



## Fundamental Challenges and Novel Methodologies in the Next Generation Computational Electromagnetics

Guest Editors:

**Prof. Dr. Francesca Vipiana**

Department of Electronics and  
Telecommunications,  
Politecnico di Torino, 10129  
Torino, Italy

**Prof. Zhen Peng**

Department of Electrical and  
Computer Engineering, University  
of New Mexico, Albuquerque, NM  
87131-1070, USA

**Dr. Jorge Tobon**

Department of Electronics and  
Telecommunications,  
Politecnico di Torino, Corso Duca  
degli Abruzzi 24, 10129 Torino,  
Italy

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### Message from the Guest Editors

This Special Issue will provide an overview of the most recent results and research activities concerned with computational electromagnetics (CEM). It will be devoted to CEM experts and practitioners sharing the fundamental obstacles and innovative ideas in electromagnetic analysis, design, and optimization.

Over the past decade, we have witnessed many CEM advancements and simulation-driven discoveries. However, significant challenges remain, which require non-traditional thinking.

These challenges include but are not limited to the following:

- multi-physics and multidisciplinary simulation,
- uncertainty qualification and statistical wave modeling,
- simulation-aided EM design and optimization,
- machine learning and deep learning based computational electromagnetics methods,
- high-performance EM computing via parallel and GPU computations,
- a posteriori error estimate and adaptive mesh refinements,
- reduced order modeling applied to EM problems,
- fast and efficient EM computational methods,
- domain decomposition techniques.

Welcome to contribute





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## Editor-in-Chief

**Prof. Dr. Flavio Canavero**

Department of Electronics and  
Telecommunications,  
Politecnico di Torino, 10129  
Torino, Italy

## Message from the Editor-in-Chief

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*Electronics* Editorial Office  
MDPI, St. Alban-Anlage 66  
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