

Special Issue

Completely Integrable Equations: Algebraic Aspects and Applications

Message from the Guest Editors

The theory of completely integrable systems that has developed over the last half-century or so is extremely wide-ranging, taking in algebraic, geometric and analytic approaches. In addition to the inherent beauty of much of this theory, with its myriad connections to many other areas of mathematics, physics and other sciences, much of this interest is motivated by the many applications of well-known completely integrable equations. It is this two-fold interest that we seek to reflect in this Special Issue. On the one hand, we seek to focus on algebraic aspects of integrable equations, in particular on Hamiltonian structures, recursion operators, and generalized symmetries and related properties of integrable PDEs and lattices. We would like to invite papers that explore new techniques and examples in relation to these algebraic aspects. In addition, we are interested in contributions that study the properties of integrable systems arising in applications, as well as such applications themselves.

Guest Editors

Dr. Andrew Pickering

Área de Matemática Aplicada, ESCET, Universidad Rey Juan Carlos, 28933 Móstoles, Spain

Dr. Pilar R. Gordoa

Área de Matemática Aplicada, ESCET, Universidad Rey Juan Carlos, Móstoles, Spain

Deadline for manuscript submissions

closed (31 January 2025)



Mathematics

an Open Access Journal
by MDPI

Impact Factor 2.2
CiteScore 4.6



mdpi.com/si/91458

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

[mdpi.com/journal/
mathematics](https://mdpi.com/journal/mathematics)





Mathematics

an Open Access Journal
by MDPI

Impact Factor 2.2
CiteScore 4.6



[mdpi.com/journal/
mathematics](https://mdpi.com/journal/mathematics)



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.

Editor-in-Chief

Prof. Dr. Francisco Chiclana

School of Computer Science and Informatics, De Montfort University,
The Gateway, Leicester LE1 9BH, UK

Author Benefits

High Visibility:

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

Journal Rank:

JCR - Q1 (Mathematics) / CiteScore - Q1 (General Mathematics)

Rapid Publication:

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).