

Journal of the Royal Statistical Society

Notes for Authors on the Submission of Papers

Disclosure of financial and other interests

Some journals have policies requiring authors of submitted papers to declare potential conflicts of interest. The purpose of this is not to remove conflicts but to make them transparent, allowing readers to form their own conclusions on whether any conflict of interest exists. For many submissions to the *Journal of the Royal Statistical Society* this is unlikely to be an issue. However, such interests may take many forms, including financial considerations and situations where one or more of the authors have acted as consultants or advisors (paid or otherwise) to a project relevant to the submitted paper. This does not imply that there is anything wrong with holding such interests or that research published by authors with such interests is compromised. To promote transparency and accountability, however, authors of material submitted to the *Journal of the Royal Statistical Society* are asked to disclose any financial or other interest that may be relevant and/or could prove problematic if discovered after publication. The appropriate place for such disclosures is in a covering note to the Editor. At the Editor's discretion, this information may be printed at the end of the published paper.

Data sets and computer code

It is the policy of the *Journal of the Royal Statistical Society* that published papers should, where possible, be accompanied by the data and computer code used in the analysis. Both data and code must be clearly and precisely documented in enough detail that it is possible to replicate all results in the final version of the paper. Upon submission, contributors must therefore confirm that, if their paper is accepted for publication, they can make the accompanying data and code available. If they are unable to, authors must state why and, if possible, provide full details of how access to the materials can be obtained.

Supporting Web materials

Supporting material may be submitted at the time of submission. Before submission, authors should consider what material could be extracted from the main body of the paper and posted on the publisher's Web site. It is important that authors retain the readability and integrity of a paper when doing this. The supporting materials will be regarded as part of the submission and, at the Editor's discretion, may be subject to revisions during the review process. Well-thought-out, clear, and concise Web supporting materials may speed up the review process. Additional supporting material may also be requested by the Editor during the review process, or the Editor may ask that some material submitted originally as part of the main manuscript be extracted and reformulated as supplementary material.

Supporting Web material may include some or all the following types: additional written exposition (e.g., technical proofs or detailed explanations), tables, and figures. All such supplementary material should be placed in a single document entitled 'Web-based supporting materials for (title of manuscript) by (authors)'.

As well as these text files, supporting information can include short videos, audio clips, and Power-Point presentations directly concerned with the paper. For further information see [Video and media guide | Journals | Oxford Academic \(oup.com\)](#). A video summary can be a quick way to make the message of your research accessible to a much larger audience.

‘Online Open’

Authors of papers accepted for publication can choose to make their articles open access, ensuring they are freely available online to all readers. This can be achieved through the payment of a fee (currently £2,621 / \$3,300 / €3,150). Full details about open access facilities, including Read and Publish agreements with funding options, can be obtained from:

[Open research | Journals | Oxford Academic \(oup.com\)](#)

General

The *Journal of the Royal Statistical Society* is published in three series: Series A (*Statistics in Society*), Series B (*Statistical Methodology*) and Series C (*Applied Statistics*). Each series publishes contributed papers as well as papers (with discussion) which are read at Discussion Meetings of the Society. The journal operates a single-blind review process. Except for discussion meetings papers, *manuscripts that are longer than 24 journal pages (12000 words) are unlikely to be accepted for publication*. However, you can incorporate additional material as supplementary files, and the editor can provide guidance on optimal length and possible solutions during the review process.

The Royal Statistical Society recently launched a new open-access journal that focuses on data science and artificial intelligence. RSS: Data Science and AI is accepting submissions, however, papers for discussion meetings are not currently being considered.

Discussion Meetings and Discussion Papers

The Society holds *Discussion Meetings* about once a month between September and June. They span a broad range of topics, and suitable papers may fall into any of the following categories:

- a study of an applied statistical problem of sufficient general interest to warrant discussion and publication;
- new methodology;
- an interesting and new application of existing methodology;
- major advances in applied probability;
- issues of general interest to statisticians, especially if a wide variety of views is to be found;
- work concerned with the interface between statistics and other fields;
- ‘state of the art’ reviews and critical summaries of important material which is widely scattered.

Discussion papers must be of a nature which will generate discussion.

The route by which all papers are considered for presentation to the Society is via the Discussion Meetings Committee, which acts independently from the ordinary submission process and journal series. To ensure that a manuscript is flagged for consideration as a discussion paper, the author can choose ‘Discussion Paper’ when creating the submission (see Preparation and Submission of Manuscripts, below). Note that the author should first decide whether the paper is most suited for subsequent publication in Series A, B or C.

Papers which present significant advances in statistical methodology will be assigned for assessment by the Research Section Committee and subsequent publication will usually be in Series B. Discussion papers on themes of general interest or motivated primarily by statistical applications will appear in Series A or Series C. The appropriate assignment will be decided by the Discussion Meetings Committee after submission.

Papers are quickly and initially screened by the Discussion Meetings Committee for their potential for discussion. If the paper passes this stage, the Committee typically seeks detailed reports from four or five specialist reviewers, either through the appropriate sponsoring Section or directly. All members of the Committee are encouraged to look at all submissions and provide their input. The Discussion

Papers Editor then gathers the reports, and the Section's summary of their content is presented for an assessment by the Committee. The final decision is communicated to the authors by the Discussion Papers Editor.

Terms of reference

Series A (*Statistics in Society*) looks at how innovative statistical thinking, design, methods, and analyses play a vital role in all walks of life and benefit society. For example, medicine and biomedical sciences, business and commerce, industry, economics and finance, education and teaching, the law, government and politics, demography, psychology, sociology and sport all fall within its remit.

The journal's emphasis is on clearly written quantitative approaches to problems of current relevance rather than the exposition of technical detail. Of particular interest are papers on topical or contentious statistical issues that give reviews or exposés of current statistical concerns, and papers that contribute to our understanding of important substantive questions. Historical, professional and biographical contributions are also published, as are discussions of methods of data collection and of ethical issues.

Series B (*Statistical Methodology*) aims to publish high quality papers on the methodological aspects of statistics and data science more broadly. Papers should contribute to the understanding of statistical methodology and/or develop and improve statistical methods; any mathematical theory should be directed towards these aims. Many papers published in Series B present new methods of collecting or analysing data, with associated theory, an indication of the scope of application, and a real example. Also considered are comparisons, critical evaluations and new applications of existing methods, contributions to probability theory which have a clear practical bearing, statistical computation or simulation where original methodology is involved, and original contributions to the foundations of statistical science. A paper, even if correct and well presented, is likely to be rejected if it only presents straightforward special cases of previously published work, if it is of mathematical interest only, if it is too long in relation to the importance of the new material that it contains, or if it is dominated by computations or simulations of a routine nature

Series C (*Applied Statistics*) seeks to publish papers that tackle genuine problems in applied statistics, i.e. where applications are central to the paper and provide the motivation for the work presented. This usually implies that the application under study will also be mentioned in the title, and should figure prominently in the abstract, introduction and discussion as well as in other parts of the paper. In essence, papers should directly engage with the application and should clearly indicate what additional insights into the applied problem can be gained by applying the suggested methodology.

Series C papers make a novel contribution to statistics by adapting or developing new statistical methodology, or by demonstrating the innovative combination of existing advanced statistical methods, for a real applied context. To ensure the focus is on the application, some technical details, derivations and proofs might not form part of the main body of the text, but might be moved into supplementary material. Series C also accepts papers on computational statistics, machine learning and statistical aspects of data science, if they engage with an application as outlined above. Papers where the application merely serves as an illustration for new methodology or papers that use well-established statistical methods to analyse data are not suitable for Series C. Similarly, papers that only contain brief numerical illustrations or focus exclusively on simulation studies are not suitable, although numerical illustrations and simulations may of course form part of a Series C paper.

In terms of application areas and methodologies, Series C tries to be as broad as possible and therefore covers the whole range of interdisciplinary fields where statistics is applied, including but being by no means limited to, agriculture, biology, business, chemistry, climatology, ecology, economics, engineering, genetics, industry, medicine, physics, and social sciences.

Preparation and Submission of Manuscripts

Submissions will be considered in English only.

Manuscripts should be submitted via the ScholarOne Manuscripts online submission and peer review system for the journals where instructions on how to create an account and how to use the system can be found. Submit to the relevant ScholarOne site as follows:

- Journal of the Royal Statistical Society Series A (Statistics in Society)
[ScholarOne Manuscripts \(manuscriptcentral.com\)](https://manuscriptcentral.com/sos)
- Journal of the Royal Statistical Society Series B (Statistical Methodology)
[ScholarOne Manuscripts \(manuscriptcentral.com\)](https://manuscriptcentral.com/smb)
- Journal of the Royal Statistical Society Series C (Applied Statistics)
[ScholarOne Manuscripts \(manuscriptcentral.com\)](https://manuscriptcentral.com/sac)

Submitting Discussion Papers

When submitting a manuscript for consideration for a Discussion Meeting, you will first need to select the series most suited to the paper (A, B or C) and enter the appropriate series site (as per the above links). The submission and review process for papers that are suitable for Series B is different from that for the other series. Papers suitable for Series A or C will be considered individually upon submission. Papers suitable for Series B follow a system of regular submission deadlines:

- 1st January
- 1st April
- 1st July
- 1st October

During the submission process, authors will have the option to select 'Discussion Paper' from the available manuscript types.

ORCID identifiers

An ORCID identifier is a unique and persistent identifier that distinguishes individual researchers and connects them with their research activities. The *Journal of the Royal Statistical Society* requires the submitting author (only) to provide an ORCID identifier when submitting a manuscript. You will find guidelines on creating and using an ORCID id on the submission site.

Submission

Manuscripts must be original contributions and not under consideration for publication elsewhere. However, the journal will consider for review manuscripts that are also available as preprints on non-commercial servers such as arXiv, and a submitted version of manuscripts may also be posted to such a non-commercial server at any time. If a manuscript is accepted for publication, authors should update any prepublication versions with a link to the final published paper.

A covering note should state which series the paper is intended for together with any points of interest and/or conflicts of interest that should be made known according to the guidelines provided. Additionally, if the paper is intended for a Discussion Meeting of the Society, you should include the reasons for submitting your paper to this journal series and whether the paper should be considered for a regular publication in the selected series if not accepted for discussion.

If any illustrations are intended to be reproduced in colour, authors must confirm that they will cover the associated costs (£50 per figure, plus value-added tax if applicable).

An electronic style file is available from the 'Instructions and Forms' link on the ScholarOne Manuscripts site, or from the 'Instructions for Authors' available for each journal on the OUP site, but it is not essential to use it. Alternatively, authors may use the publisher's 'Overleaf' submission template:

[OUP General Template - Overleaf, Online LaTeX Editor](https://overleaf.com/latex/submit-to-journals)

If accepted for publication, the source files of the final version will be required, e.g., LATEX or TEX (or Word documents), but for simplicity it is recommended that these forms should not be supplied for initial submission: complete .ps or .pdf files (or Word documents) will upload more quickly and easily and are perfectly acceptable.

Although flexibility in presentation is allowed, it is suggested that authors arrange their text under sequentially numbered headings and subheadings. Abbreviations should be given in capital letters (without full stops) and always defined in full at the first place of mention. Page footnotes or end notes (apart from the author's address for correspondence) are not used. The author to whom proofs are to be sent and the full postal address and e-mail address for correspondence must be clearly indicated on the title page of the manuscript.

The Editors reserve the right to make changes to papers in conformity with English grammar, spelling, and the house style for the journals.

Summary and keywords

A concise summary (preferably no more than about 200 words) should be included at the beginning of the manuscript, followed by five or six keywords or key phrases arranged in alphabetical order. These keywords should also appear in the summary. Although not compulsory, providing these details during submission helps in selecting appropriate referees. References should not be cited in the summary, as this section of text is abstracted as on-line metadata.

English spellings

Spellings should follow *Chambers Dictionary*.

Figures and tables

All graphs and tables should have a brief, clear, self-explanatory title, including information on any units of measurement. Comments on the material that is presented should be placed in the main text, not in the captions.

Scales on graphs should be carefully chosen and both axes should be clearly labelled. Keys should be removed from figures and the material put into the caption instead.

If possible, encapsulated PostScript files (.eps) for each figure should be supplied when the paper is accepted for publication. However, PostScript (.ps) or portable document format (.pdf) files are usually suitable also.

During the initial submission process, illustrations may either be embedded in the text or included separately at the end of the manuscript, in which case each illustration must be clearly identified. If the paper is accepted for publication, it is helpful if short captions are provided in a list, typed with double line spacing, on a separate page at the end of the manuscript. The illustrations should be cited consecutively with Arabic numbers in the text.

You must submit each figure as an individual image file. Submit all panels of a multipanel figure on a single page as one file. For example, if the figure has 3 panels, the figure should be submitted as one file. Each panel should be labelled as a letter (A, B, C, D, etc.) in the upper-left corner of each panel. Images of photographs or paintings can be provided as raster images. Common examples of raster images are .tif/.tiff, .raw, .gif, and .bmp file types. The resolution of raster files is measured by the number of dots or pixels in a given area, referred to as "dpi" or "ppi."

- minimum resolution required for printed images or pictures: 350dpi
- minimum resolution for printed line art: 600dpi (complex or finely drawn line art should be 1200dpi)
- minimum resolution for electronic images (i.e., for on-screen viewing): 72dpi

Tables similarly may either be embedded in the text or included separately at the end of the manuscript. They should be numbered with Arabic numerals and referred to consecutively in the text. They should not duplicate information that is already given in the text or contain material which would be better presented graphically. Tabular matter should be as simple as possible, with brief column

headings and the minimum number of columns. No vertical lines should be used to separate the columns and no horizontal rules within the body of the table. Numbers in tables should be right justified or with decimal points lined up where appropriate. Numbers should also be appropriately rounded. The order of symbols for footnotes in tables is †, ‡, §, §§, *, **, ††, ‡‡.

Lists of displayed items

Text lists of items should be identified as sequences (a), (b), (c), Further itemization within these should be denoted by (i), (ii), (iii), ‘Bullet’ points, (A), (B), (C), ..., (I), (II), (III), ... or other symbols are not used.

Theorems, propositions, corollaries...

Statements of theorems, lemmas, corollaries, propositions, remarks etc. should be numbered sequentially and individually by type and not by section, e.g., theorem 1, theorem 2, proposition 1, proposition 2 ..., not theorem 1, proposition 2, theorem 3, proposition 4 ..., or theorem 2.1, theorem 3.1,

References

References should not be numbered but should be standardized according to the Harvard system as follows:

- (a) in the text, only the authors’ surnames should be given, followed by the year of publication in parentheses (when there are three or more authors of a publication, only the first author’s surname should be given followed by *et al.* and the year of publication; the abbreviations *ibid.*, *loc. cit.* and *op. cit.* are not used);
- (b) at the end of the paper, the references cited should be listed in alphabetical order of surnames, giving all authors’ surnames and initials for each reference.

Examples of the style for a paper in a journal, a book, a report on the Web and a paper published in conference proceedings are as follows.

Andersson, E., Bock, D. and Frisén, M. (2008) Modelling influenza incidence for the purpose of on-line monitoring. *Statist. Meth. Med. Res.*, **17**, 421–438.

Rath, T. M., Carreras, M. and Sebastiani, P. (2003) Automated detection of influenza epidemics with hidden Markov models. In *Advances in Intelligent Data Analysis* (eds M. R. Berthold, H.-J. Lenz, E. Bradley, R. Kruse and C. Borgelt), vol. 5, ch. 2, pp. 521–532. Berlin: Springer.

Shmueli, G. (2005) Wavelet-based monitoring for modern biosurveillance. *Working Paper RHS-06-002*. Robert H. Smith School of Business, University of Maryland, College Park. (Available from <http://ssrn.com/abstract=902878>.)

Zhang, J., Tsui, F.-C., Wagner, M. M. and Hogan, W. (2012) Detection of outbreaks from time series data using wavelet transform. In *Proc. American Medical Informatics Association A. Symp*, Chicago, Nov. 3rd–7th, pp. 748–752. Madison: Omnipress.

The following list give the abbreviations of some of the journals that are frequently cited.

<i>Ann. Appl. Statist.</i>	<i>J. Educ. Behav. Statist.</i>
<i>Ann. Statist.</i>	<i>J. Mach. Learn. Res.</i>
<i>Appl. Statist.</i>	<i>J. Multiv. Anal.</i>
<i>Biometrics</i>	<i>J. Off. Statist.</i>
<i>Biometrika</i>	<i>J. R. Statist. Soc. A (or B)</i>
<i>Br. Med. J.</i>	<i>J. Statist. Planng Inf.</i>
<i>Comput. J.</i>	<i>Ops Res.</i>
<i>Communs Statist. Theory Meth.</i>	<i>Phil. Trans. R. Soc. Lond. A (or B)</i>
<i>Ecol. Modllng</i>	<i>Popln Stud.</i>
<i>Econometrica</i>	<i>Proc. Natn. Acad. Sci. USA</i>

<i>Electron. J. Statist.</i>	<i>Proc. R. Soc. A (or B)</i>
<i>IEE Trans. Pattern Anal. Mach. Intell.</i>	<i>Rev. Int. Statist. Inst.</i>
<i>IEE Trans. Signal Process.</i>	<i>Sankhya A (or B)</i>
<i>Int. Statist. Rev.</i>	<i>Scand. J. Statist.</i>
<i>J. Am. Statist. Ass.</i>	<i>Statist. Med.</i>
<i>J. Bus. Econ. Statist.</i>	<i>Technometrics</i>

Alternatively, journal titles should be given in full to assist the editor to form the correct abbreviation. The citing of references to unpublished material or publications which are not in the public domain should be avoided.

Citation of data

The citation of data is appropriate for data held within institutional, subject-focused, or more general data repositories. When citing or making claims based on data, reference to the data should be made at the relevant place in the manuscript text, with a formal citation in the reference list, in the following format:

authors' surnames and initials; year; title of data set and version (if any); full stop; name of repository or archive and town; persistent identifier (e.g., digital object identifier).

Mathematical expressions

Mathematical equations or complicated expressions should be typed on lines separate from the text ('displayed'). Important equations should be numbered consecutively and punctuated in the normal way as text, if necessary. Such equations should be centred along the line and numbered to the right of the expressions. The numbering can be either of the form (1), (2), (3), ... (preferred) or (2.1), (2.2), (2.3), For groups of equations, (1a), (1b), (1c), ... may also be appropriate, but (1'), (1''), ... are not used.

Matrixes should be indicated by italics and vectors by bold. The development of mathematical expressions, if essential, should be presented in appendixes and only the relevant equations should be given in the body of the text. Each appendix should have a short title.

Brackets

The order of brackets in nested expressions is [{ () }].

Exponential function

The expression 'exp' rather than 'e' should preferably be used in text and with complicated arguments.