

ATEF Z. ELSHERBENI
IEEE Fellow (2007) and ACES Fellow (2008)

Proceedings Publications and Presentations: (Total 308 Presentations)

2024

- Charles Vath and Atef Z. Elsherbeni, “An Interactive Visualization of Electrostatic Electric Field and Potential Distribution,” International Applied Computational Electromagnetics Society (ACES) Symposium, Orlando, Miami, May 2024.
- Lisa K. Elmiladi, Kenneth Y. Hora, Peter H. Aaen, and Atef Z. Elsherbeni, “Wireless Monitoring of S-Parameters Measurement using a Nano-VNA for Biomedical Applications,” International Applied Computational Electromagnetics Society (ACES) Symposium, Orlando, Miami, May 2024.
- Kenneth Y. Hora, Trevor J. Wolf, Collin Kringlen, Atef Z. Elsherbeni, Jamal Rostami, “Sensor Data Relay System for Underground Mine Communications,” International Applied Computational Electromagnetics Society (ACES) Symposium, Orlando, Miami, May 2024.
- Matthew J. Dodd and Atef Z. Elsherbeni, “Simulation of Mutual Coupling in Aperiodic Arrays,” International Applied Computational Electromagnetics Society (ACES) Symposium, Orlando, Miami, May 2024.
- Nelson L. Angels and Atef Z. Elsherbeni, “Safety of Wireless Brain Implants: A Review,” International Applied Computational Electromagnetics Society (ACES) Symposium, Orlando, Miami, May 2024.
- Silje Ostrem, Collin Kringlen, Cameron Evanovich, Atef Elsherbeni, and Peter Aaen, “Towards the Design of a Non-invasive Glucose Monitoring Sensor,” International Applied Computational Electromagnetics Society (ACES) Symposium, Orlando, Miami, May 2024.
- Nolan H. Grant, Atef Z. Elsherbeni, Quang M Nguyen, and Amir Zaghloul, “Automated Pixelated Unit Cell Design for Reflectarray Antennas and Reconfigurable Intelligent Surfaces,” International Applied Computational Electromagnetics Society (ACES) Symposium, Orlando, Miami, May 2024.

2023

- Matthew Dodd and Atef Z. Elsherbeni, “Bowtie Antenna with Integrated Matching Network for Wideband and Circular Polarization,” 2023 IEEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting, Portland, Oregon, July 23-28, 2020.
- F. Kaburcuk and Atef Z. Elsherbeni, “Electromagnetic Analysis using the Temporal and Spatial Interpolated Subgridding Algorithm,” 2023 IEEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting, Portland, Oregon, July 23-28, 2020.
- Rachel Lumnitzer and Atef Z. Elsherbeni, “Electromagnetic Visualization Tools for Effective Undergraduate Education,” International Applied Computational Electromagnetics Society (ACES) Symposium, Monterey, CA, 2023.
- Zahid Hassan and Atef Z. Elsherbeni, “Visualization of Electric and Magnetic Fields Inside Circular and Baffle Waveguides and Cavities,” International Applied Computational Electromagnetics Society (ACES) Symposium, Monterey, CA, 2023.

2022

- Yiming Chen, Atef Elsherbeni, and Veysel Demir, “Machine Learning for Microstrip Patch Antenna Design: Observations and Recommendations,” USNC/URSI National Radio Science Meeting, Boulder, Colorado, January 2022.
- Matthew J. Dodd and Atef Elsherbeni, “A Wideband Circularly Polarized Printed Bow-Tie Antenna for Low-SWaP Aerial Applications,” IEEE 20th Biennial Conference on Electromagnetic Field Computation (CEFC), Denver, Colorado, October 9 – 12, 2022.
- Yiming Chen, Atef Elsherbeni, and Veysel Demir, “Machine Learning Design of Printed Patch Antenna,” International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting, Denver, Colorado, July 10-15, 2022.
- Harun Tekin, Huseyin S. Savci, and Atef Z. Elsherbeni, “Compact Wide-band Gysel Power Divider,” International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting, Denver, Colorado, July 10-15, 2022.
- Joshua Kast and Atef Elsherbeni, “FDTD Formulation for Nonlinear Two-Port Networks using their X-Parameters,” International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting, Denver, Colorado, July 10-15, 2022.
- Joseph E. Diener and Atef Z. Elsherbeni, “Tri-Polarization Reconfigurable Patch Antenna for ISM Application,” International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting, Denver, Colorado, July 10-15, 2022.
- Alec Weiss, Atef Elsherbeni, Jeanne Quimby, and Jake Rezac, “Framework for Evaluating Channel Estimators in Millimeter-Wave New-Radio Systems,” International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting, Denver, Colorado, July 10-15, 2022.
- Orcun Kiris, Atef Z. Elsherbeni, and Yiming Chen, “An Efficient Transmitarray Element using Diagonal Double-Headed Arrows with Vias,” International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting, Denver, Colorado, July 10-15, 2022.

2021

- Yiming Chen, Fatih Kaburcuk, Rachel Lumnitzer, Atef Z. Elsherbeni; Veysel Demir; Atif Shamim, “Human Tissues Parameters and Resolution for Accurate Simulations of Wearable Antennas,” International Applied Computational Electromagnetics Society (ACES) Symposium, 2021.
- Yiming Chen, A. Z. Elsherbeni, “Circularly Polarized RFID Tag Antenna Design for Underground Localization System,” USNC/URSI National Radio Science Meeting, Boulder, Colorado, January 2021.
- Abdullah Algarni; Mohammed Hadi; Atef Z. Elsherbeni, “A Perfectly-Matched Layer Formulation Capable of Absorbing Multi-Modal Waves in Cylindrical FDTD,” International Applied Computational Electromagnetics Society (ACES) Symposium, 2021.
- Alec Weiss; Atef Elsherbeni, “Accelerating Simulations of Large Scale Phased-Array Systems,” International Applied Computational Electromagnetics Society (ACES) Symposium, 2021.
- Robert D. Jones; Joseph E. Diener; Yiming Chen; Atef Z. Elsherbeni; Jurgen Brune, “Underground Localization System using a Combination of RFID and IMU Technologies,” International Applied Computational Electromagnetics Society (ACES) Symposium, 2021.
- Joshua M. Kast; Atef Z. Elsherbeni, “Extraction of X-Parameters from FDTD Simulation of a Two-Port Nonlinear Circuit,” International Applied Computational Electromagnetics Society Symposium (ACES), 2021.
- Gurkan Kalinay, Fatih Kaburcuk, Yiming Chen, Atef Z. Elsherbeni, and Veysel Demir, “Dual-Band Microstrip Patch Antenna for 5G Mobile Communications,” International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting, Montreal, Canada (Online), December 2021.



- Joshua M. Kast, A. Z. Elsherbeni, “FDTD Simulation of Nonlinear Diode Characteristics using X-Parameter-Based Updating Formulation,” International Conference on Microwave, Antennas and Circuits (ICMAC 2021), Islamabad, Pakistan, December 10-11, 2021.
- Joshua M. Kast, A. Z. Elsherbeni, “Extraction of Nonlinear X-Parameters from FDTD Simulation of a One-Port Device,” USNC/URSI National Radio Science Meeting, Boulder, Colorado, January 2021.
- Alec Weiss, A. Z. Elsherbeni, and Jeanne Quimby, “Hybrid Simulation Framework for 5G OFDM Channel Estimator Testing,” USNC/URSI National Radio Science Meeting, Boulder, Colorado, January 2021.
- Alec Weiss; Atef Elsherbeni; Jeanne Quimby, “Verification of an Evaluator for a New-Radio Channel Estimator,” United States National Committee of URSI National Radio Science Meeting (USNC-URSI NRSM), 2021.

2020

- Alec J. Weiss, Jeanne Quimby, Rod Leonhardt, Ben Jamroz, Dylan Williams, Kate Remley, Peter Vouras, and Atef Elsherbeni, “Configuration and Control of a Millimeter-Wave Synthetic Aperture Measurement System with Uncertainties,” 94th ARFTG Microwave Measurement Conference, San Antonio TX, Jan 26-29, 2020.
- Joshua M. Kast, Atef Z. Elsherbeni, “Simulation of a Nonlinear Frequency Multiplier using the FDTD Technique,” International Applied Computational Electromagnetics Society (ACES) Symposium, July 27-31, 2020.
- Z. Su, K. Klionovski, H. Liao, A. Shamim, Yiming Chen, and A. Z. Elsherbeni, “3D Antenna in Package Design: Maximizing Radiation Pattern Isotropy and CP Coverage,” 2020 IEEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting, Montreal, Canada (Online), July 5-10, 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,” International Applied Computational Electromagnetics Society (ACES) Symposium, July 27-31, 2020.
- Abdullah M. Algarni, Atef Z. Elsherbeni, Mohammed Hadi, “Implementation of Passive and Active Circuit Elements in Cylindrical Finite-Difference Time-Domain Formulation,” International Applied Computational Electromagnetics Society (ACES) Symposium, July 27-31, 2020.
- F. Kaburcuk, Atef Z. Elsherbeni, Rachel Lumnitzer, and Allison Tanner “SAR and Temperature Distributions in a Head Model Due to Electromagnetic Radiation with Frequencies up to 100 GHz,” 2020 IEEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting, Montreal, Canada (Online), July 5-10, 2020.
- Yiming Chen, Atef Z. Elsherbeni, Khalid Alharbi, and Rabah Aldhaheri, “Cavity Backed Patch-Slot Antenna for Lower Band 5G Communications,” URSI GASS 2020, Rome, Italy, 29 August - 5 September 2020.
- Madison Le, Mohammed Hadi, Atef Elsherbeni, “Quantifying Sub-gridding Errors in Standard and Hybrid Higher Order 2D FDTD Simulations,” International Applied Computational Electromagnetics Society (ACES) Symposium, July 27-31, 2020.
- Yuhao Feng, Yiming Chen, Atef Z. Elsherbeni, Khalid Alharbi, “Arrow Patch-Slot Antenna for 5G Lower Frequency Band Communications,” International Applied Computational Electromagnetics Society (ACES) Symposium, July 27-31, 2020.
- Rachel Lumnitzer, Allison Tanner, Atef Z. Elsherbeni, “Debye Coefficients for Biological Tissues From 100 MHz to 100 GHz,” International Applied Computational Electromagnetics Society (ACES) Symposium, July 27-31, 2020.



- Alec Weiss, Atef Elsherbeni, “Computational Performance of MATLAB and Python for Electromagnetic Applications,” International Applied Computational Electromagnetics Society (ACES) Symposium, July 27-31, 2020.

2019

- Madison Le, M. F. Hadi, and A. Z. Elsherbeni, “Quantifying Subgridding Errors when Modeling Multiscale Structures with FDTD,” International Applied Computational Electromagnetics Society (ACES) Symposium, Miami, Florida, April 2019.
- Joseph Diener and A. Z. Elsherbeni, “Miniaturized Omnidirectional UHF RFID Antennas,” International Applied Computational Electromagnetics Society (ACES) Symposium, Miami, Florida, April 2019.
- Alec Weiss, Veysel Demir, A. Z. Elsherbeni, and M. Hadi, “Accelerating the FDTD Algorithm on CPUs with MATLAB’s Parallel Computing Toolbox,” International Applied Computational Electromagnetics Society (ACES) Symposium, Miami, Florida, April 2019.
- M. Hadi and A. Z. Elsherbeni, and M. Hadi, “Axial PML Performance Near the Axis of Rotation in Cylindrical FDTD,” International Applied Computational Electromagnetics Society (ACES) Symposium, Miami, Florida, April 2019.
- M. F. Hadi and A. Z. Elsherbeni, “Oblique Incidence PML Reflection Analysis for Cylindrical FDTD,” 2019 IEEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting, Atlanta, GA, July 2019.
- Marrwa H. Bannis, Fatma M. El-Hefnawi, and A. Z. Elsherbeni, “Identification of Suspicious Mass in Biological Tissues Using Resonance Parameters Extracted from Late Time Response,” 2019 IEEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting, Atlanta, GA, July 2019.
- Andres Velasco, Mohammed F. Hadi, Atef Z. Elsherbeni, Joseph E. Diener, “Debye Coefficients for Low Frequency FDTD Dispersive Soils Analysis,” International Applied Computational Electromagnetics Society (ACES) Symposium, Nanjing, China, August 2019.

2018

- F. Kaburcuk and Atef Z. Elsherbeni, “SAR and Temperature Rise Distributions in a Human Head Due to a Multi-Frequency Antenna Source,” Applied Computational Electromagnetics Society (ACES), Denver, CO, USA, March 2018.
- M. F. Hadi, A. Z. Elsherbeni, Ravi C. Bollimuntha and Melinda J. Piket-May “FDTD Numerical Dispersion Relation in Spherical Coordinates,” 12th European Conference on Antennas and Propagation, London, UK, April 2018.
- R. C. Bollimuntha, M. F. Hadi, M. J. Piket-May, and A. Z. Elsherbeni, “Numerical Dispersion Analysis for Spherical FDTD,” International Applied Computational Electromagnetics Society (ACES) Symposium, Denver, Colorado, March 2018.
- B. Martin, A. Elsherbeni, G. Fasshauer and M. F. Hadi, “Improved FDTD Method around Dielectric and PEC,” International Applied Computational Electromagnetics Society (ACES) Symposium, Denver, Colorado, March 2018.
- M. F. Hadi, A. Z. Elsherbeni, Ravi C. Bollimuntha and Melinda J. Piket-May “Reflection Analysis of Spherical FDTD Absorbing Boundary Conditions,” 2018 IEEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting, Boston, MA, July 2018.
- Allee D. Zarrini, A. Elsherbeni, and Jurgen F. Brune, “Directional of Arrival Tag Response for Reverse RFID Localization,” International Applied Computational Electromagnetics Society (ACES) Symposium, Denver, Colorado, March 2018.



- Joseph E. Diener, Jeanne Quimby, Kate A. Remley, and A. Elsherbeni, “Millimeter-wave Frequency FDTD Simulation for Error Vector Magnitude of Modulated Signals,” International Applied Computational Electromagnetics Society (ACES) Symposium, Denver, Colorado, March 2018.
- Kyle Patel, Robert Jones, and A. Elsherbeni, “A Cost-Effective Far-Field Antenna Pattern Measurement System,” International Applied Computational Electromagnetics Society (ACES) Symposium, Denver, Colorado, March 2018.

2017

- M. F. Hadi and A. Z. Elsherbeni, “Numerical Dispersion and Stability for Three-Dimensional Cylindrical FDTD near the Axis of Rotation,” European Conference on Antennas and Propagation, Paris, France, pp. 936-938, March 2017.
- Mohamed Bakr, Atef Elsherbeni, and Veysel Demir, “Wideband Adjoint Sensitivity of Dispersive Structures Using FDTD Method,” 2017 IEEE International Symposium on Antennas and Propagation & USNC/URSI National Radio Science Meeting, pp. 2411-2412, San Diego, CA, July 9-14, 2017.
- Joseph E. Diener, Robert D. Jones, and Atef Z. Elsherbeni, “Isoflux Phased Array Design for CubeSat,” IEEE International Symposium on Antennas and Propagation & USNC/URSI National Radio Science Meeting, pp. 1811-1812, San Diego, CA, July 9-14, 2017.
- Mohamed. H. Bakr, Atef Elsherbeni and Veysel Demir, "Second Order Adjoint Sensitivities: An Alternative Formulation," IEEE 30th Canadian Conference on Electrical and Computer Engineering (CCECE), pp. 1-2, Windsor, ON, 30 April-3 May 2017.
- Mohamed. H. Bakr, Atef Elsherbeni and Veysel Demir, "A Maxwellian Formulation of Adjoint Sensitivity Analysis Using the FDTD Method," IEEE 30th Canadian Conference on Electrical and Computer Engineering (CCECE), pp. 1-2, Windsor, ON, 30 April-3 May 2017.
- M. M.T. Maghrabi, M.H. Bakr, S. Kumar, A. Elsherbeni, and V. Demir, “Adjoint sensitivity analysis of nonlinear structures exploiting FDTD,” AES 2017, the 5th Applied Electromagnetics Symposium, Incheon, Korea, July 2017. (invited)
- Si Li; Wenxing Li; Yunlong Mao; Wenhua Yu; Atef Z. Elsherbeni, “A Tunable Dual-band Left-Handed Metamaterial Implementation,” Applied Computational Electromagnetics Society (ACES) Symposium, Firenze, Italy, March 26-30, 2017.
- F. Kaburcuk and Atef Z. Elsherbeni, “Fast Algorithm for Lossless Anisotropic Simulations using the FDTD method,” 2017 IEEE International Symposium on Antennas and Propagation and USNC/URSI Radio Science Meeting, San Diego, CA, USA, July 9-14, 2017.
- F. Kaburcuk and Atef Z. Elsherbeni, “A Speeding up Technique for Lossy Anisotropic Algorithm in FDTD Method,” Applied Computational Electromagnetics Society (ACES) Symposium, Firenze, Italy, March 26-30, 2017.
- Y. Mao, A. Z. Elsherbeni, S. Li, “Non-uniform surface impedance absorbing boundary condition for FDTD method,” European Conference on Antennas and Propagation, Paris, France, pp. 516-519, March 2017.
- Y. Mao, Tao Jiang, and A. Elsherbeni, “An efficient boundary condition based on surface impedance concept in FDTD simulations,” Applied Computational Electromagnetics Society (ACES) Symposium, Firenze, Italy, March 26-30, 2017.
- Chongyi Yue, W. Li, A. Elsherbeni, and V. Demir, “Compact Meander Printed Dipole Antenna,” Applied Computational Electromagnetics Society (ACES) Symposium, Firenze, Italy, March 26-30, 2017.

2016

- M. F. Hadi, S. F. Mahmoud and A. Z. Elsherbeni, “Modeling Cylindrical-Sectoral Structures with the BOR-FDTD Method,” IEEE AP-S Topical Conf. on Antennas and Propagation in Wireless Communications, Cairns, Australia, pp. 335-336, September 2016.



- M. F. Hadi, S. F. Mahmoud, A. Z. Elsherbeni and M. J. Piket-May, “FDTD Modeling Challenges of Cylindrical Structures,” IEEE AP-S Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting, Puerto Rico, pp. 2023-2024, June/July 2016.
- Yunlong Mao, Tao Jiang and Atef Z. Elsherbeni, “An Improved Surface Impedance Absorbing Boundary Based on Collocation Technology,” IEEE/ACES International Conference on Wireless Information Technology (ICWITS) and System and Applied Computational Electromagnetics, Hawaii, March 2016.
- Mohamed Bakr, Atef Elsherbeni, and Veysel Demir, “An FDTD-Based Adjoint Sensitivity Approach,” Accepted for IEEE AP-S Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting, Puerto Rico, pp. 2021-2022, June/July 2016.
- Si Li; Yunlong Mao; Wenhua Yu, A Novel Dual Notched UWB Antenna for Wireless Body Area Network, 2016 IEEE/ACES International Conference on Wireless Information Technology (ICWITS) and System and Applied Computational Electromagnetics, Hawaii, March 2016.

2015

- P. Nayeri, A. Z. Elsherbeni, R. L. Haupt, and F. Yang, “Near-Field Scanning Characteristics of Focused Reflectarray Antennas,” the 2015 Applied Computational Electromagnetics Society Conference, Williamsburg, VA, March 2015.
- P. Nayeri, A. Z. Elsherbeni, and R.L. Haupt, “Broadband Focusing Using Aperture-Coupled Microstrip Patch Antenna Arrays,” the 2015 European Conference on Antennas and Propagation, EUCAP 2015.
- P. Nayeri, A. Z. Elsherbeni, and R. L. Haupt, “Mutual Coupling in an Array of Vivaldi Antennas with Wide Instantaneous Bandwidth,” the 2015 IEEE Radar Conference, NY, 2015.
- Mao Y, Elsherbeni A Z, Jiang T, et al. Absorbing Boundary for Terminating FDTD Simulations based on Surface Impedance Concept, Applied Computational Electromagnetics Society conference, 2015.

2014

- P. Nayeri, D. Kajfez, and A. Z. Elsherbeni, “Design of a segmented half-loop antenna,” IEEE Antennas and Propagation Society International Symposium, Tennessee, U.S., July 2014.
- P. Nayeri, F. Yang, and A. Z. Elsherbeni, “The offset parabolic-torus-phase planar reflectarray antenna,” IEEE Antennas and Propagation Society International Symposium, Tennessee, U.S., July 2014.
- A. H. Abdelrahman, P. Nayeri, A. Z. Elsherbeni, and F. Yang, “Analysis and design of wideband transmitarray antennas with different unit-cell phase ranges,” IEEE Antennas and Propagation Society International Symposium, Tennessee, U.S., July 2014.
- A. H. Abdelrahman, P. Nayeri, A. Z. Elsherbeni, and F. Yang, “Design of single-feed multi-beam transmitarray antennas,” IEEE Antennas and Propagation Society International Symposium, Tennessee, U.S., July 2014.
- A. Khidre, F. Yang, and A. Z. Elsherbeni, “Reconfigurable Microstrip Antennas with Dynamic Radiation Patterns,” URSI Radio Science Meeting Digest, Memphis, TN, USA, July 2014.
- A. H. Abdelrahman, A. Z. Elsherbeni, and F. Yang, “Broadband high gain triple-layer transmitarray antenna,” IEEE Antennas and Propagation Society International Symposium (APSURSI), pp. 1270-1271, Memphis, Tennessee, USA, July 2014.
- Huanhuan Yang, Yilin Mao, Shengheng Xu, Fan Yang and Atef. Z. Elsherbeni, “Analysis and Optimization of the Scanning Performance of 1-bit Reconfigurable Reflectarrays,” IEEE Antennas and Propagation Society International Symposium (AP-S), Memphis, Tennessee, July 2014.



- Fang Guo, Yilin Mao, Shengheng Xu, Fan Yang and Atef. Z. Elsherbeni, “A Modified Parabolic-Cylindrical Reflectarray Antenna for Wide Beam Scanning Capability,” IEEE Antennas and Propagation Society International Symposium (AP-S), Memphis, Tennessee, July 2014.
- Q. Qiao, F. Yang and A. Z. Elsherbeni, “A high sensitivity RFID temperature sensor tag design using PTFE material,” IEEE AP-S International Symposium, Memphis, TN, July 2014.
- F. Yang, P. Nayeri, and A. Z. Elsherbeni, “Recent advances in beam-scanning reflectarray antennas,” URSI General Assembly and Scientific Symposium, Beijing, China, August 2014.
- P. Nayeri, A. Z. Elsherbeni, and D. Kajfez, “Segmented half-loop antennas for vehicular GPS applications,” IEEE Antennas and Propagation in Wireless Communications (APWC 2014), Palm Beach, Aruba, August 2014.
- F. Yang, Q. Qiao, L. Zhang, Z. Yue and A. Z. Elsherbeni, “High-Sensitivity RFID Sensing Antennas: From Sensing Mechanism Selections to Antennas Structure Designs,” IEEE URSI-GA, Beijing, China, August 2014.
- P. Nayeri, A. Z. Elsherbeni, and R. L. Haupt, “Phased array antenna limitations for ultra-wideband focusing,” IEEE International Conference on Antenna Measurements & Applications (CAMA 2014), Antibes Juan-les-Pins, France, November 2014.

2013

- A. H. Abdelrahman, F. Yang, and A. Z. Elsherbeni “Analysis of multilayer frequency selective surfaces for transmitarray antenna applications,” 29th International Review of Progress in Applied Computational Electromagnetics, California, U.S., March 2013. (Third Place-Best paper Competition)
- A. H. Abdelrahman, F. Yang, A. Z. Elsherbeni, and A. Khidre “Transmitarray Antenna Design using Slot-Type Element,” IEEE International Symposium on Antennas and Propagation, Orlando, FL, July 2013.
- Q. Qiao, L. Zhang, F. Yang, Z. Yue and A. Z. Elsherbeni, “UHF RFID temperature sensor tag using novel HDPE-BST composite material,” IEEE International Symposium on Antennas and Propagation, Orlando, FL, July 2013.
- F. Yang, Q. Qiao and Atef. Z. Elsherbeni, “Reconfigurable sensing antennas: concept, design, and applications,” IEEE Antenna Propagation Wireless Communication, Italy, Sep. 2013.
- A. Khidre, F. Yang, and A. Z. Elsherbeni, “Reconfigurable Microstrip Antenna with Two-Dimensional Scannable Beam,” IEEE International Symposium on Antennas and Propagation, Orlando, FL, July 2013.
- Yilin Mao, F. Yang, and Atef Elsherbeni, “Closely Separated Dual-Band Reflectarray Design for Satellite Communications,” IEEE International Symposium on Antennas and Propagation, Orlando, FL, July 2013.
- A. Khidre, F. Yang, and A. Z. Elsherbeni, “Reconfigurable Microstrip Antenna with Tunable Radiation Beamwidth,” IEEE International Symposium on Antennas and Propagation, Orlando, FL, July 2013.
- P. Nayeri, A. Z. Elsherbeni, and F. Yang, “Full-wave analysis of planar reflectarrays with spherical phase distribution for 2-D beam-scanning using FEKO electromagnetic software,” 29th International Review of Progress in Applied Computational Electromagnetics, California, U.S., March 2013. (First Place-Best paper Competition)
- P. Nayeri, M. Liang, R. Sabory-García, M. Tuo, F. Yang, M. Gehm, H. Xin, and Atef Z. Elsherbeni, “Design, fabrication, and measurement of dielectric reflectarray antennas,” 38th International Conference on Infrared, Millimeter and Terahertz Waves, Mainz, Germany, Sep. 2013.



- P. Nayeri, M. Liang, R. Sabory-García, M. Tuo, F. Yang, M. Gehm, H. Xin, and Atef Elsherbeni, "High gain dielectric reflectarray antennas for THz applications," *IEEE Antennas and Propagation Society International Symposium*, Florida, U.S., July 2013.
- P. Nayeri, F. Yang, and A. Z. Elsherbeni, "Design of multifocal transmitarray antennas for beamforming applications," *IEEE Antennas and Propagation Society International Symposium*, Florida, U.S., July 2013.
- P. Nayeri, F. Yang, and A. Z. Elsherbeni, "Studies on planar reflectarrays with spherical-phase distribution for 2-D beam-scanning," *IEEE Antennas and Propagation Society International Symposium*, Florida, U.S., July 2013.

2012

- Xue-Xia Yang, Chao Jiang, Atef Z. Elsherbeni, and Fan Yang, "A Novel Compact Printed Rectenna for Communication Systems," *the 4th IEEE Asia-Pacific Power and Energy Engineering Conference*, Shanghai, China, March 2012.
- A. Z. Elsherbeni, P. Nayeri, and F. Yang, "Reflectarray Antennas for Space Applications," *IEEE International Conference on Ultra-Wideband*, Syracuse, NY, U.S., Sep. 2012.
- P. Nayeri, F. Yang, and A. Z. Elsherbeni, "Design of Single-Feed Reflectarrays with Asymmetric Multi-Beams," *IEEE Antennas and Propagation Society International Symposium*, Illinois, U.S., July 2012.
- Xue-Xia Yang, Chao Jiang, Atef Z. Elsherbeni, and Fan Yang, "A Reconfigurable Patch Antenna with Quad-Polarization States Using Dual Feed Ports," *IEEE Antennas and Propagation Society International Symposium*, Illinois, U.S., July 2012.
- P. Nayeri, F. Yang, and A. Z. Elsherbeni, "High-gain beam-scanning reflectarray antennas using an active-feed scheme," *IEEE Antennas and Propagation Society International Symposium*, Illinois, U.S., July 2012.
- A. Khidre, F. Yang, and A. Z. Elsherbeni, "Reconfigurable Dual-Band Patch Antenna with a Varactor-Loaded Slot," *IEEE Antennas and Propagation Society International Symposium*, Illinois, U.S., July 2012.
- A. Khidre, F. Yang, and A. Z. Elsherbeni, "Reconfigurable Microstrip Yagi-Uda Antenna with a Scannable Circularly Polarized Beam," *IEEE Antennas and Propagation Society International Symposium*, Illinois, U.S., July 2012.
- P. Nayeri, F. Yang, and A. Z. Elsherbeni, "Beam-scanning reflectarray antennas: A technical review," *28th International Review of Progress in Applied Computational Electromagnetics*, Columbus, Ohio, U.S., April 2012.
- P. Nayeri, A. Z. Elsherbeni, and F. Yang, "Design, full-wave simulation, and near-field diagnostics of reflectarray antennas using FEKO electromagnetic software," *28th International Review of Progress in Applied Computational Electromagnetics*, Columbus, Ohio, U.S., April 2012.
- Yilin Mao, Cong Wang, F. Yang, and A. Elsherbeni, "A Single-Layer Broad-band Reflectarray Design Using Dual-Frequency Phase Synthesis Method", *Proc. Of the Asia Pacific Microwave Conference*, pp. 64-66, Taiwan, Dec. 2012.
- Qian Qiao, F. Yang and A. Z. Elsherbeni, "Read range and sensitivity study of RFID temperature sensors," *IEEE APS International Symposium*, pp. 1-2, , Chicago, IL, July 2012.
- F. Yang, Q. Qiao, Z. Zhang, "Reconfigurable sensing antennas: a low-cost passive wireless sensing method," *IEEE APS International Symposium*, Chicago, IL, July 2012.
- K ElMahgoub, A. Z. Elsherbeni, "Implementing voltage controlled current source in electromagnetic full-wave simulation using the FDTD method," *Microwave Symposium Digest (MTT), IEEE MTT-S International*, 2012.
- A Ali Babar, J Virtanen, VA Bhagavati, L Ukkonen, AZ Elsherbeni, P Kallio, L Sydanheimo,



“Inkjet-printable UHF RFID tag antenna on a flexible ceramic-polymer composite substrate,” *Microwave Symposium Digest (MTT), IEEE MTT-S International*, 2012.

2011

- A. Khidre, K. F. Lee, A. Z. Elsherbeni, and F. Yang, “E-shaped Patch Antenna with Reconfigurable Circular Polarization for Wireless Applications”, *The 27th International Review of Progress in Applied Computational Electromagnetics (ACES)*, Williamsburg, Virginia, 27-31 March 2011.
- T. Björninen, M. Lauri, K. Koski, L. Ukkonen, A. Z. Elsherbeni, R. Ritala, and L. Sydänheimo, “Wireless Measurement of Wake-Up Power and Impedance of UHF RFID IC,” *33rd Antenna Measurement Techniques Association Symposium*, pp. 63-68, 16-21 Oct. 2011, Englewood, CO, USA.
- A. Khidre, F. Yang, and A. Z. Elsherbeni, “Radiation Characteristics of Linear Phased Arrays Consisting of Beam Scanning Reconfigurable Antenna,” *IEEE 2011 International Symposium on Microwave, Antenna, Propagation and EMC Technologies for Wireless Communications*, pp. 140-143, Beijing, China, Nov. 2011.
- T. Björninen, D. K. Espejo, L. Ukkonen, A. Z. Elsherbeni, and L. Sydänheimo, “Long Range Metal Mountable Tag Antenna for Passive UHF RFID Systems,” *IEEE International Conference on RFID-Technologies and Applications*, pp. 194-198, 15-16 Sept. 2011, Sitges, Spain.
- Payam Nayeri, Fan Yang, and Atef Z. Elsherbeni, “Radiation Analysis of Reflectarray Antennas: Array Theory Approach versus Aperture Field Approach,” *The 27th International Review of Progress in Applied Computational Electromagnetics (ACES)*, Williamsburg, Virginia, 27-31 March 2011.
- Qian Qiao, Fan Yang, Atef Z. Elsherbeni, “Bandwidth Enhancement of Circularly Polarized Patch Antenna using Lumped LC Matching Circuit,” *IEEE Antennas and Propagation Society International Symposium (AP-S)*, Spokane, Washington, 3-8 July 2011.
- Gokhan Aydin, Atef Z. Elsherbeni, Bassem Tawfik, and Ercument Arvas, “FDTD Formulations for Oblique Incidence Scattering,” *The 27th International Review of Progress in Applied Computational Electromagnetics (ACES)*, Williamsburg, Virginia, 27-31 March 2011.
- Khaled ElMahgoub, Fan Yang and Atef Z. Elsherbeni, “Design and Analysis of Reconfigurable Frequency Selective Surfaces using FDTD,” *The 27th International Review of Progress in Applied Computational Electromagnetics (ACES)*, Williamsburg, Virginia, 27-31 March 2011.
- Mesut Gokten, Atef Z. Elsherbeni, and Ahmet F. Yagli, “Efficient Analysis of Two-Dimensional RCS Scattering Analysis using the MRFD Technique,” *The 27th International Review of Progress in Applied Computational Electromagnetics (ACES)*, Williamsburg, Virginia, 27-31 March 2011.
- L. Ukkonen, T. Björninen, L. Sydänheimo, and A. Z. Elsherbeni, “Impedance Matching Study of a Metal Mountable RFID Tag: Analysis of Matching Tolerances and a New Impedance Matching Method,” *The 5th European Conference on Antennas and Propagation (EUCAP)*, Rome, Italy. 11-15 April 2011.
- T. Björninen, L. Ukkonen, A. Z. Elsherbeni, and L. Sydänheimo, “Comparison of T-matched and Double T-matched Short Dipole Tag Antennas for UHF RFID Systems,” *The 27th International Review of Progress in Applied Computational Electromagnetics (ACES)*, Williamsburg, Virginia, 27-31 March 2011.
- P. Nayeri, F. Yang, and A. Z. Elsherbeni, “Radiation Characteristics of Conformal Reflectarray Antennas,” *IEEE Antennas and Propagation Society International Symposium (AP-S)*, Spokane, Washington, 3-8 July 2011.
- R. Hasse, W. Hunsicker, K. Naishadham, Atef Z. Elsherbeni, and D. Kajfez, “Analysis and Design of a Partitioned Circular Loop Antenna for Omni-directional Radiation,” *IEEE Antennas and Propagation Society International Symposium (AP-S)*, Spokane, Washington, 3-8 July 2011.



- Yilin Mao, Yashwanth R. Padooru, Kai-Fong Lee, Atef Z. Elsherbeni, and Fan Yang, “Air Gap Tuning of Patch Antenna Resonance,” *IEEE Antennas and Propagation Society International Symposium (AP-S)*, Spokane, Washington, 3-8 July 2011.
- T. Björninen, L. Ukkonen, L. Sydänheimo, and A. Z. Elsherbeni, “Metal Mountable Patch Tag Antenna with an Inductive Feed Network for UHF RFID Systems,” *IEEE Antennas and Propagation Society International Symposium (AP-S)*, Spokane, Washington, 3-8 July 2011.
- T. Björninen, L. Ukkonen, A. Z. Elsherbeni, and L. Sydänheimo, “Development of a Low Profile Conformal UHF RFID Tag Antenna for Identification of Water Bottles,” *IEEE Antennas and Propagation Society International Symposium (AP-S)*, Spokane, Washington, 3-8 July 2011.
- K. Koski, E. Koski, L. Ukkonen, L. Sydänheimo, T. Björninen, J. Virtanen, and A. Z. Elsherbeni, “Effects of Laboratory-Scale IC Attachment Methods on Passive UHF RFID Tag Performance,” *IEEE Antennas and Propagation Society International Symposium (AP-S)*, Spokane, Washington, 3-8 July 2011.
- E. Koski, L. Ukkonen, L. Sydänheimo, J. Virtanen, T. Björninen, and A. Z. Elsherbeni, “Performance of Inkjet-Printed Narrow-Line Passive UHF RFID Tags on Different Objects,” *IEEE Antennas and Propagation Society International Symposium (AP-S)*, Spokane, Washington, 3-8 July 2011.
- J. Virtanen, L. Ukkonen, T. Björninen, A. Z. Elsherbeni, and L. Sydänheimo, “Temperature Sensor Tag for Passive UHF RFID Systems,” *The IEEE Sensor Applications Symposium (SAS)*, San Antonio, Texas, 22-24 Feb. 2011.
- K. ElMahgoub, F. Yang, A. Z. Elsherbeni, “Analysis of multilayer periodic structures with different periodicities using a hybrid FDTD/GSM method,” *Microwave Symposium Digest (MTT), IEEE MTT-S International*, 2011.

2010

- K. ElMahgoub, F. Yang and A. Elsherbeni, “Efficient Analysis of Multi-Layer Periodic Structures Using FDTD,” *Proceedings of The 32nd Antenna Measurement Techniques Association (AMTA) Symposium*, Atlanta, Georgia, Oct. 2010.
- T. Björninen, M. Lauri, L. Ukkonen, L. Sydänheimo, A. Z. Elsherbeni, and R. Ritala, “Wireless Measurement of UHF RFID Chip Impedance,” *Proceedings of The 32nd Antenna Measurement Techniques Association (AMTA) Symposium*, pp. 35-40, Atlanta, Georgia, Oct. 2010.
- M. J. Inman, A. Z. Elsherbeni, C. J. Reddy “CUDA Based GPU Solver for Method of Moments Simulations,” *The 26th International Annual Review of Progress in Applied Computational Electromagnetics Society (ACES)*, Tampere, Finland, Apr. 25-29, 2010.
- B. Devireddy, F. Yang, A. Z. Elsherbeni, “Gain and Bandwidth Characterizations of Reflectarray Antennas,” *The 26th International Annual Review of Progress in Applied Computational Electromagnetics Society (ACES)*, Tampere, Finland, Apr. 25-29, 2010.
- K. ElMahgoub, F. Yang, A. Elsherbeni, V. Demir, and J. Chen, “FDTD/PBC Algorithm for Skewed Grid Periodic Structures,” *IEEE Antennas and Propagation Society International Symposium*, Toronto, Canada, July 2010.
- V. Demir and A. Elsherbeni, “Programming Finite-Difference Time-Domain for Graphics Processor Units using Compute Unified Device Architecture,” *IEEE Antennas and Propagation Society International Symposium*, Toronto, Canada, July 2010.
- A. H. Abd-Elrahman, F. M. Elhefnawi, A. Z. Elsherbeni, M. A.-E. Hendi, S. H. Elramly “Compact Dual Circularly Polarized Microstrip Antennas,” *IEEE Antennas and Propagation Society International Symposium*, Toronto, Canada, July 2010.
- T. Elsherbeni, K. ElMahgoub, L. Sydänheimo, L. Ukkonen, A. Elsherbeni, and F. Yang, “Laboratory Scale Fabrication Techniques for Passive UHF RFID Tags,” *IEEE Antennas and Propagation Society International Symposium*, Toronto, Canada, July 2010.



- A. Babar, L. Ukkonen, A. Elsherbeni, and L. Sydänheimo, "Small High Performance Ultra Wideband Multipurpose Planar Antenna," *IEEE Antennas and Propagation Society International Symposium*, Toronto, Canada, July 2010.
- K. ElMahgoub, F. Yang, A. Elsherbeni, V. Demir, and J. Chen, "Analysis of Skewed Grid Periodic Structures Using FDTD," *USNC-URSI National Radio Science Meeting*, Boulder, Colorado, 2010.
- A. Yu, F. Yang, A. Z. Elsherbeni, and J. Huang, "Experimental demonstration of a single layer tri-band circularly polarized reflectarray," *IEEE Antennas and Propagation Society International Symposium*, Toronto, Canada, July 2010.
- P. Nayeri, F. Yang, and A. Z. Elsherbeni, "Single-feed Multi-Beam Reflectarray Antennas," *IEEE Antennas and Propagation Society International Symposium*, Toronto, Canada, July 2010.
- J. Virtanen, L. Ukkonen, A. Z. Elsherbeni, V. Demir, L. and Sydänheimo, "Comparison of Different Electromagnetic Solvers for Modeling of Inkjet Printed RFID Humidity Sensor," *The 26th International Annual Review of Progress in Applied Computational Electromagnetics Society (ACES)*, Tampere, Finland, Apr. 25-29, 2010.
- J. Virtanen, T. Björninen, L. Ukkonen, K. Kaija, T. Joutsenoja, L. Sydänheimo, and A. Z. Elsherbeni, "The Effect of Conductor Thickness in Passive Inkjet Printed RFID Tags," *Proceedings of IEEE Antennas and Propagation Society International Symposium (AP-S)*, Toronto, Ontario, Canada, 11-17 July 2010.
- T. Björninen, L. Ukkonen, A. Z. Elsherbeni, L. Sydänheimo, "Circularly Polarized Tag Antenna for UHF RFID," *The 26th International Annual Review of Progress in Applied Computational Electromagnetics Society (ACES)*, Tampere, Finland, Apr. 25-29, 2010.

2009

- Erdogan Alkan, Veysel Demir, Atef Z. Elsherbeni, and Ercument Arvas, "Electromagnetic Scattering from Chiral Objects Using Double-Grid Finite-Difference Frequency-Domain (DG-FDFD) Method," *2009 IEEE MTT-S Int. Microwave Symp.*, Boston, June 2009.
- Payam Nayeri, Fan Yang, and Atef Z. Elsherbeni, "A Broadband Microstrip Reflectarray using Sub-Wavelength Patch Elements," *The 2009 IEEE International Symposium on Antennas and Propagation*, South Carolina, June 2009.
- Lijun Zhang, Fan Yang, and Atef Z. Elsherbeni, "Analysis and Design of a Reconfigurable Dual-Strip Scanning Antenna," *The 2009 IEEE International Symposium on Antennas and Propagation*, South Carolina, June 2009.
- Ang Yu, Fan Yang, Atef Z. Elsherbeni, and John Huang, "A Single Layer Broadband Circularly Polarized Reflectarray Based on the Element Rotation Technique," *The 2009 IEEE International Symposium on Antennas and Propagation*, June 2009.
- M. J. Inman, A. Z. Elsherbeni, "GPU Acceleration of Linear Systems for Computational Electromagnetic Simulations," *The 2009 IEEE International Symposium on Antennas and Propagation*, June 2009.
- Ang Yu, Fan Yang, Atef Z. Elsherbeni, John Huang, Yahya Rahmat-Samii, "Optimizing Aperture Efficiency of Reflectarray Antenna" *URSI National Radio Science Meeting*, Boulder, CO, January 2009.
- Khaled Elmahgoub, Tamer Elsherbeni, Fan Yang, Atef Elsherbeni, Lauri Sydänheimo, Leena Ukkonen, "Logo-Antenna Based RFID Tags for Advertising Applications," *The 25th Annual Review of Progress in Applied Computational Electromagnetics Society, ACES'09*, Monterey, California, March 2009.
- B. H. Henin, A. Z. Elsherbeni, M. H. Al Sharkawy, and F. Yang, "The Generation of a Plane Wave in the Near Field of a Line Source Using an Array of Conducting Cylinders," *The 25th Annual Review of*



Progress in Applied Computational Electromagnetics Society, ACES'09, Monterey, California, March 2009. [Third place, best conference paper award]

- B. H. Henin, A. Z. Elsherbeni, and F. Yang, "Design of a Compact Wideband Spiral Antenna for WLAN Applications," *The 25th Annual Review of Progress in Applied Computational Electromagnetics Society*, ACES'09, Monterey, California, March 2009.
- Chye Hwa Loo, Atef Z. Elsherbeni, Fan Yang, and Darko Kajfez, "Simulation and Experimental Verification of RFID Blind Spots," *The 25th Annual Review of Progress in Applied Computational Electromagnetics Society*, ACES'09, Monterey, California, March 2009.
- Matthew J. Inman and Atef Z. Elsherbeni, "Optimization of GPU Codes for FDTD Simulations," *The 25th Annual Review of Progress in Applied Computational Electromagnetics Society*, ACES'09, Monterey, California, March 2009.
- Ang Yu, Fan Yang, Atef Elsherbeni, and John Huang, "Design and measurement of a circularly polarized Ka-band reflectarray antenna," *The 3rd European Conference on Antennas and Propagation*, Mar. 2009.

2008

- Jie Zhang, Ali Babar, Leena Ukkonen, Lauri Sydänheimo, Atef Elsherbeni, and Fan Yang, "Performance of RFID Bowtie Tag Antenna with Different Impedance Matching," *Asia Pacific microwave Conference (APMC)*, Hong Kong, December 2008. (Invited)
- Atef Elsherbeni, M. J. Inman, and V. Demir, "From Entertainment to Education: The Role of Video Card Accelerated Programs in Electromagnetics Education," *35th Annual Conference of The Association of Egyptian American Scholars*, Cairo, Egypt, December 2008. (Invited)
- Matti Nikkari, Carmine Piersanti, Leena Ukkonen, Lauri Sydänheimo, Atef Elsherbeni, and Fan Yang, "Effect of Moisture for Backscatter Communication," *30th Annual Symposium of the Antenna Measurement Techniques Association (AMTA)*, 2008.
- M. J. Inman, A. Z. Elsherbeni, "MATLAB Graphical Interface for GPU Based FDTD Method," *2008 Asia-Pacific Symposium on EMC & 19th International Zurich Symposium on Electromagnetic Compatibility*, Singapore, May 19-22, 2008.
- Fan Yang, Ang Yu, Atef Z. Elsherbeni, and John Huang, "Single-Layer Multi-band Circularly Polarized Reflectarray Antenna: Concept, Design, and Measurement," *URSI General Assembly*, Chicago, Illinois, August 7-16, 2008.
- Bassem H. Henin, M. H. Al Sharkawy, and Atef Z. Elsherbeni, "Radar Cross-Section of Targets Loaded with Metamaterial," *NATO Advanced Research Workshop, Metamaterials for Secure Information and Communication Technologies*, Marrakesh –Morocco, May 7-10, 2008.
- M. J. Inman, A. Z. Elsherbeni, "Optimization and Parameter Exploration Using GPU Based FDTD Solvers," *2008 IEEE MTT-S Int. Microwave Symp.*, Atlanta, June 2008.
- Bassem H. Henin, Atef Z. Elsherbeni, Darko Kajfez, Ahmed A. Kishk, and Fan Yang, "Design of a Compact Wideband Log-Periodic-Dipole-Array Antenna Using WIPL-D Software," *The 24th Annual Review of Progress in Applied Computational Electromagnetics Society*, ACES'08, Niagara Falls, Canada, April 2008.
- Chye-Hwa Loo, Khaled Elmaghoub, Fan Yang, Atef Elsherbeni, Darko Kajfez, Ahmed Kishk, Tamer Elsherbeni, Leena Ukkonen, Lauri Sydänheimo, Markku Kivikoski, Sari Merilampi, and Pekka Ruuskanen, "Impedance Matching for RFID Tag Antennas," *The 24th Annual Review of Progress in Applied Computational Electromagnetics Society*, ACES'08, Niagara Falls, Canada, April 2008.
- Wei-Chung Weng, Fan Yang, and Atef Z. Elsherbeni, "Design of an Ultra-Wideband Antenna Using Taguchi's Optimization Method," *The 24th Annual Review of Progress in Applied Computational Electromagnetics Society*, ACES'08, Niagara Falls, Canada, April 2008.



- M. J. Inman, A. Z. Elsherbeni, “Interactive GPU Based FDTD Simulations for Teaching Applications,” *The 24th Annual Review of Progress in Applied Computational Electromagnetics Society, ACES’08*, Niagara Falls, Canada, April 2008.
- Ang Yu, Fan Yang, Atef Z. Elsherbeni, and John Huang, “An X-Band Circularly Polarized Reflectarray Using Split Square Ring Elements and the Modified Element Rotation Technique,” *IEEE International Symposium on Antennas and Propagation*, July 2008.
- Lijun Zhang, Fan Yang, and Atef Z. Elsherbeni, “An Improved PSO Method using Gaussian Distributed Random Variables for Electromagnetic Optimization,” *IEEE International Symposium on Antennas and Propagation*, July 2008.
- Chye-Hwa Loo, Khaled Elmaghoub, Fan Yang, Atef Elsherbeni, Darko Kajfez, Ahmed Kishk, Tamer Elsherbeni, Leena Ukkonen, Lauri Sydänheimo, Markku Kivikoski, Sari Merilampi, and Pekka Ruuskanen, “RFID Tag Antenna Matching to Frequency Dependent MicroChip Impedance,” *IEEE International Symposium on Antennas and Propagation*, July 2008.
- Matti Nikkari, Toni Björninen, Lauri Sydänheimo, Leena Ukkonen, Atef Elsherbeni, Fan Yang, Markku Kivikoski, “Performance of a Passive UHF RFID Tag in Reflective Environment,” *IEEE International Symposium on Antennas and Propagation*, July 2008.
- Matti Nikkari, Toni Björninen, Leena Ukkonen, Fan Yang, Atef Elsherbeni, Lauri Sydänheimo, Markku Kivikoski, “Design and Comparison Between Two General Purpose Dipole Type UHF RFID Tag Antennas,” *IEEE International Symposium on Antennas and Propagation*, July 2008.
- Toni Björninen, Matti Nikkari, Leena Ukkonen, Fan Yang, Atef Elsherbeni, Lauri Sydänheimo, Markku Kivikoski, “Design and RFID Signal Analysis of a Meander Line UHF RFID Tag Antenna,” *IEEE International Symposium on Antennas and Propagation*, July 2008.

2007

- C. Loo and A. Z. Elsherbeni, “Wobbled synthetic discriminant function,” *International Symposium on Signal Processing and its Applications*, Sharjah, U. A. E., 12-15 February 2007.
- V. Demir, R. Hasse, D. Kajfez, and A. Z. Elsherbeni, “Partitioned square loop antenna,” *The 23rd Annual Review of Progress in Applied Computational Electromagnetics Society, ACES’07*, Verona, Italy, 19-23 March 2007.
- M. J. Inman, A. Z. Elsherbeni, J. G. Maloney, and B. N. Baker, “Practical implementation of a CPML absorbing boundary for GPU accelerated FDTD technique,” *The 23rd Annual Review of Progress in Applied Computational Electromagnetics Society, ACES’07*, Verona, Italy, 19-23 March 2007.
- Leena Ukkonen, Ang Yu, Lauri Sydänheimo, Fan Yang, Markku Kivikoski, and Atef Elsherbeni, “Analysis of Bow Tie Array RFID Tag Antenna for Paper Reel Identification systems,” *IEEE International Symposium on Antennas and Propagation*, June 2007.
- Fan Yang, Yanghyo Kim, J. Huang, and Atef Elsherbeni, “A single-layer tri-band reflectarray antenna design,” *IEEE International Symposium on Antennas and Propagation*, June 2007.
- Wei-Chung Weng, Fan Yang, and Atef Elsherbeni, “Electromagnetic optimization using Taguchi’s method: a case study of band pass filter design,” *IEEE International Symposium on Antennas and Propagation*, June 2007.
- Fan Yang, Atef Elsherbeni, and Ji Chen, “A hybrid spectral-FDTD/ARMA method for periodic structure analysis,” *IEEE International Symposium on Antennas and Propagation*, 2007.
- Fan Yang, Yanghyo Kim, John Huang, Ang Yu, and Atef Elsherbeni, “A single layer reflectarray antenna for C/X/Ka bands applications,” *2007 International Conference on Electromagnetics in Advanced Applications*, Torin, Italy, 2007.
- Fan Yang, Ang Yu, Atef Elsherbeni, and John Huang, “Single-layer multi-band circularly polarized reflectarray antenna: concept, design, and measurement,” *International Conference on Electromagnetics in Advanced Applications*, pp. 1058-1061, Sept. 2007.



- Ang Yu, F. Yang, and A. Z. Elsherbeni, “A broadband circularly polarized planar loop antenna using a microstrip to coplanar stripline transition,” *International Symposium on Electromagnetic Theory (EMTS) / URSI Electromagnetic Theory Symposium*, Canada, 2007.

2006

- A. Yu, F. Yang, and A. Z. Elsherbeni, “Circularly polarized dual band ring antenna using composite right- and left-handed metamaterial,” *The European Conference on Antennas and Propagation (EUCAP)*, Nice, France, October 2006.
- Wei-Chung Weng, F. Yang, V. Demir, and A. Z. Elsherbeni, “Optimization using Taguchi method for electromagnetic applications,” *The European Conference on Antennas and Propagation (EUCAP)*, Nice, France, October 2006.
- V. Demir, M. H. Al Sharkawy, and A. Z. Elsherbeni, “A Graphical User Interface (GUI) for two-dimensional electromagnetic scattering problems,” *IEEE SoutheastCon Conference*, Memphis, TN, USA, 31 March – 2 April 2006.
- M. H. Al Sharkawy, V. Demir, and A. Z. Elsherbeni, “Enhancement of the iterative multi-region algorithm by using the multigrid technique for efficient analysis of electromagnetic scattering problems,” *The 22nd Annual Review of Progress in Applied Computational Electromagnetics Society, ACES'06*, Miami, FL, USA, 12-16 March 2006.
- M. H. Al Sharkawy, V. Demir, and A. Z. Elsherbeni, “Efficient analysis of electromagnetic scattering problems using a parallel-multigrid Iterative Multi-Region algorithm,” *IEEE International Symposium on Antennas and Propagation and URSI National Radio Science Meeting*, Albuquerque, NM, USA, 2006.
- F. Yang, J. Chen, R. Qiang, and A. Z. Elsherbeni, “FDTD Analysis of periodic structures at arbitrary incidence angles: a simple and efficient implementation of the periodic boundary conditions,” *IEEE International Symposium on Antennas and Propagation and URSI National Radio Science Meeting*, Albuquerque, NM, USA, 2006.
- W. C. Weng, F. Yang, V. Demir, and A. Z. Elsherbeni, “Electromagnetic optimization using Taguchi method: a case study of linear antenna array design,” *IEEE International Symposium on Antennas and Propagation and URSI National Radio Science Meeting*, Albuquerque, NM, USA, 2006.
- R. K. Challa, D. Kajfez, J. R. Gladden, V. Demir, A. Z. Elsherbeni, “Permittivity Measurement by Using Transmission Line Method and Q-Factor Measurement,” *The 3rd International Conference On Microwaves, Antenna, Propagation & Remote Sensing (ICMARS-2006)*, Jodhpur, India, 20–22 December 2006.
- V. Demir, D. Elsherbeni, D. Kajfez, and A. Elsherbeni, “Simulation and Experimental Verification of Wideband Planar Power Dividers” *28th Annual Symposium of the Antenna Measurement Techniques Association (AMTA)*, Austin, Texas, USA, 22-27, 2006.

2005

- Veysel Demir, Atef Elsherbeni, and Ercument Arvas, “FDTD Formulation For Dispersive Chiral Media Analysis Using Z-Transform,” *2005 Workshop on Computational Electromagnetics in Time-Domain (CEM-TD)*, 12-14 September 2005.
- F. Yang, V. Demir, D. A. Elsherbeni, A. Z. Elsherbeni, and A. A. Eldek, “Planar Dipole Antennas near the Edge of an EBG Ground Plane for WLAN Applications,” *IEEE International Symposium on Antennas and Propagation and URSI National Radio Science Meeting*, Washington, DC, 3-8 July 2005.
- M. H. Al Sharkawy, V. Demir, and A. Z. Elsherbeni, “Scattering from Two Dimensional Problems Using the Iterative Multi-Region Technique for Large Scale Problems Based on the FDFD Method,” *IEEE International Symposium on Antennas and Propagation and URSI National Radio Science Meeting*, Washington, DC, 3-8 July 2005.



- Abdelnasser A. Eldek, Atef Z. Elsherbeni, and Charles E. Smith, “Modified Printed Bow-Tie Antenna For Wideband Phased Array Systems In The C And X-Bands,” *IEEE International Symposium on Antennas and Propagation and URSI National Radio Science Meeting*, Washington, DC, 3-8 July 2005.
- Abdelnasser A. Eldek, Atef Z. Elsherbeni, and Charles E. Smith, “Design of Ultra Wideband Coplanar Waveguide Fed Rectangular Slot Antenna With Tuning Stub,” *IEEE International Symposium on Antennas and Propagation and URSI National Radio Science Meeting*, Washington, DC, 3-8 July 2005.
- Abdelnasser A. Eldek, Atef Z. Elsherbeni, and Charles E. Smith, “Printed Lotus Antenna For Wideband Phased Array Systems,” *IEEE International Symposium on Antennas and Propagation and URSI National Radio Science Meeting*, Washington, DC, 3-8 July 2005.
- Abdelnasser A. Eldek, Atef Z. Elsherbeni, and Charles E. Smith, “Dual-Polarized Dual-Band Square Slot Antenna with A U-Shaped Printed Tuning Stub For Wireless Communications,” *IEEE International Symposium on Antennas and Propagation and URSI National Radio Science Meeting*, Washington, DC, 3-8 July 2005.
- Abdelnasser A. Eldek, Atef Z. Elsherbeni, and Charles E. Smith, “A Microstrip-Fed Modified Printed Bow-Tie Antenna for Simultaneous Operation in the C and X-Bands,” *The 2005 IEEE International Radar Conference*, Arlington, VA, 9-12 May 2005.
- Abdelnasser A. Eldek, Atef. Z. Elsherbeni, and C. E. Smith, “Wideband Printed Lotus Antenna for Personal Wireless Communications,” *IEEE/ACES International Conference on Wireless Communications and Applied Computational Electromagnetics*, Honolulu, Hawaii, 3-7 April 2005.
- Mohamed Al Sharkawy, Veysel Demir, and Atef Z. Elsherbeni, “The FDFD with the Iterative Multi-Region Technique for the Scattering from Multiple Three-Dimensional Objects,” *IEEE/ACES International Conference on Wireless Communications and Applied Computational Electromagnetics*, Honolulu, Hawaii, 3-7 April 2005.
- Mohamed Al Sharkawy, Veysel Demir, and Atef Z. Elsherbeni, “Educational Software Package for Electromagnetic Scattering from Simple Two and Three Dimensional Canonical and Non-Canonical Objects,” *IEEE/ACES International Conference on Wireless Communications and Applied Computational Electromagnetics*, Honolulu, Hawaii, 3-7 April 2005.
- Atef Z. Elsherbeni, Abdelnasser A. Eldek, and Charles E. Smith, “Wideband Slot and Printed Antennas,” *22nd National Radio Science Conference (NRSC’2005)*, Cairo, Egypt, 15-17 March 2005.
- R. Mantena, A. Elsherbeni, P. Sharma, P. Gloyer, C. Loo, M. Anakapalli, A. Radhakrishnan, and P. Sriniva, “Evaluation and Field Testing of Low-Cost Sensors for Remote Sensing Applications” *Enterprise for Innovative Geospatial Solutions Research Symposium*, August 10, 2005.

2004

- Mohamed Al Sharkawy, Atef Z. Elsherbeni and Charles E. Smith, “Stacked Elliptical Dielectric Resonator Antennas for Wideband Applications,” *IEEE International Symposium on Antennas and Propagation and URSI National Radio Science Meeting*, Monterey, CA, June 2004.
- Abdelnasser A. Eldek, Atef Z. Elsherbeni and Charles E. Smith, “Wideband triangle slot antenna with tuning stub,” *IEEE International Symposium on Antennas and Propagation and URSI National Radio Science Meeting*, Monterey, CA, June 2004.
- Abdelnasser A. Eldek, Atef Z. Elsherbeni, and Charles E. Smith, “Characteristics of Microstrip-Fed Printed Bow-Tie Antenna for Wideband Phased Array Systems,” *IEEE International Symposium on Antennas and Propagation and URSI National Radio Science Meeting*, Monterey, CA, June 2004.
- Mohamed Al Sharkawy, Abdelnasser A. Eldek, Atef. Z. Elsherbeni and C. E. Smith, “Design of Wideband Printed Monopole Antenna Using WIPL-D,” *The 20th Annual Review of Progress in Applied Computational Electromagnetics, ACES’04*, Syracuse, NY, April 2004.



- Abdelnasser A. Eldek, Atef. Z. Elsherbeni and C. E. Smith, “Wideband Bow-Tie Slot Antennas with Tapered Tuning Stubs,” *The 20th Annual Review of Progress in Applied Computational Electromagnetics, ACES'04*, Syracuse, NY, April 2004. (Best Paper Award)
- Veysel Demir, Atef. Z. Elsherbeni and Ercument Arvas, “FDTD Formulation for Scattering from Three Dimensional Chiral Objects,” *The 20th Annual Review of Progress in Applied Computational Electromagnetics, ACES'04*, Syracuse, NY, April 2004.
- Matthew J. Inman, John M. Earwood, Atef. Z. Elsherbeni and C. E. Smith, “Bayesian Optimization Techniques for Antenna Design,” *The 20th Annual Review of Progress in Applied Computational Electromagnetics, ACES'04*, Syracuse, NY, April 2004.
- John M. Earwood, Matthew J. Inman, Atef Z. Elsherbeni, and Charles E. Smith, “Linear Array Design using Bayesian Parameter Estimation,” *The 2004 IEEE Radar Conference*, Philadelphia, Pennsylvania, April 2004.
- Abdelnasser A. Eldek, Atef Z. Elsherbeni, and C. E. Smith, “Wideband Bow-Tie Slot Antenna with Tuning Stubs,” *The 2004 IEEE Radar Conference*, Philadelphia, Pennsylvania, April 2004.
- Atef Z. Elsherbeni, Veysel Demir, Mohamed Al Sharkawy, Ercument Arvas, and Samir Mahmoud, “Electromagnetic Scattering from Chiral Media,” *Progress in Electromagnetics Research Symposium (PIERS)*, Pisa, Italy, March 2004.
- Atef Z. Elsherbeni, Abdelnasser A. Eldek and Charles E. Smith, “MEMS-based reconfigurable printed and slot antennas,” *IEEE Nanoscale Devices and System Integration NDSI*, p. 141, Miami, FL, February 2004.

2003

- Abdelnasser A. Eldek, A. Z. Elsherbeni and C. E. Smith, “Wideband bow-tie slot antennas for radar applications,” *2003 IEEE Topical Conference on Wireless Communication Technology*, Honolulu, Hawaii, October 2003.
- Mohamed Al Sharkawy, Atef Z. Elsherbeni, and Samir F. Mahmoud, “Scattering from Chiral Cylinders of Circular Cross-Sections,” *IEEE International Symposium on Antennas and Propagation and URSI National Radio Science Meeting*, Columbus, OH, pp. , June 2003.
- Abdelnasser A. Eldek, Atef Z. Elsherbeni, C. E. Smith and Kai-Fong Lee, “Wideband Slot Antennas for Radar Applications,” *The 2003 IEEE Radar Conference*, Huntsville, AL, May 2003. [\[First place, best conference paper award\]](#)
- Matthew Inman, Atef Elsherbeni, and Charles E. Smith, “Finite Difference Time Domain Simulation of Moving Objects,” *The 2003 IEEE Radar Conference*, Huntsville, AL, May 2003.
- Atef Elsherbeni, Matthew J. Inman, and Chris Riley, “Antenna Design and Radiation Pattern Visualization,” *The 19th Annual Review of Progress in Applied Computational Electromagnetics, ACES'03*, Monterey, California, March 2003.
- Cuthbert M. Allen, Abdelnasser A. Eldek, Atef. Z. Elsherbeni, and C. E. Smith, “Coplanar Waveguide Fed Multi-Slot Antenna,” *The 19th Annual Review of Progress in Applied Computational Electromagnetics, ACES'03*, Monterey, California, March 2003.

2002

- Guiping Zheng, Atef Z. Elsherbeni, and Charles E. Smith, “A Coplanar Waveguide Bow-Tai Aperture Antenna,” *IEEE International Symposium on Antennas and Propagation and URSI National Radio Science Meeting*, San Antonio, Texas, pp. I 564-567, July 2002.
- Abdelnasser A. Eldek, Cuthbert M. Allen, Atef Z. Elsherbeni, C. E. Smith and Kai-Fong Lee, “Slot Antennas For Dual and Wideband Operation in Wireless Communication Systems,” *World Multiconference on Systemics, Cybernetics and Informatics*, Orlando, Florida, Vol. XV, pp. 42-47, July 2002. [\[First place, best conference paper award\]](#)
- Paul L. Chin, Atef Z. Elsherbeni, and Charles E. Smith, “Characteristics of Coplanar Bow-Tie Patch



Antennas,” *IEEE International Symposium on Antennas and Propagation and URSI National Radio Science Meeting*, San Antonio, Texas, pp. I 398-401, July 2002.

- A.B. Yakovlev, M.V. Lukich, A.Z. Elsherbeni, C.E. Smith, and M.B. Steer, “Broadband Printed Antennas for Waveguide-Based Spatial Power Combiners Wideband Coplanar Patch-Slot Antennas for Radar Applications,” *IEEE International Symposium on Antennas and Propagation and URSI National Radio Science Meeting*, San Antonio, Texas, pp. IV 420-423, July 2002.
- Atef Z. Elsherbeni, Abdelnasser A. Eldek, Brad N. Baker, Charles E. Smith and Kai-Fong Lee, “Wideband Coplanar Patch-Slot Antennas for Radar Applications,” *IEEE International Symposium on Antennas and Propagation and URSI National Radio Science Meeting*, San Antonio, Texas, pp. II 436-439, July 2002.
- M. J. Inman, A. Z. Elsherbeni, C. E. Smith, and K.F. Lee, “FDTD Analysis of Rectangular Microstrip Loop Antennas,” *The IEEE SoutheastCon 2002 Symposium*, Colombia, South Carolina, pp.174-178, April 2002.
- Edward Woo, A. Z. Elsherbeni, “Computer Simulation of Earth/Satellite(s) for Remote Sensing Applications,” *The IEEE SoutheastCon 2002 Symposium*, Colombia, South Carolina, April 2002.
- Matthew J. Inman, Atef. Z. Elsherbeni, and Charles E. Smith, Finite Difference Time Domain Analysis of Moving Objects,” *The 18th Annual Review of Progress in Applied Computational Electromagnetics, ACES’02*, Monterey, California, pp. 55-62, March 2002.
- Cuthbert M. Allen, Atef Z. Elsherbeni, and C. E. Smith, “Finite Difference Time Domain Analysis of Dual Tapered meander Slot Antenna,” *The Southeastern Symposium on System Theory (SSST)*, Huntsville, Alabama, 4 pages, March 2002.
- Milan V. Lukich, Alexander B. Yakovlev, Atef Z. Elsherbeni, and C. E. Smith, “Electromagnetic Modeling and Design of Broadband Spatial Power Combiners,” *The Southeastern Symposium on System Theory (SSST)*, Huntsville, Alabama, pp.108-112, March 2002.
- Abdelnasser A. Eldek, Atef Z. Elsherbeni, and C. E. Smith, “Analysis of Transmission and Reflection from Modified Coplanar Waveguide Structures,” *The Southeastern Symposium on System Theory (SSST)*, Huntsville, Alabama, 5 pages, March 2002.

2001

- H. H. Abdullah, F. M. EL-Hefnawi, Essam A. Hashish, and A. Z. Elsherbeni, “Scattered Field FDTD Formulations for Debye Dispersive Media,” *International Conference on Electromagnetics in Advanced Applications (ICEAA01)*, Torino, Italy, pp. 3-6, September 1–14, 2001.
- H. H. Abdullah, F. M. EL-Hefnawi, and A. Z. Elsherbeni, “Scattered Field FDTD Formulations for N Order Debye Dispersive Analysis,” *World Multiconference on Systemics, Cybernetics and Informatics*, Orlando, Florida, pp. 122-125, July 2001.
- Mohamed A. Eleiwa and, A. Z. Elsherbeni, “Accurate FDTD Simulation of Biological Tissues for BioElectromagnetic Applications,” *The IEEE SoutheastCon 2001 Symposium*, Clemson, South Carolina, pp. 174-178, April 2001.
- Atef Z. Elsherbeni, and Mohamed A. Eleiwa, “Dielectric Properties of Biological Tissues Based on Multi-Term Debye Expression,” *The 17th Annual Review of Progress in Applied Computational Electromagnetics, ACES’01*, Monterey, California, pp. 101-108, March 2001.

2000

- Atef Z. Elsherbeni, C-W P. Huang, and C. E. Smith, “Wideband Meander Line Antenna for Wireless Communication Systems,” *The IEEE Antennas and propagation for Wireless Communications Conference Proceedings*, Boston, pp. 17-20, November 2000.
- Atef Z. Elsherbeni, A. Glisson, C. Riley and C. Smith, “Tools for EM Modeling and Visualization Using FDTD,” *ANTEM 2000 Symposium*, Winnipeg, Manitoba, Canada, pp. 339-342, August 2000.
- H. H. Abdullah, F. M. EL-Hefnawi, and A. Z. Elsherbeni, “A FDTD Scattered Field Formulation for



Dispersive Media, "IEEE AP-S Symposium, Salt Lake, pp. 248-251, July 2000.

- Atef Z. Elsherbeni, Chris L. Riley, and Charles E. Smith, "A Graphical User Interface for a Finite Difference Time Domain Simulation Tool," *32nd IEEE SoutheastCon Symposium*, Nashville, Tennessee, pp. 293-296, April 2000.
- Vicente Rodriguez-Pereyra, A. Z. Elsherbeni, and C. E. Smith, "Near to Far Field Transformation for a FDTD BOR with PML ABC and Sub-Grid Capability," *The 16th Annual Review of Progress in Applied Computational Electromagnetics, ACES'00*, Monterey, California, pp. 294-301, March 2000.
- Chun-Wen Paul Huang, A. Z. Elsherbeni, and C. E. Smith, "FDTD Analysis of Tapered Meander Line Antennas for RF and Wireless Communications," *The 16th Annual Review of Progress in Applied Computational Electromagnetics, ACES'00*, Monterey, California, pp. 924-929, March 2000.

1999

- Chun-Wen Paul Huang Jiang-Bin James Chen, A. Z. Elsherbeni, and C. E. Smith, "Characterizing Meander Line Antennas for RF and Wireless Communications Using The FDTD Technique," *The 15th Annual Review of Progress in Applied Computational Electromagnetics, ACES'99*, Monterey, California, pp. , March 1999.
- Vicente Rodriguez-Pereyra, A. Z. Elsherbeni, and C. E. Smith, "Electromagnetic Analysis of Axis-Symmetric Structures," *31st IEEE Southeastern Symposium on System Theory*, Lexington, Kentucky, pp. 185-188, March 1999.
- Chun-Wen Paul Huang, Charles E. Smith, A. Z. Elsherbeni, and Bernie Hammond, "Simplified Equations of a 4-Port Scattering Parameter Model for Characterizing 4-Pair Cabling Systems of Local Area Networks," *31st IEEE Southeastern Symposium on System Theory*, Lexington, Kentucky, pp. 189-192, March 1999.
- Hashim Yousif and A. Z. Elsherbeni, "Numerical Calculations for The Backscattering and Extinction Cross Sections of Plane Waves Incident Obliquely on an Eccentric Multilayered Cylinders," *The 15th Annual Review of Progress in Applied Computational Electromagnetics, ACES'99*, Monterey, California, pp. , March 1999.

1998

- Atef Z. Elsherbeni, V. Rodriguez-Pereyra, and C. E. Smith, "Enhanced Design of the Coplanar Waveguide Flip-Chip Geometry Using the FDTD Technique," *The 14th Annual Review of Progress in Applied Computational Electromagnetics, ACES'98*, Monterey, California, pp. 99-104, March 1998.

1997

- Atef Z. Elsherbeni, V. Rodriguez-Pereyra, and C. E. Smith, "Enhanced Design of the Coplanar Waveguide Flip-Chip Geometry Using the FDTD Technique," *IEEE Electronics, Circuits, and Systems Symposium*, Cairo, Egypt, December 1997.
- V. Rodriguez-Pereyra, A. Z. Elsherbeni, C. E. Smith, and A. A. Elsohly, "FDTD Analysis of Aperture Coupled Microstrip Antennas," *IEEE Electronics, Circuits, and Systems Symposium*, Cairo, Egypt, December 1997.
- P. Huang, A. Z. Elsherbeni, and C. E. Smith, "Critical Analysis of Yee and Matched Layers Absorbing Boundary Conditions for 2D and 3D Applications of the FDTD Method," *IEEE AP-S Symposium*, Montreal, Canada, July 1997.
- Atef Z. Elsherbeni, J. Chen, C. E. Smith, and Y. Rahmat-Samii, "FDTD Analysis of Printed Square Spiral Antennas for Wireless Communications," *IEEE AP-S Symposium*, Montreal, Canada, July 1997.
- Hashim Yousif and A. Z. Elsherbeni, "Electromagnetic Scattering from Eccentric Cylinders at Oblique Incidence," *The 13th Annual Review of Progress in Applied Computational Electromagnetics, ACES'97*, Monterey, California, pp. 1303-1309, March 1997.



- M. El-Shenawee and A. Z. Elsherbeni, "Full Wave Characteristics of a Two Conductor Multilayer Microstrip Transmission Line Using The Method of Lines," *The 13th Annual Review of Progress in Applied Computational Electromagnetics*, ACES'97, Monterey, California, pp. 1457-1464, March 1997.

1996

- D. Kajfez, A. Z. Elsherbeni, and A. Mokaddem, "Higher Order Modes in Dielectric Resonators," *IEEE AP-S Antennas Propagat. Symposium*, Baltimore, Maryland, pp. 306-309, July 1996.
- S. Dai, A. Z. Elsherbeni, and C. E. Smith, "The Analysis and Reduction of Crosstalk on Coupled Microstrip Lines Using Nonuniform FDTD Formulation," *International Microwave Symposium*, San Francisco, CA, Vol. 1, pp. 307-310, June 1996.
- O. Ramahi, A. Z. Elsherbeni, and C. E. Smith, "Dynamic Analysis of V Transmission Lines," *The 12th Annual Review of Progress in Applied Computational Electromagnetics*, ACES'96, Monterey, California, Vol. 2, pp. 1260-1266, March 1996.

1995

- Atef Z. Elsherbeni, C. D. Taylor, Jr., "Electromagnetic Interaction Between Cellular Phones and a Human Head," *The International Symposium on 3D Electromagnetics, Schlumberger-Doll Research*, Ridgefield, CT, pp. 529-530, October, 1995.
- Atef Z. Elsherbeni, A. Mokaddem, and M. Tew, "Enhancement of High Frequency and Microwave laboratories Through the Introduction of Multimedia," *American Society for Engineering Education Conference*, Anaheim, CA, June 1995
- Atef Z. Elsherbeni, A. Mokaddem, and M. Tew, "Applying Multimedia technology to Undergraduate Engineering Laboratories," *IEEE AP-S Antennas Propagat. Symposium*, Newport Beach, CA, June 1995
- J. LoVetri, D. Mardare, A. Z. Elsherbeni, and C. E. Smith, "Full Field and Quasi-TEM Time Domain Numerical Analysis of Coupled Microstrip Circuits," *IEEE AP-S Antennas Propagat. Symposium*, Newport Beach, CA, June 1995.
- A. Elsohly, A. Z. Elsherbeni, and A. Ghoneim, "Radiation Characteristics of Helical Microstrip Antennas," *IEEE AP-S Antennas Propagat. Symposium*, Newport Beach, CA, June 1995
- Atef Z. Elsherbeni, A. Mokaddem, M. Tew, D. Simpson, R. Windhorst, K. Huang, and J. Hao, "The Use of Multimedia in Teaching Microwave Experiments," *The 27th Southeastern Symposium on System Theory (SSST)*, Starkville, Mississippi, pp. 342-346, March 12-14, 1995.
- Atef Z. Elsherbeni and C. D. Taylor, Jr. "Electromagnetic Scattering from Periodically Deformed Cylinders and Cylindrical Shells," *The 27th Southeastern Symposium on System Theory (SSST)*, Starkville, Mississippi, pp. 320-323, March 12-14, 1995.
- Atef Z. Elsherbeni and P. Goggans, "Time Domain Response of Simulated 2D Composite Scatterers," *The 11th Annual Review of Progress in Applied Computational Electromagnetics*, ACES'95, Monterey, California, pp. 542-550, March 1995.
- Atef Z. Elsherbeni, C. D. Taylor, Jr., and C. E. Smith, "A Finite Difference Time Domain Visualization Tool for Microsoft Windows," *The 11th Annual Review of Progress in Applied Computational Electromagnetics*, ACES'95, Monterey, California, pp. 260-266, March 1995.
- Elsohly and A. Z. Elsherbeni, "Radiation Characteristics of a Helical Tape Antenna Embedded in a Multilayer Dielectric Cylinder," *The 12th National Radio science Conference (NRSC'95) and URSI meeting*, Alexandria, Egypt, March 21-23, vol. 13, pp. 1-8, 1995.

1994

- Atef Z. Elsherbeni and C. D. Taylor, Jr., "Interactive Visualization of Electromagnetic Fields," *IEEE Antennas Propagat. Symposium*, University of Washington, Seattle, WA, pp. 101-104, June 1994.
- Atef Z. Elsherbeni and C. D. Taylor, Jr., "Visualization of Two- and Three-Dimensional Antenna



Patterns,” *IEEE SoutheastCon '94*, Miami, FL, pp. 270-272, April 1994.

- Atef Z. Elsherbeni and C. D. Taylor, Jr. “CCM: Circular Cylinders modeler for Electromagnetic Scattering from Composite Two Dimensional Objects,” *The 10th Annual Review of Progress in Applied Computational Electromagnetics, ACES '94*, Monterey, CA, pp. 594-600, March 1994.
- Atef Z. Elsherbeni and C. D. Taylor, Jr., “Electromagnetic Simulation of Two-Dimensional Scatterers,” Simulation in Engineering Education Conference, *The Society of Computer Simulation (SCS)*, Tempe, Arizona, pp. 283-287, January 1994.

1993

- Atef Z. Elsherbeni, P. Ginn, “Interactive Analysis of Antenna Arrays with a Personal Computer,” *The 9th Annual Review of Progress in Applied Computational Electromagnetics, ACES '93*, Monterey, California, pp. 594-600, March 1993.
- Atef Z. Elsherbeni, B. Moumneh, C. E. Smith, and H. Golestanian, “Coupling Between Two-Conductor Multi-Layer Shielded Microstrip Transmission Line,” *The 25th IEEE Southeastern Symposium on System Theory*, Tuscaloosa, AL, pp. 6-10, March 1993.

1992

- Atef Z. Elsherbeni, C. E. Smith, H. Golestanian, and S. He, “Analysis of Two-Conductor Multi-Layer Microstrip Transmission Line with Dielectric Overlay and a Notch between the Strips,” *Conference on Application of Signals, Data, Systems Methodologies to Engineering Problems*, Alexandria, Egypt, pp. 49-59, December 1992.
- R. K. Gordon, M. D. Tew and A. Z. Elsherbeni, “An Efficient Finite Difference Method for Finding the Electric Potential in Regions with Small Perturbations,” *IEEE Antennas Propagat. So. Symposium*, Chicago, IL, pp. 524-527, July 1992.
- Atef Z. Elsherbeni, G. Tian and M. Hamid, “Scattering of a Gaussian Beam by an Array of Circular Conducting and Dielectric Cylinders,” *IEEE SoutheastCon '92*, Birmingham, AL, pp. 542-545, April 1992.
- S. He, A. Z. Elsherbeni and C. E. Smith, “Decoupling Between Two Planar Microstrip Lines,” *IEEE SoutheastCon '92*, Birmingham, AL, pp. 538-541, April 1992.
- Atef Z. Elsherbeni, D. Kajfez and J. Hawes, “WGVMAP - A Software for Mapping of Vector Fields in Waveguides,” *IEEE SoutheastCon '92*, Birmingham, AL, pp. 546-549, April 1992.

1991

- H. A. Ragheb and A. Z. Elsherbeni, “Electromagnetic Scattering from a Perfectly Conducting Strip Embedded in A Dielectric Cylinder,” *IEEE Antennas Propagat. Symposium*, London, Ontario, Canada, pp. 894-897, June 1991.

1990

- M. Kolbehdari, A. Z. Elsherbeni and H. A. Auda, “Static Characteristics of a Cylindrical Microstrip Line with an Inhomogeneous Dielectric Substrate and Partially Embedded in a Perfectly Conducting Ground Plane,” *Antenna Technology and Applied Electromagnetic Symposium ANTEM'90*, Winnipeg, Manitoba, Canada, pp. 146-151, August 1990.
- K. Mahadevan and A. Z. Elsherbeni, “Transmission and Reflection of Electromagnetic Waves from an Inhomogeneous Dielectric Slab,” *Antenna Technology and Applied Electromagnetic Symposium ANTEM'90*, Winnipeg, Manitoba, Canada, pp. 173-178, August 1990.
- Atef Z. Elsherbeni and M. Tew, “TM Scattering from a Perfectly Conducting Circular Coated By an Inhomogeneous Dielectric,” *IEEE Antennas Propagat. Symposium*, Dallas, Texas, May 1990.
- R. Parrikar, A. A. Kishk and A. Z. Elsherbeni, “Scattering from an Impedance Cylinder Embedded in a Nonconcentric Dielectric Cylinder,” *IEEE Southeastcon'90*, New Orleans, Louisiana, April 1990.
- Atef Z. Elsherbeni and M. Tew, “Electromagnetic Scattering from a Circular Cylinder of Homogeneous Dielectric Coated by a Dielectric Shell with a Permittivity Profile in the Radial and



Azimuthal Directions-TM Case,” *IEEE Southeastcon'90*, New Orleans, Louisiana, April 1990.

1988

- Atef Z. Elsherbeni and M. Hamid, “Scattering by a Dielectric Loaded Conducting Strip,” *Antenna Technology and Applied Electromagnetic Symposium*, Winnipeg, Manitoba, Canada, August 1988.
- M. Hoque, M. Hamid, A. Rahman, and A. Z. Elsherbeni, “Radiation Pattern of a Parabolic Reflector Antenna from Near Field Measurements of a Coupled Reflector,” *IEEE Antennas Propagat. Symposium*, Syracuse, New York, June 1988.
- A. Kishk and A. Z. Elsherbeni, “Cylindrical Dielectric Cavity Antenna Loaded by a Beam Forming Ring,” *IEEE Antennas Propagat. Symposium*, Syracuse, New York, June 1988.
- Atef Z. Elsherbeni and H. Auda, “Diffraction by a Dielectric Loaded Double Wedge with Dented Edges,” *IEEE Antennas Propagat. Symposium*, Syracuse, New York, June 1988.
- Atef Z. Elsherbeni, “Reflector Antennas with Suppressed Sidelobes,” *IEEE Antennas Propagat. Symposium*, Syracuse, New York, June 1988.

1987

- Atef Z. Elsherbeni and M. Hamid, “Suppression of Sidelobes in the Diffraction by a Double Wedge,” *IEEE Antenna Propagat. Symposium*, Virginia Tech., VA, pp. 1086-1089, June 1987.

1986

- J. Stanier, A. Z. Elsherbeni, and M. Hamid, “Modes in a Dielectric Lined Conical Waveguide,” *IEEE Montech '86, Conference of Antennas and Communication*, Montreal, Canada, pp. 128-130, September 1986.
- Atef Z. Elsherbeni and M. Hamid, “Rigorous Solution of the Double Wedge Diffraction Problem,” *URSI International Symposium on Electromagnetic Theory*, Budapest, Hungary, pp. 221-223, August 1986.
- Atef Z. Elsherbeni and M. Hamid, “Scattering and Transmission Properties for a Class of Two-Dimensional Double Bodies,” *Antenna Technology and Applied Electromagnetic Symposium, ANTEM 86*, Winnipeg, Manitoba, Canada, 22 pages. August 1986.
- Atef Z. Elsherbeni and M. Hamid, “Integral Solution for the Diffraction by a Double Cylindrical Wedge,” *Antenna Technology and Applied Electromagnetic Symposium, ANTEM 86*, Winnipeg, Manitoba, Canada, 21 pages. August 1986.
- Atef Z. Elsherbeni, H.A. Ragheb, and M. Hamid, “Rigorous Solution of the Scattering by Two Multilayered Dielectric Cylinders,” *IEEE Antennas Propagat. So. Symposium*, Philadelphia, PA, pp. 65-68, June 1986.
- Atef Z. Elsherbeni and M. Hamid, “An Improved Moment Method for the Scattering by Large Conducting Cylinders,” *IEEE Antennas Propagat. So. Symposium*, Philadelphia, PA, pp. 285-288, June 1986.

1985

- Atef Z. Elsherbeni and M. Hamid, “Scattering by a Cylindrical Dielectric Shell with Radial and Azimuthal Permittivity Profiles,” *International Symposium on Microwave Technology in Industrial Development*, Campinas, SP, Brazil, pp. 77-80, July 1985.
- Atef Z. Elsherbeni and M. Hamid, “Diffraction by the Aperture between Two Rounded Wedges,” *Second Jordan International Electrical and Electronic Engineering Conf. (JIEEEC'85)*, Jordan, pp. 549-553, April 1985.

1984

- Atef Z. Elsherbeni, M. Hamid, W. Kwasniki, H. Omar and S. Rizkalla, “Complex Permittivity of Lossy Granular Dielectrics at Microwave Frequencies,” *19th Annual International Microwave Power Symposium*, Minneapolis, MN, pp. 161-163, September 1984.
- Atef Z. A. Delecki, A.Z. Elsherbeni and M. Hamid, “Microwave Power Penetration of Lossy



Dielectric Media,” *19th Annual International Microwave Power Symposium, Minneapolis, MN*, pp. 154-157, September 1984.

- H. Ragheb, A. Z. Elsherbeni, and M. Hamid, “On the Optimum Design of the Corner Array,” *Conf. On Precision Electromagnetic Measurement, Delft, the Netherlands*, pp. 162-163, August 1984.
- Atef Z. Elsherbeni and M. Hamid, “Asymptotic Diffraction by a Double Wedge,” *IEEE Antennas Propagat. Soc. Symposium, Boston, MA*, pp. 227-230, June 1984.