



Fundamental Challenges and Novel Methodologies in the Next Generation Computational Electromagnetics

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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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Message from the Editor-in-Chief

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