

# Special Issue

## Advances in Mathematics and Artificial Intelligence for Smart Manufacturing

### Message from the Guest Editor

This Special Issue focuses on recent advances at the intersection of mathematics, AI, and smart manufacturing. We invite original research that develops mathematical models, data-driven algorithms, and AI-enhanced decision-making methods for addressing critical challenges in modern manufacturing systems. Topics of interest include, but are not limited to, the following: mathematical modeling and optimization for manufacturing; AI-driven production planning and scheduling; machine learning approaches and their applications in manufacturing; the use of large language and vision models in manufacturing systems; simulation-based and learning-based optimization methods; and intelligent coordination of multi-robot systems. We welcome contributions from researchers and practitioners in mathematics, machine learning, manufacturing, automation, computer science, operations research, and related fields. The goal of this Special Issue is to promote interdisciplinary collaboration and to present innovative approaches that advance both the theory and practice of smart manufacturing.

### Guest Editor

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### Deadline for manuscript submissions

31 March 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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