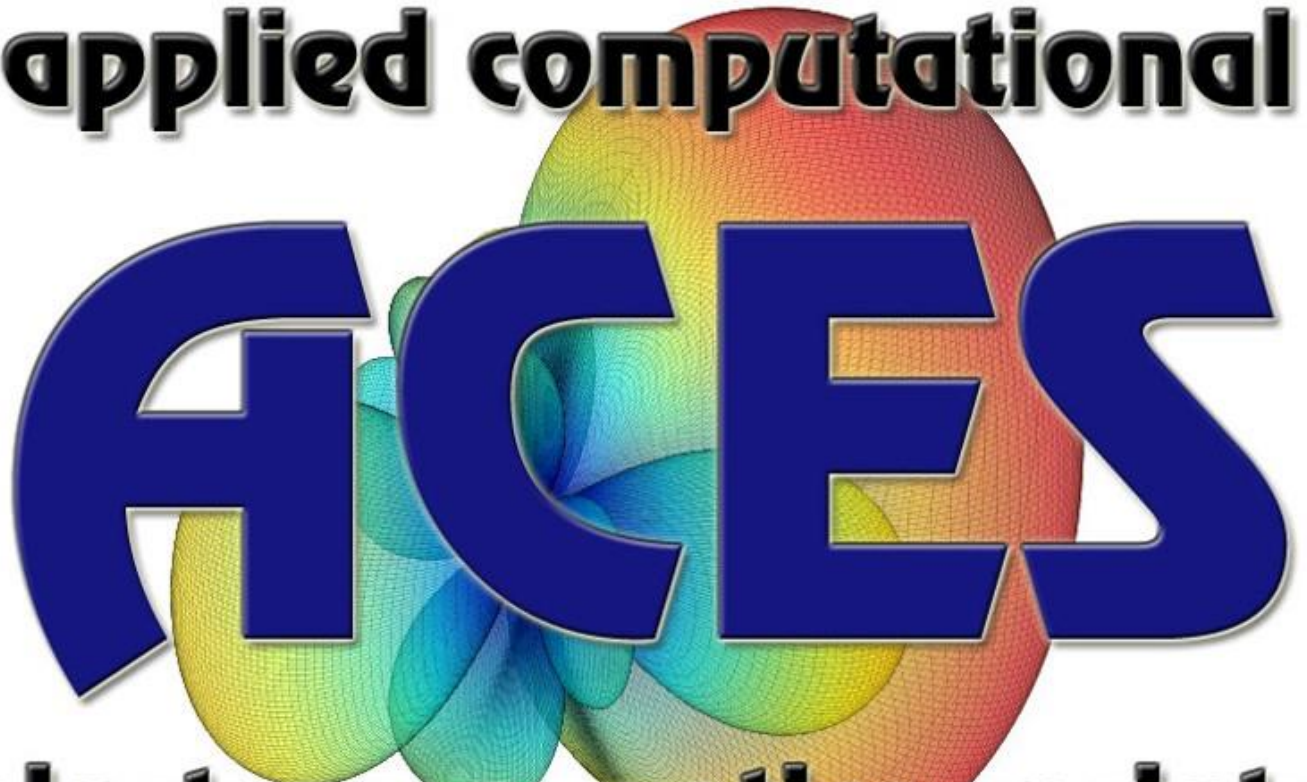


applied computational



ACES

electromagnetics society

Newsletter

March 2019

Applied Computational Electromagnetic Society (ACES)

President's Message



Greetings from Golden Colorado, USA.

Spring has arrived in the Northern Hemisphere, and here in Golden CO, even with the white snow-capped Rocky mountain peaks nearby, it is feeling like spring and the weather is getting warmer and nicer. As for ACES society, activities are intensifying in anticipation of ACES 2019 in Miami.

Looking forward, ACES 2019 will be held at the Hilton Miami, in downtown Miami, Florida, USA (April 14-18, 2019). The conference General Chairs are John Volakis and Osama Mohammed of Florida International University. We anticipate an excellent technical program and social activities. It includes invited plenary and regular technical presentations, as well as vendor exhibitions and tutorials. The presentations will address general issues in applied computational electromagnetics or focus on specific applications, techniques, codes, and computational issues of potential interest to ACES members. In addition, distinguished researchers will be delivering keynote speeches and tutorials on technology trends and significant advances in relevant topics. Full details are given in the technical program posted at ACES website. Furthermore, the conference will include an Awards Banquet where the newly elected *ACES Fellows* and winners of *ACES Early Career Award*, *ACES Computational Electromagnetics Award*, *ACES Technical Achievement Award*, and *ACES Meritorious Service Award*, will be announced and celebrated.

Finally, as ACES members, I urge you to participate in the society activities. This includes attending and contributing to ACES conferences, getting involved in ACES awards and fellow nominations, as well as contributing to ACES Journal, and actively participating in the journal paper review process. In closing, I wish you happy and productive times, and as always, I am looking forward to seeing you at the next ACES conference, this time in beautiful Miami, Florida.

Abd A. Arkadan,
President-ACES
Professor of Electrical Engineering
Colorado School of Mines
Golden CO, USA

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Become ACES Member

ACES membership offers many advantages that include access to ACES Journal and discounted registration fees for ACES conferences.

Member:

Basic: \$40/year
Student/Retired: \$25/year
Life: \$400/year

Institutional Member:

Basic (US): \$360/year
Basic (Intl): \$540/year
Expanded (US): \$535/year
Expanded (Intl): \$715/year

Become ACES member by signing up [here](#).

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ACES Conference in Miami, 14 – 18 April 2019



The conference will take place at the Hilton Miami Downtown, the info about accommodation and travel can be found at this [link](#).

Social events will include a welcome reception and a banquet; exhibitions will be available throughout the conference, together with oral parallel sessions, tutorials and a set of top level plenary speakers.

The preliminary program can be found at this [link](#).

Plenary Speakers

Atif Shamin, King Abdullah University Of Science & Technology (KAUST) (KSA)
Douglas H. Werner, The Pennsylvania State University (USA)
Steven Weiss, US Army Research Lab (USA)
Mark Newbury, Futurewei Technologies (USA)

Tutorials

Adjoint Sensitivity Analysis of High Frequency Structures and its Applications, M. H. Bakr
A Gentle Approach to Quantum Electrodynamics, A. Baghai-Wadji
Effective Teaching of Engineering Courses Using Flipped Classrooms, M. H. Bakr
Domain Decomposition Methods for Differential and Integral Equations, Z. Peng
AI & EM for the Characterization and Design Optimization of Efficient and Renewable Energy Conversion Systems, Abd A. Arkadan

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Exhibitors



[ACES Journal](#)

The ACES Journal is devoted to the exchange of information in computational electromagnetics, to the advancement of the state of the art, and to the promotion of related technical activities. The ACES Journal welcomes original, previously unpublished papers, relating to applied computational electromagnetics. All papers are refereed. Access all issues of ACES Journal [online](#).

January 2018 issue:

Efficient TLM-Based Approach for Compact Modeling of Anisotropic Materials and Composites: Miloš D. Kostić, Nebojša S. Dončov, Zoran Ž. Stanković, and John D. Paul

Spatial Partitioning Strategy for Parallelization of MLFMA with Reduced Communication: Xunwang Zhao, Chang Zhai, Zhongchao Lin, Yu Zhang, and Qifeng Liu

Evaluation of Temperature Elevation in Human Ocular Tissues due to Wireless Eyewear Devices: Junqing Lan and Guohong Du

An Analytical Method for Calculating Radiated Emission of Discontinuous Penetrating Cable: Bing-Xue Zhang, Pei Xiao, Dan Ren, and Ping-An Du

Approximated Solutions on the Electromagnetic Field in Near Zone Generated by a Horizontal Electric Dipole on the Planar Surface of the Anisotropic Rock: Tingting Gu, Honglei Xu, and Kai Li

Attenuation in Lossy Circular Waveguides: Kim Ho Yeap, Eric Vun Shiung Wong, Humaira Nisar, Kazuhiro Hirasawa, and Takefumi Hiraguri

Design of Dual-Band Miniaturized Frequency Selective Surface Using Branched Tortuous Structure: Ning Liu, Xianjun Sheng, Xiang Gao, Chunbo Zhang, and Dongming Guo

A Varactor Loaded Tunable Dual-band Left-Handed Metamaterial: Si Li, Wenhua Yu, Atef Z. Elsherbeni, Wenxing Li, and Yunlong Mao

Analysis of Random Nonuniform Transmission Line Response under Plane-Wave Illumination with a Perturbation Decomposition-Polynomial Chaos Expansion Method: Jinpeng Yang, Xiaoying Sun, Yu Zhao, Jian Chen, and Hanqing Wang

Radar Target Recognition by Machine Learning of K-Nearest Neighbors Regression on Angular Diversity RCS: Kun-Chou Lee

FMCW Chirp Diversity for Mutual Interference Mitigation in Short-range Automotive Radars under Realistic Traffic Model: Md Anowar Hossain, Ibrahim Elshafiey, and Abdulhameed Al-Sanie

Time-Domain Spectral Inversion Method for Characterization of Subsurface Layers in Ground-Penetrating-Radar (GPR) Applications: Zohre Motevalli and Bijan Zakeri

Mutual Coupling Reduction Between Patch Antenna and Microstrip Transmission Line by Using Defected Isolation Wall: Yuting Zhao, Yingsong Li, Wanlu Shi, and Wenhua Yu

A Novel Beam-Steerable Antenna Using HIS-SWG Reconfigurable Artificial Ground Structure: You-Feng Cheng, Xiao Ding, Wei Shao, and Cheng Liao

A Metallic Patch Antenna Using a Simple Short Probe for Improving Impedance Match Bandwidth: Ziyang Wang, Zhao Yang, and Yingzeng Yin

Design of Reconfigurable Ultrawide Band Antenna with Switchable Single/Dual/Triple Band Notch Functions: Jian Dong, Shan Wang, and Guoqiang Hu

Design and Optimization of Slotted Micro-Machined Patch Antenna Using Composite Substrate: Ashish Kumar and Amar Partap Singh

Compact Dual-band Hybrid-Fractal MIMO System for UMTS and LTE Mobile Applications: Prabhu Palanisamy and Malarvizhi Subramani

Compact Wideband Filtering Power Dividers Based on Short-Circuited Stubs: Gaoya Dong, Bo Zhang, Weimin Wang, and Yuanan Liup

Spatial Domain Generation of Random Surface Using Savitzky-Golay Filter for Simulation of Electromagnetic Polarimetric Systems: Shimaa A. M. Soliman, Asmaa E. Farahat, Khalid F. A. Hussein, and Abd-El-Hadi A. Ammar

FEMC Performance of Pyramidal Microwave Absorber using Sugarcane Baggasse and Rubber Tire Dust at 1 GHz to 18 GHz Frequencies: Liyana Zahid, Muzammil Jusoh, R.Badlishah Ahmad, Thennarasan Sabapathy, Mohd Fareq Malek, Muhammad Ramlee Kamarudin, Mohd Najib Yasin, and Mohamed Nasrun Osman

Role of Surface Geometric Patterns and Parameters in the Dispersion Relations of Spoof Surface Plasmon Polaritons at Microwave Frequency: Rana Sadaf Anwar, Lingfeng Mao, and Huansheng Ning

LCP Plane Wave Scattering by a Chiral Elliptic Cylinder Embedded in Infinite Chiral Medium: AbdelKader Hamid

A Magneto-Rheological Brake Excited by Permanent Magnets: Antonino Musolino, Marco Raugi, Rocco Rizzo, Luca Sani, and Efrén Diez-Jimenez

A New Compact Finline OMT Based on Multi-Section Transformer: Yaqing Yu, Wen Jiang, Shuai Zhang, Shuxi Gong, and Tong Cheng

Upcoming ACES Conferences

The second ACES 2019 conference will take place in Nanjing, China, 16 – 19 July. Further details can be found at [2019 ACES-China](#)

ACES is looking forward to your contributions to the ACES Journal and the Express Journal as well as your participation in the 2019 Conferences. We look forward to your feedback and involvement in ACES activities.

Sincerely,

Sami Barmada

Editor - ACES Newsletter