

Special Issue

Advances in Higher-Order Linear Equations and Linear Polynomial Differential Operators

Message from the Guest Editor

Linear equations and their nonlinear counterparts occur in many areas of mathematical, physical, biological, chemical, engineering, and statistical sciences. The theory and applications of the various tools and techniques of mathematical analysis, especially those that are based on linear polynomial differential operators, are being investigated widely and extensively in the current scientific literature. In this Special Issue, we welcome original as well as review-cum-expository research articles which focus on recent and new developments on the topics of higher-order linear and nonlinear equations and associated polynomial differential operators as well as their multidisciplinary applications.

- theory and applications of higher-order linear equations
- theory and applications of systems of linear and nonlinear equations
- applications based especially on linear polynomial differential operators
- applications involving special functions and polynomials
- applications based on other tools and techniques of mathematical analysis
- theory and application of ordinary partial differential equations as well as their fractional-order relatives

Guest Editor

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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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Prof. Dr. Francisco Chiclana

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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).