



Tutorials

ISSSTA Tutorials: Monday, August 25, 2008	Rooms: Regency 1, 2 and 3
--	----------------------------------

Fundamentals of UWB Systems

M. Win, Massachusetts Institute of Technology

Tutorial: Flexible Transceiver Concept Based on Time-Frequency Signal Processing

A. Polydoros, University of Athens; T. Hunziker, Univ. Kassel; S. Stefanatos, IASA; H. Saarnisaari, Univ. Oulu/CWC; M. des Noes, CEA-LETI; H. Bogucka, Univ. Poznan; P. Jung and A. Viessmann, Univ. Duisburg-Essen

Tutorial: CDMA Interference Cancellation - From Theory to Practice

J. Smee, Qualcomm Inc.; J. K. Wolf, University of California; A. Vanelli-Coralli University of Bologna

ASMS Tutorial: Tuesday, August 26, 2008	Room: Stuart
--	---------------------

Recent Advances in DVB Standard Family

C. Parraga Niebla, DLR; P. Kelley, Alcatel Lucent; G. Fairhurst, University of Aberdeen; D. Mignolo, ESA; N. Pham, Eutelsat; G. Liva, DLR

Tuesday, August 26, 2008

9:00 - 10:40, Opening session	Room: Falco+Savoia
--------------------------------------	---------------------------

Opening

Giovanni E. Corazza, University of Bologna, Italy; Roberto Padovani, Qualcomm Inc.; US;reas Polydoros, University of Athens, Greece

Keynote Speech: Sphere decoding and its applications

Ezio Biglieri, Universitat Pompeu Fabra; Spain

11:00 - 13:00, LTE & WiMAX	Room: Savoia
---------------------------------------	---------------------

Chairperson: John Smee, Qualcomm, Inc

A Comparison of Full-Rate Full-Diversity 2x2 Space-Time Codes for WiMAX Systems

Serdar Sezginer, Sequans Communications, France; Hikmet Sari, Supélec, France; Ezio Biglieri, Sequans Communications, France

A Robust Frequency Tracking Loop at the eNodeB for LTE Uplink

Roberto Rimini, Qualcomm, USA; Jun Ma, Qualcomm, USA

Performance Analysis of Iterative Receiver in 3GPP/LTE DL MIMO OFDMA System

Laurent Boher, France Telecom - Orange Lab, France; Rodolphe Legouable, France Telecom - Orange Lab, France; Rodrigue Rabineau, France Telecom - Orange lab, France

Error Performance of Fine Frequency Synchronization Scheme in Mobile WiMAX Systems

Hyun Yang, Sejong University, Korea; Uk Her, Sejong University, Korea; Kwang-Soo Jeong, YuJeong Systems Co., Korea; Jae-Hoon Yi, YuJeong Systems Co., Korea; Sejong University, Korea; Young-Hwan You, Sejong University, Korea

Scheduling Algorithms for 3GPP Long-Term Evolution Systems: From a Quality of Service Perspective

Mikael Gidlund, Nera Networks AS, Norway; Jean-Christophe Laneri, Ericsson AB, Sweden





14:20 - 16:00, Cooperative Communications

Room: Savoia

Chairperson: Anna Scaglione, Cornell University

Detection of Selfish Partners by Control Packets in ARQ-based CSMA Cooperative Networks

Sintayehu Dehnie, Polytechnic University, NY, USA; Stefano Tomasin, University of Padova, Italy

Radio Propagation Modeling for Capacity Optimization in Wireless Relay MIMO systems with Partial CSI

Triantafyllos Kanakis, University of Greenwich, United Kingdom; Predrag Rapajic, University of Greenwich, United Kingdom

Multihop Diversity in Wideband OFDM Systems: The Impact of Spatial Reuse and Frequency Selectivity

Ozgur Oyman, Intel Corporation, U.S.A.; J. Nicholas Laneman, University of Notre Dame, U.S.A.

Optimized Power Allocation for Multiple-Antenna Multiple-Relay Cooperative Communication System

Arash Talebi, University of Alberta, Canada; Witold Krzymien, University of Alberta, Canada

Broadband services on go in the coverage of relay-based network

Helal Chowdhury, University of Oulu, Finland; Jari Linatti, University of Oulu, Finland; Pekka Pirinen, University of Oulu, Finland

16:20 - 18:00, UWB - I

Room: Savoia

Chairperson: Moe Win, MIT

A Framework for Computing Detection and False Alarm Probabilities for IR-UWB Transmitted Reference Receivers Over Generalized Fading Channels with Tone Interference

Marco Di Renzo, Telecommunications Technological Center of Catalonia, Spain; Fabio Graziosi, University of L'Aquila, Italy; Fortunato Santucci, University of L'Aquila, Italy

Cooperative UWB Body Area Networking: Channel Measurement and Diversity Analysis

Yifan Chen, University of Greenwich, United Kingdom; Jianqi Teo, Nanyang Technological University, Singapore; Joshua Lai, Nanyang Technological University, Singapore; Erry Gunawan, Nanyang Technological University, Singapore; Kay Soon Low, Nanyang Technological University, Singapore; Cheong Boon Soh, Nanyang Technological University, Singapore; Predrag Rapajic, University of Greenwich, United Kingdom

Accuracy of UWB Ranging over Multimode Fiber With and Without In-band WLAN Interference

Jacob George, Corning Inc, USA; Aravind Chamarti, Corning Inc, USA; Anthony Ng'oma, Corning Inc, USA; Dean Thelen, Corning Inc, USA; Michael Sauer, Corning Inc, USA

A Selective Signal Combining Scheme for Noncoherent UWB Systems

Sekwon Kim, Soongsil University, Republic of Korea; Jaewoon Kim, Soongsil University, Republic of Korea; Youngjin Park, KERI, Republic of Korea; Soonwoo Lee, KERI, Republic of Korea; Yoan Shin, Soongsil University, Republic of Korea





11:00 - 13:00, Focus on: Distributed Processing **Room: Falco**

Chairperson: Osvaldo Simeone, New Jersey Institute of Technology

On the Problem of Adding Infinitely Many Values

Shrut Kirti, Cornell University, USA; Anna Scaglione, Cornell University, USA

Distributed processing algorithms for wireless sensor networks having fast convergence and robustness against coupling noise

Sergio Barbarossa, University of Rome, Italy; Timothy Battisti, University of Rome, Italy; Loreto Pescosolido, University of Rome, Italy; Stefania Sardellitti, University of Rome, Italy; Gesualdo Scutari, University of Rome, Italy

Decoding and Fusion in Sensor Networks with Noisy Observations and Communications

Marco Martalo', University of Parma, Parma, Italy; Gianluigi Ferrari, University of Parma, Parma, Italy

A Multi-Dimensional Characterization of Clustered Zigbee Networks

Paolo Medagliani, University of Parma, Parma, Italy, Italy; Marco Martalo', University of Parma, Parma, Italy; Gianluigi Ferrari, University of Parma, Parma, Italy

Tree Protocols for RFID Tags with Generalized Arbitration Spaces

Petar Popovski, Oticon A/S and Aalborg University, Denmark

Distributed Sensing and Access in Cognitive Radio Networks

Keqin Liu, University of California at Davis, USA; Qing Zhao, University of California at Davis, USA; Yunxia Chen, University of California at Davis, USA

14:20 - 16:00, Focus on: MIMO **Room: Falco**

Chairperson: Markku Juntti, University of Oulu, CWC

Modified Schnorr-Euchner Sphere Decoding for Iterative Spatial Multiplexing MIMO Receiver

Ming Zhao, Australian National University, Australia; Zhenning Shi, NICTA/Australian National University, Australia; Mark Reed, NICTA/Australian National University

Indoor Network MIMO Performance with Regularized Zero-Forcing Transmission

Laurence Mailaender, Bell Labs, Alcatel-Lucent, USA

A Framework for Fixed Complexity Breadth-First MIMO Detection

David L. Milliner, Georgia Institute of Technology, USA; Ernesto Zimmermann, TU Dresden, Germany; John R. Barry, Georgia Institute of Technology, USA; Gerhard Fettweis, TU Dresden, German

Interference mitigation in multicell LTE systems: performance over correlated fading channels

Daniele Molteni, Politecnico di Milano, Italy; Monica Nicoli, Politecnico di Milano, Italy

Comparison of Three List Detectors in Iterative Decoding and Channel Estimation in MIMO OFDM

Jari Ylinoias, University of Oulu/CWC, Finland; Markku Juntti, University of Oulu/CW

16:20 - 18:00, Information & Communication Theory **Room: Falco**

Chairperson: Ezio Biglieri, Universitat Pompeu Fabra

On Spectral Efficiency of Vector Precoding for Gaussian MIMO Broadcast Channels

Benjamin M. Zaidel, Norwegian University of Science and Technology (NTNU), Norway; Ralf R. Müller, Norwegian University of Science and Technology (NTNU), Norway; Rodrigo de Miguel, Norwegian University of Science and Technology (NTNU), Norway; Aris L. Moustakas, National and Kapodistrian University of Athens, Greece





Efficient Transmission Technique for MIMO-OFDM Broadcast Channels with Limited Feedback

Mohsen Eslami, University of Alberta, Canada; Witold Krzymien, University of Alberta, Canada

Optimal user pairing for multiuser MIMO

Emanuele Viterbo, University of Calabria, Italy; Ari Hottinen, Nokia Research Center, Finland

Scaling laws for large ad-hoc wireless networks with Wishart-Poisson fading

Giusi Alfano, Politecnico di Torino, Italy; Maxime Guillaud, ftw, Austria; Antonia M. Tulino, Federico II University, Italy

11:00 - 13:00, Spread Spectrum & CDMA - I

Room: Regency

Chairperson: Gaetano Giunta, University of Roma Tre

Blind Multi-user Detection of a Chaos-based CDMA System using Support Vector Machine

Johnny Wei-Hsun Kao, University of Auckland, New Zealand; Stevan Berber, University of Auckland, New Zealand; Vojislav Kecman, University of Auckland, New Zealand

Comparison of Pareto Optimum Transmit Power between CDMA and OFDMA Uplink

Denis Kolyuzhnov, Jacobs University Bremen, Germany; Abdurazak Mudesir, Jacobs University Bremen, Germany; Harald Haas, University of Edinburgh, United Kingdom

Weighting Particle Swarm Optimization SIMO MC-CDMA Multiuser Detectors

Taufik Abrão, State University of Londrina, Brazil; Fernando Ciriaco, State University of Londrina, Brazil; Leonardo D. de Oliveira, Escola Politécnica of University of São Paulo, Brasil; Bruno A. Angélico, Escola Politécnica of University of São Paulo, Brazil; Paul Jean E. Jeszensky, Escola Politécnica of University of São Paulo, Brazil; Fernando Casadevall, Universitat Politècnica de Catalunya, Spain

Dual-Transceiver Quantization Can Improve Error Performance in CDMA

Hadar Efraim, Bar-Ilan University, Israel; Ori Shental, University of California, San Diego, USA; Nadav Yacov, Bar-Ilan University, Israel; Ido Kanter, Bar-Ilan University, Israel

Performance Evaluation of Multicast/Broadcast Single Frequency Network Operation for WCDMA

Christoph Joetten, Qualcomm CDMA Technologies GmbH, Germany; Christian Sgraja, Qualcomm CDMA Technologies GmbH, Germany; Hendrik Schoeneich, Qualcomm CDMA Technologies GmbH, Germany

Analytic Evaluation of the Maximum Uplink Erlang Capacity of a Cellular CDMA System With Macrocells and Embedded Hotspot Microcells

Jose Viveros-Talavera, UAM, Mexico; Domingo Lara-Rodriguez, CINVESTAV, Mexico

14:20 - 16:00, Multi-User Detection

Room: Regency

Chairperson: Stefano Tomasin, University of Padova

Interference Management and Handoff Techniques in Ultra Mobile Broadband Communication Systems

Michael Wang, Qualcomm, USA

MMSE Multi-User Detection with GA-assisted Channel Estimation for STBC MC-CDMA Mobile Communication Systems

Leandro D'Orazio, University of Trento, Italy; Claudio Sacchi, University of Trento, Italy; Massimo Donelli, University of Trento, Italy; Francesco De Natale, University of Trento, Italy





CDMA slotted ALOHA System with Successive Interference Cancellation for Inter-Vehicle Communications

Atsunori Sakata, Nagoya University, Japan; Takaya Yamazato, Nagoya University, Japan; Hiraku Okada, Niigata University, Japan; Masaaki Katayama, Nagoya University, Japan

Multiuser Detection Algorithm for CDMA based on the Belief Propagation Algorithm

Shunsuke Horii, Waseda University, Japan; Tota Suko, Waseda University, Japan; Toshiyasu Matsushima, Waseda University, Japan; Shigeichi Hirasawa, Waseda University, Japan

Constrained Blind Adaptive Multiuser Detector for DS-CDMA UWB in Multipath Channels

Gangadhar Biradar, IIT Bombay, India; Shabbir Merchant, IIT Bombay, India; Uday Desai, IIT Bombay, India

16:20 - 18:00, Focus on: Propagation **Room: Regency**

Chairperson: Vittorio Degli-Esposti, University of Bologna, DEIS

Analysis of Radio Propagation in co- and cross-polarization in Urban Environment

Enrico Maria Vitucci, University of Bologna, Italy; Veli-Matti Kolmonen, TKK Helsinki University of Technology, Finland; Vittorio Degli-Esposti, University of Bologna, Italy; Pertti Vainikainen, TKK Helsinki University Of Technology, Finland

The COST 273 MIMO Channel Model: Three Kinds of Clusters

Nicolai Czink, ftw. Communications Research Centre Vienna, Austria; Claude Oestges, Université Catholique de Louvain, Belgium

Computational complexity of drop based radio channel simulation

Pekka Kyösti, Elektrobit, Finland; Tommi Jämsä, Elektrobit, Finland; Aaron Byman, Elektrobit, Finland; Milan Narandzic, Technische Universität Ilmenau, Germany

Wideband Measurement for Body Effect of BAN Channel

Kohei Ohno, Tokyo University of Science, Japan; Katsuhiro Watanabe, Meiji University, Japan; Takashi Yamada, Meiji University, Japan; Takashi Kobayashi, Meiji University, Japan; Hirotsugu Matsuda, Meiji University, Japan; Nobu Yamazaki, Meiji University, Japan; Tetsushi Ikegami, Meiji University, Japan

11:00 - 13:00, Focus on: GNSS **Room: Gloria**

Chairperson: Letizia Lo Presti, Politecnico di Torino

Performance Evaluation of C/N0 Estimators using a Real Time GNSS Software Receiver

Emanuela Falletti, Istituto Superiore Mario Boella, Italy; Marco Pini, Istituto Superiore Mario Boella, Italy; Maurizio Fantino, Istituto Superiore Mario Boella, Italy

Evaluation of a FFT-based Acquisition in Real Time Hardware and Software GNSS Receivers

Andrea Molino, Polytechnic of Turin, Italy; Gianmarco Girau, Polytechnic of Turin, Italy; Mario Nicola, Polytechnic of Turin, Italy; Maurizio Fantino, Istituto Superiore Mario Boella, Italy; Marco Pini, Istituto Superiore Mario Boella, Italy

SDR GNSS Receiver Design over Stand-alone Generic TI DSP Platform

Tian Jin, BeiHang University, P.R.China; Ye Wang, BeiHang University, P.R.China; Lin Shi, BeiHang University, P.R.China; Hua Zhang, BeiHang University, P.R.China

Quantization Degradation of GNSS Signal Quality in the Presence of CW RFI

Asghar Tabatabaei Balaei, UNSW, Australia; Dennis Akos, Colorado University, USA; Andrew Dempster, UNSW, Australia





New L5/E5a Acquisition Algorithms: Analysis and Comparison

Daniele Borio, University of Calgary, Canada; Cecile Mongredien, University of Calgary, Canada; Gerard Lachapelle, University of Calgary, Canada

Pull-out Probability Considerations in High Dynamics GNSS Tracking Loops Design

Pedro Roncagliolo, Universidad Nacional de La Plata, Argentina; Javier García, Universidad Nacional de La Plata, Argentina; Carlos Muravchik, Universidad Nacional de La Plata, Argentina

14:20 - 16:00, Sequences for Spread Spectrum **Room: Gloria**

Chairperson: Gianluca Mazzini, University of Ferrara

Comparison between the performance of Algorithmic Optical Codes and Orthogonal Optical Codes in OCDMA systems

Jesus A. Martin-Gonzalez, Universidad Politecnica de Madrid, Spain; Enrique Poves, Universidad Politecnica de Madrid, Spain; Francisco J. Lopez-Hernandez, Universidad Politecnica de Madrid, Spain

A Code Selection Criterion Based on Autocorrelation Properties for Quasi-Synchronous CDMA Communication System

Sujit Jos, IIT Kharagpur, India; Preetam Kumar, IIT Kharagpur, India; Saswat Chakrabarti, IIT Kharagpur, India

Design of pseudochaotic maximum length sequences with prescribed autocorrelation obtained from discretized chaos maps

Daisaburo Yoshioka, Sojo University, Japan; Akio Tsuneda, Kumamoto University, Japan

Performance Assessment of Polyphase Pulse Compression Codes

Momin Jamil, Harman/Becker Automotive Systems GmbH, Germany; Hans-Jurgen Zepernick, Blekinge Institute of Technology, Sweden; Mats I. Pettersson, Blekinge Institute of Technology, Sweden

16:20 - 18:00, Coding & Modulation **Room: Gloria**

Chairperson: Catherine Douillard, TELECOM Bretagne

Analysis and Optimization of a JSCC/D System on 4G Networks

Catherine Lamy-Bergot, Thales Communications, France; Gianmarco Panza, CEFRIEL, Italy; Alessandro Rotondi, CEFRIEL, Italy; Luigi Fratta, CEFRIEL - Politecnico di Milano, Italy

Sphere Constrained Block RSSE with Per-Survivor Intra-Block Processing for CCK Transmission

Christof Jonietz, University of Erlangen-Nuremberg, Germany; Wolfgang Gerstacker, University of Erlangen-Nuremberg, Germany; Robert Schober, University of British Columbia, Canada

A New SCFDE STS Scheme with Joint Channel Estimation and Multiuser Detection

Kodzovi Acolatse, New Jersey Institute of Technology, USA; Yehekel Barness, New Jersey Institute of Technology, USA

Analytical SER Calculation of Spatial Modulation

Raed Mesleh, Jacobs University Bremen, Germany; Soenke Engelken, University of Manchester, UK; Sinan Sinanovic, The University of Edinburgh, UK; Harald Haas, The University of Edinburgh, UK





Wednesday, August 27, 2008

9:00 - 10:40, MIMO-I

Room: Falco

Chairperson: Roberto Rimini, Qualcomm Inc.

Accurate BER Analysis of Orthogonal Space-Time Block Codes with MMSE Channel Estimation

Lennert Jacobs, Ghent University, Belgium; Marc Moeneclaey, Ghent University, Belgium

Design and Implementation of an Optimized MIMO-OFDM System

Christophe Le Guellaut, IETR, FRANCE; Fabienne Nouvel, IETR, FRANCE

Algebraic MultiuserSpace-Frequency Block Codes

Yi Hong, University of Wales, Swansea, UK; Emanuele Viterbo, University of Calabria, Italy

Implicit Pilot-Borne Interference Feedback for Multiuser MIMO TDD Systems

Rami Abu-alhiga, University of Edinburgh, United Kingdom; Harald Haas, University of Edinburgh, United Kingdom

An Efficient Hybrid Sphere Decoding Algorithm for MIMO Systems

Hsiao-Lan Chiang, National Chiao Tung University, Taiwan

11:00 - 13:00, Distributed algorithms and protocols

Room: Falco

Chairperson: Fu-Chun Zheng, University of Reading

Optimization of Closed-Loop Power Control for Wireless Multiple Orthogonal Access Schemes with Correlated Sources

Fabio Perna, University of Siena, Italy;rea Abrardo, University of Siena, Italy; Gianluigi Ferrari, University of Parma, Italy

Distributed Frequency-Locked Loops for Wireless Networks

Nicola Varanese, New Jersey Institute of Technology, Politecnico di Milano, Italy; Osvaldo Simeone, New Jersey Institute of Technology, USA; Umberto Spagnolini, Politecnico di Milano, Italy; Yeheskel Bar-Ness, New Jersey Institute of Technology, USA

Distributed Beamforming based on Signal-to Caused-Interference Ratio

Navid Hassanpour, Qualcomm Inc., USA; John E. Smee, Qualcomm Inc., USA; Jilei Hou, Qualcomm Inc., USA; Joseph B. Soriaga, Qualcomm Inc., USA

Minimum Interference Distributed Scheduling for Packet Transmission

Luca Reggiani, Politecnico di Milano, Italy; Umberto Spagnolini, Politecnico di Milano, Italy

Novel Consensus Algorithm for Wireless Sensor Networks with Noise and Interference Suppression

Antonio Fasano, University of Rome Sapienza, Via Eudossiana 18, 00184 Rome, Italy; University Campus Bio-Medico, Via Álvaro del Portillo 21, 00128 Rome, Italy

Distributed Opportunistic Packet Scheduling Policy in Wireless LANs

Hyung-Kun Park, Korea University of Technology & Education, Korea





14:20 - 16:00, Cross-layer radio resource management **Room: Falco**

Chairperson: Francesco Vatalaro, University of Rome "Tor Vergata"

Cross-Layer Performance Analysis of TCP over Wireless Link with AMC and Type-III HARQ

Feijin Shi, Shandong University, P. R. China; Dongfeng Yuan, Shandong University, P. R. China

Robust MAC-Lite and Header Recovery Based Improved Permeable Protocol Layer Scheme

Cédric Marin, LSS/CNRS, France; Yann Leprovost, Alcatel-Lucent Bell Labs, France; Michel Kieffer, LSS/CNRS, France; Pierre Duhamel, LSS/CNRS, France

On End-to-End Scheduling in Wireless Cellular Networks

Walid Saad, American University of Beirut, Lebanon; Zaher Dawy, American University of Beirut, Lebanon; Sanaa Sharafeddine, Lebanese American University, Lebanon

Optimum Goodput-Oriented Power Allocation Policy for BIC-OFDM Packet Transmissions

Ivan Stupia, University of Pisa, Italy; Luc Vandendorpe, Université Catholique de Louvain, Belgium; Jerome Louveaux, Université Catholique de Louvain, Belgium; Filippo Giannetti, University of Pisa, Italy; Vincenzo Lottici, University of Pisa, Italy; Nunzio Aldo D'Andrea, University of Pisa, Italy

Provision of Maximum Delay Guarantee at Low Energy in a Multi-user Environment

Muhammad Majid Butt, Norwegian University of Science & Technology, Norway; Kimmo Kansanen, Norwegian University of Science & Technology, Norway; Ralf Mueller, Norwegian University of Science & Technology, Norway

16:20 - 18:00, MIMO for Satellite Communications **Room: Falco**

Chairperson: Istvan Frigyes, Budapest University of Technology

Polarization tracking free Ku broadband mobile satellite communications system-Variable Polarization Frequency Division Multiplexing(VPFDM)-

Fumihito Yamashita, NTT, Japan; Junichi Abe, NTT, Japan; Kiyoshi Kobayashi, NTT, Japan; Kohei Ohata, NTT, Japan

Optimum-Capacity MIMO Satellite Broadcast System: Conceptual Design for LOS Channels

Robert T. Schwarz, Federal Office of the Bundeswehr for Information Management and Information Technology, Germany;reas Knopp, Federal Office of the Bundeswehr for Information Management and Information Technology, Germany; Berthold Lankl, Munich University of the Bundeswehr, Germany; Dirk Ogermann, Munich University of the Bundeswehr, Germany; Christian A. Hofmann, Munich University of the Bundeswehr, Germany

A Cooperative Transmit Diversity Scheme for Mobile Satellite Broadcasting Systems

Sooyoung Kim, Chonbuk National University, Korea; Heewook Kim, ETRI, Korea; Do Seob Ahn, ETRI, Korea

On Statistical Modeling and Performance Evaluation of SIMO Land Mobile Satellite Channels

Konstantinos Liolis, Space Hellas S.A., Greece; Ilias Andrikopoulos, Space Hellas S.A., Greece; Panayotis Cottis, National Technical University of Athens, Greece

9:00 - 10:40, ASMS Opening Session **Room: Savoia**

Introduction

Giovanni E. Corazza, University of Bologna, Italy; Alessandro Vanelli-Coralli, University Of Bologna, Italy; Sandro Scalise, DLR, Germany

The Role of Satellite Communications in FP7

Perti Jauhainen, European Commission





ISICOM: Integrated Space Infrastructure for global COMMunications

Vincenzo Fogliati, Telespazio, Italy

The European Space Agency activities relating to Satellite Mobile Communications

11:00 - 13:00, Panel Session: Making Satellite Communications More Competitive	Room: Savoia
---	---------------------

Introduction

Michel Bousquet (Supaero)

The Small GEO Concept

Cornelius Schalinski (OHB)

The Hylas Satellite

Cedric Lannoy (Avanti Comm.)

The Wildblue System

Erwin Hudson (Wildblue)

The Alphasat Concept

Laurent Thomasson (EADS Astrium)

Discussion

14:20 - 16:00, Focus on: OFDM Applications	Room: Savoia
---	---------------------

Chairperson: Stefan Kaiser, DOCOMO Euro-Labs

EM Channel Estimation for Coded OFDM Transmissions over Frequency-Selective Channel

Yang Liu, Mitsubishi Electric/ENST, France; Loïc Brunel, Mitsubishi Electric, France; Joseph J. Boutros, Texas A&M University at Qatar, Qatar

Cyclic Delay Diversity - A Simple, Flexible and Effective Multi-Antenna Technology for OFDM

Armin Dammann, German Aerospace Center, Germany; Simon Plass, German Aerospace Center, Germany; Stephan Sand, German Aerospace Center, Germany

Performance Analysis of OFDM-IDMA Systems with Peak-Power Limitation

Jun Tong, City University of Hong Kong, P.R.China; Qinghua Guo, City University of Hong Kong, P.R.China; Ping Li, City University of Hong Kong, P.R.China

Gbit/s radios @ 60GHz: to OFDM or not to OFDM?

Andre Bourdoux, IMEC, Belgium; Jimmy Nsenga, IMEC, Belgium; Wim Van Thillo, IMEC, Belgium; Piet Wambacq, IMEC, Belgium; Liesbet Van der Perre, IMEC, Belgium

Rate Adaptation Strategies for OFDMA

Stephan Pfletschinger, Centre Tecnologic de Telecomunicacions de Catalunya (CTTC), Spain; Christian Ibars, Centre Tecnologic de Telecomunicacions de Catalunya (CTTC), Spain

16:20 - 18:00, UWB - II	Room: Savoia
--------------------------------	---------------------

Chairperson: Gianluigi Ferrari, University of Parma

Cross-Layer Design of a LDR-L/T UWB Sensor Network

Samuela Persia, University of Rome Tor Vergata, Italy; Dajana Cassioli, RADIOLABS, Italy; Francesco Vatalaro, University of Rome Tor Vergata, Italy; Fulvio Ananasso, AGCOM, Italy





Performance of MISO Time Reversal Ultra-wideband over an 802.15.3a Channel Model

Bruno Augusto Angélico, Escola Politécnica of University of São Paulo, Brazil; Phillip M. S. Burt, Escola Politécnica of University of São Paulo, Brazil; Taufik Abrão, State University of Londrina, Brazil; Paul Jean E. Jeszensky, Escola Politécnica of University of São Paulo, Brazil; William S. Hodgkiss, University of California San Diego, USA

Improvement of MISO Single-user Time Reversal Ultra-wideband Using a DFE Channel Equalizer

Bruno A. Angélico, Escola Politécnica of University of São Paulo, Brazil; Phillip M. S. Burt, Escola Politécnica of University of São Paulo, Brazil; Taufik Abrão, State University of Londrina, Brazil; Paul Jean E. Jeszensky, Escola Politécnica of University of São Paulo, Brazil; William S. Hodgkiss, University of California San Diego, USA

A simple and fast detect and avoid algorithm for non-coherent multiband impulse radio UWB

Rainer Moorfeld, Dresden University of Technology, Germany; Hanns-Ulrich Dehner, University of Karlsruhe, Germany; Holger Jäkel, University of Karlsruhe, Germany; Adolf Finger, Dresden University of Technology, Germany; Friedrich Jondral, University of Karlsruhe, Germany

9:00 - 10:40, Focus on: Flexible Radio - I **Room: Regency**

Chairperson: Andreas Polydoros, University of Athens

Cognitive Relaying and Opportunistic Spectrum Sensing in Unlicensed Multiple Access Channels

Jonathan Gambini, Politecnico di Milano, Italy; Osvaldo Simeone, New Jersey Institute of Technology, USA; Umberto Spagnolini, Politecnico di Milano, Italy

The F-LDPC Family: High-Performance Flexible Modern Codes for Flexible Radio

Thomas Halford, TrellisWare Technologies, Inc., USA; Metin Bayram, TrellisWare Technologies, Inc., USA; Cenk Kose, TrellisWare Technologies, Inc., USA; Keith Chugg, University of Southern California, USA; Andreas Polydoros, University of Athens, Greece

Efficient Two-Dimensional Filters for Doubly-Dispersive Channel Estimation in Time-Frequency Signal Processing

Thomas Hunziker, University of Kassel, Germany; Stelios Stefanatos, Kapodistrian University of Athens, Greece

Flexible Frequency Domain Receivers for Different Modulations: Constant Envelope DS Systems

Harri Saarnisaari, Centre for Wireless Communications/University of Oulu, Finland; Sanna Kiviharju, Centre for Wireless Communications/University of Oulu, Finland

Efficient SW design and SW design efficiency: Fuel for Software Defined Radios

Liesbet Van der Perre, IMEC, Belgium; Miguel Glasse, IMEC, IMEC; Valery Ramon, IMEC, Belgium; Bruno Bougard, IMEC, Belgium; Hans Capelle, IMEC, Belgium; Stefaan De Rore, IMEC, Belgium; Dewilde, IMEC, Belgium; y Folens, IMEC, Belgium; Roeland Vandebriel, IMEC, Belgium; Tom Van der Aa, IMEC, Belgium

11:00 - 13:00, OFDM **Room: Regency**

Chairperson: Peter Jung, Universitat Duisburg-Essen

Robust Phase Noise Compensation in OFDM via a Dual-Model Approach

Ioannis Dargès, NKUA, Greece; Andreas Polydoros, NKUA, Greece; Konstantinos Nikitopoulos, NKUA, Greece

Multicarrier transmission via Gabor frames: Signal design and channel compensation

Stelios Stefanatos, University of Athens, Greece; Aris Moustakas, University of Athens, Greece; Andreas Polydoros, University of Athens, Greece





Frequency Domain Estimation and Compensation of Intercarrier Interference in OFDM Systems

Lorenzo Favalli, University of Pavia, Italy; Pietro Savazzi, University of Pavia, Italy; Anna Vizziello, University of Pavia, Italy

Effective Data Detection Algorithms for OFDM Systems over Time-varying Multipath Fading Channels

Hsiao-Lan Chiang, National Chiao Tung University, Taiwan

An Improved Scattered Pilot Detection Scheme for OFDM-Based DVB-H

Won-Jae Shin, Sejong university, South Korea; Jee-Hyun Kim, Sejong University, Korea; Kwang-Soo Jeong, YuJeong Systems Co., Korea; Jae-Hoon Yi, YuJeong Systems Co., Korea; Hyoung-Kyu Song, Sejong University, Korea; Young-Hwan You, Sejong University, Korea

Performance Study of OFDM Based on In-Place Wavelet Transform

Salih Salih, University of Anbar, Iraq; Akil Mansour, National and Kapodistrian University of Athens, Syria

14:20 - 16:00, Spread Spectrum & CDMA - II **Room: Regency**

Chairperson: Paul Jean Jeszensky, Escola Politécnica of University of São Paulo

On Exact Asymptotics of Bit Error Probabilities in SSMA Communication Systems with Spreading Sequences of Markov Chains

Hiroshi Fujisaki, Kanazawa University, Japan

Optimizing Processing Gain of a Cellular DS/FFH-CDMA Rayleigh Fading System

Panagiotis Varzakas, Technological Educational Institute of Lamia, Greece

Secure Communication in Asynchronous Noise Phase Shift Keying CDMA Systems

Ramin Vali, The University of Auckland, New Zealand; Stevan Berber, The University of Auckland, New Zealand

BER Analysis of Quasi-Orthogonal Codes in Quasi-Synchronous CDMA Communication

Sujit Jos, IIT Kharagpur, India; Preetam Kumar, IIT Kharagpur, India; Saswat Chakrabarti, IIT Kharagpur, India

Overloading Performance of OCDMA/OCDMA Scheme for Cellular DS-CDMA System on Rayleigh Fading Channel

Preetam Kumar, IIT Kharagpur, India; Sujit Jos, IIT Kharagpur, India; Saswat Chakrabarti, IIT Kharagpur, India

16:20 - 18:00, Ad-Hoc Networking **Room: Regency**

Chairperson: Ozgur Oyman, Intel Corporation

Energy Efficient on-demand Multipath Routing Protocol for Multi-hop Ad Hoc Networks

Yumei Liu, Harbin Engineering University, China; lili Guo, Harbin Engineering University, China; Huizhu Ma, Harbin Engineering University, China; Tao Jiang, Harbin Engineering University, China

Joint Routing and Power Allocation for IDMA Applied in Multi-Hop Wireless Networks

Hendrik Schoeneich, Qualcomm CDMA Technologies GmbH, Germany; Armin Dekorsy, Qualcomm CDMA Technologies GmbH, Germany

WAIN: Wireless Ad Hoc in Infrastructure network

Yogeswari Muthusamy, Student, Malaysia; Jaya Kumar Krishnan, Supervisor, Malaysia

VANET's Communication

Sadaf Momeni, Iran University of Science & Technology (IUST), Iran





9:00 - 10:40, Focus on: DVB-T2

Room: Gloria

Chairperson: Alessio Filippi, Philips Research

Full synchronization method for OFDM/OQAM and OFDM/QAM modulations.

Rodrigue Rabineau, Orange Labs, France; Bruno Jahan, Orange Labs, France; Marc Lanoiselée, Orange Labs, France; Gabriel Degoulet, Orange Labs, France

Soft Detection of Modulation Diversity Schemes for Next Generation Digital Terrestrial Television

Stefano Tomasin, University of Padova, Italy; Alberto Vigato, University of Padova, Italy; Lorenzo Vangelista, University of Padova, Italy; Nevio Benvenuto, University of Padova, Italy; Vittoria Mignone, RAI-CRIT, Italy

Rotated QAM Constellations to Improve BICM Performance for DVB-T2

Charbel Abdel Nour, Institut TELECOM/TELECOM Bretagne, France; Catherine Douillard, Institut TELECOM/TELECOM Bretagne, France

On the Constrained Capacity of OFDM in Rayleigh Fading Channels

Enzo Alberto Candrea, University of Bologna, Italy; Giovanni E. Corazza, University of Bologna, Italy; Alessandro Vanelli-Coralli, University of Bologna, Italy

Distributed pilots for channel estimation in Single Frequency Networks

Alessio Filippi, Philips Research, The Netherlands; Paul van Voorthuisen, Philips Research, The Netherlands

11:00 - 13:00, Synchronization Techniques

Room: Gloria

Chairperson: Carlos Mosquera, University of Vigo

Primary Synchronization Signal in E-UTRA

Branislav M. Popovic, Huawei Technologies Sweden AB, Sweden; Fredrik Berggren, Huawei Technologies Sweden AB, Sweden

Improving the Initial Code Acquisition in Asynchronous Band-Limited Spread-Spectrum Systems

Francesco Benedetto, University of Roma Tre, Italy; Gaetano Giunta, University of Roma Tre, Italy

Pilot-less Synchronization Receiver for UWB-OFDM Systems

Jee-Hyun Kim, Sejong university, Korea; Eu-Suk Shim, Sejong University, Korea; Hyoung-Kyu Song, Sejong University, Korea; Young-Hwan You, Sejong University, Korea

Staggered Time and Frequency Search to Aid Frame Synchronization

Francesco Bastia, University of Bologna, Italy; Claudio Palestini, University of Bologna, Italy; Raffaella Pedone, University of Bologna, Italy; Marco Villanti, University of Bologna, Italy; Giovanni E. Corazza, University of Bologna, Italy

An Energy Based Symbol Timing Synchronization Scheme for MB-OFDM Based Ultra-Wideband Communication

Debarati Sen, Indian Institute of Technology Kharagpur, India; Saswat Chakrabarti, Indian Institute of Technology Kharagpur, India; R. V. Raja Kumar, Indian Institute of Technology Kharagpur, India

OFDM Post-FFT Frequency Recovery based on Silent Sub-Carriers

Stefano Rosati, University of Bologna, Italy; Marco Villanti, University of Bologna, Italy; Alessandro Vanelli-Coralli, University of Bologna, Italy; Giovanni E. Corazza, University of Bologna, Italy





14:20 - 16:00, DVB-RCS - I

Room: Gloria 1 & 2

Chairperson: TBD

Low profile, dual polarised antenna for aeronautical and land mobile satcom

Martin Shelley, ERA Technology Ltd, UK; Javier Vasquez, ERA Technology Ltd, UK; Robert Pearson, ERA Technology Ltd, UK

TCP Performance For Users On Trains in Presence Of Hand-Overes Due To Tunnels

Maurizio Casoni, University Of Modena And Reggio Emilia, Italy

Ku-Band low profile antennas for mobile satcom

Stefano Vaccaro, JAST SA, Switzerland; Ferdinando Tiezzi, JAST SA, Switzerland; Daniel Llorens del Río, JAST SA, Switzerland; Manuel Fajardo Rúa, JAST SA, Switzerland; Cesar Dominguez Grano de Oro, JAST SA, Switzerland

Impact of Proactive Retransmissions on Forward TCP Throughput over DVB-S/S2 Railroad Satellite Links with Power Arches

Guray Acar, CCSR-University of Surrey, UK; Barry Evans, CCSR-University of Surrey, UK

The Gap Filler Technology for Mobile Satellite System

JoonGyu Ryu, ETRI, Korea; S.M. Han, ETRI, Korea; Minsu Shin, ETRI, Korea; D.I. Chang, ETRI, Korea; Ho-Jin Lee, ETRI, Korea

16:20 - 18:00, Satellite Networking - I

Room: Gloria 1 & 2

Chairperson: Rosario Firrincieli, University of Bologna, ARCES/DEIS

A Cross-Layer Architecture for Satellite Network Security: CL-IPsec

Cesare Roseti, University of Rome "Tor Vergata", Italy; Michele Luglio, University of Rome "Tor Vergata", Italy; Silvio Provenzano, University of Rome "Tor Vergata", Italy; Godred Fairhurst, University of Aberdeen, UK; Sreeraj Ramachandran, University of Aberdeen, UK

Interactive television service over an IP/MPLS convergent satellite architecture

Emmanuel DUBOIS, University of Toulouse, TeSA/IRIT, France; Cédric Baudoin, Thales Alenia Space, France; Emmanuel Chaput, University of Toulouse, IRIT/ENSEEIH/TeSA, France; André-Luc Beylot, University of Toulouse, IRIT/ENSEEIH/TeSA, France

IP Mobility and its Impact on Satellite Networking

Fabrice Arnal, Thales Alenia Space, France; Thierry Gayraud, LAAS-CNRS / University of Toulouse, France; Cedric Baudoin, Thales Alenia Space, France; Baptiste Jacquemin, LAAS-CNRS, France

Demonstration of Intelligent Environment System based on GPS Information Integrated with Cellular and Home Electronics Network

Hiroshi Tanaka, Kanagawa Institute of Technology, Japan; Shigenori Ioroi, Kanagawa Institute of Technology, Japan; Akira Hattori, Kanagawa Institute of Technology, Japan; Haruo Hayami, Kanagawa Institute of Technology, Japan

14:20 - 16:00, SatComs for Air Traffic Management

Room: Gloria 3

Chairperson: Cristina Parraga Niebla, German Aerospace Center (DLR)

An Investigation of TCP Congestion Window Validation over Satellite Paths

Md. Israfil Biswas, University of Aberdeen, UK; Gorry Fairhurst, University of Aberdeen, UK





Protocol Stack options in heterogeneous aeronautical networks

Christian Kissling, German Aerospace Center (DLR), Germany; Cedric Baudoin, Thales Alenia Space France, France

Data Link Technology Characterization for NEWSKY Aeronautical Communication Network

Katia Leconte, Thales Alenia Space, France; Nuria Riera, TriaGnoSys, Germany; Frank Schreckenbach, DLR, Germany; Philip Platt, Qinetiq, UK

Iris Air Traffic Management Communication System Design: The ICOS Project

Jordi Battle, Indra Espacio, Spain; Lorena Albiol, Indra Espacio, Spain; Manuel Admella, Indra Espacio, Spain; Carlos Belmonte, Indra Espacio, Spain; David Fernandez, Indra Espacio, Spain

Advanced Satellite Technologies for Air Traffic Management

Panos Fines, Wireless Intelligent Systems Ltd., U.K.; Ekaterini Christofylaki, University of Westminster, U.K.

16:20 - 18:00, Propagation in Satellite Links **Room: Gloria 3**

Chairperson: Erich Lutz, German Aerospace Center (DLR)

Characterisation of the Satellite-to-Indoor Propagation Channel

Fernando Perez-Fontan, University of Vigo, Spain; Veikko Hovinen, Center for Wireless Communications, Oulu, Finland; Michael Schönhuber, Joanneum Research, Austria; Roberto Prieto-Cerdeira, European Space Agency, The Netherlands; Juan Rivera-Castro, European Space Agency, The Netherlands; Pavel Valtr, University of Vigo, Spain; Jukka Kyrolainen, Center for Wireless Communications, Oulu, Finland; Franz Teschl, Joanneum Research, Austria

Renewal Properties of Fade and Interfade Duration on Land Mobile Satellite Channel

László Csurgai-Horváth, Budapest University of Technology and Economics, Hungary; János Bitó, Budapest University of Technology and Economics, Hungary

FSO-Relevant New Measurement Results under Moderate Continental Fog Conditions at Graz and Milan

Muhammad Saleem Awan, Graz University of Technology, Austria; Carlo Capsoni, Politecnico di Milano, Italy; Erich Leitgeb, Graz University of Technology, Austria

Use of weather radar data for site diversity predictions and impact of rain field advection

Lorenzo Luini, Politecnico di Milano, Italy; Nicolas Jeannin, ONERA, France

Satellite-to-Indoor Propagation Prediction using Full-Wave Electromagnetic Methods

Péter Horváth, Budapest Technical University, Hungary; Istvan Frigyes, Budapest Technical University, Hungary;





Thursday, August 28, 2008

9:00 - 10:40, Estimation Techniques

Room: Falco

Chairperson: Filippo Giannetti, University of Pisa

Frequency-Domain Data-Aided Channel Estimation for KSP-OFDM

Dieter Van Welden, Ghent University, Belgium; Heidi Steendam, Ghent University, Belgium; Marc Moeneclaey, Ghent University, Belgium

Adaptive AR Channel Model Identification of Time-varying Communication Systems

Zarko Krusevac, Australian National University, Australia; Predrag Rapajic, University of Greenwich, UK

An Improved Residual CFO Estimation Scheme for UWB Multiband OFDM

Uk Her, Sejong University, Korea; Kwang-Soo Jeong, YuJeong Systems Co., Korea; Jae-Hoon Yi, YuJeong Systems Co., Korea; Hyoung-Kyu Song, Sejong University, Korea; Young-Hwan You, Sejo

A Low Complexity Timing Synchronization and Channel Estimation in OFDM Systems over Multipath Fading Channels

Abdulhamid Zahedi, Shahed University, Iran; Mohammad Noroozi, Shahed University, Iran; Hamidreza Bakhshi, Shahed University, Iran

A Low Complexity Timing Estimation Scheme for Multi-Band OFDM Based Ultra-Wideband System

Debarati Sen, Indian Institute of Technology Kharagpur, India; Saswat Chakrabarti, Indian Institute of Technology Kharagpur, India; R. V. Raja Kumar, Indian Institute of Technology Kharagpur, India

11:00 - 13:00, Mobile Satellite Systems Beyond 3G

Room: Falco

Chairperson: Massimo Neri, University of Bologna, ARCES/DEIS

Experimental Validation of Advanced Mobile Broadcasting Waveform in S-Band

Holger Stadali, Fraunhofer IIS, Germany; Albert Heuberger, Fraunhofer IIS, Germany; Balazs Matuz, DLR, Germany; Alessro Del Bianco, DLR, Germany; Reiner Hoppe, AWE Communications, Germany; Orazio Pulvirenti, Eutelsat S.A., France; Ana Bolea Alamanac, ESA, Netherls; Olivier Smeyers, ESA, Netherls; Riccardo De Gaudenzi, ESA, Netherlands

DVB-SH Analysis Using a Multi-State Land Mobile Satellite Channel Model

Burzigotti Paolo, European Space Agency, The Netherlands; Roberto Prieto-Cerdeira, European Space Agency, The Netherlands; Ana Bolea Alamañac, European Space Agency, The Netherlands; Fernando Perez-Fontan, University of Vigo, Spain; Iria Sanchez-Lago, University of Vigo, Spain

Satellite High Speed Downlink Packet Access Physical Layer Performance Analysis

Azizul Azizan, CCSR, University of Surrey, UK; Atta Quddus, CCSR, University of Surrey, UK; Barry Evans, CCSR, University of Surrey, UK

Hybrid satellite & terrestrial mobile network for 4G: candidate architecture and space segment dimensioning

Erwan Corbel, Thales Alenia Space, France; Isabelle Buret, Thales Alenia Space, France; Jean-Didier GAYRARD, Thales Alenia Space, FRANCE; Giovanni E. Corazza, University Of Bologna, ITALY; Ana Bolea-Alamanac, European Space Agency, Netherlands

IMT-2000 Satellite Radio Interface for UMTS Communications over Mobile Satellite Systems

Nicolas Chuberre, Thales Alenia Space, France; Alessandro Vanelli, University of Bologna, Italy; Béatrice Martin, Thales, France; Ho-Jin Lee, ETRI, Korea; Giovanni E. Corazza, University of Bologna, Italy





14:20 - 16:00, Global Navigation Satellite Systems **Room: Falco**

Chairperson: Marco Villanti, University of Bologna, ARCES/DEIS

GNSS Receiver Reference Design

Heikki Hurskainen, Tampere University of Technology, Finland; Tommi Paakki, Tampere University of Technology, Finland; Zhongqi Liu, Tampere University of Technology, Finland; Jussi Raasakka, Tampere University of Technology, Finland; Jari Nurmi, Tampere University of Technology, Finland

Wideband Receive Antennas of Sensor Stations for GPS/Galileo Satellite

Sohyeun Yun, ETRI, Korea; Dongpil Chang, ETRI, Korea; Inbok Yom, ETRI, Korea

Discontinuity-Based Code Delay Estimator For GNSS Signals

Danai Skournetou, Tampere University of Technology, Finland; Elena-Simona Lohan, Tampere University of Technology, Finland

A Software Receiver Implementation for GPS L1 and Galileo E1 Signal

Cheon Sig Sin, ETRI, KOREA

Secure User-Plane Location (SUPL) Architecture For Assisted GPS (A-GPS)

Tolga Goze, Vodafone IT, Turkey; Ozgun Bayrak, Vodafone IT, Turkey; Metin Barut, Vodafone IT, Turkey; Oguz Sunay, Koc University, Turkey

16:20 - 18:00, Coding & Modulation for SatComs **Room: Falco**

Chairperson: Stefano Cioni, University of Bologna, ARCES/DEIS

Target BER Driven Adaptive Coding and Modulation in HAP based DVB-S2 System

Miha Smolnikar, Jozef Stefan Institute (JSI), Slovenia; Tomaz Javornik, Jozef Stefan Institute (JSI), Slovenia; Mihael Mohorcic, Jozef Stefan Institute (JSI), Slovenia

SNR Estimation with Heterogeneous Frames

Marcos Alvarez-Diaz, University of Vigo, Spain; Roberto Lopez-Valcarce, University of Vigo, Spain; Carlos Mosquera, University of Vigo, Spain

Low-Complexity LDPC Codes with Near-Optimum Performance over the BEC

Gianluigi Liva, DLR, Germany; Enrico Paolini, University of Bologna, Italy; Michela Varrella, University of Bologna, Italy; Balazs Matuz, DLR, Germany; Marco Chiani, University of Bologna, Italy

Recovering from Packet Losses in CCSDS Links

Enrico Paolini, University of Bologna, Italy; Marco Chiani, University of Bologna, Italy; Michela Varrella, University of Bologna, Italy; Gian Paolo Calzolari, European Space Agency, Germany

Turbo equalization of non-linear satellite channels using soft interference cancellation

Dimitris Ampeliotis, University of Patras, Greece; Athanasios Rontogiannis, National Observatory of Athens, Greece; Kostas Berberidis, University of Patras, Greece; Marco Papaleo, University of Bologna, Italy; Giovanni E. Corazza, University of Bologna, Italy

9:00 - 10:40, Panel Session: Satellite Mobile Multimedia Services **Room: Savoia**

Introduction

Erich Lutz (DLR/SatNEx)

S-band: a new age in mobile satellite services

Antonio Arcidiacono, EUTELSAT S.A., France; Daniele Finocchiaro, EUTELSAT S.A., France; Alexander Geurtz, SES ASTRA, Luxembourg; Orazio Pulvirenti, EUTELSAT S.A., France; Gerald Schlüter, SES ASTRA, Luxembourg





Sirius and XM Radio Perspective

Robert Briskman (Sirius Sat. Radio)

A GEO satellite system for broadcast audio and multimedia services targeting mobile users in Europe

Jérôme Soumagne, WorldSpace, France; Hussein Sallam, WorldSpace, USA; Tarek Abdel-Nabi, WorldSpace, USA

Unlimited Mobile TV

Ana Yun (Thales Alenia Space)
Discussion

11:00 - 13:00, Focus on: Statistical Signal Processing **Room: Savoia**

Chairperson: Gianluca Setti, University of Ferrara

Design and Evaluation of Spreading Sequences with Negative Auto-correlations Based on Chaos Theory and LFSR Sequences

Akio Tsuneda, Kumamoto University, Japan; Yasunori Miyazaki, Kumamoto University, Japan

Markov codes make Gaussian pulse superior to a raised cosine pulse

Yutaka Jitsumatsu, Kyushu University, Japan; Tohru Kohda, Kyushu University, Japan

Sequences for oversaturated CDMA channels

Frederik Vanhaverbeke, Ghent University, Belgium; Marc Moeneclaey, Ghent University, Belgium

A Parallel Method for Generating Pseudorandom Binary I.I.D. Sequences

Syunsuke Soga, Hiroshima Elpida Memory, Inc., Japan; Hisato Fujisaka, Hiroshima City University, Japan; Kiyoshi Furuta, NTT Advanced Technology Corporation, Japan

Large Deviations Analysis of Interference Cancellation for SSMA Communication Systems with Spreading Sequences of Markov Chains

Hiroshi Fujisaki, Kanazawa University, Japan

Randomly-Flipped Linear Feedback Shift Registers: Spectral Analysis and Conjectures

Gianluca Mazzini, University of Ferrara, Italy; Riccardo Rovatti, University of Bologna, Italy; Gianluca Setti, University of Ferrara, Italy

14:20 - 16:00, Focus on: Coding **Room: Savoia**

Chairperson: Marco Chiani, University of Bologna, DEIS

Adapted LDPC Error Correction Scheme for 2D Optical CDMA Multimedia system

Stephanie Sahuguede, University of Limoges, France; Anne Julien-Vergonjanne, University of Limoges, France; Jean-Pierre Cances, University of Limoges, France

ARQ with Doped Fountain Decoding

Silvija Kokalj-Filipovic, Rutgers, The state university of New Jersey, USA; Predrag Spasojevic, Rutgers, The state university of New Jersey, USA; Emina Soljanin, Lucent-Alcatel, Bell-Labs, USA; Roy Yates, Rutgers, The state university of New Jersey, USA

Convolutional Codes for Iterative Decoding

Michael Lentmaier, Dresden University of Technology (TU Dresden), Germany; Gerhard P. Fettweis, Dresden University of Technology (TU Dresden), Germany; Kamil Sh. Zigangirov, University of Notre Dame, USA; Daniel J. Costello, Jr., University of Notre Dame, USA





On the Growth Rate of Irregular GLDPC Codes Weight Distribution

Enrico Paolini, University of Bologna, Italy; Marco Chiani, University of Bologna, Italy; Marc Fossorier, ETIS/ENSEA, France

Pilot-Symbol-Aided Channel Estimation with Boosted Pilots for MC-CDMA Systems

Mahmoud Al-Quzwini, Nahrain University, Iraq

16:20 - 18:00, Emergency Communications	Room: Savoia
--	---------------------

Chairperson: Bernhard Collini-Nocker, Univiversity of Salzburg

Recent Improvements in Satellite Networks for Search and Rescue: MEOSAR

Özkan Kiliç, Middle East Technical University, Turkey; Ali Solak, Undersecretariat of Maritime Affairs, Turkey

A Novel Hybrid Algorithm for Passive Localization of Victims in Emergency Situations

Dimitri Tassetto, TriaGnoSys GmbH, Germany; Eriza Hafid Fazli, TriaGnoSys GmbH, Germany; Markus Werner, TriaGnoSys GmbH, Germany

Very Wide Band Satellite Transmissions for Emergency Situations

Mathieu Dervin, Thales Alenia Space, France; Isabelle Buret, Thales Alenia Space, France; Céline Loisel, CNES, France

Development and Performance Analysis of The Second Generation 406 MHz EPIRB

Inone Joo, ETRI, Korea; Jeom-Hun Lee, ETRI, Korea; Young-Min Lee, ETRI, Korea; Cheon Sig Sin, ETRI, Korea; Sang-Uk Lee, ETRI, Korea; Jaehoon Kim, ETRI, Korea

9:00 - 10:40, Focus on: Flexible Radio - II	Room: Regency
--	----------------------

Chairperson: Hanna Bogucka, Poznan University of Technology

Designing Cognitive Radio Terminals

Peter Jung, Universität Duisburg-Essen, Germany

Reconfigurable Architecture for LDPC and Turbo Decoding: A NoC Case Study

Michelangelo Scarpellino, Politecnico di Torino, Italy; Ashwani Singh, Politecnico di Torino, Italy; Emmanuel Boutillon, Université Européenne de Bretagne, France; Guido Masera, Politecnico di Torino, Italy

Extented Reconfigurable Linear FeedBack Shift Register Operators for Software Defined Radio

Laurent Alaus, CEA, France; Dominique Noguét, CEA, France; Jacques Palicot, SUPELEC, France

Bit and Power Loading Game of the Flexible OFDM Transceiver in a Wireless Environment

Hanna Bogucka, Poznan University of Technology, Poland

Energy-Aware Adaptive Compression Scheme for Mobile-to-Mobile Communications

Rakan Maddah, Lebanese American University, Lebanon; Sanaa Sharafeddine, Lebanese American University, Lebanon





11:00 - 13:00, MIMO-II

Room: Regency

Chairperson: Witold Krzymien, University of Alberta /TRLabs

Performance analysis of MIMO OFDM ML detection in the presence of channel estimation error

Stefan Franz, Rohde & Schwarz GmbH & Co. KG, Germany; Cecilia Carbonelli, Infineon Technologies AG, Germany

A Grouped Precoding in MU-MIMO Downlink

Yang Shi, Institute of Personal Communications / MII Key Lab of Mobile Communication of Chongqing University of Posts and Telecommunications, China; Xianzhong Xie, Chongqing University of Posts and Telecommunications, China; Xi Wang, Institute of Personal Communications / MII Key Lab of Mobile Communication of Chongqing University of Posts and Telecommunications, China

Layered Groupwise STBC: List-based Decoding Using Flexible Length

Xuan Huan Nguyen, Swansea University, United Kingdom; Jinho Choi, Swansea University, United Kingdom

Implementation Complexity Analysis of the Concatenated MIMO DMT-FMT Multiuser System

Andrea Tonello, Università di Udine, Italy; Marco Bellin, Università di Udine, Italy

Periodic Hadamard phase precoding for HARQ systems over intersymbol interference channels

Abdel-Nasser Assimi, ETIS, CNRS, ENSEA, Université Cergy-Pontoise, France; Charly Poulliat, ETIS, CNRS, ENSEA, Université Cergy-Pontoise, France; Inbar Fijalkow, ETIS, CNRS, ENSEA, Univ Cergy-Pontoise, France; David Declercq, ETIS, CNRS, ENSEA, Université Cergy-Pontoise, France

Reduced-Complexity Novel Ordering for Group Maximum Likelihood Detection in MIMO Frequency Selective Fading Channels

Nariman Rahimian, Iran University of Science & Technology, Iran; Ali Iravani, Amirkabir University of Technology, Iran

14:20 - 16:00, DVB-RCS - II

Room: Regency

Chairperson: TBD

DVB-RCS Spotbeam Handover Using Residence Time Estimations in Vehicular Satellite Networks

Fabio Lattanzi, University of Surrey, United Kingdom; Guray Acar, University of Surrey, United Kingdom; Barry Evans, University of Surrey, United Kingdom

C2P opens the pave to NGN in DVB-RCS

Ana Yun, Thales Alenia Space España, Spain; Carla Salas, Thales Alenia Space España, Spain; Borja De la Cuesta, Thales Alenia Space España, Spain; Paolo Conforto, Thales Alenia Space Italy, Italy

Next Generation On Board Payload Architectures

Ana Yun, Thales Alenia Space España, Spain; Jose Prat, Thales Alenia Space España, Spain; Cedric Baudoin, Thales Alenia Space France, France; Borja De la Cuesta, Thales Alenia Space España, Spain; Carla Salas, Thales Alenia Space España, Spain; Ana Jalón, Thales Alenia Space España, Spain

A Web Services Based Resource Signaling Scheme in Multimedia Satellite Systems

Mathieu Gineste, LAAS-CNRS University of Toulouse, France; Baptiste Jacquemin, LAAS-CNRS University of Toulouse, France; Pascal Berthou, LAAS-CNRS University of Toulouse, France; Aziz El Fatni, LAAS-CNRS University of Toulouse, France; Thierry Gayraud, LAAS-CNRS University of Toulouse, France; Cedric Baudoin, Thales Alenia Space, France





Short IRA Codes for Mobile DVB-RCS

Gianluigi Liva, DLR, Germany; Cristina Parraga Niebla, DLR, Germany; Sandro Scalise, DLR, Germany; Marco Papaleo, University of Bologna, Italy; Stefano Cioni, University of Bologna, Italy; Alessandro Vanelli-Coralli, University of Bologna, Italy; Giovanni E. Corazza, University of Bologna, Italy

16:20 - 18:00, Positioning & Navigation **Room: Regency**

Chairperson: Raffaella Pedone, University of Bologna, ARCES/DEIS

Ultrasonic Orientation-Location Algorithm based on ToA and AoA measurements

Juan Ramon Gonzalez Hernandez, University College of Dublin, Ireland

SOFTREC G3, Software Receiver and Signal Analysis for GNSS Bands

Cesare Dionisio, Intecs S.p.A., Italy; Luca Cucchi, Intecs S.p.A., Italy; Riccardo Marracci, Intecs S.p.A., ITALY

Cooperative UWB-Based Positioning Systems: CDAP Algorithm and Experimental Results

Andrea Conti, ENDIF, WiLAB, Italy; Davide Dardari, WiLAB, Italy; Luca Zuari, ENDIF, Italy

Distance Estimation System based on ZigBee

Pablo Corral, Miguel Hernández University, Signal Theory and Communications, Elche, Spain; V. Almenar, Polytechnic University of Valencia, Communications Department, Valencia, Spain; A. C de C. Lima, Federal Un

9:00 - 10:40, Focus on: Wireless Sensor Networks **Room: Gloria**

Chairperson: Davide Dardari, University of Bologna, DEIS

On the Position Error Bound in Cooperative Networks: a Geometric Approach

Moe Win, MIT, USA; Yuan Shen, MIT, USA; Henk Wymeersch, MIT, USA

Multihop IEEE 802.15.4 Wireless Networks With Finite Node Buffers: Markov Chain-based Analysis

Marco Martalo', University of Parma, Parma, Italy, Italy; Stefano Busanelli, University of Parma, Parma, Italy,; Gianluigi Ferrari, University of Parma, Parma, Italy

Propagation Modeling for UWB Body Area Networks: Power Decay and Multi-Sensor Correlations

Stephane van Roy, Université Libre de Bruxelles, Belgium; Claude Oestges, Université catholique de Louvain, Belgium; François Horlin, Université Libre de Bruxelles; Philippe De Doncker, Université Libre de Bruxelles, Belgium

Random Network Coding in Wireless Sensor Networks: Energy Efficiency via Cross-Layer Approach

Daniel Platz, University of Paderborn, Germany; Dereje H. Woldegebreal, University of Paderborn, Germany; Holger Karl, University of Paderborn, German

Preserving The Coding Structure in Relay Transmission in The Presence of Unknown Interference

Aihua Hong, Technische Universität Ilmenau, Germany; Tad Matsumoto, Japan Advanced Institute of Science and Technology (JAIST), Japan





11:00 - 13:00, Focus on: High Performance Satellite Networks and Protocols Room: Gloria

Chairperson: Carlo Caini, University of Bologna, ARCES/DEIS

Experience with delay-tolerant networking from orbit

Will Ivancic, NASA Glenn Research Center, United States; Wesley Eddy, Verizon Federal Network Systems, United States; Dave Stewart, Verizon Federal Network Systems, United States; Lloyd Wood, Cisco Systems, United Kingdom; Peter Holliday, Cisco Systems, Australia; Chris Jackson, Surrey Satellite Technology Ltd, United Kingdom; James Northam, Surrey Satellite Technology Ltd, United Kingdom

A Cross-Comparison of Advanced TCP Protocols in High Speed and Satellite Environments

Cesar Marcondes, UCLA, USA; Jerrid Matthews, UCLA, USA; Robert Chen, UCLA, USA; M.Y. Sanadidi, UCLA, USA; Mario Gerla, UCLA, USA

Shareable Bandwidth Estimation on Satellite Links

Claudio Enrico Palazzi, Università di Padova, Italy; Giovanni Pau, University of California, Los Angeles, USA; Cesar Marcondes, University of California, Los Angeles, USA; Mario Gerla, University of California, Los Angeles, USA

Multi-Attribute Decision Making Routing Strategy for Interplanetary Communications

Tomaso de Cola, German Aerospace Center (DLR), Germany; Mario Marchese, DIST-University of Genoa, Italy; Igor Bisio, DIST-University of Genoa, Italy

Implementation and analysis of the TCP "Adaptive-Selection" Concept in ns-2 and Linux

Carlo Caini, University of Bologna, Italy; Federico Farina, University of Bologna, Italy; Rosario Firrincieli, University of Bologna, Italy; Angelo Tornese, University of Bologna, Italy; Daniele Lacamera, Sadel S.p.A., Italy

14:20 - 16:00, Antennas, RF, and Propagation Room: Gloria

Chairperson: TBD

Advanced Antenna Configurations for the Downlink of Multihop Based Cellular Networks

Ibrahim Abdel Nabi, American University of Beirut, Lebanon; Zaher Dawy, American University of Beirut, Lebanon

Adaptive Time Misalignment Compensation in Envelope Tracking Amplifiers

Atso Hekkala, VTT Technical Research Centre of Finland, Finland; Mika Lasanen, VTT Technical Research Centre of Finland, Finland; Adrian Kotelba, VTT Technical Research Centre of Finland, Finland

Impact of RF impairments in cellular Wireless Metropolitan Area Networks

Patrick Rosson, CEA, France; Luc Maret, CEA, France; Cedric Dehos, CEA, France; Jeremie Samuel, SOGETI, France; Antonis Valkanas, INTRACOM, France

Generation of Transconductance Grounded Capacitor Filters from LC Ladder Prototypes Based on Multi-terminal Gyrator Principles

Farqad Farhan, Derna Polytechnic Institute, Libya; Seffana El-dhuwaib, Derna Polytechnic Institute, Libya





16:20 - 18:00, Satellite Networking - II

Room: Gloria

Chairperson: Lloyd Wood, Cisco Systems

Next step towards Satellite - Next Generation Network convergence: Service Level Agreement Management

Borja De la Cuesta, Thales Alenia Space España, Spain; Ana Yun, Thales Alenia Space España, Spain; Carla Salas, Thales Alenia Space España, Spain

Vehicle Ad-hoc Networks Clustering

Sadaf Momeni, Iran University of Science & Technology (IUST), Iran

A Second Generation Architecture for Linux DVB Networking

Christian Prähauser, University of Salzburg, Austria; Bernhard Collini-Nocker, University of Salzburg, Austria

Performance Evaluation of On-Board QoS Support for Multiservice Applications on the Integrated Next Generation Satellite-Terrestrial Network

Songrith Kittiperachol, University of Surrey, United Kingdom; Zhili Sun, University of Surrey, United Kingdom; Haitham Cruickshank, University of Surrey, United Kingdom

