

CATANIA, ITALY
02-04 MAY 2018

**EUROPEAN
WIRELESS
2018**



Program

Time	Ball Room	Dining Room
Wednesday, May 2		
10:00-13:30	Cell-Free and User-Centric Massive MIMO Cellular Networking Architectures	Connectivity of nano sensors in health care and agritech
14:30-18:00	Cloudification of 5G and beyond	Intra-flow sparse network coding: Modeling and open issues
Thursday, May 3		
09:00-09:45	Learning from the sky: autonomous flying access networks for beyond 5G	
09:45-11:00	S2: Session 2	S1: Session 1
11:20-12:35	Long Range Techniques for the IoT (Cost Action IRACON)	Measuring and programming networks for QoE: MONROE and beyond
14:00-14:45	Multiple Access for 5G - A New Look on NOMA	
14:45-16:00	S5: Session 5	S6: Session 6
16:15-17:30	Second International Workshop on 5G Enabling Technologies for the Internet of Things	S7: Session 7
Friday, May 4		
09:00-09:45	Toward an Optimization-Based Wireless Network Operating System	
09:45-11:00	S9: Session 9	S8: Session 8
11:20-12:30	Third International Workshop on Competitive and COoperative Approaches for network resource management	

12:30-
13:30***The Future of Wireless Networking: Evolution or Revolution?*****Wednesday, May 2****Wednesday, May 2, 10:00 - 13:30****Cell-Free and User-Centric Massive MIMO Cellular Networking Architectures**

Prof. S. Buzzi, University of Cassino, Italy

Room: Ball Room

Connectivity of nano sensors in health care and agritech

Prof. Q. H. Abbasi, University of Glasgow, UK

Room: Dining Room

Wednesday, May 2, 14:30 - 18:00**Cloudification of 5G and beyond**

Prof. E. Calvanese Strinati, CEA-Leti, France

Room: Ball Room

Intra-flow sparse network coding: Modeling and open issues

Prof. R. Aguero Calvo, University of Cantabria, Spain

Room: Dining Room

Thursday, May 3**Thursday, May 3, 09:00 - 09:45****Learning from the sky: autonomous flying access networks for beyond 5G**

Keynote

Prof. D. Gesbert, Eurecom, France

Room: Ball Room

Thursday, May 3, 09:45 - 11:00**S2: Session 2**

Room: Ball Room

Chair: Luca Sanguinetti (University of Pisa & CentraleSupélec, Italy)

Density Based Clustering for Downlink User Grouping in FDD Massive MIMO

Alessandro Grassi (Politecnico di Bari, Italy); Martin Kurras (Fraunhofer Heinrich Hertz Institute, Germany); Giuseppe Piro and Gennaro Boggia (Politecnico di Bari, Italy); Stephan Faehse and Lars Thiele (Fraunhofer Heinrich Hertz Institute, Germany)

Statistical Approaches for Initial Access in mmWave 5G Systems

Hossein Soleimani, Raúl Parada, Stefano Tomasin and Michele Zorzi (University of Padova, Italy)

Queue-Aware Scheduling in Full Duplex OFDMA Wireless Networks with Imperfect Channel State Information

Hassan Fawaz (Saint Joseph University of Beirut, Lebanon); Samer Lahoud (ESIB, Saint-Joseph University of Beirut, Lebanon); Melhem El Helou (Saint Joseph University of Beirut, Lebanon); Marc Ibrahim (Saint Joseph University & Saint Joseph University - ESIB, Lebanon)

Energy-Efficiency Analysis of Cloud Radio Access Network in Heterogeneous 5G Networks

Fabrizio Granelli and Riccardo Bassoli (University of Trento, Italy); Marco Di Renzo (Paris-Saclay University / CNRS, France)

S1: Session 1

Room: Dining Room

Joint Optimization of Both m and K for the m -out-of- K Rule for Cooperative Spectrum Sensing

Narasimha Rao Banavathu and Mohammed Zafar Ali Khan (Indian Institute of Technology, Hyderabad, India)

On the Best-Next-Hop in Random Ad-hoc Networks

Yiftach Richter (Bar - Ilan University, Israel); Itsik Bergel (Bar Ilan University, Israel)

IoT Data Processing at the Edge with Named Data Networking

Marica Amadeo, Claudia Campolo and Antonella Molinaro (University Mediterranea of Reggio Calabria, Italy); Giuseppe Ruggeri (University of Reggio Calabria, Italy)

Coded Slotted Aloha (CSA) with Capture

Fulvio Babich and Massimiliano Comisso (University of Trieste, Italy)

Thursday, May 3, 11:20 - 12:35

Long Range Techniques for the IoT (Cost Action IRACON)

Special Session

Room: Ball Room

Chair: Luca Feltrin (University of Bologna, Italy)

NB-IoT: Performance Estimation and Optimal Configuration

Luca Feltrin (University of Bologna, Italy); Massimo Condoluci (Ericsson Research, Sweden & King's College London, United Kingdom (Great Britain)); Toktam Mahmoodi and Mischa Dohler (King's College London, United Kingdom (Great Britain)); Roberto Verdone (University of Bologna, Italy)

Adaptive Mitigation of the Air-Time Pressure in LoRa Multi-Gateway Architectures

Francesca Cuomo (University of Rome Sapienza, Italy); Manuel Campo (Sapienza, Italy); Enrico Bassetti, Lorenzo Cartella and Federica Sole (University of Rome Sapienza, Italy); Giuseppe Bianchi (University of Rome "Tor Vergata", Italy)

Smart City Pilot Project Using LoRa

Gianni Pasolini, Chiara Buratti, Luca Feltrin, Flavio Zabini, Roberto Verdone and Oreste Andrisano (University of Bologna, Italy); Cristina De Castro (IEIIT-CNR, Italy)

LoRa-like CSS-based PHY Layer Capture Effect and Serial Interference Cancellation

Umber Noreen (Lab-STICC Université de Bretagne Occidentale, France); Laurent Clavier (Institut Mines-Telecom, Telecom Lille & IEMN / IRCICA, France); Ahcene Bounceur (Lab-STICC, UBO, France)

Measuring and programming networks for QoE: MONROE and beyond

Special Session

Room: Dining Room

Chair: Vincenzo Mancuso (IMDEA Networks Institute, Spain)

Elastic Content Distribution Based on Unikernels and Change-Point Analysis

Polychronis Valsamas, Sotiris Skaperas and Lefteris Mamatras (University of Macedonia, Greece)

Studying Forwarding Differences in European Mobile Broadband with a Net Neutrality Perspective

Enrico Gregori (CNR-IIT, Italy); Valerio Luconi (IIT-CNR, Italy); Alessio Vecchio (University of Pisa & Dip. Ingegneria dell'Informazione, Italy)

Design and Large-Scale Evaluation of WiFi Proximity Metrics

Aymen Fakhreddine (IMDEA Networks Institute & Universidad Carlos III de Madrid, Spain); Nils Ole Tippenhauer (Singapore University of Technology and Design, Singapore); Domenico Giustiniano (IMDEA Networks Institute, Spain)

Quality of Experience Estimation for WebRTC-based Video Streaming

Yevgeniya Sulema (National Technical University of Ukraine "Kyiv Polytechnic Institute", Ukraine); Noam Amram (LiveU, Israel); Oleksii Aleshchenko (Igor Sikorsky Kyiv Polytechnic Institute, Ukraine); Olena Sivak (Noam Amram Technologies, Ukraine)

Thursday, May 3, 14:00 - 14:45

Multiple Access for 5G - A New Look on NOMA

Keynote

Prof. H. Sari, Nanjing University of Posts and Telecommunications and Sequans Communications, China

Room: Ball Room

Thursday, May 3, 14:45 - 16:00

S5: Session 5

Room: Ball Room

Chair: Daniel E. Lucani (Aarhus University, Denmark)

Polar Codes and Polar Lattices for the Heegard-Berger Problem

Jinwen Shi, Ling Liu, Deniz Gündüz and Cong Ling (Imperial College London, United Kingdom (Great Britain))

Throughput Increase Through Layered Coding for AMC with HARQ

Mohammed Jabi (Institut National de la Recherche Scientifique, Canada); Leszek Szczecinski (INRS-EMT, Canada); Mustapha Benjillali (INPT, Morocco); Abdellatif Benyouss (INRS-EMT, Canada)

On the Design of a Joint Compressed Sensing and Network Coding Framework

Maroua Taghouti (Tunisia Polytechnic School, University of Carthage, Tunisia); Anil Kumar Chorpapath (Technical University of Dresden, Germany); Tobias Waurick (TU

Dresden, Germany); Frank H.P. Fitzek (Technische Universität Dresden & ComNets - Communication Networks Group, Germany)

Latency Performance of Encoding with Random Linear Network Coding

Lars Nielsen and René Rydhof Hansen (Aalborg University, Denmark); Daniel E. Lucani (Aarhus University, Denmark)

S6: Session 6

Room: Dining Room

Chair: Stefano Buzzi (University of Cassino and Lazio Meridionale/CNIT, Italy)

Hybrid Precoding for Multi-Group Physical Layer Multicasting

Meysam Sadeghi (Linköping University, Sweden); Luca Sanguinetti (University of Pisa & CentraleSupélec, Italy); Chau Yuen (Singapore University of Technology and Design, Singapore)

Accurate Estimation of the Minimum Primary Channel Activity Time in Cognitive Radio Based on Periodic Spectrum Sensing Observations

Miguel López-Benítez (University of Liverpool, United Kingdom (Great Britain)); Ahmed Al-Tahmeesschi (The University of Liverpool, United Kingdom (Great Britain)); Dhaval Patel (School of Engineering and Applied Science-Ahmedabad University, India)

Coordinated Resource Allocation Scheme for 5G Direct Air-to-Ground Communication

Michal Vondra (KTH Royal Institute of Technology, Sweden); Ergin Dinc (University of Cambridge, United Kingdom (Great Britain)); Cicek Cavdar (KTH Royal Institute of Technology, Sweden)

Cooperation Group Size in Opportunistic Wireless Mesh: Optimal Versus Practical

Sreekrishna Pandi (TU Dresden, Germany); Ievgenii Anatolijovuch Tsokalo (Technische Universität Dresden, Germany); Simon Wunderlich (TU Dresden, Germany); Frank H.P. Fitzek (Technische Universität Dresden & ComNets - Communication Networks Group, Germany)

Thursday, May 3, 16:15 - 17:30

Second International Workshop on 5G Enabling Technologies for the Internet of Things

GET-IoT

Room: Ball Room

Advanced Wireless M-Bus Platform for Intensive Field Testing in Industry 4.0-Based Systems

Pavel Masek (Brno University of Technology & Member of WISLAB group, Czech Republic); David Hudec (Brno University of Technology & GreyCortex, Czech Republic); Jan Krejci (Brno University of Technology, Czech Republic); Aleksandr Ometov (Tampere University of Technology, Finland); Jiri Hosek (Brno University of Technology, Czech Republic); Sergey Andreev (Tampere University of Technology, Finland); Franz Kröpfel (Telekom Austria Group, Austria); Yevgeni Koucheryavy (Tampere University of Technology, Finland)

Header Compression in Opportunistic Routing

Máté Tömösközi (Technische Universität Dresden & Acticom GmbH, Budapest University of Technology and Economics, Germany); Ievgenii Anatolijovuch Tsokalo (Technische Universität Dresden, Germany); Sreekrishna Pandi (TU Dresden, Germany); Frank H.P. Fitzek (Technische Universität Dresden & ComNets - Communication Networks Group, Germany); Péter Ekler (BME, Hungary)

Design Principles of a Fully-Passive RFID-based IoT Sensing Node

Massimo Merenda (University Mediterranea of Reggio Calabria, Italy); Sara Pizzi (University "Mediterranea" of Reggio Calabria, Italy); Riccardo Carotenuto, Antonella Molinaro, Francesco Della Corte and Antonio Iera (University Mediterranea of Reggio Calabria, Italy)

A Scalable and License Free 5G Internet of Radio Light Architecture for Services in Train Stations

John Cosmas, B Meunier, Kareem Ali, Nawar Jawad, Mukhald Salih and Hongying Meng (Brunel University, United Kingdom (Great Britain)); Javier Royo (Ferrovia (Spain)); Pablo Fernandez (CI3 (Spain)); Zion Hadad and Baruch Globen (Runel, Israel); Haluk Gokman and Sibel Malkos (Arcelik, Turkey); Memduh Cakan (Arcelik (Turkey)); Anastasios Kourtis, Harilaos Koumaras and Christos Sakkas (NCSR Demokritos, Greece); Eliron Salomon (HIT, Israel); Yoav Avinoam (HIT (Israel)); Daniel Negru (Joadia, France); Mathias Lacaud (University of Bordeaux & Joadia SAS, France); Yue Zhang (University of Leicester, United Kingdom (Great Britain)); Li-Ke Huang (Cobham Wireless, United Kingdom (Great Britain)); Rudolf Zetik (FHG-IIS, Germany); Wojciech Mazurczyk (Warsaw University of Technology & Faculty of Electronics and Information Technology, Institute of Telecommunications, Poland); Adam Kapovits (Eurescom GmbH, Germany); Krzysztof Cabaj (Warsaw University of Technology, Poland); Xun Zhang (Institut Supérieur d'Electronique de Paris, France)

S7: Session 7

Room: Dining Room

Chair: Christian Bettstetter (University of Klagenfurt, Austria)

An Open Source Platform for Exploring NB-IoT System Performance

Sergio Martiradonna, Alessandro Grassi, Giuseppe Piro, Luigi Alfredo Grieco and Gennaro Boggia (Politecnico di Bari, Italy)

Experimental Study of UWB Connectivity in Industrial Environments

Jorge F. Schmidt (Alpen-Adria-Universität Klagenfurt, Austria); Daniel Neuhold (Alpen Adria Universität, Austria); Jirka Klaue (Airbus Group Innovations, Germany); Dominic A. Schupke (Airbus, Germany); Christian Bettstetter (University of Klagenfurt, Austria)

To Recode or Not to Recode: Optimizing RLNC Recoding and Performance Evaluation over a COTS Platform

Pablo Garrido (University of Cantabria, Spain); Alfonso Fernandez (University of Cantabria, Norway); Ramón Agüero (University of Cantabria, Spain)

A Standard-Compliant and Information-Centric Communication Platform for the Internet of Drones

Pietro Boccadoro, Mauro Losciale, Giuseppe Piro and Luigi Alfredo Grieco (Politecnico di Bari, Italy)

Friday, May 4**Friday, May 4, 09:00 - 09:45*****Toward an Optimization-Based Wireless Network Operating System***

Prof. T. Melodia, Northeastern University, USA

Room: Ball Room

Friday, May 4, 09:45 - 11:00**S9: Session 9**

Room: Ball Room

Chair: Stefano Tomasin (University of Padova, Italy)

Energy-Efficient Power Control for Drone Communications

Farshad Shams (University of Pisa, Italy); Giacomo Bacci (MBI srl, Italy); Luca Sanguinetti (University of Pisa & CentraleSupélec, Italy)

On the Application of Network Slicing for 5G-V2X

Hamza Khan (University of Oulu, Finland); Petri Luoto (Mediatek Inc., Finland); Mehdi Bennis (Centre of Wireless Communications, University of Oulu, Finland); Matti Latva-aho (UoOulu, Finland)

Context-aware Handover in mmWave 5G Using UE's Direction of Pass

Raúl Parada and Michele Zorzi (University of Padova, Italy)

CSI Feedback with Feedforward Signaling and Adaptive Codebook for Cellular FDD Systems

Xiaoyu Zhang (ShanghaiTech University, P.R. China); Stefano Tomasin and Nevio Benvenuto (University of Padova, Italy); Xiliang Luo (ShanghaiTech University, P.R. China); Shaoshi Yang (Huawei Technologies Co. Ltd., P.R. China)

S8: Session 8

Room: Dining Room

Chair: Laura Galluccio (University of Catania, Italy)

On Performance of Multilevel Coding Schemes Based on Non-Binary LDPC Codes

Stanislav Kruglik (Moscow Institute of Physics and Technology & Skolkovo Institute of Science and Technology, Russia); Valeriya Potapova and Alexey A. Frolov (Skolkovo Institute of Science and Technology & IITP RAS, Russia)

From Reactive to Predictive Flow Instantiation: An Artificial Neural Network Approach to the SD-IoT

Sebastiano Milardo (University of Catania & CNIT, Italy); Akhilesh Venkatasubramanian and Krithika Vijayan (Sri Sivasubramaniya Nadar College of Engineering, India); Nagaradjane Prabagarane (SSNCE, India); Giacomo Morabito (University of Catania, Italy)

Efficient Quaternion-Based Fast-Decodable Space Time Codes

Erum Mushtaq (National University of Sciences and Technology (NUST), Pakistan); Sajid Ali (Jubail Industrial College, Kingdom of Saudia Arabia, Saudi Arabia & National University of Sciences and Technology, Pakistan); Syed Ali Hassan (National University of Sciences and Technology, Pakistan)

Spectrum Sensing of DVB-T2 Signals in Multipath Channels for Cognitive Radio Networks

Oluyomi Simpson, Idris Abdulkadir Yusuf, Yichuang Sun and Mohamad Cheikh (University of Hertfordshire, United Kingdom (Great Britain))

Friday, May 4, 11:20 - 12:30**Third International Workshop on COmpetitive and COoperative Approaches for network resource management**

COCOA

Prof. Eduard A. Jorswieck, TU Dresden, Germany

Room: Ball Room

Chair: Alessio Zappone (CentraleSupélec, France)

Robust Geometry-Based User Scheduling for Large MIMO Systems Under Realistic Channel Conditions

Manijeh Bashar, Alister G. Burr and Dick Maryopi (University of York, United Kingdom (Great Britain)); Katsuyuki Haneda (Aalto University, Finland); Kanapathippillai Cumanan (University of York, United Kingdom (Great Britain))

On Practical Coexistence Gaps in Space for LTE-U/WiFi Coexistence

Anatolij Zubow, Piotr Gawłowicz and Suzan Bayhan (Technische Universität Berlin, Germany)

Friday, May 4, 12:30 - 13:30**The Future of Wireless Networking: Evolution or Revolution?**

Panel

Room: Ball Room