

## GUIDANCE FOR AUTHORS

### Selection criteria

The criteria for selection are scientific excellence, originality and interest across disciplines within mathematical, physical and engineering sciences. The following types of papers will be considered:

- important, new research findings
- interesting reviews that shed new light on a particular subject or field
- short 'Rapid Communications' (up to 10 printed pages); these will be published within 4 months of acceptance
- papers of an interdisciplinary nature

The maximum limit is 20 printed pages (about 640 words or two figures per page). Papers over this limit will be considered, but will also be subject to page charges.

The Editors are responsible for all editorial decisions and they make these decisions based on the reports received from the referees and/or Editorial Board members. Many more good manuscripts are submitted to us than we have space to print, and we give preference to those that present significant advances of broad interest. Submission of preliminary reports, of articles that merely confirm previous findings, and of articles that are likely to interest only small groups of specialists, is not encouraged. All articles are sent to Editorial Board members for an initial assessment of their suitability, and may be returned to authors without in-depth peer review if this assessment makes it seem unlikely that they will be accepted.

### Publishing format

*Proc. R. Soc. A* articles are published regularly online and in monthly print issues. Along with all Royal Society journals,

we are committed to archiving and providing perpetual access. Although papers are limited to eighteen journal pages in length, there is the facility for including Electronic Supplementary Material (ESM). Contents of the ESM might include details of methods, derivations of equations, large tables of data and computer programs. However, the printed version must include enough detail to satisfy most non-specialist readers. Supplementary data up to 10Mb is placed on the Society's website free of charge. Larger datasets must be deposited in recognised public domain databases by the author.

### Conditions of publication

Articles must not have been published previously, nor be under consideration for publication elsewhere. The main findings of the article should not have been reported in the mass media. Like many journals, *Proc. R. Soc. A* employs a strict embargo policy where the reporting of a scientific article by the media is embargoed until a specific time. The Editor has final authority in all matters relating to publication.

### Electronic Submission details

The Royal Society's electronic-submission and peer-review service provides *Proc. R. Soc. A* authors with the facility to submit their papers online. The service allows you to upload files in a reliable and user-friendly way, using a Web-based system. When your paper is received, an immediate acknowledgement is sent that details how you can track your contribution online.

For full submission guidelines and access to all journal content please visit the *Proc. R. Soc. A* website, see [rspa.royalsocietypublishing.org](http://rspa.royalsocietypublishing.org) for further details.

The Royal Society is an independent scientific academy founded in 1660 and self-governing under Royal Charter. The Society has three roles, as the scientific academy of the United Kingdom, as a learned society, and as a funding body.

The objectives of the Royal Society are to

- recognise excellence in science
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- stimulate international interaction
- further the role of science, engineering and technology in society
- promote the public's understanding of science
- provide independent authoritative advice on matters relating to science, engineering and technology
- encourage research into the history of science

For further information on the Society's activities, please contact the following departments on the extensions listed by dialling +44 (0)20 7839 5561, or visit the Society's Web site ([royalsociety.org](http://royalsociety.org)).

### Research Support (UK grants and fellowships)

Research appointments: 2547  
Research grants: 2539  
Conference grants: 2540

### Science Advice

General enquiries: 2585

### Science Communication

General enquiries: 2572

### International Exchanges (for grants enabling research visits between the UK and most other countries (except the USA))

General enquiries: 2550

### Library and Information Services

Library/archive enquiries: 2606

Front cover: Planform of a three-dimensional convection pattern propagating in the left direction as travelling waves; this is due to the resonant interaction between steady modes with wavenumbers of a 1:2 ratio in a two-layered Rayleigh-Bénard problem. Twelve-dimensional amplitude equations derived on a hexagonal lattice give a rich variety of bifurcation structures involving steady solutions, time-periodic solutions, nearly heteroclinic cycles and chaotic solutions. For further details see Fujimura in *Proc. R. Soc. A* (2008) **464**, 133–153 (doi:10.1098/rspa.2007.0168).