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¹IRSEEM/ESIGELEC, France; ²Engin.and Digital Arts, Univ.of Kent, UK
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¹Sapienza University of Rome, DIAEE, Rome, Italy; ²Alenia Aermacchi, Italy
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¹AIRBUS Military, Spain; ²INTA, Spain; ³Cassidian, Spain; ⁴University of Granada, Spain
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Sergio Fernandez¹, Guadalupe Gutierrez², Andres Lopez¹, Manuel Añon¹
¹National Institute of Aerospace Technique, Spain; ²AIRBUS Military, Spain
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Jens Hohloch¹, Stefan Tenbohlen¹, Wolfgang Köhler¹, Martin Aidam², Andreas Ludwig²
¹Universität Stuttgart, Germany; ²Daimler AG, Germany
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¹Volkswagen AG, Germany; ²Otto-von-Guericke-Universität Magdeburg, Germany
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¹DLR - German Aerospace Center, Germany; ²TU Braunschweig, Germany
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¹EADS France, France; ²IMACS

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¹NLR, The Netherlands; ²EMCCons Dr. RAŠEK GmbH & Co. KG, Germany

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Haibo Chen, Hua Zhang, Zinan Ni, Ran Li
China Academy of Space Technology, China

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Jan Carlsson¹, Kristian Karlsson¹, Andreas Johansson²
¹SP Technical Research Institute of Sweden, Sweden; ²Lund University, Sweden

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Swedish Defence Research Agency FOI, Sweden

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Sapienza University of Rome, DIAEE, CNIS, Rome, Italy

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Silesian University of Technology, Poland

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Juergen Nitsch¹, Sergey Tkachenko¹, Farhad Rachidi², Dragan Poljak³, Ralf Vick¹
¹Otto-von-Guericke University Magdeburg, Germany; ²Swiss Institute of Technology Lausanne; ³University of Split, Split, Croatia

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Politecnico di Torino, Italy

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Technische Universität Dortmund, Germany

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Jay-San Chen¹, Cheng-Nan Chiu²
¹*Bureau of Standards, Metrology and Inspection (BSMI), Ministry of Economic Affairs, Taiwan;* ²*Da-Yeh University, Taiwan*
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Leibniz Universtaet Hannover, Germany
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Celina Gazda¹, Ivo Couckuyt², Hendrik Rogier¹, Dries Vande Ginste¹, Tom Dhaene²
¹*Ghent University, Dept. Information Technology, Belgium;* ²*Ghent University-IBBT, SUMO-Lab, Dept. Information Technology, Belgium*
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¹*EADS France, France;* ²*Satie, ENS Cachan, France*
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¹*GERAC électromagnétisme, France;* ²*IMS – Bordeaux, France*
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¹*North China Electric Power University, China;* ²*Zhejiang University, China*
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Technische Universität Hamburg-Harburg, Germany
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Hitachi, Ltd., Yokohama Research Laboratory, Japan
- B:8:6 Integrated Analytical and Numerical Modeling for System Level Conducted/Radiated Immunity Analysis** (())
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¹*Institute of High Performance Computing, Singapore;* ²*Hewlett-Packard Singapore Pte Ltd*
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¹LAMEL Laboratory, Algeria; ²LASMEA Laboratory Clermont Ferrand, France

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¹University of Stuttgart, Germany; ²ABB AG, Germany
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¹North China Electric Power University, China; ²State Grid Corporation of China, China, China, ³China Electric Power Research Institute, China
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¹Technical University of Cluj-Napoca, Romania; ²Transelectrica SA, Romania
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USAF, USA
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¹Sapienza University of Rome, Italy; ²RAI, Italy; ³Warsaw University of Technology, Poland
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¹LASEP - UFRGS, Brazil; ²State Company of Electrical Energy – CEEE D, Porto Alegre, Brazil

- C3:5 Computing Methods for Building Earthing Devices in Problems Related to EMC of Substations ****)' (**
 Nikolay Korovkin¹, Frolov Oleg¹, Elena Alexeevna Ivanova¹, Shishigin Sergey²
¹JSC «NIIPT», Russian Federation; ²Vologda State Technical University
- C3:6 EMC-Based Skin-Effect Grounding for Reducing Lightning Strike Effect in Geothermal Power Plant *****)' -**
 Djoko Darwanto, Deny Hamdani
 School of Electrical Engineering and Informatics, Institut Teknologi Bandung, Indonesia

C4: ESD/EMP/HPEM

- C4:1 Circuit Models for ESD-Generator-Cable Field Coupling Configurations Based on Measurement Data ****)((**
 Friedrich zur Nieden, Stanislav Scheier, Stephan Frei
 TU-Dortmund, Germany
- C4:2 Circuit/Electromagnetic Hybrid Simulation of Electrostatic Discharge in Contact Discharge Mode ****)) \$**
 Tsuyoshi Takada, Tadatoshi Sekine, Hideki Asai
 Shizuoka University, Japan
- C4:3 Experiment Research of Moving Electrode Impact on Discharge Parameters in Narrow Gap ESD****))***
 Fangming Ruan¹, Yang Meng¹, Yanjun You², Feng Zhou³, Ziyi You¹, Ning Zhuang¹
¹Guizhou Normal University, China; ²Shenzhen Lutuo Technology Co. Ltd, China; ³Metrology Center of Communication, Ministry of Industrialization & Information Technology, China
- C4:4 Investigation on Conductive Electromagnetic Pulse (EMP) Effects on the Breakdown of GaAs MESFET Built Power ****)* \$**
Amplifiers (PA)
 Liang Zhou¹, Liang Lin¹, Wen-Yan Yin², WEI Luo¹
¹Shanghai JiaoTong University, China; ²Zhejiang University, China
- C4:5 High Power Microwave Tests of Media Converters****)***
 Christian Adami, Christian Braun, Peter Clemens, Michael Jöster, Michael Suhrke, Hans-Joachim Taenzer
 Fraunhofer INT, Germany

C5: Transmission Lines & Waveguides

- C5:1 Prediction of Radiated Fields from Cable Bundles Based on Current Distribution Measurements ****)* \$**
 Jin Jia, Denis Rinas, Stephan Frei
 TU Dortmund, Germany
- C5:2 Two-Wires Shielded Cable Modeling for the Analysis of Conducted Transient Immunity****)) ++**
 Francescaromana Maradei², Spartaco Caniggia¹
¹EMC Consultant; ²Sapienza University, Italy
- C5:3 Investigation of the Uncertainty Using the Line-Injection Method for the Determination of the Screening Attenuation****)), ' of High Voltage Cables**
 Marc Maarleveld¹, Holger Hirsch¹, Martin Obholz², Jörg Bärenfänger²
¹University Duisburg Essen, Institute of Power Transmission and Storage, Duisburg, Germany; ²EMC Test NRW GmbH; Dortmund, Germany
- C5:4 Analyzing Simplified Open TEM-Waveguides Using Transmission-Line Super Theory ****)), -**
 Ronald Rambousky¹, Jürgen Nitsch², Heyno Garbe³
¹Bundeswehr Research Institute for Protective Technologies and NBC Protection, Germany; ²Otto-von Guericke-University Magdeburg, Germany; ³Leibniz-University Hannover, Germany
- C5:5 Transverse-Resonance Analysis of Dominant-Mode Propagation in Graphene Nano-Waveguides ****)) -)**
 Giampiero Lovat
 Sapienza University of Rome, Italy
- C5:6 Differential Mode for Four-Conductor Nonuniform Transmission Line with Grounded Wire at High Frequency ****)* \$\$**
 Abdelkrim Boudjema, Azzedine Nacer, Tarik Bouzian Berbar, Slimane Tahi, Brahim Bennamane
 USTHB University, Algeria

C6: Power Electronics - Special Session

- C6:1 EM Simulation of Planar Bus Bars in Multi-Level Power Converters** ***** \$)
Giulio Antonini¹, Didier Cottet², Ivica Stefanovic², Bernhard Wunsch², Danesh Daroui³, Jonas Ekman³
¹Università degli Studi dell'Aquila, Italy; ²ABB Switzerland Ltd Corporate Research; ³Luleå University of Technology
- C6:2 Performance Analysis of Planar Inductor Based Snubbing Circuit on EMI Effects Generated by Switching Action in DC/DC Boost Converter** ***** %
Arash Nejadpak¹, Osama Mohammed²
¹Florida International University, USA; ²Florida International University, USA
- C6:3 High Frequency Cable Models for System Level Simulations in Power Electronics Applications** ***** %
Stanislav Skibin¹, Bernhard Wunsch¹, Ivica Stevanovic¹, Bjorn Gustavsen²
¹ABB Switzerland Ltd., Corporate Research, Switzerland; ²SINTEF Energy Research, Norway
- C6:4 Optimized Layout for an EMC Filter: Analysis and Validation** ***** &
Thomas de Oliveira, Jean-Michel Guichon, Jean-Luc Schanen, James Roudet
Grenoble University, France
- C6:5 Influence of IGBT-Module Switching Characteristics to Radio Frequency Noise** ***** &
André Domurat-Linde, Klaus Dieter Lang, Eckart Hoene
Fraunhofer IZM, Germany
-

C7: Smart Grids - Special Session

- C7:1 An Overview of the Impacts of Three High Power Electromagnetic (HPEM) Threats on Smart Grids** ***** ')
William A. Radasky¹, Richard Hoad²
¹Metatech Corporation, USA; ²QinetiQ, United Kingdom
- C7:2 EMI Generated by Power Electronic Interfaces in Smart Grids** ***** (%
Robert Smolenski, Adam Kempinski, Jacek Bojarski, Piotr Lezynski
University of Zielona Gora, Poland
- C7:3 Smart Grid and Electrostatic Discharge: Cause for New Concerns?** ***** (+
John Stephen Maas
IBM Corporation, USA
- C7:4 Voltage Quality in a Naval Vessel Power System During Island Configuration** *****) '
Roelof Bernardus Timens¹, Bart van Leersum¹, Rob Bijman², Frank Leferink^{1,2}
¹University of Twente, The Netherlands, ²Thales Nederland B.V., The Netherlands
- C7:5 Study of High Frequency Harmonics Propagation in Industrial Networks** *****) ,
David Frey¹, Jean-Luc Schanen¹, Sebastian Quintana¹, Math Bollen², Christian Conrath³
¹Grenoble University, France; ²Luleå University of Technology, Sweden; ³Schneider Toshiba Inverter, France
-

C8: Power Line Communication

- C8:1 A PLC/VDSL2 Coexistence Method Based on Noise Injection on Powerline During VDSL2 Initialization** ***** **
Brice Prahó¹, Mohamed Tlich³, Ahmed Zeddami¹, Fabienne Moulin¹, Fabienne Nouvel²
¹Orange Labs, France; ²INSA Rennes, France; ³INNOVAS, France
- C8:2 Electromagnetic Interference Prediction in an In-House Power-Line Network** ***** * -
Margarita Samsó¹, Miquel Ribó¹, Albert-Miquel Sánchez¹, Joan Ramon Regué¹, Marc Aragón², Ferran Silva²
¹La Salle Engineering, Spain; ²Universitat Politècnica de Catalunya, Spain
- C8:3 Statistical Analysis of Spurious Signal Level in a Low Voltage PLC Network** ***** +()
Chaouki Kasmi, Muriel Darces, Marc Hélier
UPMC Univ Paris 06 UR2 France

- C:8:4 How to Exploit Bandwidth to Detect Impulsive Noise ***** +-**
Pablo Torio, Manuel G. Sanchez
Universidad de Vigo, Spain
- C:8:5 Analysis of Power Line Communications Electromagnetic Field in Electrical Networks Taking Into Account the Power ***** ,'**
Transformers
Sofiane Khedimallah¹, Bachir Nekhoul¹, Kamal Kerroum², Khalil El Khamlichi Drissi²
¹Laboratory LAMEL, University of Jijel, Algeria; ²Laboratory LASMEA, University of Blaise Pascal, France
- C:8:6 Assessment Mains Electromagnetic Environmental Formed by SMPS & PLC Systems ***** , -**
Vladimir V. Pilinskiy¹, Andrey F. Rozvadovskiy², Ievgen S. Zaitzev³
¹National Technical University of Ukraine "Kyiv Polytechnic Institute", Ukraine; ²Public Enterprise Testing Center "Omega", Ukraine; ³Warsaw University of Technology, Poland
-

D1: Human Exposure to LF Fields

- D1:1 Impact of Bodysell on Low Frequency Magnetic Fields Due to Electric Vehicle Power Cables ***** -)**
Alastair Ruddle, Lester Low
MIRA Limited, United Kingdom
- D1:2 Investigation of Numerical Methods and Dosimetry for a Wireless Power Transfer System Using Electromagnetic *****+\$% Resonance**
SangWook Park, Kanako Wake, Soichi Watanabe
National Institute of Information and Communications Technology, Japan
- D1:3 Assessment of Human Exposure to Electromagnetic Field from an Intra-body Communication Device Using *****+\$)**
Intermediate-frequency Electric Field
Yuki Yoshino, Shota Igo, Michihiko Katsuragi, Masao Taki
Tokyo Metropolitan University, Japan
- D1:4 Safe SAR Levels in Inductively Powered Brain Implanted Visual Prostheses *****+\$-**
Ahmed I. AL-Kalbani, Mehmet R. Yuce, Jean-Michel Redouté
Monash University, Australia
- D1:5 FDTD Analysis of Induced Electric Field in Peripheral Nerve of Human Body Models Due to Contact Current *****+%)**
Akimasa Hirata, Teruyoshi Koyama, Junya Hattori, Kwok Hung Chan
Nagoya Institute of Technology, Japan
-

D2: Wireless Communications

- D2:1 On How to Measure the Interference of Multiple Wireless Transmission Systems Using a Well Defined Environment *****+%**
Helge Christian Fielitz, Jan Luiken ter Haseborg
Hamburg University of Technology, Germany
- D2:2 Measurements of EMI Signals on Radio Links Based on Commercial Off-the-Shelf Wireless Devices *****+&**
Marcin Mieczko, Sven Fisahn, Heyno Garbe
University of Hannover, Germany
- D2:3 Characterization of Radio Receiver's Front-End Nonlinearity by Measurement of Spurious-Free Dynamic Ranges *****+&**
Eugene Sinkevich, Vladimir Mordachev
Belarusian State University of Informatics and Radioelectronics, Belarus
- D2:4 Intersystem Interference Model for Frequency Hopping Systems *****+' (**
Sara Linder, Karina Fors, Kia Wiklundh, Peter Stenumgaard
Swedish Defence Research Agency, Sweden
- D2:5 Reduction Technique for Spread Spectrum Clock Interference with Wireless Systems *****+' ,**
Aya Ohmae¹, Wen Li¹, Takashi Suga¹, Masahiro Toyama^{1,2}, Atsushi Nakamura², Hideki Osaka¹
¹Hitachi Ltd., Japan; ²Renesas Electronics Corporation, Japan

- D2:6 A Novel Biotelemetry System to Monitor Human Vital Signs** ****+(&
Giuseppina Monti¹, Paola Arcuti¹, Luciano Tarricone¹, Luigi Martiradonna², Leonardo Sileo², Massimo De Vittorio^{1,2}
¹University of Salento, Italy; ²Center for Biomolecular Nanotech., Italy
-

D3: RF Biological Effects - Special Session

- D3:1 Thermal Dosimetry and Thermodynamics in Test Tubes and Petri Dishes.** ****+(,
Quirino Balzano¹, Asher Sheppard², Giorgi Bit-Babik³
¹University of Maryland, United States of America; ²Asher Sheppard Consulting; ³Motorola Solutions
- D3:2 EMF Dose in Patients and Medical Staff During Hyperthermia Treatment of Cancer** ****+)&
Jurriaan Bakker, Richard Canters, Maarten Paulides, Gerard van Rhoon
Erasmus Medical Center, The Netherlands
- D3:3 A Study of SAR Estimation by Shape Deformable Human Models in Anatomy** ****+) +
Tomoaki Nagaoka, Soichi Watanabe
NICT, Japan
- D3:4 Dosimetric Studies Involving in the Experiments for the Evaluation of the Brain Activation by LTE Exposure******+* %
Tongning Wu¹, Bin Lv¹, Zhiye Chen²
¹China Academy of Telecommunication Research, China; ²Department of Radiology, General Hospital of the People's Liberation Army, China
- D3:5 Water Content Evaluation of a Human Tissue Using Magnetic Resonance Imaging: a Quantitative Benchmarking** ****+*) Approach
Roberto Laurita¹, Marta Cavagnaro¹, Fabrizio Frezza¹, Marco Tannino¹, Paolo Sollazzo², Mario Marini², Vanni Lopresto³, Rosanna Pinto³, Andrea Stagnitti², Lucia Manganaro²
¹Dept. of Information Engineering, Electronics and Communications Sapienza University Rome, Italy; ²Dept. of Radiological Science "Umberto I" Polyclinic Sapienza University Rome, Italy; ³Unit of Radiation Biology and Human Health ENEA Casaccia Research Centre Rome, Italy
-

D4: LF Biological Effects - Special Session

- D4:1 Numerical Assessment Methodology for Active Implantable Medical Device EMI due to Magnetic Resonance Wireless** ****+)% Power Transmission Antenna
Takashi Hikage¹, Yoshifumi Kawamura¹, Toshio Nojima¹, Eugenia Cabot²
¹Hokkaido University, Japan; ²IT'IS Foundation, Switzerland
- D4:2 Study of Power Frequency Radiation to Axis-Symmetric Human Model Implanted with Pacemaker** ****+++
Kwok Hung Chan, Yin Liang Diao, Wei Nong Sun, Yun Ming Siu, Sai Wing Leung
City University of Hong Kong, Hong Kong S.A.R. (China)
- D4:3 Improving the Computational Speed and Reducing the Staircasing Error for Simulations of Human Exposure to Low** ****+), ' Frequency Magnetic Fields
Ilkka Laakso, Akimasa Hirata
Nagoya Institute of Technology, Japan
- D4:4 Issues of ICNIRP Guidelines when Determining Compliance with LF Exposure Limits** ****+, +
Valerio De Santis¹, Vick Chen², Mark Douglas¹, Niels Kuster¹
¹IT'IS Foundation, Switzerland; ²SPEAG, Schmid and Partner Engineering AG, Switzerland
- D4:5 Role of Human Variability on the Estimation of the Electric Field and of the Current Density During Transcranial** ****+)- % Direct Current Stimulation
Marta Parazzini¹, Elena Rossi², Serena Fiocchi¹, Ilaria Liorni¹, Lorenzo Rossi³, Alberto Priori^{2,4}, Paolo Ravazzani¹
¹Istituto di Ingegneria Biomedica, Consiglio Nazionale delle Ricerche ISIB CNR, Milano, Italy; ²Dip. di Scienze Neurologiche, Università degli Studi di Milano Milano, Italy; ³Newronica srl, Milano, Italy; ⁴Centro Clinico per la Neurostimolazione, le Neurotecnologie ed i Disturbi del Movimento, Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Milano, Italy
-

D5: Railway - Special Session

- D5:1 Measurements and Post-Processing for Achievement of Electromagnetic Transient Interference Models ****+)**
Virginie Deniau¹, Jean Rioult¹, Mohammed Ayad¹, Sylvie baranowski², Hamid Ouaddi³, Gerald Nottet³
¹IFSTTAR, France; ²IEMN-Telice; ³Alstom
- D5:2 EMC Measurements in Railway Power Systems ****, \$\$**
Alexander P.J. van Deursen¹, Peter A.A.F. Wouters¹, H.W.M. Smulders², Jeroen B.M. van Waes²
¹Eindhoven University of Technology, The Netherlands, ²Movares, Utrecht, The Netherlands
- D5:3 Modelisation of EM Field Radiated by Catenaries and Due to the Railway Power System ***, \$***
Sylvie Baranowski¹, Hamid Ouaddi¹, Virginie Deniau², Jean Rioult², Gerald Nottet³
¹University of Lille, France; ²IFSSTAR, France; ³Alstom Transport, France
- D5:4 Mitigation of Electromagnetic Interference Generated by Stray Current from a dc Rail Traction System ***, %&**
Leonardo Sandrolini¹, Andrea Mariscotti², Ade Ogunsola³, Ugo Reggiani¹
¹University of Bologna, Italy; ²University of Genoa, Italy; ³Parsons International, United Kingdom
- D5:5 Array of Rectilinear Solenoids for Rail Current Measurement ****, %**
Luca Di Rienzo¹, Dongwei Li¹, Sergio Pignari¹, Eugenio Fedeli²
¹Politecnico di Milano, Italy; ²Rete Ferroviaria Italiana S.p.A., Italy
- D5:6 Ground Potential Rise Calculation Applied to a Multiconductor Network of a Railway System ****, &\$**
Noël Haddad, Michel Cucchiario
SNCF, France
-

D6: Micro/Nano Materials for EMC

- D6:1 Electromagnetic Absorption of Sandwich Panel Made of Glass Fiber Reinforced Polymer and Nanocomposite Foam****, & Filled Honeycomb**
Pierre Bollen¹, Nicolas Quiévy¹, Christophe Detrembleur², Jean-Michel Thomassin², Christian Bailly¹, Thomas Pardoën¹, Isabelle Huynen¹
¹Arcomat, Université catholique de Louvain la neuve, Belgium; ²CERM, Université de Liège, Belgium
- D6:2 Electromagnetic and Mechanical Properties of a Multiphase Carbon NanoTube/Clay/Epoxy Nanocomposite ****, ' %**
Patrizia Lamberti¹, Biagio De Vivo¹, Vincenzo Tucci¹, Giovanni Spinelli¹, Raffaele Raimo¹, Liberata Guadagno², Marialuigia Raimondo², Luigi Vertuccio², Vittoria Vittoria², Maria Sabrina Sarto³, Alessio Tamburrano³
¹Dept. of Electronic and Computer Eng. - University of Salerno, Italy; ²Dept. of Industrial Eng. - University of Salerno, Italy; ³Dept. of Astronautic, Electrical and Energy Eng. - Sapienza University of Rome, Italy
- D6:3 Modeling and Measuring of Microwave Absorbing and Shielding Nanostructured Materials ****, ' ***
Davide Micheli¹, Roberto Pastore¹, Mario Marchetti¹, Gabriele Gradoni², Franco Moglie³, Valter Mariani Primiani³
¹Sapienza University of Rome, Italy; ²Institute for Research in Electronics and Applied Physics University of Maryland, USA; ³DII, Università Politecnica delle Marche, Italy
- D6:4 Highly Porous Conducting Carbon Foams for Electromagnetic Applications ****, (%**
Polina P. Kuzhir¹, Sergey P. Maksimenko¹, Alesya G. Paddubskaya¹, Alain Celzard², Vanessa Fierro², Gisele Amaral-Labat², Antonio Pizzi², Jan Macutkevici³, Gintaras Valusis³, Maksim Ivanov⁴, Jūras Banys⁴
¹Research Institute for Nuclear Problems, Belarus; ²IJL – UMR CNRS 7198 and LERMAB – ENSTIB, France; ³Center for Physical Sciences and Technology (CPST), Lithuania; ⁴Vilnius University, Lithuania
- D6:5 The Electromagnetic Properties of Amorphous and Nanocrystalline Powdered Fe-Si-B-Cu-Nb Alloy at Microwaves ****, ()**
Roman Kubacki¹, Jarosław Ferenc², Rafał Przesmycki¹, Marian Wnuk¹
¹Military University of Technology, Poland; ²Warsaw University of Technology, Poland
-

D7: Surveillance & Emergency Systems

- D7:1 Localization of Radio Emitters into Collapsed Buildings after Earthquake: Measurements of Path Loss and Direction ***,) \$ of Arrival**
Alessandro Di Carlofelice, Emidio Di Giampaolo, Michael Elaiopoulos, Mauro Feliziani, Michele Roselli, Piero Tognolatti
University of L'Aquila, Italy

- D7:2 Breath Detection of Humans Buried in a Homogeneous Lossy Medium: a Simplified Analytical Model******,) *
Alfredo De Leo, Valter Mariani Primiani, Paola Russo, Desai Shahu, Valentina Di Mattia, Graziano Cerri
Università Politecnica delle Marche, Italy
- D7:3 Localization of UWB Transmitters inside Buildings and Disaster Rubble: a Numerical Investigation** ****, * &
Silvano Cruciani, Mauro Feliziani
University of L'Aquila, Italy
- D7:4 Design and Realization of a UWB Radar for Breath Activity Monitoring** ****, *,
Paolo Bernardi, Renato Cicchetti, Stefano Pisa, Erika Pittella, Emanuele Piuze, Orlandino Testa
Sapienza University of Rome, Italy
- D7:5 Evaluation of Shielding Materials for Low Frequency RFID Systems** ****, +(
Stijn Wielandt, Davy Mercy, Nobby Stevens, Lieven De Strycker, Jean-Pierre Goemaere
KAHO Sint-Lieven, Belgium

D8: Human Exposure to RF Fields

- D:8:1 EMI Risk Assessment of Electromagnetic Field from Mobile Phone in Elevator Cabin for Implantable Pacemaker** ****, +
Junji Higashiyama¹, Yoshiaki Tarusawa¹, Takashi Hikage², Toshio Nojima²
¹*NTT DOCOMO, INC., Japan*; ²*Hokkaido University, Japan*
- D:8:2 Evaluation of an Optical Electric Field Sensor for Measurement of Specific Absorption Rate (SAR) During Magnetic Resonance Imaging.** ****, ,)
Benjamin Loader¹, Frank Siefert², Andrew Gregory¹, Daniel Bownds¹
¹*National Physical Laboratory, United Kingdom*; ²*Physikalisch-Technische Bundesanstalt*
- D:8:3 Simplified Measurement of Specific Absorption Rate for Handset Antennas by Using Broadband Wave Absorber Phantom** ****, , -
Keita Ochiyama¹, Naobumi Michishita¹, Yoshihide Yamada¹, Hiroyuki Arai², Toshiyasu Tanaka³
¹*National Defense Academy, Japan*; ²*Yokohama National University, Japan*; ³*Microwave Factory Co., Ltd., Japan*
- D:8:4 The SAR Value Analysis of LTE Terminals******, - '
Dan Shi¹, Yougang Gao¹, Xiaolin Du²
¹*Beijing University of Posts and Telecommunications, China*; ²*China North Vehicle Research Institute, China*
- D:8:5 Absorption Cross Section of the Human Body in a Reverberant Environment** ****, - +
Martin Paul Robinson, Gregory C. R. Melia, Ian D. Flintoft
University of York, United Kingdom
- D:8:6 Attempts for Exposure Assessment in the THz-Frequency Range Using Numerical Computations** ****- \$'
Oliver Spathmann¹, Thomas Fiedler¹, Volkert Hansen¹, Mehrdad Saviz², Joachim Streckert¹, Martin Zang¹, Markus Clemens¹, Konstantin Statnikov¹, Ullrich Pfeiffer¹
¹*University of Wuppertal, Germany*; ²*University of Tehran, School of Electrical and Computer Engineering, Tehran, Iran*

P1: Measurements, Low Frequency EMC, Radiated Field Protection

P1-1: Measurements

- P1-1:1 The Definition of the EMC Antenna Calibration Time Intervals******- \$,
Bruno Audone¹, Onofrio Losito³, Roberto Colombo²
¹*EMC consultants Torino, Italy*; ²*IMQ Milano, Italy*; ³*ITEL, Italy*
- P1-1:2 On the Detection of Random Broadband Signals** ****- %
Bruno Audone
EMC consultants, Italy
- P1-1:3 On the Use of the Minimum Phase Algorithm in EMC Data Processing** ****- &\$
Bruno Audone¹, Michela Audone², Ilario Marziali³
¹*EMC Consultants, Italy*; ²*Reinnova, Italy*; ³*Thales Alenia Space Torino Italy*

- P1-1:4 Test and Analysis of Conducted Disturbance Sources of the Truck Crane under Transition Conditions** ****- &*
 Yang Zeng, Xiaoying Yu, Qian Zhang
¹Research Institute of Zoomlion Heavy Industry Science & Technology Development Co., Ltd, Changsha, China
- P1-1:5 Test and Analysis of Conducted Disturbance Sources of the Truck Crane Under Stable Conditions******- ' \$
 Li Xiao¹, Zhanqing Yu¹, Shuiming Chen¹, Bo Zhang¹, Rong Zeng¹, Chijie Zhuang¹, Yang Zeng², Xiaoying Yu², Qian Zhang²
¹State Key Lab of Control and Simulation of Power Systems and Generation Equipment, Dpt of Electrical Eng., Tsinghua University, Beijing, China; ²Research Institute, Zoomlion Heavy Industry Science & Technology Development Co., Ltd. Changsha, Hunan, China
- P1-1:6 Evanescent Reverberation** ****- ')
 Ramiro Serra
Eindhoven University of Technology, The Netherlands
- P1-1:7 The Ljung-Box Test as a Performance Indicator for VIRCs** ****- (%
 Ramiro Serra¹, Andres Carlos Rodríguez²
¹Eindhoven University of Technology, The Netherlands; ²Instituto Tecnológico de Buenos Aires, Argentina
- P1-1:8 Issues on the Method of Conducted Disturbances Measurement by Using Coupling and Decoupling Networks for** ***- (+ Emission
 Norihito Hirasawa, Shin Kanno, Yoshiharu Akiyama
NTT, Japan
- P1-1:9 Validation of EMC Near Field Scanning Amplitude and Phase Measurement Data** ****-) &
 Anders Pilgaard Mynster¹, Morten Sørensen²
¹DELTA Danish Electronics Lights and Acoustics, Denmark; ²Aalborg University, Denmark
- P1-1:10 Consideration of Data Evaluation Criteria for Radiated Emission Test in the PT Program** ****-) ,
 Kunihiro Osabe, Tetsuo Kato
Voluntary EMC Laboratory Accreditation Center, Inc., Japan
- P1-1:11 Calibration and Using an Electro-optical E-field Sensor to Study Tuner Panel and Raised Floor Effects in a** ****- * & Reverberation Chamber
 Jens Schüür, Christian Kuhlmann, Achim Enders
TU Braunschweig, Germany
- P1-1:12 Normalized Site Attenuation Measurement of a Semi-Anechoic Chamber in Multiple Test Zones** ****- * +
 Ibrahim Türer¹, Dilara Bagdat², Murat Uysal¹, Melih Celal Akmeahmet¹
¹Otokar Otomotiv ve Savunma Sanayi A.Ş., Turkey; ²RMK Marine
- P1-1:13 Pulse Excitations of Reverberation Chambers - Simulations with an Approach Using Time Domain Plane Waves** ****- +
 André Manicke, Hans Georg Krauthäuser
TU Dresden, Germany
- P1-2: Low Frequency EMC**
- P1-2:1 A Study on Electromagnetic Disturbance in Substation to Wireless Sensor Unit** ****- +-
 Weidong ZHANG¹, Bo AN¹, Xiang CUI¹, Shaoyu LIU², Jikun LI¹, Yingbin SHI¹
¹North China Electric Power University, China, ²North China Electric Power Research Institute, China
- P1-2:2 Technical and Compatibility Issues in the Design of HVDC Sea Electrodes******- ,)
 Paola Girdinio¹, Paolo Molfino¹, Mario Nervi¹, Mansueto Rossi¹, Alessandro Bertani², Stefano Malgarotti²
¹DYNATECH Dept., University of Genova, Via Opera Pia 11a, Genova, Italy; ²CESI S.p.A., Via Rubattino 54, Milano, Italy
- P1-2:3 Induced Voltage and Current Computation for Different HVPL Operating Conditions** ****- - \$
 Levente Czumbil¹, Denisa Stet¹, Dan Doru Micu¹, Liviu Ancas², Vasile Topa¹
¹Technical University of Cluj-Napoca, Romania; ²S.N.T.G.N. Transgaz S.A, Romania
- P1-2:4 Modeling of the Propagation of High-Frequency Currents in AC Motors** ****- - *
 Nidhal Boucenna, Sami Hlioui, Bertrand Revol, François Costa
Laboratoire SATIE, France
- P1-2:5 Validation of EMI Model for Matrix Converters******-%\$&
 Jordi Espina, Josep Balcells Sendra, Antoni Arias, Carlos Ortega, David Gonzalez, Javier Gago
Universitat Politècnica de Catalunya, Spain

- P1-2:6 Effect of Energy Saving Lights on Power Supply** ^{1,2}
 Roelof Bernardus Timens¹, Frits Buesink¹, Frank Leferink^{1,2}
¹University of Twente, The Netherlands, ²Thales Nederland B.V., The Netherlands
- P1-2:7 Six-port Scattering Parameters of a Three-Phase Mains Choke for Consistent Modelling of Common-Mode and Differential-Mode Response**
 Sven Bönisch, Anika Neumann, Danny Bucke
 Hochschule Lausitz (FH), Germany
- P1-2:8 Railway EMI Impact on Train Operation and Environment**
 Amparo Morant¹, Åke Wisten¹, Diego Galar¹, Stefan Niska², Uday Kumar¹
¹Luleå Tekniska Universitet, Sweden; ²Trafikverket, Sweden
- P1-2:9 Iterative PEEC-Based Power Electronic Systems Simulations Using Reluctance and Regularization Techniques**
 Danesh Daroui, Jonas Ekman
 Lulea University of Technology, Sweden
- P1-2:10 Mutual Couplings in Three Phase T-type EMI Filters**
 Gundars Asmanis, Denis Stepins, Aivis Asmanis
 Riga Technical University, Latvia
- P1-2:11 New Modeling Method Based on Transfer Functions for EMI Analysis in Power Electronic Converters**
 Slim Hrigua¹, François Costa^{2,1}, Cyrille Gautier^{1,3}, Bertrand Revol¹
¹SATIE, ENS Cachan, France; ²Université Paris-Est Créteil, France; ³IUT de Ville d'Avray, France
- P1-2:12 Prediction of the Resonance Effect of the Differential Mode Noise of SMPS**
 Ahmed Hassan, Moawia Al-Hamid
 Otto-von-Guericke-University Magdeburg, Germany
- P1-3: Radiated Field Protection**
- P1-3:1 A Shaped Shielding in Office Block Environment**
 Norberto Dalmas Di Giovanni, Aníbal Aguirre, Leandro Anibal Vives, Javier García Díaz
 CITEDEF, Argentine Republic
- P1-3:2 Measuring the Shielding Effectiveness of Large Textile Materials in an Anechoic Chamber**
 Slawomir Kubal, Michal Kowal, Ryszard Zielinski
 Wroclaw University of Technology, Poland
- P1-3:3 Damping Resonances of a Screened Enclosure Using Absorbing Material**
 Stefan Matthias Parr¹, Stefan Dickmann¹, Ronald Rambousky²
¹Helmut-Schmidt-University, Germany; ²Bundeswehr Research Institute for Protective Technologies and NBC Protection, Munster, Germany
- P1-3:4 Volume and Surface Elements-Based PEEC for Magnetic Plate Shielding at Low Frequency**
 Nenghong Xia, Yaping Du
 The Hong Kong Polytechnic University, Hong Kong S.A.R. (China)
- P1-3:5 Expanding the Frequency Range of the TEM-t Cell for the Measurement of Shielding Materials up to 12 GHz**
 Johan Catrysse¹, Filip Vanhee¹, Davy Pissoot¹, Rik Dewitte²
¹KHBO/KULeuven, Belgium; ²Bekaert Fibre Technologies, Zwevegem Belgium
- P1-3:6 Time-Domain Test for Material Electromagnetic Pulse Shielding Effectiveness Based on Shielding Black-Box Windows Method**
 Xiang Chen, Yong-guang Chen
 Electrostatic & Electromagnetic Protection Institute, Mechanical Engineering College, Shijiazhuang, China
- P1-3:7 Shielding Effectiveness Measurements of Resonant Enclosure Based on Loaded Reverberation Chamber in a GTEM Cell**
 Damir Senic, Antonio Sarolic
 University of Split, Faculty of Electrical Engineering, Mechanical Engineering and Naval Architecture, Croatia
- P1-3:8 Numerical Analysis on Effect of Building Materials on Electromagnetic Fields In VHF Band**
 Shinobu Ishigami, Ifong Wu, Kaoru Gotoh, Yasushi Matsumoto
 NICT, Japan

- P1-3:9 Numerical Study for the Shielding Effectiveness of a Rectangular Enclosure with Apertures** *****\$, +
Hakim Azizi¹, Fayçal Tahar Belkacem¹, Mohamed Bensetti², Djelloul Moussaoui¹
¹EMP, Algeria; ²IRSEEM, France
- P1-3:10 Equivalent Electric Circuits for the Comparison of Nanocarbon-Based Epoxy Resin Systems** *****\$- '
Patrizia Lamberti¹, Biagio De Vivo¹, Vincenzo Tucci¹, Stefano Bellucci², Polina Kuzhir³
¹Dept. o Electronic and Computer Eng., University of Salerno, Italy; ²Frascati National Laboratory, National Institute of Nuclear Physics, Italy; ³Institute for Nuclear Problems, Belarus State University, Belarus
- P1-3:11 Impact of the Inclusion of Hydrotalcite on the Morphological and Electrical Characteristics of an Epoxy- Based CNT*******\$- ,
Nanocomposite
Patrizia Lamberti¹, Vincenzo Tucci¹, Vittoria Vittoria², Biagio De Vivo¹, Giovanni Spinelli¹, Liberata Guadagno², Luigi Vertuccio², Marialuigia Raimondo², Eugenio Caponetti³
¹Dept. of Electronic and Computer Eng. - University of Salerno, Italy; ²Dept. of Industrial Eng. - University of Salerno, Italy; ³Dept. of Chemistry "S. Cannizzaro" - University of Palermo, Italy

P2: Transients and Protection Systems, IC/SI/Packaging, Space Systems, Cable & MTL

2-1: Transients and Protection Systems

- P2-1:1 Non-Linear 3-D Simulations for System Level ESD Threat Evaluation** ****%\$&
Aki Aarne Hekkala¹, Timo Tarvainen², Jouko Turunen²
¹Nokia, Germany; ²Esju Oy, Finland
- P2-1:2 Lightning Incidence on a Radio Installed on a HV Transmission Tower – Mitigation Procedures** *****%\$,
Alexandre Regis Nobrega, Armando Reinaldo Vigilia, Carlos A Pardini, Volvei Wlademir Braz
Furnas Centrais Eletricas S/A, Brazil
- P2-1:3 Antenna Model of Wind Turbine Struck by Lightning** ****%\$&
Damir Cavka, Dragan Poljak, Ranko Goic
University of Split, Croatia
- P2-1:4 Numerical Modeling of the Electromagnetic Response of a Grounding in a Multi-Layers Soil** *****%\$&
Daoud Sekki¹, Bachir Nekhoui¹, Basma harrat¹, Kamal Kerroum²
¹LAMEL Laboratory, University of Jijel, Algeria; ²LASMEA Laboratory, Blaise Pascal University, France
- P2-1:5 Efficient Calculation of the Lightning Generated Electric Field Above Ground** ****%\$&
Konstantinos Rallis¹, Theodoros Theodoulidis¹, Theodoros Zygiridis²
¹University of Western Macedonia, Mechanical Engineering, Kozani, Greece; ²University of Western Macedonia, Engineering Informatics and Telecommunications, Kozani, Greece.
- P2-1:6 Grounding for EMC at the European XFEL** *****%\$ \$
Herbert Kapitza, Hans-Jörg Eckoldt, Markus Faesing
DESY, Germany
- P2-1:7 Electrical Diagnostics in a HV Corona Streamer Discharge Setup: Improved Current Measurement through** ****%\$)
Electromagnetic Frequency Response Analysis
Thijs T.J. Clevis, Sander Nijdam, Alexander P.J. van Deursen
Eindhoven University of Technology, The Netherlands
- P2-1:8 Considerations on the Line Capacitance under Surge Corona Discharge** *****%\$ -
George Alexandru Florea¹, Laurentiu Constantin Lipan², Gleb Dragan³, Elena Mateescu⁴, Ioan Rodean⁵, Marius Oltean⁶
¹Power & Lighting Tehnorob S. A., Romania; ²University Politehnica Bucharest; ³Romanian Academy; ⁴Fictner Engineering Co. Bucharest; ⁵CN Transelectrica S. A. Romania; ⁶SMART S. A. Romania
- P2-1:9 Electrostatic Charging Control According to Surface Resistivity Based on Alternating Polarity Method** *****%\$&)
Liliana Potorac, Oana Beniuga, Oana Neacsu, Ana Nicuta, Paul Bicleanu
Technical University Gheorghe Asachi of Iasi, Romania

P2-2: IC/SI/Packaging

P2-2:1 Characterization and Modelling of EMI Susceptibility in Integrated Circuits at High Frequency

Ignacio Gil, Raúl Fernández-García
UPC- Barcelona Tech, Spain

P2-2:2 Understanding and Modeling the Impact of Analog IPs on System-on-Chip's EMI

Cristiano Forzan¹, Paolo Valente¹, Anand Kumar², Davide Pandini¹
¹*STMicroelectronics, Italy*; ²*STMicroelectronics, India*

P2-2:3 Novel Ringing Suppression Circuit to Increase the Number of Connectable ECUs in a Linear Passive Star CAN

Hiroyuki Mori¹, Youichiro Suzuki¹, Noboru Maeda¹, Hiroyuki Obata², Tomohisa Kishigami²
¹*NIPPON SOKEN, Inc.*, ²*DENSO Corporation*

P2-2:4 Radiated Immunity Testing of Integrated Circuits in Reverberation Chambers

Ralf Heinrich¹, Robert Bechly¹, Bernd Deutschmann²
¹*Teseq GmbH, Germany*; ²*Infineon Technologies AG*

P2-2:5 Modelling of Symmetrical Distributed Clock RC H-Tree

Blaise Ravelo¹, Adam K. Jastrzebski²
¹*IRSEEM – EA 4353 at the Graduate School of Engineering ESIGEELEC, France*; ²*Engineering and Digital Arts, University of Kent, UK*

P2-2:6 EMI Peak Frequency Forecast by Power Supply Transfer Impedance with On-chip Property

Yusuke Hatogai, Hayato Sasaki, Toshio Sudo
Shibaura Institute of Technology, Japan

P2-2:7 Investigation on the Scaling Properties of a Novel Electromagnetic Band-Gap Structure for Application to Parallel-Plate Noise Suppression

Aldo De Sabata¹, Ladislau Matekovits², Alexandru Marius Silaghi³, Ulrich L. Rohde⁴
¹*Politehnica University of Timisoara*; ²*Politecnico di Torino*; ³*University of Oradea, Romania*; ⁴*Brandenburg University of Technology Cottbus*

P2-2:8 Co-Analysis of Signal and Power Integrity of 3D Stacked Package Using Flexible Printed Circuits

Keisuke Ikemiya¹, Masato Kanazawa¹, Toshio Sudo¹, Shizuaki Masuda², Yasushi Hirakawa², Kikuo Wada²
¹*Shibaura Institute of Technology, Japan*; ²*NEC Access Technica Co., Ltd*

P2-2:9 The EMI Characteristics of High Speed Backplane Connector

Li zhang¹, Pingfang Yu¹, Chee-Parng Chua²
¹*Huawei Technologies Co. LTD., China*; ²*Molex Singapore Pte Ltd*

P2-2:10 A Preconditioned Waveform Relaxation Solver for Signal Integrity Analysis of High-Speed Channels

Haisheng Hu, Stefano Grivet-Talocia
Politecnico di Torino, Italy

P2-2:11 Experimental Verification of Signal Integrity Deterioration Due to Package-Common-Mode Resonance

Taiki Nishimoto, Rikiya Asai, Tohlu Matsushima, Takashi Hisakado, Osami Wada
Kyoto University, Japan

P2-2:12 Measurement and Analysis of SSN and Jitter of FPGA

Haruya Fujita, Yo Iijima, Toshio Sudo
Shibaura Institute of Technology, Japan

P2-2:13 Enhanced EBG-patterned Power/Ground Plane Structures for Suppressing Power Plane Noises

Jong Hwa Kwon, Sang Il Kwak, Dong Uk Sim, Seung Keun Park, Hyung Do Choi
ETRI, Republic of South Korea

P2-2:14 Miniaturization of EBG Structures Using Embedded Capacitance Material

Olga Tereshchenko¹, F. J. K. Buesink¹, F. B. J. Leferink^{1,2}
¹*University of Twente, The Netherlands*, ²*Thales Nederland B.V.*

P2-3: Space Systems

P2-3:2 A Numerical Investigation of UWB Wave Propagation Inside a Module of the International Space Station

Alessandro Di Carlofelice, Emidio Di Giampaolo, Piero Tognolatti

University of L'Aquila, Italy

P2-3:3 Radiated Susceptibility of Breath Monitoring System Based on UWB Pulses in Spacecraft Modules

Paola Russo, Valter Mariani Primiani, Alfredo De Leo, Graziano Cerri

Università Politecnica delle Marche, Italy

P2-3:4 Safety Aspects of Human Exposure to Ultra Wideband Radar Fields

Marta Cavagnaro, Stefano Pisa, Erika Pittella

Sapienza University of Rome, Italy

P2-4: Cables & Multiconductor Transmission Lines

P2-4:1 Considerations on the Characteristic Impedance of Periodically Grounded Multiconductor Transmission Lines

Dario Assante¹, Amedeo Andreotti², Luigi Verolino²

¹Università Telematica Internazionale Uninettuno, Italy; ²Università degli studi di Napoli Federico II, Italy

P2-4:2 Calculation of Electromagnetic Propagation Constant for a Buried Cable

Sangmu Lee¹, Jae-Hyun Lee², Pyung-Dong Cho¹

¹Electronics and Telecommunications Research Institute, Republic of South Korea; ²Chungnam National University, Republic of South Korea

P2-4:3 Determination of Common Mode Currents with Generalized Mixed Mode Parameters

Johannes H. Hagmann, Stefan Dickmann

Helmut Schmidt Universität, Germany

P2-4:4 Numerical Analysis and Optimization of a High Speed Data Connector with Starquad Transmission Line

Carsten Cimala¹, Markus Clemens¹, Klaus Kaufmann², Michael Rucks², Andreas Urbaniak², Thomas Plinta²

¹University of Wuppertal, Germany; ²Delphi Deutschland GmbH, Germany

P2-4:5 Analysis of Electromagnetic Pollution in the UHV or HV Air Insulation Substation

Bochra Khelifi¹, Bachir Nekhoui¹, Kamel Kerroum²

¹LAMEL Laboratory, University of Jijel, Algeria; ²LASMEA Laboratory, Blaise Pascal University, 24 Avenue des Landais, 63177 Aubière

P2-4:6 Cable Crosstalk and Separation Rules in Complex Installations

B.J.A.M. van Leersum^{1,2}, D.W.P. Thomas³, H. Bergsma⁴, J. van der Graaff⁴, F.B.J. Leferink^{1,4}

¹University of Twente, The Netherlands; ²Defence Materiel Organisation, The Netherlands; ³George Green Institute for Electromagnetics Research University of Nottingham, UK; ⁴Thales Nederland B.V., The Netherlands

P2-4:7 Voltage Induced in PE Conductor by Phase Currents in Twisted Conductor Cable with Finite Length

Wojciech Machczynski¹, Krzysztof Budnik¹, Hans-Jürgen Haubrich²

¹Poznan University of Technology, Poland; ²RWTH Aachen, Germany

P2-4:8 Prediction of Electromagnetic Interferences Between Components and Transmission Lines

Hanan Shall, Zoheir Riah, Moncef Kadi

IRSEEM, France

P2-4:9 Interstud Electromagnetic Interference Software

Dan Doru Micu¹, Levente Czumbil¹, Miroslav Prša², Karolina Kasaš-Lažetić²

¹Technical University of Cluj-Napoca, Romania; ²University of Novi Sad, Republic of Serbia

P3: EMF Safety, Biomedical, Communications, Numerical Modeling, Management

P3-1: EMF Safety

P3-1:1 Method for Monitoring the Electromagnetic Impacts Due to High Voltage Overheads Lines in Aosta Valley

Claudia Desandr , Marzia Mathiou, Valeria Bottura, Marco Cappio Borlino, Leo Cerise, Erik Imperial

ARPA Valle d'Aosta, Italy

P3-1:2 Measurements of Electromagnetic Field Strength In Human Environment from UMTS Radio Base Stations and Analysis of The Relation with The Radiated Power

Valeria Bottura¹, Marco Cappio Borlino¹, Davide Vaccarone², Stefano D'Elia², Sara Adda³, Marzia Mathiou⁴

¹Arpa Valle D'Aosta; ²Vodafone Italia NV; ³Arpa Piemonte; ⁴Politecnico di Torino, III Facolt  di Ingegneria

- P3-1:3 Application of Measurement Protocol in Buildings with TV Stations and FM Broadcasting** -
Claudio Marcelo Muñoz, Analía Douthat
ITBA, Argentine Republic
- P3-1:4 Radiation Hazard Assessment of Shipborne RF Communication** -
Sebastian Lange¹, Frank Sabath¹, Natalie Baganz²
¹*Bundeswehr Research Institute for Protective Technologies - NBC Protection, Germany;* ²*Bundeswehr Technical Center for Ships and Naval Weapons, Germany*
- P3-1:5 A Measurement of ELF Field Distributions by Using Freehand Scanning Method by Wiimote** -
Ken Sato, Hiroaki Kawata, Yoshinori Kashimura, Yoshitsugu Kamimura
Utsunomiya University, Japan
- P3-1:6 Measurements and Calculations of 50Hz Magnetic Field Produced by Italian High Speed Railway System** -
Giovanni Lucca¹, Maurizio Moro¹, Riccardo Florio², Giuseppe Lidonnici³
¹*SIRTI S.p.A., Italy;* ²*GAIA CONSULTING & TECHNOLOGIES Srl, Italy;* ³*SAIPEM S.p.A., Italy*
- P3-1:7 Magnetic Fields Encountered in Electric Transport: Rail Systems, Trolleybus and Cars** -
Natalia Ptitsyna¹, Antonio Ponzetto²
¹*St. Petersburg Institute of terrestrial magnetism and radiowave propagation, Russian Federation;* ²*University of Torino, Italy*
- P3-1:8 Analysis of Magnetic Fields Onboard Electric Transport Systems in Regard to Human Exposure** -
Natalia Ptitsyna¹, Yuri Kopytenko¹, Giorgio Villoresi², Antonio Ponzetto³
¹*St. Petersburg Institute of terrestrial magnetism and radiowave propagation, Russian Federation;* ²*Roma Tre University, Italy;* ³*University of Turin, Italy*
- P3-2: Biomedical**
- P3-2:1 Effect of the “Phantom” Shape and Dimensions on the Field Measurements Results** -
Boris Levin, Motti Haridim
Holon Institute of Technology, Israel
- P3-2:2 Impact of the Skin Conductivity and Displacement Currents on LF Numerical Dosimetry** -
Valerio De Santis¹, Xi L. Chen², Mark Douglas¹, Niels Kuster¹
¹*IT'IS Foundation, Switzerland;* ²*SPEAG, Schmid and Partner Engineering AG, Switzerland*
- P3-2:3 Numerical and Experimental Evaluation of SAR Hotspots for an Endovascular Stent Graft at 1.5T and 3T** -
Bruno F. Camps-Raga¹, Wolfgang Görtz¹, Gregor Schaefer¹, Yoav Mezape², Alon Shalev²
¹*MR:comp GmbH, Germany;* ²*Endospa Ltd, Israel*
- P3-2:4 “Head Only”-Exposure of Continuously Growing Rats to 900 MHz GSM Signals** -
Oliver Spathmann¹, Volkert Hansen¹, Joachim Streckert¹, Yi Zhou¹, Markus Clemens¹, Karen Grote², Melanie Klose², Alexander Lerchl²
¹*University of Wuppertal, Germany;* ²*Jacobs University Bremen gGmbH, Germany*
- P3-2:5 Investigation of Ocular Temperature Change in Rabbits During 40 GHz Band Exposure** -
Masami Kojima¹, Nailia Hasanova¹, Yukihisa Suzuki², Kensuke Sasaki³, Kanako Wake³, Soichi Watanabe³, Masao Taki², Yoshitsugu Kamimura⁴, Akimasa Hirata⁵, Kazuyuki Sasaki¹, Hiroshi Sasaki¹
¹*Kanazawa Medical University, Japan;* ²*Tokyo Metropolitan University, Japan;* ³*National Institute of Information and Communications Technology Tokyo, JAPAN;* ⁴*Utsunomiya University, Japan;* ⁵*Nagoya Institute of Technology, Japan*
- P3-2:6 SAR and Radiation Characteristics of Dipole Antenna Above Finite EBG Substrate in Presence of Cubic Head Model** -
Ryo Ikeuchi, Akimasa Hirata
Nagoya Institute of Technology, Japan
- P3-2:7 FDTD Analysis of Temperature Elevation in the Human and Rabbit Phantoms Due to Plane-Wave Exposure at 2.45GHz** -
Takuya Oizumi, Ilkka Laakso, Akimasa Hirata
Nagoya Institute of Technology, Japan
- P3-2:8 Evaluation of the Thermal Lesion in Microwave Ablation Procedures** -
Marta Cavagnaro¹, Vanni Lopresto², Rosanna Pinto²
¹*Sapienza University of Rome, Italy;* ²*ENEA Casaccia Research Centre*

- P3-2:9 Risk Assessment for Implanted Cardiac Defibrillator Workers Occupationally Exposed to Electromagnetic Fields**))
 Isabelle Magne, Martine Souques
EDF, France
- P3-3: Communications**
- P3-3:1 Research of Observables Adapted to the Analysis of EM Noise Impacting the Quality of the GSM-Railway Transmissions** * \$
 Virginie Deniau¹, Stephen Dudoyer¹, Sébastien Ambellouis¹, Marc Heddebaut¹, Andrea Mariscotti²
¹*IFSTTAR, France;* ²*University of Genova, Italy*
- P3-3:2 On the Impulsiveness Correction Factor for Estimation of Performance Degradation of Wireless Systems in Middleton's Class A Interference** **
 Peter F Stenumgaard^{1,2}, Karina M Fors¹, Kia C Wiklundh¹
¹*Swedish Defence research Agency, Sweden;* ²*Linköping University*
- P3-3:3 Planning Procedures for Spectrum Monitoring Networks in the VHF/UHF Frequency Range** + \$
 Alexander Pavlovitch Pavlyuk¹, Olga Evgienievna Krutova²
¹*EMC Expert, Russian Federation;* ²*Radio Research and Development Institute, Russian Federation*
- P3-3:4 Path Loss Spatial Distribution in Indoor/Outdoor RF Environments** + *
 Yehuda Ben-Shimol, Nathan Blaunstein
Ben Gurion University, Israel
- P3-3:5 The Compelled Environmental Risk at Occurrence of the Overall Electromagnetic Field Created by the Mobile and Fixed Radio Equipment** , \$
 Vladimir Mordachev
Belarusian State University of Informatics and Radioelectronics, Belarus
- P3-3:6 Dynamic Frequency Management and Electromagnetic Interference Deconfliction for Mobile Units Executing Unplanned Maneuvers** , *
 Christopher Maracchion, Richard Loe, Onur Ozdemir, Andrew Drozd
ANDRO Computational Solutions, LLC, USA
- P3-3:7 Compatibility Study Between Short Range Radars and Fixed Service Operating in 24GHz Band – Selected Aspects** - &
 Michał Kowal, Sławomir Kubal, Piotr Piotrowski, Ryszard Julian Zieliński
Wrocław University of Technology, Poland
- P3-3:8 Electromagnetic Disturbance Evaluation Using Pulse Duration Distribution** - ,
 Kaoru Gotoh, Takashi Shinozuka, Shinobu Ishigami, Yasushi Matsumoto
National Institute of Information and Communications Technology, Japan
- P3-3:9 Impulsive Noise Remotion by Inspection of the Masked Tones at PLC Receivers** \$ '
 Pablo Torio, Manuel G. Sanchez
Universidad de Vigo, Spain
- P3-3:10 Broadcasting Service Modelled by Using SEAMCAT** \$,
 Stella Lyubchenko, Marc Le Devendec
European Communications Office, Denmark
- P3-3:11 Influence of Economic Factors on Clustering of Regions for the Digital Dividend Implementation in a Number of Specific Conditions** %
 Arseny Plossky¹, Elena Volodina²
¹*FSUE Radio Research and Development Institute (NIIR), Russian Federation;* ²*Moscow Technical University of Communications and Informatics (MTUCI)*
- P3-3:12 The Assessment of the Aggregate e.i.r.p. of User Equipment Operating in the LTE Cell** % \$
 Igor Gepko, Anatoliy Tychynskyi
Ukrainian State Centre of Radio Frequencies, Ukraine
- P3-3:13 Circular Patch Antenna with Square Shaped Defect for Wireless Communication** % &
 Abhishek Kandwal, Sunil Kumar Khah
Jaypee University of Inormation Technology, India

