

# Special Issue

## Applied Harmonic Analysis and Modern Methods in Partial Differential Equations

### Message from the Guest Editor

This special issue aims to showcase the rich interplay between harmonic analysis, nonlinear wave theory, and computational methods in the study of PDEs. We particularly encourage contributions that bridge rigorous analysis with applications in mathematical physics, fluid dynamics, signal processing, and related disciplines. Topics of interest include, but are not limited to

- Soliton theory and the inverse scattering transform;
- Nonlinear dispersive and wave equations;
- Fractional and nonlocal PDEs;
- Harmonic analysis techniques in PDEs and numerical algorithms;
- Spectral and pseudo-spectral methods for nonlinear systems;
- Stability, asymptotics, and conservation laws in nonlinear evolution equations;
- Applications to optics, fluid mechanics, and quantum systems.

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### Guest Editor

Prof. Dr. Russell L. Herman

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### Deadline for manuscript submissions

1 July 2026



## Mathematics

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## 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.

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### Editor-in-Chief

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