Special Issue

New Perspectives in Applied Mathematics with Nonlinear Equations and Dynamical Systems

Message from the Guest Editor

The resolution of nonlinear equations poses a recurring challenge across various scientific domains. It is widely acknowledged that closed-form solutions for such equations are seldom attainable, necessitating the application of iterative techniques. Among these methods, Newton's method stands out as the most well-known, extensively studied, and frequently employed, owing to its favorable convergence properties and straightforward computational approach. This Special Issue aims to showcase research developments in this discipline, particularly delving into the analysis of the dynamic behavior of nonlinear equations. Such investigations offer researchers new avenues for finding solutions to these equations or systems of equations. Manuscripts are encouraged in areas such as the following:

- Explorations of complex dynamics through parameter and dynamical planes;
- Multi-point iterative methods (with or without memory);
- Study of the dynamics of higher-order methods;
- Development of tools aiding researchers in studying dynamical behavior;
- Optimal-order derivative-free iterative methods.

Guest Editor

Prof. Dr. Iñigo Sarría

Escuela Superior de Ingeniería y Tecnología, Universidad Internacional de La Rioja, Avenida de la Paz 123, 26006 Logroño, La Rioja, Spain

Deadline for manuscript submissions

31 January 2026

Axioms

an Open Access Journal by MDPI

Impact Factor 1.6

mdpi.com/si/199905

Axioms
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
axioms@mdpi.com

mdpi.com/journal/axioms

Axioms

an Open Access Journal by MDPI

Impact Factor 1.6

mdpi.com/journal/axioms

MDPI

About the Journal

Message from the Editor-in-Chief

Axioms is dedicated to the foundations (structure and axiomatic basis, in particular) of mathematical theories, not only from a crisp or strictly classical sense, but also from a fuzzy and generalized sense. This includes the more innovative current scientific trends, devoted to discover and solve new challenging problems. The prime goal of *Axioms* is to publish first-class, original research articles under an open access policy with minimal fees for the authors. We would be pleased to welcome you as one of our authors.

Editor-in-Chief

Prof. Dr. Humberto Bustince
Department of Statistics, Computer Science and Mathematics, Public University of Navarra, 31006 Pamplona, Spain

Author Benefits

Open Access

— free for readers, with article processing charges (APC) paid by authors or their institutions.

High visibility:

indexed within SCIE (Web of Science), dblp, and other databases.

Journal Rank:

JCR - Q2 (Mathematics, Applied)