

Special Issue

The BEM and FEM/BEM Methods in Computational Electromagnetics

Message from the Guest Editor

It is well known that many boundary-value problems can efficiently be solved numerically by means of the finite element method (FEM) and the boundary element method (BEM). The finite element method is very general and flexible. It can be applied to nonlinear problems, and the system of algebraic equations obtained is sparse and often symmetric and positive definite. However, it requires a bounded domain. By contrast, the boundary element method can elegantly deal with unbounded regions. It is more efficient in *meshing* due to the reduction of dimensions, and the resulting stiffness matrix is smaller but is fully populated, which is an often mentioned drawback..... The aim of this Special Issue is to update the related techniques in the context of computational electromagnetics. Topics of interest include (but are not limited to) numerical methods as well as DC to high-frequency applications. Contributions that involve a review of the state-of-the-art in this area will be welcome.

Guest Editor

Prof. Dr. Jacques Lobry
General Physics Department, Faculty of Engineering, University of Mons, 7000 Mons, Belgium

Deadline for manuscript submissions

closed (30 April 2022)



Mathematics

an Open Access Journal
by MDPI

Impact Factor 2.2
CiteScore 4.6



[mdpi.com/si/32821](https://www.mdpi.com/si/32821)

Mathematics
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
mathematics@mdpi.com

[mdpi.com/journal/
mathematics](https://www.mdpi.com/journal/mathematics)





Mathematics

an Open Access Journal
by MDPI

Impact Factor 2.2
CiteScore 4.6



[mdpi.com/journal/
mathematics](http://mdpi.com/journal/mathematics)

About the Journal

Message from the Editor-in-Chief

The journal *Mathematics* publishes high-quality, refereed papers that treat both pure and applied mathematics. The journal highlights articles devoted to the mathematical treatment of questions arising in physics, chemistry, biology, statistics, finance, computer science, engineering and sociology, particularly those that stress analytical/algebraic aspects and novel problems and their solutions. One of the missions of the journal is to serve mathematicians and scientists through the prompt publication of significant advances in any branch of science and technology, and to provide a forum for the discussion of new scientific developments.

Editor-in-Chief

Prof. Dr. Francisco Chiclana

School of Computer Science and Informatics, De Montfort University,
The Gateway, Leicester LE1 9BH, UK

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), RePEc, and other databases.

Journal Rank:

JCR - Q1 (Mathematics) / CiteScore - Q1 (General Mathematics)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 17.3 days after submission; acceptance to publication is undertaken in 2.8 days (median values for papers published in this journal in the second half of 2025).

