

Interface Focus is the Royal Society's cross-disciplinary themed publication promoting research at the interface between the physical and life sciences. Each issue concentrates on a specific cross-disciplinary subject. It provides a high quality forum for work applying physics, mathematics, engineering and chemistry to the life sciences and also discoveries in the life sciences that allow advances in the physical sciences including mathematics. Both sides of the interface will be considered on an equal footing. Preliminary and more speculative work is encouraged. The journal also publishes high quality review articles.

It is worth stressing that articles published in *Interface Focus* should be accessible to readers from a wide variety of scientific backgrounds. We therefore encourage equations and technical details to be published in appendices rather than in the main article.

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Article types

Research Articles: Full research articles should contain original scientific research. Their length should be over 2500 and **not exceed 8000 words** (this includes cover page, references and acknowledgements). **The word count is strictly enforced.**

Reviews: Review articles should be around **8000** words, but there is some scope for flexibility. They should aim to interest communities working at the physical sciences/life sciences interface and should cover the latest developments in an area of cross-disciplinary research. These articles should put such research in a wider context and be written in a style that will make them accessible to readers in a wide range of disciplines. Reviews will normally be published by invitation, although we are keen to receive proposals for prospective articles from authors. Complete literature surveys are not encouraged.

Reports: Reports are short, letters-style contributions of no more than **2500** words, (including references and figure captions) and up to four displays (i.e. figures and tables), of which no more than two should be figures. These articles are published rapidly and preliminary and more speculative work of high quality is strongly encouraged.

Colour

Interface Focus welcomes the submission of articles containing colour illustrations. During final file submission authors must choose one of the following three options for figure reproduction:

1. Black and white figures online and in print - no charge
2. Colour figures online and black and white in print - no charge
3. Colour figures online and in print - fees apply (see below for colour charges)

Authors submitting figures for option 2 (colour online and black and white in print) should submit one colour version of each image only. The figures will be converted to black and white for print, so authors must ensure that the colour figure is also intelligible in black and

white. The figure legend should state "(Online version in colour.)" and, where possible, should not refer directly to the colours used in the figure.

Colour costs for the print version are as follows: £300 plus VAT where applicable for 1-3 colour figures, £600 for 4-6 colour figures, etc.

Data and material sharing, database deposit and electronic supplementary material

RS data policy

To allow others to verify and build on the work published in Royal Society journals it is a condition of publication that authors make available the data and research materials supporting the results in the article.

Datasets should be deposited in an appropriate, recognized repository and the associated accession number, link or DOI to the datasets must be included in the data accessibility section of the article. Reference(s) to datasets should also be included in the reference list of the article with DOIs (where available). Where no discipline-specific data repository exists authors should deposit their datasets in a general repository such as Dryad (<http://datadryad.org/>)

Authors may elect to have the data publicly available at time of publication, or, if the technology of the archive allows, may opt to embargo access to the data for a period up to a year after publication. Exceptions may be granted at the discretion of the editor, especially for sensitive information such as human subject data or the location of endangered species. Where possible any other relevant research materials (such as statistical tools, protocols, software etc) should also be made available and details of how they may be obtained should be included in the data accessibility section of the article.

Authors must disclose upon submission of the manuscript any restrictions on the availability of research materials or data.

Data accessibility

To ensure archived data from *Interface Focus* articles are available to readers, authors should include a 'data accessibility' section immediately after the acknowledgements. This should list the database and accession number for all data from the article that has been made publicly available.

EXAMPLE:

DNA sequences: Genbank accessions F234391-F234402

Phylogenetic data: TreeBASE accession number S9123

Final DNA sequence assembly uploaded as online supplemental material

Climate data and MaxEnt input files: Dryad doi:10.5521/dryad.12311

*From April 1 2013, peer reviewed articles based on research funded wholly or partly by RCUK **must include**, if applicable, a statement on how the underlying research materials – such as data, samples or models – can be accessed. This statement should be included in the data accessibility section.

Electronic supplementary material

We can also host electronic supplementary material (ESM) on our website, which may include, for example movies, figures and tables.

The main article, however, should stand on its own merit. In addition, the number of references included in the ESM should be kept to an **absolute minimum** as these are not recognized by many indexing services.

ESM is created by the authors themselves and is NOT edited by the Royal Society so please proof-read it thoroughly before submitting.

ESMs will be considered in the following file formats only:

*.AIF, *.AVI, *.CEL, *.CLASS, *.CSS, *.CSV, *.DOC, *.DOCM, *.DOCX, *.DOTM, *.DOTX, *.DTL, *.DVI, *.EPS, *.FAS, *.GIF, *.GZ, *.HTM, *.HTML, *.HTSLP, *.JAR, *.JAVA, *.JPEG, *.JPG, *.JS, *.M, *.M4A, *.MML, *.MOV, *.MP3, *.MP4, *.MPG, *.MPGA, *.NB, *.NET, *.NEX, *.ODE, *.ONEPKG, *.ONETMP, *.ONETOC, *.PBM, *.PDB, *.PDF, *.PGM, *.PNG, *.POTM, *.POTX, *.PPAM, *.PPM, *.PPSM, *.PPSX, *.PPT, *.PPTM, *.PPTX, *.PS, *.PSD, *.RA, *.RM, *.RTF, *.RV, *.SHTML, *.SLDM,

*.SLDX, *.SPT, *.SVG, *.SWF, *.TAR, *.TEX, *.TGZ, *.THMX, *.TIF, *.TSV, *.TXT, *.VMD, *.WAV, *.WMA, *.WMV, *.XLAM, *.XLS, *.XLSB, *.XLSM, *.XLSX, *.XLTM, *.XLTX, *.XML, *.XSL, *.XYZ.

Where possible we request that authors combine multiple ESM files into one file (for example, where ESM files are in Word or PDF format).

Authors should submit ESM as supporting files with their submission via ScholarOne Manuscripts, including titles and descriptions in the submission form. There is a size limit of 10MB for ESM (limit for total material, not per file), due to the difficulties that some users will experience in loading or downloading files. Authors with ESM files of a larger size (in particular, movies) should contact the Editorial Team for further assistance.

Figures

All Royal Society journals require figures in electronic format. To ensure high-quality reproduction, and to prevent delays in publication, it is essential that figures be supplied in the correct format. Hand-drawn illustrations are not acceptable.

Dimensions

Artwork should be supplied at the size the author intends it to be reproduced.

Figures should be sized as follows:

Maximum width within single column, 84 mm.

Maximum width within double column, 175 mm.

Maximum height for both, 250 mm.

Text: Times, upright, 9pt, 11pt leading

Multipart figures

Multipart figures should not be supplied as separate files, but should be laid out in one file by the author.

Figure labels

Labels should be added to the original drawings before submission using lower-case lettering (Times Roman Font) wherever possible.

Labels should be brief, e.g. (a), (b), and explained in the legend. Labels should be consistent, and close to the 9 point at final size.

Mathematical symbols must follow the style of the text - variables should be distinguished from labels through italicization. Descriptions should be placed whenever possible in the captions and not on the figures themselves, although a key to symbols is often better placed within the body of a figure.

Figure format

The type of image(s) a figure contains determines which format it is best supplied in. Images fall into one of two categories:

- Bitmap (rasterized) images: Composed of pixels (e.g. photographs, scans)
- Line (vector) art: Composed of lines, fills and text (e.g. histograms, line drawings)

Photographs and scans should be supplied as high-resolution (300-600ppi/120-240ppc) bitmaps in one of the following formats:

- TIFF
- Adobe Photoshop
(jpeg images are only acceptable if taken with a digital camera) Also "unsampling" of images is not acceptable, i.e. once an image has been saved down to 72ppi the quality will remain poor even if resaved at 300ppi.

Line art (or images containing both line art and bitmap images) should be supplied in one of the following formats:

- Postscript (PS, EPS or PDF)
- Adobe Illustrator

Microsoft PowerPoint, Excel and Word formats are only acceptable if the figure was created in one of these packages.

Do not supply images embedded in Microsoft documents.

Postscript images should be saved in such a way that objects (lines and text) can be selected and edited. If possible, avoid converting text to outline; use the latest version of your software when saving. Postscript files can usually be created using either the "Save as" command or the "Export" command. These can usually be found under the File menu. Alternatively, if you have a postscript printer driver you can select Print from the file menu and then select "Print to file". This will create a postscript file (.ps or .prn), which can then be converted to EPS or PDF.

File compression should not be used.

TeX/LaTeX-coded figures should be converted to postscript format (PS, EPS or PDF).

Figure permissions

Figures from other sources should be fully acknowledged in the caption, and written permission sought for both print and electronic reproduction before being used.

Language polishing and author resources

Authors who believe their manuscripts would benefit from professional editing prior to submission are encouraged to use a language polishing service. Here is a list of such services.

AuthorAid hosts a variety of useful resources to help researchers prepare articles for publication.

LaTeX submissions

For LaTeX submissions on Manuscript Central, please note the following guidelines.

- TeX files submitted must be compatible with LaTeX2e. Manuscript Central supports version 7.4.5 and earlier.
- All files that are needed to compile the TeX source correctly must be uploaded with the submission.
- Please do not send master TeX files containing file call-ups (except to figures); the TeX file must be complete with all article sections and references. This includes BIB and BBL files, which cannot be processed.
- When submitting papers in TeX, figures created from TeX code must also be supplied as PS or EPS files (PDF, JPEG, GIF or TIFs will not be converted).
- Type 3 fonts are not accepted. Vector fonts (such as Type1, truetype, opentype etc.) are preferred.
- Guidelines for document and image conversions in Manuscript Central can be found in the 'Get Help Now' tab.
- A list of all sty/cls files accepted by Manuscript Central can be found in the 'Get Help Now' tab.

Media promotion

The Society's Press Office promotes articles that appear in our scientific journals through weekly lists of media summaries to journalists. Please note that like many publishers, the Royal Society employs a strict embargo policy whereby the reporting of a scientific article by the media is embargoed until a specific time. If you are approached by a journalist prior to publication, please contact the Society's **press office**.

A good idea is to alert your institution's press office to the fact you are having an article published as given enough advance warning they may want to produce a press release to coincide with the weekly list from the Society's press office. Closer to the time of publication, Society's press office will contact you to confirm the online publication date for your paper and provide additional information on the Society's embargo policy and when you may expect to receive calls from journalists.

Media summary

The media abstract should be no more than 100 words and aim to outline, to a lay audience, your research and any relevant findings. If possible try highlight why the research is important, i.e. does your research discover something new? Does it change perceptions or previous understanding? If possible, try to link your research with to examples or analogies as this enables journalists to understand and relate to your work. Please avoid using excessive jargon or statistics, unless absolutely necessary. If you have any questions, please contact the Royal Society's **press office**.

Preprints

In relation to the **Preprint** version only, the Author is free to post it on web sites, including electronic preprint servers. When the Definitive Published Version of the article is published the Author must acknowledge it by placing the full bibliographic reference and URL of the relevant journal homepage close to the title of the Article.

References

All references to the literature cited should be given in the order of their appearance in the text in a consecutively numbered list at the end of the article (Vancouver). Each reference should contain as many of the following elements as possible:

- Author surnames with initials (up to 10 before *et al* is used)
- Year of publication
- Title of paper (roman) or book (italic)
- Journal name (italic), using standard abbreviation
- Volume number (bold)
- First and last page numbers
- DOI

Note that for a book, the edition the chapter(s) and its/their page range(s), the editor(s), the place of publication (if it is not obvious) and the name of the publisher should be given, for instance:

- Falconer, D. S. 1981 *Introduction to quantitative genetics*, 2nd edn. London: Longman.
- Falkenmark, M. 1993 Landscape as life support provider: water-related limitations. In *Population-the complex reality*(ed. F. Graham-Smith), pp. 103-116. London: The Royal Society.
- Nilsson, L. A. 1988 The evolution of flowers with deep corolla tubes. *Nature* 334, 147-149.

References in the text are listed according to the Vancouver style (not by name and date), i.e. numbered consecutively in the order they appear in the text. Text citations are Arabic numerals in square brackets, for instance:

- This action has been described frequently elsewhere [3,6].
Authors are encouraged to quote digital object identifiers (DOIs) - standardised article reference codes - where known, in addition to providing full citations, for instance:
- Hamilton, W. D. & Brown, S. P. 2001 Autumn tree colours as a handicap signal. *Proc. R. Soc. B* **268**, 1489-1493. (DOI 10.1098/rspb.2001.1672.)

The DOI is a unique electronic tag applied by certain publishers (and online databases, such as CrossRef) to their published papers. DOI hotlinks take a reader directly from the paper they are reading to the abstract of the paper they have selected. Any DOI can be accessed online in the following format: <http://dx.doi.org/10.1098/rsif.2008.0189>

Spelling

Spelling should conform to the preferred spelling of the *Shorter Oxford English Dictionary*.

Structure

Each article should contain the following in order:

- Title
- Authors and full addresses where their work was carried out
- Summary of no more than 200 words
- Key index words or phrases (3-6 choices)
- Main body of the work, divided into sections and described by short headings
- Acknowledgements
- References (of *all* articles cited in the text)
- Figure captions (numbered in sequence as they appear in the text)
- Short title for page headings

The summary should be concise and informative. It should be complete by itself, and must not contain references or unexplained abbreviations. It should not only indicate the general scope of the article but also state the main results and conclusions. Please note that footnotes are not used.

In addition to providing the addresses where the work was carried out, the current addresses, where different, should be given.

Tables

Tables, however small, should be numbered and referred to in the text by their numbers. Table captions should be brief, with descriptions of experimental detail given directly beneath, in parentheses. Column headings should, wherever possible, be in lower-case type, and the units of measurement and any numerical factors should be placed at the head of each column. Units should be contained within parentheses, e.g. distance (cm).

Units and abbreviations

As far as possible the recommendations based on the International System of Units (SI) contained in *Quantities, units and symbols* should be followed (The Royal Society, 1975, price £3.50, available from the Sales Office on +44 (0)20 7451 2645).

Abbreviations should be given in full at the first mention. In the list of references, widely recognized abbreviations for journals should be used. If in doubt, give the full title of the journal.