

PHY/MAC

Tuesday, March 15, 2005

9:00 - 10:30 Room 207

PHY01: MIMO-OFDM Signal Processing

PHY01-1: Training Signal Design for MIMO OFDM Channel Estimation in the Presence of Frequency Offsets

Hlaing Minn (The University of Texas at Dallas, USA), Naofal Al-Dhahir (The University of Texas at Dallas, USA)

PHY01-2: Frequency Offset Tracking for MIMO OFDM Systems Using Pilots

Magnus Sandell (Toshiba Research Europe Ltd, UK), Darren McNamara (Toshiba Research Europe Ltd, UK), Steve Parker (Toshiba Research Europe Ltd, UK)

PHY01-3: Design of Optimal Pilot-Tones for Channel Estimation in MIMO-OFDM Systems

Zhongshan Wu (Louisiana State University, USA), Jianqiang He (Louisiana State University, USA), Guoxiang Gu (Louisiana State University, USA)

PHY01-4: Synchronization Algorithms for MIMO OFDM Systems

En Zhou (Beijing University of Posts & Telecommunications, China), Xing Zhang (Beijing University of Posts & Telecommunications, China), Hui Zhao (Beijing University of Posts & Telecommunications, China), Wenbo Wang (Beijing University of Posts & Telecommunications, China)

Thursday, March 17, 2005

14:00 - 15:30 Room 213

PHY02: OFDM I

PHY02-1: Subspace-based Noise Variance and SNR Estimation for OFDM Systems

Xiaodong Xu (Southeast University, P.R. China), Ya Jing (Southeast University, P.R. China), Xiaohu Yu (Southeast University, P.R. China)

PHY02-2: OFDM Phase Noise Cancellation via Approximate Probabilistic Inference

Darryl Dexu Lin (University of Toronto, Canada), Yi Zhao (University of Toronto, Canada), Teng Joon Lim (University of Toronto, Canada)

PHY02-3: A Programmable Baseband Receiver Platform for WCDMA/OFDM Mobile Terminals

Lasse Harju (Tampere University of Technology, Finland), Jari Nurmi (Tampere University of Technology, Finland)

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16:00 - 17:30 Room 213

PHY03: OFDM II

PHY03-1: Techniques for Suppression of Intercarrier Interference in OFDM Systems

Tiejun Wang (University of California, San Diego, USA), John G. Proakis (University of California, San Diego, USA), James R. Zeidler (University of California, San Diego, USA)

PHY03-2: A New Multicarrier Transceiver Based on the Discrete Cosine Transform

Naofal Al-Dhahir (The University of Texas at Dallas, USA), Hlaing Minn (The University of Texas at Dallas, USA)

PHY03-3: Antenna-Selective Transmit Diversity Technique for OFDM-based WLANs with Dual-Band Printed Antenna

Ichiro Seto (Toshiba Corporation, Japan), Takahiro Sekiguchi (Toshiba Corporation, Japan), Hidehiro Matsuoka (Toshiba Corporation, Japan), Akihiro Tsujimura (Toshiba Corporation, Japan), Syuichi Sekine (Toshiba Corporation, Japan), Kazumi Sato (Toshiba Corporation, Japan), Hiroshi Yoshida (Toshiba Corporation, Japan), Minoru Namekata (Toshiba Corporation, Japan)

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PHY04: 802.11 MAC I

PHY04-1: A Throughput Optimization and Transmitter Power Saving Algorithm for IEEE 802.11b Links

Tianmin Mo (Virginia Polytechnic Institute and State University, USA), Charles W. Bostian (Virginia Polytechnic Institute and State University, USA)

PHY04-2: Adaptive IEEE 802.11 DCF Scheme with Knowledge-based Backoff

Srikant Kuppa (The University of Texas at Dallas, USA), Ravi Prakash (The University of Texas at Dallas, USA)

PHY04-3: Achieving Scalable Performance in Large-Scale IEEE 802.11 Wireless Networks

Chung Ng Ping (The Chinese University of Hong Kong, Hong Kong), Chang Liew Soung (The Chinese University of Hong Kong, Hong Kong), Bin Jiang Li (The Chinese University of Hong Kong, Hong Kong)

PHY04-4: Implementing a Low Power TDMA Protocol over 802.11

Jim Snow (Portland State University, USA), Wu-chi Feng (Portland State University, USA), Wu-chang Feng (Portland State University, USA)

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PHY05: 802.11 MAC II

PHY05-1: Why RTS-CTS Is Not Your Ideal Wireless LAN Multiple Access Protocol

João Luís Sobrinho (Instituto de Telecomunicações, Portugal), Roland de Haan (Instituto de Telecomunicações, Portugal), José Manuel Brázio (Instituto de Telecomunicações, Portugal)

PHY05-2: Macrodiversity Packet Combining for the IEEE 802.11a Uplink

Shi Cheng (West Virginia University, USA), Matthew C. Valenti (West Virginia University, USA)

PHY05-3: Effects of Contention Window and Packet Size on the Energy Efficiency of Wireless Local Area Network

Xiaodong Wang (University of Cincinnati, USA), Jun Yin (University of Cincinnati, USA), Dharma P. Agrawal (University of Cincinnati, USA)

PHY05-4: Towards the Performance Analysis of IEEE 802.11 in Multihop Ad Hoc Networks

Yawen Barowski (Auburn University, USA), Saâd Biaz (Auburn University, USA), Prathima Agrawal (Auburn University, USA)

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PHY06: 802.11 MAC III

PHY06-1: Evaluation of Contention Free Bursting in IEEE 802.11e Wireless LANs

Atul Salhotra (Marvell Semiconductor, Inc., USA), Ravi Narasimhan (University of California, Santa Cruz, USA), Rahul Kopikare (Marvell Semiconductor, Inc., USA)

PHY06-2: An Analytic Model for Infrastructure WLAN Capacity with Bidirectional Frame Aggregation

Changwen Liu (Intel R&D, USA), Adrian P. Stephens (Intel R&D, USA)

PHY06-3: A Link Adaptation Strategy for QoS Support in IEEE 802.11e-based WLANs

Matteo Bandinelli (University of Florence, Italy), Francesco Chiti (University of Florence, Italy), Romano Fantacci (University of Florence, Italy), Daniele Tarchi (University of Florence, Italy), Gianluca Vannuccini (University of Florence, Italy)

PHY06-4: Improving the Reliability of IEEE 802.11 Broadcast Scheme for Multicasting in Mobile Ad Hoc Networks

Jiawei Xie (Nanyang Technological University, Singapore), Amitabha Das (Nanyang Technological University, Singapore), Sukumar Nandi (Indian Institute of Technology, Guwahati, India), Anil K. Gupta (Nanyang Technological University, Singapore)

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PHY07: Wireless Transmission Enhancements

PHY07-1: On the Advantages of Multihop Extensions to IEEE 802.11 Infrastructure Mode

Sathya Narayanan (Panasonic, USA), Pei Liu (Polytechnic University, USA), Shivendra S. Panwar (Polytechnic University, USA)

PHY07-2: Energy Efficient Channel Coding Based on Position Awareness and Radio Link Budget Estimation

M. Fresia (University of Genoa, Italy), A. Iskra (University of Genoa, Italy), F. Lavagetto (University of Genoa, Italy)

PHY07-3: MEOw with CATS: Multimedia Extensions over Wireless with CTS-assisted Transmission Scheme

Martin Kappes (Avaya Labs, Germany), A. S. Krishnakumar (Avaya Labs, USA), P. Krishnan (Avaya Labs, USA)

PHY07-4: Scheduling Algorithm Based on Sender Buffer Backlog for Real-Time Application in Mobile Packet Networks

Hideyuki Koto (KDDI R&D Laboratories, Inc., Japan), Masaki Fukushima (KDDI R&D Laboratories, Inc., Japan), Shinichi Nomoto (KDDI R&D Laboratories, Inc., Japan), Fumio Takahata (Waseda University, Japan)

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PHY08: CDMA Link Design

PHY08-1: Throughput Analysis of Multirate VSG CDMA Wireless Packet Communication Systems in Rayleigh Fading Environment

Pongsatorn Sedtheetorn (The University of Manchester, UK), Khairi Ashour Hamdi (The University of Manchester, UK)

PHY08-2: Serial Block Processing for Multicode WCDMA Frequency Domain Equalization

Daniele Lo Iacono (STMicroelectronics, Italy), Ettore Messina (STMicroelectronics, Italy), Costantino Volpe (STMicroelectronics, Italy), Arnaldo Spalvieri (Politecnico di Milano, Italy)

PHY08-3: A Frequency-Domain Approach for Estimating Frequency Offset and Speed in 3G WCDMA Systems

M. Karthik (STMicroelectronics, Singapore), Kwok H. Li (Nanyang Technological University, Singapore), Ser W. Oh (STMicroelectronics, Singapore)

PHY08-4: A New Approach to Study the Effect of Carrier Frequency Offset on the BER Performance of Asynchronous MC-CDMA Systems

Xiaoyu Hu (Institute for Infocomm Research, Singapore, National University of Singapore, Singapore), Yong Huat Chew (Institute for Infocomm Research, Singapore)

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PHY09: CDMA I

PHY09-1: Performance Evaluation of WCDMA High Speed Downlink Packet Access/Frequency Division Duplex Mode

Mahmoud H. Ismail (The University of Mississippi, USA), Mustafa M. Matalgah (The University of Mississippi, USA)

PHY09-2: Multihop Mobile Communications System using MC-CDMA in Forward Links

Takeo Ohseki (KDDI R&D Laboratories, Inc., Japan), Naoki Fuke (KDDI R&D Laboratories, Inc., Japan), Osamu Maeshima (KDDI R&D Laboratories, Inc., Japan), Hisato Iwai (KDDI R&D Laboratories, Inc., Japan), Keizo Sugiyama (KDDI R&D Laboratories, Inc., Japan), Mitsuo Nohara (KDDI R&D Laboratories, Inc., Japan)

PHY09-3: Reverse Link Capacity of the WCDMA System Using High Altitude Platform Stations

Tae Chul Hong (Electronics and Telecommunications Research Institute, Korea), Bon-Jun Ku (Electronics and Telecommunications Research Institute, Korea), Jong-Min Park (Electronics and Telecommunications Research Institute, Korea), Do-Seob Ahn (Electronics and Telecommunications Research Institute, Korea)

PHY09-4: Impacts of Imperfect Channel Estimation and Multipath Fading on Forward-Link Performance in CDMA Distributed Antenna Systems

Peng Chen (Beijing University of Posts and Telecommunications, China), Wei-ling Wu (Beijing University of Posts and Telecommunications, China)

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PHY10: CDMA II

PHY10-1: Multicode CDMA Transmission over Time-Varying Multipath Channels

Yanxin Na (The University of Texas at Dallas, USA), Mohammad Saquib (The University of Texas at Dallas, USA), Giridhar Mandyam (Nokia Research Center, USA)

PHY10-2: Complete Analytical Framework for Throughput Calculation in WCDMA Downlink TDD Mode

Mahmoud H. Ismail (The University of Mississippi, USA), Mustafa M. Matalgah (The University of Mississippi, USA)

PHY10-3: Reverse-Link Performance Analysis in CDMA Distributed Antenna Systems

Peng Chen (Beijing University of Posts and Telecommunications, China), Wei-ling Wu (Beijing University of Posts and Telecommunications, China)

PHY10-4: BER Performance of Multicarrier Spread Spectrum Chip-Level Differential Detection in Multipath Fading Channels

Song Lijun (University of Electronic Science and Technology of China, China), Tang Youxi (University of Electronic Science and Technology of China, China), Li Shaoqian (University of Electronic Science and Technology of China, China)

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PHY11: CDMA III

PHY11-1: Adaptive Soft-Input Soft-Output Multiuser Detection for Asynchronous Coded DS-CDMA Systems

Wei Zhang (University of Ottawa, Canada), Claude D'Amours (University of Ottawa, Canada), Abbas Yongaço_lu (University of Ottawa, Canada)

PHY11-2: A Robust Linearly Constrained CMA for Adaptive Blind Multiuser Detection

Ayman Elnashar (MobiNil, Egypt), Said Elnoubi (Alexandria University, Egypt), Hamdi Elmikati (Mansoura University, Egypt)

PHY11-3: DS-CDMA SIR Estimation with Bias Removal

Carmela Cozzo (Ericsson Research, USA), Gregory E. Bottomley (Ericsson Research, USA)

PHY11-4: Effects of Noise-like Ultrawideband Emissions on cdma2000 Forward Link Performance

Marilynn P. Wylie-Green (Nokia Research Center, USA), Peter Wang (Nokia Research Center, USA)

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PHY12: CDMA IV

PHY12-1: On the Spectral Efficiency of DS-CDMA with Higher Order Modulation in Presence of Fading

Oliver Prator (Dresden University of Technology, Germany), Gerhard P. Fettweis (Dresden University of Technology, Germany)

PHY12-2: Delay and DOA Estimation for Chip-Asynchronous DS-CDMA Systems Using Reduced Rank Space-Time Processing

Chiao-Yao Chuang (University of Southern California, USA), Xiaoli Yu (University of Southern California, USA), C.-C. Jay Kuo (University of Southern California, USA)

PHY12-3: Efficient Minimum Probability of Error Demodulation for DS-CDMA Systems

Mohit Garg (Indian Institute of Technology, Mumbai, India), Umesh D. Nimbhorkar (Indian Institute of Technology, Mumbai, India), U. B. Desai (Indian Institute of Technology, Mumbai, India), S. N. Merchant (Indian Institute of Technology, Mumbai, India)

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PHY13: Multiuser DS-CDMA

PHY13-1: Iterative Group Blind Multiuser Detection and Decoding for Asynchronous CDMA Systems

Shahram Talakoub (University of Windsor, Canada), Behnam Shahrava (University of Windsor, Canada)

PHY13-2: Blind Adaptive Multiuser Detection for Periodically Time Varying Interference Suppression

James Whitehead (Eskom Group, South Africa), Fambirai Takawira (University of KwaZulu-Natal, South Africa)

PHY13-3: Low-Complexity Performance Optimization for MIMO CDMA Systems

Chun-Hung Liu (The University of Texas at Austin, USA)

PHY13-4: A Novel Segment-Level MMSE-MUD Design for Rapidly Time-Varying Channel Conditions in TD-SCDMA Down-Link Channel

Wan Lei (Ericsson, China), Tomas Sundin (Ericsson AB, Sweden)

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PHY14: CDMA Systems

PHY14-1: Signal Detection and Interference Cancellation for TD-SCDMA Downlink in Fast Time-Varying Environment

Yuhong Wang (ST Microelectronics, Singapore), Ying-Chang Liang (Insitute for Infocomm Research, Singapore), Wing Seng Leon (Institute for Infocomm Research, Singapore)

PHY14-2: Interference Whitening Receivers for Bandlimited DS-CDMA Systems in Nakagami Fading

K. Sivanesan (University of Alberta, Canada), Norman C. Beaulieu (University of Alberta, Canada)

PHY14-3: Peak Power Reduction in SCS-MC-CDM System

Noboru Izuka (Japan Telecom, Japan), Atsushi Nagate (Japan Telecom, Japan), Hiroyoshi Masui (Japan Telecom, Japan), Teruya Fujii (Japan Telecom, Japan)

PHY14-4: Diversity Combining Options for Spread Spectrum OFDM Systems in Frequency Selective Channels

Robert Novak (University of Alberta, Canada), Witold A. Krzymie_ (University of Alberta, Canada)

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PHY15: Iterative Multiuser Receivers

PHY15-1: Design of Turbo-MUD Receivers with Density Evolution in Overloaded CDMA Systems

Simone Morosi (University of Florence, Italy), Enrico Del Re (University of Florence, Italy), Romano Fantacci (University of Florence, Italy), Angela Chiassai (University of Florence, Italy)

PHY15-2: An Iterative Receiver for Layered Space-Time MIMO DS-CDMA Uplink Using Turbo Trellis-Coded Modulation

J. H. Jeong (The Pennsylvania State University, USA), M. Kavehrad (The Pennsylvania State University, USA)

PHY15-3: Convergence Behavior of Iterative Turbo Multiuser Detection Algorithms

Mehdi Hedjazi Moghari (University of Windsor, Canada), Behnam Shahrava (University of Windsor, Canada)

PHY15-4: Group-Blind Turbo Multiuser Detection for CDMA Using a Gaussian Approximation

Mehdi Hedjazi Moghari (University of Windsor, Canada), Behnam Shahrava (University of Windsor, Canada)

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PHY16: 3G Networks I

PHY16-1: Adaptive Block-Equalizers for the UTRA-FDD Downlink

Mauro Pesce (Swiss Federal Institute of Technology, Switzerland), Dirk Dahlhaus (Swiss Federal Institute of Technology, Switzerland), Heino Gerlach (Siemens AG, Germany), Wen Xu (Siemens AG, Germany)

PHY16-2: Whitened Matched Filter for Attenuating Frequency Selectively Faded Interferers in GSM
Hartmut Wilhelm (Siemens AG, Germany)

PHY16-3: Improved Convolutional Code Design for 3GPP TDD Systems
Gang Wu (Philips Research East Asia, P.R. China), Yueheng Li (Philips Research East Asia, P.R. China)

PHY16-4: cdma2000 Packet Data Throughput Improvements Provided by Handset Dual Antenna Diversity
Levent Aydin (Qualcomm Incorporated, USA), Samir Ginde (Qualcomm Incorporated, USA), Walid Hamdy (Qualcomm Incorporated, USA)

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PHY17: 3G Networks II

PHY17-1: An Efficient Radio Resource Management Technique for the Reverse Link in cdma2000 1xEV-DV
Hwanjoon Kwon (Samsung Electronics Co., Ltd., Korea), Younsun Kim (Samsung Electronics Co., Ltd., Korea), Jin-kyu Han (Samsung Electronics Co., Ltd., Korea), Donghee Kim (Samsung Electronics Co., Ltd., Korea)

PHY17-2: In Search of Lost Capacity Non-effective Load in UMTS Radio Interface (Uplink)
Krzysztof Kordebach (VTT Information Technology, Finland), Sami Nousiainen (VTT Information Technology, Finland)

PHY17-3: On Link Budget of cdma2000 1x EV-DV Forward Link
Jian Gu (Nokia China Investment Co., P.R. China), Xiangguang Che (Nokia China Investment Co., P.R. China)

PHY17-4: A Macroanalysis of Hsdpa Receiver Models
Ahmet Ba_tu_ (Philips Semiconductors, France), Dirk T. M. Slock (Eurecom Institute, France)

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PHY18: MIMO Systems I

PHY18-1: On the Asymptotic Behavior of the Outage Probability for MIMO Systems
Hao Shen (Concordia University, Canada), Ali Ghayeb (Concordia University, Canada)

PHY18-2: Investigation of Diversity Techniques Considering Receiver Structure in MIMO Systems
Yutaka Murakami (Matsushita Electric Industrial Co., Ltd., Japan), Kiyotaka Kobayashi (Matsushita Electric Industrial Co., Ltd., Japan), Masayuki Orihashi (Matsushita Electric Industrial Co., Ltd., Japan), Takashi Matsuoka (Matsushita Electric Industrial Co., Ltd., Japan)

PHY18-3: Analytical Approach of V-BLAST Performance with Two Transmit Antennas
R. T. Xu (Hong Kong Polytechnic University, Hong Kong), Francis C. M. Lau (Hong Kong Polytechnic University, Hong Kong)

PHY18-4: Tight Upper Bound on the Ergodic Capacity of the Ricean Fading MIMO Channels
Shi Jin (Southeast University, P.R. China), Xiqi Gao (Southeast University, P.R. China)

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PHY19: MIMO Systems II

PHY19-1: A Comparative Study of MIMO Detection Algorithms for Wideband Spatial Multiplexing Systems

Jingming Wang (University of California, Los Angeles, USA), Babak Daneshrad (University of California, Los Angeles, USA)

PHY19-2: Fading and Interference Mitigation in Multi-antenna Wireless Transmission

Oghenekome Oteri (Stanford University, USA), Arogyaswami Paulraj (Stanford University, USA)

PHY19-3: Decoupling Method for Low Complexity Turbo Equalization of Frequency-Selective MIMO Wireless Systems

Yongfang Guo (University of California, Davis, USA), Bernard C. Levy (University of California, Davis, USA)

PHY19-4: Space-Time-Frequency Coded Multiband UWB Communication Systems

W. Pam Siritwongpairat, (University of Maryland, USA), Weifeng Su (University of Maryland, USA), Masoud Olfat (University of Maryland, USA), K. J. Ray Liu (University of Maryland, USA)

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PHY20: MIMO Systems III

PHY20-1: Construction and Capacity Analysis of High-Rank Line-of-Sight MIMO Channels

Frode Bøhagen (UniK/Nera Research, Norway), Pål Orten (UniK/NERA, Norway), Geir E. Øien (NTNU, Norway)

PHY20-2: Multiuser Detection in OFDM Space-Time Block Code for High Rate Uplink Application

Mohamad Jamalulil Syed (University of Limoges - ENSIL, France), Vahid Meghdadi (University of Limoges, France), Ferré Guillaume (University of Limoges, France), Jean Pierre Cances (University of Limoges, France), Reza Mohammad Khani (CNRS/LSS, France), Jean-Michel Dumas (University of Limoges, France)

PHY20-3: Interference Cancellation for Space-Frequency OFDM MIMO Systems: Iterative Decoding

L.-Y. Song (The University of York, UK), Alister G. Burr (The University of York, UK)

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PHY21: MIMO Coding I

PHY21-1: A Closed-Form Result for the Average Pairwise Error Probability of $t = 2$, $r = 1$ Differential Cyclic Unitary Space-Time Modulation

Zheng Du (University of Alberta, Canada), Norman C. Beaulieu (University of Alberta, Canada), Jinkang Zhu (University of Alberta, Canada)

PHY21-2: Diagonal Space-Time Hadamard Codes with Erasure Decoding Algorithm

Domenico Giustiniano (Università di Palermo, Italy), Paul Lusina (University of Ulm, Germany), Giovanni Garbo (Università di Palermo, Italy)

PHY21-3: Generalized Block Space-Time Trellis Codes: Set-Partitioning and Code Design

Mohammad Janani (The University of Texas at Dallas, USA), Aria Nosratinia (The University of Texas at Dallas, USA)

PHY21-4: Improved Tomlinson-Harashima Precoding for the Downlink of Multiple Antenna Multiuser Systems

Jia Liu (University of Alberta, Canada), Witold A. Krzymie_ (University of Alberta, Canada)

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PHY22: MIMO Coding II

PHY22-1: Effective Design of Recursive Convolutional Space-Time Codes with an Arbitrary Number of Transmit Antennas

Ying Li (Xidian University, China), Xudong Guo (Xidian University, China), Xin-mei Wang (Xidian University, China)

PHY22-2: A New Two-Level Differential Unitary Space-Time Modulation

Zheng Du (University of Alberta, Canada), Norman C. Beaulieu (University of Alberta, Canada)

PHY22-3: Quasi-Orthogonal STBC with Minimum Decoding Complexity: Further Results

Chau Yuen (Nanyang Technological University, Singapore), Yong Liang Guan (Nanyang Technological University, Singapore), Tjeng Thiang Tjhung (Institute for Infocomm Research, Singapore)

PHY22-4: On the Design of Linear Precoders for Orthogonal Space-Time Block Codes with Limited Feedback

Shahab Sanayei (The University of Texas at Dallas, USA), David J. Love (Purdue University, USA), Aria Nosratinia (The University of Texas at Dallas, USA)

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PHY23: MIMO Coding III

PHY23-1: A New Differential Monomial Space-Time Code

Zheng Du (University of Alberta, Canada), Norman C. Beaulieu (University of Alberta, Canada)

PHY23-2: Performance of Alamouti Space-Time Code in Time-Varying Channels with Noisy Channel Estimates

Jittra Jootar (University of California, San Diego, USA), James R. Zeidler (University of California, San Diego, USA), John G. Proakis (University of California, San Diego, USA)

PHY23-3: An Adaptive Power Allocation Scheme for Space-Time Block Coded MIMO Systems

Liang Xian (Oregon State University, USA), Huaping Liu (Oregon State University, USA)

PHY23-4: Error Probability of Orthogonal Space-Time Block Codes over Correlated Rayleigh and Rician Channels

Hao Zhang (University of Victoria, Canada), Wei Li (University of Victoria, Canada), T. Aaron Gulliver (University of Victoria, Canada)

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PHY24: MIMO Transceiver Designs I

PHY24-1: Symbol by Symbol Soft-Input Soft-Output Multiuser Detection for Frequency Selective MIMO Channels

Sara Bavarian (Simon Fraser University, Canada), Jim K. Cavers (Simon Fraser University, Canada)

PHY24-2: An Iterative Interference Cancellation Scheme for STBC Multirate Multiuser Systems

The-Hanh Pham (National University of Singapore, Singapore), A. Nallanathan (National University of Singapore, Singapore), B. Kannan (Institute for Infocom Research, Singapore)

PHY24-3: Software-Defined Radio Implementation of Multiple Antenna Systems using Low-Density Parity-Check Codes

Nicolae Chiurtu (Ecole Polytechnique Fédérale de Lausanne, Switzerland), Linus Gasser (Ecole Polytechnique Fédérale de Lausanne, Switzerland), Philippe Roud (Ecole Polytechnique Fédérale de Lausanne, Switzerland), Bixio Rimoldi (Ecole Polytechnique Fédérale de Lausanne, Switzerland)

PHY24-4: Single-Block Differential Transmit Scheme for Frequency Selective MIMO-OFDM Systems

Thanongsak Himsoon (University of Maryland, USA), Weifeng Su (University of Maryland, USA), K. J. Ray Liu (University of Maryland, USA)

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PHY25: MIMO Transceiver Designs II

PHY25-1: The Sorted-QR Chase Detector for Multiple-Input Multiple-Output Channels

Deric W. Waters (Georgia Institute of Technology, USA), John R. Barry (Georgia Institute of Technology, USA)

PHY25-2: Space-Time Signaling in Correlated Channels

Ahmadreza Hedayat (The University of Texas at Dallas, USA), Harsh Shah (The University of Texas at Dallas, USA), Aria Nosratinia (The University of Texas at Dallas, USA)

PHY25-3: Joint Optimization of Rate Allocation and BLAST Ordering to Minimize Outage Probability

Arumugam Kannan (Georgia Institute of Technology, USA), Badri Varadarajan (Georgia Institute of Technology, USA), John R. Barry (Georgia Institute of Technology, USA)

PHY25-4: Design and Implementation of a 5.25 GHz Radio Transceiver for a MIMO Testbed

Stephan Lang (University of California, Los Angeles, USA), Babak Daneshrad (University of California, Los Angeles, USA)

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PHY26: Wireless Circuits I

PHY26-1: A High-Precision AFC Circuit Applied to 64 QAM Point-to-Multipoint Burst Communications

Yosuke Akimoto (NTT Corporation, Japan), Yushi Shirato (NTT Corporation, Japan), Kazuji Wantanabe (NTT Corporation, Japan)

PHY26-2: An Effort Reduced Five-Port Direct Conversion Receiver and Its Calibration

Marko Mailand (Dresden University of Technology, Germany), Hans-Joachim Jentschel (Dresden University of Technology, Germany)

PHY26-3: Development of a PC Card Using Planar Antennas for Wireless LAN on 2.4/5 GHz Bands

Hidehiro Matsuoka (Toshiba Corporation, Japan), Ichiro Seto (Toshiba Corporation, Japan), Takahiro Sekiguchi (Toshiba Corporation, Japan), Hiroshi Yoshida (Toshiba Corporation, Japan), Akihiro Tsujimura (Toshiba Corporation, Japan), Minoru Namekata (Toshiba Corporation, Japan)

PHY26-4: A Novel Timing Recovery Circuit with High Tracking Ability for Burst-mode Multilevel QAM Transmission

Yushi Shirato (NTT Corporation, Japan), Hiroshi Yoshioka (NTT Corporation, Japan), Kazuji Watanabe (NTT Corporation, Japan)

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PHY27: Wireless Circuits II

PHY27-1: The Research on the Design of Filter Banks in Filtered Multitone Modulation

Youjun Gao (Shandong University, P.R. China), Zhenming Gao (Shandong University, P.R. China), Weihong Zhu (Shandong University, P.R. China), Xinghai Yang (Shandong University, P.R. China)

PHY27-2: Efficient VLSI Architectures for Recursive Vandermonde QR Decomposition in Broadband OFDM Pre-Distortion

Yuanbin Guo (Nokia Research Center, USA)

PHY27-3: The Use of Hybrid Logarithmic Arithmetic for Root Raised Cosine Matched Filters in WCDMA Downlink Receivers

Charan Litchfield (University of Kent at Canterbury, UK), R. J. Langley (University of Kent at Canterbury, UK), Peter Lee (University of Kent at Canterbury, UK), John Batchelor (University of Kent at Canterbury, UK)

PHY27-4: Continuous Modulation from a Single-Bit DSP Output

Oliver M Collins (University of Notre Dame, USA), Jagadish Venkataraman (University of Notre Dame, USA)

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PHY28: Ad-Hoc Networks I

PHY28-1: A Non-Cooperative Power Control Game for Multicarrier CDMA Systems

Farhad Meshkati (Princeton University, USA), Mung Chiang (Princeton University, USA), Stuart C. Schwartz (Princeton University, USA), H. Vincent Poor (Princeton University, USA), Narayan B. Mandayam (Rutgers University, USA)

PHY28-2: Exploiting Processing Gain in Wireless Ad Hoc Networks Using Synchronous Collision Resolution Medium Access Control Schemes

John A. Stine (The Mitre Corporation, USA)

PHY28-3: Transmission Power Control for Ad Hoc Wireless Networks: Throughput, Energy, and Fairness

Lujun Jia (Northeastern University, USA), Xin Liu (Northeastern University, USA), Guevara Noubir (Northeastern University, USA), Rajmohan Rajaraman (Northeastern University, USA)

PHY28-4: Optimal Channel Utilization Ratio in Ad Hoc Wireless Networks

G. Ferrari (Carnegie Mellon University, USA, University of Parma, Italy), O. K. Tonguz (Carnegie Mellon University, USA)

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PHY29: Ad-Hoc Networks II

PHY29-1: On the Capacity of Ad Hoc Networks with Clustering

Eugene Perevalov (Lehigh University, USA), Rick Blum (Lehigh University, USA), Danny Safi (Lehigh University, USA)

PHY29-2: A Clock-Sampling Mutual Network Time-Synchronization Algorithm for Wireless Ad Hoc Networks

Carlos H. Rentel (Carleton University, Canada), Thomas Kunz (Carleton University, Canada)

PHY29-3: A MAC Technique for CDMA-based Ad Hoc Networks

Romano Fantacci (University of Florence, Italy), Angela Ferri (University of Florence, Italy), Daniele Tarchi (University of Florence, Italy)

PHY29-4: Performance Analysis of Variable Bit Rate Multiclass Services in a Multitime-Hopping Pulse Position Modulation UWB System

T. C. Wong (Institute for Infocomm Research, Singapore), J. W. Mark (University of Waterloo, Canada), K. C. Chua (National University of Singapore, Singapore)

Wednesday, March 16, 2005

16:00 - 17:30 Room 212

PHY30: Sensor Networks

PHY30-1: Using Frequency Division to Reduce MAI in DS-CDMA Wireless Sensor Networks

Bao Hua Liu (The University of New South Wales, Australia), Chun Tung Chou (The University of New South Wales, Australia), Justin Lipman (The University of New South Wales, Australia), Sanjay Jha (The University of New South Wales, Australia)

PHY30-2: Does Proper Coding Make Single Hop Wireless Sensor Network Reality: The Power Consumption Perspective

Lizhi Charlie Zhong (University of California, Berkeley, USA), Jan M. Rabaey (University of California, Berkeley, USA), Adam Wolisz (Technische Universitaet Berlin, Germany)

PHY30-3: Low Power Synchronization for Wireless Sensor Network Modems

Josephine Ammer (University of California, Berkeley, USA), Jan Rabaey (University of California, Berkeley, USA)

PHY30-4: Energy and Latency Control in Low Duty Cycle MAC Protocols

Yuan Li (University of Southern California, USA), Wei Ye (University of Southern California, USA), John Heidemann (University of Southern California, USA)

Thursday, March 17, 2005

14:00 - 15:30 Room 212

PHY31: Wireless MAC Protocols

PHY31-1: Balancing the Hidden and Exposed Node Problems with Power Control in CSMA/CA-based Wireless Networks

Yihong Zhou (The University of Texas at Austin, USA), Scott M. Nettles (The University of Texas at Austin, USA)

PHY31-2: Towards Better Understanding of Medium Access Control for Multiuser Beamforming Systems

Slawomir Sta_czak (Fraunhofer German-Sino Lab for Mobile Communications, Germany), Holger Boche (Fraunhofer German-Sino Lab for Mobile Communications, Germany), Marcin Wicznanowski (Technical University of Berlin, Germany)

PHY31-3: Admission Control for Maximal Throughput in Power Limited CDMA Systems

Zory Marantz (Polytechnic University, USA), Penina Orenstein (Polytechnic University, USA), David J. Goodman (Polytechnic University, USA)

PHY31-4: Frame Level Control for Collision Mitigation in Orthogonal Code Hopping Multiplexing

Sung Ho Moon (Korea Advanced Institute of Science and Technology, Korea), Jae Kyun Kwon (Electronics and Telecommunications Research Institute, Korea), Dan Keun Sung (Korea Advanced Institute of Science and Technology, Korea)

Thursday, March 17, 2005

16:00 - 17:30 Room 212

PHY32: Wireless MAC Analysis

PHY32-1: On the Performance of Randomized Power Control Algorithms in Multiple Access Wireless Networks

Arash Behzad (University of California, Los Angeles, USA), Izhak Rubin (University of California, Los Angeles, USA), Julian Hsu (University of California, Los Angeles, USA)

PHY32-2: A New Fairness Index for Radio Resource Allocation in Wireless Networks

Mehrdad Dianati (University of Waterloo, Canada), Xeumin Shen (University of Waterloo, Canada), Sagar Naik (University of Waterloo, Canada)

PHY32-3: Linear and Successive Predistortion in the Frequency Domain: Performance Evaluation in SDMA Systems

Christoph Degen (RWTH Aachen University, Germany), Lars Brühl (RWTH Aachen University, Germany)

Thursday, March 17, 2005

14:00 - 15:30 Room 206

PHY33: Coexistence & Spectrum Utilization

PHY33-1: Cognitive Radio—An Adaptive Waveform with Spectral Sharing Capability

Vasu D. Chakravarthy (Air Force Research Laboratory, USA), Arnab K. Shaw (Wright State University, USA), Michael A. Temple (Air Force Institute of Technology, USA), James P. Stephens (Air Force Research Laboratory, USA)

PHY33-2: Interference Avoidance in Spectrally Encoded Multiple Access Communications Using MPSK Modulation

A. S. Nunez (Air Force Institute of Technology, USA), M. A. Temple (Air Force Institute of Technology, USA), R. F. Mills (Air Force Institute of Technology, USA), R. A. Raines (Air Force Institute of Technology, USA)

PHY33-3: Spectrum Load Smoothing for Optimized Spectrum Utilization—Rationale and Algorithm

Lars Berlemann (RWTH Aachen University, Germany), Bernhard Walke (RWTH Aachen University, Germany)

PHY33-4: Spectral-Efficiency Analysis in Noncooperative Interference Environments

Fredrik Berggren (Royal Institute of Technology, Sweden)

Monday, March 14, 2005

16:00 - 17:30 Room 207

PHY34: UWB I

PHY34-1: Receiver Improvement for Ultra-Wideband Transmitted-Reference Systems

Meng-Hsuan Chung (University of Southern California, USA), Robert A. Scholtz (University of Southern California, USA)

PHY34-2: Acquisition of Direct-Sequence Ultra-Wideband Signals

Iyappan Ramachandran (University of Washington, USA), Sumit Roy (University of Washington, USA)

PHY34-3: A Study of Low-Power Ultra Wideband Radio Transceiver Architectures

Payam Heydari (University of California, Irvine, USA)

PHY34-4: Design of UWB Pulses by Spline Approximation

Mitsuhiro Matsuo (Ibaraki University, Japan), Masaru Kamada (Ibaraki University, Japan), Hiromasa Habuchi (Ibaraki University, Japan)

Wednesday, March 16, 2005

9:00 - 10:30 Room 207

PHY35: UWB II

PHY35-1: Signal Design for Non-coherent UWB with PPM Modulation in Fading Channels

Sudharman K. Jayaweera (Wichita State University, USA)

PHY35-2: The Effect of Receiver Front-End Non-Linearity on DS-UWB Systems Operating in the 3 to 4 Ghz Band

Ivan Siu-Chuang Lu (University of New South Wales, Australia), Neil Weste (Macquarie University, Australia), Sri Parameswaran (University of New South Wales, Australia)

PHY35-3: Ultra-Wideband Multicarrier Communication Receiver Based on Analog to Digital Conversion in the Frequency Domain

Sebastian Hoyos (University of California, Berkeley, USA), Brian M. Sadler (Army Research Laboratory, USA), Gonzalo R. Arce (University of Delaware, USA)

PHY35-4: Optimum and Sub-Optimum Detection of Physics-based Ultra-Wideband Signals in Presence of Inter-Symbol Interference

Robert C. Qiu (Tennessee Tech University, USA)

Thursday, March 17, 2005

9:00 - 10:30 Room 207

PHY36: UWB III

PHY36-1: On Medium Access Control for High Data Rate Ultra-Wideband Ad Hoc Networks

Kejie Lu (University of Florida, USA), Dapeng Wu (University of Florida, USA), Yuguang Fang (University of Florida, USA), Robert C. Qiu (Tennessee Technological University, USA)

PHY36-2: Exact Modeling of Multiple Access Interference and BER Derivation for TH-PPM UWB

S. Niranjan (Institute for Infocomm Research, Singapore), A. Nallanathan (National University of Singapore, Singapore), B. Kannan (Institute for Infocomm Research, Singapore)

PHY36-3: Orthogonal Variable Spreading Factor Codes with Zero-Correlation Zone for TS-UWB

Di Wu (Rutgers University, USA), Predrag Spasojević (Rutgers University, USA), Ivan Seskar (Rutgers University, USA)

PHY36-4: Energy-Efficient Resource Allocation for Multiband UWB Communication Systems

W. Pam Siriwoongpairat (University of Maryland, USA), Zhu Han (University of Maryland, USA), K. J. Ray Liu (University of Maryland, USA)

Thursday, March 17, 2005

16:00 - 17:30 Room 206

PHY37: Communications Signal Processing

PHY37-1: Wireless Local Positioning System via DS-CDMA and Beamforming: A Perturbation Analysis

Hui Tong (Michigan Technological University, USA), Seyed A. Zekavat (Michigan Technological University, USA)

PHY37-2: Computing Location from Ambient FM Radio Signals

Adel Youssef (University of Maryland, USA), John Krumm (Microsoft Corporation, USA), Ed Miller (Microsoft Corporation, USA), Gerry Cermak (Microsoft Corporation, USA), Eric Horvitz (Microsoft Corporation, USA)

PHY37-3: On the Statistics of the Residual Frequency Error for Frequency Estimators

Tao Luo (Qualcomm Inc., USA), Young-Chai Ko (Korea University, Korea)

PHY37-4: An Investigation of Phase Pulse Shape Diversity to Generate Parallel Branches, Increase Data Rate, and Reduce the Complexity of CPM Modulation

James A. Norris (Harris Corporation, USA)

Thursday, March 17, 2005

14:00 - 15:30 Room 207

PHY38: Diversity I

PHY38-1: A Practical RAKE Combining Scheme for Synchronous CDMA Systems

Wei Li (University of Victoria, Canada), Hong-Chuan Yang (University of Victoria, Canada), T. Aaron Gulliver (University of Victoria, Canada)

PHY38-2: Performance Analysis of Combining Techniques with Correlated Diversity

Eduard A. Jorswieck (Fraunhofer Institute for Telecommunications, Germany), Tobias J. Oechtering (Technical University Berlin, Germany), Holger Boche (Technical University Berlin, Germany)

PHY38-3: Performance of Rake-MMSE-Equalizer for UWB Communications

Mohsen Eslami (University of Alberta, Canada), Xiaodai Dong (University of Alberta, Canada)

PHY38-4: Optimal and Suboptimal Finger Selection Algorithms for MMSE Rake Receivers in Impulse Radio Ultra-Wideband Systems

Sinan Gezici (Princeton University, USA), Mung Chiang (Princeton University, USA), H. Vincent Poor (Princeton University, USA), Hisashi Kobayashi (Princeton University, USA)

Thursday, March 17, 2005

16:00 - 17:30 Room 207

PHY39: Diversity II

PHY39-1: Moment based Analysis of Equal Gain Combiner in Equally Correlated Nakagami-m Fading Channels

Yunxia Chen (University of California, Davis, USA), Chintha Tellambura, (University of Alberta, Canada),

PHY39-2: Postdetection Switch-and-Stay Diversity in Rician Fading

Sasan Haghani (University of Alberta, Canada), Norman C. Beaulieu (University of Alberta, Canada)

PHY39-3: Error Probability Analysis of TAS/MRC-based Scheme for Wireless Networks

Jia Tang (Texas A&M University, USA), Xi Zhang (Texas A&M University, USA)

PHY39-4: Optimum Selection Combining for M-QAM on Fading Channels

M. Surendra Raju (Insilica Semiconductors India Pvt. Ltd, India), Ramesh Annavajjala (University of California, San Diego, USA), A. Chockalingam (Indian Institute of Science, Bangalore, India)

Monday, March 14, 2005

16:00 - 17:30 Room 205

PHY40: Communication Systems Performance Analysis I

PHY40-1: Error Performance of Coherent High Dimensional Signaling in Nakagami Fading Channels with Diversity Reception

Lei Xiao (University of Alberta, Canada), Xiaodai Dong (University of Alberta, Canada)

PHY40-2: Performance of MC CDMA RAKE Systems in Generalized Nakagami-m Multipath Fading Channel

Abdel-Awal Hashem (Alcatel Egypt, Egypt), Said Elnoubi (University of Alexandria, Egypt), Hamdi Elmikati (University of Mansoura, Egypt)

PHY40-3: Theoretical Analysis of BER in DPSK/OFDM Systems with Postdetection Diversity Reception

Yuki Mitsu (Shinshu University, Japan), Fumihito Sasamori (Shinshu University, Japan), Shiro Handa (Shinshu University, Japan), Shinjiro Oshita (Shinshu University, Japan)

PHY40-4: Optimization of Delay Diversity for Linear Equalization

S. Yiu (University of British Columbia, Canada), R. Schober (University of British Columbia, Canada), W. Gerstacker (University of Erlangen-Nürnberg, Germany)

Tuesday, March 15, 2005

9:00 - 10:30 Room 215

PHY41: Communication Systems Performance Analysis II

PHY41-1: Sample Rejection for Efficient Simulation of Intersymbol Interference Channels with MLSD

Pavel Loskot (University of Alberta, Canada), Norman C. Beaulieu (University of Alberta, Canada)

PHY41-2: A Threshold-based Linear Parallel Interference Canceller on Fading Channels

V. Tikiya (Indian Institute of Science, Bangalore, India), A. Chockalingam (Indian Institute of Science, Bangalore, India)

PHY41-3: Robust Structured Interference Rejection Combining

Erik G. Larsson (The George Washington University, USA)

PHY41-4: Adaptive Modulation and Coding with Multicodes over Nakagami Fading Channels

Raymond Kwan (The University of British Columbia, Canada), Cyril Leung (The University of British Columbia, Canada)

Thursday, March 17, 2005

9:00 - 10:30 Room 215

PHY42: Wireless Channel Models

PHY42-1: Modelling and Performance Prediction for Multiple Antenna Systems using Enhanced Ray Tracing

K. H. Ng (University of Bristol, UK), E. K. Tameh (University of Bristol, UK), A. R. Nix (University of Bristol, UK)

PHY42-2: A 3D Correlation Model for MIMO Non-Isotropic Scattering with Arbitrary Antenna Arrays

Hamidreza Saligheh Rad (Queen's University, Canada), Saeed Gazor (Queen's University, Canada)

PHY42-3: Statistical Characterization of the UWB Propagation Channel in Various Types of High-Rise Apartments
Chia-Chin Chong (Samsung Advanced Institute of Technology, Korea), Youngeil Kim (Samsung Advanced Institute of Technology, Korea), Seong-Soo Lee (Samsung Advanced Institute of Technology, Korea)

PHY42-4: Characterization of Ultra-Wideband Channels for Outdoor Office Environment

C. W. Kim (National University of Singapore, Singapore), X. Sun (National University of Singapore, Singapore), L. C. Chiam (National University of Singapore, Singapore), B. Kannan (Institute for Infocomm Research, Singapore), F. P. S. Chin (Institute for Infocomm Research, Singapore), H. K. Garg (National University of Singapore, Singapore)

Wednesday, March 16, 2005

9:00 - 10:30 Room 215

PHY43: Communication Systems Performance Analysis III

PHY43-1: Accurate BER Analysis of Bandlimited DS-CDMA System with EGC and SC Diversity over Nakagami Fading Channels

K. Sivanesan (University of Alberta, Canada), Norman C. Beaulieu (University of Alberta, Canada)

PHY43-2: Optimal Realizable MMSE Linear and Decision Feedback Equalizers: Time Domain Results

Jianqiang He (Louisiana State University, USA), Zhongshan Wu (Louisiana State University, USA), Guoxiang Gu (Louisiana State University, USA),

PHY43-3: Exact BERs for M-QAM with MRC and Channel Estimation Errors in Rician Channels

Yao Ma (Iowa State University, USA), Robert Schober (University of British Columbia, Canada), Dongbo Zhang (Iowa State University, USA)

PHY43-4: On the Performance of Hybrid Macro/Microdiversity in the Reverse-Link Microcellular Networks

A. Adinoyi (Carleton University, Canada), H. Yanikomeroglu (Carleton University, Canada)

Thursday, March 17, 2005

9:00 - 10:30 Room 211

PHY44: Multiuser Communications I

PHY44-1: Exploiting Multiuser Diversity with Only 1-bit Feedback

Shahab Sanayei (The University of Texas at Dallas, USA), Aria Nosratinia (The University of Texas at Dallas, USA)

PHY44-2: SER Performance Analysis and Optimum Power Allocation for Decode-and-Forward Cooperation Protocol in Wireless Networks

Weifeng Su (University of Maryland, USA), Ahmed K. Sadek (University of Maryland, USA), K. J. Ray Liu (University of Maryland, USA)

PHY44-3: On the Distributed Space-Time Signal Design for a Large Number of Relay Terminals

Murat Uysal (University of Waterloo, Canada), Onur Canpolat (University of Waterloo, Canada)

PHY44-4: Adaptive Resource Allocation Scheme for 2-hop Non-regenerative MIMO Relaying System

Zhang Qi (Beijing University of Posts and Telecommunications, China), Wang Ying (Beijing University of Posts and Telecommunications, China), Zhang Ping (Beijing University of Posts and Telecommunications, China)

Thursday, March 17, 2005

14:00 - 15:30 Room 211

PHY45: Multiuser Communications II

PHY45-1: Cooperative Coding using Serial Concatenated Convolutional Codes

Yang Cao (The George Washington University, USA), Branimir Vojcic (The George Washington University, USA)

PHY45-2: Combined Opportunistic Beamforming and Receive Antenna Selection

Lei Zan (University of California, Irvine, USA), Syed Ali Jafar (University of California, Irvine, USA)

PHY45-3: A Simple Cooperative Diversity Scheme Based on Orthogonal Signaling

V. Mahinthan (University of Waterloo, Canada), J. W. Mark (University of Waterloo, Canada)

Thursday, March 17, 2005

16:00 - 17:30 Room 211

PHY46: Multiuser Communications III

PHY46-1: Multiuser Zero Forcing Relaying with Noisy Channel State Information

Armin Wittneben (Swiss Federal Institute of Technology, Switzerland), Ingmar Hammerström (Swiss Federal Institute of Technology, Switzerland)

PHY46-2: Performance Analysis of Reliability Filling on Quasi-Static Fading Channels

Arun Avudainayagam (University of Florida, USA), John M. Shea (University of Florida, USA)

PHY46-3: Energy-Efficient Cooperation Transmission over Multiuser OFDM Networks: Who Helps Whom and How to Cooperate

Zhu Han (University of Maryland, USA), Thanongsak Himsoon (University of Maryland, USA), W. Pam Siritwongpairat (University of Maryland, USA), K. J. Ray Liu (University of Maryland, USA)

Tuesday, March 15, 2005

14:00 - 15:30 Room 215

PHY47: Coding Principles I

PHY47-1: Quasi-Cyclic Codes from Extended Difference Families

Tao Xia (University of Arizona, USA), Bo Xia (Intel Corporation, USA)

PHY47-2: Unequal Protection with Turbo Decoding for High-Order Modulated Signaling

Charles C. Wang (The Aerospace Corporation, USA), Quang Vo (Northrop Grumman Space Technology, USA)

PHY47-3: An Algorithm for the Estimation of the Minimum Distance of LDPC Codes

Fred Daneshgaran (California State University Los Angeles, USA), Massimiliano Laddomada (Politecnico di Torino, Italy), Marina Mondin (Politecnico di Torino, Italy)

Tuesday, March 15, 2005

16:00 - 17:30 Room 215

PHY48: Coding Principles II

PHY48-1: Constrained Decoding for Turbo-CRC Code with High Spectral Efficient Modulation

Huijun Chen (University of Mississippi, USA), Lei Cao (University of Mississippi, USA), Chang Wen Chen (Florida Institute of Technology, USA)

PHY48-2: Performance of Hamming Codes in Systems Employing Different Code Symbol Energies

Wenhui Xiong (Ohio University, USA), David W. Matolak (Ohio University, USA)

PHY48-3: Unquantized and Uncoded Channel State Information Feedback on Wireless Channels

Dragan Samardzija (Bell Laboratories, Lucent Technologies, USA), Narayan Mandayam (Rutgers University, USA)

PHY48-4: Constellations Design for Multiple Transmissions: Maximizing the Minimum Squared Euclidean Distance

Leszek Szczeci_ski (INRS Energy, Canada), Marcos Bacic (Universidad Técnica Federico Santa María, Chile)

Wednesday, March 16, 2005

14:00 - 15:30 Room 215

PHY49: Communication Theory I

PHY49-1: On the Use of Orthogonal Signals to Generate Parallel Branches and Improve the Spectral Efficiency of CPM and TCM Modulation

James A. Norris (Harris Corporation, USA)

PHY49-2: Iterative Decoding for Joint Source-Channel Coding using Combined TCQ/CPM

Zihuai Lin (Chalmers University of Technology, Sweden), Tor Aulin (Chalmers University of Technology, Sweden)

PHY49-3: Capacity and Coding of Flat Fading Channels without Channel State Information

Teng Li (University of Notre Dame, USA), Oliver M. Collins (University of Notre Dame, USA)

PHY49-4: Time-Selective Signaling for Turbo-Equalization

Mehdi Hedjazi Moghari (University of Windsor, Canada), Behnam Shahrava (University of Windsor, Canada)

Wednesday, March 16, 2005

16:00 - 17:30 Room 215

PHY50: Communication Theory II

PHY50-1: Turbo Equalization with Iterative Online SNR Estimation

Shahram Talakoub (University of Windsor, Canada), Behnam Shahrava (University of Windsor, Canada)

PHY50-2: Novel Performance Upper Bounds for Space-Time Trellis Codes over Quasi-Static Fading Channels

Jingyu Hu (The University of Texas at Austin, USA), Scott L. Miller (Texas A&M University, USA)

PHY50-3: On an Optimum Algorithm for Waveform Synthesis and Its Applications to Digital Transmitters

RaviKiran Gopalan (University of Notre Dame, USA), Oliver M. Collins (University of Notre Dame, USA)

PHY50-4: Relaxed Bandwidth Sharing with Space Division Multiplexing™

V. Guruprasad (Inspired Research LLC, USA)

Thursday, March 17, 2005

9:00 - 10:30 Room 206

PHY51: 4G Wireless Networks Concepts

PHY51-1: Downlink Multicell MIMO-OFDM: An Architecture for Next Generation Wireless Networks

Lei Shao (Intel Corporation, USA), Sumit Roy (University of Washington, USA)

PHY51-2: Link-Adaptation-Enhanced Dynamic Channel Allocation for MIMO-OFDM Wireless Networks

Jia Tang (Texas A&M University, USA), Xi Zhang (Texas A&M University, USA)

PHY51-3: A Performance Analysis of Coded Frequency-Hopped OFDMA

Kostas Stamatiou (University of California, San Diego, USA), John G. Proakis (University of California, San Diego, USA)

PHY51-4: Performance Studies of a VSF-OFCDM System using a Symbol Relocated Scheme during Retransmission

Xiaoming Peng (Institute for Infocomm Research, Singapore), Francois P. S. Chin (Institute for Infocomm Research, Singapore), A. S. Madhukumar (Nanyang Technological University, Singapore)

Thursday, March 17, 2005

14:00 - 15:30 Room 215

PHY52: Wireless Network Optimization

PHY52-1: Optimal Allocation of Bandwidth for Minimum Battery Consumption

Qinghua Zhao (University of California, San Diego, USA), Pamela . Cosman (University of California, San Diego, USA), Laurence B. Milstein (University of California, San Diego, USA)

PHY52-2: Power Cost of Mobility in Cellular Systems with Closed-Loop Power Control

In-Ho Lee (University of Hanyang, Korea), Dongwoo Kim (University of Hanyang, Korea)

PHY52-3: Fast Near-Optimal Energy Allocation for Multimedia Loading on Multicarrier Systems

Michael A. Enright (University of Southern California, USA), C.-C. Jay Kuo (University of Southern California, USA)

PHY52-4: Traffic Engineering for Wireless Mobile Networks Supporting Heterogeneous Traffic

Leila Z. Ribeiro (Virginia Polytechnic Institute and State University, USA, CelPlan Technologies, Inc., USA), Luiz A. DaSilva (Virginia Polytechnic Institute and State University, USA)

Tuesday, March 15, 2005

14:00 - 17:30 Room 207

PHY53: Wireless Security (Invited Session)

PHY53-0: PHY53-0: Opening Remarks:

Clifford Wang (Army Research Office, USA)

PHY53: Wireless Security (Invited Papers)

PHY53-1: A Covert Channel in MAC Protocols Based on Splitting Algorithms

Song Li (University of Maryland, USA), Anthony Ephremides (University of Maryland, USA)

PHY53-2: Client Assisted Location Data Acquisition Scheme for Secure Enterprise Wireless Networks

Santosh Pandey (Auburn University, USA), ByungSuk Kim (Telcordia Technologies, Inc., USA), Farooq Anjum (Telcordia Technologies, Inc., USA), Prathima Agrawal (Auburn University, USA)

PHY53-3: Authenticated Key Exchange for Wireless Security

Hideki Imai (University of Tokyo, Japan), SeongHan Shin (University of Tokyo, Japan), Kazukuni Kobara (University of Tokyo, Japan)

PHY53-4: Enhancing Wireless Location Privacy Using Silent Period

Leping Huang (Nokia Research Center, Japan, University of Tokyo, Japan), Kanta Matsuura (University of Tokyo, Japan), Hiroshi Yamane (University of Tokyo, Japan), Kaoru Sezaki (University of Tokyo, Japan)

PHY53-5: Preventing Wormhole Attacks on Wireless Ad Hoc Networks: A Graph Theoretic Approach

L. Lazos (University of Washington, USA), R. Poovendran (University of Washington, USA), C. Meadows (Naval Research Laboratory, USA), P. Syverson (Naval Research Laboratory, USA), L. W. Chang (Naval Research Laboratory, USA)

PHY53-6: A Combinatorial Approach to Key Predistribution for Distributed Sensor Networks

Jooyoung Lee (University of Waterloo, Canada), Douglas R. Stinson (University of Waterloo, Canada)