

Selection criteria

The criteria for selection are scientific excellence, originality and interest across disciplines within mathematical, physical and engineering sciences.

The maximum limit is 20 printed pages (about 540 words or two figures per page). Papers over this limit will be considered, up to a maximum of 28 pages, 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 28 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.

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

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Front cover: Mount St Helens, Washington, USA in 2007, showing a growing dacite lava dome in the crater created by the explosive eruption of May 1980. The stratovolcano Mount Hood is in the background. Image courtesy of Hugh Tuffen.