

# EUROPEAN WIRELESS 2017: Detailed Program



## Wednesday, May 17

<b>08:00 – 09:00 REG: Registration</b>		Room: Dülfer-Saal Mensa
<b>09:00 – 10:00 KN1: (Keynote) Ultra-Reliable Wireless Communications: Building Blocks and Models</b> Prof. Dr. Petar Popovski (AAU, Denmark)		Room: Dülfer-Saal Mensa
<i>Session chair:</i> Prof. Frank H.P. Fitzek (TU Dresden, Germany)		
<b>10:00 – 10:30 Coffee Break</b>		Room: Dülfer-Saal Mensa
<b>10:30 – 12:00 Parallel Sessions</b>		
<p><b>W1.1: (Workshop 1) COCOA - COmpetitive and COoperative Approaches for 5G networks</b> Room: Dülfer-Saal Mensa</p> <p><i>Session chair:</i> Dr. Alessio Zappone (University of Cassino and Southern Lazio, Italy)</p> <p><b>Resource Sharing for a 5G Multi-tenant and Multi-service Architecture</b> Marcos Rates Crippa (Technical University of Kaiserslautern, Germany); Paul Arnold (Telekom Innovation Laboratories, Germany); Vasilis Friderikos (King's College London, United Kingdom); Borislava Gajic (Nokia Bell Labs, Germany); Carmen Guerrero (University Carlos III of Madrid, Spain); Oliver Holland (King's College London, United Kingdom); Ignacio Labrador Pavon (ATOS, Spain); Vincenzo Sciancalepore (NEC Europe Ltd., Germany); Dirk V Hugo (Telekom Innovation Laboratories &amp; Deutsche Telekom AG, Germany); Stan Wong (King's College London, United Kingdom); Faqir Zarrar Yousaf (NEC Laboratories, Europe, Germany); Bessem Sayadi (Nokia Bell-Labs, France)</p> <p><b>Evolution of Cooperation in Device-to-Device Communication</b> Gualtiero Colombo (University of Cardiff, United Kingdom); Stuart Allen and Roger Whitaker (Cardiff University, United Kingdom); Young Jin Chun and Simon Cotton (Queen's University, Belfast, United Kingdom); W. Scanlon (Queen's University, Belfast)</p> <p><b>Minority Games for Backhaul Management in Cache-Enabled Small Cell Networks</b> Kenza Hamidouche (Supelec, France); Walid Saad (Virginia Tech, USA); Mérouane Debbah (Huawei, France)</p> <p><b>Clustering and subband allocation for CoMP-based MIMO-OFDMA networks with soft frequency reuse</b> Javier Pastor-Pérez, Felip Riera-Palou and Guillem Femenias (University of the Balearic Islands, Spain)</p>	<p><b>W2.1: (Workshop 2) GET-IoT - International Workshop on 5G Enabling Technologies for the Internet of Things</b> Room: Festsaal Rektorat</p> <p><i>Session chair:</i> Dr. Antonino Orsino (Tampere University of Technology, Finland)</p> <p><i>(Invited talk) Enabling Ultra Reliable Low Latency Communications</i> Mr. Osman N. C. Yilmaz - Senior Researcher - Ericsson Research, Finland</p> <p><b>Sound Noise Collective Monitoring: Smartphones as Sensors</b> Felipe Torres (TIVO. EC, Ecuador); Gabriel Barros Gavilanes (Universidad del Azuay)</p> <p><b>Consistency-Guaranteed and Energy Efficient Sleep Scheduling Algorithm with Data Aggregation for IoT</b> Haneul Ko, Jaewook Lee and Sangheon Pack (Korea University, Korea)</p> <p><b>Wireless M-BUS in Industrial IoT: Technology Overview and Prototype Implementation</b> Krystof Zeman, Pavel Masek and 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 Kröpl (Telekom Austria Group, Austria)</p> <p><b>Reliable IoT storage for sensor monitoring applications: Trading off early redundancy injection costs and repair costs</b> Xiaobo Zhao and Daniel E. Lucani (Aalborg University, Denmark); Xiaohong Shen and Haiyan Wang (Northwestern Polytechnical University, P.R. China); Juan A Cabrera (Technische Universität Dresden, Germany)</p>	
<b>12:00 – 13:00 Lunch break</b>		

13:00 – 14:30 Parallel Sessions	
<p><b>W1.2: (Workshop 1) continued...</b> Room: Dülfer-Saal Mensa</p> <p><b>On the Efficiency of Nash Equilibria in the Interference Channel with Noisy Feedback</b> Victor Quintero and Samir M. Perlaza (INRIA, France); Jean-Marie Gorce (INSA-Lyon &amp; CITI, Inria, France)</p> <p><b>Reducing CoMP control message delay in PON backhauled 5G networks</b> Andrea Marotta (University of L'Aquila, Italy); Francesco Giannone (Scuola Superiore Sant'Anna, Italy); Koteswararao Kondepu (Scuola Superiore Sant'Anna, Italy); Dajana Cassioli and Cristian Antonelli (University of L'Aquila, Italy); Luca Valcarengi and Piero Castoldi (Scuola Superiore Sant'Anna, Italy)</p> <p><b>Centralized and Distributed Optimum Power Control and Beam-forming in Network Flooding</b> Abdelrahman Abdelkader, Eduard Jorswieck and Marco Zimmerling (TU Dresden, Germany)</p>	<p><b>W2.2: (Workshop 2) continued...</b> Room: Festsaal Rektorat</p> <p><b>Exploiting D2D Communications at the Network Edge for Mission-Critical IoT Applications</b> Antonino Orsino (Tampere University of Technology, Finland); Ivan Farris (Aalto University, Finland); Leonardo Militano (Mediterranea University of Reggio Calabria, Italy); Giuseppe Araniti (University Mediterranea of Reggio Calabria, Italy); Sergey Andreev (Tampere University of Technology, Finland); Irina Gudkova (Peoples' Friendship University of Russia &amp; Institute of Informatics Problems, Federal Research Center Computer Science and Control of Russian Academy of Sciences, Russia); Yevgeni Koucheryavy (Tampere University of Technology, Finland); Antonio Iera (University Mediterranea of Reggio Calabria)</p> <p><b>Internet of Radio-Light: 5G Broadband in Buildings</b> John Cosmas (Brunel University, United Kingdom); Yue Zhang (University of Bedfordshire, United Kingdom); Xun Zhang (Institut Supérieur d'Electronique de Paris, France)</p>
14:30 – 15:00 Coffee Break	
15:00 – 16:30 Parallel Sessions	
<p><b>S1: Energy Efficient Wireless</b> Room: Dülfer-Saal Mensa</p> <p><u>Session chair:</u> Dr. Pawel Kryszkiewicz (Poznan University of Technology, Poland)</p> <p><b>An Energy-Efficient NOMA for Small Cells in Heterogeneous CRAN Under QoS Constraints</b> Quoc-Tuan Vien and Tuan Anh Le (Middlesex University, United Kingdom); Ca V. Phan (Ho Chi Minh City University of Technology and Education, Vietnam); Michael Opoku Agyeman (University of Northampton, United Kingdom)</p> <p><b>Modeling of Power Consumption by Wireless Transceivers for System Level Simulations</b> Pawel Kryszkiewicz and Adrian Kliks (Poznan University of Technology, Poland)</p> <p><b>Energy Efficient Relay Selection Method for Clustered Wireless Sensor Network</b> Mohamad Cheikh, Yichuang Sun and Oluyomi Simpson (University of Hertfordshire, United Kingdom)</p> <p><b>Millimeter Wave Receiver Comparison Under Energy vs Spectral Efficiency Trade-off</b> Waqas Bin Abbas (National University of Computer and Emerging Sciences, Pakistan &amp; University of Padova); Felipe Gómez-Cuba (Stanford University, USA &amp; University of Padova, Italy); Michele Zorzi (University of Padova, Italy)</p> <p><b>Cloud of Mobile Small-cells for Higher Data-rates and Better Energy-efficiency</b> Ayman Radwan and Jonathan Rodriguez (Instituto de Telecomunicações, Portugal)</p>	<p><b>S2: Channel and Physical Layer</b> Room: Festsaal Rektorat</p> <p><u>Session chair:</u> Prof. Martin Reisslein (Arizona State University, USA)</p> <p><b>An Efficient Architecture for Modeling Path Loss on Forest Canopy Using LiDAR and Wireless Sensor Networks Fusion</b> Yunus Egi and Carlos Otero (Florida Institute of Technology, USA)</p> <p><b>WiPLUS: Towards LTE-U Interference Detection, Assessment and Mitigation in 802.11 Networks</b> Michael Olbrich, Anatolij Zubow and Sven Zehl (Technische Universität Berlin, Germany); Adam Wolisz (TUB, Germany)</p> <p><b>Control-aware Uplink Resource Allocation for Cyber-Physical Systems in Wireless Networks</b> Mikhail Vilgelm and Onur Ayan (Technical University of Munich, Germany); Samuele Zoppi and Wolfgang Kellerer (Technical University of Munich)</p> <p><b>Physical Cell ID Detection Probabilities Using Frequency Domain PVS Transmit Diversity for NB-IoT Radio Interface</b> Aya Shimura and Mamoru Sawahashi (Tokyo City University, Japan); Yoshihisa Kishiyama (NTT DOCOMO, INC., Japan)</p> <p><b>Low-Cost Highly Accurate Energy Profiling of IEEE 802.11n Communication Driver</b> Cornel Isbiceanu (Politehnica University of Timisoara, Romania); Marius Marcu (Politehnica University of Timisoara &amp; Intuitive Software Timisoara, Romania); Valentin Stangaciu and Sebastian Fuicu (Politehnica University of Timisoara)</p>
<p><b>16:30 – 17:00 Coffee Break</b></p>	<p>Room: Dülfer-Saal Mensa</p>

<b>17:00 – 18:00 KN2: (Keynote) Haptic communication for the Tactile Internet</b> Prof. Dr.-Ing. Eckehard Steinbach (TUM, Germany)	Room: Dülfer-Saal Mensa
<i>Session chair:</i> Prof. Frank H.P. Fitzek (TU Dresden, Germany)	
<b>18:00 – 20:00 Welcome Reception</b>	Room: Dülfer-Saal Mensa

## Thursday, May 18

<b>09:00 – 09:30 Welcome addresses</b>	Room: Dülfer-Saal Mensa
<b>09:30 – 10:30 KN3: (Keynote) Networked minidrones: The hype is ripe</b> Prof. Dr.-Ing. Christian Bettstetter (AAU, Austria)	Room: Dülfer-Saal Mensa
<i>Session chair:</i> Prof. Frank H.P. Fitzek (TU Dresden, Germany)	
<b>10:30 – 11:00 Coffee Break</b>	Room: Dülfer-Saal Mensa
<b>11:00 – 12:30 Parallel Sessions</b>	
<b>S3: Mobility</b> Room: Dülfer-Saal Mensa / Toepler-Bau  <i>Session chair:</i> Dr. Li Zhang (University of Leeds, UK)  <b>An Adaptive Access Class Barring Scheme for Handling Massive M2M Communications in LTE-A</b> Israel Leyva-Mayorga (Universitat Politècnica de València, Spain); Miguel-Angel Rodriguez Hernandez (Universidad Politécnica de Valencia, Spain); Vicent Pla, Jorge Martinez-Bauset and Luis Tello-Oquendo (Universitat Politecnica de Valencia, Spain) <b>Downlink Data Rate Analysis of 5G-U (5G on Unlicensed Band): Coexistence for 3GPP 5G and IEEE802.11ad WiGig</b> Xi Lu, Maria Lema, Toktam Mahmoodi and Mischa Dohler (King's College London, United Kingdom) <b>Cell discovery based on historical user's location in mmWave 5G</b> Raúl Parada and Michele Zorzi (University of Padova, Italy) <b>Resource Allocation for Practical Two-Tier Heterogeneous Cellular Networks</b> Obinna Oguejiofor, Li Zhang and Naveed Nawaz (University of Leeds, United Kingdom) <b>A Trade-off Between Unnecessary Handover and Handover Failure for Heterogeneous Networks</b> Mohanad Alhabet, Li Zhang and Naveed Nawaz (University of Leeds, United Kingdom)	<b>S4: Algorithm</b> Room: Dülfer-Saal Mensa / Toepler-Bau  <i>Session chair:</i> Prof. Marcos Katz (University of Oulu, Finland)  <b>Deep Learning for Proactive Resource Allocation in LTE-U Networks</b> Ursula Challita (The University of Edinburgh, United Kingdom); Li Dong (University of Edinburgh, United Kingdom); Walid Saad (Virginia Tech, USA) <b>A Framework to Calculate Delay-Optimal Oracle Solutions based on DTN Contact Graphs</b> Silvia Krug and Jochen Seitz (Technische Universität Ilmenau, Germany) <b>Expected Q-learning for Self-Organizing Resource Allocation in LTE-U with Downlink-Uplink Decoupling</b> Ye Hu (Beijing University of Posts and Telecommunications, P.R. China); Richard MacKenzie (BT Technology, Service and Operations, United Kingdom); Mo Hao (Tsinghua SEM Advanced ICT Lab, P.R. China) <b>SCMA Codebooks Optimization Based on Genetic Algorithm</b> Vyacheslav Klimentyev (Saint Petersburg Electrotechnical University, Russia); Alexander B. Sergienko (St. Petersburg Electrotechnical University, Russia) <b>Assessing Genetic Algorithms for Placing Flow Processing-aware Control Applications</b> Sébastien Auroux and Swante Scholz (Paderborn University, Germany); Holger Karl (University of Paderborn, Germany)
<b>12:30 – 13:30 Lunch break</b>	

**13:30 – 15:00 Parallel Sessions****S5: Channel Access**

Room: Dülfer-Saal Mensa / Toepler-Bau

Session chair: Dr. Anil Chorppath (TU Dresden, Germany)

**Non-Orthogonal Multiple Access with Multi-carrier Index Keying**

Eleftherios Chatziantoniou and Youngwook Ko (Queen's University Belfast, United Kingdom); Jinho Choi (Gwangju Institute of Science and Technology (GIST), Korea)

**Slotted ALOHA Filtered Tree (SAFT) for a Reliable LTE RACH**

Halit Murat Gürsu and Alberto Martinez Alba (Technical University of Munich, Germany); Wolfgang Kellerer (Technische Universität München, Germany)

**Full-Duplex vs. Half-Duplex: Delivery-Time Optimization in Cellular Downlink**

Ali Kariminezhad, Soheil Gherekhloo and Aydin Sezgin (RUB, Germany)

**Radio Access Protocols with Multi-User Detection for URLLC in 5G**

Stephan Saur (Nokia, Germany); Marco Centenaro (University of Padova, Italy)

**On the Asymptotic Behavior of Ultra-Densification under a Bounded Dual-Slope Path Loss Model**

Yanpeng Yang (KTH Royal Institute of Technology, Sweden); Jihong Park (Aalborg University, Denmark); Ki Won Sung (KTH Royal Institute of Technology, Sweden)

**S6: Software and Application**

Room: Dülfer-Saal Mensa / Toepler-Bau

Session chair: Dr. Wei Jiang (German Research Centre for Artificial Intelligence)

**On the Performance of Multiplexing Real-Time VBR Traffic with Multiple Hysteresis Areas**

Min Zhang (University of Agder, Norway); Lei Jiao (University of Agder & Department of Information and Communication Technology, Norway)

**Autonomic Network Management for Software-Defined and Virtualized 5G Systems**

Wei Jiang (German Research Center for Artificial Intelligence & Technical University (TU) of Kaiserslautern, Germany); Mathias Strufe (DFKI GmbH, Germany); Hans D. Schotten (University of Kaiserslautern, Germany)

**Feasibility of Compound Chained Network Functions for Flexible Packet Processing**

Wolfgang Hahn (Nokia, Germany); Borislava Gajic (Nokia Networks, Germany); Florian Wohlfart (Technische Universität München, Germany); Daniel Raumer, Paul Emmerich and Sebastian Gallenmüller (Technical University of Munich, Germany); Georg Carle (Technische Universität München, Germany)

**Sound Noise Levels Calibration with Smart-phones**

Felipe Torres (TIVO. EC, Ecuador); Gabriel Barros Gavilanes (Universidad del Azuay)

**Performance of Mobile Networks with UAVs: Can Flying Base Stations Substitute Ultra-Dense Small Cells?**

Zdenek Becvar (Czech Technical University in Prague, Czech Republic); Michal Vondra (KTH Royal Institute of Technology, Sweden); Pavel Mach and Jan Plachy (Czech Technical University in Prague, Czech Republic); David Gesbert (Eurecom Institute, France)

**15:00 – 15:30 Coffee Break****15:30 – 17:00 Parallel Sessions****S7: Modulation**

Room: Dülfer-Saal Mensa / Toepler-Bau

Session chair: Dr. Youngwook Ko (Queens University Belfast, UK)

**Symbol Error Outage Performance Analysis of MCIK-OFDM over Complex TWDP Fading**

Thien Van Luong and Youngwook Ko (Queen's University Belfast, United Kingdom)

**An FPGA-based Design of a Packetized Fronthaul Testbed with IEEE 1588 Clock Synchronization**

Igor Freire (Federal University of Pará, Brazil); Chenguang Lu (Ericsson Research, Sweden); Miguel Berg (Ericsson AB, Sweden); Aldebaro Klautau (Universidade Federal do Para, Brazil)

**Adaptive OFDM Transmission in TDD Systems with Fixed Minimum Distance of Received Constellations**

Alexander B. Sergienko (St. Petersburg Electrotechnical University, Russia)

**S8: Practical Wireless & Network Coding**

Room: Dülfer-Saal Mensa / Toepler-Bau

Session chair: Prof. Daniel Lucani (Aarhus University, Denmark)

**Implementation of a Hybrid Optical-RF Wireless Network with Fast Network Handover**

Muhammad Saad Saud (University Of Oulu, Finland); Marcos D Katz (University of Oulu, Finland)

**Network Coded Caching and D2D Cooperation in Wireless Networks**

Anil Kumar Chorppath (Technical University of Dresden, Germany); Jens Hackel (TU Dresden, Germany); Frank H.P. Fitzek (Technische Universität Dresden & ComNets - Communication Networks Group, Germany)

**Taking the Trash Back In: Practical Joint Channel and Network Coding for Improving IEEE 802.11 Networks**

Juan A Cabrera and Giang T. Nguyen (Technische Universität Dresden, Germany); Daniel E. Lucani and Morten V. Pedersen (Aalborg University, Denmark); Frank H.P. Fitzek (Technische Universität Dresden & ComNets - Communication Networks Group, Germany)

<p><b>A Precoding-based PAPR Reduction Technique for UF-OFDM and Filtered-OFDM Modulations in 5G Systems</b> Mouna Ben Mabrouk (Supélec, France); Marwa Chafii (CentraleSupélec &amp; IETR, France); Yves Louët (SUPELEC-Rennes Campus, France); Faouzi Bader (CentraleSupélec, France)</p> <p><b>Minimization of OFDM Clipped Samples Power by Tone Reservation Algorithm</b> Pawel Kryszkiewicz and Adrian Kliks (Poznan University of Technology, Poland)</p>	<p><b>Role of intermediate nodes in Sparse Network Coding: characterization and practical recoding</b> Pablo Garrido (University of Cantabria, Spain); Daniel E. Lucani (Aalborg University, Denmark); Ramón Agüero (University of Cantabria, Spain)</p> <p><b>Random Linear Network Coding Schemes for Reduced Zero-Padding Overhead: Complexity and Overhead Analysis</b> Maroua Taghouti (Tunisia Polytechnic School, University of Carthage, Tunisia); Daniel E. Lucani (Aalborg University, Denmark); Frank H.P. Fitzek (Technische Universität Dresden &amp; ComNets - Communication Networks Group, Germany); Ammar Bouallegue (National School of Engineers of Tunis, Tunisia)</p>
<p><b>17:15 – 18:15 KN4: (Keynote) "Subspace Sudoku" for Multiuser mmWave Communications</b> Prof. Dr.-Ing. Wolfgang Utschick (TUM, Germany) <span style="float: right;">Room: Dülfer-Saal Mensa</span></p> <p><u>Session chair:</u> Prof. Frank H.P. Fitzek (TU Dresden, Germany)</p>	
<p><b>20:00 – 22:00 Social Dinner</b> (Cafe Central, Altmarkt)</p>	

## Friday, May 19

<p><b>09:00 – 10:00 KN5: (Keynote) Using Multipath TCP to enable smooth connectivity in 5G networks</b> Prof. Dr. Costin Raiciu (PUB, Romania) <span style="float: right;">Room: Dülfer-Saal Mensa</span></p> <p><u>Session chair:</u> Prof. Frank H.P. Fitzek (TU Dresden, Germany)</p>		
<p><b>10:00 – 10:30 Coffee Break</b> <span style="float: right;">Room: Dülfer-Saal Mensa</span></p>		
<p><b>10:30 – 12:00 Parallel Sessions</b></p>		
<p><b>S9: Special Session on Industrial Radio</b> Room: Dülfer-Saal Mensa</p> <p><u>Session chair:</u> Prof. Hans D. Schotten (TU Kaiserslautern, Germany)</p> <p><i>(Invited talk) Industrial Radio Air interface design</i> Prof. Dr.-Ing. Armin Dekorsy (Uni. Bremen)</p> <p><b>From Radio Design to System Evaluations for Ultra-Reliable and Low-Latency Communication</b> Shehzad A. Ashraf (Ericsson Research, Germany); Y.-P. Eric Wang (Ericsson Research, USA); Sameh Eldessoki and Bernd Holfeld (Fraunhofer Heinrich Hertz Institute, Germany); Donald Parruca (University of Paderborn, Germany); Martin Serror (RWTH Aachen University, Germany); James Gross (KTH Royal Institute of Technology, Sweden)</p>	<p><b>S10: mmWave</b> Room: Festsaal Rektorat</p> <p><u>Session chair:</u> Prof. Massimiliano Comisso (University of Trieste, Italy)</p> <p><b>A Millimeter Wave Testbed For Repeatable High Velocity Measurements</b> Erich Zöchmann (TU Wien, Austria); Robert Langwieser and Sebastian Caban (Vienna University of Technology, Austria); Martin Lerch, Stefan Pratschner and Ronald Nissel (TU Wien, Austria); Christoph F Mecklenbräuker (Vienna University of Technology, Austria); Markus Rupp (TU Wien, Austria)</p> <p><b>Impact of Interference Spatial Distribution on Line-of-Sight Millimeter-Wave Communications</b> Fulvio Babich, Massimiliano Comisso and Alessandro Cuttin (University of Trieste, Italy)</p>	<p><b>S11: MIMO</b> Room: Barkhausen-Bau (BAR 172)</p> <p><u>Session chair:</u> Dr. Samer Bazzi (Huawei Technologies, European Research Center, Germany)</p> <p><b>Aligned TDD Transmission for Massive MIMO</b> Majid Nasiri Khormuji (Huawei Technologies Sweden AB, Sweden)</p> <p><b>Distributed Precoding by In-Network Processing for Small Cell Networks</b> Guang Xu and Henning Paul (University of Bremen, Germany); Thorsten Schier and Patrick Svedman (ZTE Wistron Telecom AB, Stockholm, Sweden); Armin Dekorsy (University of Bremen, Germany)</p>

<p><b>On Hybrid MAC Approaches within MC-CDMA Systems for the use in Wireless Industrial Communications</b> Michael Karrenbauer, Andreas Weinand and Hans D. Schotten (University of Kaiserslautern, Germany)</p> <p><b>Application of Machine Learning for Channel based Message Authentication in Mission Critical Machine Type Communication</b> Andreas Weinand, Michael Karrenbauer, Raja Sattiraju and Hans D. Schotten (University of Kaiserslautern, Germany)</p> <p><b>A Coordination Architecture for Wireless Industrial Automation</b> Ismet Aktas and Junaid Ansari (Ericsson Research, Germany); Sébastien Auroux (Paderborn University, Germany); Donald Parruca (University of Paderborn, Germany); María Guirao (WiseSense, Germany); Bernd Holfeld (Fraunhofer Heinrich Hertz Institute, Germany)</p> <p><b>Study of Combined Indoor Communication and Localisation Systems for Industrial Applications</b> Bastian Lindner (TU Dresden, Germany); Niko Joram and Frank Ellinger (Technische Universität Dresden, Germany)</p> <p><i>(Invited talk) Total Resilient System Design</i> Prof. Rolf Kraemer (IHP)</p>	<p><b>Noise Bounds in Multicarrier mmWave Doppler Measurements</b> Martin Lerch and Erich Zöchmann (TU Wien, Austria); Sebastian Caban (TU Wien); Markus Rupp (TU Wien, Austria)</p> <p><b>Multicast Transmissions in Directional mmWave Communications</b> Alessandro Bion (University of Padova, Italy); Michele Zorzi (Università degli Studi di Padova, Italy)</p>	<p><b>Massive MIMO Aided Multi-Pair Relaying with Underlaid D2D Communications</b> Kaifeng Guo, Sida Dai and Congchi Zhang (RWTH Aachen University, Germany); Gabor Fodor (Ericsson Research &amp; Royal Institute of Technology (KTH), Sweden); Gerd H. Ascheid (RWTH Aachen University, Germany)</p> <p><b>Robust Regularized Block Diagonalization for Mitigating TDD Channel Estimation Errors</b> Hilal Guler (Ecole Polytechnique Federale de Lausanne, Switzerland); Samer Bazzi (Huawei Technologies &amp; European Research Center, Germany); Wen Xu (Huawei &amp; Huawei Technologies Duesseldorf GmbH - European Research Center (ERC), Germany)</p> <p><b>Sum Power Minimization for TDD-Enabled Full-Duplex Bi-Directional MIMO Systems Under Channel Uncertainty</b> Omid Taghizadeh (RWTH Aachen University, Germany); Ali Cagatay Cirik (University of British Columbia, Canada); Rudolf Mathar (RWTH Aachen University, Germany); Lutz Lampe (University of British Columbia, Canada)</p>
<p><b>12:00 – 13:00 Lunch break</b></p>		
<p><b>13:00 – 14:30 Parallel Sessions</b></p>		
<p><b>T1.1: (Tutorial 1) Design and Evaluation of Highly Reliable Communication Systems for 5G</b> Prof. Andreas Timm-Giel (Hamburg University of Technology) and Maciej Mühleisen (Ericsson Research)</p> <p>Room: Dülfer-Saal Mensa</p>	<p><b>T2.1: (Tutorial 2) Virtualization and 5G</b> Prof. Fabrizio Granelli (University of Trento, Italy)</p> <p>Room: Festsaal Rektorat</p>	<p><b>T3.1: (Tutorial 3) Hacking Network Coding for 5G Systems</b> Juan A. Cabrera and Sreekrishna Pandi (TU Dresden, Germany)</p> <p>Room: Barkhausen-Bau (BAR 172)</p>
<p><b>14:30 – 14:45 Coffee Break</b></p>		
<p><b>14:45 – 16:15 Parallel Sessions</b></p>		
<p><b>T1.2: (Tutorial 1) continued...</b> Room: Dülfer-Saal Mensa</p>	<p><b>T2.2: (Tutorial 2) continued...</b> Room: Festsaal Rektorat</p>	<p><b>T3.2: (Tutorial 3) continued...</b> Room: Barkhausen-Bau (BAR 172)</p>
<p><b>16:15 – 17:00 Closing session + Coffee</b> Room: Dülfer-Saal Mensa</p>		