Revised December 2024

Conference Abstracts and Presentations: (Total 27 Abstracts)

2024

- Robert Jones, Atef Elsherbeni, Joseph Diener, Alec Wess, and Jushua Cast. "Pyramidally Shaped Absorbing Boundary for FDTD Simulations," IEEE combined ICEAA and IEEE APWC conferences, Lisbon, Portugal, September 2024.

2020

- A. Algarni, A. Z. Elsherbeni, and M. Hadi, "Passive and Active Circuit Elements in Cylindrical Finite-Difference Time-Domain Method," GRADS, Colorado School of Mines, April 2020.
- Alec Weiss, and A. Elsherbeni, "Critical Comparison Between Python and MATLAB Performance for Computational Electromagnetics," GRADS, Colorado School of Mines, April 2020.
- Joseph E. Diener, and Atef Z. Elsherbeni, "Polarization Reconfigurable Patch Antenna for 5.8 GHz ISM Applications," GRADS, Colorado School of Mines, April 2020.
- J. Kast and Atef Z. Elsherbeni, "Simulation of a Nonlinear Frequency Multiplier using the Finite-Difference Time-Domain Technique," GRADS, Colorado School of Mines, April 2020.
- Madison Le, A. Elsherbeni, and M. Hadi "Sub-Gridding Errors in Standard and Hybrid Higher Order FDTD Simulations," GRADS, Colorado School of Mines, April 2020.
- Rachel Lumnitzer, Allison Tanner, and A. Elsherbeni, "Biological Tissues Debye Coefficients for 100 MHz to 100 GHz Simulations," GRADS, Colorado School of Mines, April 2020.
- Robert D. Jones, Atef Z. Elsherbeni, Joshua Kast, Alec J. Weiss, "Pyramidal Absorbing Boundary for Electromagnetic Finite-Difference Time-Domain Simulations," GRADS, Colorado School of Mines, April 2020.
- Yiming Chen and Atef Elsherbeni, "Cavity Backed Patch-Slot Antenna for 5G Lower Frequency Band Communications," GRADS, Colorado School of Mines, April 2020.
- Yuhao Feng, Yiming Chen and Atef Elsherbeni, "Arrow Patch-Slot Antenna for 5G Lower Frequency Band Communications," GRADS, Colorado School of Mines, April 2020.
- Robert D. Jones, Atef Z. Elsherbeni, Joshua Kast, Alec J. Weiss, "Pyramidally Shaped Absorbing Boundary for FDTD Simulations," ICEAA - IEEE APWC 2020.
- Rachel Lumnitzer, Allison Tanner, and A. Elsherbeni, "The Effects of Electromagnetic Waves on a Human Head Model," MURF, Colorado School of Mines, March 2020.

2019

- A. Algarni, M. Hadi, and A. Z. Elsherbeni, "Cylindrical Finite-Difference Time-Domain for Wireline Logging," GRADS, Colorado School of Mines, 2019.
- A. Weiss, A. Elsherbeni, V. Demir, M. Hadi, "Speeding Up The FDTD Algorithm on CPUs with MATLAB's Parallel Computing Toolbox," GRADS, Colorado School of Mines, 2019.
- Allison Tanner, A. Elsherbeni, and M. Hadi, "Time Reversal Using the Finite-Difference Time-Domain Method with MATLAB for Applications in Medical Imaging," GRADS, Colorado School of Mines, 2019.
- Andres Velasco, Mohammed Hadi, and Atef Z. Elsherbeni, "Frequency Dispersive Soil Analysis for Oil and Gas Bore-Hole Exploration," GRADS, Colorado School of Mines, 2019.
- Joseph E. Diener, Atef Z. Elsherbeni, "Miniaturized Omnidirectional UHF RFID Antennas," GRADS, Colorado School of Mines, 2019.
- J. Kast and Atef Z. Elsherbeni, "Quantification of Timing Uncertainty in a Correlation-Based Channel Sounder Systems," GRADS, Colorado School of Mines, 2019.

- Madison Le, M. Hadi, and A. Elsherbeni, “Errors Analysis of Subgridding when Modeling Multiscale Structures using the Finite-Difference Time-Domain Method,” GRADS, Colorado School of Mines, 2019.
- T. D’Esposito, A. Elsherbeni, M. Hadi, “A Fourth Order Accurate FDTD Algorithm for Maxwell’s Equations Solutions of Large-Scale Problems ,” GRADS, Colorado School of Mines, 2019.

2017

- A. Weiss, S. DMello, A. Akbar Basha, A. Z. Elsherbeni, M. J. Piket-May, and M. F. Hadi, “Enhancement of Higher Order FDTD Method Using OpenCL, CUDA, and MPI on Single and Multiple CPUs/GPUs,” USNC/URSI National Radio Science Meeting, Boulder, Colorado, January 2017.

2016

- K. Patel, P. Nayeri, and A. Z. Elsherbeni, “Space-fed antenna array design and analysis software package,” National Radio Science Meeting, Colorado, U.S., Jan. 2016.
- M. F. Hadi, A. Z. Elsherbeni, M. J. Piket-May and S. F. Mahmoud, “Dispersion Relation for Cylindrical FDTD Grids,” USNC/URSI National Radio Science Meeting, Boulder, Colorado, January 2016.
- S. DMello, A. Weiss, M. J. Piket-May, M. F. Hadi and A. Z. Elsherbeni, “High Performance Multi-CPU and Multi-GPU Computing of the High-Order FV24 Algorithm,” USNC/URSI National Radio Science Meeting, Boulder, Colorado, January 2016.

2015

- David Hodge and Kyle Patel, Shannon Bradley, Tyler Croteau, Garrett Dietz, Sean Garneau, John Hong, Logan Knowles, Kelton Lightfoot, Steven Mohan, Nick Smith, Evan Stoelzel, Richard Uhrie, and Emma Watson, Payam Nayeri, Atef Elsherbeni, Randy Haupt, and Ozkan Celik, "MINESat: Colorado School of Mines to extend its core virtues to space," American Institute of Aeronautics and Astronautics Rocky Mountain 4th Technical Symposium, Golden, Colorado, U.S., November 6, 2015.