

Day 1

Thursday, August 11, 2011

Mediterranean Room		Aegean Room
Opening Remarks	08:45 - 09:00	
Plenary Talk	09:00 - 09:30	
Electromagnetic Macro-Modeling: An Overview of Current Successes and Future Opportunities Andreas C. Cangellaris, <i>University of Illinois at Urbana-Champaign, U.S.A.</i>	09:30 - 09:40	
Discussion	09:40 - 11:00	Session A1
Session M1	09:40 - 10:00	Chair: Murat Manguoglu
Chair: Bruno Carpentieri	10:00 - 10:20	High-Order Vector Bases for Computational Electromagnetics Roberto D. Graglia, <i>Politecnico di Torino, Italy</i>
Approximate Methods for Solving Electromagnetic Coupling in Electrically Large Cavities Isabelle Junqua, <i>ONERA The French Aerospace Lab, France</i> ; Pierre Degauque, <i>University of Lille, France</i>	10:20 - 10:40	Divergence-Taylor-Orthogonal Basis Functions for the Discretization of Second-Kind Surface Integral Equations in the Method of Moments Eduard Ubada, <i>Universitat Politecnica de Catalunya, Spain</i> ; José M. Tamayo, <i>Universite de Toulouse, France</i> ; Juan M. Rius, <i>Universitat Politecnica de Catalunya, Spain</i>
Unscattered Transform and Stochastic Collocation Methods for Stochastic Electromagnetic Compatibility Sébastien Lalléchère, Pierre Bonnet, Ibrahim El Baba, Françoise Paladian, <i>Clermont University, France, CNRS, France</i>	10:40 - 11:00	On the Fully Analytical Integration of Singular Double Integrals Arising from the Integral Equation Methods Matti Taskinen, <i>Aalto University, Finland</i>
TLM Modeling of Thin Wires in Dispersive Media Gregory Verissimo, Jean-Lou Dubard, <i>University of Nice-Sophia Antipolis, France</i> ; Michel Ney, <i>Telecom Bretagne Institute, France</i> ; Christian Pichot, <i>University of Nice-Sophia Antipolis, France</i>	11:00 - 11:15	On the Numerically Exact Integration of Singular Galerkin Impedance Matrix Elements in Computational Electromagnetics Athanasios G. Polimeridis, Juan R. Mosig, <i>Ecole Polytechnique Federale de Lausanne, Switzerland</i>
Fast Pattern Synthesis for Focal Plane Arrays Using an Iterative Gram-Schmidt Orthogonalization Abolghasem Zamanifekri, A. Bart Smolders, <i>Eindhoven University of Technology, Netherlands</i>	11:15 - 12:55	Coffee Break
Coffee Break	11:15 - 11:35	Session A2
Session M2	11:35 - 11:55	Chair: Jan Fostier
Chair: Raphael Kastner	11:55 - 12:15	Direct Image Formation with Current Distributions Generated by Shooting and Bouncing Rays Thomas F. Eibert, Hermann Buddendick, <i>Technische Universitt München, Germany</i>
Analysis of Double-Negative Materials with Surface Integral Equations and the Multilevel Fast Multipole Algorithm Özgür Ergül, <i>University of Strathclyde, UK</i> ; Levent Gürel, <i>Bilkent University, Turkey</i>	12:15 - 12:35	A High Performance Physical-Optics Clutter Simulator with On-the-Fly Mesh Generation Sebastian Hegler, Ronny Hahnel, Dirk Plettemeier, <i>Dresden University of Technology, Germany</i>
Computational Electromagnetic Solutions for Large-Scale Conductors, Left-Handed Metamaterials and Plasmonic Nanostructures F. Obelleiro, <i>E.E. Telecomunicacion, Spain</i> ; J. M. Taboada, <i>Escuela Politecnica, Spain</i> ; M. G. Araújo, <i>E.E. Telecomunicacion, Spain</i> ; L. Landesa, <i>Escuela Politecnica, Spain</i>	12:35 - 12:55	Effect of Medium Parameters on RCS of Conducting Targets for Horizontal Polarization Hosam El-Ocla, <i>Lakehead University, Canada</i>
Optical Aspects of the Interaction of Focused Beams with Plasmonic Nanoparticles Kürşat Şendur, <i>Sabancı University, Turkey</i>	12:55 - 13:00	Nonlinear/Electromagnetic Co-Design of MIMO and UWB Radio Links Diego Masotti, Alessandra Costanzo, Franco Mastri, Martino Aldrigo, Vittorio Rizzoli, <i>University of Bologna, Italy</i>
Some Computational Aspects of Too Sharp Edges Henrik Wallén, Juhani Kataja, <i>Aalto University, Finland</i>		Optimal Location of Multi-Antenna Systems Using a Conjugate Gradient Method Massimo Zoppi, <i>University of Nice-Sophia Antipolis, France, Orange Labs, France</i> ; Claude Dedebean, <i>Orange Labs, France</i> ; Christian Pichot, <i>University of Nice-Sophia Antipolis, France</i> ; Stefano Selleri, Giuseppe Pelosi, <i>University of Florence, Italy</i>
Nonlinear Wave Propagation in Negative Index Metamaterials Nikolaos L. Tsitsas, <i>National Technical University of Athens, Greece</i> ; Dimitri J. Frantzeskakis, <i>University of Athens, Greece</i>		Discussion
Discussion		

Day 2

Friday, August 12, 2011

Mediterranean Room		Aegean Room
Session M3	08:40 - 10:20	Session A3
Chair: Matti Taskinen	08:40 - 09:00	Chair: Eduard Ubada
	09:00 - 09:20	Investigating the Composite Step Biconjugate A-Orthogonal Residual Method for Non-Hermitian Linear Systems in Electromagnetics Yan-Fei Jing, Ting-Zhu Huang, <i>University of Electronic Science and Technology of China, P. R. China</i> ; Bruno Carpentieri, <i>University of Groningen, Netherlands</i> ; Yong Duan, <i>University of Electronic Science and Technology of China, P. R. China</i>
High Performance Finite Elements for the Electromagnetic Characterization of Metamaterials and Antenna Arrays André Barka, François-Xavier Roux, <i>ONERA The French Aerospace Lab, France</i>	09:20 - 09:40	A Novel Family of Iterative Solvers for Method of Moments Discretizations of Maxwell's Equations Bruno Carpentieri, <i>University of Groningen, Netherlands</i> ; Yan-Fei Jing, Ting-Zhu Huang, <i>University of Electronic Science and Technology of China, P. R. China</i> ; Wei-Chao Pi, Xin-Qing Sheng, <i>Beijing Institute of Technology, P. R. China</i>
Some Additional Warnings on the Reliability of Simulators for Time-Harmonic Electromagnetic Problems Involving Innovative Media Paolo Fernandes, <i>Istituto di Matematica Applicata e Tecnologie Informatiche del Consiglio Nazionale delle Ricerche, Italy</i> ; Mirco Raffetto, <i>University of Genoa, Italy</i>	09:40 - 10:00	A Parallel Sparse Solver and Its Relation to Graphs Murat Manguoglu, <i>Middle East Technical University, Turkey</i>
Efficient Method of Moments Analysis of Infinite and Finite Arrays of Magnetic Nanoclusters in the Optical Frequency Range Nilufer Ozdemir, <i>Universite Catholique de Louvain, Belgium</i> ; Constantin Simovski, Dmitry Morits, <i>Aalto University, Finland</i> ; Christophe Craeye, <i>Universite Catholique de Louvain, Belgium</i>	10:00 - 10:20	Utilization of CUDA-OpenGL Interoperability to Display Electromagnetic Fields Calculated by FDTD Veysel Demir, <i>Northern Illinois University, U.S.A.</i> ; Atef Z. Elsherbeni, <i>University of Mississippi, U.S.A.</i>
Electromagnetic Characterization of Barium Ferrite Thick Film Samples in the Ka Band László Jakab, Tibor Bercei <i>Budapest Univ. of Technology and Economics, Hungary</i>	10:20 - 10:35	Hardware Accelerated Computing for Electromagnetics Applications Ozlem Kilic, Esam El-Araby, Vinh Dang, <i>The Catholic University of America, U.S.A.</i>
Coffee Break	10:35 - 11:55	Coffee Break
Session M4	10:35 - 10:55	Session A4
Chair: Ozlem Kilic	10:55 - 11:15	Chair: Özgür Ergül
Electromagnetic Scattering Models of Layered Random Rough Surfaces and Their Role in Addressing Some of the Grand Challenges of Climate Research Mahta Moghaddam, Xueyang Duan, Yuriy Goykhman, Alireza Tabatabaenejad, <i>University of Michigan, USA</i>	11:15 - 11:35	Full-Wave Analysis of Electrically Large Structures on Desktop PCs Branko Kolundzija, Miodrag Tasic, Dragan Olcan, <i>University of Belgrade, Serbia</i> ; Dusan Zoric, Srdjan Stevanetic, <i>WIPL-D d.o.o., Serbia</i>
PSTD-Based Approach to a Large-Scale Inverse Scattering Problem Christoph Statz, Gabriel Arnold, Sebastian Hegler, Dirk Plettemeier, <i>Dresden University of Technology, Germany</i> ; Alain Herique, Wlodek Kofman, <i>Laboratoire de Planetologie de Grenoble, France</i>	11:35 - 11:55	Hybrid MPI/OpenMP Parallelization of the Explicit Volterra Integral Equation Solver for Multi-Core Computer Architectures Ahmed Al-Jarro, Hakan Bağcı, <i>King Abdullah University of Science and Technology, Kingdom of Saudi Arabia</i>
Finite-Difference Time-Domain Diakoptic Strategies Raphael Kastner, <i>Tel Aviv University, Israel</i>	11:55 - 12:00	Towards a Scalable Parallel MLFMA in Three Dimensions Bart Michiels, Jan Fostier, Ignace Bogaert, Piet Demeester, Daniël De Zutter, <i>Department of Information Technology (INTEC), Belgium</i>
Truncated Multigrid Versus Pre-Corrected FFT/AIM for Bioelectromagnetics: When is O(N) Better Than O(NlogN)? Kai Yang, Fangzhou Wei, Ali E. Yilmaz, <i>The University of Texas at Austin, U.S.A.</i>	12:00 - 12:30	Accuracy and Efficiency Considerations in the Solution of Extremely Large Electromagnetics Problems Levent Gürel, <i>Bilkent University, Turkey</i> ; Özgür Ergül, <i>University of Strathclyde, UK</i>
Discussion	12:30 - 12:45	Discussion
Plenary Talk	12:45 - 13:00	
Interpolatory Methods for Efficient Computation of Layered Media Green's Functions Donald R. Wilton, <i>University of Houston, U.S.A.</i>		
Discussion		
Closing Remarks		