SCEE 2006 Program

**Sunday
17 September**

O0_I: A.C. Antoulas – **"***Approximation of large-scale dynamical systems: An overview and some new results",* **USA**

**Monday
18 September**

Oral Session O1:

O1_I: Dr. Irina Munteanu –"*RF & Microwave Simulation with the Finite Integration   Technique - From component to system design",* CST – **Germany**

O1_01: H. De Gersem, I. Munteanu, T. Weiland – "*Comparison of Newton and Approximate Newton Methods for the Orthogonal Finite Integration Technique",* **Germany** - A082

O1_02: Conor Brennan, Diana Bogusevschi – "*Buffered Block Forward Backward (BBFB) Method applied to EM wave scattering from homogeneous dielectric bodies",* **Ireland** – A056

O1_03: Mariana Funieru, Herbert De Gersem, Thomas Weiland – "*Transient Simulation of a Linear Actuator discretised by the Finite Integration Technique",* **Germany** - A061

O1_04: E. Shcherbakov, W.H.A. Schilders – "*Accuracy Increase Using two Staggered Grids for Maxwell's Equations",* **The Nederland** - A030

Oral Session O2:

O2_I: Dr Janne Roos – "*Overview of Circuit-Simulation Activities at TKK CTL*", Helsinki University of Technology – **Finland**

O2_01: A.G. Chiariello, M. de Magistris, L. De Tommasi – "*Identification of Passive Macro-Models for non TEM High-Speed Interconnects*", **Italy -** A036

O2_02: Tatjana Stykel – "*Balancing-related model reduction of descriptor systems*", **Germany** - A051

O2_03: Thomas Voss – "*Trajectory Piecewise Linear Approach for Nonlinear Differential-Algebraic Equations in Circuit Simulation*", **The Nederland -** A001

O2_04: Yiming Li, Chien-Sung Lu, Wan-Wen Lo, Meng-Jia Tsai, and Tung-Yu Wu – "*Sensitivity Analysis of Static Noise Margin in SRAM Cells with 65 nm CMOS devices*", **Taiwan -** A103

Poster Session P1:

P1_01: Gabriel Vladut – "*Remote control of micro hydro electric-power station*", **Romania** - A023.1

P1_02: Gabriel Vladut, Marius Fetoiu, Alexandru Craciun – "*The real weight and the effective weight of the electrons in crystals*", **Romania** -   A023.7

P1_03: Gabriel Vladut, Marius Fetoiu, Alexandru Craciun – "*A modern PID regulator*", **Romania** - A023.9

P1_04: Mircea Ignat, George Zarnescu, Sebastian Soldan – "*The Modelling of The Electromechanical Multilayer Piezoceramic Microactuators*", **Romania** - A041

P1_05: Ioana Gabriela Sirbu – "*Finite Volume Method Applied To Symmetrical Structures in Coupled Problems*", **Romania** - A043

P1_06: Mihai Rebican, Zhenmao Chen, Noritaka Yusa, Ladislav Janousek, Kenzo Miya – "*Reconstruction of Multiple Cracks from ECT Signals*", **Romania** - A006

P1_07: Martin Bodestedt – "*Perturbation analysis of nonlinear coupled systems in circuit simulation*", **Germany** - A009

P1_08: Dan A. Iordache, Vladimir Iancu, Stefan Pusca and Viorica Iordache – "*Contributions to the design of some Cryogenic Segments of Electrical Power Lines*", **Romania** - A026.2

P1_09: Valentin Ionita and Lucian Petrescu – "*Computational Errors in Hysteresis Preisach Modelling*", **Romania** - A007

P1_10: M. G. Banciu – "*Finite-Difference Time-Domain Design of Compact Devices with Improved Characteristics*", **Romania** - A020

P1_11: Tudor C. Ionescu and Jacquelien M. A. Scherpen – "*Positive Real Balancing for Nonlinear Systems*", **The Netherlands** - A012

P1_12: Gabriela Ciuprina, Daniel Ioan, Diana Mihalache – "*Compact models of passive on-chip components obtained from high frequency Simulations*", **Romania** - A016.2

P1_13: M. Iordache ,Lucia Dumitriu – "*Companion Models and Boundary Conditions for Multi-Rate Steady-State Analysis of Integrated Analog Circuits*", **Romania** - A018

P1_14: C. Popa – "*Improved Accuracy Exponential Function Generator*", **Romania** - A025.1

P1_15: C. Popa – "*CMOS Voltage Reference with Superior-Order Curvature-Correction Using a Multiple Differential Structure*", **Romania** - A025.2

P1_16: Tuomo Kujanpaa and Janne Roos – "*Efficient Initialization of Artificial Neural Network Weights for Electrical Component Models*", **Finland** - A067

Tuesday
19 September

Oral Session O3:

O3_I: Dr. Herbert De Gersem – "*Transient field-circuit coupled models with switching elements for the simulation of electric energy transducers*", TEMF – **Germany**

O3_01: M. Brunk and A. Jungel – "*Modelling Electric Circuits Coupled with Transient Energy-Transport Equations for Semiconductors*", **Germany** - A005

O3_02: Carlo de Falco, Georg Denk, and Reinhart Schultz – "*A Demonstrator Platform for Coupled Multiscale Simulation*", **Italy** - A027

O3_03: H.H.J.M. Janssen, J. Niehof, W.H.A. Schilders – "*Accurate modeling of complete functional RF blocks: CHAMELEON RF*", **The Netherlands** - A063

O3_04: E. Cazacu, I. Nemoianu – "*Permanent magnet Levitation stabilized by Diamagnetic Materials: A case study*", **Romania** - A083

Oral Session O4:

O4_I: Prof. Piet Hemker – "*Manifold Mapping for Multilevel Optimization*", CWI, Amsterdam - **The Netherlands**

O4_01: E. Fatih Yetkin, Hasan Dağ and W. H. A. Schilders – "*MOESP Algorithm for Converting One-dimensional Maxwell Equation into a Linear System*", **The Netherland -** A019

O4_02: Alfredo Remon, Enrique S. Quintana-Orti – "*Efficient Solution of Large Linear Systems in Model Reduction for VSLI Circuits*", **Spain** - A085

O4_03: Caren Tischendorf – "*A Galerkin Method for PDAEs*", **Germany** - A024

O4_04: Thorsten Sickenberger and Renate Winkler – "*Adaptive Methods for Transient Noise Analysis*", **Germany** - A049

Poster Session P2:

P2_01: Adrian Plesca – *"3D Modeling and Simulation of Fast Fuses for Power Semiconductor Devices Protection"*, **Romania** - A046

P2_02: Camelia Talianu, Doina Nicolae, C. P. Cristescu, Jeni Ciuciu, Anca Nemuc, E. Carstea, L. Belegante, M. Ciobanu – *"New Algorithm For The Retrieval Of Aerosolâ€™s Optical Parameters By Lidar Data Inversion"*, **Romania** - A064

P2_03: A-K. Hamid – *"Axially Slotted Antenna on Elliptic Cylinder Coated by Two Dielectric Layers"*, **United Arab Emirates** - A066

P2_04: Raimond Grimberg, Adriana Savin, Sorin Leitoiu – *"Application of 2D nonuniform fast Fourier transforms technique to analysis of shielded microstrip circuits"*, **Romania** - A072.2

P2_05: Smaranda Nitu, Dan Pavelescu, Constantin Nitu, Gheorghe Dumitrescu, Paula Anghelita – *"Upon the Interaction of Magnetic Field and in Low Voltage Vacuum Circuit-breakers"*, **Romania** - A073

P2_06: Vasile G. Manoliu – *"Optimization switching strategy for synchronous motor fed by current inverter using Finite Element analysis"*, **Romania** - A078

P2_07: Daniele Funaro – *"Finite-Difference Simulations of Electromagnetic Solitary Waves"*, **Italy** – A109

P2_08: Roberto Beneduci, Giovanni Mascali, Vittorio Romano – *"An extended hydrodynamical model for charge transport in Si"*, **Italy** - A032

P2_09: Elias Kyriakides, Mihaela M. Albu, Gerald T. Heydt – *"Denoising Techniques for on-line Parameters Identification"*, **Cyprus**, **Romania**, **USA** - A107

P2_10: Yiming Li – *"Application of A Unified Optimization Framework to Electronic Designs"*, **Taiwan** - A053.1

P2_11: Vasile Topa, Calin Munteanu, Johan Deconinck, Lucian Man and Laura Grindei – *"Extended Finite Element Method for Optimal Design of Electromagnetic Devices"*, **Romania** - A059

P2_12 Brahim Essakhi, Lionel Pichon, Gilles Akoun – *"Circuit macromodels from 3D fied computation"*, **France** - A045.2

P2_13 Sabine Schulze, Ursula van Rienen – *"A non-overlapping domain decomposition approach for magneto-quasistatics"*, **Germany** - A050

P2_14 Z. Sheng, R. Remis, A.T. de Hoop and P. Dewilde – *"An exploration of the Integrated Field Equations Method for Maxwell s Equations"*, **The Netherlands** - A055

P2_15: Dumitru Cazacu, Silviu Ionita, Sebastian Parlac – *"Aspects concerning thermo-mechanical behavior of PCBs"*, **Romania** - A029

P2_16: Liviu Nedelea, Marius Neag, Marina Topa, Lelia Festila , Vasile Topa – *"A Filter Design Framework with Multicriteria Optimization Based on a Genetic Algorithm"*, **Romania** - A037

P2_17: Salvatore Spinella, Vincenzo Enea, Daniele Kroell, Michele Messina and Cesare Ronsisvalle – *"Optimal Design of Monolithic ESBTr device carried out by Multiobjective Optimization"*, **Italy** - A022

**Wednesday
20 September**

Oral Session O5:

O5_I: Dr. Francois Henrotte – "*The energy viewpoint in computational electromagnetics*", RWTH Aachen – **Germany**

O5_01: Daniel Ioan, Gabriela Ciuprina, Dragos Niculae, Diana Mihalache – "*On-chip Interconnect Lines Simulation using Finite Integration Technique adapted to Transversal Magnetic Field*", **Romania** - A016.1

O5_02: Domenico Lahaye – "*The Stochastic Thin Wire Problem*", **The Netherlands** - A028

O5_03: Brahim Essakhi, Lionel Pichon – "*Combining 3D finite elements and Padé approximations for wide band antennas Analysis*", **France** - A045.1

O5_04: T. Steinmetz, N. Godel, G. Wimmer, M. Clemens, S. Kurz, M. Bebendorf and S. Rjasanow – "*Symmetric Coupling of Finite-Element and Boundary-Element Method for Electro-Quasistatic Field Simulations*", **Germany** - A039

**Thursday
21 September**

Oral Session O6:

O6_I: Prof. Luis Miguel Silveira – "*Outstanding Challenges in Model Order Reduction*", INESC (Lisbon) – **Portugal**

O6_01: Michael Striebel – "*Hierarchical Mixed Multirating in Circuit Simulation*", **Germany** - A040

O6_02: R. Pulch – "*Initial-Boundary Value Problems of Warped Multirate Partial Differential Algebraic Equations*", **Germany** - A047

O6_03: Simone Bachle, Falk Ebert – "*Element-based Topological Index Reduction for Differential-Algebraic Equations in Circuit Simulation*", **Germany** - A065

O6_04: A. Verhoeven, B. Tasic, T.Beelen, J. ter Maten – "*Automatic Partitionoing for Multirate Methods*", **The Netherlands** - A071

Oral Session O7:

O7_I: Dr. Andrea Marmiroli- *"Technology and Device modelling in micro and nanoelectronics: current and future challenges"*, STMicroelectronics, - **Italy**

O7_01: L. Del Tin, R. Gaddi, E. B. Rudnyi, A. Greiner, J. G. Korvink – *"Model Order Reduction for the Extraction of Small Signal Equivalent Circuit Models of RF-MEMS"*, **Italy** and **Germany** - A003

O7_02: St. Sorohan, N. Constantin, V. Anghel, M. Gavan – *"Finite element analysis of generation and detection of Lamb waves using piezoelectric transducers"*, **Romania** - A008

O7_03: Dan Necsulescu – *"Modeling and Control Issues for Non-Minimum Phase Distributed Parameters Electro-Mechanical Systems"*, **Canada** - A097

O7_04: Ioan C. Popa, Ioan Cautil – *"Electro-Thermal Model for Optimization of Current Leads with Variable Cross-section"*, **Romania** - A102

Poster Session P3:

P3_01: Dan D. Micu, Andrei Ceclan, and Emil Simion – *"Numerical methods for approximation of nonlinear characteristics given by magnetic coils"*, **Romania** - A062

P3_02: Adriana Savin, Raimond Grimberg, Rozina Steigmann – *"Scattering matrix analysis of cascaded periodic surfaces"*, **Romania** - A072.1

P3_03: C.R. Drago – *"Optimal doping profile for Energy-Transport-based semiconductor design"*, **Italy** - A074

P3_04: Octavian Buiu, Catalin Buiu – *"A software tool for genetic optimization of multilayer mirrors"*, **United Kingdom** - A079

P3_05: Octavian Mihai Ghita, Dorian Samfiroiu, Gheorghe Rotar – *"Method for Determining the Parameters of Low Frequency Harmonics in a Sample Electric Signal"*, **Romania** - A106

P3_06: D. Rafiroiu, C. Giurgea, C. Popa – *"A fluid-structure interaction model of the mechanical heart valves' closure"*, **Romania** - A084

P3_07: N. Füsun Serteller – *"Temperature and Magnetic Field Analysis on an Actuator By Using Finite Element Method"*, **Turkey** - A086

P3_08: Radu Damian, Irinel Casian Botez, and Daniel Matasaru – *"Fast Wave Concept Iterative Process convergence acceleration through edge effect consideration"*, **Romania** - A070

P3_09: Adina Racasan, Calin Munteanu, Vasile Topa and Claudia Racasan – *"Techniques to Reduce the Equivalent Parallel Capacitance for EMI Filters Integration"*, **Romania** - A077

P3_10: Denisa Duma, Calin Munteanu and Dan D. Micu – *"Finite-Difference Time-Domain Method used in Transient Analysis of Wave Processes"*, **Romania** - A088

P3_11: Zoran Ilievski, Hong Xu, Arie Verhoeven, Jan Ter Maten, W.H.A. Schilders – "*Transient Sensitivity Analysis in Circuit Simulation*", **The Netherlands** - A069

P3_12: Ruxandra L. Costea, Corneliu A. Marinov – "*The impact of capacitive faults on WTA performances*", **Romania** - A093

P3_13: V. E. Bucata, C. A. Marinov – "*On a MOS Computational Circuit*", **Romania** - A094

P3_14: Tamara Bechtold, Arie Verhoeven, Jan W. ter Maten – "*Model Order Reduction of Large Scale ODE Systems: mor4ansys versus ROM Workbench*", **The Netherlands** - A105

P3_15: Yiming Li and Shao-Ming Yu – "*Random Dopant-Induced Fluctuations of Electrical Characteristics in Nanoscale Single- and Double-Gate MOSFETs*", **Taiwan** - A053.2

P3_16: Christoph Gramsch, Andreas Blaszczyk, Helmut Löbl and Steffen Grossmann – "*Thermal Network Method in the Design of Electric Power Equipment*", **Germany** - A058

P3_17: Denis Sidorov, Nikolay Sidorov and Aliona Dreglea – "*On Regularization of Integral-differential Volterra Equations*", **Republic of Ireland**

P3_18: Tomas Druzbik, Vladimir Havel, Jan Martinovic, Vaclav Snasel, and Karel Vlcek – "*Digital neural network for concept lattices generation*", **Czech Republic**

**Friday
22 September**

Oral Session O8:

O8_I: Prof. Barbara Wohlmuth- "*Advances in Mathematical and Computational Methods Applied in Electrical Engineering*" , Stuttgart University – **Germany**

O8_01: Calin Munteanu, Gheorghe Mates, Vasile Topa – "*Software Package for Multi-Objective Optimal Design of Electromagnetic Devices*", **Romania** - A091

O8_02: Ulrich Langer and Clemens Pechstein – "*Coupled FETI/BETI solvers for nonlinear potential problems in bounded and unbounded domains*", **Austria** - A044

O8_03: Katharina Straube, Ilgis Ibragimov, Volker Rishmuller, Sergej Rjasanow – "*Hierarchical Preconditioning in Electromagnetism*", **Germany** - A060

O8_04: Felicia Ionescu, Stefan Diaconescu, Alexandru Gherega, Cristina Stoica – "*Efficient Execution of Loosely Coupled Tasks in Grid platforms*", **Romania** - A031

O8_05: K.J. van der Kolk and N.P. van der Meijs – "*On the Implementation of a Delaunay-based 3-dimensional Mesh Generator*", **The Netherlands** - A110