

Day 1: Sunday, June 2

Registration: 7:30 – 17:30 Hrs. VTC - WiVec Registration – SaaL 1-2 Ballroom Foyer

**Konferenz 4**

**W2:MWC**

**Key note speakers and Welcome**

9:00-10:00

Speaker 1: Prof. Giuseppe Caire (USC)  
Speaker 2: Dr. Takehiro Nakamura (DoCoMo)

10:00-10:30

Refreshments - Coffee Break in Foyer near Tutorials and Workshops

10:30-12:00

**Session#1: 5G System**

Chairman Dr. Patrick Marsch

96159

The foundation of the Mobile and Wireless Communications System for 2020 and beyond

86880

Future Wireless Communications

22571

5GNOW: Challenging the LTE Design Paradigms of Orthogonality and Synchronicity

95259

Overview of Faster-Than-Nyquist for Future Mobile Communication Systems

12:00-13:30

Luncheon Break - On your own

13:30 - 14:30

**Panel Discussion on Wireless Challenges for 2020 and Beyond**  
(Erik Dahlman, Philippe Lefebvre, Hans Schotten, Gerhard Wunder & Afif Osseiran)

14:30-15:25

**Session#2: Relays and algorithms in future mobile systems**

Chairman Dr. Hugo Tullberg

30328

Street-Specific Handover Optimization for Vehicular Terminals in Future Cellular Networks

69552

Multihop Relaying for Local Area Access

59775

Complexity Reduction Strategy for RAID in Multi-User Relay Systems

15:25-15:45

Refreshments - Coffee Break in Foyer near Tutorials and Workshops

15:45-17:00

**Session#3: Wireless Access for future mobile systems**

Chairman Prof. Hans Schotten

51585

Spatial Degrees of Freedom in Small Cells: Measurements with Large Antenna Arrays

23036

Dynamic Demand Control with Differentiated QoS in User-in-the-Loop Controlled Cellular Networks

69584

Non-Orthogonal Multiple Access (NOMA) for Future Radio Access

28316

An Improved Model of LTE Random Access Channel

### 10:30-12:00 Session#1: 5G System

<b>The foundation of the Mobile and Wireless Communications System for 2020 and beyond</b>	Afif Osseiran, Ericsson Research; Volker Braun, Bell Labs, Alcatel-Lucent; Hidekazu Taoka, DOCOMO Communications Labs Europe GmbH, Munich, Germany; Patrick Marsch, Nokia Siemens Networks; Hans Schotten, University of Kaiserslautern; Hugo Tullberg, Ericsson
<b>Future Wireless Communications</b>	Robert Baldemair, Erik Dahlman, Ericsson Research; Kumar Balachandran, Ericsson Inc; Stefan Parkvall, Ericsson Research; Yngve Selen, Ericsson Research; Gabor Fodor, Ericsson Research; Tim Irnich, Ericsson; Hugo Tullberg, Ericsson Research
<b>5GNOW: Challenging the LTE Design Paradigms of Orthogonality and Synchronicity</b>	Dr. Gerhard Wunder, Heinrich Hertz Institut Berlin; Martin Kasparick, Fraunhofer Heinrich Hertz Institute; Stephan ten Brink, Alcatel-Lucent Bell Labs; Frank Schaich, Thorsten Wild, Bell Labs, Alcatel-Lucent; Ivan Simaes Gaspar, Eckhard Ohlmer, Technische
<b>Overview of Faster-Than-Nyquist for Future Mobile Communication Systems</b>	Marwa El Hefnawy, DOCOMO Euro Labs; Hidekazu Taoka, DOCOMO Communications Labs Europe GmbH, Munich, Germany

### 14:30-15:25 Session#2: Relays and algorithms in future mobile systems

<b>Street-Specific Handover Optimization for Vehicular Terminals in Future Cellular Networks</b>	Zhe Ren, Peter Fertl, BMW; Qi Liao, Federico Penna, Fraunhofer Institute for Telecommunications Heinrich Hertz Institute; Slawomir Stanczak, Fraunhofer German-Sino Lab for Mobile Communications
<b>Multihop Relaying for Local Area Access</b>	Olav Tirkkonen, Aalto University; Eeva Lähetkangas, Nokia Siemens Networks; Kari Pajukoski, Nokia-Siemens Networks, Oulu, Finland; Esa Tiirola, Nokia Siemens Networks; Ilkka Harjula, VTT Technical Research Centre of Finland
<b>Complexity Reduction Strategy for RAID in Multi-User Relay Systems</b>	Florian Lenkeit, Dirk Wubben, Armin Dekorsy, University of Bremen

### 15:45-17:00 Session#3: Wireless Access for future mobile systems

<b>Spatial Degrees of Freedom in Small Cells: Measurements with Large Antenna Arrays</b>	Volker Jungnickel, Fraunhofer Institute; Armin Brylka, Fraunhofer Heinrich-Hertz-Institut; Udo Krueger, Fraunhofer Inst / HHI; Milan Narandzic, Martin Kaeske, Markus Landmann, Reiner Thomä, Technische Universität Ilmenau
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<b>Non-Orthogonal Multiple Access (NOMA) for Future Radio Access</b>	Yuya Saito, NTT docomo, INC.; Yoshihisa Kishiyama, NTT DoCoMo, Inc.; Anass Benjebbour, NTT DOCOMO, INC.; Takehiro Nakamura, NTT DoCoMo, Inc.; Anxin Li, DOCOMO Beijing Communications Laboratories Co., Ltd; Kenichi Higuchi, Tokyo University of Science
<b>Dynamic Demand Control with Differentiated QoS in User-in-the-Loop Controlled Cellular Networks</b>	Rainer Schoenen, RWTH Aachen University; Halim Yanikomeroglu, Carleton University
<b>An Improved Model of LTE Random Access Channel</b>	Evgeny, Osipov; Laurynas Riliskis, Albin Eldst-Damlin, Lulea University of Technology; Michael Burakov, Mats Nordberg, Min Wang, Ericsson Research