

**CALL FOR PAPERS****Special issue on quantum physics with non-Hermitian operators**

This is a call for contributions to a special issue of *Journal of Physics A: Mathematical and Theoretical* dedicated to quantum physics with non-Hermitian operators. The main motivation behind this special issue is to gather together recent results, developments and open problems in this rapidly evolving field of research in a single comprehensive volume. We expect that such a special issue will become a valuable reference for the broad scientific community working in mathematical and theoretical physics. The issue will be open to all contributions containing new results on non-Hermitian theories which are explicitly PT-symmetric and/or pseudo-Hermitian or quasi-Hermitian. The main novelties in the past years in this area have been many experimental observations, realizations, and applications of PT symmetric Hamiltonians in optics and microwave cavities. We especially invite contributions on the theoretical interpretations of these recent PT-symmetric experiments and on theoretical proposals for new experiments.

**Editorial policy**

The Guest Editors for this issue are Carl Bender, Andreas Fring, Uwe Guenther and Hugh Jones.

The areas and topics for this issue include, but are not limited to:

- spectral problems
- novel properties of complex optical potentials
- PT-symmetry related threshold lasers and spectral singularities
- construction of metric operators
- scattering theory
- supersymmetric theories
- Lie algebraic and Krein-space methods
- random matrix models
- classical and semi-classical models
- exceptional points in model systems
- operator theoretic approaches
- microwave cavities
- aspects of integrability and exact solvability
- field theories with indefinite metric

All contributions will be refereed and processed according to the usual procedure of the journal. Papers should report original and significant research that has not already been published.

**Guidelines for preparation of contributions**

- The deadline for contributed papers will be **31 March 2012**. This deadline will allow the special issue to appear before the end of November 2012.
- There is a nominal page limit of 15 printed pages per contribution (invited review papers can be longer). For papers exceeding this limit, the Guest Editors reserve the right to request a reduction in length. Further advice on publishing your work in *Journal of Physics A: Mathematical and Theoretical* may be found at [iopscience.org/jphysa](http://iopscience.org/jphysa).
- Contributions to the special issue should be submitted by web upload via our author services website [authors.iop.org](http://authors.iop.org), or by email to [jphysa@iop.org](mailto:jphysa@iop.org), quoting 'JPhysA Special issue on quantum physics with non-Hermitian operators'. Submissions should ideally be in standard LaTeX form. Please see the website for further information on electronic submissions.
- All contributions should be accompanied by a read-me file or covering letter giving the postal and e-mail address for correspondence. The Publishing Office should be notified of any subsequent change of address.

The special issue will be published in the print and online versions of the journal.

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