

A Guide for Authors

Weld	come from the Editors in Chief	1
Cont	act information	1
Auth	ors' checklist	2
1.	Background: the Wiley Interdisciplinary Reviews	3
2.	WIREs Computational Statistics	3
3.	Editorial Board	4
4.	Preparing your manuscript	6
5.	Online submission instructions	11
6.	What happens to your manuscript	12
Арре	Appendix I: Article list by subject category	
Арре	endix II: Copyright Permission Request Form	22

WELCOME FROM THE EDITORS IN CHIEF

We are delighted that you are considering joining the circle of authors of *Wiley Interdisciplinary Reviews: Computational Statistics* (*WIREs: Computational Statistics*). This is an important and timely endeavor that will do much to assist the communication of high-quality information in our field.

As Editors in Chief, our goals are to maximize the quality and relevance of the publication's content and to ensure, with the help of the international advisory board (see page 6), that we continue to receive world-class submissions that will keep *WIREs: Computational Statistics* in the forefront of the field. Ultimately, our success depends on our authors. If you accept our invitation, please study the guidelines in this document, follow the prescribed procedures for manuscript preparation and delivery, and adhere as closely as possible to your delivery deadlines.

WIREs: Computational Statistics is an online serial publication that will evolve into a fully integrated, dynamic reference source. As the major topics are fleshed out with your contributions and those of other notable scholars, John Wiley & Sons intends to capture this content in a comprehensive print reference work, the *Wiley Encyclopedia of Computational Statistics*. We believe this novel dual-format publication will be an exciting and important contributor to research and scholarly discourse in our field.

Thank you again for your consideration. We look forward to a long and fruitful relationship.

Edward J. Wegman Yasmin H. Said David W. Scott

Editors in Chief Wiley Interdisciplinary Reviews: Computational Statistics

CONTACT INFORMATION

All correspondence relating to manuscript preparation, proofs and other related matters should be addressed to:

Cassie Strickland Associate Editor John Wiley & Sons, Inc.

Phone: 619.269.6636 E-mail: compstats@wiley.com

For questions concerning the scope of your contribution or other issues of scientific substance, please contact:

Dr. Yasmin H. Said Co-Editor in Chief and Managing Editor Ruth L. Kirschstein National Fellow MS 6A2, George Mason University Fairfax, VA 22030-4444 USA

Phone: 301.538.7478 E-mail: ysaid99@hotmail.com

AUTHORS' CHECKLIST

AS YOU PREPARE TO WRITE YOUR ARTICLE

Have you:

- studied the instructions in your letter of acceptance confirmation concerning the type, topic, and scope of your article?
- taken note of the specified delivery date for your article? (It is important that you adhere to this, or let us know if you will need more time.)
- studied the complete article list (see Appendix I) to get a sense of the overall scope of the journal?
- studied the step-by-step instructions in this document (see Section 4) concerning the preparation of your article?
- studied the detailed guidelines in this document on style and format of figures, references, etc. (see Sections 4.5 and 4.6)?
- □ downloaded the WIREs article template and read the instructions in its margins?

AS YOU PREPARE TO SUBMIT YOUR ARTICLE

Have you:

- □ reviewed the online submission instructions (see Section 5)?
- □ included a brief Abstract, Related Articles, and Further Reading/Resources list?
- included numbered in-text citations for the references?
- □ provided bibliographic references in the specified format outlined in this Guide (see Section 4.5.6)?
- **u** provided figures as separate files rather than embed them in your article template (see Section 4.6)?
- clearly numbered and labeled all illustrations and figures, and provided legends for each?
- obtained and sent to us all necessary permissions (including permission for electronic publication) for any tables, figures, or text reproduced from previously published material? To acquire permissions, use the *Permission Request Form* (Appendix II of this guide) or request permission from registered publishers online, via the Copyright Clearance Center's "Rightslink" page (<u>http://www.copyright.com</u>); please keep copies of all correspondence for your records.
- provided the names and contact information (including e-mail addresses) for 4–5 potential reviewers you feel are familiar with your field and could review your article?
- filled out the Contributor Agreement (sent in the letter of acceptance confirmation), printed, signed, and scanned it for uploading during submission? (To fax or mail, please contact <u>compstats@wiley.com</u>.)

1. BACKGROUND: THE WILEY INTERDISCIPLINARY REVIEWS

The *Wiley Interdisciplinary Reviews* (WIREs) represent a major new publishing franchise for John Wiley & Sons. Their editorial goal is to emphasize the importance of interdisciplinarity in science and to support crossdisciplinary collaborative efforts in research and education. The WIREs are not journals *per se*; rather, they are hybrid publications that combine the most powerful features of traditional reference works and review journals in a compelling format designed to exploit the full potential of the online medium. The key features of the WIREs are as follows.

- They focus on high-profile, well-funded research areas at the interfaces of the traditional disciplines.
- The WIREs emphasize collaborative and integrative approaches to scientific research, presenting cuttingedge science from a multidisciplinary perspective.
- They will be launched as serial publications so that they can benefit from full abstracting and indexing and, especially, impact factors.
- Meticulous conceptual development of each of the WIREs will result in a highly structured, comprehensive coverage of the field in question.
- The WIREs will adopt a common "templated" editorial format and structure that will maximize quality and consistency within and between the works.
- To raise their visibility and drive online usage, the WIREs will initially be made available *free of charge* to institutional subscribers (and hence to individual end-users at academic, government, and corporate institutions).
- This unique editorial concept is designed to promote author participation, long-term loyalty, and community spirit in interdisciplinary research.

2. WIRES COMPUTATIONAL STATISTICS

2.1 AIMS OF THE PUBLICATION

WIREs Computational Statistics is a major new scientific publication that will support the information needs of researchers in this field and help to shape its future development. Its goals are to

- present the current state of the art of Computational Statistics through an ongoing series of commissioned reviews written by leading researchers
- capture the crucial interdisciplinary flavor of this field by including articles that address the key topics from the differing perspectives of statistics and computing, and including potential application areas in technology, biology, physics, geography, and sociology
- capture the rapid development of Computational Statistics through a systematic program of content updates
- encourage new participation in this field by presenting its achievements and challenges in an accessible way to a broad audience.

WIREs Computational Statistics will be fully indexed in the major abstracting services, and will be assigned an impact factor in the same way as a journal. Unlike the review journal literature, however, *WIREs Computational Statistics* will offer a comprehensive, coherent, well structured coverage of the field. It will also be updated in a systematic fashion so that its content remains as current as possible.

2.2 STRUCTURE AND SCOPE

The following top-level category structure is proposed for WIREs Computational Statistics:

Applications of Computational Statistics Artificial Intelligence Biostatistics and Bioinformatics Computational Bayesian Methods Computationally Intensive Statistical Methods Computer Science Methods Data Mining Data Structures Data Visualization Databases Machine Learning Modeling and Simulation Numerical Analysis Optimization Statistical Methods

The Editors have developed the *WIREs Computational Statistics* article list based on this structure. For a current list of article titles, please see Appendix I on Page 13.

2.3 READERSHIP

WIREs Computational Statistics will be designed in such a way that different subsets of the content will be useful to upper-level undergraduate and postgraduate students, to teaching and research professors in academic programs, to scientists and research managers in industry; moreover, WIREs: Computational Statistics will include review and background information useful to scientists entering the field of Computational Statistics.

3. EDITORIAL BOARD

3.1 EDITORS IN CHIEF

Edward J. Wegman, Bernard J. Dunn Professor of Data Sciences and Applied Statistics, George Mason University

Professor Wegman received his B.S. in mathematics degree from St. Louis University in 1965. He received the M.S. and Ph.D. degrees in mathematical statistics from the University of Iowa, the latter degree in 1968. Subsequently, he spent 10 years on the faculty of the world-class Department of Statistics at the University of North Carolina. Dr. Wegman's early career focused on the development of aspects of the theory of mathematical statistics. In 1978, Professor Wegman went to the Office of Naval Research (ONR) where he was the Head of the Mathematical Sciences Division. In this role, he had responsibility Navy-wide for basic research programs in applied mathematics, statistics and probability, systems theory, operations research, discrete mathematics, communication theory, and numerical analysis and computational architectures. In addition, he was responsible for a variety of cross-disciplinary areas including such projects as mathematical models of biological intelligence, mathematical methods for remote sensing, and topological methods in chemistry. Dr. Wegman came to George Mason University with an extensive background in both theoretical statistics and

computing technology, with an extensive knowledge of the considerable data analytic problems associated with large scale scientific and technical databases, and with a strong motivation to develop the computational and methodological tools to address these problems. In 1986, he launched the Center for Computational Statistics and developed the M.S. in Statistical Science degree program. He has been involved with the development of the Ph.D. program in Computational Sciences and Informatics at George Mason University. Dr. Wegman served in national office in the Institute of Mathematical Statistics, the American Statistical Association and the American Association for the Advancement of Science. He has published more than 180 papers and nine books. He is past Theory and Methods editor of the Journal of the American Statistical Association, has served as Chair of the NRC's Committee on Applied and Theoretical Statistics, and is on the Board of Directors of the American Statistical Association. His professional stature has been recognized by his election as Fellow of the American Statistical Association, the American Association for the Advancement of Science, the Washington Academy of Science and the Institute of Mathematical Statistics. In addition, he was elected as a Senior Member of IEEE. Dr. Wegman has been elected to membership in the International Statistical Institute and the Research Society on Alcoholism. Dr. Wegman has also received numerous awards including the Navy's Meritorious Civilian Service Medal, the Army Wilks Medal, the American Statistical Association Founder's Award, and the University of Iowa Distinguished Alumni Achievement Award. Dr. Wegman is the Bernard J. Dunn Professor of Data Sciences and Applied Statistics, the Founding Chairman of the Department of Statistics, and the Director of the Center for Computational Data Sciences.

Yasmin H. Said, Ruth L. Kirschstein National Fellow, George Mason University.

Dr. Yasmin H. Said is a Visiting Fellow at the Isaac Newton Institute for Mathematical Sciences at the University of Cambridge in England and is a National Research Fellow from the National Institutes of Health. She earned her A.B. in pure mathematics, her M.S. in computer science and information systems, and Ph.D. in computational statistics. She does alcohol modeling, agent-based simulation modeling, social network analysis, text, image, and data mining, and major public policy work trying to minimize negative acute outcomes, including HIV/AIDS, related to alcohol consumption. Dr. Said is also the Statistical Methodology Director of the Innovative Medical Institute, LLC, and Co-Director of the Center for Computational Data Sciences in the College of Science at George Mason University. She is the editor of Computing Science and Statistics, is an associate editor of the journal, Computational Statistics and Data Analysis, serves on the board of the Washington Statistical Society, and serves on the American Statistical Association Presidential Task Force on Science Policy. Dr. Said is an elected member of the International Statistical Institute, an elected member of the Research Society on Alcoholism, and an elected member of Sigma Xi, the Scientific Research Society. She is currently writing a book, Controversies in Global Warming and another, Statisticians of the Twentieth Century. She has published a book, Intervention to Prevention: A Policy Tool for Alcohol Studies. With colleagues she has developed testimonies on global warming for the House Committee on Energy and Commerce and to the House Subcommittee on Oversight and Investigations. She has also taught probability and statistics at The Johns Hopkins University in Baltimore, MD.

David W. Scott, Noah Harding Professor of Statistics, Rice University.

Professor Scott earned his B.A. in electrical engineering and mathematics in 1972 and his M.A. and Ph.D. mathematical sciences in 1976 all earned at Rice University. Working with researchers at Rice, Baylor College of Medicine, and elsewhere, Professor Scott has published numerous practical applications in fields of heart disease, remote sensing, signal processing, clustering, discrimination, and time series. With other members of the department, Professor Scott has worked with the former Texas Air Control Board on ozone forecasting, and has collaborated with Rice Environmental Engineers on massive data understanding and visualization. In the field of nonparametric density estimation, Professor Scott has provided fundamental understanding of many estimators including the histogram, frequency polygon, averaged shifted histogram, discrete penalized-likelihood estimator, adaptive estimators, oversmoothed estimators, and modal and robust regression

estimators. In the area of smoothing parameter selection, he has provided basic algorithms including biased cross-validation and multivariate cross-validation. Professor Scott is Fellow of the American Statistical Association, the Institute of Mathematical Statistics, the American Association for the Advancement of Science, and an elected member of the International Statistics Institute. He received the ASA Don Owen Award in 1993. He is the author of the textbook "Multivariate Density Estimation: Theory, Practice, and Visualization (John Wiley & Sons, 1992). He has served as a member of the NRC's Committee on Applied and Theoretical Statistics and has served as editor of the Journal of Computational and Graphical Statistics. He is past editor (Wolfgang Härdle, co-editor) of Computational Statistics, which is published by Physica-Verlag, and recently on the editorial board of Statistical Sciences. He has served as Associate Editor of the Journal of the American Statistical Association and the Annals of Statistics. He is currently listed in Who's Who in America. He has held several offices in the Statistical Graphics Section of the American Statistical Association, including Program Chair and Section Chair.

3.2 EDITORIAL ADVISORY BOARD

Jianqing Fan – USA: Princeton University Jerome H. Friedman – USA: Stanford University Michael Friendly – Canada: York University Genshiro Kitagawa – Japan: The Institute of Statistical Mathematics Carlo N. Lauro – Italy: University of Naples "Federico II" Jae C. Lee – Korea: Korea University Xiao-Li Meng – USA: Harvard University James L. Rosenberger – USA: Pennsylvania State University Luke Tierney – USA: University of Iowa D. Michael Titterington – United Kingdom: University of Glasgow Antony Unwin – Germany: University of Augsburg

4. PREPARING YOUR MANUSCRIPT

4.1 REVIEW YOUR DESIGNATED ARTICLE TOPIC AND SCOPE DESCRIPTION

Please review your designated topic and any additional scope notes provided in your letter of invitation. If you have any questions or concerns about the topic or scope, please contact us immediately for further advice. One month before your article is due, we will send an email asking you to provide us with an outline for your article. This is to ensure that your ideas for the scope of the article are in line with the editors'.

4.2 STUDY THE COMPLETE ARTICLE LIST

Appendix I is a current list of planned article titles/subjects, grouped by topic/subtopic. Please study this list to understand the overall scope of *WIREs Computational Statistics* and to see how your article fits into the larger organizational scheme.

4.3 VERIFY YOUR DESIGNATED ARTICLE TYPE

WIREs Computational Statistics articles will be assigned a specific article type based on their intended level and readership. Each article type will have an associated template that specifies its length, overall structure, and style; authors will be required to use the appropriate template when preparing their articles. The following article types are included in WIREs Computational Statistics:

OPINIONS

Opinions provide a forum for thought-leaders, hand-picked by the editors, to provide a more individual perspective on the field in question.

Average extent = 2,000-4,000 words, < 5 figures/tables, 30-60 references, ~5 pages.

OVERVIEWS

Overviews will provide a broad and relatively non-technical treatment of important topics at a level suitable for advanced students and for researchers without a strong background in the field.

Average extent = 5,000-8,000 words, 10-16 figures/tables, 50-100 references, 10-14 pages.

ADVANCED REVIEWS

Advanced Reviews, aimed at researchers and advanced students with a strong background in the subject, will review key areas of research in a citation-rich format similar to that of leading review journals.

Average extent = 4,000-6,000 words, < 10 figures/tables, 50-75 references, ~9 pages.

FOCUS ARTICLES

Focus articles are short articles, sometimes included within a larger article, that describe specific real-world issues, examples, implementations, etc. These articles will be technical in nature.

Average extent = 2,500-4,000 words, < 7 figures/tables, 40-60 references, ~5 pages.

4.4 USE THE TEMPLATE

A Word and LaTeX template for writing your article are available in your ScholarOne Manuscripts Author Center. Please use one of these templates to prepare your article as this will help ensure that it will meet the necessary requirements. In the Word template, consult the 'Comment' notes in the right-hand margin for an explanation of each section in the article. If at any time you do not see these Comments, select View \rightarrow Print Layout. Further help is available by emailing <u>compstats@wiley.com</u>.

4.5 REFER TO THE FOLLOWING INSTRUCTIONS ON TEXT FORMAT AND STYLE

4.5.1 VERSIONS OF THE MANUSCRIPT

Text should be in DOC (preferred) or RTF format; TeX/LaTeX files are also acceptable.

The manuscript you submit should be the final version that you wish to be sent for peer review. Please do not send partial versions or drafts, unless we specifically request that you do so.

4.5.2 ABSTRACT

Please provide us with a concise (\leq 250 words) abstract for your article. This is particularly important for the online version of the publication. Note that you will also be asked to copy the abstract into ScholarOne/Manuscript Central, the online article submission system, for use in corresponding with potential peer reviewers.

4.5.3 HEADING STRUCTURE

A maximum of three levels of headings will be used in *WIREs Computational Statistics*. Do not use acronyms in headings. Do not use the heading *Introduction*. The material that immediately follows the Abstract is the introduction, without a heading. Do use each level of heading uniformly throughout the manuscript. Do create headings that:

- 1. help the reader find information quickly;
- 2. are descriptive yet specific;
- 3. are compatible in phrasing and style; and
- 4. are concise (less than 50 characters).

4.5.4 SIDEBARS

If any are appropriate, you are encouraged to include sidebars ("boxed" information that is relevant to but separate from the main text), especially to highlight contemporary interdisciplinary themes. Each sidebar should be a maximum of 250 words. Do not include more than two sidebars.

4.5.5 NOTES

While footnotes are generally discouraged in scientific publications, the template will allow you to create them. You should use these notes sparingly and make every effort to include necessary information in the main body of text.

4.5.6 REFERENCE LIST

The reference list at the end of your article provides substantiating references for factual statements in your main text. Please follow these guidelines:

- Each article cited in the reference list must have an accompanying numerical in-text citation (e.g. "It has been demonstrated experimentally⁵ that..."). The references should be numbered and listed in the order in which they are cited in the text, *not* in alphabetical order.
- Please format your reference list in accordance with the style used to cite references in PubMed (see examples below).
- For journal articles where there are more than ten authors of a paper, list the first ten authors' names followed by *et al*. For each author listed, supply all initials and last name.

- For a book, give the complete title, edition (if other than first), the publisher and city, the year of publication, and the page number(s). Please also give inclusive pagination (include the first and last page numbers of a paper), to indicate to the reader whether the paper is a long or a short one.
- References in the bibliography should be numbered.
- When citing a specific passage, table, or figure in a print reference, give the exact page number where the item appears; for example, "Reference 11, p. 196."
- Should you wish to use Endnote, please follow the style of either BioMed Central journals or *Epilepsy Currents*.

Many publishers are now assigning a unique Digital Object Identifier (DOI) to journal articles, book chapters, etc. This identifier, once assigned, persists through the lifetime of the object and can be used to find the object on the Internet, even if it is moved to another URL. See the URL <u>www.doi.org</u> for more information. If a DOI is assigned to the material that you cite, include the DOI in the reference.

Some sample references in the correct format follow:

SAMPLE REFERENCE FOR AN ARTICLE IN A JOURNAL

Rebetez M. Public expectation as an element of human perception of climate change Climatic Change 2006, 32:495-509.

SAMPLE REFERENCE FOR AN ARTICLE IN AN EDITED BOOK

Meyer WB. Americans and their weather. Oxford University Press, Oxford, 2000, 278.

SAMPLE REFERENCE FOR AN ARTICLE IN A CONFERENCE PROCEEDINGS

Boswell DA, Andrews EB. Managing Urbanization. In Harris, F, ed. Global Environmental Issues. John Wiley & Sons, Chichester; 2004 153-196.

SAMPLE REFERENCE FOR A WEBSITE

http://www.cdc.noaa.gov/ENSO/enso.current.html (accessed July 3 2008)

4.5.7 FIGURE CAPTIONS/TABLES

Figure captions and tables should be included at the end of your manuscript. Do not embed them within the text, and do not submit them as separate files. You will also be asked to copy the figure captions into the ScholarOne/Manuscript Central online submission system when you load the image files for your figures.

4.5.8 FURTHER READING/RESOURCES

Many readers will use *WIREs Computational Statistics* as a first reference source to orient themselves in the subject. The purpose of the further reading/resources list is to provide additional sources of general information, should they wish to inquire further. If you are aware of books, articles, or academic websites that may be useful to the reader and do not appear in your reference list, you may add a separate list of these after the reference list. Recent journal articles may also be included if they are not too specialized. If you wish, you

may comment on the references in this section. References in the further reading/resources list are not to be numbered, but otherwise should follow the style outlined for bibliographic references.

4.5.9 RELATED ARTICLES

Related articles are other *WIREs Computational Statistics* articles that will serve as valuable 'see also' links for readers. Please select up to 3 article titles from the list provided (Appendix I and also linked to the Word template) and add these to the table at the end of the article template.

4.6 REFER TO THE FOLLOWING INSTRUCTIONS ON PREPARATION OF FIGURES

It is essential that your artwork be submitted simultaneously with your text and that it be complete and in the correct format. Like the text, artwork goes through several production stages before it is placed onto a page, and it travels separately from the text. **Upload each figure as a separate image file.** Some detailed preparation guidelines are given below.

4.6.1 FIGURE PREPARATION AND FORMATTING

- All artwork should be viewable through a freely available plug-in.
- Cite all figures in the text (e.g., "see Fig. 1") and save each figure separately. Do not embed figures in the text or include captions in figures. Label figures using 8-point Helvetica regular or Times Roman fonts; for subscripts and superscripts use a 6-point font. Use of full-color figures is encouraged, and you will *not* be charged for their use.
- Create line drawings using Illustrator, Freehand, Canvas, CorelDraw, or Adobe Photoshop, and save as an EPS or TIF file. Line drawings must be a minimum resolution of 600 dpi. The following programs are *not* acceptable as art-rendering tools: MacDraw, PowerPoint, ClarisWorks, Harvard Graphics, Freelance, Persuasion, Paintbrush, Micrografix Drawing, Word, Excel, FrameMaker, or Ventura.
- Halftones (photographs) should be saved as TIF files with a minimum resolution of 300 dpi. For color figures, convert from RGB to CMYK. The following file formats are *not* acceptable: BMP, WMF, JPEG, and GIF.
- For screen captures, select RGB or Index mode; capture at 100% of image size. Save image as a PCX, TIF, or BMP file, with a minimum resolution of 72 or 96 dpi.

Submitting figure files that do not conform to these standards may delay publication of your article.

4.6.2 ART SIZING

Be consistent in the use of line weight and type style. All figures should be of proportionate size with one another. If figures must be reduced, remember that the type will also be reduced, so it should be created proportionately so that it is clearly readable at the smaller size. The ideal final type size is 8 to 9 points.

4.6.3 LINE WEIGHTS

Use 0.5 to 0.75 point as the basic line weight for drawing, with heavier or lighter line weights for emphasis and clarity according to the following scheme (do not use "hairline" rules, as they do not reproduce well):

- Graph axes: 0.5 point (also used for boxes in flow diagrams and to show flow or direction lines)
- Graph borders: 0.75 point.

4.7 ACQUIRE PERMISSION FOR ALL PREVIOUSLY PUBLISHED MATERIALS

You must have permission to use any material from a copyrighted source. Redrawing an illustration is not enough—even if you use someone's illustration only as a basis for your own, you must obtain permission to make a new version. *It is your responsibility as the author to obtain permission to use copyrighted materials in your article*. You must either write to the copyright owner with a request for permission (using the *Permission Request Form*, Appendix II of this Guide) or apply for permission online via the Copyright Clearance Center's "Rightslink" page (http://www.copyright.com). Make sure to apply for print *and* electronic rights. Please let us know if you are unable to obtain permission for electronic delivery. When only a small amount of material is to be used, granting of permission is usually a formality, but publishers need to know how much will appear. A few publishers charge a fee for granting such permission; this fee can usually be negotiated, but payment of the fee is your responsibility. *John Wiley & Sons will not pay permissions fees on your behalf*. If you do not wish to pay a particular permissions fee, you may prefer to modify your article so that the copyrighted material is not required.

Please include the necessary credit lines in the appropriate places in your article and send us the completed permission request forms when you submit your manuscript. The language should be the exact language used by the copyright owner, or, if nothing is specified, should include the title, author's name, previous publisher, and the date of copyright. Since credit lines are part of the manuscript, it is your responsibility to supply them. Credit lines will often accompany figures and illustrations; they should be included at the appropriate place in the figure legend or text.

4.8 REFER TO THE FOLLOWING INSTRUCTIONS REGARDING MULTIMEDIA ITEMS

You may wish to include multimedia elements (such as video clips or animations) in your article. The following general rules apply:

- The item should be in a popular media format that can be played with freely available software on both PCs and Macs (e.g., Quicktime (*.mov) or generic Windows media player formats (*.wmv or *.mpg)).
- The file size should be limited to <10 megabytes.
- The item must of adequate quality for web publication.
- The item must genuinely add scientific or educational value to the material.

All items must have a caption and, where necessary, a permission statement backed up by a formal permission letter. Multimedia materials cannot be uploaded on the ScholarOne/Manuscript Central submission site, but must be emailed separately to <u>compstats@wiley.com</u>.

5. ONLINE SUBMISSION INSTRUCTIONS

Articles commissioned for *WIREs Computational Statistics* will be submitted and peer-reviewed using the ScholarOne Manuscripts article management system. When you were invited to contribute an article, a user

account was created for you. If you do not know your User ID and/or Password, you can use the 'Password Help' function on the log in page at http://mc.manuscriptcentral.com/compstats. To submit your manuscript online, log in and click on the 'Author Center' icon to begin your submission. Detailed instructions on using ScholarOne Manuscripts can be found by clicking the 'User Tutorials' button in the 'Resources' box on the right-hand side of the log in page.

Please be sure to study the instructions given at the site carefully, and then let the system guide you through the submission process. You will be able to exit and re-enter the system at any stage before finally submitting your work. All submissions are kept strictly confidential. You can log in periodically and check your Author Center to monitor the movement of your manuscript through the review process.

6. WHAT HAPPENS TO YOUR MANUSCRIPT

6.1 REVIEW AND REVISION

Our editorial process starts with the review of your manuscript by qualified experts in the field and by the *WIREs Computational Statistics* editors. We will pass reviewers' comments on to you and request that you make any necessary changes. In addition, we will discuss with you any editorial changes that may be necessary.

In some cases the reviewers will have no comments, and the manuscript will be processed for composition. In other cases, reviewers' and our own editorial comments will give rise to further correspondence. The Editors reserve the right to cut, to request more information from the author, to revise, and in some cases, to add publicly available material. If the Editors' changes are extensive, you will have an opportunity to review the changes before the manuscript is sent for production.

6.2 GALLEY PROOFS

In due course you will receive the galley proofs. By this point we will have discussed any major changes with you, but smaller changes are sometimes made in the editorial office as we proceed. At this stage, you may still make any corrections of typographical errors that are necessary (but not changes in style or content). Changes at the galley stage are costly and are properly reserved for correction of printer's errors. Any changes in galleys beyond corrections of typographical errors will be made at the discretion of the editor and may be overruled for the sake of expediencies of schedule and expense.

There will be hundreds of contributing authors, and any contributor who returns proofs late has the potential to delay the publication of the entire work. Please proofread carefully, and give the job a high priority. We do not usually send page proofs to authors (page proofs come in quickly from the typesetter and must be cleared in short order), so the galley proof will be your only opportunity to make corrections.

6.3 AUTHOR SERVICES

Once your article goes into production, you will be eligible for Wiley-Blackwell Author Services. Benefits include:

- the ability to track your manuscript through the production process to publication,
- email notification when your article is in Early View,
- free access to your article for yourself, corresponding authors, and up to 10 colleagues, and
- a preferential author's discount of 25% on Wiley books.

For more information and to register, please go to <u>http://authorservices.wiley.com</u>.

APPENDIX I: ARTICLE LIST BY SUBJECT CATEGORY

APPLICATIONS OF COMPUTATIONAL STATISTICS

Computational and Systems Biology 007: Axon 006: Computational biology 002: Computed tomography 005: Epidemiology 004: Growth curves 428: Magnetic resonance imaging 427: Neuron 003: Neurophysiology 530: Neurotransmitters 001: Pharmacokinetics 584: Toxicology

Computational Chemistry

008: Chemometrics

Computational Climate Change and Numerical Weather Forecasting

010: Climate models and prediction529: Numerical weather forecasting009: Weather models and prediction688: Computational Methods for Climate Data

Computational Finance

013: Computational finance 012: Financial mathematics 647: Financial time series 011: Statistics in finance

Computational Linguistics

578: Vector space model

Computational Mathematics

682: Bounds on delaunay tesselations 014: Computational geometry 020: Convex hull 019: Delaunay triangulation 021: Experimental mathematics and computational statistics 018: Fractals 015: Graph layout 017: Iterated function systems 016: Statistics of shape 590: Symbolic computation 429: Tessellation 664: Voronoi tessellation

Computational Physics and Computational Geophysics 025: Cartography 024: Geostatistics

023: Remote sensing

559: Seismic event identification 022: Statistical methods in seismology

Defense and National Security

430: Combining information 532: Minefield detection 026: Public policy

Organizations and Publications

543: AT&T Bell Laboratories and successors 045: Center for Disease Control 044: Committee on Applied and Theoretical Statistics 438: Communications in Statistics - Simulation and Computation 043: Comprehensive R archive network 042: COMPSTAT 041: Computational Statistics (Journal) 040: Computational Statistics and Data Analysis (CSDA) 039: Computing Science and Statistics 431: Digitized palomar sky survey 534: In-house Laboratory Independent Research 038: Interface Foundation of North America 037: Interface Symposium 436: International Association of Statistical Computing 036: Journal of Computational and Graphical Statistics 435: Journal of Statistical Computation and Simulation 035: Journal of Statistical Software 437: Journal of the Pattern Recognition Society 034: Lawrence Livermore National Laboratory 033: Los Alamos National Laboratory 432: Mathematical Sciences Research Institute 032: National Cancer Institute 031: National Center for Atmospheric Research 439: National Educational Longitudinal Study 030: National Institute of Standards and Technology 029: National Institute of Statistical Sciences 028: National Institutes of Health 433: RAND 027: Statistical and Applied Mathematical Sciences Institute

434: The collected algorithms of the ACM

Psychometrics

052: Bounded rationality

440: Cognitive science
051: Color perception
049: Graphical perception
048: Human perception and cognition
047: Representation of color
050: Statistical analysis of evidence
046: Statistics in forensic science

Signal and Image Processing and Coding

443: Adaptive beamforming 442: Beamlets 062: Bearings-only tracking 061: Ciphers 060: Coding theory 059: Cryptology and encryption 644: Distributed sensors 444: Fast Fourier transform 068: Filtering for time series and signals 054: Functional magnetic resonance imaging 678: High-resolution signal and image processing 441: Huffman coding 520: Integer-valued time series 445: JPEG 067: Kalman filtering 513: Kolmogorov-Zurbenko filters 057: MPEG 056: Multimedia 053: Positron emission tomography 066: Signal detection theory 065: Signal processing 064: Spread spectrum 063: Statistical communication theory 055: Steganography 585: Tomography 576: Viterbi algorithm

ARTIFICIAL INTELLIGENCE

Expert Systems 071: Artificial intelligence 070: Expert systems 069: Probabilistic expert systems

Machine Intelligence

072: Computer vision

BIOSTATISTICS AND BIOINFORMATICS

Clinical Trials 446: Bioassay 074: Clinical trials 447: Cox model 684: Diagnostic trials 672: Dose-response curve 073: Meta-analysis 389: Randomized clinical trials

075: DNA microarray data

448: Biological sequence data

General Topics

076: Bioinformatics Genomics/Proteomics/Genetics 077: Gene expression profiles 450: Human Genome Project 449: Phylogeny reconstruction 645: Proteomics 078: Statistical genetics

Health and Medical Data

080: Healthcare data 079: Medical informatics

COMPUTATIONAL BAYESIAN METHODS

Bayesian Methods and Theory 547: Bayes information criterion 092: Bayes theorem 451: Bayesian CART 091: Bayesian classification 090: Bayesian computation 089: Bayesian data analysis 088: Bayesian estimation 087: Bayesian inference: an approach to statistical inference 082: Bayesian model averaging 081: Bayesian model choice 083: Bayesian networks 084: Bayesian nonparametric methods 086: Belief function 548: Coherence in time series and statistics 085: Empirical Bayes 608: Propagation of evidence

Markov Chain Monte Carlo (MCMC)

093: Gibbs sampling 094: Markov chain Monte Carlo

COMPUTATIONAL INTENSIVE STATISTICAL METHODS

Bootstrap and Resampling 098: Bootstrap 551: Bootstrapping regression 095: Distribution-free methods in statistics 097: Jackknife 096: Resampling

Density Estimation and Curve Fitting

099: Averaged shifted histogram 118: Adaptive mixtures 117: Bandwidth in smoothing 452: Bezier curve 453: B-splines 116: Burr family of distributions 550: Classical density estimators 115: Curve estimation

- 114: Filtered kernel density estimation 100: Finite mixture distributions 113: Histogram 112: Johnson family of distributions 111: Kernel density estimation 110: Kernel regression 625: Loess 618: Nearest neighbor density estimation 102: Nonparametric curve estimation 101: Nonparametric regression 612: Orthogonal series density estimators 108: Pearson family of distributions 610: Principal curves 526: Radial basis 602: Scott's rule 107: Smoothing 640: Spline modeling 106: Spline smoothing 105: Splines 593: Sturges' rule 109: The L2E method 104: Thin plate splines 665: Variable-mesh histogram
- 103: Wavelet methods

Fast Manifold Learning

119: Manifold learning

General Topics

121: Computer-intensive methods120: Computers and statistics

Multivariate Analysis

549: Multiple scales
125: Multiresolution analysis
124: Multivariate analysis
454: Multivariate calibration
455: Multivariate contingency tables
123: Multivariate density estimation
122: Multivariate space-time data
611: Peeling

Nonparametric Estimation

456: Bin smoother
128: Binning
127: Computational rank-based statistics
129: Generalized cross validation
126: Kolmogorov-Smirnov test

Other Methods

132: Computer intensive tests130: Cross validation131: Operations research computations599: Sorting of multivariate data

Robust Methods

140: Breakdown value

- 139: Detection of outliers
 138: Influence function
 564: M-estimators
 137: Minimum covariance determinant
 136: Minimum volume ellipsoid
 133: Outliers
 522: Rank aggregation methods
 135: Robust methods
 603: Robust regression
 134: Robust tests

COMPUTER SCIENCE METHODS

Algorithms

144: Algorithms for computational statistics
142: Computer performance measurement
631: Discrete fourier transform
536: Grand challenge problems
535: Information hiding
627: Kruskal's algorithm
141: Parallel computing
143: Statistical computing

Command Language

457: FORTRAN145: C programming language538: Eigenvector537: Fitting equations to data621: Microsoft609: Programming environments

Computational Concepts

146: Human computer interaction556: Binary digit633: Datacube680: Data-parallel computing in statistics624: Maximum entropy

Hardware/Architectures

458: Client-server architecture
683: Cloud computing
541: CPU performance
630: Distributed computing
459: Distributed grid-type architecture
147: Future computing environments
149: Service oriented architecture
148: Teraflop computer

Networks and Security 462: Anomaly detection 163: Backscatter 150: Biosurveillance 153: Computer intrusion detection 681: Computer network optimization 161: Computer security 160: Computer viruses 159: Data confidentiality 151: Data security 162: Denial of service attack
152: Disease mapping
461: Firewall
158: Fraud detection
157: Internet traffic modeling
460: Network monitoring
156: Network tomography
155: Network traffic analysis
154: Networks
524: Transmission control protocol

Software/Statistical Software

464: BMDP - statistical software 176: Computer-aided instruction 634: Current Index to Statistics 632: DataDesk 175: GenStat 167: Geographic information systems 166: Graphical user interface 628: IMSL Library 626: Lisp-Stat 463: Maple 174: Matlab library LIBRA 465: MATLAB software 518: Minitab 165: Object oriented programming 173: R graphics 639: R programming 172: S 171: SAS 170: Software engineering 164: Software reliability 666: SPSS 597: STATA 169: Statistical software 466: STATLIB 592: SUDAAN 589: SYSTAT 168: ViSta 571: XploRe

DATA MINING

Clustering and Classification 546: Agglomerative clustering 182: Classification 555: Classification complexity 181: Cluster analysis 561: Complete linkage clustering 180: K-means clustering 179: K-nearest neighbor 177: Model-based clustering 178: Support vector machines

Data Preparation and Processing

190: Data cleaning189: Data compression676: Data preparation

184: Data quality
540: Data warehousing
554: Dedrogram
188: Editing statistical data
187: Handling of missing data points
183: Imputation
186: Record linkage
185: Recursive partitioning

Exploratory Data Analysis

191: Functional data analysis467: Guided tours622: Median polish

General Topics

193: Data mining 192: Statistical data mining

Knowledge Discovery

468: Adaboost
545: Alternating conditional expectation
646: BSiZer
196: Chi-squared automated interaction detector
194: Google
195: Knowledge discovery in databases
568: Knowledge mining
686: Tonnabytes data sets and citizen science
469: Yahoo!

Pattern Recognition

199: Feature extraction 198: Handwriting recognition and identification 197: Pattern recognition

Rule-based Mining

200: Association rules

Streaming Data Mining

470: Discounting older data 667: Quantization 201: Streaming data

Text Mining

210: Bigram proximity matrix
209: Computational linguistics
208: Cross corpus discovery
202: Hypertext
207: Information retrieval algorithms
206: Latent semantic analysis
471: Natural language processing
205: Part-of-speech tagging
204: Speech recognition
203: Text data mining
569: Zipf distribution

DATA STRUCTURES

Categorical and Numerical Data

211: Categorical data473: Categorical time series472: Fisher's exact test

General Topics

212: Data

Graph, Digraph and Network Data

213: Binary trees
220: Bipartite matching
214: Class cover catch digraphs
219: Directed graph
216: Graph theory
679: Internet tomography
531: Minimal spanning tree
218: Random graphs
215: Random graphs for pattern recognition
217: Scan statistics on graphs

Image and Spatial Data

474: Hyperspectral imagery data
226: Image grand tour
225: Image processing
224: Image restoration
223: Spatial data analysis
222: Spatial point processes
221: Spatial statistics

Massive Data and Streaming Data

229: Large datasets228: Lasso227: Massive datasets

Social Networks

230: Computational social science 231: Network science

Time Series, Stochastic Process, and Functional Data

477: Arch and garch models 234: Autocovariance 233: Autoregressive process 478: Birth-and-death process 232: Change point detection 236: Computational methods in spectroscopy 476: Extreme values 241: Fractal Brownian motion 475: Harmonic analysis 240: Longitudinal data 239: Long-range dependence 238: Nonstationarity 598: Spatio-temporal processes 237: Spectral estimation 588: Taguchi method 235: Time series analysis 586: Toeplitz matrix 583: Transfer functions

579: Variogram 570: Yule-Walker estimator

Traditional Statistical Data

544: ASA data exposition data set 245: Censored data 244: Circular data 243: Directional data 565: Heavy tailed density 242: Missing data 669: PRIM 7 data 668: PRIM-9

DATA VISUALIZATION

Computer Graphics 479: 3-d layering 253: 3-d stereoscopic plots 252: Computer aided design 248: High-interaction graphics 247: Information visualization 246: Interactive graphics 251: Pixel rewrite 250: Rendering in computer graphics 587: Taxonomy of data visualization 577: Visualization Toolkit software 249: Volume rendering

Diagnostic Graphics

256: Cognostics 255: Diagnostic procedures 254: Regression diagnostics

Dimension Reduction

480: Curse of dimensionality
259: Dimension reduction
481: Fractal dimension and estimation
533: Manifolds
258: Multidimensional scaling
257: Sliced inverse regression

General Topics

261: Data visualization 260: Visualization

Statistical Graphics

483: Bertin's semiology
281: Binned bivariate scatterplot
280: Biplot
675: Block-recursive plots
553: Box plots
266: Brushing
279: Casement display
265: Chernoff faces
262: Conditional choropleth maps
482: Contour plot
278: Data display

277: Dynamic graphics 674: Evolutionary graphics 269: Exploratory data analysis 521: Geospatial visualization with VisTracks 268: Grammar of graphics 275: Linked low-dimensional views 267: Linked micromap plots 274: Linked views 272: Manet 620: MiniCAVE 271: MODRIAN 270: Mosaic plots 619: Multipanel graphs 563: Real-time graphics 273: Scatterplots and scatterplot matrices 264: Skyline plots 276: Statistical graphics 263: Trellis display

Virtual Reality

285: CAVE environment
286: Continuous animation
485: Head-mounted device
484: Multisensory virtual reality
284: Stereoscopic visualization
283: Virtual reality
282: Virtual reality modeling language

Visualization of High Dimensional Data

296: Andrews curves 295: BRUSH-TOUR 288: Choropleth maps 287: Color histogram 552: Conditional plots 292: CrystalVision 291: Explor4 673: Full-dimensional tours 290: GGobi 486: Grand tour and the Andrews plot 300: Grand tour of high dimensional data 299: K-dimensional tours 671: Multidimensional graphical display 298: Parallel coordinate and parallel coordinate density plots 297: Projection pursuit 527: Pseudo grand tour 294: Scale space methods 293: SiZer 289: Space-filling displays 575: Waterfall diagrams

DATABASES

Relational Databases 301: Relational databases

MACHINE LEARNING

Classification and Regression Trees (CART)

305: Bagging
304: Boosting
303: Classification and regression trees
302: Decision trees
487: Random forests
582: Tree-structured classifier

General Topics

306: Machine learning

Logical Methods

488: AQ learning

MARS

307: Multivariate adaptive regression splines

Neural Networks

309: Backfitting 490: Backpropagation 489: Hidden Markov model 308: Neural networks

Statistical Methodology 310: Statistical learning

MODELING AND SIMULATION Agent-Based Simulation/Modeling

311: Agent based modeling and simulation

Modeling Methods and Algorithms

317: Adaptive model selection
316: Additive models
312: Generalized additive models
315: Model selection
314: Model validity and verification
313: Statistical models

Monte Carlo Methods

318: Monte Carlo methods

Random Number Generation

322: Antithetic variates319: Box-Muller transformation320: Random number generation523: Uniform random numbers

Simulation Models

329: Computer experiments, statistical analysis of
328: Computer models and statistics
327: Discrete event simulation
323: Forward simulation models
326: Hierarchical models
325: Modeling and simulation
324: Simulation methods
685: Validation of simulation models

NUMERICAL ANALYSIS

Complexity

331: Computational complexity330: Computational feasibility

Numerical Methods

337: Cholesky factorization
492: Conjugate gradient method
336: Gaussian elimination
491: Gauss-Newton algorithm
335: Gradient methods
334: N-dimensional quadrature
617: Newton method
333: Numerical analysis
614: Optimization
607: Quadratic programming
600: Singular value decomposition
332: Sparse matrix computations
562: Sphere packing
596: Steepest descent

OPTIMIZATION

Dynamic Programming 493: Combinatorial optimization 560: Approximate dynamic programming 539: Dynamic programming

Genetic Algorithms and Evolutionary Computing

338: Evolutionary computation525: Schema theorem

Integer Programming

339: Integer programming

Linear Programming

341: Constrained optimization494: Interior point methods340: Linear programming

MLE (Maximum Methods)

342: Maximum likelihood estimation623: Maximum penalized likelihood

Nonlinear Programming

542: Convex programming

STATISTICAL METHODS

Admissibility 495: Bayesian wavelet shrinkage

Analysis of Variance and Covariance and Linear Models

351: Analysis of variance
350: Balanced incomplete block design
349: Experimental design
348: Fixed and random effects models
347: Fractional factorial design
346: Generalized linear models

345: Linear model344: Log-linear model517: Multicollinearity343: Optimal experimental design

EM Algorithm

352: Expectation maximization 629: EM applications

Information Theoretic Methods

356: Akaike information criterion355: Analog to information496: Entropy354: Information measures353: Kullback Liebler information

Mathematical Methods

500: Banach space
498: Calculus of variations
497: Centroids
499: Combinatorial analysis
359: Combinatorics
360: Deterministic uncertainty
357: Fuzzy set theory
358: Geometry in statistics
670: Natural homogeneous coordinates
643: P-splines
642: Topology in statistics

Nonparametric Statistics

501: Dirichlet process363: Nonparametric inference361: Nonparametric maximum likelihood362: Rank methods

Reliability, Survivability, and Quality Control

369: Accelerated failure time
368: Competing risks
502: Kaplan-Meier estimator
515: Network reliability evaluation
367: Quality control
366: Reliability
512: Reliability in the 21st Century
365: Statistical process control
364: Survival analysis

Sampling

373: Algorithms for response adaptive sampling designs
503: Hot deck method
372: Importance sampling: a review
638: Ranked set sampling
371: Sample survey
370: Sampling

Statistical Theory and Applications

421: Acceptance sampling

420: Actuarial method 419: Adaptive methods 514: Adaptive regression 641: Approximation theory 505: Archaeometrics 637: Asymptotic approximation 418: Asymptotic normality 504: Best linear unbiased estimator 558: Beta distribution 417: Brownian bridge 507: Calibration 510: Canberra distance 509: Capture-recapture 416: Cauchy-Schwarz inequality 415: Chi-bar squared distribution 557: Chi-squared distribution 380: Concave minimization 390: Contingency tables 376: Control chart 375: Convergence and asymptotics 636: Correspondence analysis 635: Crossover experiments 391: Data masking for disclosure limitation 414: Decision theory 383: Discriminant analysis 413: Distribution functions and probability 677: Errors in variables 411: Estimation 567: Factor analysis 566: Factorial design 410: Generalized estimating equations 409: Goodness-of-fit tests 408: Isotonic regression 407: Latent class analysis 406: Least squares 519: Likelihood inference 405: Linear regression 404: Logistic regression 403: Modes and bump hunting 374: Modes of inference 384: Multiple regression 616: Nonlinear regression 387: Normal mixtures 615: Ockham's razor 613: Orthogonal distance regression

377: Partial least squares

506: Partial least squares regression and projection on latent structure regression (PLS regression) 386: Penalized methods 385: Penalized splines 382: Prediction and forecasting 528: Pregibon's link test 379: Principal component analysis 508: Procrustes methods 402: Quantiles 381: Random fields 648: Randomization 606: Rank transformation 605: Rare event 401: Regression 604: Reproducing kernel Hilbert space 400: Response surface methodology 399: Ridge regression 687: Ridge tracing 388: Semiparametric methods 398: Sequential methods 601: Sieve methods 516: Simpson's paradox 397: Stahel-Donoho estimator 595: Stein shrinkage 396: Stepwise regression 395: Stochastic approximation: a survey 394: Stochastic calculus 594: Stratified sampling 393: Subset selection 591: Sufficient statistic 412: Total least squares methods 392: Tube theory 581: U-statistic 580: Variable selection 574: Weibull distribution 573: Wiener process 572: Wishart distribution

Thought Pieces

423: Future of statistics 422: History of statistics 511: Music

Transformations

426: Box-Cox transformation 424: Discrete wavelet transform 425: Transformation of data

APPENDIX II: COPYRIGHT PERMISSION REQUEST FORM

Inter	disciplinary Reviews	Figure/table no. in original manuscript	Figure/table no. in WIREs Computational Statistics
DATE:			
FROM: Nam	1e	TO: Name	
Add	ress	Address	
Dear Sir or Mad	am		
I am preparing f	or publication an original work entitled		
[Article Title], l	by [Author Name] ([Article ID])		
to be published l	by John Wiley & Sons Inc., 111 River Street,	Hoboken, New Jersey	07030,
	ar as part of a work entitled: WILEY INTER DNAL STATISTICS	DISCIPLINARY RE	VIEWS:
edited by Edwa	rd J. Wegman, Yasmin H. Said and David	W. Scott	
work and in all c	ermission to include the following in the work lerivative works based on the work, in any and a all languages, to be published by Wiley or it	d all media of expressi	on now known or later

[insert figure/table details here]

The usual form of acknowledgement is to quote the author(s) or photographer and publication title of the original material or source. John Wiley & Sons Inc. will include the words:

"Reproduced by permission of [the owner of the publishing rights]"

Please would you therefore confirm the name of the copyright holder to be quoted as granting permission.

Please indicate agreement by signing and returning a copy of this letter. In signing, you warrant that you are the sole owner of the rights granted and that your material does not infringe upon the copyright or other rights of anyone. If you do not control these rights, I would appreciate your letting me know to whom I should apply.

Yours sincerely

[Your name]

We hereby grant permission for the use of the material requested above.

Date Signed

Copyright Holder...../ Publisher