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D1 (Special Session): Stochastic Modeling for Protocol Design and Optimization

Room: Sala 12-2

11:00 [*A Model for Throughput Prediction for Mobile Users*](#)

Nicola Bui (IMDEA Networks Institute, Spain); Foivos Michelinakis (IMDEA Networks, Spain); Joerg C. Widmer (Institute IMDEA Networks, Spain)
pp. 1-6

11:26 [*Analysis and optimization of Centralized Sequential Channel Sensing in Cognitive Radio Networks*](#)

Hossein Shokri-Ghadikolaei (KTH Royal Institute of Technology, Sweden); Forough Yaghoubi (University of Tehran (UT) & Wireless Network Lab. (WINERLAB), Iran); Carlo Fischione (KTH, Sweden)
pp. 7-12

11:52 [*Dual-Branch MRC Receivers in the Cellular Downlink under Spatial Interference Correlation*](#)

Ralph Tanbourgi (Karlsruhe Institute of Technology (KIT), Germany); Harpreet S Dhillon (University of Southern California, USA); Jeffrey Andrews (The University of Texas at Austin, USA); Friedrich K. Jondral (Karlsruhe Institute of Technology, Germany)
pp. 13-18

12:18 [*Stochastic analysis of delay statistics for intermittently connected vehicular networks*](#)

Leonardo Badia (Università degli Studi di Padova, Italy); Maria Scalabrin (University of Padova, Italy)
pp. 19-24

B1 (regular): Synchronization and Channel Estimation

Room: Salón 1

11:00 [*Spectrum Fragmentation and Efficient Channel Interpolation: Applications to FBMC*](#)

Jean-Baptiste Doré (CEA, France); Vincent Berg (CEA LETI, France); Dimitri Kténas (CEA, France)
pp. 25-30

11:26 [*Carrier Phase Error Estimation by Smoothing Filters*](#)

Norifumi Kamiya (NEC Corporation, Japan); Eisaku Sasaki (NEC Corporation, Japan)
pp. 31-36

11:52 [*Smoothed Viterbi & Viterbi Blind Channel Estimation with Ambiguity Cancellation for Multicarrier Transmissions*](#)

Michel Terré (CNAM, France); Rabah Maoudj (CNAM, France); Iness Ahriz (CNAM, France); Adrien Savarit (Cnam, France)
pp. 37-41

12:18 [*Distributed Beampattern Control with One-bit of Feedback*](#)

Javier Matamoros (Centre Tecnologic de Telecomunicacions de Catalunya, Spain); Carles Antón-Haro (Centre Tecnologic de Telecomunicacions de Catalunya (CTTC), Spain); David Gregoratti (Centre Tecnològic de Telecomunicacions de Catalunya

(CTTC), Spain); Lazar Berbakov (Centre Tecnologic de Telecomunicacions de Catalunya, Spain)
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C1 (Special Session): E-CROPS: Energy Harvesting Communication Systems

Room: Sal3n 7

11:00 [*Demonstration of Energy-Neutral Operation on a WSN Testbed Using Vibration Energy Harvesting*](#)

Sajjad Baghaee (Middle East Technical University, Turkey); Salar Chamanian (Middle East Technical University, Turkey); Hasan Uluřan (Middle East Technical University, Turkey); Ozge Zorlu (METU-MEMS Research and Applications Centre, Turkey); Haluk Kulah (METU, Turkey); Elif Uysal-Biyikoglu (METU, Turkey)
pp. 47-52

11:21 [*Optimization of Feedback in a MISO Downlink with Energy Harvesting Users*](#)

Mahdi Shakiba-herfeh (Middle East Technical University, Turkey); Elif Uysal-Biyikoglu (METU, Turkey)
pp. 53-57

11:42 [*Energy Harvesting Communication System with a Finite Set of Transmission Rates*](#)

Alexandre Bodin (Imperial College London, United Kingdom); Deniz G3nd3z (Imperial College London, United Kingdom)
pp. 58-63

12:03 [*Competitive Analysis of Energy Harvesting Wireless Communication Systems*](#)

Jes3s G3mez-Vilardeb3 (Centre Tecnol3gic de Telecomunicacions de Catalunya (CTTC), Spain); Deniz G3nd3z (Imperial College London, United Kingdom)
pp. 64-69

12:24 [*Energy and QoS in a Cognitive Channel*](#)

Erol Gelenbe (Imperial College London, United Kingdom); Boris Oklander (Imperial College London, United Kingdom)
pp. 70-75

A1 (Special Session): SHARING: Self-Organized Heterogeneous Radio Networks

Room: Utrillo

11:00 [*Broadcast Channel Feedback in Multiple-Antenna Transmitter Cooperation Networks: Accuracy or Consistency?*](#)

Sandeep Kottath (EURECOM & Orange Labs, France); David Gesbert (Eurecom Institute, France); Hajer Khanfir (Orange Labs, France); Eric Hardouin (Orange Labs, France)
pp. 76-80

11:21 [*Anomaly Detection In Cellular Network Data Using Big Data Analytics*](#)

Alper Karatepe (AveaLabs, Turkey); Engin Zeydan (AveaLabs & AVEA Communication Services, Turkey)
pp. 81-85

11:42 [*Centralized self-optimization of eICIC with varying traffic in LTE-A*](#)

Yasir Khan (Orange Labs & France Telecom, France); Berna Sayrac (Orange Labs, France); Eric Moulines (Télécom Paris Tech, France)
pp. 86-91

12:03 [Centralized Self-Optimization Performance of eICIC and AAS in LTE-A: A Comparison](#)

Yasir Khan (Orange Labs & France Telecom, France); Berna Sayrac (Orange Labs, France); Eric Moulines (Télécom Paris Tech, France)
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12:24 [On the Feasibility of Cellular Resource Reuse for Device-to-Device Communication under 3GPP Network Constraints](#)

Abdoulaye Bagayoko (NEC Technologies, France); Dorin Panaitopol (NEC Technologies, France); Christian Mouton (NEC Technologies (UK), France)
pp. 98-105

14:00 - 15:45

D2 (regular): Wireless Network Modelling and Simulation

Room: Sala 12-2

14:00 [An Efficient Macrocell Power Control Algorithm for Enhancing Dense Picocell Deployments](#)

Nasr Obaid (Duisburg-Essen University, Germany); Andreas Czylik (Universität Duisburg-Essen, Germany)
pp. 106-111

14:21 [Connectivity Evaluation in Random Wireless Multi-hop Networks under Inverse Gaussian Shadowing Channels](#)

Georgios Pitsiladis (National Technical University of Athens, Greece); Charilaos Kourogiorgas (National Technical University of Athens, Greece); Athanasios D. Panagopoulos (National Technical University of Athens, Greece)
pp. 112-117

14:42 [The Effectiveness of Low Power Co-channel Lamppost Mounted 3G/WCDMA Microcells](#)

Robert M Joyce (University of Leeds & University of Leeds, United Kingdom); Li Zhang (University of Leeds, United Kingdom)
pp. 118-123

15:03 [Beamforming Aided Interference Management for Improved Secrecy in Multicell Environments](#)

Ozge Cepheli (Istanbul Technical University, Turkey); Guido Dartmann (RWTH Aachen University, Germany); Gunes Karabulut Kurt (Istanbul Technical University, Turkey); Gerd H. Ascheid (RWTH Aachen University, Germany)
pp. 124-129

15:24 [Reliability of MIMO-OFDM Interference Alignment Systems with Antenna Selection under Real-World Environments](#)

Mohammed El-Absi (University of Duisburg-Essen, Germany); Mohamed El-Hadidy (University of Duisburg-Essen, Germany); Thomas Kaiser (Universität Duisburg-Essen, Germany)
pp. 130-135

B2 (regular): Modulation and Coding for Wireless Communications

Room: Salón 1

14:00 [*Performance Evaluation of Bit Division Multiplexing combined with Non-Uniform QAM*](#)

Hugo Méric (INRIA Chile, Chile); Jose Piquer (University of Chile, Chile)
pp. 136-140

14:21 [*A New Soft Decoding Method for Systematic LT Codes*](#)

Meixiang Zhang (Chonbuk National University, Korea); Sooyoung Kim (Chonbuk National University, Korea)
pp. 141-146

14:42 [*A Near Maximum Likelihood Decoding Algorithm for Convolutionally Coded Relay Channels*](#)

Bin Qian (Hong Kong University of Science and Technology, Hong Kong); Wai Ho Mow (Hong Kong University of Science and Technology & HKUST, Hong Kong)
pp. 147-152

15:03 [*Suboptimal Receivers for Weak M-ary Chirp Signals in Non-Gaussian Noise*](#)

Abdullah Kadri (Qatar Mobility Innovations Center, Qatar)
pp. 153-158

15:24 [*Low-Complexity Soft and Hard- Binary Bose-Chaudhuri-Hocquenghem \(BCH\) decoding for IEEE 802.15.6 Machine-To-Machine Communications*](#)

Joan Bas (Centre Tecnològic de Telecomunicacions de Catalunya (CTTC), Spain); Albert Enrich (Estudiant UPC, Spain)
pp. 159-164

C2 (Special Session): QSON: Self-organizing networks

Room: Salón 7

14:00 [*Cell Outage Detection in Heterogeneous Networks with Separated Control and Data Plane*](#)

Oluwakayode Onireti (University of Surrey, United Kingdom); Ali Imran (University of Oklahoma, USA); Muhammad Ali Imran (University of Surrey, United Kingdom); Rahim Tafazolli (University of Surrey, United Kingdom)
pp. 165-170

14:21 [*A Functional Architecture for Self-Coordination in LTE networks*](#)

Jessica Moysen (CTTC, Spain); Lorenza Giupponi (Centre Tecnològic de Telecomunicacions de Catalunya (CTTC), Spain)
pp. 171-175

14:42 [*Effect of Inaccurate Position Estimation on Self-Organising Coverage Estimation in Cellular Networks*](#)

Iman Akbari (University of Surrey, United Kingdom); Oluwakayode Onireti (University of Surrey, United Kingdom); Muhammad Ali Imran (University of Surrey, United Kingdom); Ali Imran (University of Oklahoma, USA); Rahim Tafazolli (University of Surrey, United Kingdom)
pp. 176-180

15:03 [*Big Data Empowered Self Organized Networks*](#)

Nicola Baldo (Centre Tecnològic de Telecomunicacions de Catalunya (CTTC), Spain); Lorenza Giupponi (Centre Tecnològic de Telecomunicacions de Catalunya (CTTC), Spain); Josep Mangués-Bafalluy (Centre Tecnològic de Telecomunicacions de Catalunya (CTTC), Spain)

pp. 181-188

15:24 [*A Target-Following Regime using Similarity Measure for Coverage and Capacity Optimization in Self-Organizing Cellular Networks with Hot-Spot*](#)

Hossein Peyvandi (University of Surrey, United Kingdom); Ali Imran (University of Oklahoma, USA); Muhammad Ali Imran (University of Surrey, United Kingdom); Rahim Tafazolli (University of Surrey, United Kingdom)

pp. 189-194

A2 (Special Session): Massive MIMO

Room: Utrillo

14:00 [*Secure Downlink Transmission in Massive MIMO System with Zero-Forcing Precoding*](#)

Jun Zhu (University of British Columbia, Canada); Robert Schober (University of British Columbia, Canada); Vijay Bhargava (University of British Columbia, Canada)

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14:21 [*On the Impact of PA-Induced In-Band Distortion in Massive MIMO*](#)

Christopher Mollén (Linköpings Universitet, Sweden); Erik G. Larsson (Linköping University, Sweden); Thomas Eriksson (Chalmers University of Technology, Sweden)

pp. 201-206

14:42 [*Performance Analysis for Generalised Spatial Modulation*](#)

Abdelhamid Younis (The University of Edinburgh, United Kingdom); Dushyantha Basnayaka (The University of Edinburgh, United Kingdom); Harald Haas (The University of Edinburgh, United Kingdom)

pp. 207-212

15:03 [*Robust Channel Estimation and Scheduling for Heterogeneous Multiuser Massive MIMO Systems*](#)

Sinh Nguyen (McGill University, Canada); Tho Le-Ngoc (McGill University, Canada); Ali Ghayeb (Texas A&M University at Qatar, Qatar)

pp. 213-218

15:24 [*Optimal Training in Continuous Flat-Fading Massive MIMO Systems*](#)

Kien Truong (Posts & Telecommunications Institute of Technology, Vietnam); Angel Lozano (Universitat Pompeu Fabra (UPF), Spain); Robert Heath (The University of Texas at Austin, USA)

pp. 219-224

16:15 - 18:00

D3 (regular): Scheduling and Synchronization

Room: Sala 12-2

- 16:15 [*Simplified Scheduler Model for SON Algorithms of eICIC in Heterogeneous Networks*](#)
Fasil Tesema (Nokia Solutions and Networks & Technical University of Dresden, Germany); Paolo Zanier (Nokia Siemens Networks GmbH, Germany); Ingo Viering (Nomor Research GmbH, Germany); Albrecht J Fehske (Technische Universität Dresden, Germany); Gerhard Fettweis (Technische Universität Dresden, Germany)
pp. 225-230
- 16:36 [*Clock Synchronization - An Approach using Mapping Functions*](#)
Sangjin Han (University of Maryland, USA); Ashok K Agrawala (University of Maryland, USA); Matthew Y Mah (University of Maryland, USA); Reinhard Exel (Danube University Krems, Austria); Thomas Bigler (Danube University Krems, Austria)
pp. 231-237
- 16:57 [*Adaptive Block Diagonalization and User Scheduling With Out of Cluster Interference*](#)
Juan José García Fernández (Universidad Carlos III de Madrid, Spain); Ana Garcia Armada (Universidad Carlos III de Madrid, Spain); Javier Rubio (Universitat Politècnica de Catalunya, Spain); Antonio Pascual-Iserte (Universitat Politècnica de Catalunya, Spain); Oriol Font-Bach (Centre Tecnològic de Telecomunicacions de Catalunya, Spain); Nikolaos Bartzoudis (CTTC, Spain)
pp. 238-243
- 17:18 [*Power Prediction prior to Scheduling Combined with Equal Power Allocation for the OFDMA UL*](#)
Rodrigo Lopes Batista (Federal University of Ceará, Brazil); Carlos Filipe Moreira e Silva (Federal University of Ceará, Brazil); Jose Mairton Barros da Silva, Jr. (Federal University of Ceara & Wireless Telecom Research Group, Brazil); Tarcisio F. Maciel (Federal University of Ceará, Brazil); Francisco R. P. Cavalcanti (Federal University of Ceará & GTel - Wireless Telecom Research Group, Brazil)
pp. 244-249
- 17:39 [*Time-Critical E-Mail Transfer over HF Radio*](#)
Mehmet Özdemir (Gebze Institute of Technology, Turkey); Alpaslan Eliaçık (Tübitak UEKAE, Turkey); İsmail Güneş (Tübitak UEKAE, Turkey); Ayşe Şaşıoğlu (Tübitak UEKAE, Turkey)
pp. 250-255

B3 (regular): Localization and Positioning

Room: Salón 1

- 16:15 [*A Novel RSS model and Power-bias Mitigation Algorithm in fingerprinting-based Indoor Localization in Wireless Local Area Networks*](#)
Lei Wang (National University of Singapore, Singapore); Wai-Choong Wong (National University of Singapore, Singapore)
pp. 256-262
- 16:50 [*Does BTLE measure up against WiFi? A comparison of indoor location performance*](#)
Xiaojie Zhao (Tsinghua University, P.R. China); Zhuoling Xiao (University of Oxford, United Kingdom); Andrew Markham (University of Oxford, United Kingdom); Niki Trigoni (University of Oxford, United Kingdom); Yong Ren (Tsinghua University, Beijing, P.R. China)
pp. 263-268

17:25 [Position Estimation Methods for an RFID-based Positioning System with a P2P Network Architecture](#)

Felix C. P. Hui (The Hong Kong Polytechnic University, Hong Kong); Henry C. B. Chan (The Hong Kong Polytechnic University, Hong Kong)
pp. 269-274

C3 (Special Session): Filter Bank-based Techniques for Future Wireless Communications

Room: Salón 7

16:15 [Space-Time Coding for Generalized Frequency Division Multiplexing](#)

Maximilian Matthé (Technical University Dresden, Germany); Luciano Leonel Mendes (Inatel, Brazil); Gerhard Fettweis (Technische Universität Dresden, Germany)
pp. 275-279

16:36 [Orthogonal Design of Cyclic Block Filtered Multitone Modulation](#)

Mauro Girotto (University of Udine, Italy); Andrea M Tonello (University of Udine, Italy)
pp. 280-285

16:57 [Precoding and Receiver Processing for Multiple Access MIMO FBMC Systems](#)

Madushanka Soysa (University of California San Diego, USA); Premanandana Rajatheva (University of Oulu, Finland); Matti Latva-aho (UoOulu, Finland)
pp. 286-292

17:18 [Bi-orthogonal Waveforms for 5G Random Access with Short Message Support](#)

Martin Kasparick (Fraunhofer Heinrich Hertz Institute & Fraunhofer Heinrich Hertz Institute, Germany); Gerhard Wunder (Heinrich-Hertz-Institut, Germany); Peter Jung (TU-Berlin, Heinrich-Hertz-Chair for Mobile Communication Technology & Fraunhofer German-Sino Lab for Mobile Communications - MCI, Germany); Dick Maryopi (Heinrich-Hertz-Institut, Germany)
pp. 293-298

17:39 [Experimental performance bounds of MIMO-FBMC/OQAM systems](#)

Màrius Caus (Centre Tecnològic de Telecomunicacions de Catalunya (CTTC), Spain); Ana Perez-Neira (UPC, Spain)
pp. 299-304

A3 (Special Session): CROWD: Extremely dense wireless networks

Room: Utrillo

16:15 [Decentralized beamforming with coordinated sounding for inter-cell interference management](#)

Sandra Lagen (Universitat Politècnica de Catalunya, Spain); Adrian Agustin (Universitat Politècnica de Catalunya (UPC), Spain); Josep Vidal (Universitat Politècnica de Catalunya, Spain)
pp. 305-310

16:41 [Optimal duty cycling in mobile opportunistic networks with end-to-end delay guarantees](#)

Elisabetta Biondi (IIT-CNR, Italy); Chiara Boldrini (IIT-CNR, Italy); Andrea Passarella (IIT-CNR, Italy); Marco Conti (IIT-CNR, Italy)
pp. 311-316

17:07 [Optimizing small cell deployment by the use of C-RANs](#)

Aleksandra Checko (Technical University of Denmark, Denmark); Henrik Holm (Technical University of Denmark, Denmark); Henrik Christiansen (Technical University of Denmark, Denmark)
pp. 317-322

17:33 [Wireless and wired network convergence in support of cloud and mobile cloud services: The CONTENT Approach](#)

Anna Tzanakaki (University of Bristol, United Kingdom); Markos Anastasopoulos (University of Bristol, United Kingdom); Giada Landi (Nextworks, Italy); Giacomo Bernini (Nextworks, Italy); Nicola Ciulli (Nextworks s.r.l., Italy); Shuping Peng (University of Bristol, United Kingdom); Yan Yan (University of Bristol, United Kingdom); Dimitra Simeonidou (University of Bristol, United Kingdom); Eduard Escalona (Fundació i2CAT, Internet i Innovació Digital a Catalunya, Spain); Joan A. García-Espín (Fundació i2CAT, Internet i Innovació Digital a Catalunya & Technical University of Catalonia, Spain); Kostas Katsalis (University of Thessaly & CERTH, Greece)
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Thursday, May 15

09:00 - 10:00

P3 (plenary): Keynote Speech

Frank Fitzek
Room: Utrillo

10:15 - 12:00

D4 (regular): Quality of Service

Room: Sala 12-2

10:15 [Throughput vs. Delay in Lossy Wireless Mesh Networks with Random Linear Network Coding](#)

Martin Hundebøll (Aalborg University, Denmark); Peyman Pahlavani (APNET, Denmark); Daniel E. Lucani (Aalborg University, Denmark); Frank H.P. Fitzek (Aalborg University, Denmark)
pp. 330-335

10:36 [On the Delay Characteristics for Point-to-Point links using Random Linear Network Coding with On-the-fly Coding Capabilities](#)

Máté Tömösközi (Acticom GmbH, Germany); Frank H.P. Fitzek (Aalborg University, Denmark); Daniel E. Lucani (Aalborg University, Denmark); Morten V. Pedersen (Aalborg University, Denmark); Patrick Seeling (Central Michigan University, USA)
pp. 336-341

10:57 [Utility-Based Scheduling and Fixed Switching Beamforming for User Satisfaction Improvement in OFDMA Systems](#)

Emanuel B. Rodrigues (Federal University of Ceará & Wireless Telecommunications Research Group, Brazil); Francisco Hugo Costa, Neto (Federal University of Ceará & Wireless Telecommunications Research Group, Brazil); Tarcisio F. Maciel (Federal University of Ceará, Brazil); Francisco Rafael Marques Lima (Wireless Telecom Research Group (GTEL), Brazil); Francisco R. P. Cavalcanti (Federal University of Ceará & GTEL - Wireless Telecom Research Group, Brazil)
pp. 342-347

11:18 [Docitive Learning Mechanism for Interference Management in Femtocell Networks](#)

Adnan Shahid (Sejong University, Korea); Saleem Aslam (Sejong University, Korea); Hyung Seok Kim (Sejong University, Korea); Kyung Geun Lee (Sejong University, Korea)
pp. 348-353

11:39 [Non-Stationary Traffic Conditions in Transient Flow Level Models for Cellular Networks](#)

David Oehmann (Technische Universität Dresden, Germany); Albrecht J Fehske (Technische Universität Dresden, Germany); Gerhard P. Fettweis (Technische Universität Dresden, Germany)
pp. 354-359

B4 (regular): Information Theory

Room: Salón 1

10:15 [On the Capacity Region of the 3-user Gaussian Interference Channel with Strong Interference](#)

Anas Chaaban (RUB, Germany)
pp. 360-365

10:36 [Theoretical Derivation of Bit Error Rate for Uplink OFDMA Employing Space Diversity Reception over Nonlinear Fading Channels](#)

Kei Nishimura (Waseda University, Japan); Shoya Takebuchi (Waseda University, Japan); Fumiaki Maehara (Waseda University, Japan)
pp. 366-371

10:57 [Outage Analysis of Decode-and-Forward Relaying System Allowing Intra-link Errors](#)

Xiaobo Zhou (Japan Advanced Institute of Science and Technology, Japan); Meng Cheng (Japan Advanced Institute of Science and Technology, Japan); Xin He (Japan Advanced Institute of Science and Technology, Japan); Khoirul Anwar (Japan Advanced Institute of Science and Technology, Japan); Tad Matsumoto (Japan Advanced Institute of Science and Technology, Japan)
pp. 372-377

11:18 [Generalized Analysis of Amplify and Forward Cooperative Relay Protocol Over Non-Identical Nakagami Fading Channels](#)

Mohammed Adel Abdel-Hafez (United Arab Emirates University, UAE); Khaled Shuaib (United Arab Emirates University, UAE); Samer Mayaleh (An-Najah National University, Palestine)
pp. 378-384

11:39 [*On the Effects of Heterogeneous Packet Lengths on Network Coding*](#)

Pol Torres Compta (Acticom GmbH, Germany); Frank H.P. Fitzek (Aalborg University, Denmark); Daniel E. Lucani (Aalborg University, Denmark)
pp. 385-390

C4 (Special Session): CO2GREEN: Green Communications through Cooperation and

Cognition

Room: Salón 7

10:15 [*Low-overhead Heuristic Algorithms for Spectrum Sensing in Cognitive Radio Networks*](#)

Vasileios Miliotis (Universitat Politècnica de Catalunya, Spain); Iordanis Koutsopoulos (Athens University of Economics and Business and CERTH & CERTH, Greece); Luis Alonso (Universidad Politecnica de Catalunya-BarcelonaTECH & Telecommunications and Aerospace Engineering School of Castelldefels, Spain); Christos Verikoukis (Telecommunications Technological Centre of Catalonia, Spain)
pp. 391-396

10:36 [*Slotted ALOHA for Networked Base Stations: Algorithms and Performance*](#)

Dragana Bajovic (BioSense Center, University of Novi Sad, Serbia); Dusan Jakovetic (BioSense Center, University of Novi Sad, Serbia); Dejan Vukobratović (University of Novi Sad, Serbia); Vladimir Crnojević (Novi Sad, Serbia)
pp. 397-402

10:57 [*Performance Evaluation of Frame Slotted-ALOHA with Successive Interference Cancellation in Machine-to-Machine Networks*](#)

Francisco Vázquez-Gallego (Centre Tecnològic de Telecomunicacions de Catalunya (CTTC), Spain); Marc Rietti (UPC, Spain); Joan Bas (Centre Tecnològic de Telecomunicacions de Catalunya (CTTC), Spain); Jesus Alonso-Zarate (Centre Tecnològic de Telecomunicacions de Catalunya - CTTC, Spain); Luis Alonso (Universidad Politecnica de Catalunya-BarcelonaTECH & Telecommunications and Aerospace Engineering School of Castelldefels, Spain)
pp. 403-408

11:18 [*Duty-Cycle Optimization for Machine-to-Machine Area Networks Based on Frame Slotted-ALOHA with Energy Harvesting Capabilities*](#)

Orazio Briante (University Mediterranea of Reggio Calabria, Italy); Anna Maria Mandalari (University Mediterranea of Reggio Calabria, Italy); Antonella Molinaro (University Mediterranea of Reggio Calabria, Italy); Giuseppe Ruggeri (University of Reggio Calabria, Italy); Francisco Vázquez-Gallego (Centre Tecnològic de Telecomunicacions de Catalunya (CTTC), Spain); Jesus Alonso-Zarate (Centre Tecnològic de Telecomunicacions de Catalunya - CTTC, Spain)
pp. 409-414

11:39 [*Techno-economics of Green Mobile Networks Considering Backhauling*](#)

Ashraf Awadelkarim Widaa Ahmed (KTH Royal Institute of Technology & ICT School, Sweden); Konstantinos Chatzimichail (KTH, Royal Institute of Technology, Sweden);

Jan Markendahl (Royal Institute of Technology, Sweden); Cicek Cavdar (Royal Institute of Technology (KTH), Sweden)
pp. 415-420

A4 (Special Session): COMBO: Fixed Mobile Convergence

Room: Utrillo

10:15 [*A Survey of Available Features for Mobile Traffic Offload*](#)

Younes Khadraoui (Institut Mines Telecom / Telecom Bretagne & IRISA, France);
Xavier Lagrange (Institut Mines Telecom / Telecom Bretagne & IRISA, France); Annie
Gravey (Institut Mines Telecom - Telecom Bretagne, France)
pp. 421-424

10:36 [*Fixed and Mobile Convergence: Needs and Solutions*](#)

Stéphane Gosselin (Orange Labs, France); De Biasio Joseph (Orange Labs Research,
France); Feknous Moufida (Telecom Bretagne & Orange Labs, France); Tahar Mamouni
(Orange Labs, France); Jose Alfonso Torrijos (Telefonica I+D, Spain); Luis Cucala
(Telefonica I+D, Spain); Dirk Breuer (Deutsche Telekom T-Labs, Germany); Erik Weis
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Ltd, United Kingdom); Lander Alonso (FON Wireless Ltd, United Kingdom); Stefan
Höst (Lund University, Sweden); Anthony Magee (ADVA Optical Networking Ltd,
United Kingdom)
pp. 425-430

10:57 [*A Testbed for Fixed Mobile Convergence Experimentation: ADRENALINE-LENA
Integration*](#)

Nicola Baldo (Centre Tecnològic de Telecomunicacions de Catalunya (CTTC), Spain);
Ricardo Martinez (CTTC, Spain); Paolo Dini (Centre Tecnològic de Telecomunicacions
de Catalunya (CTTC), Spain); Ricard Vilalta (Centre Tecnològic de Telecomunicacions
de Catalunya, Spain); Marco Miozzo (Centre Tecnològic de Telecomunicacions de
Catalunya (CTTC), Spain); Ramon Casellas (Centre Tecnològic de Telecomunicacions
de Catalunya (CTTC), Spain); Raul Muñoz (CTTC, Spain)
pp. 431-436

11:18 [*Traffic modeling methods to support performance management in FMC scenarios*](#)

Pál Varga (Budapest University of Technology and Economics, Hungary); Péter Olaszi
(AITIA International, Inc., Hungary)
pp. 437-442

11:39 [*Feasibility of Base Station Coordination and Dynamic Backhaul Network Configuration in
Backhaul Networks with Limited Capacity*](#)

Martin Dräxler (University of Paderborn, Germany); Holger Karl (University of
Paderborn, Germany)

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12:00 - 13:15

P4 (plenary): Panel Session

Room: Utrillo

14:30 - 16:15

D5 (regular): LTE Design and Optimization - I

Room: Sala 12-2

14:30 [LTE BS Placement Optimization Using Simulated Annealing in the Presence of Femtocells](#)

Elias Yaacoub (Qatar Mobility Innovations Center (QMIC), Qatar); Zaher Dawy (American University of Beirut, Lebanon)
pp. 451-455

14:51 [Statistical Link Budget Analysis Approach for LTE Cellular Network Dimensioning](#)

Mona Jaber (American University of Beirut, Lebanon); Naeem Akl (UT Austin, USA); Zaher Dawy (American University of Beirut, Lebanon); Elias Yaacoub (Qatar Mobility Innovations Center (QMIC), Qatar)
pp. 456-461

15:12 [Joint Multicast/Unicast Scheduling with Dynamic Optimization for LTE Multicast Service](#)

Alejandro de la Fuente (Universidad Carlos III de Madrid, Spain); Ana Garcia Armada (Universidad Carlos III de Madrid, Spain); Raquel Perez Leal (Universidad Carlos III de Madrid, Spain)
pp. 462-467

15:33 [LTE Downlink Link-Level Abstraction for System-Level Simulations](#)

Johannes Baumgarten (Technische Universität Braunschweig, Germany); Thomas Kürner (Technische Universität Braunschweig, Germany)
pp. 468-472

15:54 [Base-Station Location Optimization for LTE Systems with Genetic Algorithms](#)

Ioannis Valavanis (University of Peloponnese, Greece); Georgia Athanasiadou (University of Peloponnese, Greece); Dimitra Zarbouti (University of Peloponnese, Greece); George Tsoulos (University of Peloponnese, Greece)
pp. 473-478

B5 (regular): Multiple Antenna Systems

Room: Salón 1

14:30 [Bringing High-Mobility to MISO-OFDM Systems based on FFT](#)

Nasimi Eldarov (Saarland University & Max-Planck Institute for Informatics, Germany); Thorsten Herfet (Saarland University & Intel Visual Computing Institute, Germany)

14:51 [On the Pilot-Data Power Trade Off in Single Input Multiple Output Systems](#)
Gabor Fodor (Ericsson Research & Royal Institute of Technology (KTH), Sweden);
Miklos Telek (Technical University of Budapest, Hungary)
pp. 485-492

15:12 [Performance of Modified TAS/OSTBC Schemes in Dual-Hop Relay Systems in the Presence of Feedback Errors](#)
Ahmet F Coskun (Gebze Institute of Technology, Turkey); Oguz Kucur (Gebze Institute of Technology, Turkey)
pp. 493-498

15:33 [Efficient MISO system combining Time Reversal and OFDM/OQAM](#)
Thierry Dubois (Altran Research, France); Maryline H  lard (INSA Rennes & IETR Institute of Electronics and Telecommunications of Rennes, France); Pierre Siohan (France Telecom, France); Matthieu Cruss  re (IETR - Electronics and Telecommunications Research Institute of Rennes (IETR) & INSA - National Institute of Applied Sciences, France); Bruno Jahan (France Telecom, France)
pp. 499-503

15:54 [Improving Energy-efficiency of Multi-antenna Receivers via Adaptation of ADC Resolutions](#)
Qing Bai (Technische Universit  t M  nchen, Germany); Josef A. Nossek (TU Munich, Germany)
pp. 504-509

Room: Salón 7

14:30 [Clustered Binary Consensus in Sensor Motes](#)
Noor Al-Nakhala (Qatar University & Qatar University, Qatar); Ryan Riley (Qatar University, Qatar); Tarek M. Elfouly (Qatar University, Qatar)
pp. 510-516

14:51 [Design and Implementation of RESTful Wireless Sensor Network Gateways Using Node.js Framework](#)
Mehmet Fatih Karagoz (Aselsan Inc., Turkey); Cevahir Turgut (Aselsan Inc., Turkey)
pp. 517-522

15:12 [Mesh-Under Cluster-Based Routing Protocol for IEEE 802.15.4 Sensor Network](#)
Yaarob Al-Nidawi (University of Leeds, United Kingdom); Naveed Salman (University of Leeds, United Kingdom); Andrew H. Kemp (University of Leeds, United Kingdom)
pp. 523-529

15:33 [Performance Evaluation of IEEE 802.15.4 and 802.11 Protocols for Image Transmission in WSNs](#)
Boris Snajder (University of Zagreb, Croatia); Vana Jeličić (University of Zagreb, Croatia); Vedran Bilas (University of Zagreb, Croatia)
pp. 530-535

15:54 [Rollout Algorithm Based Duty Cycle Control with Joint Optimisation of Delay and Energy Efficiency for Beacon-enabled IEEE 802.15.4 Networks](#)

Yun Li (Queen Mary, University of London, United Kingdom); Kok Keong (Michael) Chai (Queen Mary, University of London, United Kingdom); Yue Chen (Queen Mary University of London, United Kingdom); Jonathan Loo (Middlesex University, United Kingdom)
pp. 536-541

A5 (Special Session): Fixed & Mobile Satellite Communications

Room: Utrillo

14:30 [*Linear Precoding Methods for Multi-Beam Broadband Satellite Systems*](#)

Giorgio Taricco (Politecnico di Torino, Italy)
pp. 542-547

14:51 [*Dissection of multibeam satellite communications with a large-scale antenna system toolbox*](#)

Jesús Arnau (University of Vigo, Spain); Carlos Mosquera (University of Vigo, Spain)
pp. 548-553

15:12 [*Multiple Gateway Precoding with Per Feed Power Constraints for Multibeam Satellite Systems*](#)

Vahid Joroughi (Technical University of Catalonia (UPC), Spain); Ana Isabel Perez (Universitat Politècnica de Catalunya, Spain); Miguel Ángel Vázquez (CTTC, Spain)
pp. 554-560

15:33 [*Physical Layer Performance of Multi-User Detection in Broadband Multi-Beam Systems based on DVB-S2*](#)

Stefano Andrenacci (University of Bologna, Italy); Martina Angelone (European Space Agency, The Netherlands); Enzo Alberto Candrea (University of Bologna & University of Bologna, Italy); Giulio Colavolpe (University of Parma, Italy); Alberto Ginesi (ESA/ESTEC, The Netherlands); Francesco Lombardo (University of Bologna, Italy); Andrea Modenini (University of Parma, Italy); Coline Morel (European Space Agency, The Netherlands); Amina Piemontese (University of Parma, Italy); Alessandro Vanelli-Coralli (University of Bologna, Italy)
pp. 561-565

15:54 [*Carrier Rate Optimization on the Return Link of Interactive Mobile Satellite Networks*](#)

Roberto Piazza (University of Luxembourg, Luxembourg); Bhavani Shankar Mysore R (Interdisciplinary Centre for Security, Reliability and Trust & University of Luxembourg, Luxembourg); Björn Ottersten (University of Luxembourg, Luxembourg)
pp. 566-573

16:45 - 18:30

D6 (regular): Cognitive Radio Networks

Room: Sala 12-2

16:45 [*Interference Alignment Based Resource Management in MIMO Cognitive Radio Systems*](#)

- Mohammed El-Absi (University of Duisburg-Essen, Germany); Musbah Shaat (CTTC, Spain); Faouzi Bader (SUPELEC, France); Thomas Kaiser (Universität Duisburg-Essen, Germany)
pp. 574-579
- 17:06 [*Toeplitz-structured Sequences for Rendezvous in Dynamic Spectrum Access*](#)
Francisco Hugo Costa, Neto (Federal University of Ceará & Wireless Telecommunications Research Group, Brazil); Igor Guerreiro (Universidade Federal do Ceara & Wireless Telecommunications Research Group - GTEL, Brazil); Tarcisio F. Maciel (Federal University of Ceará, Brazil)
pp. 580-584
- 17:27 [*Enhanced Cognitive Radio Operation through Belief-based Decision Making*](#)
Jordi Pérez-Romero (Universitat Politècnica de Catalunya (UPC), Spain); Alessandro Raschellà (Technical University of Catalonia (UPC) - Barcelona, Spain); Oriol Sallent (Universitat Politècnica de Catalunya, Spain); Anna Umbert (University Politecnica of Catalunya, Spain)
pp. 585-590
- 17:48 [*Distributed Spectrum Allocation for Autonomous Cognitive Radio Networks*](#)
Anatolij Zubow (Technische Universität Berlin, Germany); Michael Doering (Technische Universität Berlin, Germany); Adam Wolisz (TUB, Germany)
pp. 591-597
- 18:09 [*A Measurement-Based Approach for Cognitive Femtocell Networks*](#)
Anna Dudnikova (University of Catania, Italy); Daniela Panno (University of Catania, Italy); Antonio Mastrosimone (University of Catania, Italy)
pp. 598-603

B6 (regular): Adaptive Systems

Room: Salón 1

- 16:45 [*A Wireless Multi-Channel Transmission System for Smart Home Applications - Dimensioning and Rendezvous Method*](#)
Falk-Moritz Schaefer (TU Dortmund University, Germany); Ruediger Kays (TU Dortmund University, Germany)
pp. 604-609
- 17:11 [*Link Resource Adaptation for BIC-OFDM Systems with Outdated Channel State Information*](#)
Paolo Del Fiorentino (University of Pisa, Italy); Riccardo Andreotti (University of Pisa, Italy); Vincenzo Lottici (University of Pisa, Italy); Filippo Giannetti (University of Pisa, Italy); Jeroen Van Hecke (Ghent University, Belgium); Marc Moeneclaey (Ghent University, Belgium)
pp. 610-615
- 17:37 [*A Progressive Group Detection-Assisted Near-Optimal Iterative Chip-Level Decision Feedback Equalizer*](#)
Karim Badawi (Swiss Federal Institute of Technology Zurich - ETH Zurich, Switzerland); Qiuting Huang (ETH Zurich, Switzerland); Andreas Burg (EPFL, Switzerland)
pp. 616-621

- 18:03 [*Adaptive Modulation with Signalling vs. Fixed Modulation for WLAN Systems*](#)
Yun Chen (Fraunhofer Institute for Embedded Systems and Communication Technologies ESK, Germany); Erik Oswald (Fraunhofer Institute for Communication Systems, Germany); Mike Heidrich (Fraunhofer Institute for Communication Systems (ESK), Germany)
pp. 622-626

C6 (regular): M2M Performance & Protocols

Room: Salón 7

- 16:45 [*Coordinated Random Access Management for Network Overload Avoidance in Cellular Machine-to-Machine Communications*](#)
Yunyan Chang (Huawei European Research Center & Technische Universität Berlin, Germany); Chan Zhou (Huawei European Research Center, Germany); Ömer Bulakci (Huawei European Research Center (ERC) & Aalto University School of Electrical Engineering, Germany)
pp. 627-632
- 17:11 [*Performance evaluation of Reservation Frame Slotted-ALOHA for Data Collection M2M Networks*](#)
Francisco Vázquez-Gallego (Centre Tecnològic de Telecomunicacions de Catalunya (CTTC), Spain); Jesus Alonso-Zarate (Centre Tecnològic de Telecomunicacions de Catalunya - CTTC, Spain); Anna Maria Mandalari (University Mediterranea of Reggio Calabria, Italy); Orazio Briante (University Mediterranea of Reggio Calabria, Italy); Antonella Molinaro (University Mediterranea of Reggio Calabria, Italy); Giuseppe Ruggeri (University of Reggio Calabria, Italy)
pp. 633-638
- 17:37 [*CAS-based Channel Access Protocol for IEEE 802.11ah WLANs*](#)
Albert Bel (Universitat Pompeu Fabra, Spain); Toni Adame (UPF, Spain); Boris Bellalta (Universitat Pompeu Fabra, Spain); Jaume Barcelo (Universitat Pompeu Fabra, Spain); Javier Gonzalez (UPF, Spain); Miquel Oliver (Universitat Pompeu Fabra, Spain)
pp. 639-644
- 18:03 [*Application of Q-Learning for RACH Access to Support M2M Traffic over a Cellular Network*](#)
Lawal Mohammed Bello (University of York, United Kingdom); Paul Mitchell (University of York, United Kingdom); David Grace (University of York, United Kingdom)
pp. 645-650

A6 (Special Session): 5G Cell-less Architectures

Room: Utrillo

- 16:45 [*On Applying Network Coding in Network Assisted Device-to-Device Communications*](#)
Gabor Fodor (Ericsson Research & Royal Institute of Technology (KTH), Sweden); Aidilla Pradini (Ericsson AB, Sweden); Ather Gattami (Ericsson Research, Sweden)
pp. 651-656

- 17:06 [Analytical assessment of coordinated overlay D2D communications](#)
Stelios Stefanatos (University of Piraeus, Greece); Antonis G Gotsis (University of Piraeus, Greece); Angeliki Alexiou (University of Piraeus, Greece)
pp. 657-662
- 17:27 [Impairments in Cooperative Mobile Networks: Models, Impact on Performance and Mitigation](#)
Konstantinos Manolakis (Technische Universität Berlin, Germany); Volker Jungnickel (Fraunhofer Heinrich Hertz Institute, Germany); Christian Oberli (Pontificia Universidad Católica de Chile, Chile); Thorsten Wild (Alcatel-Lucent Bell Labs, Germany); Volker Braun (Alcatel-Lucent, Germany)
pp. 663-670
- 17:48 [Enhancing User QoE in Multi-Carrier LTE Dense Networks via Multi-Path Support](#)
Konstantinos Samdanis (NEC Europe Ltd., Germany); Andreas Ripke (NEC Labs Europe, Germany); Dirk Kutscher (NEC Laboratories Europe, Germany)
pp. 671-675
- 18:09 [Edge Cloud and Underlay Networks: Empowering 5G Cell-Less Wireless Architecture](#)
Qian (Clara) Li (Intel Corporation, USA); Huaning Niu (Intel, USA); Apostolos Papathanassiou (Intel Corporation & Intel Architecture Group, USA); Geng Wu (Intel Corporation, USA)
pp. 676-681

Friday, May 16

09:00 - 10:00

P5 (plenary): Keynote Speech

Andrea Goldsmith
Room: Utrillo

10:30 - 12:15

D7 (regular): Relay Based Networks

Room: Sala 12-2

10:30 [Is Cooperative Spectrum Leasing by Third-Party Relays Advantageous in Next-Generation Cellular Networks?](#)

Felipe Gómez-Cuba (University of Vigo, Spain); Francisco J. González-Castaño (Universidad de Vigo, Spain); Jorge Muñoz-Castañer (Gradiant, Spain)
pp. 682-688

10:51 [Implementation of Slepian Wolf theorem in a distributed cooperative spatial multiplexing system](#)

Nian Xie (University of York, United Kingdom); Alister G. Burr (University of York, United Kingdom)

- pp. 689-693
- 11:12 [*Alternative to Dynamic Rank Transmission for LTE Mobile Relay Node System*](#)
Ayotunde Laiyemo (Centre for Wireless Communication, Finland); Pekka Pirinen (University of Oulu, Finland); Matti Latva-aho (UoOulu, Finland)
pp. 694-699
- 11:33 [*Dijkstra Goes Social: Social-Graph-assisted Routing in Next Generation Wireless Networks*](#)
Iordanis Koutsopoulos (Athens University of Economics and Business and CERTH & CERTH, Greece); Evgenia Noutsi (Athens University of Economics and Business, Greece); George Iosifidis (CERTH & University of Thessaly, Greece)
pp. 700-706
- 11:54 [*Cell Spectral Efficiency Analysis of Relay enhanced and Picocell enhanced LTE Systems*](#)
Yuan Chen (RWTH Aachen University, Germany); Bernhard H. Walke (RWTH Aachen University, Germany)
pp. 707-714

B7 (regular): MIMO Systems

Room: Salón 1

- 10:30 [*Simultaneous Diagonalization: On the DoF Region of the K-user MIMO Multi-way Relay Channel*](#)
Anas Chaaban (RUB, Germany); Karlheinz Ochs (Ruhr-University Bochum, Germany); Aydin Sezgin (RUB & Digital Communication Systems, Germany)
pp. 715-720
- 10:51 [*Performance of DSTM MIMO Systems Based on Weyl Group in Time Selective Channel*](#)
Hui Ji (INSA-Rennes, France); Gheorghe Zaharia (IETR-INSA de Rennes, France); Jean-François Héland (IETR, France)
pp. 721-726
- 11:12 [*Joint Pre/Post-processing Design for Large Millimeter Wave Hybrid Spatial Processing Systems*](#)
Gaojian Wang (RWTH-Aachen, Germany); Gerd H. Ascheid (RWTH Aachen University, Germany)
pp. 727-732
- 11:33 [*Precoder and Decoder Designs for a MIMO Interfering Broadcast Channel with Imperfect CSI*](#)
Tachporn Sanguanpuak (AIT (Asian Institute of Technology), Thailand); Premanandana Rajatheva (University of Oulu, Finland); Yusheng Ji (National Institute of Informatics, Japan)
pp. 733-738
- 11:54 [*A novel adaptive UCD-based MU-MIMO scheme for IEEE 802.11ac*](#)
Aleksandra S. Panajotovic (University of Nis, Serbia); Felip Riera-Palou (University of the Balearic Islands, Spain); Guillem Femenias (University of the Balearic Islands & Mobile Communications Group, Spain)
pp. 739-744

C7 (Special Session): Physical Layer Network Coding for the Wireless Cloud

Room: Salón 7

10:30 [*Successive Decoding with Hierarchical Interference Cancellation in Wireless \(Physical Layer\) Network Coding Systems*](#)

Tomas Uricar (Czech Technical University in Prague, Czech Republic); Pavel Prochazka (Czech Technical University in Prague, Czech Republic); Jan Sykora (Czech Technical University in Prague, Czech Republic)

pp. 745-750

10:56 [*Practical Implementation of Cloud Initialization Procedure for Wireless Physical Layer Network Coding Clouds*](#)

Tomas Hynek (Czech Technical University in Prague, Czech Republic); David Halls (Toshiba Research Europe Ltd & University of Bristol, United Kingdom); Jan Sykora (Czech Technical University in Prague, Czech Republic)

pp. 751-756

11:22 [*Performance of Adaptive Linear Physical Layer Network Coding*](#)

Alister G. Burr (University of York, United Kingdom); Dong Fang (University of York, United Kingdom)

pp. 757-762

11:48 [*Diversity Performance of Physical Layer Network Coding based on Reed-Solomon Codes*](#)

Dong Fang (University of York, United Kingdom); Alister G. Burr (University of York, United Kingdom)

pp. 763-767

A7 (Special Session): NEWCOM#: Interference Mitigation in Modern Wireless Systems

Room: Utrillo

10:30 [*Interference in DFT Modulated Filter Bank Transceivers for Cognitive Radio*](#)

Nour Mansour (University of Kassel, Germany); Dirk Dahlhaus (University of Kassel, Germany)

pp. 768-774

10:51 [*Detection and estimation of spikes in presence of noise and interference*](#)

Damien Passemier (The Hong Kong University of Science and Technology, Hong Kong); Abba Kammoun (Supelec, France); Mérouane Debbah (Supelec, France)

pp. 775-778

11:12 [*Tethered Interference Cancellation: military versus full-duplex applications and comparisons*](#)

Michael Fitz (TrellisWare Technologies, Inc., USA); Andreas Polydoros (University of Athens, Greece); Thomas R Halford (TrellisWare Technologies, Inc., USA); Scott Enserink (TrellisWare Technologies, USA); Gautam Thatte (TrellisWare Technologies, USA)

pp. 779-783

11:33 [*Exploiting Transmit Correlation and Mutual Coupling in MIMO Transmitters*](#)

Christos Masouros (University College London, United Kingdom); Jianling Chen (Beijing Jiaotong University, P.R. China); Kenneth Tong (UCL, United Kingdom); Mathini Sellathurai (Heriot-Watt University, United Kingdom); Tharmalingam Ratnarajah (The University of Edinburgh, United Kingdom)
pp. 784-789

11:54 [*MIMO Interfering Broadcast Channels based on Local CSIT*](#)

Yohan Lejosne (EURECOM, France); Manijeh Bashar (EURECOM, France); Dirk Slock (EURECOM, France); Yi Yuan-Wu (Orange Labs, France)
pp. 790-795

13:30 - 15:15

D8 (regular): LTE Design and Optimization - II

Room: Sala 12-2

13:30 [*Techniques of Candidate Cell Selection for Antenna Tilt Adaptation in LTE-Advanced*](#)

Anteneh A. Gebremariam (University of Trento, Italy); Dereje Woldemedhin Kifle (Nokia Solutions and Networks, Germany); Bernhard Wegmann (Nokia Solutions and Networks, Germany); Ingo Viering (Nomor Research GmbH, Germany); Fabrizio Granelli (University of Trento, Italy)
pp. 796-801

13:51 [*Clustered Network MIMO and Fractional Frequency Reuse for the Downlink in LTE-A Systems*](#)

Ajay Thampi (University of Bristol, United Kingdom); Simon Armour (University of Bristol, United Kingdom); Zhong Fan (Toshiba Research Europe, United Kingdom); Dritan Kaleshi (University of Bristol, United Kingdom)
pp. 802-807

14:12 [*A Handover Policy for Energy Efficient Network Connectivity through Proportionally Fair Access*](#)

Saud Althunibat (University of Trento, Italy); Kimon Kontovasilis (NCSR Demokritos, Greece); Fabrizio Granelli (University of Trento, Italy)
pp. 808-813

14:33 [*Performance of Asymmetric QPSK Modulation for Multi-Level ACK/NACK in LTE Uplink*](#)

Volker Braun (Alcatel-Lucent, Germany); Uwe Doetsch (Alcatel-Lucent, Germany); Aydar Zimaliev (Alcatel-Lucent, Germany); Mattia Bonomo (University of Padova, Germany); Lorenzo Vangelista (University of Padova, Italy)
pp. 814-819

14:54 [*Physical Layer Frame in Signalling-Data Separation Architecture: Overhead and Performance Evaluation*](#)

Abdelrahim Mohamed (University of Surrey & Centre for Communication Systems Research, United Kingdom); Oluwakayode Onireti (University of Surrey, United Kingdom); Yinan Qi (University of Surrey, United Kingdom); Ali Imran (University of Oklahoma, USA); Muhammad Ali Imran (University of Surrey, United Kingdom); Rahim Tafazolli (University of Surrey, United Kingdom)
pp. 820-825

B8 (regular): Signal Processing for Wireless Communications

Room: Salón 1

- 13:30 [*Sidelobe Suppression for Non-systematic Coded UW-OFDM in Cognitive Radio Networks*](#)
Morteza Rajabzadeh (Ghent University, Belgium); Hossein Khoshbin (Ferdowsi University of Mashhad, Iran); Heidi Steendam (Ghent University, Belgium)
pp. 826-831
- 13:51 [*Self-Interference Cancellation in Full-Duplex Radio Transceivers with Oscillator Phase Noise*](#)
Ville Syrjälä (Kyoto University, Japan); Koji Yamamoto (Kyoto University, Japan)
pp. 832-837
- 14:12 [*Low Complexity Sparse Bayesian Learning for Channel Estimation Using Generalized Mean Field*](#)
Niels Lovmand Pedersen (Aalborg University, Denmark); Carles Navarro Manchón (Aalborg University, Denmark); Bernard Henri Fleury (Aalborg University, Denmark)
pp. 838-843
- 14:33 [*Channel Equalization in Fast-Convolution Filter Bank based Receivers for Professional Mobile Radio*](#)
Markku K. Renfors (Tampere University of Technology, Finland); Juha Yli-Kaakinen (Tampere University of Technology, Finland)
pp. 844-848
- 14:54 [*Blind Reconstruction of Binary Cyclic Codes*](#)
Arti Yardi (IIT Bombay, India); Saravanan Vijayakumaran (IIT Bombay, India); Animesh Kumar (Indian Institute of Technology Bombay, India)
pp. 849-854

C8 (regular): Advanced Antennas & RF Systems

Room: Salón 7

- 13:30 [*Design and Analysis of 2×2 Smart Distributed Subarray Microstrip Antenna System for Communication and Radar Applications*](#)
Yasser M. Madany (IEEE, Senior Member, Alexandria University, Egypt); Darwish Mohamed (AAST, Egypt); Mostafa Elbanna (AAST, Egypt)
pp. 855-860
- 13:51 [*EnvAdapt: An Energy-Aware Simulation Framework for Power-Scalable Transceivers for Wireless Sensor Networks*](#)
Amine Didioui (CEA/Leti - Minatec & University of Rennes 1, France); Carolyn Bernier (CEA/Leti - Minatec, France); Le Quang Vinh Tran (CEA/Leti - Minatec, France); Olivier Sentieys (IRISA, University of Rennes 1, France)
pp. 861-866
- 14:12 [*Impact of AC Coupling on zero-IF Architectures for Wide-Band Millimeter-Wave Gigabit Transmitters*](#)
Ainhoa Rezola (CEIT and TECNUN & Ceit, Spain); David del Río (CEIT and TECNUN, Spain); Juan F Sevillano (CEIT and TECNUN, Spain); Martin Leyh

- (Fraunhofer IIS, Germany); Roc Berenguer (CEIT and TECNUN, Spain); Igone Vélez (CEIT and TECNUN - University of Navarra, Spain)
pp. 867-872
- 14:33 [Wrist Band based on custom made antenna for passive NFC tag](#)
Razi Iqbal (Lahore Leads University, Pakistan); Awais Ahmad (University of Engineering and Technology, Pakistan)
pp. 873-878
- 14:54 [Detection Probability of Passive RFID Systems under Cascaded Rician and Rayleigh Fading Channel](#)
Abdelmoula Bekkali (Qatar Mobility Innovations Center (QMIC), Qatar); Sicheng Zou (Cambridge University, United Kingdom); Abdullah Kadri (Qatar Mobility Innovations Center, Qatar); Richard Pentty (Cambridge University, United Kingdom)
pp. 879-884

A8 (regular): Power Management

Room: Utrillo

- 13:30 [Energy saving techniques applied over a nation-wide mobile network](#)
Eva María Pérez Robles (Nokia Solutions and Networks, Germany); Philipp Frank (Nokia Solutions and Networks, USA); Gilbert Micallef (Aalborg University & Nokia Siemens Networks, Denmark); Luis Maestro Ruiz de Temiño (Nokia-Siemens Networks, Spain); Benny Vejlgaard (Nokia Siemens Networks, Denmark)
pp. 885-889
- 13:51 [Joint Energy and Information Transmission in a Two-User Symmetric Interference Channel](#)
Daniel Sacristán-Murga (Universidad Carlos III de Madrid, Spain); Deniz Gündüz (Imperial College London, United Kingdom)
pp. 890-895
- 14:12 [Stochastic Transmission Policies for Energy Harvesting Nodes with Random Energy Leakage](#)
Nuğman Su (Bogazici University, Turkey); Mutlu Koca (Bogazici University, Turkey)
pp. 896-901
- 14:33 [Statistical power consumption assessment of mobile access networks at country level](#)
Thanh Tung Vu (Orange labs, France); Mamdouh El Tabach (Orange Labs, France); Taoufik En-Najjary (Orange Labs, France); Azeddine Gati (Orange Labs, France)
pp. 902-907
- 14:54 [Power Control with Variable Target SINR for D2D Communications Underlying Cellular Networks](#)
Yuri Melo (Federal University of Ceará, Brazil); Rodrigo Lopes Batista (Federal University of Ceará, Brazil); Tarcisio F. Maciel (Federal University of Ceará, Brazil); Carlos Filipe Moreira e Silva (Federal University of Ceará, Brazil); Jose Mairton Barros da Silva, Jr. (Federal University of Ceara & Wireless Telecom Research Group, Brazil); Francisco R. P. Cavalcanti (Federal University of Ceará & GTel - Wireless Telecom Research Group, Brazil)
pp. 908-913

15:45 - 17:30

D9 (regular): Wireless LANs and Wireless Sensor Networks

Room: Sala 12-2

15:45 [Channel Bonding in Short-Range WLANs](#)

Boris Bellalta (Universitat Pompeu Fabra, Spain); Alessandro Checco (Hamilton Institute, NUI Maynooth, Ireland); Azadeh Faridi (Universitat Pompeu Fabra, Spain); Jaume Barcelo (Universitat Pompeu Fabra, Spain); Periklis Chatzimisios (Alexander TEI of Thessaloniki, Greece)
pp. 914-920

16:06 [Adaptation of the ALOHA-Q protocol to Multi-Hop Wireless Sensor Networks](#)

Yan Yan (University of York, United Kingdom); Paul Mitchell (University of York, United Kingdom); Tim Clarke (York University, United Kingdom); David Grace (University of York, United Kingdom)
pp. 921-926

16:27 [A Priority-Based Adaptive Service -Differentiation Scheme for IEEE 802.15.4 Sensor Networks](#)

Liu Qiong (University of Duisburg-Essen, Germany)
pp. 927-932

16:48 [Cluster-Head Selection Algorithm to Enhance Energy-Efficiency and Reliability of Wireless Sensor Networks](#)

Van-Trinh Hoang (Lab-STICC, Université de Bretagne-Sud, France); Nathalie Julien (Lab-STICC, Université de Bretagne Sud, France); Pascal Berruet (Lab-STICC, Université de Bretagne-Sud, France)
pp. 933-938

17:09 [Energy Management of Wireless Sensor Networks based on Multi-Layer Perceptrons](#)

Abdulaziz Barnawi (King Fahd University of Petroleum and Minerals, Saudi Arabia); Ismail Keshta (King Fahd University of Petroleum and Minerals, Saudi Arabia)
pp. 939-944

B9 (regular): Interference Mitigation and Interference Management Techniques

Room: Salón 1

15:45 [Distributed Precoding in Multicell Multiantenna Systems with Data Sharing](#)

Yi Long (Huawei Technologies Duesseldorf GmbH, Germany); Nikola Vucic (Huawei Technologies Duesseldorf GmbH, Germany); Martin Schubert (Huawei Technologies Duesseldorf GmbH, Munich Office, Germany)
pp. 945-950

16:11 [Adaptive Decoding Strategy with Superposition Coding for Cognitive Radio Systems](#)

Marwa Chami (CNAM, France); Mylene Pischella (CNAM, France); Le Ruyet Didier (Electronics and Communication Laboratory, France)
pp. 951-956

16:37 [Interference Management through Interference Alignment based Transmit Precoding in Multi User Heterogeneous Cellular Networks](#)

Danish Aziz (Alcatel-Lucent Bell Labs, Germany); Mustansir Mazhar (Alcatel-Lucent Bell Labs, Germany); Andreas Weber (Alcatel-Lucent, Germany)
pp. 957-962

17:03 [Universal Filtered Multi-Carrier with Leakage-Based Filter Optimization](#)

Xiaojie Wang (University of Stuttgart, Germany); Thorsten Wild (Alcatel-Lucent Bell Labs, Germany); Frank Schaich (Bell Labs, Alcatel-Lucent AG, Germany); André Fonseca dos Santos (Bell Labs, Alcatel-Lucent, Germany)
pp. 963-967

C9 (regular): Mobile RF, Antennas & Channels

Room: Salón 7

15:45 [Design and Analysis of Compact Multiband Inverted F-L Patch Antenna Using 3D Metamaterial Structure for Wireless Communication Applications](#)

Yasser M. Madany (IEEE, Senior Member, Alexandria University, Egypt); Nour Eldin Ismail (Alexandria University, Egypt); Hayman Hassan (Alexandria University, Egypt)
pp. 968-973

16:06 [Broadband beamforming and null-steering based on fractional delay in OFDM systems](#)

Javier Martinez Garcia (Indra Sistemas, Spain); Carlos Zarzuelo Torres (Indra Sistemas, Spain); Víctor Iglesias (Universidad Politécnica de Madrid, Spain); Jesús Grajal (Universidad Politécnica de Madrid, Spain)
pp. 974-979

16:27 [Feasibility Study on Analogue Cancellation of Local Interference in Multimode Transceivers](#)

Hooman Habibi (Eindhoven University of Technology, The Netherlands); Abolghasem Zamanifekri (Eindhoven University of Technology, The Netherlands); Erwin Janssen (Eindhoven University of Technology, The Netherlands); Yan Wu (Eindhoven University of Technology, The Netherlands); Peter Baltus (Eindhoven University of Technology, The Netherlands); Jan Bergmans (Technical University Eindhoven, The Netherlands)
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16:48 [Fast Broadband Antenna Efficiency Measurements: The Complementary Q-Factor Method Revisited](#)

Constantine G. Kakoyiannis (National Technical University of Athens & Institute of Communication and Computer Systems, Greece)
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17:09 [Performance Analysis of \$\alpha\$ - \$\eta\$ - \$\mu\$ and \$\alpha\$ - \$\kappa\$ - \$\mu\$ Generalized Mobile Fading Channels](#)

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- 15:45 [*Fairness-Based Dynamic Sub-carrier Assignment for Real Time Services in OFDMA Networks*](#)
Emanuel B. Rodrigues (Federal University of Ceará & Wireless Telecommunications Research Group, Brazil); Ferran Casadevall (Universitat Politècnica de Catalunya, Spain)
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- 16:06 [*Asymptotic Analysis of Multiuser-MIMO Networks with Battery-Constrained Receivers*](#)
Javier Rubio (Universitat Politècnica de Catalunya, Spain); Antonio Pascual-Iserte (Universitat Politècnica de Catalunya, Spain); Juan José García Fernández (Universidad Carlos III de Madrid, Spain); Ana Garcia Armada (Universidad Carlos III de Madrid, Spain); Oriol Font-Bach (Centre Tecnològic de Telecomunicacions de Catalunya, Spain); Nikolaos Bartzoudis (CTTC, Spain)
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- 16:27 [*Heuristic Routing Algorithms for Minimum Energy Cooperative Multi-hop Wireless Networks*](#)
Jesús Gómez-Vilardebó (Centre Tecnològic de Telecomunicacions de Catalunya (CTTC), Spain)
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- 16:48 [*Game-theoretic Spectrum Trading Mechanism for Cognitive Radio Networks*](#)
Stavroula Vassaki (National Technical University of Athens, Greece); Marios I. Poulakis (National Technical University of Athens, Greece); Athanasios D. Panagopoulos (National Technical University of Athens, Greece)
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- 17:09 [*Distributed Load Balancing Game for Inter-Cell Interference Coordination*](#)
Amine Adouane (UVSQ, France); Lise Rodier (Université de Versailles Saint-Quentin en Yvelines & PRiSM, France); Kinda Khawam (Université de Versailles, France); Johanne Cohen (LRI-CNRS & PRiSM-CNRS, France); Samir Tohme (University of Versailles, France)
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