

Special Issue on 'Geometric Numerical Integration of Differential Equations'

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CALL FOR PAPERS

Special Issue on ‘Geometric Numerical Integration of Differential Equations’

This is a call for contributions to a special issue of *Journal of Physics A: Mathematical and General* entitled ‘Geometric Numerical Integration of Differential Equations’. This issue should be a repository for high quality original work. We are interested in having the topic interpreted broadly, that is, to include contributions dealing with symplectic or multisymplectic integration; volume-preserving integration; symmetry-preserving integration; integrators that preserve first integrals, Lyapunov functions, or dissipation; exponential integrators; integrators for highly oscillatory systems; Lie-group integrators, etc. Papers on geometric integration of both ODEs and PDEs will be considered, as well as application to molecular-scale integration, celestial mechanics, particle accelerators, fluid flows, population models, epidemiological models and/or any other areas of science. We believe that this issue is timely, and hope that it will stimulate further development of this new and exciting field.

The Editorial Board has invited G R W Quispel and R I McLachlan to serve as Guest Editors for the special issue. Their criteria for acceptance of contributions are the following:

- The subject of the paper should relate to geometric numerical integration in the sense described above.
- Contributions will be refereed and processed according to the usual procedure of the journal.
- Papers should be original; reviews of a work published elsewhere will not be accepted.

The guidelines for the preparation of contributions are the following:

- The DEADLINE for submission of contributions is 1 September 2005. This deadline will allow the special issue to appear in late 2005 or early 2006.
- There is a strict page limit of 16 printed pages (approximately 9600 words) per contribution. 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 General* may be found at www.iop.org/Journals/jphysa.
- Contributions to the special issue should if possible be submitted electronically by web upload at www.iop.org/Journals/jphysa or by e-mail to jphysa@iop.org, quoting ‘JPhysA Special Issue—Geometric Integration’. Submissions should ideally be in standard LaTeX form; we are, however, able to accept most formats including Microsoft Word. Please see the web site for further information on electronic submissions.
- Authors unable to submit electronically may send hard copy contributions to: Publishing Administrators, *Journal of Physics A*, Institute of Physics Publishing, Dirac House, Temple Back, Bristol BS1 6BE, UK, enclosing the electronic code on floppy disk if available and quoting ‘JPhysA Special Issue—Geometric Integration’.

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- All contributions should be accompanied by a read-me file or covering letter giving the postal and e-mail addresses for correspondence. The Publishing Office should be notified of any subsequent change of address.

This special issue will be published in the paper and online version of the journal. The corresponding author of each contribution will receive a complimentary copy of the issue.

G R W Quispel and R I McLachlan
Guest Editors