



# COMPUTATIONAL STATISTICS & DATA ANALYSIS

The Official Journal of the Network Computational and Methodological Statistics (CMStatistics) and the International Association of Statistical Computing (IASC)

## AUTHOR INFORMATION PACK

### TABLE OF CONTENTS

●	<b>Description</b>	<b>p.1</b>
●	<b>Audience</b>	<b>p.2</b>
●	<b>Impact Factor</b>	<b>p.2</b>
●	<b>Abstracting and Indexing</b>	<b>p.2</b>
●	<b>Editorial Board</b>	<b>p.2</b>
●	<b>Guide for Authors</b>	<b>p.6</b>



ISSN: 0167-9473

### DESCRIPTION

*Computational Statistics and Data Analysis (CSDA)*, an Official Publication of the network Computational and Methodological Statistics (CMStatistics) and of the International Association for Statistical Computing (IASC), is an international journal dedicated to the dissemination of methodological research and applications in the areas of **computational statistics** and **data analysis**. The journal consists of three refereed sections which are divided into the following subject areas:

**I) Computational Statistics** - Manuscripts dealing with: 1) the explicit impact of computers on statistical methodology (e.g., Bayesian computing, bioinformatics, computer graphics, computer intensive inferential methods, data exploration, data mining, expert systems, heuristics, knowledge based systems, machine learning, neural networks, numerical and optimization methods, parallel computing, statistical databases, statistical systems), and 2) the development, evaluation and validation of statistical software and algorithms. Software and algorithms can be submitted with manuscripts and will be stored together with the online article.

**II) Statistical Methodology for Data Analysis** - Manuscripts dealing with novel and original data analytical strategies and methodologies applied in biostatistics (design and analytic methods for clinical trials, epidemiological studies, statistical genetics, or genetic/environmental interactions), chemometrics, classification, data exploration, density estimation, design of experiments, environmetrics, education, image analysis, marketing, model free data exploration, pattern recognition, psychometrics, statistical physics, image processing, robust procedures.

**Statistical methodology** includes, but not limited to: bootstrapping, classification techniques, clinical trials, data exploration, density estimation, design of experiments, pattern recognition/image analysis, parametric and nonparametric methods, statistical genetics, Bayesian modeling, outlier detection, robust procedures, cross-validation, functional data, fuzzy statistical analysis, mixture models, model selection and assessment, nonlinear models, partial least squares, latent variable models, structural equation models, supervised learning, signal extraction and filtering, time-series modelling, longitudinal analysis, multilevel analysis and quality control.

**III) Special Applications** - Manuscripts at the interface of statistics and computing (e.g., comparison of statistical methodologies, computer-assisted instruction for statistics, simulation experiments). Advanced statistical analysis with real applications (social sciences, marketing, psychometrics, chemometrics, signal processing, medical statistics, environmetrics, statistical physics).

## AUDIENCE

---

Statisticians (university, government, business, industry), Statistical Software users.

## IMPACT FACTOR

---

2016: 1.693 © Thomson Reuters Journal Citation Reports 2017

## ABSTRACTING AND INDEXING

---

ACM Computing Reviews  
Current Index to Statistics  
Mathematical Reviews  
Engineering Index  
INSPEC  
OR/MS  
QCAS  
Research Alert  
Science Citation Index  
Statistical Theory and Method Abstracts  
Zentralblatt MATH  
CompuMath Citation Index  
Scopus  
Science Citation Index Expanded

## EDITORIAL BOARD

---

### *Co-Editors*

**A.M. Colubi**, Dept. of Statistics, Universidad de Oviedo, OR Oviedo, C/Calvo Sotelo, 33007, Oviedo, Spain  
**E.J. Kontoghiorghes**, Fac. of Management and Economics, Cyprus University of Technology, P.O. Box 50329, 3603 Limassol, Cyprus and School of Business, Economics and Informatics, Dept of Computer Science and Information Systems, Birkbeck University of London, Malet Street, London WC1E 7HX, UK  
**B.U. Park**, Dept. of Statistics, Seoul National University (SNU), 1 Gwanak-ro, Gwanak-gu, 08826, Seoul, The Republic of Korea

### *Advisory Board:*

**S.P. Azen**, University of Southern California, Los Angeles, California, USA  
(North, Central, South America and Australasia)  
**M. Gilli**, Université de Genève, Geneva, Switzerland  
Numerical Methods with Applications to Statistics and Econometric; Algorithms for Statistical Model Selection Techniques; Heuristic Optimization Methods in Statistics; and High Performance Computing  
**J.C. Lee**, Korea University, Seoul, The Republic of Korea  
Nonparametric change point problems, multivariate categorical analysis, data matching and classification tree methods  
**J.C. Niland**, City of Hope, Duarte, California, USA  
(Managing Co-Editor - IASC News)  
**D.S.G. Pollock**, Queen Mary, University of London (QMUL), London, UK  
Statistical analysis in the frequency domain, filtering methods, wavelets, econometric methods, time series analysis, functional analysis  
**S. Portnoy**, University of Illinois at Urbana-Champaign, Champaign, Illinois, USA  
Linear models, censored data, applications to biology and economics (biometrics and econometrics), nonparametric regression  
**E. Ronchetti**, Université de Genève, Geneva, Switzerland  
Robust statistics, Small sample asymptotics, saddlepoint methods, empirical likelihood, Estimation and inference in latent variable models.

### *Associate Editors:*

**A. Amendola**, Università degli Studi di Salerno, Fisciano (SA), Italy  
Time Series, Nonlinear Models, Forecasting, Financial Data Analysis  
**S. Basu**, Northern Illinois University, De Kalb, IL, USA

Bayesian reliability, Bayesian survival analysis, Bayesian model selection, statistical methods for meta analysis, statistical methods and their application in cancer research  
**E. Beutner**, Maastricht University, Maastricht, Netherlands  
 Dependent data, Differentiability in statistics, Empirical processes, Non- and semi-parametric methods in reliability/survival analysis, Statistical functionals  
**G. Boente**, Universidad de Buenos Aires, Buenos Aires, Argentina  
 Robust statistics, Inference with robust estimators, Outlier Detection, Functional Data, Missing Data, Multivariate analysis, High dimensional data, Generalized linear models.  
**E. Cantoni**, University of Geneva, Switzerland  
 Robust statistics, generalized linear and additive (mixed) models, zero-inflated and zero-altered models, variable / model selection  
**R. Cao**, Universidade da Coruña, A Coruna, Spain  
 Nonparametric and Semiparametric Inference  
**H. Chen**, University of California, Davis, Davis, California, USA  
 Change-point analysis, Graph-based two-sample tests, Copy number variation (allele-specific copy number variation)  
**R.-B. Chen**, National Cheng Kung University, Tainan, Taiwan  
 Experimental design, computer experiment, machine learning, Bayesian variable selection  
**J.-M. Chiou**, Academia Sinica, Taipei, Taiwan  
 Functional and longitudinal data analysis, Generalized linear models, Non/semi-parametric regression  
**T. Choi**, Korea University, Seoul, The Republic of Korea  
 Bayesian methods, Bayesian hierarchical models, Bayesian model selection, Bayesian nonparametric inference, Non/Semiparametric regression models  
**O. Davidov**, University of Haifa, Haifa, Israel  
 Order restricted inference (Stochastic order, regression with shape constraints); Methods for ranking and rating; Inference with rank statistics (nonparametric statistics); Non-normal multivariate analysis (multivariate parametric models and nonparametric multivariate methods); and Case control studies (biostatistics, ROC curves).  
**M. de Carvalho**, The University of Edinburgh, Edinburgh, Scotland, UK  
 Bayesian nonparametrics; Biometrics and medical statistics; Data science and statistical learning; Statistics of extremes; Visualization and graphical methods  
**F. Durante**, Università degli Studi del Salento, Lecce, Italy  
 Dependence Models, Copulas, Multivariate Analysis  
**J. Einbeck**, Durham University, Durham, UK  
 Nonparametric Smoothing, Mixture Models, Random Effects, Principal Curves  
**V. Esposito Vinzi**, ESSEC Business School, Cergy-Pontoise, France  
 Multivariate analysis, Exploratory data analysis, Structural equation modeling, Partial least squares, Clustering and classification, Applications to customer satisfaction and consumer preference studies  
**Y. Feng**, Columbia University, New York, USA  
 Variable selection, high-dimensional statistical learning, graphical models  
**F. Ferraty**, Université Paul Sabatier (Toulouse III), Toulouse Cedex, France  
 Functional data analysis, high dimensional data, non/semi-parametric modelling, model selection, theory and practice  
**R. Fried**, Technische Universität Dortmund, Dortmund, Germany  
 Robust Statistics, Time Series, Nonparametric Smoothing, Change-Point Detection, Online Monitoring, Graphical Models  
**C. Gatu**, Alexandru I. Cuza University of Iasi, Iasi, Romania  
 Algorithms for model selection, Combinatorial Algorithms, Parallel Computing  
**Y. Gel**, University of Texas at Dallas, Richardson, Texas, USA  
 Nonparametric statistics, time series analysis, space-time processes, random networks and graphs  
**Z. Geng**, Peking University, Beijing, China  
 Contingency Tables, Log-linear Models, Categorical Data Analysis, Probabilistic Expert Systems, Collapsibility of Association of Measures, Incompletely Classified Data, Knowledge Based Systems, Statistical Algorithms  
**S. Guillas**, University College London (UCL), London, UK  
 Computer Experiments, Uncertainty Quantification, Functional Data Analysis, Environmental Statistics, Spatial Statistics  
**A. Guillou**, Université de Strasbourg et CNRS, Strasbourg, France  
 Bootstrap methods, extreme value, censoring  
**M. Guindani**, University of Texas M.D. Anderson Cancer Center, Houston, Texas, USA  
 Bayesian Analysis, Bayesian Nonparametrics, Biostatistics, Statistical decision making, multiple hypotheses testing  
**C. Hennig**, University College London (UCL), London, UK

Multivariate analyses including clustering and classification, robust statistics, model selection , and explorative and graphical data analysis.

**J. Hinde**, National University of Ireland, Galway, Ireland  
Generalized linear models, discrete data models, overdispersion and zero-inflation, random effect and mixed models, mixture models, EM algorithm

**S. Ingrassia**, Università degli Studi di Catania, Catania, Italy  
Model-based clustering, Mixture Models, Computational Statistics, Classification and Discrimination

**T. Krivobokova**, Georg-August-Universität Göttingen, Goettingen, Germany  
Nonparametric regression, spline estimation, partial least squares, mixed models, (empirical) Bayesian (nonparametric) modelling

**D. Kurowicka**, Delft University of Technology, Delft, Netherlands  
Risk and Uncertainty Analysis, Decision Analysis, Dependence modelling, Graphical models, Copulas

**J.-W. Lee**, Korea University, Seoul, South Korea  
Genomical statistics, bioinformatics, clinical trials, forensic science

**Y.K. Lee**, Kangwon National University, Gangwon-do, The Republic of Korea  
Nonparametric function estimation, functional data analysis, statistical computing

**C. Ley**, Universiteit Gent, Gent, Belgium  
Optimal inferential procedures, rank-based procedures, non-Gaussian distributions, directional data, Maximum Likelihood Estimation, Non- and semi-parametric statistics, High-dimensional inferential procedures

**Y. Li**, University of Michigan, Michigan, USA  
Survival analysis, epidemiologic methods, statistical methods for high-dimensional data, statistical methods for cancer trials and/or observational studies, measurement error problems, random effects models, adaptive design in clinical trial

**C.Y. Lim**, Seoul National University (SNU), Seoul, The Republic of Korea  
Spatial Statistics, Spatial Epidemiology, Biomedical Engineering Analysis, Environmental Statistics, Spectral Analysis, Fixed domain asymptotics

**T.I. Lin**, National Chung Hsing University, Taichung 402, Taiwan  
Multivariate mixed models, missing data using non-normal distributions, robust factor analysis

**C. Liu**, The Hong Kong Polytechnic University, Hong Kong, China  
Biomedical studies and related issues; Incomplete data analysis; Longitudinal/multivariate data analysis; Functional data analysis; Non- and semi-parametric statistics; Survival analysis.

**P. McNicholas**, University of Guelph, Guelph, Ontario, Canada  
Bioinformatics, classification, clustering, discriminant analysis, mixture models, parallel computing.

**M. Mittlböck**, Medizinische Universität Wien, Vienna, Austria  
Clinical trials, explained variation, survival analysis, meta analysis

**D. Morales**, Universidad Miguel Hernández de Elche (UMH), Elche, Spain  
Small Area Estimation, Statistical Information Theory, Simulation and Resampling Methods, Survey Sampling, Asymptotic Statistics, Statistical Models

**S. Mueller**, The University of Sydney, Sydney, New South Wales, Australia  
Variable selection in regression models, Variable selection in generalised linear models, Model selection in mixed models, Bootstrapping regression models, High-dimensional feature selection, Robust model selection, Data integration methods

**H. Murakami**, Tokyo University of Science, Tokyo, Japan  
Nonparametric Statistics, Nonparametric Multivariate Analysis, Saddlepoint Approximation

**M.C. Pardo**, Universidad Complutense de Madrid, Madrid, Spain  
Survival analysis, Assessment of diagnostic markers, longitudinal data analysis, Goodness of Fit Tests, Model selection, Diagnostic checking.

**C. Park**, University of Georgia, Athens, Georgia, USA  
Multiscale analysis, Nonparametric function estimation, Statistical learning

**T. Park**, Seoul National University (SNU), Seoul, The Republic of Korea  
Bioinformatics, gene-gene interaction, genome-wide association studies, microarray data analysis, longitudinal data analysis, next-generation sequencing data analysis, statistical genetics.

**S. Paterlini**, EBS Universität für Wirtschaft und Recht, Wiesbaden, Germany  
Optimization Heuristics in Estimation and Modelling, regularization methods, robust statistics, dependence modelling, financial econometrics.

**M. Pauly**, Universität Ulm, Ulm, Germany  
Asymptotic and Nonparametric Statistics, Multivariate Analysis, Resampling Techniques in Theory and Practice, Survival Analysis

**H. Peng**, Hong Kong Baptist University, Kowloon Tong, Hong Kong  
Nonparametric Regression, Model Selection, High dimensional modeling, Robust methods, Statistical Learning

**I. Pruenster**, Carlo Alberto University of Torino, Italy

Bayesian asymptotics, Bayesian inference, Bayesian nonparametrics, Bayesian survival analysis, distribution theory, mixture models, predictive inference, random measures, species sampling

**M. Reimherr**, Penn State University, University Park, Pennsylvania, USA

Functional data analysis, Longitudinal data analysis, High dimensional regression, Change-point analysis

**L. Simar**, Université Catholique de Louvain, Louvain, la-Neuve, Belgium

Nonparametric Statistics, Bootstrap, Frontier Estimation

**J. Sun**, University of Missouri, Columbia, Missouri, USA

Longitudinal data analysis, panel data analysis, survival analysis

**G. Tian**, The University of Hong Kong, China

Zero-inflated count data analysis, Missing data problems Sample surveys with sensitive questions

**S. G. Walker**, University of Texas at Austin, USA

MCMC, Bayes nonparametrics, hierarchical Bayes, Bayes model choice

**R. Wilcox**, University of Southern California, Los Angeles, California, USA

Robust and Nonparametric Methods, General Linear Models

**Y. Xia**, National University of Singapore, Singapore, Singapore

Time series analysis, Nonparametric Smoothing, Nonlinear Dimension Reduction

**L. Xiang**, Nanyang Technological University, Singapore

Clustered/longitudinal data analysis, Survival analysis including multivariate survival data analysis and cure models, Statistical diagnostics, Mixture models.

**M. Xie**, City University of Hong Kong, China

Reliability, lifetime data analysis, statistical quality control

**J. Ye**, Arizona State University, Tempe, Arizona, USA

Machine Learning, Data Mining, Biomedical Informatics

**A. Young**, Imperial College London, London, UK

Statistical theory, computational statistics, statistical asymptotics and approximation methods, bootstrap, likelihood-based inference

**K.C. Yuen**, University of Hong Kong, China

Applications of computational methods to actuarial science, insurance risk modeling, investment risk analysis, survival analysis, goodness-of-fit test for semiparametric models via resampling methods

**A. Zeileis**, Wirtschaftsuniversität Wien, Vienna, Austria

R, statistical computing, applied econometrics, statistical learning

**P.-S. Zhong**, Michigan State University, East Lansing, Michigan, USA

Statistical inference for high dimensional data, empirical likelihood methods, nonparametric smoothing methods, statistical analysis for longitudinal and functional data, missing values and change point problems

**H. Zhu**, University of North Carolina at Chapel Hill, North Carolina, USA

Statistical computing, missing data problem, regression models, functional data analysis, and latent variable models

***Editorial Assistant:***

**E. Fernandez**, Universidad de Oviedo, Oviedo, Spain

***Publisher***

**D. Sugrue**

## GUIDE FOR AUTHORS

---

### *Your Paper Your Way*

We now differentiate between the requirements for new and revised submissions. You may choose to submit your manuscript as a single Word or PDF file to be used in the refereeing process. Only when your paper is at the revision stage, will you be requested to put your paper in to a 'correct format' for acceptance and provide the items required for the publication of your article.

**To find out more, please visit the Preparation section below.**

### *Scope of the journal*

The focus of the papers submitted to CSDA must include either a computational or data analysis component. Papers, which are purely theoretical are not appropriate for CSDA, and will be returned to the authors. Whenever appropriate the manuscript should present an illustrative example of application.

Manuscripts describing simulation studies must a) be thorough with regard to the choice of parameter settings, b) not over-generalize the conclusions, c) carefully describe the limitations of the simulations studies, and d) should guide the user regarding when the recommended methods are appropriate. In addition, it is recommended that the author(s) indicate why comparisons cannot be made theoretically and why therefore simulations are necessary.

Papers reporting results based on computations should provide enough information so that readers can evaluate the quality of the results, as well as descriptions of pseudo-random-number generators, numerical algorithms, computer(s), programming language(s), and major software components that were used.

### *Types of paper*

In addition to research papers and short communications, the journal welcomes review papers and book reviews.

### *Submission checklist*

You can use this list to carry out a final check of your submission before you send it to the journal for review. Please check the relevant section in this Guide for Authors for more details.

#### **Ensure that the following items are present:**

One author has been designated as the corresponding author with contact details:

- E-mail address
- Full postal address

All necessary files have been uploaded:

*Manuscript:*

- Include keywords
- All figures (include relevant captions)
- All tables (including titles, description, footnotes)
- Ensure all figure and table citations in the text match the files provided
- Indicate clearly if color should be used for any figures in print

*Graphical Abstracts / Highlights files* (where applicable)

*Supplemental files* (where applicable)

Further considerations

- Manuscript has been 'spell checked' and 'grammar checked'
- All references mentioned in the Reference List are cited in the text, and vice versa
- Permission has been obtained for use of copyrighted material from other sources (including the Internet)
- A competing interests statement is provided, even if the authors have no competing interests to declare
- Journal policies detailed in this guide have been reviewed
- Referee suggestions and contact details provided, based on journal requirements

For further information, visit our [Support Center](#).

## BEFORE YOU BEGIN

### *Ethics in publishing*

Please see our information pages on [Ethics in publishing](#) and [Ethical guidelines for journal publication](#).

### *Declaration of interest*

All authors must disclose any financial and personal relationships with other people or organizations that could inappropriately influence (bias) their work. Examples of potential conflicts of interest include employment, consultancies, stock ownership, honoraria, paid expert testimony, patent applications/registrations, and grants or other funding. If there are no conflicts of interest then please state this: 'Conflicts of interest: none'. [More information](#).

### *Submission declaration and verification*

Submission of an article implies that the work described has not been published previously (except in the form of an abstract or as part of a published lecture or academic thesis or as an electronic preprint, see '[Multiple, redundant or concurrent publication](#)' section of our ethics policy for more information), that it is not under consideration for publication elsewhere, that its publication is approved by all authors and tacitly or explicitly by the responsible authorities where the work was carried out, and that, if accepted, it will not be published elsewhere in the same form, in English or in any other language, including electronically without the written consent of the copyright-holder. To verify originality, your article may be checked by the originality detection service [CrossCheck](#).

### *Changes to authorship*

Authors are expected to consider carefully the list and order of authors **before** submitting their manuscript and provide the definitive list of authors at the time of the original submission. Any addition, deletion or rearrangement of author names in the authorship list should be made only **before** the manuscript has been accepted and only if approved by the journal Editor. To request such a change, the Editor must receive the following from the **corresponding author**: (a) the reason for the change in author list and (b) written confirmation (e-mail, letter) from all authors that they agree with the addition, removal or rearrangement. In the case of addition or removal of authors, this includes confirmation from the author being added or removed.

Only in exceptional circumstances will the Editor consider the addition, deletion or rearrangement of authors **after** the manuscript has been accepted. While the Editor considers the request, publication of the manuscript will be suspended. If the manuscript has already been published in an online issue, any requests approved by the Editor will result in a corrigendum.

### *Copyright*

Upon acceptance of an article, authors will be asked to complete a 'Journal Publishing Agreement' (see [more information](#) on this). An e-mail will be sent to the corresponding author confirming receipt of the manuscript together with a 'Journal Publishing Agreement' form or a link to the online version of this agreement.

Subscribers may reproduce tables of contents or prepare lists of articles including abstracts for internal circulation within their institutions. [Permission](#) of the Publisher is required for resale or distribution outside the institution and for all other derivative works, including compilations and translations. If excerpts from other copyrighted works are included, the author(s) must obtain written permission from the copyright owners and credit the source(s) in the article. Elsevier has [preprinted forms](#) for use by authors in these cases.

For open access articles: Upon acceptance of an article, authors will be asked to complete an 'Exclusive License Agreement' ([more information](#)). Permitted third party reuse of open access articles is determined by the author's choice of [user license](#).

### *Author rights*

As an author you (or your employer or institution) have certain rights to reuse your work. [More information](#).

### *Elsevier supports responsible sharing*

Find out how you can [share your research](#) published in Elsevier journals.

## **Role of the funding source**

You are requested to identify who provided financial support for the conduct of the research and/or preparation of the article and to briefly describe the role of the sponsor(s), if any, in study design; in the collection, analysis and interpretation of data; in the writing of the report; and in the decision to submit the article for publication. If the funding source(s) had no such involvement then this should be stated.

### *Access Policy*

Elsevier journals comply with current NIH public access policy.

### *Funding body agreements and policies*

Elsevier has established a number of agreements with funding bodies which allow authors to comply with their funder's open access policies. Some funding bodies will reimburse the author for the Open Access Publication Fee. Details of [existing agreements](#) are available online.

## **Open access**

This journal offers authors a choice in publishing their research:

### **Subscription**

- Articles are made available to subscribers as well as developing countries and patient groups through our [universal access programs](#).
- No open access publication fee payable by authors.

### **Open access**

- Articles are freely available to both subscribers and the wider public with permitted reuse.
- An open access publication fee is payable by authors or on their behalf, e.g. by their research funder or institution.

Regardless of how you choose to publish your article, the journal will apply the same peer review criteria and acceptance standards.

For open access articles, permitted third party (re)use is defined by the following [Creative Commons user licenses](#):

#### *Creative Commons Attribution (CC BY)*

Lets others distribute and copy the article, create extracts, abstracts, and other revised versions, adaptations or derivative works of or from an article (such as a translation), include in a collective work (such as an anthology), text or data mine the article, even for commercial purposes, as long as they credit the author(s), do not represent the author as endorsing their adaptation of the article, and do not modify the article in such a way as to damage the author's honor or reputation.

#### *Creative Commons Attribution-NonCommercial-NoDerivs (CC BY-NC-ND)*

For non-commercial purposes, lets others distribute and copy the article, and to include in a collective work (such as an anthology), as long as they credit the author(s) and provided they do not alter or modify the article.

The open access publication fee for this journal is **USD 1300**, excluding taxes. Learn more about Elsevier's pricing policy: <http://www.elsevier.com/openaccesspricing>.

### *Green open access*

Authors can share their research in a variety of different ways and Elsevier has a number of green open access options available. We recommend authors see our [green open access page](#) for further information. Authors can also self-archive their manuscripts immediately and enable public access from their institution's repository after an embargo period. This is the version that has been accepted for publication and which typically includes author-incorporated changes suggested during submission, peer review and in editor-author communications. Embargo period: For subscription articles, an appropriate amount of time is needed for journals to deliver value to subscribing customers before an article becomes freely available to the public. This is the embargo period and it begins from the date the article is formally published online in its final and fully citable form. [Find out more](#).

This journal has an embargo period of 24 months.



### *Elsevier Publishing Campus*

The Elsevier Publishing Campus ([www.publishingcampus.com](http://www.publishingcampus.com)) is an online platform offering free lectures, interactive training and professional advice to support you in publishing your research. The College of Skills training offers modules on how to prepare, write and structure your article and explains how editors will look at your paper when it is submitted for publication. Use these resources, and more, to ensure that your submission will be the best that you can make it.

### **Language Services**

Please write your text in good English (American or British usage is accepted, but not a mixture of these). Authors who require information about language editing and copyediting services pre- and post-submission please visit <http://www.elsevier.com/languagepolishing> or our customer support site at [service.elsevier.com](http://service.elsevier.com) for more information. Please note Elsevier neither endorses nor takes responsibility for any products, goods or services offered by outside vendors through our services or in any advertising. For more information please refer to our Terms & Conditions: <http://www.elsevier.com/termsandconditions>.

Please ask a native English speaker to comment and/or correct the language in your article before you submit it to the journal.

### *Referees*

Please submit the names and institutional e-mail addresses of several potential referees. For more details, visit our [Support site](#). Note that the editor retains the sole right to decide whether or not the suggested reviewers are used.

### **Additional Information**

For the name and specializations of the Associate Editors, please refer to the list of editors in each issue of the journal or on the journal's homepage.

## **PREPARATION**

### **NEW SUBMISSIONS**

Submission to this journal proceeds totally online and you will be guided stepwise through the creation and uploading of your files. The system automatically converts your files to a single PDF file, which is used in the peer-review process.

As part of the Your Paper Your Way service, you may choose to submit your manuscript as a single file to be used in the refereeing process. This can be a PDF file or a Word document, in any format or layout that can be used by referees to evaluate your manuscript. It should contain high enough quality figures for refereeing. If you prefer to do so, you may still provide all or some of the source files at the initial submission. Please note that individual figure files larger than 10 MB must be uploaded separately.

Please note that the instructions related to the Abstract, Highlights, and Keywords still apply to all new submissions.

### *REFERENCES\_YPYW*

There are no strict requirements on reference formatting at submission. References can be in any style or format as long as the style is consistent. Where applicable, author(s) name(s), journal title/book title, chapter title/article title, year of publication, volume number/book chapter and the pagination must be present. Use of DOI is highly encouraged. The reference style used by the journal will be applied to the accepted article by Elsevier at the proof stage. Note that missing data will be highlighted at proof stage for the author to correct.

[dataset] Oguro, M., Imahiro, S., Saito, S., Nakashizuka, T., 2015. Mortality data for Japanese oak wilt disease and surrounding forest compositions. Mendeley Data, v1. <http://dx.doi.org/10.17632/xwj98nb39r.1>.

### *Formatting requirements*

There are no strict formatting requirements but all manuscripts must contain the essential elements needed to convey your manuscript, for example Abstract, Keywords, Introduction, Materials and Methods, Results, Conclusions, Artwork and Tables with Captions.

If your article includes any Videos and/or other Supplementary material, this should be included in your initial submission for peer review purposes.

Divide the article into clearly defined sections.

## Peer review

This journal operates a single blind review process. All contributions will be initially assessed by the editor for suitability for the journal. Papers deemed suitable are then typically sent to a minimum of two independent expert reviewers to assess the scientific quality of the paper. The Editor is responsible for the final decision regarding acceptance or rejection of articles. The Editor's decision is final. [More information on types of peer review.](#)

## REVISED SUBMISSIONS

### *Use of word processing software*

Regardless of the file format of the original submission, at revision you must provide us with an editable file of the entire article. Keep the layout of the text as simple as possible. Most formatting codes will be removed and replaced on processing the article. The electronic text should be prepared in a way very similar to that of conventional manuscripts (see also the [Guide to Publishing with Elsevier](#)). See also the section on Electronic artwork.

To avoid unnecessary errors you are strongly advised to use the 'spell-check' and 'grammar-check' functions of your word processor.

### *LaTeX*

You are recommended to use the Elsevier article class [elsarticle.cls](#) to prepare your manuscript and [BibTeX](#) to generate your bibliography.

Our [LaTeX site](#) has detailed submission instructions, templates and other information.

## Article structure

### *Subdivision - numbered sections*

Divide your article into clearly defined and numbered sections. Subsections should be numbered 1.1 (then 1.1.1, 1.1.2, ...), 1.2, etc. (the abstract is not included in section numbering). Use this numbering also for internal cross-referencing: do not just refer to 'the text'. Any subsection may be given a brief heading. Each heading should appear on its own separate line.

## Essential title page information

- **Title.** Concise and informative. Titles are often used in information-retrieval systems. Avoid abbreviations and formulae where possible.
- **Author names and affiliations.** Please clearly indicate the given name(s) and family name(s) of each author and check that all names are accurately spelled. Present the authors' affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lower-case superscript letter immediately after the author's name and in front of the appropriate address. Provide the full postal address of each affiliation, including the country name and, if available, the e-mail address of each author.
- **Corresponding author.** Clearly indicate who will handle correspondence at all stages of refereeing and publication, also post-publication. **Ensure that the e-mail address is given and that contact details are kept up to date by the corresponding author.**
- **Present/permanent address.** If an author has moved since the work described in the article was done, or was visiting at the time, a 'Present address' (or 'Permanent address') may be indicated as a footnote to that author's name. The address at which the author actually did the work must be retained as the main, affiliation address. Superscript Arabic numerals are used for such footnotes.

## Abstract

A concise and factual abstract is required. The abstract should state briefly the purpose of the research, the principal results and major conclusions. An abstract is often presented separately from the article, so it must be able to stand alone. For this reason, References should be avoided, but if essential, then cite the author(s) and year(s). Also, non-standard or uncommon abbreviations should be avoided, but if essential they must be defined at their first mention in the abstract itself.

### *Highlights*

Highlights are a short collection of bullet points that convey the core findings of the article. Highlights are optional and should be submitted in a separate editable file in the online submission system. Please use 'Highlights' in the file name and include 3 to 5 bullet points (maximum 85 characters, including spaces, per bullet point). You can view [example Highlights](#) on our information site.

## Keywords

Immediately after the abstract, provide a maximum of 6 keywords, using American spelling and avoiding general and plural terms and multiple concepts (avoid, for example, 'and', 'of'). Be sparing with abbreviations: only abbreviations firmly established in the field may be eligible. These keywords will be used for indexing purposes.

## Acknowledgements

Collate acknowledgements in a separate section at the end of the article before the references and do not, therefore, include them on the title page, as a footnote to the title or otherwise. List here those individuals who provided help during the research (e.g., providing language help, writing assistance or proof reading the article, etc.).

## Formatting of funding sources

List funding sources in this standard way to facilitate compliance to funder's requirements:

Funding: This work was supported by the National Institutes of Health [grant numbers xxxx, yyyy]; the Bill & Melinda Gates Foundation, Seattle, WA [grant number zzzz]; and the United States Institutes of Peace [grant number aaaa].

It is not necessary to include detailed descriptions on the program or type of grants and awards. When funding is from a block grant or other resources available to a university, college, or other research institution, submit the name of the institute or organization that provided the funding.

If no funding has been provided for the research, please include the following sentence:

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

## Artwork

### Electronic artwork

#### General points

- Make sure you use uniform lettering and sizing of your original artwork.
  - Preferred fonts: Arial (or Helvetica), Times New Roman (or Times), Symbol, Courier.
  - Number the illustrations according to their sequence in the text.
  - Use a logical naming convention for your artwork files.
  - Indicate per figure if it is a single, 1.5 or 2-column fitting image.
  - For Word submissions only, you may still provide figures and their captions, and tables within a single file at the revision stage.
  - Please note that individual figure files larger than 10 MB must be provided in separate source files.
- A detailed [guide on electronic artwork](#) is available.

**You are urged to visit this site; some excerpts from the detailed information are given here.**

#### Formats

Regardless of the application used, when your electronic artwork is finalized, please 'save as' or convert the images to one of the following formats (note the resolution requirements for line drawings, halftones, and line/halftone combinations given below):

EPS (or PDF): Vector drawings. Embed the font or save the text as 'graphics'.

TIFF (or JPG): Color or grayscale photographs (halftones): always use a minimum of 300 dpi.

TIFF (or JPG): Bitmapped line drawings: use a minimum of 1000 dpi.

TIFF (or JPG): Combinations bitmapped line/half-tone (color or grayscale): a minimum of 500 dpi is required.

#### Please do not:

- Supply files that are optimized for screen use (e.g., GIF, BMP, PICT, WPG); the resolution is too low.
- Supply files that are too low in resolution.
- Submit graphics that are disproportionately large for the content.

#### Color artwork

Please make sure that artwork files are in an acceptable format (TIFF (or JPEG), EPS (or PDF), or MS Office files) and with the correct resolution. If, together with your accepted article, you submit usable color figures then Elsevier will ensure, at no additional charge, that these figures will appear in color online (e.g., ScienceDirect and other sites) regardless of whether or not these illustrations are reproduced in color in the printed version. **For color reproduction in print, you will receive**

**information regarding the costs from Elsevier after receipt of your accepted article.** Please indicate your preference for color: in print or online only. [Further information on the preparation of electronic artwork.](#)

## References

### *Citation in text*

Please ensure that every reference cited in the text is also present in the reference list (and vice versa). Any references cited in the abstract must be given in full. Unpublished results and personal communications are not recommended in the reference list, but may be mentioned in the text. If these references are included in the reference list they should follow the standard reference style of the journal and should include a substitution of the publication date with either 'Unpublished results' or 'Personal communication'. Citation of a reference as 'in press' implies that the item has been accepted for publication.

### *Data references*

This journal encourages you to cite underlying or relevant datasets in your manuscript by citing them in your text and including a data reference in your Reference List. Data references should include the following elements: author name(s), dataset title, data repository, version (where available), year, and global persistent identifier. Add [dataset] immediately before the reference so we can properly identify it as a data reference. The [dataset] identifier will not appear in your published article.

### *References in a special issue*

Please ensure that the words 'this issue' are added to any references in the list (and any citations in the text) to other articles in the same Special Issue.

### *Reference management software*

Most Elsevier journals have their reference template available in many of the most popular reference management software products. These include all products that support [Citation Style Language styles](#), such as [Mendeley](#) and [Zotero](#), as well as [EndNote](#). Using the word processor plug-ins from these products, authors only need to select the appropriate journal template when preparing their article, after which citations and bibliographies will be automatically formatted in the journal's style. If no template is yet available for this journal, please follow the format of the sample references and citations as shown in this Guide.

Users of Mendeley Desktop can easily install the reference style for this journal by clicking the following link:

<http://open.mendeley.com/use-citation-style/computational-statistics-and-data-analysis>

When preparing your manuscript, you will then be able to select this style using the Mendeley plug-ins for Microsoft Word or LibreOffice.

### *Reference formatting*

There are no strict requirements on reference formatting at submission. References can be in any style or format as long as the style is consistent. Where applicable, author(s) name(s), journal title/book title, chapter title/article title, year of publication, volume number/book chapter and the pagination must be present. Use of DOI is highly encouraged. The reference style used by the journal will be applied to the accepted article by Elsevier at the proof stage. Note that missing data will be highlighted at proof stage for the author to correct. If you do wish to format the references yourself they should be arranged according to the following examples:

## Video

Elsevier accepts video material and animation sequences to support and enhance your scientific research. Authors who have video or animation files that they wish to submit with their article are strongly encouraged to include links to these within the body of the article. This can be done in the same way as a figure or table by referring to the video or animation content and noting in the body text where it should be placed. All submitted files should be properly labeled so that they directly relate to the video file's content. In order to ensure that your video or animation material is directly usable, please provide the files in one of our recommended file formats with a preferred maximum size of 150 MB in total. Any single file should not exceed 50 MB. Video and animation files supplied will be published online in the electronic version of your article in Elsevier Web products, including [ScienceDirect](#). Please supply 'stills' with your files: you can choose any frame from the video or animation or make a separate image. These will be used instead of standard icons and will personalize the link to your video data. For more detailed instructions please visit our [video instruction pages](#).

Note: since video and animation cannot be embedded in the print version of the journal, please provide text for both the electronic and the print version for the portions of the article that refer to this content.

### **Supplementary material**

Supplementary material such as applications, images and sound clips, can be published with your article to enhance it. Submitted supplementary items are published exactly as they are received (Excel or PowerPoint files will appear as such online). Please submit your material together with the article and supply a concise, descriptive caption for each supplementary file. If you wish to make changes to supplementary material during any stage of the process, please make sure to provide an updated file. Do not annotate any corrections on a previous version. Please switch off the 'Track Changes' option in Microsoft Office files as these will appear in the published version.

#### *Inline supplementary computer code*

Elsevier now offers you the possibility to place supplementary computer code, data snippets, algorithms and other machine readable structures at the right place in your online article in reusable .txt format. This will allow readers to easily view this material in the appropriate context, and to directly copy it to the clipboard or download the original source file for testing or re-use. If you would like to have reusable "computer code" inserted into the body of your online article please indicate in your manuscript where they should be placed and number them in order of appearance, e.g. "Insert Inline Supplementary Computer Code 1 here". To support discoverability and reusability please submit these items in \*.txt format and make sure to include a descriptive title and caption that references the characteristics and the appropriate environment of this material , e.g. 'An algorithm for filtering text files in R' . For more information please visit <http://www.elsevier.com/ism>.

#### *Code and data deposit to RunMyCode.org*

You can enrich your online article by uploading relevant computer code and data to the RunMyCode repository. Once published, your article on ScienceDirect will be linked to a dedicated RunMyCode companion website via the "Data for this article" application displayed next to the article, in the right hand side panel. This linkage will allow readers to access your code and data via the RunMyCode companion website. To create a companion website, please go to: <http://www.runmycode.org/home>.

### **RESEARCH DATA**

This journal encourages and enables you to share data that supports your research publication where appropriate, and enables you to interlink the data with your published articles. Research data refers to the results of observations or experimentation that validate research findings. To facilitate reproducibility and data reuse, this journal also encourages you to share your software, code, models, algorithms, protocols, methods and other useful materials related to the project.

Below are a number of ways in which you can associate data with your article or make a statement about the availability of your data when submitting your manuscript. If you are sharing data in one of these ways, you are encouraged to cite the data in your manuscript and reference list. Please refer to the "References" section for more information about data citation. For more information on depositing, sharing and using research data and other relevant research materials, visit the [research data](#) page.

#### *Data linking*

If you have made your research data available in a data repository, you can link your article directly to the dataset. Elsevier collaborates with a number of repositories to link articles on ScienceDirect with relevant repositories, giving readers access to underlying data that gives them a better understanding of the research described.

There are different ways to link your datasets to your article. When available, you can directly link your dataset to your article by providing the relevant information in the submission system. For more information, visit the [database linking page](#).

For [supported data repositories](#) a repository banner will automatically appear next to your published article on ScienceDirect.

In addition, you can link to relevant data or entities through identifiers within the text of your manuscript, using the following format: Database: xxxx (e.g., TAIR: AT1G01020; CCDC: 734053; PDB: 1XFN).

### *Mendeley Data*

This journal supports Mendeley Data, enabling you to deposit any research data (including raw and processed data, video, code, software, algorithms, protocols, and methods) associated with your manuscript in a free-to-use, open access repository. Before submitting your article, you can deposit the relevant datasets to *Mendeley Data*. Please include the DOI of the deposited dataset(s) in your main manuscript file. The datasets will be listed and directly accessible to readers next to your published article online.

For more information, visit the [Mendeley Data for journals page](#).

### *Data in Brief*

You have the option of converting any or all parts of your supplementary or additional raw data into one or multiple data articles, a new kind of article that houses and describes your data. Data articles ensure that your data is actively reviewed, curated, formatted, indexed, given a DOI and publicly available to all upon publication. You are encouraged to submit your article for *Data in Brief* as an additional item directly alongside the revised version of your manuscript. If your research article is accepted, your data article will automatically be transferred over to *Data in Brief* where it will be editorially reviewed and published in the open access data journal, *Data in Brief*. Please note an open access fee of 500 USD is payable for publication in *Data in Brief*. Full details can be found on the [Data in Brief website](#). Please use [this template](#) to write your Data in Brief.

### *MethodsX*

You have the option of converting relevant protocols and methods into one or multiple MethodsX articles, a new kind of article that describes the details of customized research methods. Many researchers spend a significant amount of time on developing methods to fit their specific needs or setting, but often without getting credit for this part of their work. MethodsX, an open access journal, now publishes this information in order to make it searchable, peer reviewed, citable and reproducible. Authors are encouraged to submit their MethodsX article as an additional item directly alongside the revised version of their manuscript. If your research article is accepted, your methods article will automatically be transferred over to MethodsX where it will be editorially reviewed. Please note an open access fee is payable for publication in MethodsX. Full details can be found on the MethodsX website. Please use [this template](#) to prepare your MethodsX article.

### *Data statement*

To foster transparency, we encourage you to state the availability of your data in your submission. This may be a requirement of your funding body or institution. If your data is unavailable to access or unsuitable to post, you will have the opportunity to indicate why during the submission process, for example by stating that the research data is confidential. The statement will appear with your published article on ScienceDirect. For more information, visit the [Data Statement page](#).

## **ARTICLE ENRICHMENTS**

### **AudioSlides**

The journal encourages authors to create an AudioSlides presentation with their published article. AudioSlides are brief, webinar-style presentations that are shown next to the online article on ScienceDirect. This gives authors the opportunity to summarize their research in their own words and to help readers understand what the paper is about. [More information and examples are available](#). Authors of this journal will automatically receive an invitation e-mail to create an AudioSlides presentation after acceptance of their paper.

### **Google Maps and KML files**

KML (Keyhole Markup Language) files (optional): You can enrich your online articles by providing KML or KMZ files which will be visualized using Google maps. The KML or KMZ files can be uploaded in our online submission system. KML is an XML schema for expressing geographic annotation and visualization within Internet-based Earth browsers. Elsevier will generate Google Maps from the submitted KML files and include these in the article when published online. Submitted KML files will also be available for downloading from your online article on ScienceDirect. [More information](#).

### **Interactive MATLAB Figure Viewer**

This journal features the Interactive MATLAB Figure Viewer, allowing you to display figures created in MATLAB in the .FIG format in an interactive viewer next to the article. [More information and submission instructions](#).

### **R code viewer**

You can enrich your online article by including R code and underlying data sets, which will be displayed in your article on ScienceDirect. All R code and data files should be submitted as part of a single ZIP file. This ensures the code and data files that depend on each other are stored and made available together. R code should be saved as a plain text ASCII file. In your manuscript, you can indicate where the material should appear in the article, by including a note such as "Insert file Rcode.ZIP here". When your article is published on ScienceDirect, readers will be able to interactively explore highlighted R code next to the article page. [More information.](#)

### **Interactive plots**

This journal enables you to show an Interactive Plot with your article by simply submitting a data file. [Full instructions.](#)

## **AFTER ACCEPTANCE**

### **Proofs**

One set of page proofs (as PDF files) will be sent by e-mail to the corresponding author (if we do not have an e-mail address then paper proofs will be sent by post) or, a link will be provided in the e-mail so that authors can download the files themselves. Elsevier now provides authors with PDF proofs which can be annotated; for this you will need to [download the free Adobe Reader](#), version 9 (or higher). Instructions on how to annotate PDF files will accompany the proofs (also given online). The exact system requirements are given at the [Adobe site](#).

If you do not wish to use the PDF annotations function, you may list the corrections (including replies to the Query Form) and return them to Elsevier in an e-mail. Please list your corrections quoting line number. If, for any reason, this is not possible, then mark the corrections and any other comments (including replies to the Query Form) on a printout of your proof and scan the pages and return via e-mail. Please use this proof only for checking the typesetting, editing, completeness and correctness of the text, tables and figures. Significant changes to the article as accepted for publication will only be considered at this stage with permission from the Editor. We will do everything possible to get your article published quickly and accurately. It is important to ensure that all corrections are sent back to us in one communication: please check carefully before replying, as inclusion of any subsequent corrections cannot be guaranteed. Proofreading is solely your responsibility.

### **Offprints**

The corresponding author will, at no cost, receive a customized [Share Link](#) providing 50 days free access to the final published version of the article on [ScienceDirect](#). The Share Link can be used for sharing the article via any communication channel, including email and social media. For an extra charge, paper offprints can be ordered via the offprint order form which is sent once the article is accepted for publication. Both corresponding and co-authors may order offprints at any time via Elsevier's [Webshop](#). Corresponding authors who have published their article open access do not receive a Share Link as their final published version of the article is available open access on ScienceDirect and can be shared through the article DOI link.

### **Author Benefits**

No page charges. Publishing in Computational Statistics and Data Analysis is free. Discount. Contributors to Elsevier journals are entitled to a 30 % discount on all Elsevier books. Science Direct. The published article will be available via Science Direct.

## **AUTHOR INQUIRIES**

Visit the [Elsevier Support Center](#) to find the answers you need. Here you will find everything from Frequently Asked Questions to ways to get in touch.

You can also [check the status of your submitted article](#) or find out [when your accepted article will be published](#).

© Copyright 2014 Elsevier | <http://www.elsevier.com>