

# Special Issue

## Modeling and Optimization of Complex Engineering Systems under Uncertainties

### Message from the Guest Editors

The aim of this Special Issue is to establish an academic forum between experts and scholars and come to an agreement regarding the current state of this research field; draw a roadmap of where research is headed, highlight issues, and discuss their possible solutions; and provide the data, models and tools necessary for performing complex system modeling and a multidisciplinary design optimization algorithm considering mixed uncertainties. Potential topics include, but are not limited to:

- System modeling;
- Multidisciplinary design optimization;
- System reliability and risk assessment;
- Structural safety;
- Interval and fuzzy mathematics;
- Structural analysis;
- Optimization problem and computational methods;
- Information fusion;
- Fault diagnosis;
- Probabilistic physics of failure;
- Uncertainty-based design optimization;
- Uncertainty quantification and propagation;
- Performance degradation modeling and analysis.

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### Guest Editors

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### Deadline for manuscript submissions

31 December 2025



## 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

Prof. Dr. Francisco Chiclana

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