

## *Journal of the Royal Statistical Society*

### Notes 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 is not to remove the conflict but to publicize it, and to allow readers to form their own conclusions on whether any conflict of interest exists. For many of the papers submitted 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 thereby compromised. With the aim of encouraging 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 would prove an embarrassment if it were to emerge after publication and they had not declared it. 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 paper if it is published.

#### 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. On submission, contributors must therefore confirm that, if the paper is accepted for publication, they can make data and code available, to accompany the published paper. If they are unable to, it must be stated why and, if possible, full details of how access to the materials can be obtained must be given.

#### 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 material will be regarded as part of the submission for the review process and may need to be modified in the same way as the material in the main body of the paper at the Editor's discretion during the review process. Well-thought-out, clear and concise Web supporting materials may speed up the review process. 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 of 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 such text files supporting information can include video or audio and PowerPoint presentations provided that they are short and directly concerned with the paper. For further information see <http://authorservices.wiley.com/bauthor/suppinfo.asp>. A video summary can be a quick way to make the message of your research accessible to a much larger audience. The publishers offer a service of professionally produced video summaries if required: see [www.wileyauthors.com/videoabstracts](http://www.wileyauthors.com/videoabstracts).

#### 'Online Open'

Authors of papers accepted for publication can choose to make their articles open access and available free on line for all readers through the payment of a fee (currently \$3000). Details about this facility can be obtained from, for example,

<http://authorservices.wiley.com/bauthor/onlineopen.asp>.

## 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 have been 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 are unlikely to be accepted for publication.*

## Discussion Meetings

*Discussion Meetings* of the Society are held about once a month between September and June. They span a very wide 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; 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. Hence, papers for consideration for reading and discussion at the Society should be submitted with manuscript type 'Discussion Paper', not 'Series A', Series B or Series C'. However, papers which present significant advances in statistical methodology will generally 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 initially screened quickly for potential for discussion by the Discussion Meetings Committee. If the papers pass this stage, it is usual for the Committee then to seek detailed reports from four or five specialist reviewers via the appropriate sponsoring Section or by itself. All members of the Committee are encouraged to look at all submissions and to give their views. The Discussion Meetings Committee Editor gathers the reports, and the Section's summary of their content is presented for an assessment by the Committee. The decision that is reached is then be conveyed to the authors by the Discussion Meetings Committee Editor.

## Terms of reference

*Series A (Statistics in Society)* publishes papers that demonstrate how statistical thinking, design and analyses play a vital role in all walks of life and benefit society in general. There is no restriction on subject-matter: any interesting, topical and revelatory applications of statistics are welcome. For example, important applications of statistical methods in medicine, business and commerce, industry, economics and finance, education and teaching, physical and biomedical sciences, the environment, the law, government and politics, demography, psychology, sociology and sport all fall within the journal's remit. The journal is therefore aimed at a wide statistical audience and at professional statisticians in particular. Its emphasis is on well-written and clearly reasoned quantitative approaches to problems in the real world rather than the exposition of technical detail. Thus, although the methodological basis of papers must be sound and adequately explained, methodology *per se* should not be the main focus of a Series A paper. Of particular interest are papers on topical or contentious statistical issues, papers which give reviews or *exposés* of current statistical concerns and papers which demonstrate how appropriate statistical thinking has contributed to our understanding of important substantive questions. Historical, professional and biographical contributions are also welcome, as are discussions of methods of data collection and of ethical issues, provided that all such papers have substantial statistical relevance.

*Series B (Statistical Methodology)* aims to publish high quality papers on the methodological aspects of statistics. The objective of papers should be to contribute to the understanding of statistical methodology and/or to develop and improve statistical methods; any mathematical theory should be directed towards these aims. The kinds of contribution considered include descriptions of new methods of collecting or analysing data, with the underlying theory, an indication of the scope of application and preferably 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 (including the formulation and analysis of stochastic models), statistical computation or simulation where original methodology is involved and original contributions to the foundations of statistical science. Reviews of methodological techniques are also considered. 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)* promotes papers that are focused on statistical methods for real life problems. Applications should be central to papers, rather than illustrative, to motivate the work and to justify any methodological developments. All papers should feature an adequate description of a substantial application and a justification for any new theory. Case-studies may be particularly appropriate and should include some contextual details, though there should also be a novel statistical contribution, for instance by adapting or developing methodology, or by demonstrating the proper application of new or existing statistical methods to solve challenging applied problems. Papers describing interdisciplinary work are especially welcome, as are those that give interesting novel applications of existing methodology or provide new insights into the practical application of methods, and papers explaining innovative analysis of generic applied problems but not necessarily focused on a particular application also have a place in Series C. Short communications may also be appropriate. Methodological papers that are not motivated by a genuine application are not acceptable; nor are papers that include only brief numerical illustrations or that mainly describe simulation studies of properties of statistical techniques. However, papers describing developments in statistical computing are encouraged, provided that they are driven by practical examples. Extended algebraic treatment should be avoided.

### **Preparation and Submission of Manuscripts**

Submissions will be considered in English only.

Manuscripts should be submitted via the ScholarOne Manuscripts on-line submission and peer review system for the journals at <https://mc.manuscriptcentral.com/jrssa> (Series A), <https://mc.manuscriptcentral.com/jrssb> (Series B) and <https://mc.manuscriptcentral.com/jrssc> (Series C), where instructions on how to create an account and how to use the system can be found.

For help with submissions, please contact the journal's Editorial Office: [rssa.office@wiley.com](mailto:rssa.office@wiley.com) (Series A), [rssb.office@wiley.com](mailto:rssb.office@wiley.com) (Series B) or [rssc.office@wiley.com](mailto:rssc.office@wiley.com) (Series C)

#### *ORCID identifiers*

An ORCID identifier is a unique and persistent identifier that distinguishes individual researchers from every other researcher, by connecting 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. Instructions on how to register and to associate the account with a ScholarOne account are given at

<http://olabout.wiley.com/WileyCDA/Section/id-828034.html>.

#### *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 either which series the paper is intended for or whether it is for consideration for reading and discussion at a Discussion Meeting of the Society. This should confirm the selection of the correct manuscript type, i.e. 'Series X' or 'Discussion Paper'.

If any illustrations are intended to be reproduced in colour, confirmation that the full cost for doing so will be borne by the author must be given. The current cost is £150 for the first figure and £50 for each subsequent figure, plus value-added tax if appropriate.

An electronic style file is available from the 'Instructions and forms' link on the ScholarOne Manuscripts site, or from the Editorial Office or from the '[Publications](#)' section of the Society's Web site but it is not essential to use it. Alternatively, authors may use the publisher's 'Authorea' submission template at [https://authorea.com/templates/journal\\_of\\_the\\_royal\\_statistical\\_society\\_series\\_a\\_series\\_b\\_and\\_series\\_c](https://authorea.com/templates/journal_of_the_royal_statistical_society_series_a_series_b_and_series_c).

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 short summary (preferably no more than about 100 words) should be included at the beginning of the manuscript, together with five or six keywords or key phrases (which should also appear in the summary), arranged in alphabetical order, to describe the content of the paper. Although not compulsory, it is helpful for choosing referees also to supply these details in completing the submission form. 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.

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 gives the abbreviations of some of the journals that are frequently cited.

<i>Am. Statistn</i>	<i>J. Bus. Econ. Statist.</i>
<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>Biostatistics</i>	<i>J. Statist. Planng Inf.</i>
<i>Br. Med. J.</i>	<i>Ops Res.</i>
<i>Comput. J.</i>	<i>Phil. Trans. R. Soc. Lond. A (or B)</i>
<i>Communs Statist. Theory Meth.</i>	<i>Popln Stud.</i>
<i>Ecol. Modllng</i>	<i>Proc. Natn. Acad. Sci. USA</i>
<i>Econometrica</i>	<i>Proc. R. Soc. A (or B)</i>
<i>Electron. J. Statist.</i>	<i>Rev. Int. Statist. Inst.</i>
<i>IEE Trans. Pattn Anal. Mach. Intell.</i>	<i>Sankhya A (or B)</i>
<i>IEE Trans. Signal Process.</i>	<i>Scand. J. Statist.</i>
<i>Int. Statist. Rev.</i>	<i>Statist. Med.</i>
<i>J. Am. Statist. Ass.</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.

Matrix, vector (bold) and script quantities should be identified for the editor, if it is not clear from

the format of the text. 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.