Special Issue

Nonlinear Dynamics and Complex Phenomena in Fluid Mechanics and Related Systems

Message from the Guest Editor

Nonlinear phenomena are common in natural and engineered systems, particularly in the field of fluid mechanics. Nonlinear dynamics often give rise to unexpected outcomes, which presents challenges and chances for innovation. Understanding these behaviours is important for forecasting, controlling, and optimizing these systems. Nonlinear systems are modelled by differential equations that are nonlinear. There is no systematic method that can solve nonlinear differential equations, although various special methods have been developed by researchers in this regard. This Special Issue seeks to showcase original research focused on nonlinear problems arising in real-world applications, emphasizing innovative numerical, analytical, and experimental methodologies.

Guest Editor

Prof. Dr. Chaudry Masood Khalique

Material Sciences, Innovation and Modelling Research Focus Area, Department of Mathematics and Applied Mathematics, North-West University, Mafikeng Campus, Private Bag X2046, Mmabatho 2735, South Africa

Deadline for manuscript submissions

31 March 2026



an Open Access Journal by MDPI

Impact Factor 0.7 CiteScore 1.1



mdpi.com/si/243518

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

mdpi.com/journal/appliedmath





an Open Access Journal by MDPI

Impact Factor 0.7 CiteScore 1.1



About the Journal

Message from the Editor-in-Chief

Mathematics permeates all kinds of academic worlds and is a fountain flowing with innovative development. The journal *AppliedMath*, publishing high-quality refereed papers discussing various aspects of applied mathematics, is dedicated to promoting the integration of mathematics with applied disciplines to cultivate a profitable frontier of mathematics. The journal highlights articles devoted to the mathematical treatment of questions and phenomena arising in physics, chemistry, biology, medicine, pharmacy, engineering, information science, social sciences, and humanities. One of the missions of this journal is to serve scientists by quickly announcing the seeds of significant mathematical breakthroughs in science and technology.

Editor-in-Chief

Prof. Dr. Takavuki Hibi

Department of Pure and Applied Mathematics, Graduate School of Information Science and Technology, Osaka University, 1-5 Yamadaoka, Suita 565-0871, Osaka, Japan

Author Benefits

Open Access:

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

High Visibility:

indexed within ESCI (Web of Science), Scopus, EBSCO, and other databases.

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 23.5 days after submission; acceptance to publication is undertaken in 6.9 days (median values for papers published in this journal in the first half of 2025).

