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★ PUBLISHED ON CONFERENCES

ATTARDO E.A., DELGADO C., VAN TONDER J., ZHABITSKIY I., GARCIA E., JAKOBUS U., (2025), A High-Performance Multi-Core Hierarchical Preconditioner for Multiscale Electromagnetic Problems with the MLFMM, IEEE URSI Kleinheubacher Tagung 2025

VAN TONDER J., SCHOEMAN M., LE ROUX D., JAKOBUS U., **ATTARDO E.A.**, MAEUEUR C., CATEDRA F., DELGADO C., GARCIA E., SAMARAS K. (2024) – New Features in Altair Feko 2023, 2024 International Applied Computational Electromagnetics Society (ACES) Symposium, May 19-22, 2024, Orlando, Florida, USA.

VAN TONDER J., JAKOBUS U., **ATTARDO E.A.**, MAEUEUR C. (2023) - Challenges Faced in Commercial CEM Development, 2023 IEEE MTT-S International Conference on Numerical Electromagnetic and Multiphysics s and Optimization June 28 - 30, 2023, Winnipeg, Canada.

ATTARDO E.A., JAKOBUS U., BINGLE, M., VAN TONDER J., (2019) – Auxiliary Space-based Preconditioner for High Order Finite Element Method, IEEE APS/URSI Atlanta, Georgia, USA, July 7-12.

SCHOEMAN M., **ATTARDO E.A.**, SOLER CASTANY J., (2019) – Recent Advances to the Feko Integrated Cable Harness Modeling Tool, EMC Europe, Barcelona, Spain, September 2019.

JAKOBUS U., VAN TONDER J., SCHOEMAN M., **ATTARDO E.A.**, LONGTIN, K., BINGLE, M., (2019) –Recent Improvements in Feko, Applied Computation Electromagnetics (ACES).

JAKOBUS U., AGUILAR A., **ATTARDO E.A.**, VAN TONDER J., SCHOEMAN M., (2018) – Review of selected new features in FEKO 2018, Applied Computation Electromagnetics (ACES) March 25-29.

JAKOBUS U., VAN TONDER J., SCHOEMAN M., **ATTARDO E.A.**, (2016) – Review of the latest feature additions to the electromagnetic solver FEKO, Applied Computation Electromagnetics (ACES) March 13-18.

JAKOBUS U., **ATTARDO E.A.**, VAN TONDER J., SCHOEMAN M., MARCHAND R., FUTTER P., MARITZ A., (2016) – Latest extensions of the electromagnetic field solver package FEKO, Applied Computation Electromagnetics (ACES), Davos, Switzerland, April 10-15.

ATTARDO E.A., et al. (2015) – Design and modeling of a microwave imaging system for breast cancer detection, European Conference on Antennas and Propagation (EuCAP), Lisbon, Portugal.

ATTARDO E.A., VECCHI G., CROCCO L., (2014) – A Finite Element Based Hybrid Source-Type Scheme for Microwave Imaging, IEEE APS/URSI Memphis, Tennessee, USA, July 6-12.

BORSIC A., HOFFER E., **ATTARDO E.A.** (2014) – GPU-Accelerated Real Time Simulation of Radio Frequency Ablation Thermal Dose, the 40th Northeast Bioengineering Conference, Boston, Massachusetts, USA.

ATTARDO E.A., CROCCO L., VECCHI G., (2013) – A New Hybrid FEM-IE Inversion Method for Helmholtz Scalar Problems, IEEE APS/URSI Lake Buena Vista, Florida, USA, July.

ATTARDO E.A., FRANCAVILLA M. A., VECCHI G., CROCCO L., (2013) – Multiresolution Finite Element Contrast Source Inversion Method, IEEE APS/URSI Lake Buena Vista, Florida, USA, July.

ATTARDO E.A., CERQUERA M. P., ANDRIULLI F. P., VECCHI G., SCAPATICCI R., BUCCI O.M., CATAPANO I., CROCCO L., (2013) – Full Wave assessment of Feasibility Guidelines for 3-D Microwave Imaging of Brain Strokes, IEEE APS/URSI Lake Buena Vista, Florida, USA, July.

ATTARDO E. A., CROCCO L., VECCHI G., (2013) – An Innovative Inverse Scattering Technique for Critical Applications, European Conference on Antennas and Propagation (EuCAP), Gothenburg, Sweden, April.

MEANEY P.M, GRZEGORCZYK T., **ATTARDO E.A.**, PAULSEN K.D., (2012) – Ultrafast 3D Microwave Tomography Utilizing the Direct Dipole Approximation –In: ICEAA-IEEE APWC, September, Cape Town, South Africa, pp. 838-839, doi: 10.1109/ICEAA.2012.6328750.

ATTARDO E.A., BORSIC A., (2012) – GPU Acceleration of Algebraic Multigrid for Low-Frequency Finite Element Methods – IEEE Ant. and Prop. Symp. / URSI. Chicago, IL, USA, July, doi: 10.1109/APS.2012.6348988.

ATTARDO E.A., VECCHI G., (2012) – Microwave Tomography via Domain Decomposition for Finite Element Methods – IEEE Ant. and Prop. Symp. / URSI. Chicago, IL, USA, July, doi: 10.1109/APS.2012.6348973.

ATTARDO E.A., PEREZ CERQUERA M.R, ANDRIULLI F.P, VECCHI G., (2012) – 3-D Optimization of Magnetic Field Shimming in MRI by Convex Programming Approach –IEEE Ant. and Prop. Symp. / URSI. Chicago, IL, USA, July, doi: 10.1109/APS.2012.6349162.

ATTARDO E.A., BORSIC A., HALTER R. (2011) – Jacobian Optimization for 3D Electric Impedance Tomography via GPU acceleration, In: 12th International Conference on Electrical Impedance Tomography, University of Bath, Bath, UK, May 4-7 2011.

ATTARDO E.A., BORSIC A., HALTER R. (2011) – A Multi-GPU acceleration for 3D Imaging of the Prostate, In: ICEAA-IEEE APWC, September 12-17 Turin, Italy, pag. 1096-1099, doi: 10.1109/ICEAA.2011.6046501.

ATTARDO E.A., BORSIC A, MEANEY P.M., VECCHI G (2011) – Finite Element Modeling for Microwave Tomography. In: IEEE Ant. and Prop. Symp. / URSI. Spokane, Washington, USA, July 3-8, pag. 703-706, doi: 10.1109/APS.2011.5996809.

ATTARDO E.A., PEREZ CERQUERA M.R., ANDRIULLI F.P., ISERNIA T., VECCHI G. (2011) – Controlled-Polarization Magnetic Field Shimming in MRI with SAR Limitation: 3D optimization. In: IEEE Ant. Prop. Symp. / URSI. Spokane, Washington, USA, July 3-8.

BORSIC A., **ATTARDO E.A.**, MEANEY P.M., VECCHI G. (2011) – FEM Based Image Reconstruction For Microwave Imaging of the Breast. In: IEEE APS/URSI. Spokane, Washington, USA, July 3-8.

ATTARDO E.A., VECCHI G., ISERNIA T., (2010) – Field Synthesis in the inhomogeneous medium: amplitude, polarization, and SAR control for MRI applications, In: RiNEm, 1st URSI Commission B, Benevento, September 2010.

ATTARDO E.A., VECCHI G, ISERNIA T. (2010) – Magnetic Field Shimming with Controlled Polarization and SAR limitation. In: IEEE APS/URSI. Toronto, Ontario, Canada, July 11-17, 2010, pag. 1-4, doi: 10.1109/APS.2010.5560945.

FRANCAVILLA M. A., **ATTARDO E.A.**, VIPIANA F., VECCHI G., (2010) – A GPU acceleration for FFT-based fast solver for Integral-Equation. In: European Conference on Antennas and Propagation, EuCAP. Barcelona, Spain, April.

PAGANA G., LEPORE E., PUGNO N., **ATTARDO E.A.**, VECCHI G., (2009) – Microwave Imaging: from soft towards hard tissue monitoring. In: IEEE Isabel 2009. Bratislava, November, doi: 10.1109/ISABEL.2009.5373608.

PAGANA G., PUGNO N., BALBI V., **ATTARDO E.A.**, VECCHI G., (2009) – New Target for Microwave Imaging. In: Nanoscience and Nanotechnology. Frascati, Italy, October.

SALVADOR S.M., VECCHI G., **ATTARDO E.A.** (2008) – A comparison between two algorithms for microwave breast cancer detection. In: IEEE APS/URSI, Chicago, Illinois USA.

★ PUBLISHED ON JOURNALS

ATTARDO E.A., VECCHI G., CROCCO L., (2014) – Contrast Source Extended Born Inversion in Noncanonical Scenarios via FEM Modeling, *IEEE Transaction on Antennas and Propagation*, doi: 10.1109/TAP.2014.2336259.

ATTARDO E.A., BORSIC A, VECCHI G, MEANEY P.M, (2013) – Whole-System Electromagnetic Modeling for Microwave Tomography, *IEEE Antennas and Wireless Propagation Letters*, doi: [10.1109/LAWP.2013.2237745](https://doi.org/10.1109/LAWP.2013.2237745).

ATTARDO E.A., M. A. FRANCAVILLA, F. VIPIANA, G. VECCHI (2012) – Investigation on Accelerating FFT-Based Methods for the EFIE on Graphics Processors, *International Journal of Numerical Modelling: Electronic Networks, Devices and Fields*, doi: 10.1002/jnm.1867

BORSIC A., **ATTARDO E.A.**, HALTER R. (2012) – Multi-GPU Jacobian Accelerated Computing for Soft Field Tomography, *Physiological Measurements*, Vol.33, 1703, doi: 10.1088/0967- 3334/33/10/1703

MEANEY P.M., ZHOU T., GOODWIN D., GOLNABI A., **ATTARDO E.A.**, PAULSEN K.D. (2012) – Bone Dielectric Property Variation as a Function of Mineralization at Microwave Frequencies, in *International Journal of Biomedical Imaging*, Vol.12, doi:10.1155/2012/649612.

ATTARDO E.A., T. ISERNIA, G. VECCHI (2011) – Field Synthesis in Inhomogeneous Media: Joint Synthesis Control of Polarization, Uniformity, and SAR in MRI B1-field, *Progress in Electromagnetic Research (PIER)*, Vol. 118, 355-377, 2011. doi:10.2528/PIER11051910.