Special Issue

Advances in Numerical Linear Algebra and Its Applications

Message from the Guest Editors

Novel iterative methods, such as preconditioning techniques and Anderson acceleration, have seen considerable new developments and applications, while approximation theory and randomized methods have played increasingly important roles in speeding up the rate of convergence and lowering computational costs in various ways. Tools and language from numerical linear algebra have been critical for the development and analysis of numerical algorithms for uncertainty quantification, machine learning and data science. For this Special Issue, we are interested in papers exploring numerical linear algebra, with a primary focus on iterative and acceleration methods for linear/nonlinear systems and functions of matrices (such as polynomial/rational Krylov subspace methods and Anderson acceleration), preconditioning techniques, approximation theory and practice, parameter-dependent, randomized and stochastic methods, machine learning and artificial intelligence. We welcome submissions in these and related fields, and hope that this Special Issue succeeds as an international forum for researchers to summarize and share their most recent developments.

Guest Editors

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Deadline for manuscript submissions

closed (30 April 2024)

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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.

Editor-in-Chief

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