

Special Issue

Convolution Equations: Theory, Numerical Methods and Applications

Message from the Guest Editors

This Special Issue will include works devoted to analytical methods for solving hypersingular integral equations, as well as approximate methods for solving weakly singular convolutional integral equations (Volterra and Fredholm), singular integral equations, hypersingular and polyhypersingular integral equations (linear and nonlinear) defined on various manifolds, integral equations with fractional integrals, Wiener–Hopf equations, Ambartsumian–Chandrasekhar equations, and systems of equations, which play an important role in the theory of light scattering in turbid media. Numerical methods for solving integral equations rely upon efficient numerical methods for integral evaluation. This Special Issue also presents works dedicated to approximate methods for calculating singular and hypersingular integrals.

Guest Editors

Prof. Dr. Ilya Boykov

Department of Higher and Applied Mathematics, Penza State University, 40 Krasnaya Str., 440026 Penza, Russia

Dr. Alla Boykova

Department of Computational Physics, Saint Petersburg State University, 1 Ulyanovskaya Str., 198504 Saint Petersburg, Russia

Deadline for manuscript submissions

closed (30 November 2023)



Mathematics

an Open Access Journal
by MDPI

Impact Factor 2.2
CiteScore 4.6



mdpi.com/si/163942

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).