PHY Track

Monday 6 April, 11:10 - 13:00, Erzsébet A

PHY 1: Amplify and Forward Relaying 1
PHY1.1: Analyzing Amplify-and-Forward and Decode-and-Forward Cooperative Strategies in Wyner's Channel Model
Pengyu Zhang, Jian Yuan, Jianshu Chen, Jian Wang, Tsinghua University, China; Jin Yang, Motorola, China

PHY1.2: Beamforming with Antenna Correlation in Two Hop Amplify and Forward Relay Networks
Raymond H.Y. Louie, Yonghui Li, University of Sydney, Australia; Himal A. Suraweera, Victoria University, Australia; Branka Vucetic, University of Sydney, Australia

PHY1.3: Comparison of Full-Duplex and Half-Duplex Modes with a Fixed Amplify-and-Forward Relay
Taneli Riihonen, Stefan Werner, Risto Wichman, Helsinki University of Technology, Finland

PHY1.4: Cooperative Amplify-and-Forward with Trellis Coded Modulation
Li Chen, Rolando Carrasco, Stephane LeGoff, Newcastle University, United Kingdom; and Ian Wassell, University of Cambridge, United Kingdom

PHY1.5: Transmit Antenna Selection Strategy in Amplify-and-Forward MIMO Relaying
Lei Cao, Xin Zhang, Yafeng Wang, Dacheng Yang, Beijing University of Posts and Telecommunications, China

Monday 6 April, 11:10 - 13:00, Erzsébet B

PHY 2: MIMO 1
PHY 2.1: Efficient Transmit Antenna Selection for Correlated MIMO Channels
Hyungsoo Kim, Hyounkuk Kim, Namshik Kim, Hyuncheol Park, Information and Communications University, Korea, Republic of; Seok Seo, Jinkyu Choi, Electronics and Telecommunications Research Institute, Korea, Republic of

PHY 2.2: MIMO TDCS with Extra Embedded Symbol for Higher Data Rates in Overlay Spectrum Sharing System
Ibrahim Budiarjo, Homayoun Nikookar, IRCTR TU DELFT, Netherlands

PHY 2.3: Low Complexity Precoder Design for Delay Sensitive Multi-stream MIMO Systems
Vincent Lau, Hong Kong University of Science Technology, Hong Kong; Yan Chen, Peiliang Qiu, Zhaoyang Zhang, Zhejiang University, China

PHY 2.4: Transmit Antenna Selection for Partially Precoded MIMO Systems
Christos Masouros, Emad Alsusa, Ulises Pineda, University of Manchester, United Kingdom

PHY 2.5: Frequency-Domain Transmit Processing for MIMO SC-FDMA in Wideband Propagation Channels
Mohamed Noune, Andrew Nix, University of Bristol, United Kingdom

Monday 6 April, 11:10 - 13:00, Margit A

PHY 3: Fading Channels
PHY 3.1: Cooperative Diversity over Fading Channels with Impulsive Noise
Suhail Al-Dharrab, Murat Uysal, University of Waterloo, Canada

PHY 3.2: Outage Analysis of Wireless Systems over Composite Fading/Shadowing Channels with Co-Channel Interference
Imene Trigui, INRS-EMT, Canada; Amine Laourine, Cornell University, United States; Sofiene Affes, INRS-EMT, Canada; Alex Stephenne, Ericsson, Canada

PHY 3.3: Effect of a Cochannel Interferer on an Automatic Frequency Control Loop in Fading Channels
Amin Emad, Norman C. Beaulieu, University of Alberta, Canada

PHY 3.4: New Method for Analyzing the Transport Stream Packet Error Rate of 'WBC over DVB-H'
Zhanlin Ji, Ivan Ganchev, Mairtin O'Droma, University of Limerick, Ireland

PHY 3.5: On the Impact of Imperfect Cophasing in Uncoded and LDPC-Coded EGC Receivers over Generalized Fading Channels
Goran Djordjevic, Faculty of Electronic Engineering, Serbia; Ivan Djordjevic, University of Arizona, United States; George Karagiannidis, Aristotle University of Thessaloniki, Greece

Wednesday8 April, 16:40 - 18:30, Margit A

PHY 4: Interference Mitigation
PHY 4.1: Spatial Interference Cancellation Algorithm
Rizwan Ghaffar, Raymond Knopp, Eurecom, France

PHY 4.2: On Pilot Design for Channel Estimation and MUI Reduction in Uplink OFDMA Systems
Wei-Chieh Huang, Graduate Institute of Communication Engineering, National Taiwan University, Taiwan; Xin-Zhe He, Chih-Peng Li, Institute of Communications Engineering, National Sun Yat-Sen University, Taiwan; Hsueh-Jyh Li, Graduate Institute of Communication Engineering, National Taiwan University, Taiwan

PHY 4.3: Multi-Antenna Interference Cancellation Techniques for Cognitive Radio Applications
Omar Bakr, Mark Johnson, UC Berkeley, United States; Raghuraman Mudumbai, UC Santa Barbara, United States; Kannan Ramchandran, UC Berkeley, United States

PHY 4.4: Linear Interference Suppression for Spread Spectrum Systems with Switched Interleaving and Limited Feedback
Yunlong Cai, Rodrigo de Lamare, Rui Fa, University of York, United Kingdom

PHY 4.5: New Pilot Designs and ICI Mitigation for OFDM Downlink Systems based on IEEE 802.16m Standards over High Speed Vehicular Channels
Hyunkee Min, Yonsei University, South Korea; Jihyung Kim, Electronics Telecommunications Research Institute, South Korea; Hyungjong Kim, Dongkyu Kim, Yonsei University, South Korea; Dong Seung Kwon, Electronics Telecommunications Research Institute, South Korea; Daesik Hong, Yonsei University, South Korea

Monday 6 April, 14:30 - 16:20, Erzsébet A

PHY 5: MIMO 2
PHY 5.1: Multi-Branch Successive Interference Cancellation for MIMO Spatial Multiplexing Systems
Rui Fa, Rodrigo de Lamare, University of York, United Kingdom

PHY 5.2: On the Effect of I/Q Imbalance on MIMO Transmit-Receive Diversity Systems
Jian Qi, Sonia Aissa, INRS-EMT, University of Quebec, Canada

PHY 5.3: Performance Prediction in Adaptive Mimo Systems
Tom McGiffen, Don Cox, Stanford University, United States; John Koshy, Telcordia Technologies, United States

PHY 5.4: Polynomial Matrix QR Decomposition and Iterative Decoding of Frequency Selective MIMO Channels
Martin Davies, Sangarapillai Lambotharan, Joanne Foster, Jonathon Chambers, Loughborough University, United Kingdom; John McWhirter, Cardiff University, United Kingdom

PHY 5.5: Simplified Generalized Parallel Interference Cancellation Algorithm for Near-Optimal V-BLAST Detection
Cong Xiong, Xin Zhang, He Wang, Kai Wu, Li Chen, Dacheng Yang, Beijing University of Posts and Telecommunications, China

Monday 6 April, 14:30 - 16:20, Erzsébet B

PHY 6: UWB
PHY 6.1: A New Criterion to Jointly Design the Antenna and Optimize the Communication Capacity in IR-UWB
Dorin Panaitopol, SUPELEC & NUS, France; Jocelyn Fiorina, Antoine Diet, Nicolas Ribiere-Tharaud, SUPELEC, France

PHY 6.2: Genetic Algorithm Based Equalization for Direct Sequence Ultra-Wideband Communications Systems
Nazmat Surajudeen-Bakinde, Xu Zhu, Jingbo Gao, Asoke. K. Nandi, University of Liverpool, United Kingdom

PHY 6.3: Performance of PPM-Based Non-Coherent Impulse Radio UWB Systems using Sparse Codes in the Presence of Multi-User Interference
Nuan Song, Mike Wolf, Martin Haardt, TU Ilmenau, Germany

PHY 6.4: Detection and Identification of NBI for Multichannel UWB Autocorrelation Receivers
Yohannes Demessie, Hiroshi Harada, National Institute of Information Communication Technology (NICT), Japan; Klaus Witrisal, Graz University of Technology, Austria

PHY 6.5: Ultra-Wideband Radio Pulse Shaping Filter Design for IEEE 802.15.4a Transmitter
Ayse Adalan, Michael Fischer, Vienna University of Technology, Austria; Thomas Gigl, CISC Semiconductor Design + Consulting GmbH, Austria; Klaus Witrisal, Graz University of Technology, Austria; Arpad L. Scholtz, Christoph F. Mecklenbräuker, Vienna University of Technology, Austria

Monday 6 April, 14:30 - 16:20, Margit A

PHY 7: Spread Spectrum
PHY 7.1: A Novel Pairing Diversity Technique with Dynamic Code Allocation for CDMA Systems Employing Polyphase Sequences
Ahmed El Kalagy, Emad Alsusa, University of Manchester, United Kingdom

PHY 7.2: Blind User Detection and Delay Acquisition in Doubly-Dispersive DS/CDMA Fading Channels
Stefano Buzzi, Luca Venturino, Alessio Zappone, University of Cassino, Italy; Antonio De Maio, University of Naples Federico II, Italy

PHY 7.3: Performance of Large CDMA Random Access Systems with Retransmission Diversity over Fading Channels
Kai Yu, Southwest Jiaotong University, China; Yi Sun, City College of City University of New York, United States; Pingzhi Fan, Xianfu Lei, Southwest Jiaotong University, China

PHY 7.4: Permutation Spreading for Asynchronous MIMO-CDMA Systems Using Hadamard Codes and Gold Scrambling Sequences
Claude D'Amours, University of Ottawa, Canada; Adel Omar Dahmane, Universite du Quebec a Trois Rivieres, Canada

PHY 7.5: A Novel Complexity Metric of FH/SS Sequences Using Approximate Entropy
Zan Li, Jueping Cai, Xiaojun Chen, Xiaofeng Lu, XiDian University, China

Monday 6 April, 16:40 - 18:30, Erzsébet A

PHY 8: Channel Estimation
PHY 8.1: 3D Pilot Aided Channel Estimation
Gunther Auer, DOCOMO Euro-Labs, Germany

PHY 8.2: Efficient Space Code Block Code MIMO Channel Estimation for Future Mobile Video Broadcasting
Oudomsack Pierre Pasquero, Matthieu Crussiere, Youssef Nasser, Jean-Francois Helard, IETR, France

PHY 8.3: Finite-State Markov Modelling of Frequency-Selective Fading Channels with Correlated Taps
Stephen Taylor, Parastoo Sadeghi, Research School of Information Sciences and Engineering, Australian National University, Australia

PHY 8.4: Channel Estimation Using Time-Multiplexed Pilots in HSUPA Uplink
Piyush Kaul, Anupama Saini, Aricent Technologies, India

PHY 8.5: Uplink Channel Estimation in WiMAX
Kenneth Ho, University of Maryland, United States; Andres Kwasinski, Rochester Institute of Technology, United States

Monday 6 April, 16:40 - 18:30, Margit B

PHY 9: Wireless Sensor Networks
PHY 9.1: Low Complexity Clock Synchronization Algorithm for Wireless Sensor Networks with Unknown Delay
Mei Leng, Yik-Chung Wu, The University of Hong Kong, Hong Kong

PHY 9.2: Effect of Synchronization Errors on Alamouti Coding in Wireless Sensor Networks
Haitao Wan, Jean-François Diouris, Guillaume Andrieux, IREENA, École polytechnique de l'université de Nantes, France

PHY 9.3: Relay Selection Schemes for Uniformly Distributed Wireless Sensor Networks
Keyvan Zarifi, INRS-EMT, Canada; Mohammed Abuthinien, Ali Ghrayeb, Concordia University, Canada; Sofiene Affes, INRS-EMT, Canada

PHY 9.4: Modulation Selection from a Battery Power Efficiency Perspective: A Case Study of PPM and OOK
Dongliang Duan, Fengzhong Qu, Liuqing Yang, University of Florida, United States; Ananthram Swami, U. S. Army Research Laboratory, United States; Jose C. Principe, University of Florida, United States

Monday 6 April, 16:40 - 18:30, Margit A

PHY 10: Multiuser MIMO 1
PHY 10.1: A Hierarchical Feedback Technique for Multiuser MIMO
Keying Wu, Hongwei Yang, Liyu Cai, Alcatel Shanghai Bell Co., Ltd, China

PHY 10.2: Base Station Selection Technique for MMSE Joint Transmission in Downlink Cooperative MIMO System
Namjeong Lee, Keonkook Lee, Eunhye Nam, Sunhyoung Kwon, Joonhyuk Kang, Information and Communications University, Korea, Republic of; Gye-Tae Gil, Korea Telecom, Korea, Republic of

PHY 10.3: Multiuser Scheduling in Downlink MIMO Systems Using Particle Swarm Optimization
Yong-Qiang Hei, ISN, Xi'dian University, China; Xiao-Hui Li, Ke-Chu Yi, Xiong Li, Xi'dian University, China

PHY 10.4: Near-Optimum Vector Perturbation Precoding Using a Candidate List
Henning Vetter, Toshiba Research Europe Ltd., United Kingdom; Vishakan Ponnampalam, Realtek Semiconductor, United States

Monday 6 April, 16:40 - 18:30, Corso A

PHY 11: Cooperative Relays
PHY 11.1: An Outage-Optimal Distributed Coded Cooperation Scheme Based On Opportunistic Relaying
Qiang Guo, Li Yu, Huazhong University of Science and Technology, China

PHY 11.2: Hybrid Decode-Amplify-Forward Cooperative Communications with Multiple Relays

Trung Q. Duong, Hans-Jurgen Zepernick, Blekinge Institute of Technology, Sweden

PHY 11.3: On the Performance of Cooperative Systems with Blind Relays over Nakagami-m and Weibull Fading
Marco Di Renzo, Telecommunications Technological Center of Catalonia (CTTC), Spain; Fabio Graziosi, Fortunato Santucci, University of L'Aquila, Italy

PHY 11.4: Realizing Wireless Cooperative Communications with the One-Bit Soft Forwarding Technique
Gao Yang Dai, Wai Ho Mow, The Hong Kong University of Science & Technology, Hong Kong

Wednesday8 April, 16:40 - 18:30, Erzsébet B

PHY 12: Cooperative Communications and Network Coding
PHY 12.1: Full Interference Cancellation for Two-Path Cooperative Communications
Chunbo Luo, Yu Gong, Fuchun Zheng, School of Systems Engineering, The University of Reading, United Kingdom

PHY 12.2: A Novel Network-Coding-based Coded CooperationScheme
Suwen Wu, Jinkang Zhu, Ming Zhao, University of Science and Technology of China, China

PHY 12.3: Joint Distributed Source and Network Coding for Multiple Wireless Unicast Sessions
Shahriar Etemadi Tajbakhsh, Ali Movaghar, Sharif University of Technology, Iran, Islamic Republic of

PHY 12.4: Network Coding Versus Superposition Coding for Two-Way Wireless Communication
Ernest Lo, Stanford University, United States; Khaled Ben Letaief, Hong Kong University of Science and Technology, Hong Kong

Tuesday 7 April, 16:40 - 18:30, Erzsébet A

PHY 13: Transmitter and Receiver Design
PHY 13.1: A Joint MLSD Receiver for Meteor Burst Communication
Zan Li, Jiangbo Si, XiDian University, China; Feng Lan, China Electronic System Engineering Company, China; Xiaojun Chen, XiDian University, China

PHY 13.2: Adaptive Sequence Detection for MPSK/MQAM with Unknown Carrier Phase Characteristics
Yan Li, Pooi Yuen Kam, National University of Singapore, Singapore; Chee-Cheon Chui, DSO National Laboratories, Singapore

PHY 13.3: Design and Implementation of a Reconfigurable Decimation and Channel Selection Filter for GSM and UMTS Radio Standards
Nadia Khouja, Khaled Grati, CIRTA'COM Laboratory, Tunisia; Adel Ghazel, SUP'COM, Tunisia; Bertrand Le Gal, IMS-Bordeaux, France

PHY 13.4: Transmit Precoding Design for Multi-Antenna Multicast Broadcast Services with Limited Feedback
Eddy Chiu, Vincent Lau, The Hong Kong University of Science and Technology, Hong Kong

PHY 13.5: Enhanced Greedy Algorithm Based Dynamic Subcarrier Allocation for Single Carrier FDMA Systems
Obilor Nwamadi, Xu Zhu, Asoke Nandi, University of Liverpool, United Kingdom

Tuesday 7 April, 11:10 - 13:00, Erzsébet B

PHY 14: Amplify and Forward Relaying 2
PHY 14.1: Distributed Power Allocation Schemes for Amplify-and-Forward Networks
Hui Hui, Shihua Zhu, Guobing Li, Xi'an Jiaotong University, China

PHY 14.2: Joint Source/Relay Precoder Design in Amplify-and-Forward Relay Systems Using an MMSE Criterion
Fan-Shuo Tseng, Wen-Rong Wu, Jwo-Yuh Wu, National Chiao-Tung University, Taiwan

PHY 14.3: Nonlinear Amplifier Distortion in Cooperative Amplify-and-Forward OFDM Systems
Victor del Razo, Taneli Riihonen, Helsinki University of Technology, Finland; Fernando Gregorio, Universidad Nacional del Sur, Argentina; Stefan Werner, Risto Wichman, Helsinki University of Technology, Finland

PHY 14.4: On the Outage Probability in Amplify-and-Forward Relay Channels
Dorra Ben Cheikh, Ahmed Saadani, Orange-Labs, France

PHY 14.5: Relay Selection Issues for Amplify-and-Forward Cooperative Systems with Interference
Ioannis Krikidis, John Thompson, Steve McLaughlin, University of Edinburgh, United Kingdom

Tuesday 7 April, 11:10 - 13:00, Margit A

PHY 15: Multiuser MIMO 2
PHY 15.1: Non-Linear Transceiver Designs with Imperfect CSIT Using Convex Optimization
P. Ubaidulla, A. Chockalingam, Indian Institute of Science, India

PHY 15.2: Performance Analysis of Multiuser MIMO Scheduling With Full and Limited Feedback
Hamed Maleki, Said Nader-Esfahani, University of Tehran, Iran, Islamic Republic of

PHY 15.3: Robust THP Transceiver Designs for Multiuser MIMO Downlink
P. Ubaidulla, A. Chockalingam, Indian Institute of Science, India

PHY 15.4: SINR Balancing with Coordinated Multi-cell Transmission
Antti Tölli, Harri Pennanen, Petri Komulainen, University of Oulu, Finland

Tuesday 7 April, 11:10 - 13:00, Corso A

PHY 16: Communication Theory

PHY 16.1: A Novel Highly Accurate Log Skew Normal Approximation Method to Lognormal Sum Distributions
Zhijin Wu, Brown University, United States; Xue Li, Wright State University, United States; Robert Husnay, Vasu Chakravarthy, Air Force Research Laboratory, United States; Bin Wang, Zhiqiang Wu, Wright State University, United States

PHY 16.2: On the Approximation of the Generalized-K PDF by a Gamma PDF Using the Moment Matching Method
Saad Al-Ahmadi, Halim Yanikomeroglu, Carleton University, Canada

PHY 16.3: The alpha-lambda-mu-eta: A General Fading Distribution
Anastasios Papazafeiropoulos, Stavros Kotsopoulos, University of Patras, Greece; Dimitrios Zevgolis, Hellenic Open University, Greece

PHY 16.4: A General Numerical Method for Computing the Probability of Outage
Damith Senaratne, Chintha Tellambura, University of Alberta, Canada

Tuesday 7 April, 16:40 - 18:30, Margit A

PHY 17: Coded OFDM
PHY 17.1: Iterative EM-Based Channel Estimation for STBC-OFDM
Ilhan Basturk, Berna Ozbek, Izmir Institute of Technology, Turkey

PHY 17.2: Full Rate Orthogonal Space-Time Block Coding in OFDM Transmission Using Time Reversal
Yue Wang, Justin Coon, Toshiba Research Europe Ltd., United Kingdom

PHY 17.3: On the Performance of Pre-Transformed Space-Time Block Coded OFDM Systems
Yan Wu, Eindhoven University of Technology, The Netherlands; Chin Keong Ho, Sumei Sun, Institute for Infocomm Research, Singapore

PHY 17.4: A Simple OFDM-Based Multiple Access System with Super-Orthogonal Convolutional Codes and Golay Sequence
Hideki Ochiai, Yu Takayama, Yokohama National University, Japan

Wednesday8 April, 11:10 - 13:00, Margit A

PHY 18: Wireless Networks
PHY 18.1: Conversion of the Spatio-Temporal Correlation from Uplink to Downlink in FDD Systems
Markus Jordan, Xitao Gong, Gerd Ascheid, RWTH Aachen University, Germany

PHY 18.2: Wireless NUM: Rate and Reliability Tradeoffs in Random Environment
Daniel Craig O'Neill, Boon Sim Thian, Andrea Goldsmith, Stanford University, United States

PHY 18.3: Full Frequency Reuse in OFDMA-Based Wireless Networks with Sectored Cells
Serdar Sezginer, Sequans Communications, France; Hikmet Sari, Supelec, France

PHY 18.4: Performance Analysis of Outage-Limited Multi-Access Cellular Systems with Macro-Diversity
Derrick Wing Kwan Ng, University of British Columbia, Canada; Vincent K.N Lau, HKUST, Hong Kong

Tuesday 7 April, 14:30 - 16:20, Erzsébet A

PHY 19: OFDM 1
PHY 19.1: Flexible OFDM schemes for bursty transmissions
Romain Couillet, Mérouane Debbah, Supelec, France

PHY 19.2: A Novel Adaptive Interleaving Scheme for OFDM Systems
Hao Wang, Fujitsu Research & Development Center CO., Ltd, China; Hongwen Yang, Beijing University of Posts and Telecommunications, China

PHY 19.3: An Improved Receiver Architecture for Cyclic-Prefixed OFDM
Giovanni Garbo, Stefano Mangione, Università di Palermo, Italy

PHY 19.4: Decoupled Phase Optimization for Partial Transmit Sequence OFDM
Aaron Gulliver, Abolfazl Ghassemi, University of Victoria, Canada

PHY 19.5: PAPR Reduction in OFDM Systems with Per-subcarrier Antenna Selection
Justin Coon, Toshiba Research Europe Ltd, United Kingdom

Tuesday 7 April, 14:30 - 16:20, Margit B

PHY 20: Spectrum Sensing 1
PHY 20.1: A Multitaper Spectrum Based Detector for Cognitive Radio
Jun Wang, Q.T. Zhang, City University of Hong Kong, Hong Kong

PHY 20.2: An Optimal Soft Fusion Scheme for Cooperative Spectrum Sensing in Cognitive Radio Network
Bin Shen, Taiping Cui, Chengshi Zhao, Kyungsup Kwak, Inha University, Korea, Republic of; Zheng Zhou, Beijing Univ. of Posts and Telecommunications, China

PHY 20.3: Collaborative Spectrum Sensing with Imperfect Gaussian Channel Estimation
Yunfei Chen, University of Warwick, United Kingdom; Norman Beaulieu, University of Alberta, Canada

PHY 20.4: Identifying Spectrum Usage by Unknown Systems using Experiments in Machine Learning
Nikhil Shetty, University of Cailfornia, Berkeley, United States; Sofie Pollin, Interuniversity Microelectronics Centre, Belgium; Przemyslaw Pawelczak, Delft University of Technology, Netherlands

Tuesday 7 April, 14:30 - 16:20, Erzsébet B

PHY 21: Cognitive Radio 1
Phy 21.1: Bayesian Inference for Multiple Antenna Cognitive Receivers
Romain Couillet, Mérouane Debbah, Supelec, France

Phy 21.2: Beamforming and Power Control for Multi-Antenna Cognitive Two-Way Relaying
Kommate Jitvanichphaibool, Ying-Chang Liang, Rui Zhang, Institute for Infocomm Research, Singapore

Phy 21.3: Design of Efficient ARQ Schemes with Anti-Jamming Coding for Cognitive Radios
Guosen Yue, NEC Laboratories America, Inc., United States; Xiaodong Wang, Columbia University, United States

Phy 21.4: Listen-While-Talking: A Technique for Primary User Protection
Nilesh Khambekar, University at Buffalo, United States; Chad Spooner, NorthWest Research Associates, United States; Vipin Chaudhary, University at Buffalo, United States

Phy 21.5: Multiple Antennas Selection for Linear Precoding MISO Cognitive Radio
Jun Zhou, John Thompson, Ioannis Krikidis, University of Edinburgh, United Kingdom

Wednesday8 April, 9:00 - 10:50, Erzsébet A

PHY 22: Equalization
PHY 22.1: Low-Complexity Linear Equalization for Block Transmission in Multipath Channels
Shakti Prasad Shenoy, EURECOM, France; Francesco Negro, Irfan Ghauri, Infineon Technologies, France; Dirk T. M. Slock, EURECOM, France

PHY 22.2: Efficient Compensation of RF Impairments for OFDM Systems
Deepaknath Tandur, Katholieke Universiteit Leuven, Belgium; Chong-you Lee, National Chiao Tung University, Taiwan; Marc Moonen, Katholieke Universiteit Leuven, Belgium

PHY 22.3: Performance Comparison of Feasible MMSE-PIC Algorithms with Channel Estimation for HSUPA
Ilkka Moilanen, Paavo Hahtola, VTT Technical Research Centre of Finland, Finland

PHY 22.4: Turbo Equalization with Channel Prediction and Iterative Channel Estimation
Liang Dong, Western Michigan University, United States

PHY 22.5: Theoretical Analysis of Joint THP/pre-FDE for Single-Carrier Signal Transmissions
Kazuki Takeda, Hiromichi Tomeba, Fumiyuki Adachi, Tohoku University, Japan

Tuesday 7 April, 16:40 - 18:30, Erzsébet B

PHY 23: WiMAX and LTE
PHY 23.1: Mobile WiMAX: MIMO Performance Analysis from a Quality of Service (QoS) Viewpoint
Mai Tran, David Halls, Andrew Nix, Angela Doufexi, Mark Beach, Bristol University, United Kingdom

PHY 23.2: Self-Configuration of Antenna Tilt and Power for Plug & Play Deployed Cellular Networks
András Temesváry, Budapest University of Technology and Economics, Hungary

PHY 23.3: Semi-Blind Multi-User Detection for LTE PUCCH
Yang Hu, Ericsson (China) Communications Company Ltd., China; David Astely, Robert Baldemair, Sorour Falahati, Ericsson AB, Sweden

PHY 23.4: Simple Cooperative Relaying Strategies for WiMAX Communication System
Simone Morosi, Dania Marabissi, Romano Fantacci, Enrico Del Re, Sara Jayousi, University of Florence, Italy

PHY 23.5: Pipelined Cooperative Spectrum Sensing in Cognitive Radio Networks
Feng Gao, Wei Yuan, Wei Liu, Wenqing Cheng, Shu Wang, Huazhong University of Science and Technology, China

Tuesday 7 April, 16:40 - 18:30, Margit B

PHY 24: Wireless Relay Networks
PHY 24.1: An Efficient Relay Selection Protocol for Cooperative Wireless Sensor Networks
Chin-Liang Wang, Syue-Ju Syue, National Tsing Hua University, Taiwan

PHY 24.2: Combating Timing Asynchronism in Relay Transmission for 3GPP LTE Uplink
Animesh Yadav, Markku Juntti, Juha Karjalainen, University of Oulu, Finland

PHY 24.3: Diversity-Multiplexing Tradeoff Bounds for Wireless Relay Networks
John Boyer, David Falconer, Halim Yanikomeroglu, Carleton University, Canada

PHY 24.4: Energy Efficiency of Opportunistic Routing with Unreliable Links
Ruifeng Zhang, Jean-Marie Gorce, Rongping Dong, Katia Jaffrès-Runser, INSA-Lyon, France

Tuesday 7 April, 14:30 - 16:20, Margit A
PHY 25: Synchronization
PHY 25.1: A Closed Concept for Synchronization and Cell Search in 3GPP LTE Systems
Konstantinos Manolakis, David Manuel Gutierrez Estevez, Volker Jungnickel, Fraunhofer Institute for Telecommunications, Heinrich-Hertz-Institut, Germany; Wen Xu, Siemens AG, Germany; Christian Drewes, Infineon Technologies AG, Germany

PHY 25.2: Low-Complexity Implementation of PN Correlator for Wireless Transmission Systems
Wei Li, Kewu Peng, Jian Song, Tsinghua National Laboratory for Information Science and Technology, China

PHY 25.3: On Performance Bounds for Timing Estimation under Fading Channels
Xiao Li, Yik-Chung Wu, The University of Hong Kong, Hong Kong; Erchin Serpedin, Texas A&M University, United States

PHY 25.4: PN Code Acquisition Using Boolean Satisfiability Techniques
Fadi Aloul, Mohamed El-Tarhuni, American University of Sharjah, United Arab Emirates

PHY 25.5: Multiple CFOs Compensation and BER Analysis for Cooperative Communication Systems
Zhang Yanyan, Zhang Jianhua, Wireless Technology Innovation Institute, Beijing University of Posts and Telecommunications, China

Wednesday8 April, 9:00 - 10:50, Margit A

PHY 26: Multiuser Receivers
PHY 26.1: Multi-User SISO Precoding Based on Generalized Multi-Unitary Decomposition for Single-Carrier Transmission in Frequency Selective Channel
Wee-Seng Chua, Nanyang Technological University, Singapore; Chau Yuen, Institute for Infocomm Research, Singapore, Singapore; Yong Liang Guan, Nanyang Technological University, Singapore; Francois Chin, Institute for Infocomm Research, Singapore, Singapore

PHY 26.2: Downlink Assisted Uplink Zero-Forcing for TDD Multiuser MIMO Systems
Petri Komulainen, Antti Tölli, Matti Latva-aho, Markku Juntti, University of Oulu, Finland

PHY 26.3: Iterative Detection for OFDMA Uplink with Frequency Offsets
Sajid Ahmed, Li Zhang, University of Leeds, United Kingdom

PHY 26.4: A TH-UWB Receiver with Near-MUD Performance for Multiple Access Interference Environments
Iraj Hosseini, Norman Beaulieu, University of Alberta, Canada

Wednesday8 April, 9:00 - 10:50, Corso A

PHY 27: MIMO OFDM 1
PHY 27.1: A Novel Double-Polarized SFBC-OFDM Scheme for ICI Suppression
Dong Li, Keying Wu, Liyu Cai, Hongwei Yang, Alcatel Shanghai Bell Co., Ltd, China

PHY 27.2: Blind I/Q Imbalance Compensation Using Independent Component Analysis in MIMO OFDM Systems
Jingbo Gao, Xu Zhu, University of Liverpool, United Kingdom; Hai Lin, Osaka Prefecture University, Japan; Asoke Nandi, University of Liverpool, United Kingdom

PHY 27.3: Complexity Reduced MLD Based on QR Decomposition in OFDM MIMO Multiplexing with Frequency Domain Spreading and Code Multiplexing
Kenichi Higuchi, Kouji Nagatomi, Tokyo University of Science, Japan; Hiroyuki Kawai, NTT DOCOMO, INC., Japan

PHY 27.4: Efficient Channel Quantization and Feedback Strategies for Multiuser MIMO-OFDM Systems
Xuejun Liang, Yang Liu, Jun Duan, Alcatel-Lucent Shanghai Bell Co., Ltd., China

Tuesday 7 April, 16:40 - 18:30, Corso A

PHY 28: Cognitive Radio 2
PHY 28.1: OFDM System Identification for Cognitive Radio Based on Pilot-Induced Cyclostationarity
François-Xavier Socheleau, Philippe Ciblat, Sébastien Houcke, Institut TELECOM, France

PHY 28.2: Power Efficiency Maximization in Cognitive Radio Networks
Deah J. Kadhim, Shimin Gong, Wenfang Xia, Wei Liu, Wenqing Cheng, Huazhong University of Science and Technology, China

PHY 28.3: Power Loading for Multicarrier Cognitive Radio with MIMO Antennas
Umesh Phuyal, Anjana Punchihewa, Vijay Bhargava, University of British Columbia, Canada; Charles Despins, Prompt-Quebec, Canada

PHY 28.4: Preamble Design for Non-contiguous Spectrum Usage in Cognitive Radio Networks
Shulan Feng, Hisilicon Technologies, China; Heather Zheng, University of California, Santa Barbara, United States; Haiguang Wang, Jinnan Liu, Philipp Zhang, Hisilicon Technologies, China

PHY 28.5: Transmit Power Selection by Cooperative Sensing in Cognitive Radio Networks
Kenta Umebayashi, Yukihiro Kamiya, Yasuo Suzuki, Tokyo University of Agriculture and Technology, Japan; Janne Lehtomäki, CWC, University of OULU, Finland

Wednesday8 April, 9:00 - 10:50, Margit B

PHY 29: MC CDMA
PHY 29.1: Performance Analysis for MC-CDMA System in Impulsive Noise Environments
Rui Fa, University of York, United Kingdom; Bayan Sharif, Charalampos Tsimenidis, Newcastle University, United Kingdom

PHY 29.2: On the Effect of Combined Equalization for MC-CDMA Systems in Correlated Fading Channels
Barbara Masini, IEIIT/CNR, University of Bologna, Italy; Flavio Zabini, University of Bologna, Italy

PHY 29.3: On the Construction of Orthogonal Spreading Code Groups for MC-CDMA with FDE in A Frequency Selective Channel
Koichi Adachi, Masao Nakagawa, Keio University, Japan

PHY 29.4: Performance of Space-Time-Frequency Block-Coded MC-DS-CDMA in Correlated Conditions
Daniel Basilio, Karel Mare, Bodhaswar Maharaj, University of Pretoria, South Africa

Wednesday8 April, 9:00 - 10:50, Lánchíd A

PHY 30: Cognitive Radio 3

PHY 30.1: Overhead-Throughput Tradeoff in Cooperative Cognitive Radio Networks
Young-June Choi, Yan Xin, Sampath Rangarajan, NEC Laboratories America, United States

PHY 30.2: Cooperative Diversity of Spectrum Sensing in Cognitive Radio Networks
Dongliang Duan, Liuqing Yang, Jose C. Principe, University of Florida, United States

PHY 30.3: Cognitive Node Selection and Assignment Algorithms for Weighted Cooperative Sensing in Radar Systems
Lingfeng (Stephen) Wang, Angela Doufexi, Centre for Communications Research, University of Bristol, United Kingdom; Chris Williams, Formerly of Centre for Communications Research, University of Bristol, United Kingdom; Joe McGeehan, Centre for Communications Research, University of Bristol, United Kingdom

PHY 30.4: Performance of Cyclostationary Features Based Spectrum Sensing Method in a Multiple Antenna Cognitive Radio System
Guanding Yu, Tengyi Zhang, Chi Sun, Zhejiang University, China

Wednesday8 April, 11:10 - 13:00, Erzsébet A

PHY 31: OFDM Channel Estimation

PHY 31.1: A Convergence Study of Iterative Channel Estimation Algorithms for OFDM Systems in Dispersive Time-Varying Channels
Zheng Du, Huawei Technology Co., China; Xuegui Song, Julian Cheng, UBC Okanagan, School of Engineering, Canada; Norman Beaulieu, University of Alberta, Electrical and Computer Engineering, Canada

PHY 31.2: A Decision Directed Square-Root Free Inverse QR-Decomposition based Groupwise Recursive Channel Estimator for SFBC-OFDM Systems
Siva Muruganathan, Abu Sesay, University of Calgary, Canada

PHY 31.3: Pilot Designs for Channel Estimation of OFDM Systems with Frequency-Dependent I/Q Imbalances
Hlaing Minn, Daniel Munoz, University of Texas at Dallas, United States

PHY 31.4: Robust DCT-based Channel Estimation for MIMO-OFDM system
Diallo Moussa, Rabineau Rodrigue, Cariou Lautent, France Telecom, France

PHY 31.5: Recursive Channel Estimation Algorithms for Iterative Receiver in MIMO-OFDM Systems
Chun-Lin Xiong, De-Gang Wang, Xiao-Ying Zhang, Ji-Bo Wei, Chao-Jing Tang, School of Electronic Science and Engineering, National University of Defense Technology, China

Wednesday8 April, 11:10 - 13:00, Erzsébet B

PHY 32: Multiple-Antenna Relay Systems

PHY 32.1: Achievable Rates of MIMO Bidirectional Broadcast Channels with Self-Interference Aided Channel Estimation
Jian Zhao, Marc Kuhn, Armin Wittneben, ETH Zurich, Switzerland; Gerhard Bauch, DoCoMo Euro-Labs, Germany

PHY 32.2: Blind Amplify-and-Forward Relaying in Multiple-Antenna Relay Networks
Sami Muhaidat, Simon Fraser University, Canada; Murat Uysal, University of Waterloo, Canada; Raviraj Adve, University of Toronto, Canada

PHY 32.3: Performance Analysis of Maximum Likelihood Detection for Decode and Forward MIMO Relay Channels in Rayleigh Fading
G. V. V. Sharma, Vijay Ganwani, Uday B. Desai, S. N. Merchant, IIT Bombay, India

PHY 32.4: Performance of Amplify-and-Forward MIMO Relay Channels with Transmit Antenna Selection and Maximal-Ratio Combining
Shuping Chen, Wenbo Wang, Xing Zhang, Dong Zhao, Beijing University of Posts & Telecommunications, China

PHY 32.5: Resource Allocation Algorithms with Reduced Complexity in MIMO Multi-Hop Fading Channels
Feng Li, Hamid Jafarkhani, University of California, Irvine, United States

Tuesday 7 April, 11:10 - 13:00, Erzsébet A

PHY 33: Context-Aware Communications (NEWCOM++)
PHY 33.1: A Novel Link Performance Prediction Method for Coded MIMO-OFDM Systems
Ivan Stupia, Filippo Giannetti, Vincenzo Lottici, University of Pisa, Italy; Luc Vandendorpe, Université Catholique de Louvain, Belgium

PHY 33.2: A Pragmatic Bit and Power Allocation Algorithm for NOFDM Signalling
Adrian Kliks, Hanna Bogucka, Poznan University of Technology, Poland; Vincenzo Lottici, Ivan Stupia, University of Pisa, Italy

PHY 33.3: Asymptotic Analysis of Correlated Multi-Antenna Broadcast Channels
Romain Couillet, Supelec, France; Sebastian Wagner, Eurecom, France; Mérouane Debbah, Supelec, France

PHY 33.4: Low Complexity SNR Estimation for Transmissions over Time-Varying Flat-Fading Channels
Marco Moretti, Michele Morelli, Giuseppe Imbarlina, University of Pisa, Italy; Nikos Dimitriou, NKUA/IASA, Greece

PHY 33.5: Multi-User Diversity Gain for Oblivious and Informed Users in Downlink Channels
Umer Salim, Dirk Slock, Eurecom, France

Wednesday8 April, 11:10 - 13:00, Corso A

PHY 34: Diversity
PHY 34.1: Downlink Capacity of Distributed Antenna Systems in a Multi-Cell Environment
Wei Feng, Yunzhou Li, Shidong Zhou, Jing Wang, Tsinghua University, China; Minghua Xia, ETRI Beijing R&D Center, China

PHY 34.2: 2-D Switching Diversity Aided Collaborative Spatial Multiplexing for Uplink Wireless Access
Xiaolong Zhu, Yong Song, Hongwei Yang, Liyu Cai, Alcatel-Lucent Shanghai Bell Co. Ltd, China

PHY 34.3: Exact Error Probabilities for MRC in Frequency Selective Nakagami Fading with ISI, CCI and ACI
Mohammad Azizur Rahman, Chin Sean Sum, National Institute of Information and Communications Technology (NICT), Japan; Shigenobu Sasaki, Niigata University, Japan; Tuncer Baykas, Junyi Wang, Ryuhei Funada, Hiroshi Harada, Shuzo Kato, National Institute of Information and Communications Technology (NICT), Japan

PHY 34.4: Low Complexity Antenna Diversity Front-End: Use of Code Multiplexing
Matthieu Gautier, Guillaume Villemaud, Université de Lyon, INRIA, INSA-Lyon, CITI, France

PHY 34.5: Switching Rates of Dual Selection Diversity in kappa-mu and alpha-mu Fading Channels
Xin Wang, Norman Beaulieu, University of Alberta, Canada

Wednesday8 April, 16:40 - 18:30, Erzsébet A

PHY 35: Coding
PHY 35.1: Design of Linear Dispersion Codes for MIMO Broadband Wireless Access Systems
Ming Jiang, Alain Mourad, Samsung Electronics UK, United Kingdom

PHY 35.2: Distributed Space-Time Diversity System using Linear Constellation Precoding
Chao Zhang, Huarui Yin, Weidong Wang, Guo Wei, University of Science & Technology of China, China

PHY 35.3: Precoding of (Non) Orthogonal Space-Time Block Codes over Arbitrarily Correlated Rayleigh Channel
Manav Bhatnagar, Are Hjørungnes, UniK-University Graduate Center, University of Oslo, Norway

PHY 35.4: Turbo Codes in Coded Cooperation using the Forced Symbol Method
Jules Merlin Mouatcho Moualeu, Hongjun Xu, Fambirai Takawira, University of KwaZulu-Natal, South Africa

PHY 35.5: On the Designs and Challenges of Practical Binary Dirty Paper Coding
Gyu Bum Kyung, Chih-Chun Wang, Purdue University, United States

Wednesday8 April, 16:40 - 18:30, Corso A

PHY 36: Beamforming
PHY 36.1: A Distributed Beam-Forming Algorithm for Single Frequency Networks Supporting Broadcast and Multicast Applications
Kiran Rege, Krishna Balachandran, Joseph H. Kang, Kemal Karakayali, Bell Labs, Alcatel-Lucent, United States

PHY 36.2: Digital Signal Design and Nonlinear Distortions in Antenna Array Beamforming
Markku Kiviranta, Aarne Mämmelä, Henna Paaso, Marko Höyhtyä, Ilkka Moilanen, VTT Technical Research Centre of Finland, Finland

PHY 36.3: Improved Beamforming for Radio Links with Multi-Level Linearly Modulated Signals
Zohaib Hassan Awan, Slimane Ben Slimane, The Royal Institute of Technology (KTH), Sweden

PHY 36.4: Low Complexity Power Control and Beamforming for Multigroup Multicast MIMO Downlink Channel
Daniel Tomecki, Slawomir Stanczak, Michal Kaliszan, Fraunhofer German-Sino Lab for Mobile Communications MCI, Germany

PHY 36.5: The Minimum Number of Adaptive Array Antenna Elements for Interference Suppression in Ubiquitous Communication Environments
Masaaki Yamanaka, Hiroshima International University, Japan; Masayuki Enomoto, Sharp Corporation, Japan; Ryan J. Pirkl, Gregory D. Durgin, Georgia Institute of Technology, United States; Seiich Sampei, Osaka University, Japan; Norihiko Morinaga, Hiroshima International University, Japan

Wednesday8 April, 14:30 - 16:20, Margit A

PHY 37: Cross-layer Design and Adaptive Communication Systems
PHY 37.1: Optimization of Adaptive Communication Systems with Feedback Channels
Anatoliy A. Platonov, Warsaw University of Technology

PHY 37.2: Rate Adaptive Throughput Maximization in PAM-Modulated Overloaded System
Mustafa Gurcan, Zhenfeng He, Imperial College London, United Kingdom

PHY 37.3: Cross-Layer Iterative Decoding of Irregular LDPC Codes using Cyclic Redundancy Check Codes
Zhimin Yang, Shiju Li, Hao Feng, Thomas Honold, Guanding Yu, Zhejiang University, China

PHY 37.4: Cross Layer HARQ 2 Cooperation with Throughput Improvement
Sannesh Beharie, Hongjun Xu, Fambirai Takawira, University of KwaZulu-Natal, South Africa

Wednesday8 April, 14:30 - 16:20, Erzsébet B

PHY 38: Parameters Estimation
PHY 38.1: CFR and SNR Estimation Based on Complementary Golay Sequences for Single-Carrier Block Transmission in 60-GHz WPAN
Ming Lei, Ye Huang, Intel Corporation, United States

PHY 38.2: Recursive Parameter Estimation for Regression Channel Model in Pilot-Aided OFDM Systems
Wei-Cheng Pao, Hsien-Cheng Chiu, Dah-Chung Chang, Yung-Fang Chen, NCU, Taiwan

PHY 38.3: Cramér-Rao Bound for NDA SNR Estimates of Square QAM Modulated Signals
Faouzi Bellili, INRS-EMT, Canada; Alex Stéphenne, Ericsson Canada and INRS-EMT, Canada; and Sofiene Affes, INRS-EMT, Canada

PHY 38.4: Uplink CP-CDMA System: Joint CFO and CIR Estimation without Pilots
Lokesh Bheema Thiagarajan, Institute for Infocomm Research, Singapore; Samir Attallah, SIM University (UniSIM), Singapore

PHY 38.5: A Preliminary Investigation on Angular Parameters Estimation in a Simplified IR-UWB Indoor Multipath Scenario
Vincenzo La Tosa, Benoît Denis, CEA Leti Minatec, France; Bernard Uguen, IETR-CNRS, Université Rennes-I, France

Wednesday8 April, 14:30 - 16:20, Erzsébet A

PHY 39: Resource Allocation in Relaying Systems
PHY 39.1: Optimum Power Allocation for Expected Achievable Rate Maximization with Outage Constraints in Cooperative Relay Networks
James C. F. Li, Subhrakanti Dey, The University of Melbourne, Australia

PHY 39.2: Rate-Optimized Power Allocation for OFDM Transmission with Multiple DF/Regenerative Relays and an Improved Protocol
Luc Vandendorpe, Jerome Louveaux, Onur Oguz, Abdellatif Zaidi, UCL, Belgium

PHY 39.3: Throughput Maximization for OFDMA Cooperative Relaying Networks with Fair Subchannel Allocation
Hongxing Li, Hanwen Luo, Xinbing Wang, Chisheng Li, Shanghai Jiaotong University, China

PHY 39.4: Transmit Cooperation Versus Distributed Coordination in Interference Links
Erhan Yilmaz, Saad G. Kiani, EURECOM, France

PHY 39.5: What Determines Resource Optimization in Cooperative Communications
Rui Cao, Liuqing Yang, University of Florida, United States

Wednesday8 April, 14:30 - 16:20, Corso A

PHY 40: Wireless Systems Power Allocation
PHY 40.1: Generalised Multi-Receiver Radio Network: Capacity and Asymptotic Stability of Power Control through Banach's Fixed-Point Theorem
Virgilio Rodriguez, Rudolf Mathar, Anke Schmeink, RWTH Aachen, Germany

PHY 40.2: Super-Imposed Pilot-Aided Channel Estimation and Power Allocation for Relay Systems
Gongpu Wang, Chintha Tellambura, University of Alberta, Canada

PHY 40.3: Sub-Optimum Distributed Power Allocation for Parallel Relay Networks
Feng Hu, Hua Zhang, Xiaohu You, Southeast Univeristy, China; Haifeng Wang, Gang Wu, Nokia, China

PHY 40.4: Lattice-Reduction for Power Optimisation Using the Fast Least-Squares Solution-Seeker Algorithm
Ulises Pineda Rico, Emad Alsusa, Christos Masouros, The University of Manchester, United Kingdom

PHY 40.5: Multi-Rate Communications Using Layered Interleave-Division Multiple Access with Power Allocation
Lance Linton, Phillip Conder, Michael Faulkner, Victoria University, Australia

Wednesday8 April, 16:40 - 18:30, Margit B

PHY 41: OFDM Parameter Estimation and Synchronization

PHY 41.1: Bayesian CFO Estimation in OFDM Systems
Kun Cai, Xiao Li, Yik-Chung Wu, The University of Hong Kong, Hong Kong

PHY 41.2: Reconstruction of the Samples Corrupted with Impulse Noise in Multicarrier Systems
Josko Radic, Nikola Rozic, University of Split, Croatia

PHY 41.3: Carrier Frequency Offset Estimation for Multi-User MIMO OFDM Uplink Using CAZAC Sequences
Yan Wu, Eindhoven University of Technology, The Netherlands; Samir Attallah, SIM University (SIM), Singapore; J.W.M. Bergmans, Eindhoven University of Technology, The Netherlands

PHY 41.4: Joint Time, Frequency and Sampling Clock Synchronization for OFDM-based Systems
E. Del Castillo-Sánchez, F. J. López-Martínez, E. Martos-Naya, J. T. Entrambasaguas, University of Malaga, Spain

Wednesday8 April, 16:40 - 18:30, Lánchíd A

PHY 42: OFDM 2

PHY 42.1: Parallel Packet Transmission Based on OFDM
Xiaojing Huang, University of Wollongong, Australia; Y. Jay Guo, CSIRO ICT Centre, Australia

PHY 42.2: Performance Analysis of OFDM System over Time-Selective Fading Channels
Yuexing Peng, Wenbo Wang, Beijing University of Posts and Telecommunications, China; Young Il Kim, Electronics and Telecommunication Research Institute, Korea, Republic of

PHY 42.3: Analysis of OFDM Receiver with Insufficient Guard Interval
Zhonghao Zhang, Baojin Li, Yongyu Chang, Dacheng Yang, Beijing University of Posts and Telecommunications, China

PHY 42.4: Simple Bit Allocation Algorithms with BER-constraint for OFDM-based Systems
Hyeonmok Ko, Seungyoul Oh, POSTECH, Korea, Republic of; Bongsu Kim, Hyundai Motor Company, Korea, Republic of; Cheeha Kim, POSTECH, Korea, Republic of

PHY 42.5: Jitter Mitigation in High-Frequency Bandpass-Sampling OFDM Radios
Ville Syrjälä, Mikko Valkama, Tampere University of Technology, Finland

Wednesday8 April, 16:40 - 18:30, Corso B

PHY 43: Relaying Systems

PHY 43.1: A Hybrid Relay Selection Scheme Using Differential Modulation
Lingyang Song, Peking University, China; Yonghui Li, University of Sydney, Australia; Meixia Tao, Shanghai Jiao Tong University, China; Athanasios Vasilakos, University of Western Macedonia, Greece

PHY 43.2: An Incremental Relaying Approach for Superposition Modulated Cooperative Transmission
Cengis Hasan, Umit Aygolu, Istanbul Technical University, Turkey

PHY 43.3: An Optical IM/DD Based Spatial Transmission Diversity Achievable Relay Scheme
Jiang Liu, Hiroshi Takano, Shigeru Shimamoto, Waseda University, Japan

PHY 43.4: Outage Probabilities in Infrastructure-Based Single-Frequency Relay Links
Taneli Riihonen, Stefan Werner, Risto Wichman, Jyri Hämäläinen, Helsinki University of Technology, Finland

Wednesday8 April, 16:40 - 18:30, Lánchíd B

PHY 44: MIMO OFDM 2
PHY 44.1: Field Experiments on Open-Loop Precoding MIMO Using Testbed Targeted at IMT-Advanced System
Yasuyuki Hatakawa, Noriaki Miyazaki, Toshinori Suzuki, KDDI R&D Laboratories Inc., Japan

PHY 44.2: Frequency and Space Precoded MIMO OFDM with Substream Adaptation
Xiaojing Huang, University of Wollongong, Australia; Y. Jay Guo, CSIRO ICT Centre, Australia

PHY 44.3: On the Cramer-Rao Lower Bound for Spatial Correlation Matrices of Doubly Selective Fading Channels for MIMO OFDM Systems
Xiaochuan Zhao, Qingyi Quan, Tao Peng, Wenbo Wang, Beijing University of Posts and Telecommunications, China

PHY 44.4: Two-Step Signal Detection for MIMO-OFDM Systems without Cyclic Prefix
Shaodan Ma, Tung-Sang Ng, The University of Hong Kong, Hong Kong

Wednesday8 April, 16:40 - 18:30, Béla A

PHY 45: LDPC
PHY 45.1: Code-Matched Interleaver Design over Surrogate Channels
Jing Lei, WINLAB, Dept. of ECE, United States; Wen Gao, Thomson Corporate Research, United States

PHY 45.2: Log-Likelihood Ratios for LDPC Codes with Pilot-Symbol-Assisted BPSK Transmission over the Noncoherent Channel
Elisa Mo, Pooi Yuen Kam, National University of Singapore, Singapore

PHY 45.3: Thresholds Calculation of LDPC Code Ensembles Using a Novel Gaussian Approximation Algorithm
Piming Ma, Kyung Sup Kwak, Inha University, Korea, Republic of

Wednesday8 April, 16:40 - 18:30, Árpád

PHY 46: Channel Propagation and Localization Techniques
PHY 46.1: A New Ray Optical Statistical Model for Multipath Characteristics Pertinent to Indoor Geolocation
Ferit Akgul, Kaveh Pahlavan, Worcester Polytechnic Institute, United States

PHY 46.2: Realistic Radio Propagation Models (RPMs) for VANET Simulations
F. J. Martinez, University of Zaragoza, Spain; C.K. Toh, University of Hong Kong, Hong Kong; J.C. Cano, C.T. Calafate, P. Manzoni, Technical University of Valencia, Spain

PHY 46.3: ToA and TDoA Error Models for NLoS Propagation Based on Outdoor to Indoor Channel Measurement
Wei Wang, Thomas Jost, Christian Mensing, Armin Dammann, German Aerospace Center (DLR), Germany

PHY 46.4: Use of a Simplified Maximum Likelihood Function in a WLAN-Based Location Estimation
Shinsuke Hara, Daisuke Anzai, Osaka City University, Japan