The following requirements are in effect for the final version of an ACES Journal paper:

1. The paper title should not be placed on a separate page. The title, author(s), abstract, and (space permitting) beginning of the paper itself should all be on the first page. The title, author(s), and author affiliations should be centered (center-justified) on the first page. The title should be of font size 14 and bolded, the author names should be of font size 12 and bolded, and the author affiliation should be of font size 10 (regular font, neither italic nor bolded).
2. An abstract is required. The abstract should be a brief summary of the work described in the paper. It should state the computer codes, computational techniques, and applications discussed in the paper (as applicable) and should otherwise be usable by technical abstracting and indexing services. The word "Abstract" has to be placed at the left margin of the paper, and should be bolded and italic. It also should be followed by a hyphen (—) with the main text of the abstract starting on the same line.
3. All section titles have to be centered and all the title letters should be written in caps. The section titles need to be numbered using roman numbering (I. II. ….)
4. Either British English or American English spellings may be used, provided that each word is spelled consistently throughout the paper.
5. Internal consistency of references format should be maintained. As a guideline for authors, we recommend that references be given using numerical numbering in the body of the paper (with numerical listing of all references at the end of the paper). The first letter of the authors' first name should be listed followed by a period, which in turn, followed by the authors' complete last name. Use a coma (,) to separate between the authors' names. Titles of papers or articles should be in quotation marks (" "), followed by the title of journal, which should be in italic font. The journal volume (vol.), issue number (no.), page numbering (pp.), month and year of publication should come after the journal title in the sequence listed here.
6. Internal consistency shall also be maintained for other elements of style, such as equation numbering. Equation numbers should be placed in parentheses at the right column margin. All symbols in any equation have to be defined before the equation appears or right immediately following the equation.
7. The use of SI units is strongly encouraged. English units may be used as secondary units (in parentheses).
8. Figures and tables should be formatted appropriately (centered within the column, side-by-side, etc.) on the page such that the presented data appears close to and after it is being referenced in the text. When including figures and tables, all care should be taken so that they will appear appropriately when printed in black and white. For better visibility of paper on computer screen, it is good to make color figures with different line styles for figures with multiple curves. Colors should also be tested to insure their ability to be distinguished after black and white printing. Avoid the use of large symbols with curves in a figure. It is always better to use different line styles such as solid.
9. A figure caption should be located directly beneath the corresponding figure, and should be fully justified.
10. The intent and meaning of all text must be clear. For authors who are not masters of the English language, the ACES Editorial Staff will provide assistance with grammar (subject to clarity of intent and meaning). However, this may delay the scheduled publication date.
11. Unused space should be minimized. Sections and subsections should not normally begin on a new page.

ACES reserves the right to edit any uploaded material, however, this is not generally done. It is the author(s) responsibility to provide acceptable camera-ready files in pdf and MSWord formats. Incompatible or incomplete files will not be processed for publication, and authors will be requested to re-upload a revised acceptable version.

COPYRIGHTS AND RELEASES

Each primary author must execute the online copyright form and obtain a release from his/her organization vesting the copyright with ACES. Both the author(s) and affiliated organization(s) are allowed to use the copyrighted material freely for their own private purposes.

Permission is granted to quote short passages and reproduce figures and tables from and ACES Journal issue provided the source is cited. Copies of ACES Journal articles may be made in accordance with usage permitted by Sections 107 or 108 of the U.S. Copyright Law. This consent does not extend to other kinds of copying, such as for general distribution, for advertising or promotional purposes, for creating new collective works, or for resale. The reproduction of multiple copies and the use of articles or extracts for commercial purposes require the consent of the author and specific permission from ACES. Institutional members are allowed to copy any ACES Journal issue for their internal distribution only.

PUBLICATION CHARGES

There is a $500 basic publication charge assigned to each "Regular Paper" for ACES members and $1000 charge for non-ACES members. All authors are allowed 6 printed pages per "Regular Paper" without an over page charge. Mandatory over page charge of $60 a page apply to all pages in excess of 6 printed pages.

Corresponding authors should be active members of the society at the time of submission and the time of publication in order to receive the reduced charge. Printed copies of the Journal can be ordered from the ACES site using the order form available at http://aces-society.org/journal_order_form.php

ACES Journal is abstracted in INSPEC, in Engineering Index, DTIC, Science Citation Index Expanded, the Research Alert, and to Current Contents/Engineering, Computing & Technology.

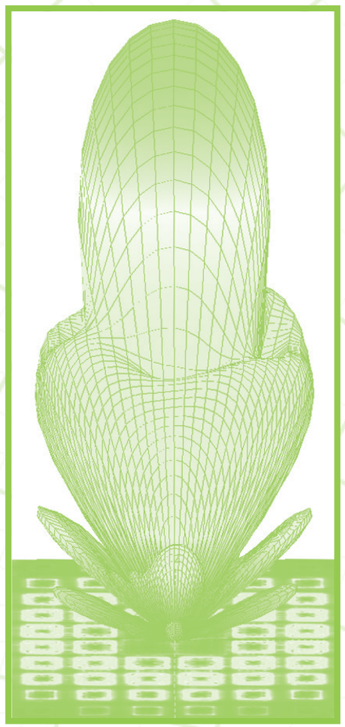
Applied Computational Electromagnetics Society Journal

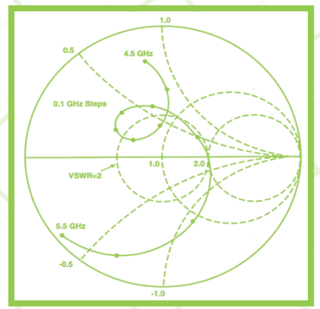
May 2026 Vol. 41 No. 5 ISSN 1054-4887

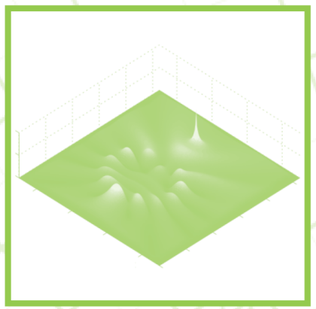
Applied Computational Electromagnetics Society Journal

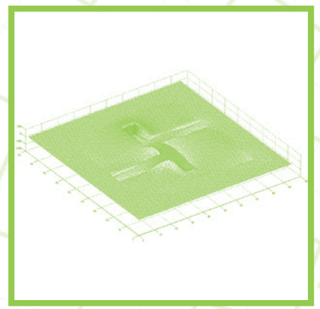


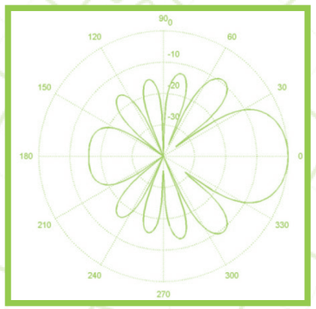
May 2026 Vol. 41 No. 5











ISSN 1054-4887

GENERAL PURPOSE AND SCOPE: The Applied Computational Electromagnetics Society *(ACES)* Journal hereinafter known as the ***ACES Journal*** is devoted to the exchange of information in computational electromagnetics, to the advancement of the state-of-the art. and the promotion of related technical activities. The primary objective of the information exchange is to inform the scientific community on the developments of new computational electromagnetics tools and their use in electrical engineering, physics, or related areas. The technical activities promoted by this publication include code validation, performance analysis, and input/output standardization; code or technique optimization and error minimization; innovations in solution technique or in data input/output; identification of new applications for electromagnetics modeling codes and techniques; integration of computational electromagnetics techniques with new computer architectures; and correlation of computational parameters with physical mechanisms.

SUBMISSIONS: The ***ACES Journal*** welcomes original, previously unpublished papers, relating to applied computational electromagnetics. Typical papers will represent the computational electromagnetics aspects of research in electrical engineering, physics, or related disciplines. However, papers which represent research in applied computational electromagnetics itself are equally acceptable.

Manuscripts are to be submitted through the upload system of ***ACES*** web site http://aces-society.org See "Information for Authors" on inside of back cover and at ***ACES*** web site. For additional information contact the Editors-in-Chief:

Dr. Atef Elsherbeni
Electrical Engineering Department
Colorado School of Mines
314C Brown Building
1610 Illinois Street
Golden, CO 80401

Dr. Sami Barmada
DESTEC
Università di Pisa
Largo Lucio Lazzarino
56122 Pisa, Italy

SUBSCRIPTIONS: All members of the Applied Computational Electromagnetics Society are entitled to access and download the ***ACES Journal*** of any published journal article available at http://aces-society.org. Printed issues of the ***ACES Journal*** are delivered to institutional members. Non-Institutional members can request a printed copy with the pre-paid fee which covers printing and shipping fees.

Back issues, when available, are $50 each. Subscription to ***ACES*** is through the web site. Orders for back issues of the ***ACES Journal*** and change of address requests should be sent directly to ***ACES*** office at:

Shanell Lopez
Electrical Engineering Department
Colorado School of Mines
314B Brown Building
1610 Illinois Street
Golden, CO 80401
salopez@mines.edu

Allow four weeks advance notice for change of address. Claims for missing issues will not be honored because of insufficient notice, or address change, or loss in the mail unless the ***ACES*** office is notified within 60 days for USA and Canadian subscribers, or 90 days for subscribers in other countries, from the last day of the month of publication. For information regarding reprints of individual papers or other materials, see "Information for Authors".

LIABILITY. Neither ***ACES***, nor the ***ACES Journal*** editors, are responsible for any consequence of misinformation or claims, express or implied, in any published material in an ***ACES Journal*** issue. This also applies to advertising, for which only camera-ready copies are accepted. Authors are responsible for information contained in their papers. If any material submitted for publication includes material which has already been published elsewhere, it is the author's responsibility to obtain written permission to reproduce such material.

APPLIED COMPUTATIONAL ELECTROMAGNETICS SOCIETY JOURNAL
http: //aces-society. org

INFORMATION FOR AUTHORS

PUBLICATION CRITERIA

Each paper is required to manifest some relation to applied computational electromagnetics. **Papers may address general issues in applied computational electromagnetics, or they may focus on specific applications, techniques, codes, or computational issues.** While the following list is not exhaustive, each paper will generally relate to at least one of these areas:

1. **Code validation.** This is done using internal checks or experimental, analytical or other computational data. Measured data of potential utility to code validation efforts will also be considered for publication.

2. **Code performance analysis.** This usually involves identification of numerical accuracy or other limitations, solution convergence, numerical and physical modeling error, and parameter tradeoffs. However, it is also permissible to address issues such as ease-of-use, set-up time, run time, special outputs, or other special features.

3. **Computational studies of basic physics.** This involves using a code, algorithm, or computational technique to simulate reality in such a way that better, or new physical insight or understanding, is achieved.

4. **New computational techniques** or new applications for existing computational techniques or codes.

5. **"Tricks of the trade"** in selecting and applying codes and techniques.

6. **New codes, algorithms, code enhancement, and code fixes.** This category is self-explanatory, but includes significant changes to existing codes, such as applicability extensions, algorithm optimization, problem correction, limitation removal, or other performance improvement. **Note: Code (or algorithm) capability descriptions are not acceptable, unless they contain sufficient technical material to justify consideration.**

7. **Code input/output issues.** This normally involves innovations in input (such as input geometry standardization, automatic mesh generation, or computer-aided design) or in output (whether it be tabular, graphical, statistical, Fourier-transformed, or otherwise signal-processed). Material dealing with input/output database management, output interpretation, or other input/output issues will also be considered for publication.

8. **Computer hardware issues.** This is the category for analysis of hardware capabilities and limitations of various types of electromagnetics computational requirements. Vector and parallel computational techniques and implementation are of particular interest.

Applications of interest include, but are not limited to, antennas (and their electromagnetic environments), networks, static fields, radar cross section, inverse scattering, shielding, radiation hazards, biological effects, biomedical applications, electromagnetic pulse (EMP), electromagnetic interference (EMI), electromagnetic compatibility (EMC), power transmission, charge transport, dielectric, magnetic and nonlinear materials, micro wave components, MEMS, RFID, and MMIC technologies, remote sensing and geometrical and physical optics, radar and communications systems, sensors, fiber optics, plasmas, particle accelerators, generators and motors, electromagnetic wave propagation, non-destructive evaluation, eddy currents, and inverse scattering.

Techniques of interest include but not limited to frequency-domain and time-domain techniques, integral equation and differential equation techniques, diffraction theories, physical and geometrical optics, method of moments, finite differences and finite element techniques, transmission line method, modal expansions, perturbation methods, and hybrid methods.

Where possible and appropriate, authors are required to provide statements of quantitative accuracy for measured and/or computed data. This issue is discussed in "Accuracy & Publication: Requiring, quantitative accuracy statements to accompany data," by E. K. Miller, *ACES Newsletter*, Vol. 9, No. 3, pp. 23-29, 1994, ISBN 1056-9170.

SUBMITTAL PROCEDURE

All submissions should be uploaded to ACES server through ACES web site (http://aces-society.org) by using the upload button, journal section. Only pdf files are accepted for submission. The file size should not be larger than 10MB, otherwise permission from the Editor-in-Chief should be obtained first. Automated acknowledgment of the electronic submission, after the upload process is successfully completed, will be sent to the corresponding author only. It is the responsibility of the corresponding author to keep the remaining authors, if applicable, informed. Email submission is not accepted and will not be processed.

EDITORIAL REVIEW

In order to ensure an appropriate level of quality control, papers are peer reviewed. They are reviewed both for technical correctness and for adherence to the listed guidelines regarding information content and format.

PAPER FORMAT

Only camera-ready electronic files are accepted for publication. The term **"camera-ready" means that the material is neat, legible, reproducible, and in accordance with the final version format listed below.**