

RECENT ADVANCES IN FRACTIONAL CALCULUS AND NONLINEAR FRACTIONAL EVALUATION EQUATIONS

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DESCRIPTION

Fractional calculus has been a significant part of applied mathematics, physics and engineering in the current times. Fractional calculus has developed in analytical, numerical and approximate solutions for nonlinear fractional evaluation equations (NLFEEs). The NLFEEs of phenomena with fractional derivative offers better outcomes than classical orders. Some remarkable performances can be outlined in NLFEEs. A few physical phenomena, especially viscoelasticity, electro chemistry and model of neurons in biology, control theory, plasma physics, dynamics, fluid mechanics, engineering, optical computing, physics, chemically reactive materials, chemistry, meteorology, biology, communication, signal processing, and shallow water wave propagation, continuum mechanics, optical switching, etc., respectively, can be modeled by NLFEEs. A lot of mathematicians, physicians and engineers as well as some researchers and scientists are working on significant increases and influences in the part of fractional calculus. Owing to its fascinating implements, fractional calculus is a vital area of research for most mathematicians, physicians and engineers as well as some researchers and scientists. The research of NLFEEs have received particular importance from many mathematicians, physicians and engineers as well as some researchers and scientists. In light of this, many NLFEEs have been found via numerous procedures. Contrasting, fractional derivatives can be applied to NLFEE a variety of interdisciplinary difficulties. Furthermore, it is hard to find analytical, numerical and approximate solutions of these types of NLFEEs. Consequently, analytical, numerical and approximate procedures can be applied for its treatment.

This Special Issue of [Demonstratio Mathematica](https://www.degruyter.com/dema) invites papers that focus on recent and novel developments in the analytical, numerical and approximate techniques for NLFEEs, especially in applied mathematics, physics and engineering, and will accept high-quality papers containing original research results and survey researches of remarkable merit in the following areas:

- ▶ Nonlinear fractional evaluation equations
- ▶ New analytical, approximate and numerical schemes for NLFEEs
- ▶ The numerical techniques for solving NLFEE problems in a broad sense, with an emphasis on real-world applications
- ▶ Analytical and numerical technique for NLFEEs in applied mathematics, physics and engineering
- ▶ Mathematical models for nonlinear fractional problems in engineering
- ▶ Numerical and computational mathematical techniques in the real life applications
- ▶ NLFEEs to real-world phenomena

Authors are requested to submit their full revised papers complying the general scope of the journal. The submitted papers will undergo the standard peer-review process before they can be accepted. Notification of acceptance will be communicated as we progress with the review process.

HOW TO SUBMIT

Before submission authors should carefully read the [Instruction for Authors](#).

Manuscripts can be written in TeX, LaTeX (strongly recommended). Please note that we do not accept papers in Plain TEX format. Text files can be also submitted as standard DOCUMENT (.DOC) which is acceptable if the submission in LATEX is not possible. **For an initial submission, the authors are strongly advised to upload their entire manuscript, including tables and figures, as a single PDF file.** Authors are strongly advised to submit the final version of the paper using the journal's [LATEX template](#).

All submissions to the Special Issue must be made electronically via [online submission system](#) Editorial Manager and will undergo the standard peer-review process (single blind, at least two independent reviewers). When entering your submission choose the section/category "*Recent Advances in Fractional Calculus and Nonlinear Fractional Evaluation Equations*".

Submission of a manuscript implies that the work described has not been published before and it is not under consideration for publication elsewhere.

The deadline for submissions is 28th February 2022, but individual papers will be reviewed and published online on an ongoing basis.

[Contributors to the Special Issue](#) will benefit from:

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We are looking forward to your submission!

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