

## EuCAP 2019 Best Paper and Best Student Paper Awards

The EuCAP 2019 Best Paper Awards have been created to contribute to the recognition of scientific quality of research and engineering in four thematic domains (Measurement/Propagation/Electromagnetism and Antenna Theory/Antenna Design and Applications) whereas Best Student Paper Awards are not related to a specific thematic domain.

The awards committee is chaired by Professor Zbynek Raida, Brno University of Technology, Professor Angelo Freni, University of Florence and Janet O'Neil, ETS-Lindgren.

The papers will be judged during the awards poster session on Thursday 4 April 2019 13:30-15:00

### Best paper award in Measurement

#### Jury:

- Juha Ala-Laurinaho  
Aalto University, Finland
- Sergiy Pivnenko  
Antenna Systems Solutions, Denmark
- Mario Orefice  
Polytecnico di Torino, Italy

#### Probe-Corrected Near-Field to Far-Field Transformation Using Multiple Spherical Wave Expansions

*Fernando Rodríguez Varela (Universidad Politécnica de Madrid, Spain); Belen Galocha (Universidad Politecnica de Madrid, Spain); Manuel Sierra-Castañer (Universidad Politécnica de Madrid, Spain)*

#### Smartphone-based Measurements On-Board FSS-aided Railway Vehicles

*Taulant Berisha and Christoph F. Mecklenbräuker (Vienna University of Technology, Austria)*

#### The Effects of a Generator's Active Input Reflection Coefficient in Antenna Gain Measurements

*Kyriakos Kaslis, Olav Breinbjerg and Jeppe Nielsen (Technical University of Denmark, Denmark)*

#### 5G mmW Receiver Interoperability with Wi-Fi and LTE Transmissions

*Marko E Leinonen and Marko Sonkki (University of Oulu, Finland); Olli Kursu (Centre for Wireless Communications, University of Oulu, Finland); Aarno Pärssinen (University of Oulu, Finland)*

#### Monostatic RCS Prediction from Irregularly Distributed Near-Field Samples Using Plane-Wave Field Synthesis

*Ole Neitz (Technical University of Munich, Germany); Thomas F. Eibert (Technical University of Munich (TUM) & Chair of High-Frequency Engineering (HFT), Germany)*

## Best paper award in Propagation

### Jury:

- Pavel Pechac  
Czech Technical University, Czech Rep.
- Fernando Perez-Fontan  
University of Vigo, Spain
- Yevhen Yashchychyn  
Warsaw University of Technology, Poland

### Channel Characterization for mmWave Vehicle-to-Infrastructure Communications in Urban Street Environment

*Danping He and Longhe Wang (Beijing Jiaotong University, P.R. China); Ke Guan (Beijing Jiaotong University, P.R. China & Technische Universität Braunschweig, Germany); Bo Ai (Beijing Jiaotong University & State Key Lab of Rail Traffic Control and Safety, P.R. China); Junhyeong Kim (ETRI & KAIST, Korea); Zhangdui Zhong (Beijing Jiaotong University, P.R. China)*

### Joint Delay and Doppler Frequency Estimation for Scatterer Localization in Railway Environments

*Paul Unterhuber, Michael Walter and Nicolas Schneckenburger (German Aerospace Center (DLR), Germany); Thomas Kürner (Technische Universität Braunschweig, Germany)*

### Investigation on Stationarity of V2V Channels in a Highway Scenario

*Daniel Czaniera and Martin Käske (Ilmenau University of Technology, Germany); Gerd Sommerkorn (Technische Universität Ilmenau, Germany); Christian Schneider and Reiner S. Thomä (Ilmenau University of Technology, Germany); Giovanni Del Galdo (Fraunhofer Institute for Integrated Circuits IIS & Technische Universität Ilmenau, Germany); Mate Boban (Huawei German Research Center, Germany); Jian Luo (Huawei Technologies Duesseldorf GmbH, Germany)*

### Experimental Characterization of V2I Radio Channel in a Suburban Environment

*Marwan Yusuf and Emmeric Tanghe (Ghent University, Belgium); Frédéric Challita (University of Lille & IEMN Lab, France); Pierre Laly, Davy P Gaillot and Martine Liénard (University of Lille, France); Bart Lannoo, Rafael Berkvens and Maarten Weyn (University of Antwerp - imec, Belgium); Luc Martens (Ghent University - imec, Belgium); Wout Joseph (Ghent University/IMEC, Belgium)*

### System Distortion Model for the Cross-Validation of Millimeter-Wave Channel Sounders

*David G. Michelson (University of British Columbia, Canada); Camillo Gentile (NIST, USA); Andreas Molisch (University of Southern California, USA); Jack Chuang and Anuraag Bodi (NIST, USA); Anmol Bhardwaj (University of British Columbia, Canada); Özgür Özdemir, Wahab Ali Gulzar Khawaja and Ismail Güvenç (North Carolina State University, USA); Zihang Cheng (Tsinghua University, P.R. China); Thomas Choi (University of Southern California, USA); Robert Müller (TU Ilmenau, Germany)*

## Best paper award in Antenna Theory

### Jury:

- Andrzej A. Kucharski  
Wroclaw University of Technology, Poland
- Stefano Maci  
University of Siena, Italy
- Juan R. Mosig  
École Polytechnique Fédérale de Lausanne, Switzerland

### Closed-Form Analysis of Artificial Dielectric Layers with Non-Periodic Characteristics

*Daniele Cavallo and Ralph van Schelven (Delft University of Technology, The Netherlands)*

### Characteristic Mode Analysis of User's Effect on Mobile Handset Antennas

*Pasi Ylä-Oijala (Aalto University, Finland); Anu Lehtovuori (Aalto University & School of Electrical Engineering, Finland); Rasmus Luomaniemi (Aalto University, Finland); Ville Viikari (Aalto University & School of Electrical Engineering, Finland)*

### Analysis of Curved Metasurfaces with Spatially-Varying Impedance Distribution

*Zvonimir Sipus (University of Zagreb, Croatia); Dominik Barbaric (Ericsson Nikola Tesla dd, Croatia); Marko Bosiljevac (University of Zagreb, Croatia)*

### Reconfigurable Split Ring Resonators for Spatial Modulation Communications

*Abdelwaheb Ourir (Institut Langevin ESPCI Paris CNRS, France); Julien de Rosny (Institut Langevin, Valenciennes, France); Kammel Rachedi (Institut Langevin ESPCI Paris CNRS, France); Dinh-Thuy Phan-Huy (Orange-France Telecom, France)*

### Hierarchical Implementation of the Analytical Singularity Evaluation Technique

*Denis Tihon (Université Catholique de Louvain & ICTEAM Institute, Belgium); Christophe Craeye (Université Catholique de Louvain, Belgium)*

## Best paper award in Antenna Design

### Jury:

- Wei Liu  
National University of Singapore, Singapore
- Juraj Bartolic  
University of Zagreb, Croatia
- Branko Kolundzija  
University of Belgrade, Serbia

### Design of Bifocal Dual Reflectarray Antennas in Ka-band to Generate a Multi-Spot Coverage from Geostationary Satellites

*Eduardo Martinez-de-Rioja and Jose A. Encinar (Universidad Politecnica de Madrid, Spain); Antonio Pino and Borja Gonzalez-Valdes (University of Vigo, Spain)*

### **Electronically-Steerable Transmitarray Antennas for Ka-Band**

*Antonio Clemente (CEA-LETI Minatoc, France); Luca Di Palma (Space Engineering S.p.A., Italy); Fatimata Diaby (Polytech School, France); Laurent Dussopt (CEA, LETI, Minatoc, France); Trung Kien Pham (University of Rennes 1 &amp; IETR, France); Ronan Sauleau (University of Rennes 1, France)*

### **Performance of a 28 GHz Two-Stage Rotman Lens Beamformer for Millimeter Wave Cellular Systems**

*Muhammad Ali Babar Abbasi (Queen's University Belfast & The Institute of Electronics, Communications and Information Technology (ECIT), United Kingdom (Great Britain)); Harsh Tataria (Lund University, Sweden); Vincent Fusco and Michail Matthaïou (Queen's University Belfast, United Kingdom (Great Britain))*

### **Wideband In-Lens Polarizer for Future High-Speed Wireless Communications**

*Marta Arias Campo (Delft University of Technology, The Netherlands & IMST GmbH, Germany); Darwin Blanco and Giorgio Carluccio (Delft University of Technology, The Netherlands); Simona Bruni and Oliver Litschke (IMST GmbH, Germany); Nuria LLombart*

### **Highly Integrated Dual-Band Dual-Polarized Antenna Tile for SAR Applica**

*Emilio Arneri and Luigi Boccia (University of Calabria, Italy); G. Amendola (Universita della Calabria, Italy); Srdjan Glisic (Silicon Radar, Italy); Chun-Xu Mao and Steven Gao (University of Kent, United Kingdom (Great Britain)); Tobias Rommel (German Aerospace Centre (DLR), Germany); Piotr Penkala (Evatronix S.A. Bielsko-Biala, Italy); Milos Krstic (IHP, Germany); Uroschanit Yodprasit (Silicon Radar GmbH, Germany); Oliver Schrape (IHP, Germany); Marwan Younis (German Aerospace Center (DLR), Germany)*

## **Best student paper awards**

### **Jury:**

- Tony Brown  
University of Manchester, United Kingdom
- Zvonimir Sipus  
University of Zagreb, Croatia
- Anja Skrivervik  
École Polytechnique Fédérale de Lausanne, Switzerland

### **The Observable Field for Generalized Incidences**

*Arturo Fiorellini Bernardis and Andrea Neto (Delft University of Technology, The Netherlands); Angelo Freni (Università degli studi Firenze, Italy); Nuria LLombart (Delft University of Technology, The Netherlands); Diego Emer (Technische Universiteit Delft, Italy)*

### **Equivalent Circuit Models of Finite Slot Antennas**

*Ralph van Schelven, Daniele Cavallo and Andrea Neto (Delft University of Technology, The Netherlands)*

### **Full-Wave Synthesis of Modulated Metasurface Antennas**

*Modeste Bodehou and Christophe Craeye (Université Catholique de Louvain, Belgium); Enrica Martini (Wave Up Srl, Italy); Isabelle Huynen (Université catholique de Louvain, Belgium)*

# Awards

## **Advances in Antenna Measurement and Characterization Using Unmanned Aerial Vehicles**

*María García Fernández (University of Oviedo, Spain); Yuri Álvarez and Fernando Las-Heras (Universidad de Oviedo, Spain)*

## **Measurement Based Determination of Parameters for In-stationary TDL Models with Reduced Number of Taps**

*Nina Hassan, Martin Käske and Christian Schneider (Ilmenau University of Technology, Germany); Gerd Sommerkorn (Technische Universität Ilmenau, Germany); Reiner S. Thomä (Ilmenau University of Technology, Germany)*