

Special Issue

Applied Mathematics to Mechanisms and Machines

Message from the Guest Editors

In mechanism and machine science, theoretical and computational analysis leads to problems where mathematical modelling and processing are transcendent aspects for solving these problems. The different ways of approaching problems in the area of mechanical engineering, or related areas, include the use of integral and differential equations; interpolation; polynomial computation; least squares and regularization; vector algebra; matrix equations; control theory; synthesis process; discrete and continuous transforms; image and signal processing; Galerkin, finite-element, finite-difference and finite-volume methods; etc. This Special Issue compiles articles with the aim of showing and explaining/describing the different mathematical processes used to solve mechanisms and machines problems. Special attention is devoted to: analysis and synthesis of mechanisms and machines; linear and nonlinear mechanical systems; transportation engineering (cars, trains, ships, ...); vibrations data analysis and machine learning; and kinematics, dynamics and control in biomechanics, mechatronics and micro-machines.

Guest Editors

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Deadline for manuscript submissions

closed (30 June 2022)



Mathematics

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Impact Factor 2.2
CiteScore 4.6



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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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manuscripts are peer-reviewed and a first decision is provided to authors approximately 18.4 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).