

# Special Issue

## Analytical Methods in Wave Scattering and Diffraction

### Message from the Guest Editor

Dear colleagues, Boundary-value problems (BVPs) pertaining to scattering and radiation by devices supporting novel wave phenomena are of primary importance in Applied and Computational Mathematics, Computational Physics and Engineering. The purpose of this special issue is to gather contributions from experts on analytical and semi-analytical techniques with application domains including but not limited to single- or multiple-particle scattering, metamaterials, direct and inverse scattering by inclusions in layered media, propagation in waveguides, resonators, and analysis of periodic, layered or complex media. The techniques applied for the analytical modeling are expected to span from integral-equation/differential-equation based methodologies to generalized separation of variables and Fourier-series expansions as well as to Galerkin and eigenfunction series techniques. Contributions with main emphasis on numerical methods for wave phenomena are also welcome provided that they exploit analytical means at certain stages of the procedures employed for the derivations of the solutions.

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### Guest Editor

Prof. Dr. Nikolaos L. Tsitsas

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### Deadline for manuscript submissions

closed (15 July 2022)



## Mathematics

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### 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.

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### Editor-in-Chief

Prof. Dr. Francisco Chiclana  
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