

# ELLIPTIC AND PARABOLIC PROBLEMS: THEORY AND APPLICATIONS

## GUEST EDITOR

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## DESCRIPTION

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This Special Issue in *Demonstratio Mathematica* focusses on the analysis of the qualitative and quantitative behavior of elliptic, hyperbolic and parabolic equations arising in real problems of biology, physics and control theory. We aim to survey the latest developments about non-existence, existence and multiplicity of solutions, with asymptotic and sign properties.

Potential topics include but are not limited to the following:

- ▶ Topological methods and Morse theory of critical groups
- ▶ Variational methods and critical points theorems
- ▶ Sub-supersolution methods and monotone operator theory
- ▶ Nonlinear capacity method, Poincaré type inequalities, test and cut-off functions
- ▶ Mathematical modeling of nonlinear problems
- ▶ Maximum and comparison principles in abstract spaces
- ▶ Numerical algorithms to approximate solutions

We are also interested in survey articles summarizing the evolution of specific problems.

Authors are requested to submit their full revised version of papers complying the general scope of the special issue. 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

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

Manuscripts have to be written in LATEX, AMS-TEX, AMS-LATEX. We do not accept papers in Plain TEX format. **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 "*Special Issue on Elliptic and Parabolic Problems*".

The deadline for submissions is now **extended by 10th May 2021**, but individual papers will be reviewed and published online on an ongoing basis.

Authors who have limited access to funding for open access publications may **apply for a discount**. Inquiries concerning Article Processing Charges should be addressed before or immediately after submission of a paper to the Editorial Office ([demonstratio.editorial@degruyter.com](mailto:demonstratio.editorial@degruyter.com)).

Contributors to the Special Issue will benefit from:

- ▶ indexation in **Web of Science (Emerging Sources Citation Index)** and **SCOPUS**
- ▶ comprehensive and transparent peer review provided by experts in the field
- ▶ no space constraints
- ▶ **quick publication** after completing the publishing process (**continuous publication model**)
- ▶ better visibility due to **Open Access**
- ▶ **long-term preservation** of the content (articles archived in Portico)
- ▶ **liberal policies on copyrights** (authors retain copyrights) and on self-archiving (no embargo periods)

We are looking forward to your submission!

In case of any question please contact **Dr. Justyna Żuk**, Managing Editor of DEMA, [Justyna.Zuk@degruyter.com](mailto:Justyna.Zuk@degruyter.com).