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SS-RBEMC-I Special Session on Risk Based EMC — Part 1

- 739  **Analyzing Bit Error Propagation in Multilayer Communication Networks: Codebook Method to Combine TMR and Hamming**
(Mohammad Kameli, Davy Pissoort, Tim Claeys)
- 745  **Evaluation of Absorber Loading Effect on the Maximum Field Strength in an MRI Room**
(Simon Rendon Velez, Ridvan Aba, Mark J.A.M. van Helvoort, Robert Vogt-Ardatjew, Bärbel van den Berg, Frank Leferink)
- 750  **Analyzing Electromagnetic Interference Effects in Wireless Healthcare Equipment and Environments**
(Prashanth Domakonda, Geon George Bastian, Marco A. Azpúrúa, Mireya Fernandez-Chimeno, Ferran Silva)
- 756  **Application of a Framework for Finding the Performance of Sampling Strategies for Electric Field Measurements in a Simple Scenario**
(Sebastian M. Salas Laurens, Anne Roc'h)

SS-COMPEM Special Session on Computational Electromagnetics for Electromagnetic Compatibility

- 762  **Advanced Numerical High-Fidelity Real-Time Dosimetry Simulations of Low-Frequency Magnetic Fields for Inductive Charging of Electric Vehicles**
(S. Stroka, N. Haussmann, F. Kasolis, M. Clemens)
- 768  **Addressing Numerical Challenges for Low Frequency Shielding 3D Full-Wave Simulations: FDTD and MoM**
(Lirim Koraqi, Pavithrakrishnan Radhakrishnan, Tim Claeys, Johan Catrysse, Davy Pissoort)
- 774  **Black Box Simulation Approach to Predict the Harmonic Currents in a Heat Pump Unit**
(Alexander Magnusson, Madhavi Dhara, Nagapoornima S. Murthy)
- 780  **CM-EMI Prediction for 3-Level T-Type Traction Inverters Using Wideband-Kriging**
(Patrick D. Gsoels, Jose Romero Lopera, Akash, Franz Vollmaier, Jan C. Hansen)

OS-PE-II Oral Session on EMC for Power Electronics

- 786  **Extraction of Noise Source Impedance of an Operating High-Power Converter with High-EMI Noises by Increasing SNR Using an Amplifier**
(Dongwan Kang, Sangyeong Jeong, Hyck Su Kweon, Young Hwan Kwack, Jingook Kim)
- 792  **Conducted Emissions of an up to 2.3kW Interleaved SiC Buck Converter Under Varied Operative Conditions**
(Shounak S. Kulkarni, Sönke Brandt, Marita Wendt, Klaus F. Hoffmann, Erik Kampert, Stefan Dickmann)
- 798  **Wide-Frequency Equivalent Circuit Modelling of a DC/DC Converter for Conducted Emissions**
(Andrea Mariscotti, Leonardo Sandrolini, Mattia Simonazzi)
- 804  **Research on Modelling Method of Conducted EMI in the Electric Drive System on Motor-Load Conditions**
(Jin Jia, Xinyong Hu, Yinhe Xia, Qiubai Chen, Xing Wu, Yun Long)

OS-AUTO-II Oral Session on Automotive EMC

- 810  **Research on Electromagnetic Immunity Test Method of Vehicle ADAS Functions**
(Jin Jia, Kai Sheng, Lei Wan, Yan Ming Qing, Bo Nian Zhang, Fa Kun Chen)
- 816  **Passive and Active Cancellation Loops for Magnetic Field Mitigation in SAE J2954 WPT Systems**
(Silvano Cruciani, Tommaso Campi, Francesca Maradei, Mauro Feliziani)
- 821  **Improvement Method Using Complex Baseband Signals Against False Detection Caused by Electromagnetic Noise in FMCW Radar**
(Yusuke Kitsukawa, Takahiro Horiguchi, Noriyuki Fukui, Eiji Taniguchi)
- 825  **Determination of Induced Antenna Voltage for DC-AC Converter on Electric Vehicles at High Frequencies**
(Ryota Morimoto, Takuma Matsuda, Hiroto Mizutani)

OS-COMPEM Oral Session on Computational Electromagnetics

- 831  **MODALF NG: A New Simulator to Overcome the Growing Challenges of Railway Lines Modelling**
(Habib Osmani, Achraf Dsoul, Hamid Tavassoli, Juan-José Muñoz)
- 837  **Extended Capabilities of PEEC-Based Approach for the Modelling and Design of Common-Mode Chokes**
(Diana Eremyan, Anna Gheonjian, Zviadi Kutchadze, Roman Jobava)
- 843  **A Hybrid Data Generation Approach for the Development of an AI-Based EMC Interference Recognition Method**
(Sven Lange, Marcel Olbrich, Dennis Hemker, Jad Maalouly, Jürgen Kutter, Dominik Schröder, Christian Hedayat, Michael Kleinen, Andreas Grünwaldt, Jörg Bärenfänger, Harald Mathis, Harald Kuhn)
- 849  **Importance of Interface Variables for Closed-Loop Circuit EMC Co-Simulation Using WR Method**
(Md. Moktarul Alam, Richard Perdriau, Mohammed Ramdani, Mohsen Kohestani)

OS-PCBIC-II Oral Session on EMC for PCB & ICs

- 855  **Study of the Multifrequency Susceptibility of Operational Amplifiers**
(A. Boyer, F. Caignet)
- 861  **Electromagnetic Immunity of the Overtemperature Protection of Smart Power High Side Switches**
(Daniel Kircher, Cristian Ionascu, Bernd Deutschmann)
- 867  **Analysis of Interconnects Routed Under PMC Based Heat Sinks**
(Volkan Yayla, Muhammet Hilmi Nisancı, Bahar Kanberoglu, Francesco de Paulis)
- 872  **Ionising Radiation Induced Changes in the Electromagnetic Emission of Integrated Circuits**
(Nikolaus Czepl, Semih Ramazanoglu, Alicja Michalowska-Forsyth, Bernd Deutschmann)

SS-RBEMC-II Special Session on Risk Based EMC — Part 2

- 877 **Empirical Validation of Signal Predistortion for Nonlinear Distortion Mitigation in RF Amplifiers**
(Nathalia A. Rocha Batista, Marcos Quílez, Ferran Silva, Mireya Fernandez-Chimeno)
- 883 **EMI Risk Management: Leveraging EMC Assurance Cases and the Goal Structuring Notation for Effective Shielding**
(Laure Buysse, Pavithrakrishnan Radhakrishnan, Vikas Ghatge, Johan Catrysse, Davy Pissoort)
- 889 **Markov Decision Processes to Model Decision-Making in Harsh Electromagnetic Environments**
(Miriam Gonzalez-Atienza, Dries Vanoost, Mathias Verbeke, Davy Pissoort)

PS-3 Poster Session III

- 895 **Common-Mode Impedance of an Electric Motor and the Impact of Material and Geometry Uncertainties**
(Simon Stenmark, Thomas Rylander, Matthys M. Botha, Jan Carlsson)
- 901 **Summary of Studies on ESD-Induced Conducted Immunity Test Methods for Spacecraft Equipment and Implementation into the EMC Test Requirements**
(Toru Kasai, Toshio Onigata)
- 907 **Improved Determination of the Electric Field in Radiated IEMI Tests with EMP and UWB Signals**
(Unai Aizpurua, Erik Kampert, Stefan Dickmann)
- 913 **Separating Sections of a Research Facility to Minimize the Spread of EMI**
(Lars Weberg)
- 919 **AI-Tailored Slew-Rate Gate Drive Scheme for Low Emission Multilevel Inverter**
(Raik Orbay, Georgios Mademlis, Kooros Moabber, Subramanian Ganesh, Harsh Srivastava, Joachim Härsjö, Divyaraj Gadhavi)
- 925 **A Novel De-Embedding Method Based on Artificial Neural Network**
(Si-Yao Tang, Xing-Chang Wei, Di Wang)
- 931 **Primary Frequency Control for Wind Power Plant Using Battery Energy Storage System**
(H. Feza Carlak, Ergin Kayar)
- 935 **Reciprocal Influence of Supply and Demand Quality in Remote Off-Grid Systems**
(Ilman Sulaeman, Niek Moonen, Jelena Popović, Frank Leferink)
- 941 **Experimental Characterization of Polarization Effects on Antenna Measurement Near Structures**
(Rheyuniarto Sahlendar Asthan, Trasma Yunita, Achmad Munir)

PS-3 continued...

- 946  **EMI Reduction for Enhancing Measurement Performance of EM Wave Absorber Using Horn Antennas**
(Budi Syihabuddin, Levy Olivia Nur, Mohammad Ridwan Effendi, Achmad Munir)
- 951  **Heaters Magnetic Emissions Control on Navigation Satellites**
(M. Saporito, I. Marziali, M. Nicoletto, Emiliano Scione, M. Tosti)
- 957  **Computational RF Dosimetry of Rodents Cohorts in a Realistic Reverberation Chambers at 900MHz**
(A. Faraone, G. Bit-Babik, Paola Russo, Alfredo De Leo, Valter Mariani Primiani, V. De Santis)

OS-PE-III Oral Session on EMC for Power Electronics

- 961  **Modelling Asymmetry and Mode Conversion in Common-Mode Chokes**
(Pablo Ruiz-Morales, Joaquín Bernal-Méndez, María A. Martín-Prats)
- 967  **Predicting the Electromagnetic Characteristics of an Unknown Antenna Using Noisy or Phaseless Sparse Data**
(Dae-Young Hwang, Ki-Tae Park, Jae-Wook Lee, Jung-Hoon Han)
- 973  **Resonance Mode Analysis on Conducted Emissions of an Inverting Buck-Boost Converter**
(Ko Odreitz, Markus Musil, Bernd Deutschmann)
- 979  **Measurement Procedure to Generate a GaN Power Transistor Surrogate Model at GHz Frequencies**
(Jan Henninger, Jan C. Hansen, David Pommerenke)

OS-FIL-I Oral Session on Filtering

- 985  **Calculation and Distribution of Losses in EMC Filters in the High-Voltage Power Train for an Electric Vehicle**
(Lennart P.P.B. Bohl, Guido A. Rasek, Thomas Stöhr, Cheng Yang, Christian Schuster)
- 991  **Multichannel EMI Filter Performance Assessment by Mix Mode Injection**
(Patrick Koch, Daria Nemashkalo, Niek Moonen, Frank Leferink)
- 997  **Effect of EMI Filter Improvement Techniques on Conducted Emissions in a 48-12 DC-DC Converter**
(Álvaro Ojeda-Rodríguez, Joaquín Bernal-Méndez, María A. Martín-Prats)
- 1003  **Comparative Analysis of Various Magnetic Cores for Current Sensing in Active EMI Filters**
(Faryal Baig, Guido A. Rasek, Georg Möhlenkamp)

OS-SE-I Oral Session on Shielding Effectiveness

- 1009  **Shielding Effectiveness of a Thin Conductive Perforated Foil for Satellite Applications**
(F. Cozzolino, A. Tamburrano, F. Marra, M. Fortunato, F. Lescoat, M. Joya, M.S. Sarto)
- 1015  **Comparing the Four-Antenna and Two-Antenna Methods for Shielding Effectiveness Characterisation in a Double Reverberation Chamber**
(Laura De Baets, Davy Pissort, Tim Claeys)
- 1020  **Optimal Design of Microwave Absorbers Based on High-Impedance Surfaces**
(F. Cozzolino, A.G. D'Aloia, M. D'Amore, M.S. Sarto)

OS-HPEM Oral Session on High Power Electromagnetics

- 1026  A Kind of High-rE_p and High Pulse-Repetition-Rate Ultra-Wideband Radiation System
(Puqing Zhang, Yu Yang, Kaiyuan Zhu, Bohao Zhang, Yangxin Qiu, Shaofei Wang, Yanzhao Xie)
- 1030  Fundamental Study on Method of Generating Compressed Air by Utilizing the Electromagnetic Force Caused by Lightning Surge Currents
(Atsushi Nagao, Yumiko Yamashita, Toshihisa Masuda, Naomichi Nakamura, Takashi Ikeda)
- 1034  Surges Induced in Secondary Circuits Due to Very-Fast Transients in Primary Circuits: Experimental Study Using a Test Platform
(Daiki Tashiro, Akiyoshi Tatematsu, Norito Yoshizaki)
- 1040  Direct Lightning of a Compact Overhead Distribution Line with Covered Conductors and Periodic Grounding
(Erika Stracqualursi, Gianfranco Di Lorenzo, J. Brandão Faria, Rodolfo Araneo)

SS-RBEMC-III Special Session on Risk Based EMC — Part 3

- 1046  Assessment of Different Scenarios on Input Impedance of a Thin Wire
(M. Khorramizadeh, L.A. Bronckers, Anne Roc'h)
- 1052  Assessing the Response Time of a Frequency-Selective EMD Detector
(Xinting Xue, Tim Claeys, Robert Vogt-Ardatjew, Davy Pisoort)
- 1058  Electromagnetic Interference Reduction in Mixed Electrical Class Modules Based Host Systems
(Tabish M. Ahmad, Przemyslaw Misiewicz, Jean-Paul M.G. Linnartz, Ramiro Serra)
- 1064  Development of an ESD Risk Evaluation Method for SSD Installation in Host Systems
(Heesu Kim, Nam-su Kim, Youngmin Ku, Chunghyun Ryu, Junsik Park)

OS-PE-IV Oral Session on EMC for Power Electronics

- 1070 An EMC-Investigation on Dead Time Distortion of SiC Based Half Bridge LLC Resonant Inverter
(*Manikandan Sankar, Simon Podendorf, Klaus F. Hoffmann, Stefan Dickmann*)
- 1076 A Differential-Mode and Common-Mode DC-Bias VNA Measurement Setup for Power 4-Port Devices
(*Christoph Maier, Andree Scambor, David Prutej*)
- 1082 IGBT's Ageing and its Impacts on the EM Conducted Emissions
(*E. Dimech, John F. Dawson*)
- 1088 Study on Operation Disturbance Characteristics of Three-Phase Common Box GIS Switch and its Influence on Secondary Cable
(*Weidong Zhang, Dingding Yao, Guangxiao Luo, Guoqing Zhang, Fanzhong Mu, Hongjun Min, Guanglong Zhou*)

OS-FIL-II Oral Session on Filtering

- 1094 Design of a High-Voltage EMI Filter Using Virtual Reality
(*Jan Eberl, Jan C. Hansen*)
- 1100 Comparison of FIR Filter Lengths and Adaptation Methods in Digital Active EMI Filters Based on Delay-Compensated Digital Gate Control Signals
(*Maximilian Lemke, Tobias Dörleman, Robert Nowak, Jens Aigner, Stephan Frei*)
- 1106 Monte Carlo Uncertainty Tensorial-Analysis-of-Networks of EMI Filter with Lumped Component Parasitic Effect Variability
(*Blaise Ravelo, Fabrice Marty, Sébastien Lalléchère*)
- 1112 Broadband Circuit Model of Common Mode Chokes for EMI Pre-Compliance Assessment
(*Antonio Camarda, Flavio Calvano, Stefano Righi, Luca Dossi, Luca Vincetti, Alessandro Tacchini*)

OS-SE-II Oral Session on Shielding Effectiveness

- 1118 **Sensitivity Enhancement of a Non-Invasive Shielding Effectiveness Measurement Method in Reverberation Chambers**
(Philippe Besnier, Jérôme Sol, François Sarrazin)
- 1123 **Modeling and Prevention of Electromagnetic Leakage Scenarios in Automotive EMC Shielding**
(Bálint Pintér, Márk Csörnyei, Róbert Orvai)
- 1129 **Studying the Impact of Shielding Cabinet Dimensions on Cavity Resonance**
(Pedro A. Martinez, Victor Solera, Victor Martinez, Roberto Herraiz, Antonio Alcarria, Andrea Amaro, Jose Torres, Adrian Suarez)
- 1134 **Effect of Corrosion on Electromagnetic Reliability for the High-Voltage Shield Cable of Electrification Vehicles**
(Hae Lyong Kim, Byung Su Kim, Jae Sang Yoon, Hyo Sung Kim, Sung Sik Kong, Beom Jin Choi, Seung Ho Ahn, Heehoon Yi)

OS-REVERB-II Oral Session on Reverberation Chambers

- 1139 **Rician K Factor Fluctuation in Reverberation Chambers**
(Alfredo De Leo, Paola Russo, Valter Mariani Primiani)
- 1145 **Acceleration of Mirror Image Method Using 3D Poisson Summation Approach for Solving Antenna Problems in a Stirred Reverberation Chamber**
(Faik Bogdanov, Irina Chochia, David Karkashadze, Roman Jobava)
- 1151 **Analysis of Radiating Structure Input Impedance in Reverberation Chambers**
(Alfredo De Leo, Valter Mariani Primiani)
- 1156 **Exploring the Effects of Time Constants on Short Pulse Testing in Electromagnetic Reverberation Chambers**
(Alan Aliyali, Mattias Elfsberg, Tomas Hurtig, Frans Nyberg, Pablo Vallejos)

SS-COMPL Special Session on EMC Diagnostics of Complex Systems

- 1161  **Double-Frequency-Testing-Based Models of 5G FR1 Amplifier Nonlinearity for Rapid Simulation of EMI**
(Eugene Sinkevich, Vladimir Mordachev, Dzmitry Tsyганенка, Fayu Wan, Ivan Shakinka, Arthur Dubovik)
- 1167  **Feasibility Analysis of Hybrid Sharing the Upper 6GHz Band Between 5G NR Networks and Wi-Fi Devices**
(Alexander Pastukh, Valery Tikhvinsky, Evgeny Devyatkin)
- 1172  **Models for Evaluating the Shielding Properties of Products Made of Composites**
(Dzmitry Tsyганенка, Eugene Sinkevich, Wen-Qing Guo)
- 1178  **Characteristics of Electromagnetic Environment Created by Communication Low Earth Orbit Satellite Systems Near the Earth's Surface**
(Vladimir Mordachev, Dzmitry Tsyганенка, Aliaksandr Svistunou)