

## Friday, March 30

09:00–12:40 **Room I**  
**A10-2: Millimeter / Sub-millimeter Wave and THz Technologies II**

*Chairs: Robert Müller (TU Ilmenau, Germany), Ronan Sauleau (University of Rennes 1, France)*

- 09:00 Design of a Coplanar Waveguide-to-Ridge Gap Waveguide Transition Via Capacitive Coupling**  
Astrid Algaba Brazález (Chalmers University of Technology, Sweden); Ashraf Zaman (Chalmers University of Technology, Sweden); Per-Simon Kildal (Chalmers University of Technology, Sweden)
- 09:20 Broadband Polarimetric mmWave Antennas with Differential Stripline Feed**  
Karsten Thurn (University of Erlangen-Nuremberg, Germany); Sebastian Methfessel (University of Erlangen-Nuremberg, Germany); Lorenz-Peter Schmidt (University of Erlangen-Nuremberg, Germany)
- 09:40 Contactless Non-Leaking Waveguide Flange Realized by Bed of Nails for Millimeter Wave Applications**  
Elena Pucci (Chalmers University of Technology, Sweden); Per-Simon Kildal (Chalmers University of Technology, Sweden)
- 10:00 A Wideband 60 GHz Differential Stripline-to-Waveguide Transition for Antenna Measurements in Low-temperature Co-fired Ceramics Technology**  
Frank Wollenschläger (Ilmenau University of Technology, Germany); Robert Müller (TU Ilmenau, Germany); Ralf Stephan (Technische Universität Ilmenau, Germany); Alexis Paolo Garcia Ariza (Ilmenau University of Technology & Institute of Information Technology, Germany); Alexander Schulz (Ilmenau University of Technology, Germany); Reiner S. Thomä (Ilmenau University of Technology, Germany); Jens Müller (Ilmenau University of Technology, Germany); Matthias Hein (Ilmenau University of Technology, Germany)

09:00–12:40 **Room II**  
**A18-2: Reconfigurable Antennas II**

*Chairs: Cyril Luxey (University of Nice Sophia-Antipolis, France), Eduardo Carrasco (Universidad Politécnica de Madrid & ETSI-Telecomunicacion, Spain)*

- 10:20 140-GHz Planar SIW Slot Antenna Array with a Large-Via-Fence Dielectric Loading in LTCC**  
Junfeng Xu (Institute for Infocomm Research, Singapore); Zhi Ning Chen (Institute for Infocomm Research, Singapore); Xianming Qing (Institute for Infocomm Research, Singapore); Hong Wei (Southeast University, P.R. China)
- 10:40 Coffee Break**
- 11:00 60-GHz CMOS Integrated On-Chip Yagi Antenna and Balun Bandpass Filter in 90-nm CMOS Technology**  
Han-Lin Yue (National Cheng Kung University, Taiwan); Yung-Hsiang Chuang (National Cheng Kung University, Taiwan); Huey-Ru Chuang (National Cheng Kung University, Taiwan)
- 11:20 V-band Parabolic-Horn Antenna**  
Yevhen Yashchyshyn (Warsaw University of Technology & Institute of Radioelectronics, Poland)
- 11:40 Dielectric Rod Waveguide Antenna for 220–325 GHz**  
Andrey Generalov (Aalto University School of Electrical Engineering, Finland); Dmitri Lioubtchenko (Aalto University School of Electrical Engineering, Finland); Antti V. Räisänen (Aalto University, Finland)
- 12:00 Design of Broadband Nano-Optical Antennas with the Surface Method of Moments**  
Diego M. Solís (University of Vigo, Spain); Jose M. Taboada (University of Extremadura, Spain); Marta G. Araújo (Universidade de Vigo, Spain); Javier Rivero (University of Extremadura, Spain); Luis Landesa (University of Extremadura, Spain); Fernando Obelleiro (University of Vigo, Spain); Jose O. Rubiños (University of Vigo, Spain)
- 12:20 Real Time 100 GHz MST Imaging Retina**  
Maria Alonso (UPC, Spain); Vaibhav Garg (Technical University of Catalunya, Spain); Carlos Enrique Garcia Guerra (Technical University of Catalunya, Spain); Jordi Romeu (Universitat Politècnica de Catalunya, Spain); Nuria Llombart (Universidad Complutense de Madrid, Spain); Luis Jofre (UPC, Spain)
- 09:00 Sected-Beam Reflectarray Antenna with Pattern Reconfiguration by Using RF-MEMS Switches**  
Eduardo Carrasco (Universidad Politécnica de Madrid & ETSI-Telecomunicacion, Spain); Mariano Barba (Universidad Politécnica de Madrid, Spain); Jose A. Encinar (Universidad Politécnica de Madrid, Spain); Manuel Arrebola (Universidad de Oviedo, Spain)
- 09:20 A Cognitive Radio Reconfigurable „Filtenna“**  
Youssef Tawk (University of New Mexico, USA); Maria Zamudio (UNM, USA); Joseph Costantine (California State University Fullerton, USA); Christos Christodoulou (University of New Mexico, USA)
- 09:40 Reconfigurable Micromachined Antenna with Polarization Diversity for mm-Wave Applications**  
Mai Sallam (The American University in Cairo, Egypt); Ezzeldin Soliman (The American University in Cairo, Egypt); Sherif Sedky (AUC, Egypt)
- 10:00 Tri-Access Tri-band Reconfigurable Stacked Patch Wire-Plate Antenna**  
Walid El Hajj (Telecom Bretagne & Lab-STICC / MOM, France); Francois Gallée (Télécom Bretagne, France); Christian Person (Lab-STICC/MOM UMR CNRS, France)
- 10:20 Effect of Polyimide Layers on the Permittivity Tuning Range of Nematic Liquid Crystals**  
Pouria Yaghmaee (The University of Adelaide, Australia); Thomas Kaufmann (The University of Adelaide, Australia); Bevan D Bates (Defence Science and Technology Organisation, Australia); Christophe Fumeaux (The University of Adelaide, Australia)
- 10:40 Coffee Break**

**11:00 A New Reconfigurable Square Spiral Antenna**  
Vincent Callec (IETR - INSA Rennes, France); Ervan Fourn (INSA of Rennes, France); Raphael Gillard (IETR & INSA, France); Hubert Diez (CNES, France)

**11:20 Coupling Element Antenna with Slot Tuning for Handheld Devices at LTE Frequencies**  
Samantha Caporal Del Barrio (Aalborg University, Denmark); Mauro Pelosi (Aalborg University, Denmark); Ondřej Franek (Aalborg University & APNet Section, Denmark); Gert Pedersen (Aalborg University, Denmark)

**11:40 Performance of Frequency-Agile CPW Resonators on Thin Film Ferroelectric Material**  
Yonathan Corredores (IETR - Université de Rennes 1, France); Quentin Simon (IETR - Université de Rennes 1, France); Xavier Castel (IETR-Université de Rennes 1, France); Ratiba Benzerga (IETR - Université de Rennes 1, France); Ronan Sauleau (University of Rennes 1, France); Kourosh Mahdjoubi (University of Rennes 1, France); Arnaud Le Febvrier (SCR - Université de Rennes 1, France); Stéphanie Députier (SCR - Université de Rennes 1, France); Maryline Guilloux-Viry (SCR - Université de Rennes 1, France); Ling Yan Zhang (Lab-STICC - Université de Bretagne Occidentale, France); Paul Laurent (Lab-STICC - Université de Bretagne Occidentale, France); Gérard Tanné (Lab-STICC - Université de Bretagne Occidentale, France)

**12:00 New Thin Film Varactor for Frequency Tunable Slot Antenna**  
Hung Nguyen (IETR, Université de Rennes 1 & CEA-LETI, France); Ratiba Benzerga (IETR - Université de Rennes 1, France); Christophe Delaveaud (CEA-LETI, France); Ala Sharaiha (Université de Rennes 1 & IETR, France); Yu Lu (IETR - Université de Rennes 1, France); Claire Le Paven (IETR - Université de Rennes 1, France); Laurent Le Gendre (IETR - Université de Rennes 1 France, France); Xavier Castel (IETR-Université de Rennes 1, France)

**12:20 Array-fed Partially Reflective Surface Antenna with Dynamic Beamwidth Control and Beam-Steering**  
Tomislav Debogovic (University of Zagreb & Faculty of Electrical Engineering and Computing, Croatia); Juraj Bartolić (University of Zagreb, Croatia); Julien Perruisseau-Carrier (Ecole Polytechnique Fédérale de Lausanne & EPFL, Switzerland)

**09:00–12:40 Club A**  
**CP07: Wave Propagation Modeling in Vegetated and Built-Up Areas**

*Chairs: Thomas Kürner (Technische Universität Braunschweig, Germany), Saúl Torrico (Comsearch & The George Washington University, USA)*

**09:00 Statistical Adjustment of Selected Propagation Models for Applications in Container Terminal**  
Slawomir J. Ambroziak (Gdansk University of Technology, Poland); Ryszard Katulski (Gdansk University of Technology, Poland)

**09:20 Measurement Based Ray Launching for Analysis of Outdoor Propagation**  
Meifang Zhu (Lund University, Sweden); Amit Singh (Ericsson AB, Sweden); Fredrik Tufvesson (Lund University, Sweden)

**09:40 Measurement-based Stochastic Models for the Cross-correlation of Multi-link Small-scale Fading in Cooperative Relay Environments**  
Xuefeng Yin (Tongji University, P.R. China); Jinyi Liang (Tongji University, P.R. China); Yaoyao Fu (Tongji University, P.R. China); Zhifeng Zhang (Tongji University, P.R. China); Jae Joon Park (ETRI, Korea); Myung-Don Kim (ETRI, Korea); Hyun Kyu Chung (ETRI, Korea)

**10:00 Short Range Forest Channel Modeling in the 5 GHz Band**  
David W Matolak (Ohio University, USA); Feng cheng Yang (Ohio University, USA); H Riley (Ohio University, USA)

**10:20 Wave Attenuation Prediction Through a Volume of Random Located Lossy-Dielectric Branches - 3-D Vector Transport Theory**  
Saúl Torrico (Comsearch & The George Washington University, USA); Roger H. Lang (George Washington University, USA)

**10:40 Coffee Break**

**11:00 Simulator for the Analysis of the Mutual Impact Between Indoor Femtocells and Urban Macrocells**  
Reiner Hoppe (AWE Communications, Germany); Dennis M. Rose (Technische Universität Braunschweig, Germany); Rene Wahl (AWE Communications, Germany); Gerd Wöfle (AWE Communications, Germany); Thomas Kürner (Technische Universität Braunschweig, Germany)

**11:20 Method to Match Waves of Ray-Tracing Simulations with 3-D High-Resolution Propagation Measurements**  
Peng Guo (Eindhoven University of Technology, The Netherlands); Rainier Van Dommele (TU/e, The Netherlands); Matti Herben (Eindhoven University of Technology, The Netherlands)

**11:40 Angular Spread of the Radio Wave Propagation in Foliage Environment**  
Hung Vu Le (Tokyo Institute of Technology, Japan); Jun-ichi Takada (Tokyo Institute of Technology, Japan); Mir Ghoraiishi (Tokyo Institute of Technology, Japan); Chaymaly Phakasoum (Tokyo Institute of Technology, Japan); Koshiro Kitao (NTT DoCoMo, Japan); Tetsuro Imai (NTT DOCOMO, Inc., Japan)

**12:00 Propagation Prediction and Measurement in Vegetated Moderately Built-Up Areas**  
Kin Lien Chee (Technische Universität Braunschweig, Germany); Johannes Baumgarten (Technische Universität Braunschweig, Germany); Andreas Hecker (Technische Universität Braunschweig, Germany); Thomas Kuerner (Braunschweig Technical University, Germany); Saúl Torrico (Comsearch & The George Washington University, USA); Peter Zahn (LS Telcom AG, Germany); Michael Rohner (LS Telcom AG, Germany)

**12:20 Analysis of Mobile Radio Wave Dispersion Through Vegetation**  
Mir Ghoraiishi (Tokyo Institute of Technology, Japan); Jun-ichi Takada (Tokyo Institute of Technology, Japan); Tetsuro Imai (NTT DOCOMO, Inc., Japan)

**09:00–12:40 Club B****CP02: Joint Antenna-Channel Issues in Body Area Networks (Supported by COST IC1004)**

*Chairs: Raffaele D'Errico (CEA, LETI, Minatec Campus, France), Wout Joseph (Ghent University, Belgium)*

**09:00 Comparison of the Performance of the Two Different UWB Antennas for the Use in WBAN On-Body Communication**

Tommi Tuovinen (University of Oulu - Centre for Wireless Communications, Finland); Kanya Yekeh Yazdandoost (University of Oulu - Centre for Wireless Communications, Finland); Jari Linatti (University of Oulu, Finland)

**09:20 Antenna Independent Path Loss Model for In-Body Communication in Homogeneous Tissue**

Divya Kurup (Ghent University, Belgium); Wout Joseph (Ghent University, Belgium); Emmeric Tanghe (Ghent University, Belgium); Gunter Vermeeren (Ghent University, Belgium); Luc Martens (Ghent University, Belgium)

**09:40 Off-Body Channel Modelling at 2.45 GHz for Two Different Antennas**

Ramona Rosini (DEIS - University of Bologna & CEA - Leti Grenoble, Italy); Raffaele D'Errico (CEA, LETI, Minatec Campus, France)

**10:00 Correlation Analysis in On-Body Communications**

Carla Oliveira (Technical University of Lisbon, Instituto Superior Tecnico & Instituto de Telecomunicações, Portugal); Michal Mackowiak (Technical University of Lisbon, Portugal); Luis M. Correia (IST - Technical University Lisbon, Portugal)

**10:20 Signal Correlation Between Wearable Antennas in Body Area Networks in Multipath Environment**

Michal Mackowiak (Technical University of Lisbon, Portugal); Carla Oliveira (Technical University of Lisbon, Instituto Superior Tecnico & Instituto de Telecomunicações, Portugal); Luis M. Correia (IST - Technical University Lisbon, Portugal)

**10:40 Coffee Break****11:00 Improving Signal Reliability in Outdoor Body-to-Body Communications Using Front and Back Positioned Antenna Diversity**

Simon Cotton (Queen's University, Belfast, United Kingdom); William G. Scanlon (Queen's University Belfast & University of Twente, United Kingdom); Adrian McKernan (ACT Wireless Ltd., United Kingdom)

**11:20 Effect of Body Motion on Propagation Path Gain at 60 GHz**

Yuriy I. Nechayev (University of Birmingham, United Kingdom); Xianyue Wu (University of Birmingham, United Kingdom); Costas Constantinou (University of Birmingham, United Kingdom); Peter S Hall (University of Birmingham, United Kingdom)

**11:40 Miniature Antenna Effect on the Ear-to-Ear Radio Channel Characteristics**

Laure Huitema (CEA Leti, France); Sarah Sufyar (CEA-LETI, France); Christophe Delaveaud (CEA-LETI, France); Raffaele D'Errico (CEA, LETI, Minatec Campus, France)

**12:00 Desensitization of Planar UWB Antennas**

Yunfei Wei (TELECOM ParisTech, France); Christophe Roblin (TELECOM ParisTech & ENSTA ParisTech, France)

**09:00–12:40 Club C****A03: Antennas for Remote Sensing and Radio Astronomy**

*Chairs: Cyril Mangenot (European Space Agency, The Netherlands), Petr Cerny (Czech Technical University in Prague, Czech Republic)*

**09:00 Dual-Polarized Ku-Band Multi-Feed Cluster for the CoReH2O Mission**

Thomas Fuegen (Astrium GmbH, Germany); Bernhard Grafmueller (EADS Astrium GmbH, Germany); Mattias Viberg (Saab Ericsson Space, Sweden); Sebastian Riegger (EADS Astrium, Germany); Florence Hélière (European Space Agency ESTEC, The Netherlands); Kees Van't Klooster (European Space Agency, The Netherlands)

**09:20 Development of a Detailed System Model of the Eleven Feed Receiver Using the CAESAR Software**

Benjamin Klein (University of the Witwatersrand, South Africa); Marianna Ivashina (Chalmers University of Technology, Sweden); Rob Maaskant (CHALMERS, Sweden); Alan R Clark (University of the Witwatersrand, South Africa); Miroslav Pantelev (Onsala Space Observatory, Chalmers University of Technology, Sweden)

**09:40 Passive Millimeter Wave Imaging: 2D Sparse Array Optimization for Low Cost System Architecture**

Yassine Aoual (University of Rennes 1 & IETR UMR CNRS 6164, France); Stéphane Méric (Institut of Electronic and Telecommunications of Rennes, France); Olivier Lafond (IETR, France); Mohamed Himdi (Université de Rennes 1, France)

**10:00 Optics Design for the U. S. SKA Technology Development Project Design Verification Antenna**

William A Imbriale (Jet Propulsion Laboratory, USA); Lynn Baker (Cornell University, USA); German Cortes-Medellin (Cornell University, USA)

**10:20 P-Band Feedarray for BIOMASS**

Paolo Valle (ThalesAleniaSpace Italia, Italy); Giuseppe Orlando (ThalesAleniaSpace Italia, Italy); Roberto Mizzoni (Thales Alenia Space Italia, Italy); Florence Hélière (European Space Agency ESTEC, The Netherlands); Kees Van't Klooster (European Space Agency, The Netherlands)

**10:40 Coffee Break****11:00 A Dual Band Array-fed Reflector ScanSAR Antenna**

Pierluigi Cecchini (Thales Alenia Space Italia S.p.A., Italy); Roberto Mizzoni (Thales Alenia Space Italia, Italy); Giuseppe Orlando (ThalesAleniaSpace Italia, Italy); Florence Hélière (European Space Agency ESTEC, The Netherlands); Kees Van't Klooster (European Space Agency, The Netherlands)

**11:20 An MLPO Algorithm for Fast Evaluation of the Focal Plane Fields of Reflector Antennas**

Christine Letrou (TELECOM SudParis, France); Amir Boag (Tel Aviv University, Israel)

**11:40 Sub-Reflector Extensions for Reduced Noise Temperature in Low-Side Sub-Reflector Offset Gregorian Systems**

Dirk de Villiers (Stellenbosch University, South Africa); Robert Lehmensiek (EMSS Antennas (Pty) Ltd & Cape Peninsula University of Technology, South Africa)

**12:00 94 GHz Cassegrain Reflector Antenna Performance Characterization**

Enrique Nova (Universitat Politècnica de Catalunya, Spain); Daniel Rodrigo (Universitat Politècnica de Catalunya, Spain); Jordi Romeu (Universitat Politècnica de Catalunya, Spain); Luis Jofre (UPC, Spain)

**09:00–10:40 Club D**  
**CM02: Wave and Sub-mm Waves RCS and Scattered Field Measurements**

*Chairs: Claire Migliaccio (Université Nice Sophia Antipolis, France), Alexander Yarovoy (Delft University of Technology, The Netherlands)*

**09:00 Influence of Atmospheric Conditions on mmWave CATR Facilities: Formulation and Compensation Scheme**  
 Alfonso Muñoz-Acevedo (Technical University of Madrid, Spain); Luis Rolo (European Space Agency, The Netherlands); Manuel Sierra-Castañer (Technical University of Madrid, Spain); Maurice Paquay (European Space Agency & ESTEC, The Netherlands)

**09:20 W-band Imaging with Complex Scattered Field Measurements of a Dielectric Cylinder**  
 Armin Zeitler (Université Nice Sophia Antipolis, France); Claire Migliaccio (Université Nice Sophia Antipolis, France); Amaël Moynot (Université de Nice-Sophia Antipolis, France); Ioannis Aliferis (Université de Nice - Sophia Antipolis, CNRS, France); Laurent Brochier (Université de Nice-Sophia Antipolis, France); Jean-Yves Dauvignac (Université de Nice-Sophia Antipolis, France); Christian Y. Pichot (Université de Nice - Sophia Antipolis, CNRS, France)

**09:40 3D-Scattering Center Detection of Automotive Targets Using 77 GHz UWB Radar Sensors**  
 Markus Andres (University of Ulm, Germany); Peter Feil (University of Ulm, Germany); Wolfgang Menzel (University of Ulm, Germany)

**10:00 MM-Wave Scattering Measurements for Imaging and Channel Characterization**  
 Anna Papiro Toda (University of California, Irvine, USA); Franco De Flaviis (University of California, Irvine, USA); Luis Jofre (UPC, Spain); Jordi Romeu (Universitat Politècnica de Catalunya, Spain)

**10:20 3D Inversion of Lossy Targets From Free Space Scattering Measurements**  
 Jean-Michel Geffrin (Institut Fresnel & CNRS - Central Marseille - Aix Marseille Université, France); Christelle Eyraud (Institut Fresnel UMR CNRS, France); Amélie Litman (Institut Fresnel UMR CNRS, France)

**09:00–12:40 Club E**  
**CA16: RFID's, mmiD's and Power Scavenging: Status and Challenges**

*Chairs: Manos M. Tentzeris (Georgia Institute of Technology, USA), Apostolos Georgiadis (CTTC, Spain)*

**09:00 A Microwave Sensor System Based on Reverse Modelling of the Array Factor**  
 Alessandra Costanzo (DEIS, University of Bologna, Italy); Diego Masotti (University of Bologna, Italy); Nicola Arbizzani (University of Bologna, Italy); Vittorio Rizzoli (University of Bologna, Italy); Franco Matri (University of Bologna, Italy)

**09:20 Sewed Textile RFID Tag and Sensor Antennas for On-Body Use**  
 Leena Ukkonen (Tampere University of Technology, Finland); Lauri Tapio Sydänheimo (Tampere University of Technology, Finland); Yahya Rahmat-Samii (University of California Los Angeles (UCLA), USA)

**09:40 Improving Range of Passive RFID Tags Utilizing Energy Harvesting and High Efficiency Class-E Oscillators**  
 Apostolos Georgiadis (CTTC, Spain); Ana Collado (CTTC, Spain)

**10:00 Energy-efficient Off-Body Data Transmission by Means of Antenna Diversity and Tracking of the Time-Variant Wireless Channel State**  
 Patrick Van Torre (University College Ghent & Ghent University, Belgium); Luigi Vallozzi (Ghent University, Belgium); Hendrik Rogier (Ghent University, Belgium); Jo Verhaevert (University College Ghent, Belgium)

**10:20 Design and Implementation of RFID Systems with Software Defined Radio**  
 John Kimionis (Technical University of Crete, Greece); Aggelos Bletsas (Technical University of Crete, Greece); John Sahalos (University of Nicosia, Cyprus)

**10:40 Coffee Break**

**09:00–12:40 Club H**  
**M16: Other Measurement Topics**

**11:00 RFID Tag Antenna Embedded in Concrete Structures for Construction Industry**  
 Chiara Mariotti (University of Perugia, Italy); Giulia Orecchini (University of Perugia, Italy); Marco Virili (University of Perugia, Italy); Federico Alimenti (Università degli Studi di Perugia, Italy); Luca Roselli (University of Perugia, Italy)

**11:20 A Proposal for Dynamic Power Control in RFID and Passive Sensor Systems Based on RSSI**  
 Alírio S Boaventura (Instituto de Telecomunicações - Universidade de Aveiro, Portugal); Nuno Borges Carvalho (University of Aveiro/IT Aveiro, Portugal)

**11:40 Practical Considerations of ASK Modulated Passive Tags**  
 Antonis G Dimitriou (Aristotle University of Thessaloniki, Greece); Aggelos Bletsas (Technical University of Crete, Greece); John Sahalos (University of Nicosia, Cyprus)

**12:00 Inkjet-Printed RFIDs for Wireless Sensing and Anti-counterfeiting**  
 Manos M. Tentzeris (Georgia Institute of Technology, USA); Rushi Vyas (Georgia Institute of Technology, USA); Vasileios Lakafofis (Georgia Institute of Technology, USA); Anya Traile (Georgia Institute of Technology, USA); Hoseon Lee (Georgia Institute of Technology, USA); Edward Gebara (Georgia Institute of Technology, USA); Mauro Marroncelli (IXEM Labs - Politecnico di Torino, Italy)

**12:20 Design of a Miniaturized RFID Antenna Integrated with Sensor for Wireless Agricultural Applications**  
 Amal Harrabi (University of Sciences of Tunis, Tunisia); Manos M. Tentzeris (Georgia Institute of Technology, USA)

*Chairs: Christophe Craeye (Université Catholique de Louvain, Belgium), Antti V. Räsänen (Aalto University, Finland)*

**09:00 Rectangular Waveguide Based Polarizer for mm-Wave Antenna Measurements**  
 Marcel D. Blech (Sony Deutschland GmbH, Germany); Stefan Koch (Sony Deutschland, Germany); Shin Saito (Sony Deutschland, Germany)

**09:20 RCS Measurement Accuracy in the U/VHF Range: Diagnosis for Target Positioning Error and Improvement of the Procedure**  
 Pierre Massaloux (CESTA, France)

**09:40 Experimental Study of Real-Time Human Imaging Using UWB Doppler Radar Interferometry**  
 Kenshi Saho (Kyoto University, Japan); Takuya Sakamoto (Kyoto University, Japan); Toru Sato (Kyoto University, Japan); Kenichi Inoue (Panasonic Corporation, Japan); Takeshi Fukuda (Panasonic Corporation, Japan)

**10:00 On the Synthesis of Plane Wave Generators: Performance Limits, Design Paradigms and Effective Algorithms**  
 Ovidio Mario Bucci (University of Naples, Italy); Marco Donald Migliore (University of Cassino, Italy); Gaetano Panariello (University of Cassino, Italy); Daniele Pinchera (University of Cassino & University of Naples, Federico II, Italy)

**10:20 Using an Autoregressive Model for DMC**  
 Jost Thomas (German Aerospace Center (DLR), Germany); Wei Wang (German Aerospace Center (DLR), Germany); Dmitriy Shutin (German Aerospace Center (DLR), Germany); Felix Anreich (German Aerospace Center (DLR), Germany)

**10:40 Coffee Break**

09:00–12:40

Room III

## A24: Other Antenna Topics

**11:00 Permittivity Measurement Under Free Space Propagation**

Greg Hislop (Université Catholique de Louvain, Belgium); Christophe Craeye (Université Catholique de Louvain, Belgium)

**11:20 Free Space Material Characterization for Microwave Frequencies**

Erich Kemptner (German Aerospace Center (DLR), Germany); Stefan Thurner (German Aerospace Center (DLR), Germany)

**11:40 Indoor Location Finding Algorithms for Mobile Robots Carrying Passive RFID Tags**

Erdem Özyurt (Atılım University, Turkey); Elif Aydin (Atılım University, Turkey); Cagri A Yapici (Atılım University, Turkey)

**12:00 Impact of the Antenna Impulse Response on Accuracy of Impulse-Based Localization Systems**

Lukasz Zwirello (Karlsruhe Institute of Technology (KIT), Germany); Lars Reichardt (Karlsruhe Institute of Technology, Germany); Xuyang Li (Karlsruhe Institute of Technology, Germany); Thomas Zwick (Karlsruhe Institute of Technology (KIT), Germany)

*Chairs: Luigi Boccia (University of Calabria, Italy), Stefano Maci (University of Siena, Italy)*

**09:00 Cross-Polarization and Size Reduction of Slotted Waveguide Array Antenna by Angled Ridges**

Alireza Mallahzadeh (Shahed University, Iran); Sajad Mohammad ali nezhad (Shahed university, Iran)

**09:20 Optimum Load of WPT System Analyzed by S-Parameters**

Qiaowei Yuan (Sendai National College of Technology, Japan)

**09:40 Optimized Artificial Magnetic Conductor Design Using CG-FFT and BPSO**

Angel Luis Gutiérrez (University of Cantabria, Spain); David González (University of Cantabria, Spain); Marta Lanza (University of Cantabria, Spain); Iván Barriuso (University of Cantabria, Spain); Luis Valle (University of Cantabria, Spain); Marta Domingo (University of Cantabria, Spain); Jesús Ramón Pérez (University of Cantabria, Spain); Jose Basterrechea (University of Cantabria, Spain)

**10:00 Design and Feed Position Estimation for Circular Microstrip Antenna Based on Neural Network Model**

Ivan Vilovic (University of Dubrovnik, Croatia); Niksa Burum (University of Dubrovnik, Croatia)

**10:20 A Method to Reduce Truncation Errors in Planar Near-Field Measurements Using Photonic Sensor**

Masanobu Hirose (National Institute of Advanced Industrial Science and Technology, Japan)

**10:40 Coffee Break****11:00 Lower Hybrid Antennas for Nuclear Fusion Experiments**

Julien Hillairet (CEA Cadarache & IRFM - Research Institute on Magnetic Nuclear Fusion, France)

**11:20 Dedicated Algorithm for the Calculation of Spatial Green's Functions in a Tokamak Plasma Environment**

Zhanna Khaymedinova (Katholieke Universiteit Leuven, Belgium); Guy A. E. Vandenbosch (Katholieke Universiteit Leuven, Belgium)

**11:40 Design of an Integrated Wireless Power Transfer System with High Power Transfer Efficiency and Compact Structure**

Hyungrak Kim (Daelim University, Korea); Hongmin Lee (Kyonggi University, Korea)

**12:00 Substrate Integrated Power Combiners**

Luigi Boccia (University of Calabria, Italy); Antonio Emanuele (University of Calabria, Italy); Emilio Arnieri (Università della Calabria, Italy); Alireza Shamsafar (University of Calabria, Italy); G. Amendola (Università della Calabria, Italy)

**12:20 On the Use of Particle Swarm Optimization for Single Snapshot DOA and Frequency Estimation**

Borja Errasti-Alcala (INTA & National Institute for Aerospace Technology, Spain); Raul Fernandez-Recio (INTA, Spain)

09:00–12:40

Room IV

## A09: Medical Applications

*Chairs: George Cheng (Allwave Corporation & Allwave Corporation, USA), Ladislav Oppl (Czech Technical University in Prague, Czech Republic)*

**09:00 Medical Implants Design. Issues and Requirements**

Stavros Koulouridis (University of Patras, Greece)

**09:20 Radiomyography - Feasibility Study**

Vit Sipal (University of Oxford, United Kingdom); David Edwards (University of Oxford, United Kingdom)

**09:40 Focused Microwave Thermotherapy: a Patient-Specific Numerical Assessment of a Non-Invasive Breast Cancer Treatment**

Domenica A. M. Iero (Università Mediterranea di Reggio Calabria, Italy); Tommaso Isernia (University of Reggio Calabria, Italy); Lorenzo Crocco (CNR - National Research Council, Italy); Ilaria Catapano (CNR - National Research Council of Italy, Italy)

**10:00 A Novel Measurement Approach for the Broadband Characterization of Diluted Water Ferrofluids**

Gennaro Bellizzi (University of Naples Federico II, Italy); Ovidio Mario Bucci (University of Naples, Italy)

**10:20 Intracavitary Helix Applicator to be used for BPH and for Prostate Cancer Treatments**

Jan Vrba (Czech Technical University, Czech Republic); Barbora Vrbova (Czech Technical University of Prague, Czech Republic); Barbara Lungariello (Università Politcnica delle Marche, Italy)

**10:40 Coffee Break****11:00 Branched Dipole Array Applicator for Superficial Hyperthermia System**

Ki Joon Kim (Yonsei University, Korea); Woo Cheol Choi (Yonsei University, Korea); YoungJoong Yoon (Yonsei University in Korea, Korea)

11:00–12:40

Club D

**A04-4: Array Antennas incl. Reflect Arrays IV****11:20 An Ultrawideband Microwave Medical Diagnostic System: Design Considerations and System Performance**

Xuezhi Zeng (Chalmers University Technology, Sweden); Andreas Fhager (Chalmers University of Technology, Sweden); Mikael Persson (Chalmers University of Technology, Sweden); Peter Linner (Chalmers University of Technology, Sweden); Herbert Zirath (Chalmers University of Technology, Sweden)

**11:40 Experimental Characterization of the RFID STENTag for Passive Vascular Monitoring**

Cecilia Occhiuzzi (University of Rome „Tor Vergata“, Italy); Gaetano Marrocco (University of Rome Tor Vergata, Italy)

**12:00 3-D Microwave Imaging for Breast Cancer**

George Cheng (Allwave Corporation & Allwave Corporation, USA); Yong Zhu (Allwave Corporation, USA); Jan Grzesik (Allwave Corporation, USA)

**12:20 A Compact Double-Elliptical Slot-Antenna for Medical Applications**

Xuyang Li (Karlsruhe Institute of Technology, Germany); Jijing Yan (Karlsruhe Institute of Technology, Germany); Malyhe Jalilvand (Karlsruhe Institute of Technology, Germany); Thomas Zwick (Karlsruhe Institute of Technology (KIT), Germany)

*Chairs: Milan Polivka (Czech Technical University in Prague, Czech Republic), Jian Yang (Chalmers University of Technology, Sweden)*

**11:00 Triple-Slot Phase-Shifting Cell Loaded with Capacitances for Reflectarray Applications**

Tony Makdissy (IETR - INSA of Rennes, France); Raphael Gillard (IETR & INSA, France); Erwan Fourn (INSA of Rennes, France); Etienne Girard (Thales Alenia Space, France); Hervé Legay (Thalès Alenia Space, France)

**11:20 Comparative Study of Reflectarrays Based on Cells with Three Coplanar Dipoles and Reflectarrays Based on Cells with Three Stacked Patches**

Rafael Florencio (Universidad de Sevilla, Spain); Rafael Boix (University of Seville, Spain); Jose A. Encinar (Universidad Politécnica de Madrid, Spain); Eduardo Carrasco (Universidad Politécnica de Madrid & ETSI-Telecomunicacion, Spain); Manuel Arrebola (Universidad de Oviedo, Spain)

**11:40 Iris-based 2-Bit Waveguide Phase Shifters and Transmit-Array for Automotive Radar Applications**

Alexander Vorobyov (IETR, University of Rennes 1, France); Erwan Fourn (INSA of Rennes, France); Ronan Sauleau (University of Rennes 1, France); Zargham Baghchehsaraei (KTH - Royal Institute of Technology (Microsystem Technology Lab - RF MEMS), Sweden); Joachim Oberhammer (KTH - Royal Institute of Technology (Microsystem Technology Lab - RF MEMS), Sweden); Dmitry Chicherin (Aalto University, Finland); Antti V. Räsänen (Aalto University, Finland)

**12:00 Slot Radiator with Tuning Vias for Circularly Polarized SIW Linear Array**

Pablo Sanchez-Olivares (Universidad Autonoma de Madrid, Spain); Jose Luis Masa-Campos (Universidad Autonoma de Madrid, Spain)

13:00–13:20

Room I

**Closing Ceremony & Awards**

*Chair: Milos Mazanek (Czech Technical University in Prague, Czech Republic)*

**12:20 A Printed V-Shaped Circular Antenna Array for Direction Finding Applications**

Farooq Sultan (King Fahd University of Petroleum and Minerals, Saudi Arabia); Haider Ali (King Fahd University of Petroleum & Minerals, Saudi Arabia); Mohammad S. Sharawi (King Fahd University of Petroleum and Minerals, Saudi Arabia); Daniel Aloï (Oakland University, USA)