen-Rong Wu, National Chiao Tung University

**1 Linear MMSE Transceiver Design with Quality-of-Service
Constraints in Amplify-and-Forward MIMO Relay
Systems**
Fan-Shuo Tseng, Guo-Luen Ke, Wen-Rong Wu, National Chiao-Tung
University

**2 Decode-and-Forward Based Cooperative Transmission
Schemes for a Relay with Multiple Receive Antennas**
Chang Kyung Sung, Iain B. Collings, CSIRO

**3 Decentralized Base Station Processing for Multiuser MIMO
Downlink CoMP**
Winston W. L. Ho, Tony Q.S. Quek, Sumei Sun, Institute for
Infocomm Research

**4 Decentralized Reduced-Rank Multiuser Relaying for
Cooperative Uplink CDMA Networks**
Wan-Jen Huang, National Sun Yat-Sen University; Yung-Shun Wang,
Yao-Win Peter Hong, Tsung-Hui Chang, National Tsing Hua
University

**5 Power Allocation for MIMO Systems with Multiple Non-
Regenerative Single-Antenna Relays**
Youngtaek Bae, Jungwoo Lee, Seoul National University

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2Pa: Ad-Hoc and Sensor Networks I

- 1 Outage Analysis of Multi-Antenna DF Relay Systems with Finite Feedbacks over Nakagami-m Fading Channels**
Zhen Liu, Beijing University of Posts and Telecommunications; Xiaoxiang Wang, Hongtao Zhang, Song Zhenfeng, Beijing University of Posts and Telecommunications
- 2 A Complexity Adjustable Scheduling Algorithm for Throughput Maximization in Clusterized TDMA Networks**
Arash Tahmasebi Toyserkani, Mohammad Reza Khanzadi, Erik G. Ström, Chalmers University of Technology; Arne Svensson, Chalmers
- 3 Iterative Cooperation DV-Hop Localization Algorithm in Wireless Sensor Networks**
Hongtao Zhang, Beijing University of Posts and Telecommunications; Shuai Xu, BUPT
- 4 Asymptotic Connectivity of Large-Scale Wireless Networks with a Log-Normal Shadowing Model**
Yujun Li, University of Electronic Science and Technology of China; Yaling Yang, Virginia Tech
- 5 A decentralized collaborative receive beamforming technique for wireless sensor networks**
Slim Zaidi, INRS-EMT; Keyvan Zarifi, INRS-EMT, University of Quebec; Sofiene Affes, INRS-EMT; Ali Ghayeb, Concordia University
- 6 Distributed Signal Estimation Using Binary Sensors with Multiple Thresholds**
Babak Moussakhani, Norwegian University of Science and Technology; Ilanko Balasingham, Tor Ramstad, NTNU
- 7 Reducing the Calculation for Precise Localization in Wireless Sensor Networks**
Alexander Born, Ralf Bill, University of Rostock
- 8 CAM: Congestion Avoidance and Mitigation in Wireless Sensor Networks**
Mohammad Masumuzzaman Bhuiyan, Iqbal Gondal, Joarder Kamruzzaman, Monash University
- 9 An Energy Efficient Clustering Scheme for Mobile Ad Hoc Networks**
Minming Ni, Zhangdui Zhong, Hao Wu, Beijing Jiaotong University; Dongmei Zhao, McMaster University

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2Pb: "Vehicular Electronics, Telematics, and Transportation"

- 1 On the Impact of Human Driver Behavior on Intelligent Transportation Systems**
Falko Dressler, Christoph Sommer, University of Erlangen-Nuremberg
- 2 A Channel Access Scheme to Compromise Throughput and Fairness in IEEE 802.11p Multi-Rate/Multi-channel Wireless Vehicular Networks**
Shiann-Tsong Sheu, Yen-Chieh Cheng, National Central University; Jung-Shyr Wu, National Central University,
- 3 Location Tracking for WAVE Unicast Service**
Chien-Chun Huang-Fu, Chi-Ling Chen, Yi-Bing Lin, National Chiao Tung University
- 4 Novel Channel Estimation Techniques in IEEE 802.11p Environments**
Chi-Sheng Lin, Jia-Chin Lin, National Central University
- 5 Exponential Stabilization for Suspension System of Vehicle Application**
Shen-Lung Tung, Telecom. Lab., Chunghwa Telecom Co., Ltd.&National Central University; Yau-Tarnng Juang, Department of

Electrical Engineering, National Central University; Wei-Ying Wu, Department of Electrical Engineering, National Central University

- 6 Real-Time Vision-Based Driver Drowsiness/Fatigue Detection System**
Kuo-Peng Yao, Hui-Wen Lin, Chiung-Yao Fang, Jung-Ming Wang, Shyang-Lih Chang, Sei-Wang Chen, National Taiwan Normal University
- 7 A Novel Detection Algorithm for Ultra Wide Band Short Range Radar in Automotive Applications**
Seokjun Ko, Jeju National University; Sang-Dong Kim, Jonghun Lee, DGIST; Purushothaman Surendran, Cheju National University
- 8 Overview of Vehicle-to-Vehicle Radio Channel Measurements for Collision Avoidance Applications**
Alexander Paier, Vienna University of Technology; Laura Bernadó, ftw. Forschungszentrum Telekommunikation Wien; Johan Karedal, Lund University; Oliver Klemp, Delphi Delco Electronics Europe GmbH; Andreas Kwoczek, Volkswagen AG, Wolfsburg, Germany

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2Pc: Wireless Access I

- 1 Improved Error Protection for Uplink Control Signaling in 3GPP-LTE via Complex-Field Coding**
Tumula V. K. Chaitanya, Erik G. Larsson, Linköping University; Niclas Wiberg, Ericsson Research, Linköping, Sweden
- 2 Adaptive Power Allocation Algorithm To Support Absolute Proportional Rates Constraint For Scalable OFDM Systems**
Ashraf S. Hasan Mahmoud, King Fahd University of Petroleum & Minerals; Ali Al-Rayyah, Tarek Sheltami, KFUPM
- 3 Pseudo Random Network Coding Design for IEEE 802.16m Enhanced Multicast and Broadcast Service**
Cheng-Chih Chao, Ching-Chun Chou, Hung-Yu Wei, National Taiwan University
- 4 A Time Domain Inverse Matrix Receiver for CFO Suppression in WiMAX Uplink System**
Xiupei Zhang, Heung-Gyoon Ryu, Chungbuk National University; Jason Gao, Shanghai University of Electric Power
- 5 Generalized Frequency Reuse Schemes for OFDMA Networks: Optimization and Comparison**
Lei Chen, Linköping University; Di Yuan, Linköping University
- 6 Low SNR Timing and Frequency Synchronization for PIP-OFDM System**
Cong Wang, The University of Western Ontario; Xianbin Wang, University of Western Ontario; Hai Lin, Osaka Prefecture University; Jean-Yves Chouinard, Laval University
- 7 An Efficient Downlink Bandwidth Allocation Scheme for IEEE 802.16e WiMAX Networks by Improving Subchannel Utilization**
Hung-Chang Chen, Ching Kuo Institute of Management and Health; Kuei-Ping Shih, Tamkang University; Sheng-Shih Wang, Minghsin University of Science and Technology; Chi-Tao Chiang, Tamkang University
- 8 A Novel Path Selection Mechanism for IEEE 802.16j Network**
Zhang Yiwen, Hongtao Zhang, Beijing University of Posts and Telecommunications
- 9 A Novel Fractional Frequency Reuse Architecture and Interference Coordination Scheme for Multi-cell OFDMA Networks**
Han Xiao, Beijing University of Posts and Telecommunication; FENG Zhiyong, Beijing University of Posts and Telecommunications

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3A: Coding Techniques

Chair: Weisi Guo, University of Cambridge

- 1 Over-Complete Source-Mapping Aided AMR-WB Using Iteratively Detected Differential Space-Time Spreading**
Noor Othman, Universiti Tenaga Nasional; Mohammed El-Hajjar, Imagination Technologies; Osamah Alamri, Univ. of Southampton; Soon Xin Ng, Lajos Hanzo, University of Southampton
- 2 On FEC Design for Interleave Division Multiple Access**
Mustafa Eroz, Lin-Nan Lee, Hughes Network Systems, LLC
- 3 Differential Encoding for Quadrature-Amplitude Modulation**
Ruey-Yi Wei, National Central University
- 4 Exploiting Redundancy In Iterative H.264 Joint Source and Channel Decoding For Robust Video Transmission**
Nasruminallah, Lajos Hanzo, University of Southampton
- 5 A Reduced Delay Scheduling Scheme for Turbo Equalization with Serially Concatenated Turbo Codes**
Shou-Sheu Lin, Yung-Che Lin, National Kaohsiung First University of Science and Technology

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3B: Resource Allocation for Cognitive Radio I

Chair: A. S. Madhukumar, Nanyang Technological University

- 1 Multiple Access Scheme for Multi User Cognitive Radio based on wavelet transforms**
Manju Mathew, Annamalai Benjamin Premkumar, Chiew Tong Lau, Nanyang Technological University
- 2 An Interweave Cognitive Radio System Based on the Hierarchical 2D-Spread MC-DS-CDMA With Transmission Power Control**
Chih-Wen Chang, National Cheng Kung University; Chien-Cheng Kuo, National Cheng-Kung University
- 3 Cross-layer Flow Control and Dynamic Resource Allocation in overlay Cognitive Radio Networks**
Tao Lin, Xin Zhang, Qi Zheng, Qun Pan, Beijing University of Posts and Telecommunications
- 4 Power Allocation for OFDM-Based Cognitive Radio Systems under Primary User Activity**
Chiu-Hsu Chen, Chin-Liang Wang, National Tsing Hua University
- 5 Joint Overlay and Underlay Power Allocation Scheme for OFDM-based Cognitive Radio Systems**
Gaurav Bansal, The University of British Columbia; Olivier Duval, École Polytechnique de Montréal; Francois Gagnon, Ecole de Technologie Supérieure

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3C: Transmission and Use of Channel State Information

Chair: Hufei Zhu, Huawei Technologies Co., Ltd.

- 1 Transparent Inband Feedback for Training-Based MIMO Systems**
Oussama Souihli, Tomoaki Ohtsuki, Keio University
- 2 Hybrid Analog/Digital CSI feedback for Transmit Beamforming Systems in Time-Selective Fading Channels**
Phoenix Yuan, Paul Ho, Simon Fraser University
- 3 Efficient Square-root Algorithms for the Extended V-BLAST with Selective Per-Antenna Rate Control**
Hufei Zhu, Huawei Technologies Co., Ltd.; Wen Chen, Dept. of Electronic Engineering, Shanghai Jiao Tong Univ.; Bin Li, Huawei Technologies
- 4 A rake-finger based efficient channel state information feedback compression scheme for the MIMO OFDM FDD downlink**
Thorsten Wild, Alcatel Lucent

- 5 Novel Adaptive Codebook-Based Limited Feedback Techniques for Multi-user MIMO-OFDM Systems**
I-Tai Lu, Polytechnic University; Jiang Chang, Polytechnic Institute of New York University

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3E: OFDM/OFDMA Technologies III

Chair: Fu-Chun Zheng, The University of Reading

- 1 A Time Domain Equalization Scheme for OFDMA Systems**
Chia-Horng Liu, Chunghwa Telecom. Co., Ltd.
- 2 Joint Bit and Power Loading Algorithm for OFDM Systems in the Presence of ICI**
Tain-Sao Chang, Tuan-Jung Hsu, National Chung Cheng University; Jyh-Horng Wen, Tunghai University; Ya-Yin Yang, National Taiwan University
- 3 A New Study on the Power Distribution of OFDMA, SC-FDMA and CP-CDMA Signals**
George Varghese, University of Reading; Fu-Chun Zheng, The University of Reading
- 4 CDMA and OFDMA Reverse Link Comparison for Cellular Voice and Data Communications**
Yu-Cheun Jou, Qualcomm Inc; Rashid Attar, Qualcomm; Chris Lott, Qualcomm Inc.; Jun Ma, Qualcomm Inc; Radhika Gowaikar, Qualcomm Inc.; Xin Zhang, Qualcomm Inc; Kambiz Azarian, Qualcomm Inc.
- 5 Optimal Layered Video IPTV Multicast Streaming over IEEE 802.16e WiMAX Systems**
Po-Han Wu, University of Washington; Yu Hen Hu, University of Wisconsin ? Madison; Jenq-Neng Hwang, University of Washington

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3F: Scheduling

Chair: Ying Wang, Beijing University of Posts and Telecommunications

- 1 Inter-domain Roaming Mechanism Transparent to IPv6-Node among PMIPv6 Networks**
Soochang Park, Euisin Lee, Fucai Yu, Chungnam National University; Sungkee Noh, Electronics and Telecommunications Research Institute; Sang-Ha Kim, Chungnam National University
- 2 System level simulation of LTE networks**
Josep Colom Ikuno, Martin Wrulich, Markus Rupp, Vienna University of Technology
- 3 Utility Based Adaptive Scheduling Algorithm for Heterogeneous Services in Multiuser MIMO-Relay Systems**
Pei Yushan, Beijing University of Posts & Telecommunications.; Tong Wu, Ying Wang, Tian Hui, Beijing University of Posts and Telecommunications
- 4 Adaptive Proportional Fair Scheduling in Multihop OFDMA Systems**
Ying Wang, Gen Li, Tong Wu, Feng Gong, Beijing University of Posts and Telecommunications
- 5 Exploiting Tracking Area List for Improving Signaling Overhead in LTE**
Sara Modarres Razavi, Di Yuan, Linköping University; Fredrik Gunnarsson, Ericsson Research; Johan Moe, Ericsson Research, Ericsson AB

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3G: Routing/Geographic Location Assistance

Chair: Vincent Gauthier, Telecom Sud Paris

- 1 Robust Geographic Routing with Virtual Destination based Void Handling for MANETs**
Shengbo Yang, A/P Chai Kiat Yeo, A/P Bu Sung Lee, Nanyang Technological University

2 Destination-initiated Geographic Multicasting Protocol in Wireless Ad hoc Sensor Networks
Jeongcheol Lee, Euisin Lee, Soochang Park, Hosung Park, Sang-Ha Kim, Chungnam National University

3 A Region-based Reporting Scheme for Mobile Sensor Networks
Huai-Lei Fu, Ting-Yu Wang, Phone Lin, National Taiwan University; Michael Fang, University of Florida

4 Common Opportunistic Routing and Forwarding
Anders Nilsson Plymoth, University of California, San Diego; Abhijeet Bhorkar, UCSD; Per Johansson, University of California, San Diego

5 Location-Aware Relay Selection Scheme in Opportunistic Relay Communications
Jing Hu, Wang Xiaoxiang, Hongtao Zhang, Beijing University of Posts and Telecommunications

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3H: Car-to-Car and High-Frequency Channels

Chair: Ding-Bing Lin, National Taipei University of Technology

1 Impulse Response Model and Parameters for Indoor Channel Modeling at 60GHz
Hirokazu Sawada, Hiroyuki NAKASE, Shu Kato, Tohoku University; Masahiro Umehira, Ibaraki University; Katsuyoshi Sato, Hiroshi Harada, National Institute of Information and Communications Technology

2 Simulation and Evaluation of Car-to-Car Communication Channels in Urban Intersection Scenarios
Lars Reichardt, Christian Sturm, University of Karlsruhe; Thomas Zwick, Karlsruhe Institute of Technology

3 Joint Direction Finding and Propagation Delay Estimation in the Presence of Mutual Coupling
Chun-Hung Lin, National Taiwan University of Scientific and Technology; Wen-Hsien Fang, National Taiwan University of Science and Technology; Van-Khang Vu, National Taiwan University of Scientific and Technology; Yie-Tarng Chen, National Taiwan University of Science and Technology

4 Dual-Band Channel Measurements for an Advanced Tyre Monitoring System
Gregor Lasser, Vienna University of Technology; Christoph F. Mecklenbräucker, Technische Universität Wien

5 60GHz Radio Channel Measurements and Modeling in a Shielded Room
Mikko Kyrö, Aalto University School of Science and Technology; Jarno Simola, Katsuyuki Haneda, Helsinki University of Technology (TKK); Sylvain Ranvier, Pertti Vainikainen, Helsinki University of Technology; Kenichi Takizawa, NICT

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3I: Coding and Transceiver Designs for Cooperative Systems

Chair: Tomoaki Ohtsuki, Keio University

1 Impact of Local-Oscillator Imperfections on Nonregenerative TDD and FDD Relaying
Stefan Berger, ETH Zurich; Armin Wittneben, Swiss Federal Institute of Technology (ETH) Zurich

2 Half-Duplex Relaying with Serially-Concatenated Low-Density Generator Matrix (SCLDGM) Codes
Yusuke Kumano, Tomoaki Ohtsuki, Keio University

3 Image-band Interference Cancellation for Multi-mode/band Receivers with Baseband AGC
Ke Liu, Graduate School of Informatics, Kyoto-University; Satoshi Denno, Kyoto University; Tatsuo Furuno, Research Laboratories, NTT DOCOMO, INC.; Masahiro Morikura, Graduate School of Informatics, Kyoto-University

4 Distortion Behavior of Amplify-and-Forward Cooperative System with Layered Broadcast Coding
Ubolthip Sethakaset, Tony Q.S. Quek, Sumei Sun, Poramate Tarasak, Institute for Infocomm Research

5 Power Efficient Partial Repeated Cooperation Scheme with Regular LDPC Code
Meng Zheng, Fei Zesong, Xiang Chen, Jingming Kuang, Beijing Institute of Technology

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3Pa: Multiple Antenna Systems and Space-Time Processing II

1 Preserving Antenna-Selection Diversity in Rayleigh Fading Channels via a Time-Efficient Algorithm
Ming-Yang Chen, Stanford University; K-C Chen, National Taiwan University; John M. Cioffi, Stanford University

2 Hybrid Genetic Algorithm for Joint Precoding and Transmit Antenna Selection in Multiuser MIMO Systems with Limited Feedback
Shen-Chia Huang, Wen-Hsien Fang, Hung-Shiou Chen, Yie-Tarng Chen, National Taiwan University of Science and Technology

3 The Novel Iterative Interference Alignment Scheme for the SISO Interference Channel
Hui Shen, Dept. Wireless Research, Huawei Technologies; Bin Li, Huawei Technologies

4 Performance of Hybrid-ARQ in Multi Antenna Channels
Ali Koc, Intel Corporation; Murat Torlak, The University of Texas at Dallas

5 Achievable Throughput for Dual-Mode Limited-Feedback Transmit Beamforming over Temporally Correlated Wireless Channels
Yi-Chieh Chang, National Chiao Tung University; Jwo-Yuh Wu, National Chiao Tung University; Ta-Sung Lee, National Chiao Tung University, Hsinchu, Taiwan

6 Antenna Selection Based on Minimum Eigenvalue in Dual-Polarized Directional MIMO Antenna
Daisuke Uchida, Hiroyuki Arai, Yokohama National University; Yuki Inoue, Keizo Cho, NTT DoCoMo, Inc.

7 Complexity-Reduced Channel Matrix Inversion for MIMO Systems in Time-Varying Channels
Wei Liu, Oregon State University; Kwonhue Choi, Yeungnam University; Huaping Liu, Oregon State University

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3Pb: Wireless Access II

1 Compressed Multicast Retransmission in LTE-A eMBMS
Ji Li, Alcatel-Lucent Shanghai Bell; Zhongji Hu, Alcatel Shanghai Bell Ltd; Yonggang Wang, Alcatel Shanghai Bell Company Ltd.

2 A Novel Transmission Scheme and Scheduling Algorithm for CoMP-SU-MIMO in LTE-A System
Jing Liu, Yongyu Chang, Qun Pan, Xin Zhang, Dacheng Yang, Beijing University of Posts and Telecommunications

3 Enhanced Dynamic Cell Selection with Muting Scheme for DL CoMP in LTE-A
Minghai Feng, Docomo Beijing Communications Laboratories Co.,Ltd; Xiaoming She, DoCoMo Beijing-Labs, Beijing, China; Lan Chen, DoCoMo Beijing Communications; Yoshihisa Kishiyama, NTT DoCoMo, Inc.

4 Performance of the LTE Uplink with Intra-Site Joint Detection and Joint Link Adaptation
Andreas Mueller, University of Stuttgart; Philipp Frank, Deutsche Telekom Laboratories Berlin; Joachim Speidel, University of Stuttgart

5 A Novel low complexity cell search scheme for LTE systems
Pin-Kai Tseng, Sen-Hung Wang, National Sun Yat-Sen University

6 On the Femtocell-based MVNO Model: A Game Theoretic Approach for Optimal Power Setting
Wei-chih Hong, Zsheong Tsai, National Taiwan University

7 Optimization Formulation of Packet Scheduling Problem in LTE Uplink
Xiaoqiu Wang, Satoshi KONISHI, KDDI R&D Laboratories Inc.

8 Effect of Imperfect Channel Estimation on Multi-user Beamforming in LTE-Advanced system

Jin Jing, Chongsheng Lin, Beijing University of Posts and Telecommunications; Qixing Wang, CMCC; Hongwen yang, Beijing university of Posts and Tel.; Wang Yafeng, Beijing University of Posts and Telecommunications

9 Null Sub-Carrier Aided Reference Symbol Mapping for Improved Channel Estimation in 3GPP LTE Downlink

Siva Muruganathan, University of Alberta; Witold A. Krzymien, University of Alberta / TRILabs; Abu Sesay, University of Calgary

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3Pc: Wireless Networks I

1 A Scheme for Fast Application Identification Transferring in Mobile Networks

Zhitao Wan, Nokia Siemens Networks

2 OFDMA Resource Allocation and QoS Provision in Hybrid Wireless Network

Hongxiang Li, Weiye Zhang, Siva Vanteru, North Dakota State University

3 The Effects of Motion on Applications in Mobile Ad-Hoc Sensor Networks

Xusheng Sun, Edward J. Coyle, Georgia Institute of Technology

4 A Cell-based Decentralized Key Management Scheme for Secure Multicast in Mobile Cellular Networks

Minho Park, Young-Hoon Park, Seung-Woo Seo, Seoul National University

5 QoS Performance Based Admission Control in Cellular Networks

Dae-Hee Kim, Seong-Jun Oh, Korea University

6 Amplify-and-Forward Relaying Aided Reed-Solomon Coded Hybrid-ARQ Relying on Realistic Channel Estimation

Hoang Anh Ngo, Lajos Hanzo, University of Southampton

7 Circuit-Switched Voice Services over HSPA

Ozcan Ozturk, Qualcomm Incorporated; Rohit Kapoor, Qualcomm; Vinay Chande, Qualcomm Incorporated; Jilei Hou, Bibhu Mohanty, Qualcomm Inc.

8 Influence of a Few More Channels for Voice Support in B3G Multi-Service Traffic in the Presence of Mobility

Rui R. Paulo, Instituto de Telecomunicações/DEM-UBI; Fernando J Velez, IT-DEM, University of Beira Interior; Antonio Rodrigues, Instituto Superior Técnico/IT, Portugal

9 Optimized Handover Scheme Using IEEE 802.21 MIH Service in Multi-Service Environment

Jun Yuan, Ying Wang, Fang Liu, Beijing University of Posts and Telecommunications

10A Robust handover under analysis of unexpected vehicle behaviors in Vehicular Ad-hoc Network

Hayoung Oh, Chong-kwon Kim, Seoul National University

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4A: Channel Coding

Chair: Tad Matsumoto, Japan Advanced Institute of Science and Technology

1 Reliability-Based Decoding for Convolutional Tail-biting Codes

Ting-Yi Wu, Po-Ning Chen, National Chiao-Tung University; Hung-Ta Pai, Yungshiang Sam Han, National Taipei University; Shin-Lin Shieh, Sunplus mMobile Inc., Hsinchu Science Park, Taiwan, R.O.C.

2 Selective-Update Decoding of Non-Binary LDPC Codes

Sanae EL HASSANI, Orange Labs; Marie-helene Hamon, Pierre Pénard, France Telecom R&D

3 Architecture Design of QPP Interleaver for parallel Turbo Decoding

Shuenn-Gi Lee, Industrial Technology Research Institute

4 On the Design of Turbo Packet Combining Schemes for Relay-Assisted Systems over Multi-Antenna Broadband Channels

Houda CHAFNAJI, Tarik Ait-Idir, INPT; Halim Yanikomeroglu, Carleton University; Samir Saoudi, Telecom Bretagne

5 A Real-Time High Throughput LDPC Decoder for IEEE 802.3an

Jui-Hui Hung, Li-Wei Kao, Sau-Gee Chen, National Chiao Tung University

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4B: Resource Allocation for Cognitive Radio II

Chair: Ying-Chang Liang, Institute for Infocomm Research

1 A Return and Risk Model for Efficient Spectrum Sharing in Cognitive Radio Networks

Miao Pan, Hao Yue, Michael Fang, University of Florida; Phone Lin, National Taiwan University

2 An ARQ Mechanism with a Priority Based Resource Allocation in Cognitive Radio Systems

Jeon Sooyong, KAIST

3 Cascaded Resource Allocation among Prioritized Shared Spectrum Blocks

Jeounglak Ha, ETRI; Jin-Up Kim, Electronics and Telecommunications Research Institute; Sang-Ha Kim, Chungnam National University

4 Adaptive Pricing for Efficient Spectrum Sharing in MIMO Systems

Bhargav Kollimarla, Qi Cheng, Oklahoma State University

5 Markov-based Optimal Access Probability for Dynamic Spectrum Access in Cognitive Radio Networks

Yanjun Yao, Beijing University of Posts and Telecommunications; Dan Miao, Beijing University of Posts and Telecommunications; FENG Zhiyong, Beijing University of Posts and Telecommunications

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4C: Multi-antenna Signal Processing

Chair: Hiromasa Fujii, NTT DoCoMo, Inc.

1 Generalized MIMO Transmit Preprocessing Using Pilot Symbol Assisted Rateless Codes

Nicholas Bonello, Univ. of Southampton, UK; Du Yang, Sheng Chen, Univ. of Southampton; Lajos Hanzo, University of Southampton

2 Joint Carrier Frequency Offset and Direction of Arrival Estimation via Hierarchical ESPRIT for Interleaved OFDMA/SDMA Uplink Systems

Kuo-Hsiung Wu, De-Lin Institute of Technology; Wen-Hsien Fang, Yie-Tarnq Chen, National Taiwan University of Science and Technology

3 Optimum Weighting for Adaptive Array Antennas under Spectrum Sharing Environments

Hiromasa Fujii, Takahiro Asai, Tomoyuki Ohya, NTT DoCoMo, Inc.

4 Beamforming for Per-Antenna Power Constrained Downlink SINR Optimization

Tai LIU, Beijing University of Posts and Telecommunications; Songtao Lu, Beihang University; Meng Zheng, Beijing Institute of Technology

- 5 Max-Min Antenna Selection for Bi-Directional Multi-Antenna Relaying**
Mahshad Eslamifard, Nanyang Technological University; Chau Yuen, Institute for Infocomm Research; Woon Hau Chin, Toshiba Research Europe Limited; Yong Liang Guan, Nanyang Technological University

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4D: Interference Suppression

Chair: Kei Sakaguchi, Tokyo Institute of Technology

- 1 Iterative Narrowband Interference Suppression for DS-CDMA Systems Using Feed-Forward Neural Network**
Zan Yang, Tingting Zhao, Peking University; Jianli Yu, Zhongyuan University of Technology; Yiping Zhao, Peking University
- 2 A Two-Stage Receiver With Soft Interference Cancellation for Space-Time Block Code and Spatial Multiplexing Combined Systems**
Yung-Ping Tu, Wen-Hsien Fang, Tsung-Yu Tasi, Yie-Tarn Chen, National Taiwan University of Science and Technology
- 3 Asymptotic Performance Analysis of Time-Frequency-Domain Spread MC DS-CDMA Systems Employing MMSE Multiuser Detection**
Peng Pan, Youguang Zhang, Beihang University; Lie-Liang Yang, University of Southampton
- 4 Modulation Division Multiplexing for Multiuser Diversity Beamforming**
Jinho Choi, University of Wales Swansea
- 5 A Low Complexity ICI Cancellation Scheme with Multi-Step Windowing and Modified SIC for High-Mobility OFDM Systems**
Chong-Ren Sheu, Jia-Wei Liu, Industrial Technology Research Institute; Chia-Chi Huang, National Chiao Tung University

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4E: LTE I

Chair: Katsutoshi Kusume, DOCOMO Euro-Labs

- 1 DF/AF cooperative relay in LTE-A**
Ji Li, Alcatel-Lucent Shanghai Bell; Zhongji Hu, Alcatel Shanghai Bell Ltd; Yonggang Wang, Alcatel Shanghai Bell Company Ltd.
- 2 Performance Enhancement in LTE-Advanced Relay Networks via Relay Site Planning**
Ömer Bulakci, Nokia Siemens Networks [Aalto University School of Sci. and Tech.]; Simone Redana, Nokia Siemens Networks GmbH & Co. KG; Jyri Hämäläinen, Helsinki University of Technology; Bernhard Raaf, Nokia Siemens Networks GmbH & Co. KG
- 3 System Level Performance of Downlink MU-MIMO Transmission for 3GPP LTE-Advanced**
Katsutoshi Kusume, DOCOMO Euro-Labs; Guido Dietl, DoCoMo Euro-Labs; Tetsushi Abe, NTT DOCOMO; Hidekazu Taoka, NTT DoCoMo, Japan; Satoshi Nagata, NTT DOCOMO, INC.
- 4 Sensitivity Analysis of the Optimal Parameter Settings of an LTE Packet Scheduler**
Irene Fernandez Diaz, Remco Litjens, Hans van den Berg, TNO ICT; Desislava Dimitrova, University of Twente; Kathleen Spaey, IBBT
- 5 Uplink Coordinated Multi-Point for LTE-A in the Form of Macro-Scopic Combining**
Naizheng Zheng, University of Aalborg; Malek Boussif, Claudio Rosa, Istvan Z. Kovacs, Klaus I. Pedersen, Jeroen Wigard, Nokia Siemens Networks; Preben Mogensen, Aalborg University

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4F: Broadband Wireless Networks

Chair: Hung-Yun Hsieh, National Taiwan University

- 1 HSDPA radio capacity improvement with advanced devices**
Jean-Baptiste LANDRE, Ahmed Saadani, Francois Ortolan, Orange Labs

- 2 An Information Accuracy Based Mesh Division Mechanism for Cognitive Pilot Channel**
Fang Tian, FENG Zhiyong, Qixun Zhang, Li Tan, Beijing University of Posts and Telecommunications

- 3 Design and Implementation of An Offloading Technology for 3.5G Networks**
Yi-Neng Lin, Wen Chen, FiberLogic Communications; Shan-Chi Tsai, Yi-Bing Lin, National Chiao Tung University

- 4 Enhanced HSDPA mobility performance: Quality and Robustness for Voice over HSPA Service**
Siddharth Mohan, Qualcomm Inc; Rohit Kapoor, Qualcomm; Bibhu Mohanty, Qualcomm Inc.

- 5 Uplink flow level capacity for HSPA+ systems**
Ammar El Falou, Salah Eddine Elayoubi, Orange Labs

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4G: Mesh Networks/Routing

Chair: Chien-Chung Shen, University of Delaware

- 1 Energy-Efficient Greedy Forwarding Protocol for Wireless Sensor Networks**
Bighnaraj Panigrahi, Indian Institute of Technology, Delhi; Swades De, Indian Institute of Technology Delhi; B. S. Panda, IIT Delhi; J.-D. Lan Sun Luk, Universite de la Reunion
- 2 Routing Path Selection and Power Allocation for Distributed Detection in Wireless Sensor Networks**
Daniel Bielefeld, Gernot Fabeck, Rudolf Mathar, RWTH Aachen University
- 3 PipelineOR: A Pipelined Opportunistic Routing Protocol with Network Coding in Wireless Mesh Networks**
Yu-Jen Lin, Computer Science; Chen-Che Huang, Jiun-Long Huang, National Chiao Tung University
- 4 A Simple and Regular Scheduling Algorithm in IEEE 802.16 Grid-based Mesh Networks**
Jia-Ming Liang, Jen-Jee Chen, Ho-Cheng Wu, Yu-Chee Tseng, National Chiao-Tung University
- 5 Max-Min Fair Throughput in Multi-Gateway Multi-Rate Mesh Networks**
Dirk Staehle, Barbara Staehle, Rastin Pries, University of Wuerzburg

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4H: Safety- and Environment-Conscious Transportation Systems

Chair: Bih-Yuan Ku, National Taipei University of Technology

- 1 Vessel Traffic Analysis for Maritime Intelligent Transportation System**
Shwu-Jing Chang, National Taiwan Ocean University
- 2 Emissions vs. Travel Time: Simulative Evaluation of the Environmental Impact of ITS**
Christoph Sommer, Robert Krul, University of Erlangen-Nuremberg; Reinhard German, Inst. for Informatic; Falko Dressler, University of Erlangen-Nuremberg
- 3 Comparison of Lane Changing Algorithms between NGSIM and CORSIM**
Li Zhang, New Global Systems for Intelligent Transportation Corporation; Shangshu Cai, New Global Systems for Intelligent Transportation Management; Yunlong Zhang, Texas A & M; Min Zhang, New Global Systems for Intelligent Transportation Corporation
- 4 Transmission Interference Improvement of Railway Communication via Distributed Antennas System**
Siyu Lin, Zhangdui Zhong, Bo Ai, Beijing Jiaotong University; C. Briso-Rodríguez, Universidad Politécnica de Madrid
- 5 A Real-Time System for Detecting Illegal Changes-of-Lane Based on Tracking of Feature Points**
Hee-sin Lee, Sung-hwan Jeong, JoonWhoan Lee, Chonbuk National University

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4I: Resource Allocation for Relay Networks

Chair: Lie-Liang Yang, University of Southampton

- 1 Outage Bound Analysis in Relay-Assisted Inter-Vehicular Communications**
Zhaoxun Li, Hanying Hu, Longzhen Jia, Feng Li, Huaxiang Wang, Information Science & Technology College
- 2 Subcarrier Allocation for Multiuser Two-Way OFDMA Relay Networks with Fairness Constraints**
Hanmook Shin, Jae Hong Lee, Seoul National University
- 3 Optimal Power Allocation for Relayed Transmission Through A Mobile Relay Node**
Kenan Zhou, Lok Tat-Ming, The Chinese University of Hong Kong
- 4 Joint Subcarrier and Power Allocation for an OFDMA Relay Network with Multicells**
Dongwook Choi, Dongwoo Lee, Jae Hong Lee, Seoul National University
- 5 Spectral-Efficiency of TDD Multiuser Two-Hop MC-CDMA Systems Employing Egocentric-Altruistic Relay Optimization**
Tingting Liu, Lie-Liang Yang, University of Southampton; Chenyang Yang, Beijing University of Aeronautics and Astronautics, Beijing, China

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4Pa: "Mobile Applications, Services, and Systems"

- 1 A Call Server Integrated Approach for QoS Provisioning of SIP Multimedia Services in 802.11 Wireless Networks**
Whai-En Chen, National Ilan University
- 2 Topology Control Using Multi-dimensional Context Parameters for Mobile P2P Networks**
Hiroyuki Kubo, Ryoichi Shinkuma, Tatsuro Takahashi, Kyoto University
- 3 A Time Scheduling Scheme Used For Multi-Cells Indoor Localization**
Lee Jian Xing, DSO National Laboratories; Francois Chin, Lin Zhiwei, Institute for Infocomm Research
- 4 The design and implementation of the RUA protocol in the Home Node B**
Shin-Tsung Yang, Chai-Hien Gan, Industrial Technology Research Institute
- 5 A Hierarchical Clustering Technique for Radio Map Compression in Location Fingerprinting Systems**
Azin ARYA, Philippe Godlewski, Ecole Telecom ParisTech; Philippe Melle, SFR
- 6 Technical analysis and implementation cost assessment of Sigma-Point Kalman Filtering and Particle Filtering in autonomous navigation systems**
Gerasimos G. Rigatos, Industrial Systems Institute / Unit of Industrial Automation

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4Pb: Transmission Technologies II

- 1 A Sub-band based Technique for Low Power Medium Data Rate Ultra Wide Band Communication**
Jinesh P Nair, Debarati Sen, Rahul Sinha, Kiran Bynam, Arun Naniyat, Samsung India Software Operations
- 2 Low-complexity Reduced-Rank Interference Mitigation Algorithms for DS-UWB Systems**
Sheng Li, Rodrigo de Lamare, University of York
- 3 Coded QAM in Multicode CDMA Systems**
Jiangzhou Wang, H. Zhu, University of Kent
- 4 Analysis of a Noncoherent UWB Receiver for Multichannel Signals**
Paul Meissner, Klaus Witrals, Graz University of Technology

- 5 Exact performance evaluation of the UWB differential transmitted reference system in multiuser environments**
Tsan-Ming Wu, Yi-Fang Hou, Chung Yuan Christian University
- 6 An Accurate Performance Analysis of Hybrid TH/DS Multiple Access UWB System Using N-ary Biorthogonal PPM**
Ye-Shun Shen, National Formosa University; Fang-Biau Ueng, National Chung-Hsing University
- 7 Geometric-View-Based Evaluation of Generalized Marcum Q-Function**
Hua Fu, NATIONAL UNIVERSITY OF SINGAPORE; Pooi Yuen Kam, Rong Li, National University of Singapore
- 8 Fast correlation for Gold large sets of Kasami sequences**
Jie Wang, Pingyi Zhang, University of Southeast
- 9 Two-Level FH-CDMA Wireless Communication Systems Using Quadratic Congruence Codes**
Kun-Ling Chaing, Sung-Ming Wu, Hung-Wei Chen, Guu-Chang Yang, National Chung Hsing University; Cheng-Yuan Chang, National United University; Wing C. Kwong, Hofstra University
- 10 Analysis of multipath interference of SRAKE receivers in UWB systems**
Zhang Jiaqi, Xiao Zhenyu, Ge Ning, Tsinghua University
- 11 NDA SNR Estimation with Phase Lock Detector for Digital QPSK Receivers**
Hua Wang, Chaoxing Yan, Jingming Kuang, Nan Wu, Fei Zesong, Meng Zheng, Beijing Institute of Technology

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4Pc: Wireless Networks II

- 1 Dual-Cell HSDPA for Network Energy Saving**
Gilbert Micallef, Aalborg University; P. E. Mogensen, Nokia Siemens Networks, Aalborg; Hans-Otto Scheck, Nokia Siemens Networks
- 2 File Transfer for Mobile Devices in Heterogeneous Radio Networks**
Chih-Wei Yi, Shau-Shiuan Yang, Yi-Bing Lin, Yi-Ta Chuang, National Chiao Tung University; Pin-Chuan Liu, Industrial Technology Research Institute
- 3 Flat-Rate Packet Scheduling for the WCDMA Systems with HSDPA**
Chung-Yung, Chia, Chunghwa Telecom Co., Ltd.; Ming-Feng, Chang, National Chiao Tung University, ROC
- 4 Teletraffic Model for the Performance Evaluation of Cellular Networks with Hyper-Erlang Distributed Cell Dwell Time**
Anum L. Enlil Corral-Ruiz, Felipe A. Cruz-Pérez, CINVESTAV-IPN; Genaro Hernandez-Valdez, Universidad Autonoma Metropolitana
- 5 Condensed Downlink MAP Structures for IEEE 802.16e Wireless Metropolitan Area Networks (MANs)**
Shiann-Tsong Sheu, National Central University
- 6 An efficient retransmission scheme for MIMO two-way relay network employing network coding**
Khanh Tran Gia, Kei Sakaguchi, Kiyomichi Araki, Tokyo Institute of Technology
- 7 Nested Distributed Turbo Code for Relay Channels**
Md Anisul Karim, The University of New South Wales; Jinhong Yuan, University of New South Wales; Zhuo Chen, CSIRO
- 8 Utility-Aware Network Coding in Wireless Butterfly Networks**
Jin-Yup Hwang, Korea Advanced Institute of Science and Technology; Jinyoung Oh, KAIST; Junhyeong Kim, Youngnam Han, Korea Advanced Institute of Science and Technology
- 9 A Novel Inter-cell Interference Coordination Scheme based on Dynamic Resource Allocation in LTE-TDD Systems**
Han YuNan, Beijing University of Posts and Telecommunications; Yongyu Chang, Cui Jie, Dacheng Yang, Beijing University of Posts and Telecommunications

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5A: ARQ

Chair: Sun Sumei, Institute for Infocomm Research

- 1 Two-Level HARQ for Turbo Coded Cooperation**
Haifa Fares, Charlotte Langlais, Telecom Bretagne; Alexandre Graell i Amat, TELECOM Bretagne; DR M. Berbineau, LEOST laboratory, France
- 2 Single-carrier Hybrid ARQ Using Joint Transmit/Receive MMSE-FDE**
Kazuki Takeda, Fumiyuki Adachi, Tohoku University
- 3 HARQ for Predetermined-Rate Multicast Channel**
Fuminori Takahashi, Kenichi Higuchi, Tokyo University of Science
- 4 Multi-Level Turbo Decoding Assisted Soft Combining Aided Hybrid ARQ**
Hong Chen, Univ. of Southampton, UK; Rob Maunder, Lajos Hanzo, University of Southampton
- 5 Generalized Constellation Rearrangement in Cooperative Relaying**
Akram Bin Sediq, Petar Djukic, Halim Yanikomeroglu, Carleton University; Jietao Zhang, Huawei Technologies Co., Ltd.

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5B: Interference Management in Cognitive Radio Systems

Chair: Maurizio Murrioni, University of Cagliari

- 1 Evaluation of Spectrum Occupancy in Amsterdam Using Mobile Monitoring Vehicles**
Roel Schiphorst, Cornelis H. Slump, University of Twente
- 2 Spectrum Sharing with Interference Management for Distributed Cognitive Radio Networks: A Potential Game Approach**
I Wayan Mustika, Koji Yamamoto, Hidekazu Murata, Susumu Yoshida, Kyoto University
- 3 On Power and Rate Adaptation for Cognitive Radios in Interference Channels**
Chin Choy Chai, Institute for Infocomm Research
- 4 Interference Protection in Cognitive Radio Networks**
Mohammad Iqbal Bin Shahid, Joarder Kamruzzaman, Monash University
- 5 Interference Mitigation Using Power Control in Cognitive Radio Networks**
Mohamed Elaleem, Lian Zhao, Zaiyi Liao, Ryerson University

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5C: Transmission Performance Analysis and Interference Mitigation

Chair: Youngju Kim and Xun Li, Chungbuk National University

- 1 An Inter-Cell Interference Mitigation Scheme Based on MIMO-Relay Technique**
Wang Xijun, Jiang Fan, University of BUPT
- 2 On the SINR Distribution for an Orthogonal Random Beamforming System and Its Performance**
Chanhong Kim, Kyungjun Ko, Sungkyu Jung, Jungwoo Lee, Seoul National University
- 3 Impact of Frequency Selective Channels on a Line-of-Sight MIMO Microwave Radio Link**
Trygvi Ingason, Haonan Liu, Chalmers University of Technology; Mikael Coldrey, Ericsson Research; Andreas Wolfgang, Chalmers; Jonas Hansryd, Ericsson Research
- 4 Performance Analysis of Equal Gain Transmission Technique for SC-FDMA System**
Xun Li, Youngju Kim, Noeyoon Park, Chungbuk National University

5 Uplink Post-Coding for Inter-cell Interference Cancellation in 4G Mobile Broadband Systems

Mythri Hunukumbure, Fujitsu Labs of Europe Ltd; Luciano Sarperi, Sunil Vadgama, Fujitsu Laboratories of Europe Ltd.

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5D: Modulation

Chair: Sau-Gee Chen, National Chiao Tung University

- 1 A Noncoherent Coded MPSK Scheme with Near-Capacity Performance for Channels with Fast Phase Variation**
Yen-Ming Chen, Yeong-Luh Ueng, Ying-Chen Chao, National Tsing Hua University
- 2 Efficient Channel Quality Feedback Signaling using Transform Coding and Bit Allocation**
Behrooz Makki, Thomas Eriksson, Chalmers University of Technology
- 3 Noncoherently Non-Catastrophic Trellis Coded QAM**
Ruey-Yi Wei, Chang-Chih Huang, National Central University
- 4 Higher Order Central Moments of Error Rates of Digital Modulations**
Mohamed A. M. Hassanien, Pavel Loskot, Swansea University
- 5 Rate Adaptation of AMC/HARQ Systems with CQI Errors**
Chia-Hao Yu, Helsinki University of Technology; Arttu Hellsten, Helsinki University of Technology (TKK); Olav Tirkkonen, Helsinki University of Technology

Tuesday 18 May 2010 13:30-15:00 R106

5E: LTE II

Chair: Andreas Mueller, University of Stuttgart

- 1 A study of precoding for LTE TDD using cell specific reference signals**
Fan Sun, Aalborg University; Muhammad Imadur Rahman, Ericsson Research; David Astely, Ericsson
- 2 Improved Recursive Maximum Expansion Scheduling Algorithms for Uplink Single Carrier FDMA System**
Fang Liu, DoCoMo Beijing communications Laboratories Co.,Ltd; Xiaoming She, DoCoMo Beijing-Labs, Beijing, China; Lan Chen, DoCoMo Beijing Communications; Hiroyuki Otsuka, DOCOMO Beijing Communications Labs
- 3 System Optimization in Relay Enhanced LTE-Advanced Networks via Uplink Power Control**
Ömer Bulakci, Nokia Siemens Networks [Aalto University School of Sci. and Tech.]; Simone Redana, Nokia Siemens Networks GmbH & Co. KG; Jyri Hämäläinen, Helsinki University of Technology; Bernhard Raaf, Nokia Siemens Networks GmbH & Co. KG
- 4 Interference Analysis and Coexistence Studies between E-UTRA and UTRA Systems**
Jing Wang, Dacheng Yang, Ruiming Zheng, Xin Zhang, Beijing University of Posts and Telecommunications
- 5 Cooperative Interference Prediction for Enhanced Link Adaptation in the 3GPP LTE Uplink**
Andreas Mueller, University of Stuttgart; Philipp Frank, Deutsche Telekom Laboratories Berlin

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5F: Multimedia Networking

Chair: Shih-Hau Fang, Yuan Ze University

- 1 The Design and Implementation of IEEE 802.21 and Its Application on Wireless VoIP**
Tein-Yaw Chung, Yung-Mu Chen, Pu-Chen Mao, Chen-Kuan Tsai, Sheng-Wen Lai, Chun-Po Chen, Yuan Ze University
- 2 Area Coverage with Unmanned Vehicles: A Belief-based Approach**
Evsen Yanmaz, Christian Bettstetter, University of Klagenfurt
- 3 Optimum Physical-Layer Frame Size for Maximising the Application-Layer Rateless Code's Effective Throughput**
Lajos Hanzo, University of Southampton

4 A Case Study on Multiparty Calls Differentiation in the IP Multimedia Subsystem

May El Barachi, Roch Glitho, Concordia University; Rachida Dssouli, Concordia University / United Arab Emirates University

5 Cross-layer Adaptive H.264/AVC Streaming over IEEE 802.11e Experimental Testbed

Chen-Han Mai, Yin-Cheng Huang, Hung-Yu Wei, National Taiwan University

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5G: Energy Optimization/Scheduling

Chair: Jiun-Long Huang, National Chiao Tung University

1 Energy Optimization for Reliable Point-to-Point Communication in Energy-Constrained Networks

Felipe Miranda Costa, Hideki Ochiai, Yokohama National University

2 Improving Energy Efficiency in QoS-Enabled Wireless Sensor Networks

Liqi Shi, Abraham O. Fapojuwo, University of Calgary

3 A Framework for Topology-Transparent Scheduling in Wireless Networks

Joan Sun, University of Hong Kong; VICTOR.O.K.Li, Ka-Cheong Leung, The University of Hong Kong

4 Energy-Efficient Scheduling for Multiple-target Coverage in Wireless Sensor Networks

SungYeop Pyun, Korea Advanced Institute of Science and Technology; Dong-Ho Cho, KAIST

5 Energy-efficient Adaptive Transmission Scheme in a Correlated Wireless Sensor Network

Jaehyun Park, KAIST; Joohwan Chun, Korea Advanced Institute of Science and Technology

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5H: Power and Energy Control in Wireless Networks

Chair: Chun-Ting Chou, National Taiwan University

1 Effect of Information on Routing Performance in Multi-hop Wireless Networks

Jun Hong, VICTOR.O.K.Li, The University of Hong Kong

2 On Modeling the Effect of Peak-Load Pricing Mechanism to the Telecommunication Traffic

Tito Husein Batubara, National University of Singapore; Yong Huat Chew, Manjeet Singh, Institute for Infocomm Research

3 Power Control Game with SINR-Pricing in Variable-Demand Wireless Data Networks

Fu-Yun Tsuo, Wei-Lin Lee., Chih-Yu Wang, Hung-Yu Wei, National Taiwan University

4 Power Saving Mechanism in IEEE 802.16m

Yunju Park, Korea Advanced Institute of Science and Technology; Hansung Leem, KAIST; Dan Keun Sung, Korea Advanced Institute of Science and Technology

5 Traffic Demand and Energy Efficiency in Heterogeneous Cellular Mobile Radio Networks

Fred Richter, Technische Universität Dresden; Albrecht Fehske, TU Dresden; Gerhard Fettweis, Technische Universität Dresden

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5I: Performance Evaluation of Wireless Access Techniques

Chair: Chiung-Jang Chen, Chung-Hua Telecom

1 Performance Evaluation of Frequency Planning in a Novel Cellular Architecture Based on Sector Relay

Lin Qu, Wang Xiaoxiang, Hongtao Zhang, Beijing University of Posts and Telecommunications

2 Exact Capture Probability Analysis of GSC Receivers over Rayleigh Fading Channel

Sung Sik Nam, Texas A&M University; Mohamed-Slim Alouini, KAUST; Dr Mazen Hasna, Qatar University

3 Design and Analysis of Data-aided Coarse Carrier Frequency Recovery in DVB-S2

Hua Wang, Chaoxing Yan, Jingming Kuang, Nan Wu, Fei Zesong, Meng Zheng, Beijing Institute of Technology

4 Impact of Frequency Diversity and Multi-User Diversity in IFDMA

Yuichi Kazama, Akira Yamasaki, Koichi Adachi, Masao Nakagawa, Keio University

5 To Piggyback Or Not to Piggyback Acknowledgments?

Tsern-Huei Lee, National Chiao Tung University; Yaw-Wen Kuo, National Chi Nan University; Yu-Wen Huang, Yung-Hsiang Liu, National Chiao Tung University

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5Pa: Antennas and Propagation I

1 Maximum Averaged Likelihood Estimation Tree for Anchor-Less Localization Exploiting IR-UWB Multipaths

Vincenzo La Tosa, Benoît Denis, CEA-Leti Minatoc; Bernard Uguen, IETR / CNRS / Université Rennes-I

2 Optimization of ARMA(p,q) models for SISO Multipath Fading Channel Simulation With Arbitrary Correlation

Manuel Diogo Mera, Instituto de Engenharia de Sistemas e Computadores(INESC-ID); Gonçalo Tavares, INESC-ID Lisbon / IST Lisbon

3 Analysis of Local Quasi-Stationarity Regions in an Urban Macrocell Scenario

Adrian Ispas, RWTH Aachen University; Christian Schneider, Technische Universität Ilmenau; Gerd Ascheid, RWTH Aachen University; Reiner Thomä, Technische Universität Ilmenau

4 A Wideband Space Time Statistical Model for Characterization of Satellite Communication Channel in Dense Multipath Environment

Songtao Lu, Beihang University; Tai LIU, Beijing University of Posts and Telecommunications; Meng Zheng, Beijing Institute of Technology

5 Empirical Time-Spatial Propagation Formula for Outdoor NLOS and LOS Environments

Teruya Fujii, BB Mobile; Hideki Omote, Softbank Telecom; Yoshichika Ohta, Softbank Telecom Corp.

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5Pb: Cognitive Radio and Cooperative Communications II

1 Quantization and Transmission of the Energy Measures for Cooperative Spectrum Sensing

Olivier van den Biggelaar, Université libre de Bruxelles; Jean-Michel Dricot, Philippe De Doncker, Université Libre de Bruxelles; Francois Horlin, ULB

2 User Cooperation under Multiplex Transmission Scheme in Cognitive Radio Network

Wang Yingwei, Beijing University of Posts and Communications; Wang Xiaoxiang, Shengnan Yan, Hongtao Zhang, Beijing University of Posts and Telecommunications

3 Virtual Polarization Detection: A Vector Signal Sensing Method for Cognitive Radios

Fangfang Liu, Chunyan Feng, Caili Guo, Yue Wang, Dong Wei, Beijing University of Posts and Telecommunications

4 A Novel Adaptive Cooperative MAC Protocol for Wireless LANs

Song Zhenfeng, Wang Xiaoxiang, Hongtao Zhang, Beijing University of Posts and Telecommunications; Zhen Liu, Beijing University of posts and telecommunications

5 MMSE-SIC Transceiver Design in Amplify-and-Forward MIMO Relay Systems

Fan-Shuo Tseng, Wen-Rong Wu, National Chiao-Tung University

6 Performance Analysis of Optimum Switching Adaptive L-QAM for Relay Selection Decode-and-Forward Cooperative Diversity Networks

Salama Ikki, Osama Amin, Murat Uysal, University of Waterloo

7 Performance Evaluation of Joint Network-Channel Coding under A Real Network Topology Model
Kun Pang, Zihuai Lin, Yonghui Li, University of Sydney; Branka Vucetic, University Of Sydney

8 Transmission Probability Control Game for Coexisting Random ALOHA Wireless Networks in Unlicensed Bands
Alireza Babaei, Bijan Jabbari, George Mason University

9 Cooperative MISO and Relay Comparison in Energy Constrained Wireless Sensor Networks
Tuan-Duc Nguyen, University of Rennes - IRISA; Olivier BERDER, Olivier Sentieys, University of Rennes (ENSSAT) - IRISA

10A New Pulse for CR-UWB Using Multiple Modified TDCS
Shubin Wang, Inner Mongolia University; Zheng Zhou, Beijing University of Posts and Telecommunications; Kyungsup Kwak, Inha University; Weixia Zou, Beijing University of Posts and Telecommunications

11A Reliability-Based Detection Algorithm for MIMO Relay System
Rui Gao, Kai Wu, Beijing University of Posts and Telecommunications

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5Pc: Transmission Technologies III

1 Performance Analysis of Antenna Calibration in Coordinated Multi-Point Transmission System
Fan Huang, Jian Geng, Yafeng Wang, Dacheng Yang, Beijing University of Posts and Telecommunications

2 Novel Channel Estimation Techniques on SC-FDMA Uplink Transmission
Shih-Chan Huang, Jia-Chin Lin, Kao-Peng Chou, National Central University

3 Power and Spectrally Efficient Multiple Access Using CPM Over SC-FDMA
Marilynn Green, Nokia Siemens Networks; Tommy Svensson, Department of Signals and Systems, Chalmers University of Technology; Erik Perrins, University of Kansas

4 Interference Cancellation for Single Carrier Frequency Domain Equalizer without Cyclic Prefix
Hankil Lee, Information and communication university; Yusung Lee, ETRI; Hyuncheol Park, Korea Advanced Institute of Science and Technology

5 Adaptive Inter-atom Interference Mitigation Approach to Sparse Multi-path Channel Estimation
Ruiming Yang, University of Electronic Science and Technology of China; Qun Wan, UESTC; Yipeng Liu, Wanlin Yang, University of Electronic Science and Technology of China

6 Channel Estimation and Equalization Algorithms for Long Range Bluetooth Signal Reception
Ingolf Held, ADWISS; Albert Chen, ITRI

7 Improved Opportunistic Multipath Transmission for Bandwidth-Efficient Cooperative Communications
Chang-Chen Chu, Chin-Liang Wang, National Tsing Hua University

8 Receiver Multiuser Diversity Aided Multi-Stage MMSE Multiuser Detection: A Low-Complexity Detector Fast-Converging to the Optimum
Lie-Liang Yang, University of Southampton

9 MMSE Frequency-domain Equalization Using Spectrum Combining for Nyquist Filtered Broadband Single-Carrier Transmission
Suguru Okuyama, Kazuki Takeda, Fumiyuki Adachi, Tohoku University

10 Joint Frequency-domain Equalization & Spectrum Combining for The Reception of SC Signals in the Presence of Timing Offset
Tatsunori Obara, Kazuki Takeda, Fumiyuki Adachi, Tohoku University

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6A: Transceiver Techniques

Chair: Dah-Chung Chang, National Central University

1 On the Impact of Non-linear Amplifiers in Single-Carrier Systems: An Analytical Approach
Jan Dohl, Stefan Krone, TU Dresden; Gerhard Fettweis, Technische Universität Dresden

2 On Power Amplifier Efficiency with Modulated Signals
Tommy Svensson, Department of Signals and Systems, Chalmers University of Technology; Thomas Eriksson, Chalmers University of Technology

3 A simple DBPSK modem based on high-speed logical gates for a 70/80 GHz GbE microwave link
Jonas Hansryd, Ericsson Research; Yinggang Li, Jingjing Chen, Ericsson AB; Bengt-Erik Olsson, Ericsson Research

4 A New Algorithm for Carrier Frequency Offset Estimation in the Presence of I/Q Imbalance
Yen-Chang Pan, See-May Phoong, National Taiwan University

5 Architectures for Joint Compensation of RoF and PA with Nonideal Feedback
Atso Hekkala, Mika Lasanen, VTT Technical Research Centre of Finland; Luis C. Vieira, Nathan J. Gomes, Anthony Nkansah, University of Kent

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6B: MIMO and OFDM Based Cognitive Radio

Chair: Ying-Chang Liang, Institute for Infocomm Research

1 On Asynchronous OFDM Implementation for Cognitive Radio
Meng Wah, Ying-Chang Liang, Institute for Infocomm Research

2 Cooperative Feedback in Multi-Antenna Cognitive Networks
Kaibin Huang, Yonsei University; Rui Zhang, Institute for Infocomm Research

3 Antenna Correlation Based Spectrum Sensing in Cognitive Radio Systems
Joong-Hyup Lee, Dong-Chan Oh, Yong-Hwan Lee, Seoul National University

4 Prediction-based Spectrum Aggregation with Hardware Limitation in Cognitive Radio Networks
Furong Huang, Wei Wang, Luo Haiyan, Guanding Yu, Zhang Zhaoyang, Zhejiang University

5 Robust Linear Transceiver Design in MIMO Ad-hoc Cognitive Radio Networks
Ebrahim A. Gharavol, National University of Singapore; Ying-Chang Liang, Institute for Infocomm Research; Koenraad Mouthaan, National University of Singapore

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6C: Multiuser MIMO

Chair: Daisuke Uchida, Yokohama National University

1 An Orthogonal Projection Optimization Algorithm for Multi-User MIMO Channels
Zhendong Zhou, University of Sydney; Branka Vucetic, University of Sydney

2 Ant-Colony Based Near-ML Space-Time Multiuser Detection for the STBC Assisted DS-CDMA Uplink
Chong Xu, Lie-Liang Yang, Lajos Hanzo, University of Southampton

3 An Adaptive Multiuser MIMO Receive Algorithm with Radial Space-Division Multiple Access in OFDM System
Yejian Chen, Alcatel-Lucent Bell Labs Germany

4 Sorted QR Decomposition Based Detection for MU-MIMO LTE Uplink

Shaoqing Chen, Wenjin Wang, Shi Jin, Southeast University

5 Joint Selection with Multi-Streams for Multiuser MIMO Systems with Block Diagonalization

Donghun Lee, GIST

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6D: MIMO Systems

Chair: Yoshitaka Hara, Mitsubishi Electric Co.

1 Blind Channel Estimation for MIMO Systems with Nonlinearities at the Receiver

Seyed Alireza Banani, Rodney G. Vaughan, Simon Fraser University

2 Impact of User Selection Criteria on Performance of MIMO Detectors in Multiuser Systems

Jinho Choi, University of Wales Swansea; Fumiyuki Adachi, Tohoku University

3 A New Iterative Channel Estimation for High Mobility MIMO-OFDM Systems

Wibowo Hardjawana, The University of Sydney; Rui Li, University of Sydney; Branka Vucetic, University Of Sydney; Yonghui Li, University of Sydney; Xuezhong Yang, Huawei Tech. Co

4 Optimizing Training-based MIMO Systems: How Much Time is Needed for Actual Transmission?

Xiangyun Zhou, Parastoo Sadeghi, Tharaka Anuradha Lamahewa, The Australian National University

5 PAPR Reduction Method for Block Diagonalization in Multiuser MIMO-OFDM Systems

Shusaku Umeda, Satoshi Suyama, Hiroshi Suzuki, Kazuhiko Fukawa, Tokyo Institute of Technology

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6E: LTE III

Chair: Riikka Susitaival, Ericsson

1 Impact of Electrical and Mechanical Antenna Tilt on LTE Downlink System Performance

Fredrik Athley, Martin Johansson, Ericsson Research

2 Channel Quality Indicator Preamble for Discontinuous Reception

Kari Aho, Magister Solutions Ltd.; Jani Puttonen, Magister Solutions Ltd; Tero Henttonen, Nokia Research Center; Lars Dalsgaard, Nokia

3 Internet access performance in LTE TDD

Riikka Susitaival, Ericsson; Henning Wiemann, Jessica Östergaard, Anna Larmo, Ericsson Research

4 User Multiplexing in Relay Enhanced LTE-advanced Networks

Oumer Teyeb, Aalborg University; Frank Frederiksen, Vinh van phan, Nokia Siemens Networks; Bernhard Raaf, Simone Redana, Nokia Siemens Networks GmbH & Co. KG

5 Link parameters bundling across multiple Component Carriers in LTE-A Uplink

Gilberto Berardinelli, Troels B. Sørensen, Aalborg University; Preben E. Mogensen, Nokia Networks, Aalborg, Denmark; Kari Pajukoski, Nokia-Siemens Networks, Oulu, Finland

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6F: Resource Allocation in Wireless Networks

Chair: Nak-Myeong Kim, Ewha Womans University

1 Resource allocation scheme for minimizing uplink interference in Hierarchical Cellular Networks

SungYeop Pyun, Korea Advanced Institute of Science and Technology; Dong-Ho Cho, KAIST

2 Resource Allocation for Heterogeneous Services Per User in OFDM Distributed Antenna Systems

Cong Shi, Ying Wang, Beijing University of Posts and Telecommunications; Tan Wang, Beijing University of Posts and Telecommunications (BUPT); Lisha Ling, Beijing University of Posts and Telecommunications

3 Adaptive Resource Allocation with Packet Retransmissions in OFDMA Systems

Xiaoyan Liu, H. Zhu, Jiangzhou Wang, University of Kent

4 Dynamic Resource Allocation with Threshold in OFDMA-based Relay Networks

Mingwei Tang, Beijing University of Post and Telecommunications; Hongtao Zhang, Beijing University of Posts and Telecommunications

5 Adaptive Resource Management Based on Unequal Error Protection in OFDM Systems

H. Zhu, Jiangzhou Wang, University of Kent

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6G: Vehicular Ad Hoc Networks

Chair: Yuh-Shyan Chen, National Taipei University

1 VERGILIUS: A Scenario Generator for VANET

Eugenio Giordano, University of California, Los Angeles; Enzo De Sena, King's College London; Giovanni Pau, Mario Gerla, UCLA

2 Event Suppression for Safety Message Dissemination in VANETs

Martin Koubek, Susan Rea, Dirk Pesch, Cork Institute of Technology

3 Streetcast: An Urban Broadcast Protocol for Vehicular Ad-Hoc Networks

Chih-Wei Yi, Yi-Ta Chuang, Hou-Heng Yeh, National Chiao Tung University; Yu-Chee Tseng, National Chiao-Tung University; Pin-Chuan Liu, Industrial Technology Research Institute

4 Linear Regression-Based Delay-Bounded Routing Protocol for Vehicular Ad Hoc Networks

Yuh-Shyan Chen, Department of CSIE, National Taipei University; Chih-Shun Hsu, Shih Hsin University; Yi-Guang Siao, National Taipei University

5 Dynamic Channel Reservation to Enhance Channel Access by Exploiting Structure of Vehicular Networks

Ray K. Lam, University of Illinois at Urbana-Champaign; P.R. Kumar, University of Illinois, Urbana-Champaign

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6H: Relaying in Wireless Networks

Chair: Wen-Hsing Kuo, Yuan-Ze University

1 Network Synchronization for Two-way Multi-hop Relay Networks with Block Modulation

Keiichi Mizutani, Kei Sakaguchi, Kiyomichi Araki, Tokyo Institute of Technology

2 An Economics-Based Distributed Multicast Scheme for Wireless Relay Networks

Wen-Hsing Kuo, Yuan Ze University

3 Interworking Scheme Using Optimized SIP Mobility for MultiHomed Mobile Nodes in Wireless Heterogeneous Networks

Paolo Dini, Jaume Nin, CTTC; Josep Mangués-Bafalluy, Centre Tecnològic de Telecomunicacions de Catalunya (CTTC); Sateesh Addepalli, Lillian Dai, Cisco

4 Rate-Loss based Channel Assignment in Multi-Rate Wireless Mesh Networks

Kate Ching-Ju Lin, Academia Sinica; Sz-Ting Shen, Cheng-Fu Chou, National Taiwan University

5 MIMO Radio Propagation Measurement for Two-Hop Relay Network on L-shaped Corridor with Network Performance Analysis

Namzilp Lertwiram, Khanh Tran Gia, Keiichi Mizutani, Kei Sakaguchi, Kiyomichi Araki, Tokyo Institute of Technology

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6I: Wireless Access Technologies I

Chair: David Tung Chong Wong, Institute for Infocomm Research

1 Airtime Fairness in a Rate Separation IEEE 802.11b MAC

David Tung Chong Wong, Anh Tuan Hoang, Institute for Infocomm Research; Chen Khong Tham, I2R, Singapore

2 Study on a Dynamic Superframe Adjustment Algorithm for IEEE 802.15.4 LR-WPAN

Bih-Hwang Lee, National Taiwan University of Science and Technology; Huai-Kuei Wu, Ling-Tung University

3 Coexistence of 802.11b and 802.15.4a-CSS: Measurements, Analytical Model and Simulation

Andreas Lewandowski, Markus Putzke, Volker Köster, Dortmund University of Technology; Christian Wietfeld, Dortmund University of Technologie

4 Cross-Layer Solutions for Cooperative Medium Access Control Protocols

Lajos Hanzo, University of Southampton; Fulvio Babich, University of Trieste

5 A Distributed Access Point Selection Algorithm Based on No-regret Learning for Wireless Access Networks

Lin Chen, LRI, CNRS, University of Paris-Sud XI and INRIA

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6Pa: Multiple Antenna Systems and Space-Time Processing III

1 Hardware Prototype for Two-way Multi-hop Relay Network with MIMO Network Coding

Keiichi Mizutani, Tokyo Institute of Technology; Takehiro Miyamoto, Takamichi Kanno, Nihon Dengyo Kosaku Co., Ltd.; Kei Sakaguchi, Kiyomichi Araki, Tokyo Institute of Technology

2 Efficient Group Competition-based User Selection Scheme for Multi-user Beamforming in High Order MIMO Broadcast Systems

Yang Lan, DOCOMO Beijing Communications Laboratories Co., Ltd

3 BER based Multiuser MIMO User Selection with Block Diagonalization

Kyeongjun Ko, Kyungchul Kim, Jungwoo Lee, Seoul National University

4 Scheduling, pairing and Ordering in the Network Coded Uplink Multiuser MIMO Relay Channels

Jie Xu, Ling Qiu, University of Science and Technology of China; Tafzeel ur Rehman Ahsin, Royal Institute of Technology; Ben Slimane, KTH

5 Urban Outdoor MIMO Experiments with Realistic Handset and Base Station Antennas

Eckhard Ohlmer, Joerg Hofrichter, Steffen Bittner, Gerhard Fettweis, Qiong Wang, Hui Zhang, Klaus Wolf, Dirk Plettemeier, Technische Universität Dresden

6 Antenna Configurations for 4x4 MIMO in LTE - Field Measurements

Karl Werner, Johan Furuskog, Bo Hagerman, Mathias Riback, Ericsson Research

7 Improved User Scheduling Algorithms for Codebook Based MIMO Precoding Schemes

Bomi Lim, Korea Advanced Institute of Science and Technology (KAIST); Kyungsul Ahn, Korea Advanced Institute of Science and Technology; Haelyong Kim, KAIST; Hyuncheol Park, Korea Advanced Institute of Science and Technology

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6Pb: Wireless Access III

1 Directional Relay with Spatial Time Slot Scheduling for mmWave WPAN Systems

Zhou Lan, Chin-Sean Sum, NICT; Junyi Wang, National Institute of Information and Communication Technology; Jing Gao, Tuncer Baykas, Fumihide Kojima, NICT; Hiroshi Harada, National Institute of Information and Communications Technology; Shuzo Kato, NICT

2 Visibility State Model for Base Station Cooperation in Cellular Mobile Systems

Shinobu Nanba, KDDI R&D Laboratories; Megumi Morita, KDDI R&D Laboratories; Yoji Kishi, KDDI R&D Labs

3 Deterministic Channel Access in WiMedia MAC Protocol

Hyunhee Park, Sangheon Pack, Yongsun Kim, Chul-Hee Kang, Korea University; Sungho Hwang, Samsung Electro-Mechanics

4 Comprehensive Performance Comparison of IDMA and CDMA

Shu-Ming Tseng, Tai-Yo Lau, National Taipei University of Technology

5 MAC efficiency enhancement with ACK/NACK and AGC pilot signal adaptation mechanism in millimeter-wave communication systems

Ryoko Matsuo, Tomoya Tandai, Hideo Kasami, Toshiba Corporation; Takahiro Kobayashi, Toshiba Corp.

6 An Efficient Scheduling Algorithm for Scheduled Automatic Power Save Delivery for Wireless LANs

Tsern-Huei Lee, Jing-Rong Hsieh, National Chiao Tung University

7 Performance Analysis of Dual-Carrier HSDPA

Danlu Zhang, Qualcomm; Pavan Kumar Vitthaladevuni, Bibhu Mohanty, Jilei Hou, Qualcomm Inc.

8 Study on Co-existence of Macro WCDMA cell and Micro HSUPA cell

Zhang Yushu, Beijing Jiaotong University; Wang Xinglin, Nokia Siemens Networks (Beijing) Ltd.; Yang Xiaokun, Nokia Siemens Networks; Zhang Xiaojin, Beijing Jiaotong University

9 Wideband Radio over Fiber Distributed Antenna Systems for Energy Efficient In-building Wireless Communications

Michael Crisp, University of Cambridge; Andy Bell, Zinwave Ltd.; Richard Penty, Ian White, University of Cambridge

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6Pc: Wireless Networks III

1 Handover Scheme using Uplink and Downlink Channel Information in IEEE 802.16e Systems

Ji-Su Kim, Jae-Hyun Kim, Ajou University

2 A Two-level Distributed Sub-channel Allocation Algorithm Based on Ant Colony Optimization in OFDMA Systems

Lin rui, Kai Niu, Wenjun Xu, Zhiqiang He, Beijing University of Posts and Telecommunications

3 Applications of Modulation in a McEliece-like Symmetric-Key Scheme

Wenyan Leng, Lin Sang, Chengxin Xu, Xin Zhang, Beijing University of Posts and Telecommunications

4 Multi-Room IPTV Delivery through Pseudo-Broadcast over IEEE 802.11 Links

Yongtae Park, Chiho Jo, Sangki Yun, Hyogon Kim, Korea University

5 Numerical Algorithms for Multi-cell Optimal Downlink Beamforming Problem with Per-Base Station Power Constraints

Fan Huang, Yafeng Wang, Jian Geng, Dacheng Yang, Beijing University of Posts and Telecommunications

6 Throughput Analysis of Stop-and-Wait Automatic Repeat Request Scheme for Network Coding Nodes

Yang Qin, Lie-Liang Yang, University of Southampton

7 A Novel Retransmission Scheme for Video Services in Hybrid Wireline/Wireless Networks

Jinfang Zhang, Wenliang Liang, Jianjun Wu, Dai Shi, Huawei Technologies Co. Ltd

8 Association Control Based Load Balancing for Tactical Information Communication Networks

Kiran T. Nath, Samsung Electronics; Dongmyoung Kim, Sunghyun Choi, Seoul National University

9 Systematic Luby Transform Coding for Transmission Over Correlated Shadow Fading Channels in 802.11 Wireless Ad-hoc Networks

Tim Stevens, Univ. of Southampton, UK; Hoang Anh Ngo, Lajos Hanzo, University of Southampton

10 Adaptive-Weighting Schemes for Location-based Services over Heterogeneous Wireless Networks

Sheng-Cheng Yeh, Wu-Hsiao Hsu, Ming Chuan University; Yih-Shyh Chiou, National Tsing Hua University

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7A: Estimation and Detection I

Chair: Satoshi Denno, Kyoto University

- 1 Phase-Based Carrier Frequency Estimators for Linear Modulations over Selective Fading Channels**
Yan Li, Pooi Yuen Kam, National University of Singapore; Chee-Cheon Chui, DSO National Laboratories
- 2 Frequency Offset Estimation in 3G LTE**
Pierre Bertrand, Texas Instruments Inc
- 3 Stochastic Resonance Pre-processing for Estimating Doppler Frequency Shift under Low SNR conditions**
Liping Wu, Zan Li, State Key Laboratory of ISN, Xidian University; Jiandong Li, Xidian University
- 4 Subspace-Based Blind Channel Estimation for OFDM Systems with Conjugate-Symmetric Property**
Shih-Hao Fang, National Cheng-Kung University; Ju-Ya Chen, National Sun Yat-Sen University; Ming-Der Shieh, Jing-Shiun Lin, National Cheng-Kung University
- 5 A New Method for Timing Synchronization in OFDM Systems Based on Polyphase Sequences**
Amin Azari, University Of Tehran; Said Nader-Esfahani, University of Tehran; Mahdi Golparvar Roozbahani, Iran Telecommunication Research Center

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7B: Cross-Layer Designs for Cooperative and Cognitive Radios

Chair: Hung-Yu Wei, National Taiwan University

- 1 Sensing-Saturated Throughput Performance in Multiple Cognitive CSMA/CA Networks**
David Tung Chong Wong, Francois Chin, Institute for Infocomm Research
- 2 A Cooperative Graph Approach for Cooperative Routing in Delay-Sensitive Systems**
Kim Yung Lam, Wai Pan Tam, Lok Tat-Ming, The Chinese University of Hong Kong
- 3 On QoS Routing in Wireless Ad-Hoc Cognitive Radio Networks**
Yean-Fu Wen, National Chiayi University; Wanjiun Liao, National Taiwan University
- 4 Channel-Aware Transmission Control for Cooperative Random Access Networks**
Shu-Hsien Wang, An-Dee Lin, Yao-Win Peter Hong, National Tsing Hua University
- 5 Joint Channel Assignment and Routing in Cognitive Radio-Based Wireless Mesh Networks**
Dong Heon Lee, Wha Sook Jeon, Seoul National University; Dong Geun Jeong, Hankuk University of Foreign Studies

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7C: Cooperative and Joint Transmission

Chair: Ming-Yang Chen, Stanford University

- 1 Adaptive Turbo Trellis Coded Modulation aided Distributed Space-Time Trellis Coding for Cooperative Communications**
Soon Xin Ng, Chuyi Qian, Dandan Liang, Lajos Hanzo, University of Southampton
- 2 Spectral Efficiency of the Distributed MIMO System with Antenna Cooperation**
Hua-Min Chen, National Mobile Communications Research Lab., Southeast University; Jun-Bo Wang, Nanjing University of Aeronautics and Astronautics; Ming Chen, National Mobile Communications Research Lab., Southeast University

3 A novel precoding method for MIMO systems with multi-cell joint transmission

Di Lu, Dong Li, Alcatel-Lucent Shanghai Bell

4 A Practical Design of Downlink Coordinated Multi-Point Transmission for LTE-Advanced

Jianchi Zhu, DOCOMO Beijing Communications Laboratories Co., Ltd.; Xiaoming She, DoCoMo Beijing-Labs, Beijing, China; Xiang Yun, DOCOMO Beijing Communications Laboratories Co., Ltd.; Lan Chen, DoCoMo Beijing Communications

5 On the Performance of Joint Processing Schemes over the Cluster Area

Carmen Botella, Signals and Systems, Chalmers University of Technology; Tommy Svensson, Department of Signals and Systems, Chalmers University of Technology; Xiaodong Xu, Beijing University of Posts of Telecommunications; Zhang Hui, Beijing University of Posts and Telecommunications

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7D: OFDM I

Chair: Hsi-Pin Ma, National Tsing Hua University

- 1 Link Quality Prediction Using Shadowing Time-Frequency Correlation in Multi-Carrier Wireless Networks**
Alain Mourad, Samsung Electronics UK
- 2 Downlink Transmission in Multi-Carrier Systems with Reduced Feedback**
Yuanye Wang, Aalborg University; Klaus I. Pedersen, Nokia Siemens Networks; Troels B. Sørensen, Preben Mogensen, Aalborg University
- 3 Frequency-Domain Oversampling Based Receivers for Orthogonal Frequency Division Multiplexing: Linear MMSE and Nonlinear VBLAST Algorithms**
Qinghua Shi, University of Electro-Communications
- 4 A Low-PAPR Multiplexed MC-CDMA System with Enhanced Data Rate over Multipath Channels**
Jiunn-Horng Deng, Shu-Min Liao, Yuan Ze University
- 5 Fast Prioritized Bit-loading and Subcarriers Allocation for Multicarrier Systems**
Khaled Hassan, Jacobs University Bremen gGmbH; Werner Henkel, Jacobs Universityt Bremen gGmbH

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7E: MIMO Technologies

Chair: Wei-Cheng Liu, National Chung Cheng University

- 1 PERFORMANCE ANALYSIS OF 64-QAM and MIMO IN RELEASE 7 WCDMA (HSPA+) SYSTEMS**
Vinay Chande, Qualcomm Incorporated; Haitong Sun, Qualcomm; Pavan Kumar Vitthaladevuni, Jilei Hou, Bibhu Mohanty, Qualcomm Inc.
- 2 HSDPA Performance with Dual Stream MIMO in a Combined Macro-Femto Cell Network**
Timo Nihtilä, Magister Solutions Ltd; Ville Haikola, Nokia
- 3 Streaming Video Capacity Comparisons of Multi-Antenna LTE Systems**
Anup Talukdar, Bishwarup Mondal, Motorola Inc.; Mark Cudak, Motorola Labs; Amitava Ghosh, Fan Wang, Motorola Inc
- 4 Multi-Flow Transmission in Cellular Systems with Optimal Scheduling and Utility Maximization**
Wai Pan Tam, Lok Tat-Ming, The Chinese University of Hong Kong
- 5 Reference signal design for flexible MIMO operation in LTE-Advanced downlink**
Tommi Koivisto, Nokia; Karol Schober, Helsinki University of Technology; Tero Kuosmanen, Tampere University of Technology; Timo Roman, Nokia Research Center; Mihai Enescu, Nokia

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7F: Performance Optimization in Wireless Networks

Chair: Kai-Ten Feng, National Chiao Tung University

- 1 Load Balancing in Downlink LTE Self-Optimizing Networks**
Andreas Lobinger, Szymon Stefanski, Nokia Siemens Networks;
Thomas Jansen, TU Braunschweig, Braunschweig, Germany; Irina Balan, IBBT, Gent, Belgium
- 2 Threat Analysis of Incubation Period in Malware Epidemics**
Seong-Woo Kim, Seoul National University; Jong-Ho Park, Eun-Dong Lee, SNU; Mid-Eum Choi, Seung-Woo Seo, Seoul National University
- 3 Inter-Cell Interference Coordination in OFDMA Networks: A Novel Approach Based on Integer Programming**
Mahmudur Rahman, Halim Yanikomeroglu, Carleton University
- 4 Coverage and Capacity Optimization in E-UTRAN Based on Central Coordination and Distributed Gibbs Sampling**
Tao Cai, George Koudouridis, Christer Qvarfordt, Johan Johansson, Peter Legg, R&D center, Huawei Technologies Sweden AB
- 5 A Light-size AKA Mechanism for Optimal Distributed AAA authorization Architecture**
Wenjing Ma, Mei Song, Beijing University of Posts and Telecommunications

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7G: Intelligent Mobile Applications

Chair: Guey-Yun Chang, National Central University

- 1 Exploiting Multi-link SCTP for Live TV Broadcasting Service**
Wanjiun Liao, National Taiwan University
- 2 Hybrid Cargo-Level Tracking System for Logistics**
Guanghua Yang, Kuang Xu, VICTOR.O.K.Li, The University of Hong Kong
- 3 A Distributed Taxi Hailing Protocol in Vehicular Ad-Hoc Networks**
Jang Ping Sheu, National Tsing Hua University; Guey-Yun Chang, Chiung-Hung Chen?, National Central University
- 4 Zooming: A Zoom-Based Approach for Parking Space Availability in VANET**
Guey-Yun Chang, National Central University; Jang Ping Sheu, National Tsing Hua University; Cheng-Yu Chung, National Central University
- 5 Digital Right Management and Software Protection on Android Phones**
Chuang, Chen-Yuan, National Chiao-Tung University; Yu-Chun Wang, Chunghwa Telecom; Yi-Bing Lin, National Chiao Tung University

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7H: Vehicular Communications

Chair: Hsiao Kuang Wu, National Central University

- 1 3G HSPA for Broadband Communications with High Speed Vehicles**
Santiago Tenorio, Vodafone; Paul Spence, McLaren Electronic Systems
- 2 Improved Decoding Methods of Visible Light Communication System for ITS using LED Array and High-Speed Camera**
Toru Nagura, Takaya Yamazato, Masaaki Katayama, Tomohiro ENDO, Toshiaki FUJII, Nagoya University; Hiraku Okada, Saitama University
- 3 Eliminating Backhaul Bottlenecks for Opportunistically Encountered Wi-Fi Hotspots**
Richard Gass, Intel Labs; Christophe Diot, Thomson, France

4 Reliably Suppressed Broadcasting for Vehicle-to-Vehicle Communications

John Lee, Telcordia Technologies - Applied Research; Wai Chen, Telcordia

5 Exploiting Network Coding for Data Forwarding in Delay Tolerant Networks

Kun-cheng, Chung, Yi-Chin Li, Wanjiun Liao, National Taiwan University

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7I: Wireless Access Technologies II

Chair: Ismail Guvenc, DoCoMo USA Labs

- 1 Design of Data-aided SNR Estimator Robust to Frequency Offset for MPSK Signals**
Chaoxing Yan, Hua Wang, Jingming Kuang, Nan Wu, Meng Zheng, Beijing Institute of Technology
- 2 Performance of Open Access Femtocell Networks with Different Cell-Selection Methods**
Hisham Mahmoud, University of South Florida; Ismail Guvenc, Fujio Watanabe, DoCoMo USA Labs
- 3 Nomadic Relay-directed Joint Power and Subchannel Allocation in OFDMA-based Cellular Fixed Relay Networks**
Mohamed A. Rashad Salem, Abdulkareem Adinoyi, Halim Yanikomeroglu, Carleton University; Young-Doo Kim, Samsung Electronics
- 4 Optimal Subcarrier Grouping for Downlink MC-CDMA Systems with Linear MMSE Receiver**
Jun-Bo Wang, Nanjing University of Aeronautics and Astronautics; Hua-Min Chen, National Mobile Communications Research Lab., Southeast University; Ming Chen, Southeast University, China; Xinhua Xue, Southeast University
- 5 Applicability of Interference Coordination in Highly Loaded HSUPA Network**
Frans Laakso, University of Jyväskylä; Kari Aho, Magister Solutions Ltd.; Thomas Chapman, Roke Manor Research Ltd.; Tapani Ristaniemi, University of Jyväskylä

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7Pa: Antennas and Propagation II

- 1 A measurement based approach to spatially predict the orthogonality factor of the UMTS downlink**
Juergen Beyer, Heinz Droste, Deutsche Telekom
- 2 Cauchy Angular Distribution for Clustered Radio Propagation SIMO Channel Model**
Xin Li, Torbjörn Ekman, Norwegian University of Science and Technology
- 3 Multiple-Links NLoS Error Evaluations for Geolocation Channel Modelling**
Wei Wang, German Aerospace Center (DLR); Thoma Jost, German Aerospace Center
- 4 Large Scale Parameter for the WINNER II Channel Model at 2.53 GHz in Urban Macro Cell**
Christian Schneider, Milan Narand?i?, Martin Käske, Gerd Sommerkorn, Reiner Thomä, Technische Universität Ilmenau
- 5 Inducing Spatial Correlation on MIMO Channels: a Distribution-Free Efficient Technique**
Antonio Petrolino, INESC-ID Lisbon/Instituto Superior Tecnico Lisbon; Gonçalo Tavares, INESC-ID Lisbon / IST Lisbon

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7Pb: Cognitive Radio and Cooperative Communications III

- 1 Distributed Spectrum Sharing Algorithm Design and Realization**
Binyang XU, Di Lu, Alcatel-Lucent Shanghai Bell; Jigang QIU, Feng YANG, Alcatel Shanghai Bell

- 2 Collaborative Change Detection for Efficient Spectrum Sensing in Cognitive Radio Networks**
Teng-Cheng Hsu, National Tsing Hua University, Taiwan; Tsang-Yi Wang, National Sun Yat-Sen University; Yao-Win Peter Hong, National Tsing Hua University
- 3 Partner Selection Based on IDMA Superposition Modulation in Cooperative Cellular Networks**
Wang Xiaoxiang, Hongtao Zhang, Beijing University of Posts and Telecommunications
- 4 A Practical Semi Range-Based Localization Algorithm for Cognitive Radio**
Zaili Wang, FENG Zhiyong, Beijing University of Posts and Telecommunications
- 5 Partner Selection and Power Control for Asymmetrical Collaborative Networks**
Weisi Guo, Ioannis Chatzigeorgiou, Ian J. Wassell, University of Cambridge; Rolando Carrasco, University of Newcastle
- 6 Optimal Resource Allocation for Cognitive Radio Networks with Imperfect Spectrum Sensing**
Kejian Wu, Wei Wang, Luo Haiyan, Guanding Yu, Zhang Zhaoyang, Zhejiang University
- 7 Optimal Cooperative Spectrum Sensing Strategies in Cognitive Radio Networks**
Jingqun Song, Jiantao Xue, BUPT; FENG Zhiyong, Zhang Ping, Zemin Liu, Beijing University of Posts and Telecommunications
- 8 Cyclostationarity Based Multi-Antenna Spectrum Sensing in Cognitive Radio Networks**
Guohui Zhong, Jiaming Guo, Zhen Zhao, Daiming Qu, Huazhong University of Science and Technology
- 9 Novel Cooperative Schemes on Spectrum Sensing in Multi-primary-user Cognitive Radio Network**
Jingdi Liu, Ruiming Zheng, Qun Pan, Xin Zhang, Dacheng Yang, Beijing University of Posts and Telecommunications
- 10 On Joint Adaptive Modulation and Power Control for Cognitive Radios in an Interference Channel**
Chin Choy Chai, Institute for Infocomm Research
- 11 Primary and Cognitive User Cooperative Spectrum Sensing in OFDMA Air Interface**
Sanjeeva Herath, McGill University; Nandana Rajatheva, Telecommunication Field of Study, Asian Institute of Technology; Poompat Saengudomlert, Asian Institute of Technology

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8A: Estimation and Detection II

Chair: Wen-Hsien Fang, National Taiwan University of Science and Technology

- 1 A Low Complexity Piecewise Suboptimal Detector for Signals in Alpha-Stable Interference**
Tarik Shehata, Ian Marsland, Mohamed El-Tanany, Carleton University
- 2 A Novel Framework For Signal Detection in Alpha-Stable Interference**
Tarik Shehata, Ian Marsland, Mohamed El-Tanany, Carleton University
- 3 Improved Chirp Parameter Estimation Using Signal Recovery Method**
Yan Li, Pooi Yuen Kam, National University of Singapore
- 4 A Near-Capacity Differentially Encoded Non-Coherent Adaptive Multiple-Symbol-Detection Aided Three-Stage Coded Scheme**
Li Wang, Univ. of Southampton, UK; Lingkun Kong, Soon Xin Ng, Lajos Hanzo, University of Southampton
- 5 Blind Channel Estimation for systems with Maximum-Ratio Receiver Combining**
Seyed Alireza Banani, Rodney G. Vaughan, Simon Fraser University

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7Pc: Transmission Technologies IV

- 1 Modification of SOVA-based algorithms for efficient hardware implementation**
Matthias Kamuf, Ericsson AB; Lay-Hong Ang, Wee-Guan Lim, Lund University
- 2 Extrinsic Information Setting for Belief Propagation Decoding with Network Coding**
Naohiro Tsuji, Tomoaki Ohtsuki, Keio University
- 3 Reference Phasor Based Log-likelihood Ratios for Pilot-Symbol-Assisted BPSK Transmission of LDPC Codes over the Noncoherent Channel**
Elisa Mo, Pooi Yuen Kam, National University of Singapore
- 4 On the Performance Evaluation of Quasi-Cyclic LDPC Codes with Arbitrary Puncturing**
Ying Xu, Yuejun Wei, Huawei Technologies Co., Ltd; Wen Chen, Shanghai Jiao Tong University
- 5 Performance Evaluation for LDPC Coded OFDM-IDMA Systems over Frequency Selective Fading Channels**
Wei-Chieh Huang, National Taiwan University; Kuo-Sheng Lu, Chih-Peng Li, National Sun Yat-Sen University; Hsueh-Jyh Li, National Taiwan University
- 6 Chained Turbo Equalization for Block Transmission without Guard Interval**
Khoirul Anwar, Hui Zhou, Tad Matsumoto, Japan Advanced Institute of Science and Technology (JAIST)
- 7 Low Complexity Metrics for BICM SISO and MIMO systems**
Rizwan Ghaffar, Eurecom; Raymond Knopp, Institute Eurecom
- 8 Common Information Multicast with Different Data Rates**
Yuli YANG, King Abdullah University of Science and Technology (KAUST); Sonia Aissa, INRS-EMT, University of Quebec
- 9 Combining of Forward and backward Multiple-Symbol Differential Sphere Decoding for Turbo Coded System**
Ching-Chi Lo, Szu-Lin Su, National Cheng Kung University
- 10 Superposition Coding Aided Bi-directional Relay Transmission Employing Iteratively Decoded Self-Concatenated Convolutional Codes**
Muhammad Fasih Uddin Butt, University of Southampton; Rong Zhang, Univ. of Southampton; Soon Xin Ng, Lajos Hanzo, University of Southampton

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8B: Distributed Space-Time Codes for Cooperative Networks

Chair: Sau-Hsuan Wu, National Chiao Tung University

- 1 Multiple-Relay Aided Distributed Turbo Coding Assisted Differential Unitary Space-Time Spreading for Asynchronous Cooperative Networks**
Shinya Sugiura, Soon Xin Ng, Lingkun Kong, University of Southampton; Sheng Chen, Univ. of Southampton; Lajos Hanzo, University of Southampton
- 2 A Novel Hybrid Relaying Scheme Using Multilevel Coding**
Yinan Qi, University of Surrey; Dr Reza Hoshyar, CCSR, University of Surrey; Professor Rahim Tafazolli, University of Surrey
- 3 Relaying through Distributed GABBA Space-Time Coded Amplify-and-Forward Cooperative Networks With Two-Stage Optimum Power Allocation**
Hung-Shiou Chen, Wen-Hsien Fang, Yie-Tarng Chen, National Taiwan University of Science and Technology
- 4 Distributed Convolutional-Coded Differential Space-Time Block Coding for Cooperative Communications**
Soon Xin Ng, Yang Wang, Lajos Hanzo, University of Southampton

- 5 Diversity and Delay-Limited Throughput Analysis for the Effective Cooperative ARQ Protocols with Opportunistic Distributed Space-Time Coding**
Hsin-Li Chiu, Sau-Hsuan Wu, Jin-Hao Li, National Chiao Tung University

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8C: Advanced Transmission Techniques

Chair: Kenichi Higuchi, Tokyo University of Science

- 1 Over-the-air Inter-node Carrier Phase Synchronization for Coherent Transmission**
Yoshitaka Hara, Noriyuki Fukui, Hiroshi Kubo, Mitsubishi Electric Corporation
- 2 Joint Iterative Power Allocation and Interference Suppression Algorithms for Cooperative DS-CDMA Networks**
Rodrigo de Lamare, Sheng Li, University of York
- 3 St. Petersburg Paradoxes in Performance Analysis of Adaptive Wireless Systems**
Adrian Kotelba, Aarne Mämmelä, VTT Technical Research Centre of Finland
- 4 Cooperative Versus Receiver Coded Diversity with Low-Complexity Encoding and Decoding**
Saif E. A. Alnawaseh, Pavel Loskot, Swansea University
- 5 Downlink Transmit Diversity For Broadband Single-carrier Distributed Antenna Network**
Hiroki Matsuda, Kazuki Takeda, Fumiyuki Adachi, Tohoku University

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8D: OFDM II

Chair: Mohamed Moustafa, Akhbar El Yom Academy

- 1 MMSE Solution for OFDMA Systems with Carrier Frequency Offset Correction**
Dah-Chung CHANG, National Central University
- 2 A New Out-Of-Band Power Suppression Scheme by Extending Effective Cyclic-Prefix of OFDM**
Yong Jiang, Yi Wang, Huawei Technologies, CO.,LTD
- 3 Clipping and Filtering-Based PAPR Reduction Method for Precoded OFDM-MIMO Signals**
Masao Iwasaki, Kenichi Higuchi, Tokyo University of Science
- 4 Performance Analysis of Alamouti Coded OFDM Systems over Rayleigh Fading Channels Correlated in Space and Time**
Yuanyuan Ma, Matthias Pätzold, University of Agder
- 5 An Iterative Method for Carrier Frequency Offset Estimation in OFDM Systems via Scattered Pilots**
Lin Bai, Qinye Yin, Xi'an Jiaotong University

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8E: Resource Allocation for Wireless Access

Chair: Yung-Fang Chen, National Central University

- 1 Carrier Aggregation in LTE-Advanced**
Rapeepat Ratasuk, Dominic Tolli, Motorola; Amitava Ghosh, Motorola, Inc.
- 2 Chunk Allocation Schemes for SC-FDMA Systems**
Wei-Cheng Pao, National Central University, Taiwan; Yung-Fang Chen, National Central University
- 3 Resource allocation for wireless multi-carrier network with receiver cooperation**
Zhang Peng, City University of Hong Kong; Kenneth W. Shum, Chinese University of Hong Kong; CW Sung, City University of Hong Kong
- 4 A combined MAC and Physical resource allocation mechanism in IEEE 802.16e networks**
Sondes Kallel, LIP6; Khaled Boussetta, University Paris 13; Nadjib Achir, Université de Paris 13; Guy Pujolle, Université Pierre et Marie Curie

- 5 Joint Call Admission Control and Resource Allocation for H.264 SVC Transmission over OFDMA Networks**

Mohammad Zubeir Bocus, University of Bristol; Justin Coon, Toshiba Research Europe Ltd.; Nishan Canagarajah, Joe McGeehan, University of Bristol; Simon Armour, Electrical and Electronic Department, University of Bristol; Angela Doufexi, University of Bristol

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8F: Access Issues in Wireless Networks

Chair: Jiann-Liang Chen, National Taiwan University of Science and Technology

- 1 Efficient Simulation using Shadowing Fields of Many Wireless Interferers with Correlated Shadowing**
Sebastian Szyszkowicz, Halim Yanikomeroglu, Furkan Alaca, Carleton University; John Thompson, University of Edinburgh
- 2 A Site-specific Study of In-building Wireless Solutions**
Zhen Liu, Troels B. Sørensen, Aalborg University; Jeroen Wigard, Jolma Petri, Troels E. Kolding, Nokia Siemens Networks; Preben Mogensen, Aalborg University
- 3 Contention-Based Neighborhood Estimation**
Helmut Adam, Evsen Yanmaz, Wilfried Elmenreich, Christian Bettstetter, University of Klagenfurt
- 4 An ARQ Mechanism with Rate Control for Two-hop Relaying Systems**
Jeon Sooyong, KAIST
- 5 Robust 60 GHz Indoor Connectivity: Is It Possible with Reflections?**
Zulkuf Genc, Umar H. Rizvi, Ertan Onur, Ignas Niemegeers, Delft University of Technology

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8G: Advanced Networking Technologies for Mobile Applications

Chair: Jung-Chun Kao, National Tsing Hua University

- 1 Predictive and Context-based Multimedia Content Delivery in Future Cellular Networks**
Pietro Lungaro, Royal Institute of Technology; Zary Segall, UMBC; Jens Zander, Royal Inst of Technology(KTH)
- 2 Multi-Group Wireless Multicast Broadcast Services using Adaptive Modulation and Coding: Modeling and Analysis**
Yu-Cheng Liang, Ching-Chun Chou, Hung-Yu Wei, National Taiwan University
- 3 An iWBC-MIDP Client Application Design for Use in WBCs**
Zhanlin Ji, University of Limerick; Ivan Ganchev, University of Limerick; Mairtin O'Droma, University of Limerick, Ireland
- 4 H.264 Wireless Video Telephony Using Iteratively-Detected Binary Self-Concatenated Coding**
Nasruminallah, Muhammad Fasih Uddin Butt, Soon Xin Ng, Lajos Hanzo, University of Southampton
- 5 A First-Order Markov Model for Wellness Mobile Applications**
Aravind Kailas, Georgia Institute of Technology; Chia-Chin Chong, DOCOMO USA Labs; Fujio Watanabe, DoCoMo USA Labs

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8H: Intelligent Vehicles and Applications

Chair: John Lee, Telcordia

- 1 G-Constellation: G-Sensor Motion Tracking Systems**
Chih-Wei Yi, Chao-Min Su, Wen-Tien Chai, Jiun-Long Huang, National Chiao Tung University; Tsun-Chieh Chiang, Industrial Technology Research Institute
- 2 An Eye State Recognition Method For Drowsiness Detection**
Yu-Shan Wu, Ting-Wei Lee, Quen-Zong Wu, Heng-Sung Liu, Telecommunication Laboratories Chunghwa Telecom Co., Ltd.

- 3 A Reinforcement Learning Based Power Assisted Method with Comfort of Riding for Light Electric Vehicle**
Roy Chaoming Hsu, Wei-Ming Lee, National Chiayi University, Taiwan; Cheng-Ting Liu, Chih-Hsiang Chen, National Chiayi University
- 4 Redundant Dissimilar Sensor Fusion with Dynamic Driver Input Classification and Graceful Degradation for Drive-by-Wire Applications**
Neal Lii, German Aerospace Center; Stefan Sturm, The BMW Group; Timothy A. Coombs, Cambridge University
- 5 Radio Channel Measurements at Street Intersections for Vehicle-to-Vehicle Safety Applications**
Johan Karedal, Fredrik Tufvesson, Taimoor Abbas, Lund University; Oliver Klomp, Delphi Delco Electronics Europe GmbH; Alexander Paier, Vienna University of Technology; Laura Bernadó, ftw. Forschungszentrum Telekommunikation Wien; Andreas F. Molisch, Lund University

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8I: Wireless Access Technologies III

Chair: Shaoyi Xu, Nokia

- 1 Effective Labeled Time Slots based D2D Transmission in Cellular Downlink Spectrums**
Shaoyi Xu, Nokia(China); Haiming Wang, Nokia Devices R&D/Wireless System Research
- 2 Cost Based Local Forwarding Transmission Schemes for Two-hop Cellular Networks**
Zhengguang Zhao, Xuming Fang, Yan Long, Xiaopeng Hu, Yue Zhao, Southwest Jiaotong University; Yang Liu, Yuqin Chen, Hongyun Qu, Ling Xu, ZTE Corporation
- 3 Adaptive Precoder Selection for Multicast/Broadcast Service in MIMO-OFDMA Systems**
Hsu-Chieh Hu, Yen-Huan Li, Prof. Ping-Cheng Yeh, National Taiwan University
- 4 An Accurate Analytical Model for Overloaded DS-CDMA under Imperfect Synchronization**
Sujit Jos, C-DOT; Preetam Kumar, Indian Institute of Technology, Patna; Saswat Chakrabarti, Indian Institute of Technology
- 5 Generalized Proportionally Fair Scheduling for Multi-User Amplify-and-Forward Relay Networks**
Alireza Sharifian, Petar Djukic, Halim Yanikomeroglu, Carleton University; Jietao Zhang, Huawei Technologies Co., Ltd.

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8Pa: Ad-Hoc and Sensor Networks II

- 1 One-bit Quantizer Design for Distributed Estimation under the Minimax Criterion**
Tao Wu, Qi Cheng, Oklahoma State University
- 2 A Cross-Layer Design Based on Geographic Information for Cooperative Wireless Networks**
Teck Aguilar, Mohamed Chedly Ghedira, Telecom Sud Paris; Syue-Ju Syue, National Tsing Hua University; Vincent Gauthier, Hossam Afifi, Telecom Sud Paris; Chin-Liang Wang, National Tsing Hua University
- 3 Network Status Detection-Based Dynamic Adaptation of Contention Window in IEEE 802.11p**
Hung-Chin Jang, Wen-Chieh Feng, National Chengchi University
- 4 Experimental Comparison of Dynamic Spectrum Access Techniques for Wireless Sensor Networks**
Luca Stabellini, Royal Institute of Technology (KTH); Muhammad Umar Javed, The Royal Institute of Technology
- 5 Efficiency of Distributed Compression and its Dependence on Sensor Node Deployments**
Frank Oldewurtel, Janne Riihijärvi, Petri Mahonen, RWTH Aachen University
- 6 Delay Analysis of Enhanced Relay-Enabled Distributed Coordination Function**
Rizwan Ahmad, Victoria University; Fu-Chun Zheng, The University of Reading; Micheal Driehberg, Victoria University

- 7 Scheduling for MIMO Networks with Rate-Constrained Connectivity Requirements**
Jiang Feng, University of California, Irvine; A. Lee Swindlehurst, The University of California at Irvine; Jianqi Wang, Purdue University
- 8 Distributed TDoA Estimation for Wireless Sensor Networks Based on Frequency-Hopping in Multipath Environment**
WeiLe Zhang, Qinye Yin, Xue Feng, Wenjie Wang, Xi'an Jiaotong University
- 9 Analysis of Enhanced Deployment Models for Sensor Networks**
Frank Oldewurtel, Petri Mahonen, RWTH Aachen University
- 10 Low-Complexity Channel Estimation for Cooperative Wireless Sensor Networks Based on Data Selection**
Tong Wang, Rodrigo de Lamare, Paul D. Mitchell, University of York

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8Pb: Multiple Antenna Systems and Space-Time Processing IV

- 1 System Layer Evaluation of Imperfect Adaptive Beam-Forming Antenna for Mixed Services in the LTE TDD System**
Ruiming Yang, Beijing University of Posts & Telecommunications; Yongyu Chang, Beijing University of Posts and Telecommunications; Shuhui Liu, Beijing University of Posts & Telecommunications; Dacheng Yang, Beijing University of Posts and Telecommunications
- 2 Upper Bounds for the Analysis of Trellis Coded Spatial Modulation over Correlated Fading Channels**
Marco Di Renzo, The University of Edinburgh - IDCOM; Raed Mesleh, Jacobs University; Harald Haas, University of Edinburgh; Peter M. Grant, The University of Edinburgh
- 3 Performance of Space-Time Block Coded DS-CDMA Uplink Employing ACO-Aided Multiuser Detection and Iterative Decoding**
Chong Xu, Rob Maunder, Lie-Liang Yang, Lajos Hanzo, University of Southampton
- 4 Exact SER and Diversity Gain Analysis of SDM-STBC MIMO Systems over Flat Fading Channels**
Chun-Ning Chiu, National Chung Cheng University; Prof. Tsung-Hsien Liu, National Chung Cheng Univ.
- 5 On the Cooperative and Non-cooperative Relaying in WiMAX Communication Systems**
Khalil Fakhil, CISTEME, Limoges, France; Adil Belhouji, Moctar Mouhamadou, Cyril Decroze, David Carsenat, XLIM, University of Limoges
- 6 Instantaneous Symbol Error Outage Probability over Fading Channels with Imperfect Channel State Information**
Mingwei Wu, Pooi Yuen Kam, National University of Singapore
- 7 Error Probability Analysis of Unselfish Cooperation over Quasi-static Fading Channels**
Ioannis Chatzigeorgiou, Weisi Guo, Ian J. Wassell, University of Cambridge; Rolando Carrasco, University of Newcastle

Wednesday 19 May 2010 15:30-17:00 International Ballroom

8Pc: Wireless Access IV

- 1 Distributed Multiple Access and Flow Control for Wireless Network Coding**
Christian Ibars, Centre Tecnologic de Telecomunicacions de Catalunya - CTTC; Lorenza Giupponi, CTTC; Sateesh Addepalli, Cisco
- 2 A Study of G-distribution Statistical Properties Under Fractional Network Loading**
Jussi Turkka, Tampere University of Technology
- 3 Distributed Antenna Systems with Power Adjusted Beam Switching**
Tao Wu, Young Hoon Kwon, Huawei Technologies; Jiayin Zhang, Huawei Technologies. Co.,Ltd.; Yi Wang, Huawei Technologies,CO.,LTD

4 Predictive Techniques for Enabling Fast and Accurate Medium Access Control in Distributed Power-Controlled Networks

Stepan Kucera, NICT; Zhang Bing, NiCT, Japan

5 Blind Collision Resolution Using Cooperative Transmission

Junliang Yao, Xi'dian university; Xiaoniu Yang, No.36 Research Institute of CETC; Li Jiandong, University of XiDian; Zhao Li, Xi'dian University; Yan Zhang, Xidian University

6 Rateless Multiple Access Over Erasure Channel

Kedi Wu, Zhang Zhaoyang, Shaolei Chen, Zhejiang University

7 A Novel Frequency Reuse Scheme for Coordinated Multi-Point Transmission

Li Jingya, Zhang Hui, Xiaodong Xu, Tao Xiaofeng, Beijing University of Posts and Telecommunications; Tommy Svensson, Department of

Signals and Systems, Chalmers University of Technology; Carmen Botella, Signals and Systems, Chalmers University of Technology; Baoling Liu, Beijing University of Posts and Telecommunications

8 Downlink Power Control Scheme for Smart Antenna based Wireless Systems

Woongsup Lee, Dong-Ho Cho, KAIST

9 Dynamic Packet Scheduling for Traffic Mixes of Best Effort and VoIP Users in E-UTRAN Downlink

Guillaume Monghal, Aalborg University; Daniela Laselva, Per Henrik Michaelsen, Jeroen Wigard, Nokia Siemens Networks