

# Special Issue

## Applications of Algebra, Geometry, and Optimization to Control Theory, 2nd Edition

### Message from the Guest Editor

We invite researchers to contribute to this Special Issue, entitled 'Applications of Algebra, Geometry, and Optimization to Control Theory, 2nd Edition', which aims to investigate the overlap between algebra, geometry, analysis, and control theory, as well as their applications. Possible topics of interest for this Special Issue include, but are not limited to, the following:

- Algebraic approaches to system identification and parameter estimation in control systems.
- Geometric control theory and its applications in robotics and autonomous systems.
- Optimization techniques for optimal control, model predictive control, and robust control.
- Algebraic and geometric methods for stability analysis and control synthesis.
- Algebraic and geometric aspects of nonlinear control systems.
- Optimization-based control strategies for networked and distributed control systems.
- Control theory applications in aerospace, energy systems, and industrial processes.

### Guest Editor

Prof. Dr. William Holderbaum

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### Deadline for manuscript submissions

17 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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