

Tuesday, March 27

09:00–12:40 Room I

CA15-2: Integral Techniques for Electromagnetics (INTELECT) II

Chairs: Angelo Freni (University of Florence, Italy), Athanasios Polimeridis (Ecole Polytechnique Federale de Lausanne, Switzerland), Juan R Mosig (Ecole Polytechnique Federale de Lausanne, Switzerland)

09:00 Mode Matching Method for the Analysis of Substrate Integrated Waveguides

Massimiliano Casaletti (University of Siena, Italy); Ronan Sauleau (University of Rennes 1, France); Stefano Maci (University of Siena, Italy); Mauro Ettore (University of Rennes 1 & UMR CNRS 6164, France)

09:20 Strongly Near-Singular Integral Evaluation for Curvilinear Elements

Francesca Vipiana (Istituto Superiore Mario Boella (ISMB), Italy); Donald R Wilton (University of Houston, USA); William Johnson (Private Consultant, USA)

09:40 Volumetric Integral Equation Techniques for Plasmonic Applications

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

10:00 Efficient Evaluation of MoM Matrix Elements Using CPU and/or GPU

Branko Kolundzija (University of Belgrade, Serbia); Dusan Zoric (WIPL-D, Serbia)

10:20 Discretization of the Electric-Magnetic Field Integral Equation with the Divergence Taylor-Orthogonal Basis Functions Free From the Magnetic-Field and the Electric-Field Low-Frequency Breakdowns

Eduard Ubeda (Universitat Politècnica de Catalunya (UPC), Spain); Jose M. Tamayo (ISAE, France); Juan M. Rius (Universitat Politècnica de Catalunya, Spain)

10:40 Coffee Break

09:00–12:40 Room II

CA02: Recent Advances and Applications of Body-Centric Wireless Communications

Chairs: Koichi Ito (Chiba University, Japan), Yang Hao (Queen Mary, University of London, United Kingdom)

09:00 Switchable on/off-body Communication at 2.45GHz Using Textile Microstrip Patch Antenna on Stripline

Richard Langley (University of Sheffield, United Kingdom); Kenneth Lee Ford (University of Sheffield, United Kingdom); Hyung-Joo Lee (University of Sheffield, United Kingdom)

09:20 Indoor Off-Body Wireless Communication Using Static Zero-Elevation Beamforming on Front and Back Textile Antenna Arrays

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)

09:40 MHz-Band Human Centric Communication Technology Using Near-Field Coupling Mechanism

Yuichi Kado (Kyoto Institute of Technology & Graduate School of Science and Technology, Japan); Tatsuya Kusunoki (Kyoto Institute of Technology, Japan); Taku Kobase (Kyoto Institute of Technology, Japan); Masashi Takahashi (Kyoto Institute of Technology, Japan); Hitoshi Shimasaki (Kyoto Institute of Technology, Japan); Mitsuru Shinagawa (Hosei University, Japan)

10:00 A Small Tunable and Wearable Planar Inverted-F Antenna (PIFA)

Chia-Hsien Lin (Chiba University, Japan); Zhengyi Li (Chiba University, Japan); Koichi Ito (Chiba University, Japan); Masaharu Takahashi (Chiba University, Japan); Kazuyuki Saito (Chiba University, Japan)

10:20 Detuning Issues and Performance of a Novel Implantable Antenna for Telemetry Applications

Asimina Kiourti (National Technical University of Athens, Greece); Konstantina S Nikita (National Technical University of Athens, Greece)

10:40 Coffee Break

09:00–12:40 Club A

P01-1: Mobile Propagation Channel Measurements and Modelling I

Chairs: Wout Joseph (Ghent University, Belgium), Jonas Medbo (Ericsson Research, Sweden)

- 11:00 Numerical and Experimental Analysis of the On-Body Propagation Channel at W Band**
Alice Pellegrini (Queen Mary, University of London, United Kingdom); Alessio Brizzi (Queen Mary University of London, United Kingdom); Lianhong Zhang (Queen Mary, University of London, United Kingdom); Yang Hao (Queen Mary, University of London, United Kingdom)
- 11:20 RSSI-based Environment Identification for 2.45 GHz Body Area Networks**
Bernhard H.E. Altwater (University of Twente, The Netherlands); Sean F. Heaney (Queen's University, Belfast, United Kingdom); Simon Cotton (Queen's University, Belfast, United Kingdom); Arjan Meijerink (University of Twente, The Netherlands); Mark J. Bantum (University of Twente, The Netherlands); William G. Scanlon (Queen's University Belfast & University of Twente, United Kingdom)
- 11:40 E-fiber Electronics for Body-Worn Devices**
Lanlin Zhang (The Ohio State University & ElectroScience Lab, USA); Zheyu Wang (The Ohio State University, USA); Dimitris Psychoudakis (The Ohio State University, USA); John L. Volakis (Ohio State University, USA)
- 12:00 Design and Performance Analysis of a Compact and Conformal Super Wide Band Textile Antenna for Wearable Body Area Applications**
Md. Shaad Mahmud (American International University-Bnagladesh, Bangladesh); Shuvashis Dey (American International University- Bangladesh & Queen Mary, University of London, Bangladesh)
- 12:20 Zip Based Monopole Antenna for Wearable Communication Systems**
Mohamad Mantash (University of Rennes 1, France); Anne-Claude Tarot (University of Rennes 1, France); Sylvain Collardey (University of Rennes 1, France); Kourosh Mahdjoubi (University of Rennes 1, France)

- 09:00 Carrier Frequency Characteristic of Time-Spatial Profile in Outdoor LOS Environments**
Hideki Omote (Softbank Mobile Corp., Japan); Yosuke Sugita (Softbank Mobile Corp., Japan); Yoshichika Ohta (Softbank Mobile Corp., Japan); Teruya Fujii (Softbank Mobile, Japan)

- 09:20 Directional Channel Characteristics in Elevation and Azimuth at an Urban Macrocell Base Station**
Jonas Medbo (Ericsson Research, Sweden); Henrik Asplund (Ericsson Research, Ericsson AB, Sweden); Jan-Erik Berg (Ericsson Research, Sweden); Niklas Jalden (Ericsson AB, Sweden)

- 09:40 Channel Measurements and Analysis for Very Large Array Systems at 2.6 GHz**
Sohail Payami (Lund University, Sweden); Fredrik Tufvesson (Lund University, Sweden)

- 10:00 Channel Capacity Estimation Method for 2 x 2 MIMO Considering Received Power Imbalance and Antenna Correlation**
Shinobu Nanba (KDDI R&D Laboratories, Inc., Japan); Yuki Hirota (KDDI R&D Laboratories, Inc., Japan); Yoji Kishi (KDDI R&D Laboratories, Japan)

- 10:20 Channel Extrapolation Based on Wideband MIMO Measurements**
Niklas Jalden (Ericsson AB, Sweden); Henrik Asplund (Ericsson Research, Ericsson AB, Sweden); Jonas Medbo (Ericsson Research, Sweden)

- 10:40 Coffee Break**

Club A

- 11:00 Impact of Rician Fading on the Orthogonality of Dual-Polarized Macrocellular Channels**
Ruiyuan Tian (Lund University, Sweden); Buon Kiong Lau (Lund University, Sweden); Jonas Medbo (Ericsson Research, Sweden)

- 11:20 Simulation of the Coverage Probability of Femtocell Using the Padé Approximant**
Josiane do Couto Rodrigues (Federal University of Pará, Brazil); Simone da Graça de Castro Fraiha (Federal University of Pará, Brazil); Jasmine Priscyla Leite de Araújo (Federal University of Pará, Brazil); Hermínio Gomes (Federal University of Pará, Brazil); Carlos Renato Francês (Universidade Federal do Para, Brazil); Gervásio Cavalcante (UFPA, Brazil)

- 11:40 Analysis of Antenna Diversity Performance Dependence on Multi-Antenna Channel Delay Spread in Reverberation Chamber**
Miguel A. Garcia-Fernandez (Technical University of Cartagena, Spain); Nabil Arsalane (XLIM Laboratory UMR 6172 CNRS, France); Moctar Mouhamadou (XLIM-UMR 6172-CNRS, University of Limoges, France); David Carsenat (XLIM CNRS-UMR 6172, France); Cyril Decroze (XLIM, France); Thierry Monediere (University of Limoges & CNRS, France)

- 12:00 The DMC Contribution in the Human Absorption in an Indoor Environment**
Aliou Bamba (University of Ghent, Belgium); Wout Joseph (Ghent University, Belgium); Gunter Vermeeren (Ghent University, Belgium); Emmeric Tanghe (Ghent University, Belgium); Luc Martens (Ghent University, Belgium)

- 12:20 Spatial Correlation of Receive Antennas of Indoor Static Mobile Terminal**
Teruya Fujii (Softbank Mobile, Japan); Yoshichika Ohta (Softbank Mobile Corp., Japan)

09:00–12:40 Club B

P09: Propagation Models for Millimetre and Sub-millimetre Waves

Chairs: Martin Jacob (Technische Universität Braunschweig, Germany), Vaclav Kvicera (Czech Metrology Institute, Czech Republic)

- 09:00 Analyzing Human Body Shadowing at 60 GHz: Systematic Wideband MIMO Measurements and Modeling Approaches**
Michael Peter (Fraunhofer HHI, Germany); Mike Wisotzki (Fraunhofer Heinrich Hertz Institute, Germany); Miruna Raceala-Motoc (Fraunhofer Heinrich Hertz Institute, Germany); Wilhelm Keusgen (Fraunhofer Heinrich Hertz Institute, Germany); Robert Felbecker (Fraunhofer Heinrich-Hertz-Institut, Germany); Martin Jacob (Technische Universität Braunschweig, Germany); Sebastian Priebe (Technische Universität Braunschweig, Germany); Thomas Kürner (Technische Universität Braunschweig, Germany)

- 09:20 Characterization of 60 GHz Shadowing by Human Bodies and Simple Phantoms**
Carl Gustafson (Lund University, Sweden); Fredrik Tufvesson (Lund University, Sweden)

- 09:40 The Impact of Antenna Directivities on THz Indoor Channel Characteristics**
Sebastian Priebe (Technische Universität Braunschweig, Germany); Martin Jacob (Technische Universität Braunschweig, Germany); Thomas Kürner (Technische Universität Braunschweig, Germany)

- 10:00 Affection of THz Indoor Communication Links by Antenna Misalignment**
Sebastian Priebe (Technische Universität Braunschweig, Germany); Martin Jacob (Technische Universität Braunschweig, Germany); Thomas Kürner (Technische Universität Braunschweig, Germany)

10:20 Electromagnetic Wave Propagation in the Millimeter Wave Band Using the NVIDIA OptiX GPU Ray Tracing Engine
Robert Felbecker (Fraunhofer Heinrich-Hertz-Institut, Germany); Leszek Raschkowski (Fraunhofer Heinrich Hertz Institute, Germany); Wilhelm Keusgen (Fraunhofer Heinrich Hertz Institute, Germany); Michael Peter (Fraunhofer HHI, Germany)

10:40 Coffee Break

11:00 A MATLAB-based Tool for Visualizing the Plane Wave Propagation in Multilayer Structures Containing Metamaterials
Marcin Wielichowski (Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland); Juan R Mosig (Ecole Polytechnique Federale de Lausanne, Switzerland)

11:20 Frequency and Path Length Scaling Based on Long-Term Statistics of Rain Attenuation on Terrestrial Paths at 38 GHz and 58 GHz
Vaclav Kvicera (Czech Metrology Institute, Czech Republic); Martin Grabner (Czech Metrology Institute, Czech Republic); Ondrej Fiser (Institute of Atmospheric Physics & Fac. of Electrical Engineering and Informatics/Uni of Pardubice, Czech Republic)

11:40 On the Estimation of Rain Attenuation Channels in Millimeter Wave Radio Networks
Vasileios Sakarellos (National Technical University of Athens, Greece); Dimitrios Skraparlis (National Technical University of Athens, Greece); Athanasios D. Panagopoulos (National Technical University of Athens, Greece)

12:00 Analysis of 15-Months Rain Rate Measurements at NTUA Campus
Charilaos Kourogiorgas (National Technical University of Athens, Greece); Athanasios D. Panagopoulos (National Technical University of Athens, Greece); Nektarios Moraitis (National Technical University of Athens & Institute of Communications and Computers Systems, Greece); Spiros Livieratos (ASPETE, Greece); George Chatzarakis (ASPETE, Greece); John D. Kanellopoulos (National Technical University of Athens, Greece)

12:20 Improving Connectivity in Indoor Millimeter Wave Wireless Networks Using Diversity Reception
Georgios Pitsiladis (National Technical University of Athens, Greece); Athanasios D. Panagopoulos (National Technical University of Athens, Greece); Philip Constantinou (National Technical University of Athens, Greece)

09:00–12:40 Club C
CP08: Future Radios for Medical and Daily Healthcare Applications

Chairs: Katsuyuki Haneda (Aalto University, Finland), Jun-ichi Takada (Tokyo Institute of Technology, Japan)

09:00 BAN Shadowing Properties of an Arm-Waving Dynamic Phantom
Koichi Ogawa (University of Toyama & Faculty of Engineering, Japan)

09:20 Parallel FDTD Simulations for WBAN Channel Characterization Using Different Body Models
Tero Uusitupa (Aalto University School of Electrical Engineering, Finland)

09:40 Modeling of Delay Profiles Around the Human Body in Arbitrary Environments
Masato Koiwai (Tokyo Denki University, Japan); Hironobu Yamamoto (Tokyo Denki University, Japan); Takehiko Kobayashi (Tokyo Denki University, Japan)

10:00 Scatterer Localization in Hospital Rooms at 60 GHz
Katsuyuki Haneda (Aalto University, Finland); Kenichi Takizawa (National Institute of Information and Communications Technology, Japan); Mikko Kyrö (Aalto University School of Electrical Engineering, Finland); Hiroaki Hagiwara (Yokohama City University, Japan); Pertti Vainikainen (Aalto University, Finland)

10:20 Diversity Performance of UWB Low Band Communication Over In-body to On-body Propagation Channel
Jingjing Shi (Nagoya Institute of Technology, Japan); Daisuke Anzai (Nagoya Institute of Technology, Japan); Jianqing Wang (Nagoya Institute of Technology, Japan)

10:40 Coffee Break

11:00 The Utilization of Body Skeleton Model for Modeling the Dynamic BAN Channels
Isiwandi (Tokyo Institute of Technology, Japan); Takahiro Aoyagi (Tokyo Institute of Technology, Japan); Minseok Kim (Tokyo Institute of Technology, Japan); Jun-ichi Takada (Tokyo Institute of Technology, Japan)

11:20 Simulation for Wearable Body Area Network by Multipole Technique at 403 MHz
Takahiro Aoyagi (Tokyo Institute of Technology, Japan); Jun-ichi Takada (Tokyo Institute of Technology, Japan)

11:40 Link Correlation Property in WBAN at 2.4 GHz by Multi-link Channel Measurement
Minseok Kim (Tokyo Institute of Technology, Japan); Karma Wangchuk (Tokyo Institute of Technology, Japan); Jun-ichi Takada (Tokyo Institute of Technology, Japan)

12:00 Design of a Radio System for Capsule Endoscopy Through a Pathloss Analysis
Kenichi Takizawa (National Institute of Information and Communications Technology, Japan); Hiroaki Hagiwara (Yokohama City University, Japan); Kiyoshi Hamaguchi (NICT, Japan)

12:20 Feasibility Study of 60 GHz Radio Systems in Hospital Environments
Mikko Kyrö (Aalto University School of Electrical Engineering, Finland); Kenichi Takizawa (National Institute of Information and Communications Technology, Japan); Katsuyuki Haneda (Aalto University, Finland); Hiroaki Hagiwara (Yokohama City University, Japan); Pertti Vainikainen (Aalto University, Finland)

09:00–12:40 Club D**CM01: Precise Measurements of Materials and Media in the MM/SubMM Ranges**

Chairs: Vladimir Parshin (The Institute of Applied Physics of the Russian Academy of Sciences, Russia), Kees Van't Klooster (European Space Agency, The Netherlands)

09:00 New Measurements of Atmospheric Continuum for Refinement of Millimeter Wave Propagation Models

Evgeny Serov (The Institute of Applied Physics of the Russian Academy of Sciences, Russia); Maxim Koshelev (The Institute of Applied Physics of the Russian Academy of Sciences, Russia); Vladimir Parshin (The Institute of Applied Physics of the Russian Academy of Sciences, Russia); Mikhail Tretyakov (The Institute of Applied Physics of the Russian Academy of Sciences, Russia)

09:20 Atmospheric Attenuation at 100 and 300 GHz Estimated with Radiosonde Data

Gustavo Siles (Universidad Politécnica de Madrid, Spain); Jose M Riera (Universidad Politécnica de Madrid, Spain); Pedro García-del-Pino (Universidad Politécnica de Madrid, Spain)

09:40 Accuracy Assessment of Material Measurements with a Quasi-Optical Free-Space Test Bench

Elena Saenz (European Space Agency, The Netherlands); Luis Rolo (European Space Agency, The Netherlands); Kees Van't Klooster (European Space Agency, The Netherlands); Maurice Paquay (European Space Agency & ESTEC, The Netherlands); Vladimir Parshin (The Institute of Applied Physics of the Russian Academy of Sciences, Russia)

10:00 Emission Spectroscopic Measurement in Fabry-Perot Resonator

Petr Cerny (Czech Technical University in Prague, Czech Republic); Vaclav Kabourek (Czech Technical University in Prague, Czech Republic); Stanislav Zvanovec (Czech Technical University in Prague, Czech Republic); Petr Piksa (Czech Technical University in Prague, Czech Republic); Tomas Korinek (Czech Technical University in Prague, Czech Republic)

10:20 Variations of Ozone Microwave Emission From the Mesosphere at Heating a Lower Ionosphere Powerful HF Radio Waves

Yuri Kulikov (Institute of Applied Physics of RAS, Russia); Vladimir Frolov (Radiophysical Research Institute, Russia)

10:40 Coffee Break**11:00 Three-Mirror Resonator Reflectivity Measurement of Plane and Grooved Surfaces: Setup, Options, Results**

Walter Kasperek (University of Stuttgart & Institut für Plasmaforschung, Germany); Eberhard Holzhauser (University of Stuttgart, Germany); Helga Kumric (University of Stuttgart, Germany); Burkhard Plaum (University of Stuttgart, Germany); Rolf Wacker (University of Stuttgart, Germany); Achim Zeitler (University of Stuttgart, Germany); Gerd Gantenbein (Karlsruhe Institute of Technology, Germany)

11:20 Reflectors Reflectivity of the MADRAS Spaceborne Radiometer

Laurent Costes (EADS ASTRIUM & Astrium Satellites, France); Carlos Montesano (EADS-CASA Espacio, Spain)

11:40 Use the Feature of Atmospheric Millimeter Wave Emission for Remote Sounding of Earth Cover

Alexander Shvetsov (Institute of Applied Physics RAS, Russia)

12:00 Precise Measurements of Materials and Media in the mm/sub-mm Ranges

Vladimir Parshin (The Institute of Applied Physics of the Russian Academy of Sciences, Russia); Evgeny Serov (The Institute of Applied Physics of the Russian Academy of Sciences, Russia); Kees Van't Klooster (European Space Agency, The Netherlands)

09:00–12:40 Club E**CA07: Imaging Arrays for Space and Astronomy**

Chairs: Wim A. van Cappellen (ASTRON, The Netherlands), Arnold van Ardenne (ASTRON, The Netherlands)

09:00 Descriptor Choice for UWB Antenna Arrays

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

09:20 Comparative Analysis of Dual-band Array Radiator Interactions in Rectangular and Triangular Grids

Shenario Ezhil Valavan A (Delft University of Technology, The Netherlands); Massimiliano Simeoni (Delft University of Technology, The Netherlands); Alexander Yarovoy (Delft University of Technology, The Netherlands)

09:40 Analysis of the Strut and Feed Blockage Effects in Radio Telescopes with Compact UWB Feeds

Wan-Chun Liao (Chalmers University of Technology, Sweden); Marianna Ivashina (Chalmers University of Technology, Sweden); Per-Simon Kildal (Chalmers University of Technology, Sweden); Arnold van Ardenne (ASTRON, The Netherlands)

10:00 SKA AA-low Front-End Developments (at Cambridge University)

Eloy de Lera Acedo (University of Cambridge, United Kingdom); Nima Razavi Ghods (University of Cambridge, United Kingdom); Paul Scott (University of Cambridge, United Kingdom); Peter Doherty (University of Cambridge, United Kingdom); Keith Grainge (University of Cambridge, United Kingdom); Andrew Faulkner (University of Cambridge, United Kingdom); Paul Alexander (University of Cambridge, United Kingdom); David González-Ovejero (Université catholique de Louvain, Belgium); Christopher Raucy (Université Catholique de Louvain, Belgium); Christophe Craeye (Université Catholique de Louvain, Belgium); Nick Drought (Cambridge Consultants Ltd., United Kingdom); Nick

Troop (Cambridge Consultants Ltd., United Kingdom); Paul Van der Merwe (University of Stellenbosch, South Africa); Howard Reader (University of Stellenbosch, South Africa)

10:20 Development of the Cryogenic 2-14 GHz Eleven Feed System for VLBI2010

Jian Yang (Chalmers University of Technology, Sweden); Miroslav Panteleev (Onsala Space Observatory, Chalmers University of Technology, Sweden); Terese Ekebrand (OmniSys Instruments AB, Sweden); Per-Simon Kildal (Chalmers University of Technology, Sweden); Hasan Raza (Chalmers University of Technology, Sweden); Jungang Yin (Norwegian University of Science and Technology (NTNU), Norway); Jan Jonsson (OmniSys Instruments AB, Sweden); Leif Helldner (Chalmers University of Technology, Sweden); Anders Emrich (OmniSys Instruments, Sweden); Benjamin Klein (University of the Witwatersrand, South Africa)

10:40 Coffee Break**11:00 Novel Printed UWB Array Based on a Versatile and Low-Cost Antenna Configuration**

Alessandro Galli (Sapienza University of Rome, Italy); Simona Mazzocchi (Sapienza University of Rome, Italy); Guido Valerio (Université de Rennes 1, France); Matteo Ciattaglia (SELEX Sistemi Integrati SpA, Italy); Marco Zucca (SELEX Sistemi Integrati S.p.A., Italy)

11:20 EMBRACE: Results From an Aperture Array for Radio Astronomy

Pieter Benthem (ASTRON, The Netherlands); Gideon W. Kant (ASTRON, The Netherlands)

11:40 Experimental Evaluation of Polarimetric Beamformers for an L-band Phased Array Feed

Wim A. van Cappellen (ASTRON, The Netherlands); Stefan J. Wijnholds (ASTRON, The Netherlands); Laurens Bakker (ASTRON, The Netherlands)

09:00–12:40 **Club H**
A07-2: Electromagnetic Theory and Numerical Techniques II

12:00 Low-Profile Wide-Band Wide-Angle-Scan Antenna Array Element

Leopoldo Infante (Selex Sistemi Integrati S.p.A., Italy); Stefano Mosca (SELEX Sistemi Integrati SpA, Italy); Mario Teglia (Selex Sistemi Integrati S.p.A., 'Sistemi Radianti', Italy)

12:20 Broadband Dual Polarised Planar Aperture Arrays for Wide Field of View Applications

Anthony Keith Brown (University of Manchester, United Kingdom); David Zhang (University of Manchester, United Kingdom)

Chairs: Vesna Arnavovski-Toseva (University Blaise Pascal, France), Daniel Segovia-Vargas (Universidad Carlos III de Madrid, Spain)

09:00 Some Investigations on New Optimization Techniques for EM Problems

Laura Teagno (Politecnico di Torino, Italy); Davide Tonella (Politecnico di Torino, Italy); Paola Pirinoli (Politecnico di Torino, Italy)

09:20 Advanced Modeling of Choke Ring Antennas for mm-Wave Applications

Sergiy Steshenko (Institute of Radiophysics and Electronics NAS Ukraine, Ukraine); Anatoliy Kirilenko (Institute of Radiophysics and Electronics NAS Ukraine, Ukraine); Artem V. Boriskin (IRE NASU, Ukraine); Maxime Zhadobov (University of RENNES 1, France); Ronan Sauleau (University of Rennes 1, France)

09:40 Fabry-Perot-like Resonances in the E-polarized Electromagnetic Plane Wave Scattering and Absorption by a Thin Dielectric Strip

Olga Shapoval (Institute of Radio-Physics and Electronics, Ukraine); Ronan Sauleau (University of Rennes 1, France); Alexander Nosich (IRE NASU, Ukraine)

10:00 Full-Wave Modeling of Antennas by Elementary Sources Based on Spherical Waves Translation

Juan F. Izquierdo (Universidad de Extremadura, Spain); Jesús Rubio (University of Extremadura, Spain); Miguel A. González (Universidad Politécnica de Madrid, Spain)

10:20 Numerical Solution of a Non-Linear Maxwell Problem for the Characterization of Nematic Liquid Crystals

Nectarios Papanicolaou (University of Nicosia, Cyprus); Anastasis C Polycarpou (University of Nicosia, Cyprus); Marios Christou (University of Nicosia, Cyprus)

10:40 Coffee Break

11:00 UTD Computation for NURBS Surfaces

Manushanker Balasubramanian (Fraunhofer Institute for High Frequency Physics and Radar Techniques, Germany); Alberto Toccafondi (University of Siena, Italy); Stefano Maci (University of Siena, Italy)

11:20 Transmitters with Multi-Radiation Sources for Electromagnetic Ray Tracing

Robert Brem (Technische Universität München, Germany); Thomas F. Eibert (Technische Universität München, Germany)

11:40 Comparison of Approximate Models of Horizontal Wire Conductor Above Homogeneous Ground

Vesna Arnavovski-Toseva (University Blaise Pascal, France); Khalil El Khamlichi Drissi (Universite Blaise Pascal & LASMEA Laboratory, France); Kamal Kerroum (University of Clermont Ferrand, France); Leonid Grcev (Ss Cyril and Methodius University Skopje, Macedonia)

12:00 Resonant Scattering of Light by Finite Sparse Configurations of Silver

Denys Natarov (Institute of Radiophysics and Electronics NASU, Ukraine); Ronan Sauleau (University of Rennes 1, France); Alexander Nosich (Institute of Radio-physics and Electronics of NASU, Ukraine)

12:20 A Modified RC-FDTD Algorithm for Plasmonics in Drude Dispersive Media Nanostructures

Antonino Calà Lesina (Fondazione Bruno Kessler & University of Trento, Italy); Alessandro Vaccari (Fondazione Bruno Kessler, Italy); Alessandro Bozzoli (Fondazione Bruno Kessler (FBK), Italy)

09:00–12:40 **Room III**
A13: Multiband, Wideband, UWB Antennas

Chairs: Alexander Yarovoy (Delft University of Technology, The Netherlands), Petr Cerny (Czech Technical University in Prague, Czech Republic)

09:00 Differentially-fed UWB Slot Antenna for Direct Board Integration

Antoine Dumoulin (Dublin Institute of Technology, Ireland); Max James Ammann (Dublin Institute of Technology, Ireland)

09:20 Quad-ridge Dual Polarized Antenna for Use in the 2-32GHz Band

Andrea Giacomini (SATIMO, Italy); Alessandro Potenza (SATIMO, Italy); Roberto Morbidini (SATIMO, Italy); Lars Jacob Foged (SATIMO, Italy)

09:40 Robust Design of UWB Antennas Using Response Surface Approximations and Manifold Mapping

Slawomir Koziel (Reykjavik University, Iceland); Stanislav Ogurtsov (Reykjavik University, Iceland)

10:00 Wideband Reflector for Archimedean Spiral Antenna

Christopher Djoma (Institut TELECOM, TELECOM ParisTech, France); Xavier Begaud (Institut TELECOM, TELECOM ParisTech, France); Anne-Claire Lepage (Institut TELECOM, TELECOM ParisTech, France); Stéphane Mallégo (THALES Systèmes Aéroportés, France); Michel Jousset (THALES Systèmes Aéroportés, France)

10:20 Wedge-Shaped Dual Planar Log-Periodic Antenna with Enhanced Directivity for WiMAX Applications

Stamatios A. Amanatiadis (Aristotle University of Thessaloniki, Greece); Antonios Lalas (Aristotle University of Thessaloniki, Greece); Nikolaos V. Kantartzis (Aristotle University of Thessaloniki, Greece)

10:40 Coffee Break

09:00–12:40 Room IV**A21: Space Application Antennas
(Communication & Navigation)****11:00 Loop-to-loop Pulsed Electromagnetic Field
Wireless Signal Transfer**

Ioan E. Lager (Delft University of Technology, The Netherlands); Adrianus T De Hoop (Delft University of Technology, The Netherlands)

**11:20 Investigation of Penetration Ability of UWB
Antennas in Near-field Sensing Applications**

Aidin Razavi (Chalmers University of Technology, Sweden); Jian Yang (Chalmers University of Technology, Sweden)

**11:40 Naturally Non-Selective Handset Antennas
with Good Robustness Against Impedance
Mistuning**

Risto Valkonen (Aalto University, Finland); Janne Ilvonen (Aalto University School of Electrical Engineering, Finland); Pertti Vainikainen (Aalto University, Finland)

**12:00 High Gain and Broadband Ultra Low Profile
EBG Antenna for High Power and Electronic
Warfare Applications**

Moustapha Salah Toubet (XLIM - UMR 6172 – CNRS, University of Limoges, France); Regis Chantalat (CISTEME, France); Mohamad Hajj (CISTEME-ESTER Technopole, France); Bernard Jecko (University of Limoges, France); Jean Christophe Diot (Cea, France)

12:20 Multiple Sector Ring Monopole Antennas

Onofrio Losito (Politecnico di Bari, Italy); Michele Bozzetti (Politecnico di Bari, Italy); Vincenzo Dimiccoli (ITEL Telecomunicazioni S.r.l., Italy); Domenico Barletta (ITEL Telecomunicazioni S.r.l., Italy)

Chairs: Ovidio Mario Bucci (University of Naples, Italy), Antoine Roederer (Technical University of Delft - IRCTR, The Netherlands)

**09:00 A CPSS-Based Reflectarray Cell with
Reconfigurable Capabilities**

Simon Mener (IETR & CNES/DGA, France); Raphael Gillard (IETR & INSA, France); Ronan Sauleau (University of Rennes 1, France); Cecile Cheymol (CNES, France); Patrick Potier (DGA/Maîtrise de l'Information, France)

**09:20 Modelling and Numerical Analysis of Rotating
Antennas and Rotating Scatterers Applied to
Aeronautical System Simulations**

Gerhard Greving (NAVCOM Consult, Germany)

**09:40 Comparison Between Sclimp Horns and
Stacked Fabry-Perot Cavity Antennas with
Small Apertures**

Shoaib Muhammad (Université de Rennes 1, France); Anthony Rolland (IETR, University of Rennes 1, France); Samsul Haimi Dahlan (University Rennes 1, France); Ronan Sauleau (University of Rennes 1, France); Hervé Legay (Thalès Alenia Space, France)

**10:00 New Multi-Layer Millimetre-Wave
Folded Reflectarray Antennas for Satellite
Communications**

Dawei Zhou (University of Surrey, United Kingdom); Chong Zhang (University of Surrey, United Kingdom); Steven Gao (University of Surrey, United Kingdom)

**10:20 Pointing Accuracy and Gain Reduction
Mechanisms in CP Retrodirective Arrays for
SATCOM Applications**

O Malyuskin (Queens University Belfast, United Kingdom); Vincent Fusco (Queen's University Belfast, United Kingdom)

10:40 Coffee Break**13:00–15:00 Club B****SPEAG Workshop****11:00 Dynamic Analysis and Experiment of
Deployable Truss Structure for Reflector
Antenna**

Hongwei Guo (University of Oxford, United Kingdom); Rongqiang Liu (Harbin Institute of Technology, P.R. China); Zongquan Deng (Harbin Institute of Technology, P.R. China); Dake Tian (Harbin Institute of Technology, P.R. China)

**11:20 Isophoric Sparse Arrays: a Synthesis
Procedure for Circularly Symmetric Shaped
Beams**

Ovidio Mario Bucci (University of Naples, Italy); Tommaso Isernia (University of Reggio Calabria, Italy); Andrea Francesco Morabito (University Mediterranea of Reggio Calabria, Italy); Stefano Perna (Università degli Studi di Napoli „Parthenope“, Italy); Daniele Pinchera (University of Cassino & University of Naples, Federico II, Italy)

**11:40 Deployable Antennas for CubeSat and Space
Communications**

Joseph Costantine (California State University Fullerton, USA); Youssef Tawk (University of New Mexico, USA); Anthony Ernest (University of New Mexico, USA); Christos Christodoulou (University of New Mexico, USA)

**12:00 Design of Low Scattering Posts for Dual
Gridded Reflector Antennas**

Mathieu Riel (MDA, Canada); Yves Demers (MDA Corporation, Canada); Alexander Ihle (HPS GMBH, Germany); Jean-Louis Lopes (Astrium, France); Jean-Christophe Angevain (ESA, The Netherlands)

**12:20 Struts Scattering Effects on High Performance
Spacecraft Antenna**

Rodolfo Ravanelli (Thales Alenia Space Italy SpA, Italy)

14:00–16:20 **Poster Hall****POST1: Poster Session 1 – Antennas, Propagation**

Chairs: Manuel Cuntz (German Aerospace Center (DLR), Germany), Vaclav Kvicera (Czech Metrology Institute, Czech Republic), Ludek Subrt (Czech Technical University in Prague, Czech Republic)

ANTENNAS**1) Millimeter-wave Microstrip-feeding Broadband Aperture Antennas in Multi-layer Configuration**

Kunio Sakakibara (Nagoya Institute of Technology, Japan); Hiroki Hori (Nagoya Institute of Technology, Japan); Nobuyoshi Kikuma (Nagoya Institute of Technology, Japan); Hiroshi Hirayama (Nagoya Institute of Technology, Japan)

2) Accurate Modeling of Antennas Using Variable-Fidelity EM Simulations and Co-Kriging

Slawomir Koziel (Reykjavik University, Iceland); Stanislav Ogurtsov (Reykjavik University, Iceland); Ivo Couckuyt (Ghent University, Belgium); Tom Dhaene (Ghent University, Belgium)

3) Factorization of Gaussian Coupling Efficiency and Algorithm to Compute It

Yogesh Karandikar (Dept. of Microtechnology and Nanoscience, Chalmers University of Technology, Sweden)

4) Circularly Polarized Reflectarray Antenna for Satellite Broadcasting Reception

Shigeru Makino (Kanazawa Institute of Technology, Japan)

5) Analysis of 60 GHz Flip-Chipped Package Using EM Tool-based Time-Domain Reflectometry

Muhammad Imran Kazim (Technical University of Eindhoven (TU/e), The Netherlands); Matti Herben (Eindhoven University of Technology, The Netherlands)

6) The Evaluation of Total Radiation Q Based on Modal Approach

Miloslav Capek (Czech Technical University in Prague, Czech Republic); Pavel Hazdra (Czech Technical University in Prague, Czech Republic); Jan Eichler (CTU in Prague, FEE, Czech Republic); Pavel Hamouz (Czech Technical University in Prague, Czech Republic); Milos Mazanek (Czech Technical University in Prague, Czech Republic); Veronika Sobotikova (CTU in Prague, Faculty of Electrical Engineering, Czech Republic)

7) Designing Microwave Patch Antennas Using Heterogeneous Substrates

Chinwe Njoku (Loughborough University, United Kingdom); William Whittow (Loughborough University, United Kingdom); J (Yiannis) Vardaxoglou (Loughborough University, United Kingdom)

8) Compliance Boundaries for LTE Base Station Antennas

Arno Thielens (Ghent University & IBBT, Belgium); Gunter Vermeeren (Ghent University, Belgium); Divya Kurup (Ghent University, Belgium); Wout Joseph (Ghent University, Belgium); Luc Martens (Ghent University, Belgium)

9) Focal Plane Arrays for THz Imaging

Annalisa Iacono (University of Eindhoven (TUE), The Netherlands); Carlo Bencivenni (TNO, The Netherlands); Angelo Freni (University of Florence, Italy); Andrea Neto (Delft University of Technology, The Netherlands); Giampiero Gerini (TNO - Defence, Security and Safety, The Netherlands)

10) Design of a Novel 3D Circular Vivaldi Antennas Array for Ultra-Wideband Near-Field Radar Imaging

Khaldoun Alkhalifeh (Université Catholique de Louvain, Belgium); Rémi Sarkis (Université catholique de Louvain, Belgium); Christophe Craeye (Université Catholique de Louvain, Belgium)

11) Leaky Wave Structure Based on Two Spiraphase-Type Reconfigurable Reflectarrays

Alexander Martynyuk (Universidad Nacional Autonoma de Mexico, Mexico); Daniel Sesena-Martinez (Universidad Nacional Autonoma de Mexico, Mexico); Andrea Martinez-Lopez (Universidad Veracruzana, Mexico)

12) Study on Microstrip X-Linear Polarized and X-Circular Polarized Antenna

Mohamad Zoinol Abidin Bin Abd Aziz (Universiti Teknikal Malaysia Melaka & Hang Tuah Jaya, Malaysia); Mohamad Kamal A. Rahim (Universiti Teknologi Malaysia, Malaysia)

13) Modern Electromagnetic Simulation Tools Applied to On-aircraft Antenna Integration

Francisco Javier Jiménez (Airbus Military, Spain); Miguel Angel Sendarrubias (Airbus Military, Spain); Jose Antonio Rojo Moreno (Airbus Military, Spain); Enrique Pascual Gil (Airbus Military, Spain)

14) Examining the Energetic Contribution of Reflectarray Cells Using Circuit Model and Full-wave Simulations

Yasser Abdallah (Xlim UMR CNRS 6172-University of Limoges, France); Cyrille Menuudier (Xlim UMR CNRS 6172-university of limoges, France); Marc Thevenot (Xlim-UMR 6172-CNRS, University of Limoges, France); Thierry Monediere (University of Limoges & CNRS, France)

15) 2.45 GHz Printed IFA on Metallic Environments: Clearance Distance and Retuning Considerations

Félix Casado (IKERLAN-IK4 & TECNUN University of Navarra, Spain); Aitor Arriola (IKERLAN, Spain); Egoitz Arruti (University of Mondragon, Spain); Josep Parrón (Universitat Autònoma de Barcelona, Spain); Iñaki Ortego (Ceit and Tecnun, University of Navarra, Spain); Juan Ignacio Sancho (CEIT and Tecnun - University of Navarra, Spain)

16) Impact of Random Number Generators on the Performance of Particle Swarm Optimization in Antenna Design

Zhongkun Ma (Katholieke Universiteit Leuven, Belgium); Guy A. E. Vandenbosch (Katholieke Universiteit Leuven, Belgium)

17) A Simple and Fast Technique to Analyze Accurately Reconfigurable Reflectarrays

Clement Yann (IETR & Thales Systemes Aeroportes, France); Renaud Loison (IETR, France); Raphael Gillard (IETR & INSA, France); Michèle Labeyrie (Thales Systèmes Aéroportes, France); Jean-Paul Martinaud (THALES - AIRBORNE SYSTEMS, France)

18) Magnetic In-Body and On-Body Antennas Operating at 40MHz and Near Field Magnetic Induction Link Budget

Fatiha El hatmi (Paris-Est Marne-la-Vallée university, France); Marjorie Grzeskowiak (University of Paris-Est Marne-la-Vallée, France); Stéphane Protat (Université Marne La Vallée, France); Odile Picon (Université Paris-Est (Marne-la-Vallée), France)

19) A Field Assessment of HF/VHF Wire Antenna Impedance Changes in Rain Forests

Mauricio H C Dias (Instituto Militar de Engenharia, Brazil); Marinho Melo (Instituto Militar de Engenharia, Brazil); Priscilla Farias (Instituto Militar de Engenharia, Brazil); Hebert Sá (Instituto Militar de Engenharia, Brazil); Anderson Marques (Instituto Militar de Engenharia, Brazil); Leonardo Moreira (Instituto Militar de Engenharia, Brazil)

20) Pulse Shaping for Time-Domain Microwave Breast Tumour Detection: Experiments with Realistic Tissue Phantoms

Adam Santorelli (McGill University, Canada); Emily Porter (McGill University, Canada); Milica Popović (McGill University, Canada); Joshua D Schwartz (Trinity University, USA)

21) Improvement of the Ear-to-Ear Path Gain at 2.45 GHz Using Parasitic Antenna Element

Søren H Kvist (Technical University of Denmark & GN ReSound A/S, Denmark); Sinasi Özden (GN ReSound A/S, Denmark); Jesper Thaysen (GN ReSound A/S, Denmark); Kaj Bjarne Jakobsen (Technical University of Denmark, Denmark)

22) An Ultrabroadband Direction Finding Antenna Including the GSM and UMTS Frequency Bands

Rainer Mueller (Cassidian, Germany); Ralf Lorch (Cassidian Electronics, Germany)

23) Numerical Modeling of the Area of Phase Shifter Operation of the Azimuthally Magnetized Circular Ferrite Waveguide

Mariana Nikolova Georgieva-Grosse (Meterstrasse 4, Germany); Georgi Nikolov Georgiev (University of Veliko Tirново „St. St. Cyril and Methodius“, Bulgaria)

24) Closely Coupled Half-Width Leaky-Wave Antenna Array

Guang-Fu Cheng (National Taiwan University, Taiwan); Ching-Kuang Tzuang (National Taiwan University, Taiwan)

25) Lumped-Element Unit Cell for Designing Beam Forming Networks

Erio Gandini (IETR - University of Rennes 1, France); Mauro Ettore (University of Rennes 1 & UMR CNRS 6164, France); Ronan Sauleau (University of Rennes 1, France); Anthony Grbic (University of Michigan, Ann Arbor, USA)

26) Analysis on Wireless Power Transfer to Moving Devices Based on Array of Resonators

Bingnan Wang (Mitsubishi Electric Research Labs, USA); David Ellstein (Mitsubishi Electric Research Labs, USA); Koon Hoo Teo (Mitsubishi Electric Research Lab, USA)

27) Design and Characterization of W-band Components in Planar Technology

Ainara Rebollo (Public University of Navarra, Spain); Itziar Maestrojuán (Public University of Navarra, Spain); Belen Larumbe-Gonzalo (Antenna Group. Public University of Navarra, Spain); Ramon Gonzalo (Public University of Navarra, Spain); Iñigo Ederra (Universidad Publica de Navarra, Spain)

28) 60 GHz Triangular Monopole Antenna-on-Chip Over an Artificial Magnetic Conductor

Adel Barakat (Egypt-Japan University of Science and Technology & Electronics Research Institute (ERI), Egypt); Ahmed Allam (Egypt-Japan University of Science and Technology, Egypt); Ramesh K Pokharel (Kyushu University, Japan); Hala Elsadek (, Egypt); Mohamed El-Sayed (Alexandria University, Egypt); Keiji Yoshida (Kyushu University, Japan)

29) Mutual Coupling of Elliptical Microstrip Resonators

Mariusz Pergol (Gdansk University of Technology, Poland); Włodzimierz Zieniutycz (Gdansk University of Technology, Poland)

30) New Feeding Principle for Slot Antennas

Wolf-Stefan Benedix (Technische Universität Dresden, Germany); Dirk Plettemeier (Dresden University of Technology, Germany); Albrecht Stefan (Private, Germany)

31) Application of Loop-Star and Loop-Tree Basis Functions to MoM Solution of Radiation and Scattering Problems on Complicated Surface and Wire Geometries From Low to Microwave Frequencies

Faik G. Bogdanov (EMCoS, Georgia); Roman Jobava (EMCoS, Georgia); Anna Gheonjian (EMCoS Ltd., Georgia); Khatuna Khasaia (EMCoS, Georgia)

32) Reduction of High-Order Modes Coupling on Bends in the Dielectric-Coated Single Wire Waveguide

Antonio Berenguer (Universitat Politècnica de Valencia & Instituto de Telecomunicaciones y Aplicaciones Multimedia, Spain); Mariano Baquero-Escudero (Universidad Politècnica de Valencia, Spain); Daniel Sanchez-Escuderos (Universidad Politècnica de Valencia, Spain); Miguel Ferrando-Bataller (Universidad Politècnica De Valencia, Spain)

33) Comparative of Surface Integral Equation Formulations When Applied to Plasmonic Problems

Marta G. Araújo (Universidade de Vigo, Spain); Diego M. Solís (University of Vigo, Spain); Jose M. Taboada (University of Extremadura, 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)

34) Theoretical Study of Symmetric and Antisymmetric Plasmons in Chains of Coupled Plasma Cylinders

Nadiia P. Stognii (Kharkiv National University of Radio Electronics, Ukraine)

35) Application of GPU Computing to the Characteristic Basis Function Method

Juan Ignacio Perez (University of Alcalá, Spain); Eliseo García (Alcalá University, Spain); Jose Antonio de Frutos (Universidad de Alcalá, Spain); Jose Ramon Almagro (University of Alcalá, Spain); Felipe Cátedra (University of Alcalá, Spain)

36) High Power Terahertz Photomixer Arrays

Belen Andres-Garcia (Universidad Carlos III de Madrid, Spain); Luis-Enrique Garcia-Muñoz (University Carlos III of Madrid, Spain); Daniel Segovia-Vargas (Universidad Carlos III de Madrid, Spain); Sebastian Bauerschmidt (Max Planck Institute for the Science of Light, Germany); Gottfried Döhler (Max Planck Institute for the Science of Light, Germany); Sascha Preu (Friedrich Alexander Universität Erlangen-Nürnberg, Germany); Stefan Malzer (Max Planck Institute for the Science of Light, Germany); Hong Lu (University of California, Santa Barbara, USA); Arthur Gossard (University of California, Santa Barbara, USA)

37) On-body Directional Antenna Design for In-body UWB Wireless Communication

Qiong Wang (Dresden University of Technology, Germany); Ronny Hahnel (Dresden University of Technology, Germany); Hui Zhang (Dresden University of Technology, Germany); Dirk Plettemeier (Dresden University of Technology, Germany)

38) 60 GHz Microstrip Antenna Array on PTFE Substrate

Alexander V Bondarik (Lund University, Sweden); Daniel Sjöberg (Lund University, Sweden)

39) Combination of „circuit“ and „cavity“ Models for the Determination of Multifaceted Patches Impedance

Walid El Hajj (Telecom Bretagne & Lab-STICC / MOM, France); Francois Gallée (Télécom Bretagne, France); Christian Person (Lab-STICC/ MOM UMR CNRS, France)

40) Compact Orthomode Power Divider for High-Efficiency Dual-Polarisation Rectangular Horn Antennas

Nelson Fonseca (European Space Agency, The Netherlands); Peter Rinous (European Space Agency (ESTEC), The Netherlands)

41) A Simple Target Tracking Architecture for Wireless Communication Applications
Hantao Xu (Katholieke Universiteit Leuven, Belgium); Hadi Aliakbarian (ESAT, Katholieke Universiteit Leuven, Belgium); Guy A. E. Vandenbosch (Katholieke Universiteit Leuven, Belgium); Vladimir Volski (KU Leuven, Belgium)

42) Large-scale Plasmonic Problems Solved with the Multilevel Fast Multipole Algorithm
Marta G. Araújo (Universidade de Vigo, Spain); Jose M. Taboada (University of Extremadura, Spain); Javier Rivero (University of Extremadura, Spain); Diego M. Solís (University of Vigo, Spain); Fernando Obelleiro (University of Vigo, Spain); Luis Landesa (University of Extremadura, Spain)

43) Time-Effective and Accurate Synthesis of Large-Aperture Slotted Waveguide Antennas
Stanislav Sekretarov (Institute of Radio Astronomy of the National Academy of Sciences of Ukraine, Ukraine); Anton Somov (Institute of Radio Astronomy of the National Academy of Sciences of Ukraine, Ukraine); Dmytro Vavriv (Institute of Radio Astronomy of the National Academy of Sciences of Ukraine, Ukraine)

44) From Prototype to Serial Manufacturing of the Low Profile KU-BAND Transmit/Receive Terminal ODU for Satellite Mobile Communications
José Alonso (TTI, Spain); Ana Rosa Ruiz (TTI, Spain); Alberto Pellón (TTI, Spain); Miguel Peña (TTI, Spain); Jean-Christophe Angevain (ESA, The Netherlands)

45) Parametric Statistical Modeling of Power Gain Patterns for RFID Backscattering Channels
Zeinab Mhanna (Telecom ParisTech, France); Alain Sibille (Telecom Paris Tech & ENSTA PARISTECH, France); Muhammad Amir Yousuf (Ecole Polytechnique - ParisTech & Telecom - ParisTech, France); Christophe Roblin (TELECOM ParisTech & ENSTA ParisTech, France)

46) Evolution of an UWB Antenna for Hyperthermia Array Applicator
Hana Dobšiček Trefná (Chalmers University of Technology, Sweden); Azeem Imtiaz (Cardiff University & NXP, Eindhoven, Netherlands, United Kingdom); Hoi-Shun Lui (Chalmers University of Technology, Sweden); Tonny Rubæk (Chalmers University of Technology, Sweden); Mikael Persson (Chalmers University of Technology, Sweden)

47) Decoupling Techniques of Compact and Broadband MIMO Antennas for Handheld Devices
Faraz Mahmood (Linköping University, Sweden)

48) Trihexagonal Switched-Beam Tx-only Ku-band Terminal Antenna for Mobile Satellite Applications
Frédéric Bongard (JAST SA, Switzerland); Daniel Llorens del Río (JAST, Switzerland); Maria Carolina Viganó (JAST SA, Switzerland); Stefano Vaccaro (JAST SA, Switzerland)

49) Time Domain Simulation of THZ Photoconductive Antennas
Enrique Moreno-Perez (University of Granada, Spain); Mario F Pantoja (University of Granada, Spain); Salvador G. García (University of Granada, Spain); Amelia Rubio Bretones (University of Granada, Spain); Rafael Gómez Martín (Universidad de Granada, Spain)

50) Study of an Electronic Steering Antenna with a Staggered Phase Shifter Configuration
Álvaro Noval Sánchez de Toca (Universidad Politécnica Madrid & Grupo de Radiación, Spain); Javier García-Gasco Trujillo (Universidad Politécnica de Madrid, Spain); Manuel Sierra Perez (Universidad Politécnica de Madrid, Spain)

51) Antenna Coupling in Multi Active Multi Passive Port Topologies
Osama Alrabadi (AAU, Denmark); Gert Pedersen (Aalborg University, Denmark)

52) Pattern Synthesis for Multi-Feed Reflector Antenna Using IWO Algorithm
Ali Foudazi (Shahed University & Iran Telecommunication Research Center, Iran); Alireza Mallahzadeh (Shahed University, Iran); Mohammad Mehdi Samadi Taheri (Shahed University, Iran)

53) A Practical Approach to Array Antenna Design
Bengt Svensson (Saab AB, Sweden)

54) Calculation of Fingerprints of Typical Antipersonnel Landmines by Varying the Observation Point and Incidence Angles of Excitations
Isam Alawneh (Ruhr University Bochum, Germany)

55) Analysis of Monopole Antenna Over a Ground Plane by a Meshless Local Petrov-Galerkin Method
Ramon Soares (Federal University of Minas Gerais, Brazil); Fernando Moreira (Federal University of Minas Gerais, Brazil)

56) Improved Axial Ratio Quality for Radio Telescope Applications with a Phased Array Feed
Abolghasem Zamanifekri (Eindhoven University of Technology, The Netherlands); A. B. (Bart) Smolders (Eindhoven University of Technology, The Netherlands); Chunzhou Zhang (Eindhoven University of Technology, The Netherlands); Michel Arts (Netherlands Institute for Radio Astronomy, The Netherlands); Wim A. van Cappellen (ASTRON, The Netherlands)

57) Method for Accurately Solving the Scattering in Planar Reflectarrays Under an Arbitrary Excitation
Gerardo Perez-Palomino (Universidad Politécnica de Madrid, Spain); Jose A. Encinar (Universidad Politécnica de Madrid, Spain); Mariano Barba (Universidad Politécnica de Madrid, Spain)

58) Ground-based Reflector Antennas Observed with Space-based Synthetic Aperture Radar
Kees Van't Klooster (European Space Agency, The Netherlands); Bjorn Rommen (Estec & European Space Agency, The Netherlands); Felipe Cátedra (University of Alcalá, Spain)

59) Evaluation of Homogeneity of SAR Distribution of Array of TEM Mode Applicators
Barbora Vrbova (Czech Technical University of Prague, Czech Republic); Jan Vrba (Czech Technical University, Czech Republic)

60) Measuring the Delfi-C3 Satellite Using the Westerbork Synthesis Radio Telescope
Mark J. Bentum (University of Twente, The Netherlands); Hans van der Marel (ASTRON, The Netherlands); Chris Verhoeven (TU Delft, The Netherlands); Johan Leijtens (Bradford Engineering, The Netherlands)

61) A TEM Cell System for in Vivo Exposure at 2.45 GHz
Alessandra Paffi (Sapienza University of Rome, Italy); Micaela Liberti (ICEmB at „Sapienza“ University of Rome, Italy); Fabio Fratta (Sapienza University of Rome, Italy); Francesca Apollonio (University Sapienza of Rome, Italy); Caterina Merla (ICEmB at ENEA, Research Center Casaccia, UT BIORAD, Italy); Rosanna Pinto (ICEmB at ENEA, Research Center Casaccia, UT BIORAD, Italy); Giorgio Lovisolo (ICEmB at ENEA, Research Center Casaccia, UT BIORAD, Italy)

62) The User's Body Effects on Decoupling Networks for Compact MIMO Handsets
Alexandru Tatomirescu (Aalborg University, Denmark); Mauro Pelosi (Aalborg University, Denmark); Ondřej Franek (Aalborg University & APNet Section, Denmark); Gert Pedersen (Aalborg University, Denmark)

63) Circularly Polarized Ka-Band Waveguide Slot Array with Low Sidelobes

Doganay Dogan (Aselsan Inc., Turkey); Can Baris Top (Aselsan Inc., Turkey)

64) Performance of a Custom and a Commercial Mesh Generator in the Simulation of a Microstrip Circuit

Tomasz Linkowski (Wroclaw University of Technology, Poland); Piotr Stobodzian (Wroclaw University of Technology, Poland)

PROPAGATION**65) Detection of an Object in a Reverberant Environment Using Direct and Differential Time Reversal**

Padmini Sundaralingam (Queen's University Belfast, United Kingdom); Vincent Fusco (Queen's University Belfast, United Kingdom); Dmitry E Zelenchuk (Queen's University of Belfast, United Kingdom); Roger Appleby (QinetiQ, United Kingdom)

66) Dipersive Propagation of Ultra Wideband Pulses Through Triply Distilled Water at PHZ Frequencies

Ana Alejos (Universidad de Vigo, Spain); Muhammad Dawood (New Mexico State University, USA); Francisco Falcone (Universidad Publica de Navarra, Spain)

67) Initial Experimental Characterization of the Millimeter-Wave Radio Channel

Maria Teresa Martinez-Ingles (Universidad Politécnica de Cartagena, Spain); Concepcion Garcia-Pardo (Technical University of Cartagena, Spain); Juan Pascual Garcia (Technical University of Cartagena, Spain); Jose-Maria Molina-Garcia-Pardo (Universidad Politécnica de Cartagena, Spain); José-Víctor Rodríguez (Universidad Politécnica de Cartagena, Spain); Juan Reig (Universidad Politécnica de Valencia, Spain); Leandro Juan-Llacer (Universidad Politécnica de Cartagena, Spain)

68) Simulation of Microwave Propagation in Turbulent Evaporation Duct

Iurii Levadnyi (Institute of Radiophysics and Electronics NAS of Ukraine, Ukraine); Victor Ivanov (Institute of Radiophysics and Electronics NAS of Ukraine, Ukraine); Vyacheslav Shalyapin (Institute of Radiophysics and Electronics NAS of Ukraine, Ukraine)

69) Through-Wall Target Localisation Using Differential Phase Conjugation Assisted Radar

Dmitry E Zelenchuk (Queen's University of Belfast, United Kingdom); Vincent Fusco (Queen's University Belfast, United Kingdom); Roger Appleby (QinetiQ, United Kingdom)

70) Prediction of FSS Radome Performane Using Simple Design Equation

Kyung-Won Lee (Yonsei University, Korea); Yi-Ru Jeong (Yonsei University, Korea); Jong-Gwan Yook (Yonsei University, Korea); Ic Pyo Hong (Kongju National University, Korea)

71) Characterization of MHz-Band Near-Field Coupling Communication Using Finite Element Electromagnetic Simulation

Masashi Takahashi (Kyoto Institute of Technology, Japan); Ryuki Shimoda (Kyoto Institute of Technology, Japan); Tatsuya Kusunoki (Kyoto Institute of Technology, Japan); Tomoaki Yanagawa (Kyoto Institute of Technology, Japan); Taku Kobase (Kyoto Institute of Technology, Japan); Ryouji Nagai (Kyoto Institute of Technology, Japan); Hitoshi Shimasaki (Kyoto Institute of Technology, Japan); Yuichi Kado (Kyoto Institute of Technology & Graduate School of Science and Technology, Japan)

72) Outage Performance of Double Stratospheric Platforms Diversity Systems

Athanasios D. Panagopoulos (National Technical University of Athens, Greece); Miltiades C. Filippou (EURECOM Institute, France)

73) Model-Based Inversion of Electromagnetic Scattering Data - an Innovative Alternate Minimization Approach

Giacomo Oliveri (University of Trento & ELEDIA Research Center, Italy); Lorenzo Poli (University of Trento, Italy); Andrea Massa (University of Trento, Italy)

74) Imaging Weak Scatterers by Means of an Innovative Inverse Scattering Technique Based on the Interval Analysis

Paolo Rocca (University of Trento, Italy); Matteo Carlin (University of Trento, Italy); Andrea Massa (University of Trento, Italy)

75) Propagation in the Circular Waveguide, Containing an Azimuthally Magnetized Ferrite Cylinder and a Dielectric Toroid

Georgi Nikolov Georgiev (University of Veliko Tirnovo „St. St. Cyril and Methodius“, Bulgaria); Mariana Nikolova Georgieva-Grosse (Meterstrasse 4, Germany)

76) Link Budget Calculations for Nonlinear Scattering

Christian Fazi (ARL, USA); Frank Crowne (ARL, USA); Marc Ressler (ARL, USA)

77) Experimental Assessment of Secret Key Generation Using Parasitic Reconfigurable Aperture Antennas

Rashid Mehmood (Jacobs University Bremen, Germany); Jon Wallace (Jacobs University Bremen, Germany)

78) Investigations of Lower Atmospheric Trends Over Europe with Very Low Frequency Wave Propagation Paths

Hans Eichelberger (Space Research Institute & Austrian Academy of Sciences, Austria); Gustav Prattes (Austrian Academy of Sciences, Austria); Konrad Schwingenschuh (Austrian Academy of Sciences, Austria); Daniel Wolbang (Institute of Physics, IGAM, Austria); Alexander Rozhnoi (Russian Academy of Sciences, Russia); Pier Francesco Biagi (University of Bari, Italy); Tommaso Maggipinto (University of Bari, Italy); Bruno Besser (Austrian Academy of Sciences, Austria); Manfred Stachel (Austrian Academy of Sciences, Austria); Claudia Grill (Space Research Institute, Austria); Sigrid Zehetleitner (Space Research Institute, Austria); Irmgard Jernej (Austrian Academy of Sciences, Austria); Özer Aydogar (Austrian Academy of Sciences, Austria)

79) Controlling Coverage Using New Concept of Pre-Installed Infrastructure

Ludek Subrt (Czech Technical University in Prague, Czech Republic); Pavel Pechac (Czech Technical University in Prague, Czech Republic)

80) Space Diversity Analysis for Low Elevation Links in Urban Areas

Michal Simunek (Czech Technical University in Prague, Czech Republic); Pavel Pechac (Czech Technical University in Prague, Czech Republic); Fernando Pérez-Fontán (University of Vigo, Spain)

81) An Indoor Backscattering Channel Characterization for UWB Passive RFID Applications

Raffaele D'Errico (CEA, LETI, Minatec Campus, France)

82) Estimation of Radio Refractivity Profile Gradient From Multiple LOS Links Using Artificial Neural Networks - First Results

Otakar Jicha (Czech Technical University in Prague, Czech Republic); Pavel Pechac (Czech Technical University in Prague, Czech Republic); Vaclav Kvicera (Czech Metrology Institute, Czech Republic); Martin Grabner (Czech Metrology Institute, Czech Republic)

83) Moving-Window Propagation Model Based on an Unconditionally Stable FDTD Method

Claudio G. Batista (Federal University of Minas Gerais (UFMG) & Graduate Program in Electrical Engineering, Brazil); Cássio Rego (Federal University of Minas Gerais, Brazil)

84) Comparison of Migration Techniques for Ground Penetrating Radar

Noelia Alcelay (Universidad Politécnica de Madrid, Belgium); Jan-willem De Bleser (Katholieke Universiteit Leuven, Belgium); Emmanuel H. Van Lil (Katholieke Universiteit Leuven, Belgium); Antoine Van de Capelle (Katholieke Universiteit Leuven, Belgium)

85) New Terrain Proposal for SUI Model Equations Based on 5.8 GHz Measurements in Wooded Cities Found in Amazon Region

Michel do Vale (Federal University of Pará, Brazil); Igor Gomes (Federal University of Pará, Brazil); Gervásio Cavalcante (UFPA, Brazil); Bruno Castro (Federal University of Pará, Brazil); Fabricio Barros (Pontifícia Universidade Católica do Rio de Janeiro, Brazil)

86) A Methodology for Determining the Electric Field of Broadcasting Medium Wave Using Computational Intelligence Approach

Juliana Monteiro (Federal University of Pará, Brazil); Josiane do Couto Rodrigues (Federal University of Pará, Brazil); Simone da Graça de Castro Fraiha (Federal University of Pará, Brazil); Jasmine Priscyla Leite de Araújo (Federal University of Pará, Brazil); Hermínio Gomes (Federal University of Pará, Brazil); Amaury Ferreira (Federal University of Pará, Brazil); Carlos Renato Francês (Universidade Federal do Pará, Brazil); Gervásio Cavalcante (UFPA, Brazil)

87) Path Loss Exponents for Medium Waves Using Parabolic Equations

João Souza (Universidade Federal do Pará, Brazil); Fátima Magno (Universidade Federal do Pará, Brazil); Klaus Cozzolino (Universidade Federal do Pará, Brazil); Jessé Costa (Universidade Federal do Pará, Brazil); Gervásio Cavalcante (UFPA, Brazil)

88) SKA Antenna Systems; Outlook for Non-Astronomy Applications

Arnold van Ardenne (ASTRON, The Netherlands); Mark J. Bentum (University of Twente, The Netherlands); Albert Jan Boonstra (ASTRON, The Netherlands)

14:00–15:00

CST Workshop

Club D

14:00–15:00

CA04-1: Convened Interactive Session of the WG on Software I

Chairs: Guy A. E. Vandenbosch (Katholieke Universiteit Leuven, Belgium), Francesca Mioc (Consultant, Switzerland)

14:00 Computational Electromagnetics: Commercial State-Of-The-Art and Scientific Road Map

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

14:20 State of the Art of Electromagnetic Modelling in FEKO

Ulrich Jakobus (EM Software & Systems – S.A. (Pty) Ltd, South Africa); Gronum Smith (EM Software & Systems – S. A. (Pty) Ltd, South Africa)

14:40 New Modelling Capabilities in Commercial Software for High-Gain Antennas

Erik Jørgensen (TICRA, Denmark); Michael Lumholt (TICRA, Denmark); Peter Meincke (TICRA, Denmark); Min Zhou (TICRA & Technical University of Denmark, Denmark); Stig Sørensen (TICRA, Denmark); Oscar Borries (Technical University of Denmark & Ticra, Denmark); Cecilia Cappellin (TICRA, Denmark); Poul Erik Frandsen (TICRA, Denmark)

14:00–16:20

EurAAP Delegate Assembly

Club H

15:00–16:20

INV3: Invited lectures: S. Raffaelli, J. Hirokawa

Room I

Chairs: Erich Leitgeb (TUG, Austria), Antoine Roederer (Technical University of Delft - IRCTR, The Netherlands)

15:00 Recent Development and Future Trends in Telecoms Antenna for Satellites

Silvia Raffaelli (EADS Astrium, UK)

15:40 Millimeter-wave Band Array Antennas Using Transmission-loss Reduced Waveguide Structures

Jiro Hirokawa (Tokio Institute of Technology, Japan)

15:00–16:20 **Room II**
INV4: Invited lectures: J. Kunisch, D. Vanhoenacker-Janvier

Chairs: Mario Orefice (Politecnico di Torino, Italy), Christian Y. Pichot (Université de Nice - Sophia Antipolis, CNRS, France)

15:00 On the Use of Hypercomplex Numbers for Antenna and Propagation Problems
 Jürgen Kunisch (IMST GmbH, Germany)

15:40 Impact of the Tropospheric Turbulence on the Propagation of Radiowaves: Models for New Communication Systems
 Danielle Vanhoenacker-Janvier (Université catholique de Louvain, Belgium)

15:00–16:20 **Club A**
AMTA Workshop Low-frequency Measurements

16:40–18:20 **Room I**
CA09: 60 GHz and Beyond: Antennas and Their Integration

Chairs: Thomas Zwick (Karlsruhe Institute of Technology (KIT), Germany), Zhi Ning Chen (Institute for Infocomm Research, Singapore)

16:40 A 122 GHz Microstrip Slot Antenna with Via-Fence Resonator in LTCC Technology
 Stefan Beer (Karlsruhe Institute of Technology, Germany); Leonardo Pires (Karlsruhe Institute of Technology, Germany); Christian Rusch (Karlsruhe Institute of Technology, Germany); Jaska Paaso (Selmic Oy, Finland); Thomas Zwick (Karlsruhe Institute of Technology (KIT), Germany)

17:00 Integrated Millimeter Wave Filtenna for Q-LINKPAN Application
 Yu Shunhua (Southeast University, P.R. China); Hong Wei (Southeast University, P.R. China); Chen Yu (Southeast University, P.R. China); Hong-Jun Tang (Southeast University, P.R. China); Zhenqi Kuai (Southeast University, P.R. China)

17:20 135GHz Antenna Array on BCB Membrane Backed by Polymer-Filled Cavity
 Siew Bee Yeap (Institute for Infocomm Research, Singapore); Zhi Ning Chen (Institute for Infocomm Research, Singapore); Xianming Qing (Institute for Infocomm Research, Singapore); Rui Li (Institute of Microelectronics, Singapore); David Soon Wee Ho (Institute of Microelectronics, Singapore); Teck Guan Lim (Institute of Microelectronics, Singapore)

17:40 Antenna-in-package Solutions for 60 GHz Communication Links
 Guy A. E. Vandenbosch (Katholieke Universiteit Leuven, Belgium)

18:00 Dense Dielectric Patch Antenna
 Kwai-Man Luk (City University of Hong Kong, Hong Kong); Hau Wah Lai (City University of Hong Kong & Shenzhen Research Institute, Hong Kong)

16:40–18:20 **Room II**
A22-1: On-body Antennas I

Chairs: Dirk Manteuffel (University of Kiel, Germany), Jan Carlsson (SP Technical Research Institute of Sweden, Sweden)

16:40 Ultra Wideband Loop Antenna for On-Body Communication in Wireless Body Area Network
 Tommi Tuovinen (University of Oulu - Centre for Wireless Communications, Finland); Kanya Yekhe Yazdandoost (University of Oulu - Centre for Wireless Communications, Finland); Jari linatti (University of Oulu, Finland)

17:00 Influence of Body Proximity on the Efficiency of a Wearable Textile Patch Antenna
 Henry Giddens (University of Bristol, United Kingdom); Dominique L Paul (University of Bristol, United Kingdom); Geoffrey Hilton (University of Bristol, United Kingdom); Joe McGeehan (University of Bristol, United Kingdom)

17:20 Wideband Characterization of Fabrics for Textile Antennas
 Kristian Karlsson (SP Technical Research Institute of Sweden, Sweden); Jan Carlsson (SP Technical Research Institute of Sweden, Sweden)

17:40 Skin-Equivalent Phantom for On-body Antenna Measurements at 60 GHz
 Nacer Chahat (University of RENNES 1, France); Maxime Zhadobov (University of RENNES 1, France); Ronan Sauleau (University of Rennes 1, France)

18:00 Addressing the Challenges of Fabricating Microwave Antennas Using Conductive Threads
 Alford Chauraya (Loughborough University, United Kingdom); Shiyu Zhang (Loughborough University, United Kingdom); William Whittow (Loughborough University, United Kingdom); Tessa M Acti (Nottingham Trent University, United Kingdom); Rob Seager (Loughborough University, United Kingdom); Tilak Dias (Nottingham Trent University, United Kingdom); J (Yiannis) Vardaxoglou (Loughborough University, United Kingdom)

16:40–18:20 **Club A**
A08: Electromagnetic Exposure and Interactions

Chairs: Juraj Bartolić (University of Zagreb, Croatia), Lester Low (MIRA LTD, United Kingdom)

16:40 Computed Impact of Human Occupants on Field Distributions Within a Passenger Vehicle
 Lester Low (MIRA LTD, United Kingdom); Alastair R. Ruddle (MIRA Ltd, United Kingdom); Jonathan Michael Rigelsford (The University of Sheffield, United Kingdom); Richard Langley (University of Sheffield, United Kingdom)

17:00 The Effects of Local Terrain Topology and Antenna Infrastructure on Simulated Near-field Characteristics for HF Broadcast Antennas
 Ying Fu (University of Sheffield, United Kingdom); Richard Langley (University of Sheffield, United Kingdom); Jonathan Michael Rigelsford (The University of Sheffield, United Kingdom); Mike Hate (BBC World Service, United Kingdom); Jeff McCalla (BBC World Service, United Kingdom)

17:20 Influence of the User's Hand on Mutual Coupling of Dual-Antenna Structures on Mobile Terminal
 Bin Abdullah Al-Hadi Azremi (Aalto University School of Electrical Engineering, Finland); Janne Ilvonen (Aalto University School of Electrical Engineering, Finland); Chung-Huan Li (IT'IS Foundation, ETH Zurich, Switzerland); Jari P Holopainen (Aalto University School of Electrical Engineering, Finland); Pertti Vainikainen (Aalto University, Finland)

17:40 Corona Breakdown in Open Structures: A Comparison of Several Ionization Rate Models
 Francisco Eden Sorolla (EPFL, Switzerland); Ioannis Koufogiannis (EPFL, Switzerland); Michael Mattes (EPFL, Switzerland)

18:00 Detuning Effects on Implantable Antenna at Various Human Positions
 Neus Vidal (University of Barcelona, Spain); Sergio Curto (University of Barcelona, Spain); Jose Lopez-Villegas (University of Barcelona, Spain); Javier Sieiro (University of Barcelona, Spain); Francisco Ramos (Francisco Albero S.A., Spain)

16:40–18:20 Club B**P17: Free-Space Optical Propagation**

Chairs: Erich Leitgeb (TUG, Austria), Stanislav Zvanovec (Czech Technical University in Prague, Czech Republic)

16:40 Performance Analysis of Hybrid FSO/RF Link

Jiri Libich (Czech Technical University in Prague, Czech Republic); Martin Mudroch (Czech Technical University in Prague, Czech Republic); Petr Dvorak (Czech Technical University in Prague, Czech Republic); Stanislav Zvanovec (Czech Technical University in Prague, Czech Republic)

17:00 Rain Impact on FSO Link Attenuation Based on Theory and Measurement

Vladimir Brazda (Institute of Atmospheric Physics Prague, Czech Republic); Vladimir Schejbal (University of Pardubice, Czech Republic); Ondrej Fiser (Institute of Atmospheric Physics & Fac. of Electrical Engineering and Informatics/Uni of Pardubice, Czech Republic)

17:20 Effects of PSA on Free-space Optical Links

Muhammad Saeed Khan (TUG, Austria); Erich Leitgeb (TUG, Austria); Roberto Nebuloni (Ieiti - Cnr, Italy); Carlo Capsoni (Politecnico di Milano, Italy); Martin Grabner (Czech Metrology Institute, Czech Republic); Vaclav Kvicera (Czech Metrology Institute, Czech Republic)

17:40 Five Years Analysis of a Free Space Optics Link in Graz

Markus Loeschmigg (University of Technology, Graz & ML11 - EDV-Dienstleistungen GmbH, Austria); Thomas Plank (TU Graz, Austria); Erich Leitgeb (TUG, Austria)

18:00 Using the Lorentz Distribution to Model Fade Slope at Free Space Optical Communication Systems

Erasmus Miranda (Catholic University of Petropolis, Brazil); Marlene S Pontes (Pontifical Catholic University of Rio de Janeiro, Brazil); Luiz A R da Silva Mello (PUC/RIO & Inmetro, Brazil)

16:40–18:20 Club C**A01: Active and Integrated Antennas**

Chairs: Dirk Heberling (RWTH Aachen University, Germany), Rens Baggen (IMST GmbH, Germany)

16:40 Influence of the Transistor Location on the Behavior of a Transistorized Printed Antenna

Yaakoub Taachouche (Institute of Electronic and Telecommunication of Rennes (IETR) & University of Rennes 1, France); Franck Colombel (Université de Rennes 1, France); Mohamed Himdi (Université de Rennes 1, France)

17:00 Millimeter-Wave Receiver Based on a Folded Dipole Antenna and Schottky Diode for Maximum Power Transfer

Javier Montero-de-Paz (Universidad Carlos III de Madrid, Spain); Eduardo Ugarte-Muñoz (University Carlos III in Madrid, Spain); Luis-Enrique Garcia-Muñoz (University Carlos III of Madrid, Spain); Daniel Segovia-Vargas (Universidad Carlos III de Madrid, Spain); Daniel Schoenherr (Technische Universität Darmstadt, Germany); Ion Oprea (ACST Advanced Compound Semiconductor Technologies GmbH, Germany); Andreas Amrhein (ACST Advanced Compound Semiconductor Technologies GmbH, Germany); Oleg Cojocari (ACST Advanced Compound Semiconductor Technologies GmbH, Germany); Hans L. Hartnagel (Technische Universität Darmstadt, Germany)

17:20 Microstrip Heatsink Antenna Cooled with Sapphire Layer for Integrated RF Transmitters

Atef Alnukari (Lunam Université - Université de Nantes, IETR, France); Yann Mahe (Lunam Université - Université de Nantes, IETR, France); Serge Toutain (IREENA, France); Yves Scudeller (LGMPA, France)

16:40–18:20 Club D**CM07: Aerospace Antenna Testing (AMTA Convened Session)**

Chairs: Sergey Pivnenko (Technical University of Denmark, Denmark), Per Iversen (Orbit/FR, USA)

16:40 DLR Compact Test Range Facility

Markus Limbach (German Aerospace Center (DLR), Germany); Bernd Gabler (German Aerospace Center (DLR), Germany); Alberto Di Maria (German Aerospace Center (DLR), Germany); Ralf Horn (German Aerospace Center (DLR), Germany); Andreas Reigber (German Aerospace Center (DLR), Germany)

17:00 Numerical Model-Augmented RF Test Techniques

Lars Jacob Foged (SATIMO, Italy); Lucia Scialacqua (SATIMO, Italy); Mauro Bandinelli (Ingegneria dei Sistemi, IDS, Italy); Mirko Bercigli (IDS Ingegneria Dei Sistemi S.p.A, Italy); Francesca Vipiana (Istituto Superiore Mario Boella (ISMB), Italy); Giorgio Giordanengo (ISMB, Italy); Marco Sabbadini (Esa Estec, The Netherlands); Giuseppe Vecchi (Politecnico di Torino, Italy)

17:20 On-ground Electrical Performance Verification Strategies for Large Deployable Reflector Antennas

Sergey Pivnenko (Technical University of Denmark, Denmark); Oleksiy S. Kim (Technical University of Denmark, Denmark); Olav Breinbjerg (Technical University of Denmark, Denmark); Knud Pontoppidan (TICRA, Denmark); Paolo Valle (ThalesAleniaSpace Italia, Italy)

17:40 Novel Methods for Fast Multibeam Satellite Antenna Testing

Ludovic Durand (SATIMO, France); Luc Duchesne (SATIMO main Office, France); Thierry Blin (SATIMO, France); Philippe Garreau (Microwave Vision Group, France); Per Iversen (Orbit/FR, USA); Gilbert Forma (Thales Alenia Space, France); Pascal Meisse (Intespace, USA); Eric Decoux (Astrium - EADS, USA); Maurice Paquay (European Space Agency & ESTEC, The Netherlands)

16:40–18:20 Club E
CA04-2: Convened Interactive Session of the WG on Software II

Chairs: Francesca Mioc (Consultant, Switzerland), Guy A. E. Vandenbosch (Katholieke Universiteit Leuven, Belgium)

16:40 Overview of the Latest Developments in the Electromagnetic Data Exchange
 Francesca Mioc (Consultant, Switzerland); Poul Erik Frandsen (TICRA, Denmark); Marco Sabbadini (Esa Estec, The Netherlands)

17:00 Electromagnetic Modelling of Antennas Radiating in Complex Scenarios
 Giancarlo Guida (IDS Ingegneria Dei Sistemi S.p.A, Italy); Marco Sabbadini (Esa Estec, The Netherlands); Filippo Marliani (ESA ESTEC, The Netherlands)

17:20 Choosing the Right EM Simulation Technology for Antenna Design and Analysis
 Filip Demuyne (Agilent Technologies, Belgium); Marc Petersen (Agilent Technologies, USA)

17:40 Recent Advances in CST STUDIO SUITE for Antenna Simulation
 Irina Munteanu (CST AG, Germany); Ilari Hänninen (CST AG, Germany)

18:00 Discussion Slot
 Guy A. E. Vandenbosch (Katholieke Universiteit Leuven, Belgium)

16:40–18:20 Club H
A07-3: Electromagnetic Theory and Numerical Techniques III

Chairs: Thomas Kaufmann (The University of Adelaide, Australia), Zvonimir Sipus (University of Zagreb, Croatia)

16:40 The Driven Eigenproblem Computation with the Brent Method Acceleration
 Huanlei Chen (Technische Universitaet Muenchen, Germany); Thomas F. Eibert (Technische Universität München, Germany); Wenquan Che (Nanjing University of Science and Technology, P.R. China)

17:00 Comparison of Parallel-Plate Green's Function Acceleration Techniques
 Pegah Takook (CHALMERS, Sweden); Per-Simon Kildal (Chalmers University of Technology, Sweden); Rob Maaskant (CHALMERS, Sweden)

17:20 Near and Far Fields of a Kite-Shaped Dielectric Resonator Antenna
 Elena Smotrova (IRE NASU, Ukraine); Ronan Sauleau (University of Rennes 1, France); Alexander Nosich (IRE NASU, Ukraine)

17:40 Analysis of Electromagnetic Scattering From Lossy Periodic Structures with Application to Wedge Absorber
 Olga Smolnikova (Company Radiophysika, Russia); Sergei Skobelev (Company „Radiophysika“, Russia)

18:00 Explicit Time-Stepping Scheme for Radial Perfectly Matched Layers in Staggered Meshless Methods
 Thomas Kaufmann (The University of Adelaide, Australia); Christophe Fumeaux (The University of Adelaide, Australia)

16:40–18:20 Room III
M06: Measurement Imaging, Algorithms and Processing Techniques

Chairs: Benoit Derat (Field Imaging, France), Danièle Vanhoenacker-Janvier (Université catholique de Louvain, Belgium)

16:40 The Influence of the Scattered Field Observation Domain Size on Imaging Measurement Setup Implementation
 Cebrián García (Universidad de Oviedo, Spain); Yuri Álvarez (Universidad de Oviedo, Spain); Fernando Las-Heras (Universidad de Oviedo, Spain)

17:00 Sub-Surface Localization of Buried Cylinders by Means of Sub-Array Processing
 Simone Meschino („Roma Tre“ University, Italy); Lara Pajewski („Roma Tre“, Italy); Giuseppe Schettini („Roma Tre“ University, Italy); Matteo Pastorino (University of Genoa, Italy); Andrea Randazzo (University of Genoa, Italy)

17:20 Subsurface Imaging Technique Using Simultaneous Reconstruction of Amplitude and Phase Profiles
 Valeri Mikhnev (Aalto University, Finland); Pertti Vainikainen (Aalto University, Finland)

17:40 A Banach-Space Regularization Approach for Microwave Imaging
 Claudio Estatico (University of Insubria, Italy); Matteo Pastorino (University of Genoa, Italy); Andrea Randazzo (University of Genoa, Italy)

18:00 Suppression of Measurement Undesired Echoes Using an Auto-Controlled Compensation Method
 Ronan Niemiec (IETR, University of Rennes 1, France); Régis Hémon (DGA, France); Régis Guillerey (DGA, France)

16:40–18:20 Room IV
A14-1: New Materials, Meta-materials, EBG Structures I

Chairs: Silvio Hrabar (University of Zagreb, Croatia), Jan Macháček (Czech Technical University in Prague, Czech Republic)

16:40 An Analysis and Design Procedure for Composite Right/Left-Handed Unit Cells
 Mark A. Eberspächer (Technische Universität München, Germany); Thomas F. Eibert (Technische Universität München, Germany)

17:00 Dual-band Textile Hexagonal Artificial Magnetic Conductor for WiFi Wearable Applications
 Mohamad Mantash (University of Rennes 1, France); María Elena de Cos (Universidad de Oviedo, Spain); Anne-Claude Tarot (University of Rennes 1, France); Sylvain Collardey (University of Rennes 1, France); Kourosh Mahdjoubi (University of Rennes 1, France); Fernando Las-Heras (Universidad de Oviedo, Spain)

17:20 EBG Structure to Improve the B1 Efficiency of Stripline Coil for 7 Tesla MRI
 Gameel Saleh (University of Duisburg-Essen, Germany); Klaus Solbach (UDE, Germany); Andre Rennings (University of Duisburg-Essen, Germany)

17:40 Analytical Modeling and Experimental Verification of Coupling Between Transmission Lines in Gap-waveguides
 Marko Bosiljevac (University of Zagreb, Croatia); Zvonimir Sipus (University of Zagreb, Croatia); Per-Simon Kildal (Chalmers University of Technology, Sweden)

18:00 A Periodic Dipole Array Built on Magnetized Ferrite Could Provide a Tunable DNG Metamaterial ?
 Spyros Lavdas (Democritus University of Thrace, Greece); Panagiotis Tsompanis (Democritus University of Thrace, Greece); Christos Lavranos (Democritus University of Thrace, Greece); George Kyriacou (Democritus University of Thrace, Greece); John Sahalos (University of Nicosia, Cyprus)