

**Referred Journal Publications: (Total 32 Publications)****2024**

- Yiming Chen, Veysel Demir, Srirama Bhupatiraju, Atef Z. Elsherbeni, Joselito Gavilan, and Kiril Stoyanov, "Prediction of Antenna Performance based on Scalable Data-informed Machine Learning Methods," *Applied Computational Electromagnetics Society (ACES) Journal*, vol. 39, no. 4, pp. 275-290, April 2024.
- Collin T. Kringlen, Atef Z. Elsherbeni, and Jamal Rostami, "High Gain Circularly Polarized Patch Antenna for Communications Between Cutting Tools and the Control Unit of Mining Equipment," *ACES Journal*, vol. 39, no. 7, 2024.  
<https://doi.org/10.13052/2024.ACES.J.390708>
- Matthew J. Dodd and Atef Z. Elsherbeni, "[Design and Implementation of a Printed Circuit Model for a Wideband Circularly Polarized Bow-Tie Antenna](https://doi.org/10.3390/electronics13163323)," *Electronics*, 13(16), 3323, August 2024.  
<https://doi.org/10.3390/electronics13163323>
- Rob D. Jones, Jerome Cheron, Joseph E. Diener, Peter H. Aaen, Richard A. Chamberlin, Benjamin F. Jamroz, Dylan F. Williams, Ari D. Feldman, Atef Z. Elsherbeni, "A Technique for Optimal On-Wafer Device Spacing at Millimeter-Wave Frequencies," *IEEE Microwave and Wireless Technology Letters*, 2024. DOI: 10.1109/LMWT.2024.3522810

**2023**

- Zahid Hassan and A. Z. Elsherbeni, "Unified Formulation for Evaluation and Visualization of Electric and Magnetic Fields Inside Waveguides and Cavities," *Applied Computational Electromagnetics Society (ACES) Journal*, vol. 38, no. 6, June 2023.

**2022**

- Joshua M. Kast and Atef Z. Elsherbeni, "FDTD Simulation of a Two-Port Nonlinear Device Characterized by its X -Parameters," *Progress in Electromagnetics Research C*, vol. 122, pp. 1–15, 2022.
- Alec Weiss, Atef Elsherbeni, Jeanne Quimby, and Jacob D. Rezac, "Monte Carlo Augmented Channel Estimator," *URSI Radio Science Letters*, vol. 4, pp. 1-4, 2022. DOI: 10.46620/22-0006

**2021**

- Joshua M. Kast; Jacob D. Rezac; Stefania Römisch; Atef Z. Elsherbeni; Jeanne T. Quimby, "Timing Offset and Timing Stability for a Dual-Clock Channel Sounder," *IEEE Transactions on Instrumentation and Measurement*, vol. 70, 2021. DOI 10.1109/TIM.2021.3082257
- Zhen Su; Kirill Klionovski; Hanguang Liao; Yiming Chen; Atef Z. Elsherbeni; Atif Shamim, "Antenna-on-Package Design: Achieving Near-Isotropic Radiation Pattern and Wide CP Coverage Simultaneously," *IEEE Transactions on Antennas and Propagation*, vol. 69, no. 7, July 2021.
- F. Kaburcuk, G. Kalinay, Y. Chen, A. Z. Elsherbeni, and V. Demir, "A dual-band and low-cost microstrip patch antenna for 5G mobile communications," *Applied Computational Electromagnetics Society (ACES) Journal*, vol. 36, no. 7, pp. 824-829, 2021.

**2020**

- F. Kaburcuk, A. Z. Elsherbeni, Rachel Lumnitzer, and Allison Tanner, "Electromagnetic Waves Interaction with a Human Head Model for Frequencies up to 100 GHz," *Applied Computational Electromagnetics Society (ACES) Journal*, vol. 35, no. 6, pp. 613-621, 2020.

- Alec J. Weiss, Atef Z. Elsherbeni, "Performance of MATLAB and Python for Computational Electromagnetic Problems," Applied Computational Electromagnetics Society (ACES) Journal, vol. 35, no. 7, pp., 2020.
- Andres Velasco, Atef Z. Elsherbeni, Joseph E. Diener, Mohammed F. Hadi, "Debye Parameters of Humidity-Varying Soils for Induction Logging Techniques," Applied Computational Electromagnetics Society (ACES) Journal, vol. 35, no. 9, pp., 2020.
- Joshua M. Kast, Atef Z. Elsherbeni, "Finite-Difference Time-Domain Simulation of Arbitrary Impedance using One Port S-Parameter," Applied Computational Electromagnetics Society (ACES) Journal, vol. 35, no. 9, pp., 2020.
- Joshua M. Kast, Atef Z. Elsherbeni, "Simulation of a Nonlinear Frequency Multiplier using the FDTD Technique," Applied Computational Electromagnetics Society (ACES) Journal, vol. 35, no. 11, pp. 613-621, 2020.
- Antonio P. Thomson, Atef Z. Elsherbeni, Mohammed Hadi, "A Practical Fourth Order Finite-Difference Time-Domain Algorithm for the Solution of Maxwell's Equations," Applied Computational Electromagnetics Society (ACES) Journal, vol. 35, no. 11, pp. 613-621, 2020.
- Abdullah M. Algarni, Atef Z. Elsherbeni, Mohammed Hadi, "Implementation of Passive and Active Circuit Elements in Cylindrical Finite-Difference Time-Domain Formulation," Applied Computational Electromagnetics Society (ACES) Journal, vol. 35, no. 11, pp. 613-621, 2020.
- Madison Le, Mohammed Hadi, Atef Elsherbeni, "Quantifying Sub-gridding Errors in Standard and Hybrid Higher Order 2D FDTD Simulations," Applied Computational Electromagnetics Society (ACES) Journal, vol. 35, no. 11, pp. 613-621, 2020.
- Yuhao Feng, Yiming Chen, Atef Z. Elsherbeni, Khalid Alharbi, "Arrow Patch-Slot Antenna for 5G Lower Frequency Band Communications," Applied Computational Electromagnetics Society (ACES) Journal, vol. 35, no. 11, pp. 613-621, 2020.
- Rachel Lumnitzer, Allison Tanner, Atef Z. Elsherbeni, "Debye Coefficients for Biological Tissues From 100 MHz to 100 GHz," Applied Computational Electromagnetics Society (ACES) Journal, vol. 35, no.11, pp. 613-621, 2020.
- Alec Weiss, Atef Elsherbeni, "Computational Performance of MATLAB and Python for Electromagnetic Applications," Applied Computational Electromagnetics Society (ACES) Journal, vol. 35, no. 11, pp. 613-621, 2020.
- Zhen Su; Kirill Klionovski; Hanguang Liao; Yiming Chen; Atef Elsherbeni; and Atif Shamim, "Antenna-on-Package Design: Achieving Near-Isotropic Radiation Pattern and Wide CP Coverage Simultaneously," IEEE Transactions on Antennas and propagation, vol. 68, no. 12, December 2020. Digital Object Identifier: 10.1109/TAP.2020.3044134

**2019**

- Alec J. Weiss, Atef Z. Elsherbeni, Veysel Demir, Mohammed F. Hadi, "Using MATLAB's Parallel Processing Toolbox for Multi-CPU and multi-GPU Accelerated FDTD Simulations," Applied Computational Electromagnetics Society (ACES) Journal, vol. 34, no. 5, pp. 283-288, May 2019.
- Joseph Elliott Diener, Jeanne Quimby, Kate A. Remley, and Atef Z. Elsherbeni, "Millimeter-wave Frequency FDTD Simulation for Error Vector Magnitude of Modulated Signals," Applied Computational Electromagnetics Society (ACES) Journal, vol. 34, no. 2, pp. 204-205, February 2019.
- Allee D. Zarrini, Atef Elsherbeni, and Jürgen F. Brune, "Directional of Arrival Tag Response for Reverse RFID Localization," Applied Computational Electromagnetics Society (ACES) Journal, vol. 34, no. 2, pp. 323-325, February 2019.

## 2018

- Garrett Hoch, Atef Elsherbeni, and Payam Nayeri, “Bandwidth Enhancement of Dipole Antennas using Parasitic Elements,” Applied Computational Electromagnetics Society (ACES) Journal, vol. 33, no. 2, pp. 220-223, 2018.
- Kyle Patel, Robert Joines, and Atef Elsherbeni, “A Cost-Effective Far-Field Antenna Pattern Measurement System,” Applied Computational Electromagnetics Society (ACES) Journal, vol. 33, no. 10, pp. 1152-1153, 2018.

## 2017

- Joseph E. Diener and Atef Z. Elsherbeni, “FDTD Acceleration using MATLAB Parallel Computing Toolbox and GPU,” ACES Journal, vol. 32, no. 4, pp. 283-288, April 2017.
- Ross Bunker and Atef Elsherbeni, “A Modular Integrated RFID System for Inventory Control Applications,” online Journal of Electronics, vol. 6, no. 9; 2017.  
<http://www.mdpi.com/journal/electronics>, doi:10.3390/electronics6010009 2017

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- R. Smith, A. Weiss, R. Bollimuntha, M. Picket-May, M. F. Hadi and A. Elsherbeni, “Merging VSim’s Model Building and Visualization Tools with Custom FDTD Engines,” ACES Express Journal, vol. 1, no. 1, pp. 16-19, January 2016.
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