



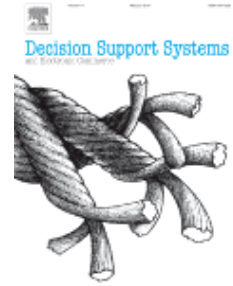
# DECISION SUPPORT SYSTEMS

and Electronic Commerce

## 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.5</b>



ISSN: 0167-9236

### DESCRIPTION

The common thread of articles published in *Decision Support Systems* is their relevance to theoretical and technical issues in the support of enhanced decision making. The areas addressed may include foundations, functionality, interfaces, implementation, impacts, and evaluation of decision support systems (DSSs). Manuscripts may draw from diverse methods and methodologies, including those from decision theory, economics, econometrics, statistics, computer supported cooperative work, data base management, linguistics, management science, mathematical modeling, operations management, cognitive science, psychology, user interface management, and others. However, a manuscript focused on direct contributions to any of these related areas should be submitted to an outlet appropriate to the specific area.

Examples of research topics that would be appropriate for *Decision Support Systems* include the following:

1. **DSS Foundations** e.g. principles, concepts, and theories of enhanced decision making; formal languages and research methods enabling improvements in decision making. It is important that theory validation be carefully addressed.
2. **DSS Functionality** e.g. methods, tools, and techniques for developing the functional aspects of enhanced decision making; solver, model, and/or data management in DSSs; rule formulation and management in DSSs; DSS development and use in computer supported cooperative work, negotiation, research and product.
3. **DSS Interfaces** e.g. methods, tools, and techniques for designing and developing DSS interfaces; development, management, and presentation of knowledge in a DSS; coordination of a DSS's interface with its functionality.
4. **DSS Implementation** - experiences in DSS development and utilization; DSS management and updating; DSS instruction/training. A critical consideration must be how specific experiences provide more general implications.
5. **DSS Evaluation and Impact** e.g. evaluation metrics and processes; DSS impact on decision makers, organizational processes and performance.

## AUDIENCE

---

Researchers and Developers of DSS, Researchers and Practitioners in computer science, management and business administration, Computer Manufacturers, Software Developers.

## IMPACT FACTOR

---

2017: 3.565 © Clarivate Analytics Journal Citation Reports 2018

## ABSTRACTING AND INDEXING

---

Cambridge Scientific Abstracts  
INSPEC  
Current Contents  
ACM Computing Reviews  
Engineering Abstracts  
UMI Data Courier  
Current Contents/Engineering, Computing & Technology  
Technology and Applied Sciences  
AATA Online: Abstracts of International Conservation Literature  
Research Alert  
Applied Science and Technology Index  
Applied Science & Technology Abstracts  
Science Citation Index

## EDITORIAL BOARD

---

### *Editor-in-Chief:*

**James R. Marsden**, University of Connecticut, Storrs, Connecticut, USA

### *Editorial Advisory Board*

**Clyde .W. Holsapple**, University of Kentucky, Lexington, Kentucky, USA

**V.S. Jacob**, University of Texas at Dallas, Richardson, USA

**Robert J. Kauffman**, Singapore Management University, Singapore

**Ting-Peng Liang**, National Sun Yat-Sen University, Kaohsiung, Taiwan, ROC

**Daniel E. O'Leary**, University of Southern California, Los Angeles, California, USA

**David L. Olson**, University of Nebraska at Lincoln, Lincoln, Nebraska, USA

**David Pingry**, University of Arizona, Tucson, Arizona, USA

**H. Raghav Rao**, The State University of New York at Buffalo, Buffalo, New York, USA

**Vicente Salas-Fumás**, Universidad de Zaragoza, Zaragoza, Spain

**Ramesh Sharda**, Oklahoma State University, Stillwater, Oklahoma, USA

**Jan Vanthienen**, KU Leuven, Leuven, Belgium

### *Senior Editors*

**Alan S. Abrahams**, Virginia Tech, Blacksburg, Virginia, USA

**Fran Ackermann**, Curtin University, Perth, Western Australia, Australia

**David Arnott**, Monash University, Melbourne, Victoria, Australia

**Haldun Aytug**, University of Florida, Gainesville, Florida, USA

**Bart Baesens**, University of Leuven, Leuven, Belgium

**Reza Barkhi**, Virginia Tech, Blacksburg, Virginia, USA

### **Indranil Bose**

**Frada Burstein**, Monash University, Melbourne, Victoria, Australia

**Andrew N.K. Chen**, University of Kansas, Lawrence, Kansas, USA

**Christy M.K. Cheung**, Hong Kong Baptist University, Kowloon, Hong Kong, China

**Tsan-Ming Choi**, The Hong Kong Polytechnic University, Hong Kong, China

**Daoud Clarke**, University of Sussex, Brighton, England, UK

**Dursun Delen**, Oklahoma State University, Stillwater, Oklahoma, USA

**Haluk Demirkan**, University of Washington Tacoma, Tacoma, Washington, USA

**Jie Du**, Grand Valley State University, Allendale, Michigan, USA

**Wenjing (Wendy) Duan**, George Washington University, Washington, District of Columbia, USA

**Flavius Frasincar**, Erasmus University Rotterdam, Rotterdam, The Netherlands

**Zhiling Guo**, Singapore Management University, Singapore  
**Olli-Pekka Hilmola**, Lappeenranta University of Technology (LUT), Kouvola, Finland  
**C. Derrick Huang**, Florida Atlantic University  
**Boris Jukic**, Clarkson University, Potsdam, New York, USA  
**Gary Miner**, Hamline University, St. Paul, Minnesota, USA  
**Vijay Mookerjee**, University of Texas at Dallas, Richardson, USA  
**Norman Moore**, University of Connecticut, Storrs, Connecticut, USA  
**Shimon Y. Nof**, Purdue University, West Lafayette, Indiana, USA  
**David C. Novak**, University of Vermont, Burlington, Vermont, USA  
**Ram Pakath**, University of Kentucky, Lexington, Kentucky, USA  
**Selwyn Piramuthu**, University of Florida, Gainesville, Florida, USA  
**T.S. Raghu**, Arizona State University, Tempe, Arizona, USA  
**Ramesh Sankaranarayanan**, University of Connecticut, Storrs, Connecticut, USA  
**Georgios Sermpinis**, University of Glasgow, Glasgow, UK  
**Benjamin Shao**, Arizona State University, Tempe, Arizona, USA  
**Olivia Sheng**, The University of Utah, Salt Lake City, Utah, USA  
**David Sundaram**, University of Auckland, Auckland, New Zealand  
**Steven M. Thompson**, University of Richmond, Richmond, Virginia, USA  
**Arvind Tripathi**, University of Auckland, Auckland, New Zealand  
**Y. Alex Tung**, University of Connecticut, Storrs, Connecticut, USA  
**Upkar Varshney**, Georgia State University, Atlanta, Georgia, USA  
**George Wright**, University of Strathclyde, Glasgow, Scotland, UK  
**Desheng Dash Wu**, University of Toronto, Toronto, Ontario, Canada  
**Harris Wu**, Old Dominion University, Norfolk, Virginia, USA  
**Alain Yee Loong Chong**, Nottingham, Nottingham, England, UK  
**Victoria Y. Yoon**, Virginia Commonwealth University (VCU), Richmond, Virginia, USA  
**Zhongju Zhang**, University of Connecticut, Storrs, Connecticut, USA  
**Huimin Zhao**, University of Wisconsin at Milwaukee, Milwaukee, Wisconsin, USA  
**J. Leon Zhao**, City University of Hong Kong, Kowloon, Hong Kong  
**Xia Zhao**, University of North Carolina at Greensboro, Greensboro, North Carolina, USA

#### **Associate Editors**

**Anteneh Ayanso**, Goodman School of Business, Brock University, St. Catharines, Ontario, Canada  
**Sulin Ba**, University of Connecticut, Storrs, USA  
**Quan Bai**, Auckland University of Technology, Auckland, New Zealand  
**Xue Bai**, University of Connecticut, Storrs, Connecticut, USA  
**Maria Baldassarre**, Università degli Studi di Bari Aldo Moro, Bari, Italy  
**Denise Lindstrom Bandeira**, Federal University of Rio Grande do Sul, Porto Alegre-Rio Grande do Sul, Brazil  
**Tong (Tony) Bao**, Long Island University, Brookville, New York, USA  
**Rahul C. Basole**, Georgia Institute of Technology, Atlanta, Georgia, USA  
**Joerg Becker**, Westfälische Wilhelms-Universität Münster, Münster, Germany  
**Jose Benitez**, Rennes School of Business, Rennes, France  
**Bharat Bhasker**, Indian Institute of Management Ahmedabad (IIMA), Ahmedabad, India  
**Siddhartha Bhattacharyya**, University of Illinois at Chicago, Chicago, Illinois, USA  
**Mark Cecchini**, University of South Carolina, Columbia, South Carolina, USA  
**Antonella Certa**, Università degli Studi di Palermo, Italy  
**Rui Chen**, Ball State University, Muncie, Indiana, USA  
**Thomas Chesney**, Nottingham University Business School, Nottingham, England, UK  
**I. Robert Chiang**, Fordham University, New York, New York, USA  
**Alberto Comesaña-Campos**, Universidade de Vigo, Pontevedra, Spain  
**Paulo Cortez**, University of Minho, Braga, Portugal  
**Johannes De Smedt**, University of Edinburgh, Edinburgh, Scotland, UK  
**Ricardo Perez del Castillo**, University of Castilla la Mancha (UCLM), Madrid  
**Amit Deokar**, University of Massachusetts at Lowell, Lowell, Massachusetts, USA  
**Yanqing Duan**, University of Bedfordshire, UK  
**Kurt Fanning**, Grand Valley State University, Allendale, Michigan, USA  
**Daniela Fogli**, University of Brescia, Brescia, Italy  
**Johannes Gettinger**, University of Hohenheim, Stuttgart, Germany  
**Carmelo Giaccotto**, University of Connecticut, Storrs, Connecticut, USA  
**Jahyun Goo**, Florida Atlantic University, Boca Raton, Florida, USA  
**Bin Gu**, Arizona State University, Tempe, Arizona, USA  
**Shiu-Li Huang**, National Taipei University, Taipei, Taiwan, ROC  
**S.M. Huang**, National Chung Cheng University, Chiayi, Taiwan  
**Yeu-Shang Huang**, National Cheng Kung University, Taiwan  
**Wendy Hui**, Curtin University, Perth, Australia  
**J. Izquierdo**, Universitat Politècnica de València, Valencia, Spain  
**Marijn Janssen**, Delft University of Technology, Delft, Netherlands

**Hongbing Jiang**, City University of Hong Kong, Kowloon Tong, Hong Kong  
**Nenad Jukic**, Loyola University Chicago, Chicago, Illinois, USA  
**Gaurav Kapoor**, Center for Study of Science, Technology & Policy (CSTEP), Bangalore, India  
**Weiling Ke**, Clarkson University, Potsdam, New York, USA  
**Lara Khansa**, Virginia Tech, Blacksburg, Virginia, USA  
**Gang Kou**, Southwestern University of Finance & Economics, Chengdu, China  
**Ram L. Kumar**, University of North Carolina at Charlotte, Charlotte, North Carolina, USA  
**Holly J. Lanham**, University of Texas at San Antonio, San Antonio, Texas, USA  
**Elena Lazkano**, University of the Basque Country, Donostia, Basque Country, Spain  
**Anthony J.T. Lee**, National Taiwan University, Taipei, Taiwan, ROC  
**Alvin Chung Man Leung**, City University of Hong Kong, Hong Kong, China  
**Chen Li**, Fayetteville State University, Fayetteville, North Carolina, USA  
**Cuihong Li**, University of Connecticut, Storrs, Connecticut, USA  
**D. Li**, University of Minnesota Duluth, Duluth, Minnesota, USA  
**Der-Chiang Li**, National Cheng Kung University, Taiwan  
**Gang Li**, Deakin University, Malvern, Victoria, Australia  
**Lingfang Li**, Shanghai University of Finance & Economics, Shanghai, China  
**Xiaobai Li**, University of Massachusetts at Lowell, Lowell, Massachusetts, USA  
**Winston Lin**, The State University of New York at Buffalo, Buffalo, New York, USA  
**Zhangxi Lin**, Texas Tech University, Lubbock, Texas, USA  
**Soo Ling Lim**, University College London (UCL), London, England, UK  
**Dengpan Liu**, Iowa State University, Ames, Iowa, USA  
**Mei Liu**, University of Kansas, Kansas City, Kansas, USA  
**Zugang (Leo) Liu**, Pennsylvania State University, Hazleton, Pennsylvania, USA  
**J. Michnik**, University of Economics in Katowice, Katowice, Poland  
**Rajhans Mishra**, Indian Institute of Management Indore  
**Suresh K. Nair**, University of Connecticut, Storrs, Connecticut, USA  
**Asil Oztekin**, University of Massachusetts at Lowell, Lowell, Massachusetts, USA  
**Bhavik Pathak**, Indiana University South Bend, South Bend, Indiana, USA  
**Liangfei Qiu**, University of Florida, Gainesville, Florida, USA  
**Sarah Rice**, University of Connecticut, Storrs, Connecticut, USA  
**Huaxia Rui**, University of Rochester, Rochester, New York, USA  
**G. Lawrence Sanders**, University at Buffalo, Buffalo, New York, USA  
**William J. Sawaya**, Bowling Green State University, Bowling Green, Ohio, USA  
**Robert P. Schumaker**, University of Texas at Tyler, Tyler, Texas, USA  
**Zhan Shi**, University of Texas at Austin, Austin, Texas, USA  
**Harpreet Singh**, University of Texas, Richardson, Texas, USA  
**S. Song**, Fujitsu Research & Development Center, Beijing, China  
**Trent Spaulding**, Appalachian State University, Boone, North Carolina, USA  
**Robert D. St. Louis**, Arizona State University, Tempe, Arizona, USA  
**Jan Stallaert**, University of Connecticut, Storrs, Connecticut, USA  
**Chandrasekar Subramaniam**, University of North Carolina at Charlotte, Charlotte, North Carolina, USA  
**T. Tervonen**, Evidera Ltd, London, UK  
**Dimple Thadani**, City University of Hong Kong, Hong Kong, China  
**Manoj Tiwari**, IIT Kharagpur, Kharagpur, India  
**Wen-Hsien Tsai**, National Central University, Jhongli, Taoyuan, Taiwan  
**Frank S.C. Tseng**, National Kaohsiung First University of Science and Technology, Koashung City, Taiwan, ROC  
**Wouter Verbeke**, Vrije Universiteit Brussel (VUB), Brussels, Belgium  
**Gang Wang**, City University of Hong Kong, Hong Kong, China  
**Harry Jiannan Wang**, University of Delaware, Newark, Delaware, USA  
**Jingguo Wang**, University of Texas at Arlington, Arlington, Texas, USA  
**Xufei Wang**, Arizona State University, Mountain View, California, USA  
**Zhe Wang**, East China University of Science and Technology, Shanghai, China  
**Qiang Wei**, Tsinghua University, Beijing, China  
**Berend Wierenga**, Erasmus Universiteit, Rotterdam, Netherlands  
**Ing-Long Wu**, National Chung Cheng University, Chiayi, Taiwan  
**Fang Yin**, University of Oregon, Eugene, Oregon, USA  
**Dong Yuan**, Swinburne University of Technology, Melbourne, Victoria, Australia  
**Li Zhang**, University of Northumbria, Newcastle, England, UK  
**Kexin Zhao**, University of North Carolina at Charlotte, Charlotte, North Carolina, USA  
**Dmitry Zhdanov**, University of Connecticut, Storrs, Connecticut, USA  
**Lina Zhou**, University of North Carolina at Charlotte  
**Dan Zhu**, Iowa State University, Ames, Iowa, USA

## GUIDE FOR AUTHORS

---

### **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 competing interests include employment, consultancies, stock ownership, honoraria, paid expert testimony, patent applications/registrations, and grants or other funding. Authors must disclose any interests in two places: 1. A summary declaration of interest statement in the title page file (if double-blind) or the manuscript file (if single-blind). If there are no interests to declare then please state this: 'Declarations of interest: none'. This summary statement will be ultimately published if the article is accepted. 2. Detailed disclosures as part of a separate Declaration of Interest form, which forms part of the journal's official records. It is important for potential interests to be declared in both places and that the information matches. [More information](#).

#### **Submission declaration**

Submission of an article implies that the work described has not been published previously (except in the form of an abstract, a published lecture or academic thesis, see '[Multiple, redundant or concurrent publication](#)' 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.

### *Submission declaration and verification*

Submission of an article implies that the work described or any portion of the work has not been published previously (except in the form of an abstract or academic thesis or as an electronic preprint, see <https://www.elsevier.com/sharingpolicy>), 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, the work or any non de-minimus portion 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 <https://www.elsevier.com/editors/plagdetect> or other services/methods that emerge over time.

### *Preprints*

Please note that [preprints](#) can be shared anywhere at any time, in line with Elsevier's [sharing policy](#). Sharing your preprints e.g. on a preprint server will not count as prior publication (see '[Multiple, redundant or concurrent publication](#)' for more information).

### **Use of inclusive language**

Inclusive language acknowledges diversity, conveys respect to all people, is sensitive to differences, and promotes equal opportunities. Articles should make no assumptions about the beliefs or commitments of any reader, should contain nothing which might imply that one individual is superior to another on the grounds of race, sex, culture or any other characteristic, and should use inclusive language throughout. Authors should ensure that writing is free from bias, for instance by using 'he or she', 'his/her' instead of 'he' or 'his', and by making use of job titles that are free of stereotyping (e.g. 'chairperson' instead of 'chairman' and 'flight attendant' instead of 'stewardess').

### **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.

### *Article transfer service*

This journal is part of our Article Transfer Service. This means that if the Editor feels your article is more suitable in one of our other participating journals, then you may be asked to consider transferring the article to one of those. If you agree, your article will be transferred automatically on your behalf with no need to reformat. Please note that your article will be reviewed again by the new journal. [More information](#).

### **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 gold 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 gold 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.

### *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 gold 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.
- The Author is entitled to post the [accepted manuscript](#) in their institution's repository and make this public after an embargo period (known as green Open Access). The [published journal article](#) cannot be shared publicly, for example on ResearchGate or Academia.edu, to ensure the sustainability of peer-reviewed research in journal publications. The embargo period for this journal can be found below.

### **Gold open access**

- Articles are freely available to both subscribers and the wider public with permitted reuse.
- A gold 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 gold 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 gold open access publication fee for this journal is **USD 1100**, excluding taxes. Learn more about Elsevier's pricing policy: <https://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 [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 Researcher Academy*

[Researcher Academy](#) is a free e-learning platform designed to support early and mid-career researchers throughout their research journey. The "Learn" environment at Researcher Academy offers several interactive modules, webinars, downloadable guides and resources to guide you through the process of writing for research and going through peer review. Feel free to use these free resources to improve your submission and navigate the publication process with ease.

#### **Language (usage and editing services)**

Please write your text in good English (American or British usage is accepted, but not a mixture of these). Authors who feel their English language manuscript may require editing to eliminate possible grammatical or spelling errors and to conform to correct scientific English may wish to use the English Language Editing service available from Elsevier's WebShop (<http://webshop.elsevier.com/languageediting/>) or visit our customer support site (<http://support.elsevier.com>) for more information. The quality and clarity of writing can significantly impact the views of reviewers. The journal strives to publish papers of the highest quality in research contribution and in presentation. While reviewers and editors frequently offer editorial suggestions, it is the responsibility of the author(s) to submit manuscripts that are well written. Poorly written and error-prone manuscripts risk initial desk rejection

#### **Submission**

Our online submission system guides you stepwise through the process of entering your article details and uploading your files. The system converts your article files to a single PDF file used in the peer-review process. Editable files (e.g., Word, LaTeX) are required to typeset your article for final publication. All correspondence, including notification of the Editor's decision and requests for revision, is sent by e-mail.

Submitted papers, unless formally approved by the editor, must not be more than 34 pages, double spaced throughout and using at least 11.5 point font size. The 34 pages must include all materials - abstract, text, figures/tables, references, and appendices.

#### **Submit your article**

Please submit your article via <http://ees.elsevier.com/decsup/>

#### **Reviewers**

Please suggest one senior editor and two associate editors from the lists provided above, who are not directly connected to the authors. If you do not wish to suggest an SE or AEs, the necessary choices will be made by the editor's office.

#### **PREPARATION**

It is important that the file be saved in the native format of the word processor used. The text should be in single-column format. Keep the layout of the text as simple as possible. Most formatting codes will be removed and replaced on processing the article. In particular, do not use the word processor's option *s* to justify text or to hyphenate words. However, do use bold face, italics, subscripts, superscripts, and left alignment as appropriate. The first line of each new paragraph should be indented. When preparing tables, if you are using a table grid, use only one grid for each individual table and not a grid for each row. If no grid is used, use tabs, not spaces, to align columns. The electronic text should be prepared in a way very similar to that of conventional manuscripts (see also the Guide to Publishing with Elsevier: <https://www.elsevier.com/guidepublication>). Note that source files of figures, tables and text graphics will be required whether or not you embed your figures in the text. 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.

#### **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.](#)



### *Use of word processing software*

It is important that the file be saved in the native format of the word processor used. The text should be in single-column format. Keep the layout of the text as simple as possible. Most formatting codes will be removed and replaced on processing the article. In particular, do not use the word processor's options to justify text or to hyphenate words. However, do use bold face, italics, subscripts, superscripts etc. When preparing tables, if you are using a table grid, use only one grid for each individual table and not a grid for each row. If no grid is used, use tabs, not spaces, to align columns. The electronic text should be prepared in a way very similar to that of conventional manuscripts (see also the [Guide to Publishing with Elsevier](#)). Note that source files of figures, tables and text graphics will be required whether or not you embed your figures in the text. 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.

### *Introduction*

Clearly state the research question and objectives of the work. Briefly provide any necessary background to frame the research question. Concisely summarize the major findings/results. Summary of Key Related Research This section should include a brief summary of key related research. Emphasis should be on demonstrating the foundation for the current investigation. Specifically, the goal is to clearly delineate a gap or missing link that the current research fills. Authors should avoid presenting a litany of past research and should focus on prior work necessary to demonstrate the existence of the research gap addressed in the manuscript.

### *Data and Methods*

Should provide sufficient detail to allow the work to be reproduced. Methods already published should be indicated by a reference: only relevant method modifications should be described.

### *Theory*

A Theory section should articulate any extensions to given theory that are necessary to address the research question.

### *Results*

Results should be presented clearly and concisely.

### *Discussion*

The Discussion should explore the significance of the results of the work, not repeat them. A combined Results and Discussion section is often appropriate.

### *Conclusions*

The main conclusions of the study may be presented in a short Conclusions section, which may stand alone or form a subsection of a Discussion or Results and Discussion section.

### *Appendices*

If there is more than one appendix, they should be identified as A, B, etc. Formulae and equations in appendices should be given separate numbering: Eq. (A.1), Eq. (A.2), etc.; in a subsequent appendix, Eq. (B.1) and so on. Similarly for tables and figures: Table A.1; Fig. A.1, etc.

### *Abstract*

A concise abstract is required. The abstract is limited to 250 words and should clearly state the purpose of the research and the principal results and major conclusions. References and abbreviations should be avoided.

### *Graphical abstract*

Although a graphical abstract is optional, its use is encouraged as it draws more attention to the online article. The graphical abstract should summarize the contents of the article in a concise, pictorial form designed to capture the attention of a wide readership. Graphical abstracts should be submitted as a separate file in the online submission system. Image size: Please provide an image with a minimum of 531 × 1328 pixels (h × w) or proportionally more. The image should be readable at a size of 5 × 13 cm using a regular screen resolution of 96 dpi. Preferred file types: TIFF, EPS, PDF or MS Office files. You can view [Example Graphical Abstracts](#) on our information site.

Authors can make use of Elsevier's [Illustration Services](#) to ensure the best presentation of their images and in accordance with all technical requirements.

### **Highlights**

Highlights are a short collection of bullet points that convey the core findings of the article. Highlights should be submitted in a separate file in the online submission system. Please use 'Highlights' in the file name and include 3 to 5 bullet points (maximum 85 characters per bullet point including spaces). See <https://www.elsevier.com/highlights> for examples.

### **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.

### *Abbreviations*

Define abbreviations that are not standard in this field in a footnote to be placed on the first page of the article. Such abbreviations that are unavoidable in the abstract must be defined at their first mention there, as well as in the footnote. Ensure consistency of abbreviations throughout the article.

### *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.

### *Units*

Follow internationally accepted rules and conventions: use the international system of units (SI). If other units are mentioned, please give their equivalent in SI.

### *Math formulae*

Please submit math equations as editable text and not as images. Present simple formulae in line with normal text where possible and use the solidus (/) instead of a horizontal line for small fractional terms, e.g., X/Y. In principle, variables are to be presented in italics. Powers of e are often more conveniently denoted by exp. Number consecutively any equations that have to be displayed separately from the text (if referred to explicitly in the text).

## Footnotes

Footnotes should be used sparingly. Number them consecutively throughout the article. Many word processors can build footnotes into the text, and this feature may be used. Otherwise, please indicate the position of footnotes in the text and list the footnotes themselves separately at the end of the article. Do not include footnotes in the Reference list.

## Artwork

### Electronic artwork

#### General points

- Make sure you use uniform lettering and sizing of your original artwork.
- Embed the used fonts if the application provides that option.
- Aim to use the following fonts in your illustrations: Arial, Courier, Times New Roman, Symbol, or use fonts that look similar.
- Number the illustrations according to their sequence in the text.
- Use a logical naming convention for your artwork files.
- Provide captions to illustrations separately.
- Size the illustrations close to the desired dimensions of the published version.
- Submit each illustration as a separate file.

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

If your electronic artwork is created in a Microsoft Office application (Word, PowerPoint, Excel) then please supply 'as is' in the native document format.

Regardless of the application used other than Microsoft Office, 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 all used fonts.

TIFF (or JPEG): Color or grayscale photographs (halftones), keep to a minimum of 300 dpi.

TIFF (or JPEG): Bitmapped (pure black & white pixels) line drawings, keep to a minimum of 1000 dpi.

TIFF (or JPEG): Combinations bitmapped line/half-tone (color or grayscale), keep to a minimum of 500 dpi.

#### Please do not:

- Supply files that are optimized for screen use (e.g., GIF, BMP, PICT, WPG); these typically have a low number of pixels and limited set of colors;
- 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.](#)

#### Figure captions

Ensure that each illustration has a caption. Supply captions separately, not attached to the figure. A caption should comprise a brief title (**not** on the figure itself) and a description of the illustration. Keep text in the illustrations themselves to a minimum but explain all symbols and abbreviations used.

## Tables

Please submit tables as editable text and not as images. Tables can be placed either next to the relevant text in the article, or on separate page(s) at the end. Number tables consecutively in accordance with their appearance in the text and place any table notes below the table body. Be sparing in the use of tables and ensure that the data presented in them do not duplicate results described elsewhere in the article. Please avoid using vertical rules and shading in table cells.

## 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.

### *Reference links*

Increased discoverability of research and high quality peer review are ensured by online links to the sources cited. In order to allow us to create links to abstracting and indexing services, such as Scopus, CrossRef and PubMed, please ensure that data provided in the references are correct. Please note that incorrect surnames, journal/book titles, publication year and pagination may prevent link creation. When copying references, please be careful as they may already contain errors. Use of the DOI is highly encouraged.

A DOI is guaranteed never to change, so you can use it as a permanent link to any electronic article. An example of a citation using DOI for an article not yet in an issue is: VanDecar J.C., Russo R.M., James D.E., Ambeh W.B., Franke M. (2003). Aseismic continuation of the Lesser Antilles slab beneath northeastern Venezuela. *Journal of Geophysical Research*, <https://doi.org/10.1029/2001JB000884>. Please note the format of such citations should be in the same style as all other references in the paper.

### *Web references*

As a minimum, the full URL should be given and the date when the reference was last accessed. Any further information, if known (DOI, author names, dates, reference to a source publication, etc.), should also be given. Web references can be listed separately (e.g., after the reference list) under a different heading if desired, or can be included in the reference list.

### *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](#). Using citation 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. If you use reference management software, please ensure that you remove all field codes before submitting the electronic manuscript. [More information on how to remove field codes from different reference management software](#).

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/decision-support-systems>

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

### *Reference style*

**Text:** Indicate references by number(s) in square brackets in line with the text. The actual authors can be referred to, but the reference number(s) must always be given.

Example: '..... as demonstrated [3,6]. Barnaby and Jones [8] obtained a different result ....'

**List:** Number the references (numbers in square brackets) in the list in the order in which they appear in the text.

**Examples:**

Reference to a journal publication:

[1] J. van der Geer, J.A.J. Hanraads, R.A. Lupton, The art of writing a scientific article, *J. Sci. Commun.* 163 (2010) 51–59. <https://doi.org/10.1016/j.Sc.2010.00372>.

Reference to a journal publication with an article number:

[2] Van der Geer, J., Hanraads, J.A.J., Lupton, R.A., 2018. The art of writing a scientific article. *Heliyon*. 19, e00205. <https://doi.org/10.1016/j.heliyon.2018.e00205>.

Reference to a book:

[3] W. Strunk Jr., E.B. White, *The Elements of Style*, fourth ed., Longman, New York, 2000.

Reference to a chapter in an edited book:

[4] G.R. Mettam, L.B. Adams, How to prepare an electronic version of your article, in: B.S. Jones, R.Z. Smith (Eds.), *Introduction to the Electronic Age*, E-Publishing Inc., New York, 2009, pp. 281–304.

Reference to a website:

[5] Cancer Research UK, *Cancer statistics reports for the UK*. <http://www.cancerresearchuk.org/aboutcancer/statistics/cancerstatsreport/>, 2003 (accessed 13 March 2003).

Reference to a dataset:

[dataset] [6] M. Oguro, S. Imahiro, S. Saito, T. Nakashizuka, Mortality data for Japanese oak wilt disease and surrounding forest compositions, *Mendeley Data*, v1, 2015. <https://doi.org/10.17632/xwj98nb39r.1>.

## **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 file in one of our recommended file formats with a preferred maximum size of 150 MB per file, 1 GB in total. 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.

## **Data visualization**

Include interactive data visualizations in your publication and let your readers interact and engage more closely with your research. Follow the instructions [here](#) to find out about available data visualization options and how to include them with your article.

## **Supplementary material**

The Journal does not accept electronic supplementary material without express consent of the Editor-in-Chief. Any supplementary material will be limited to high resolution images, datasets, and necessary sound or video images. Material critical to the understanding and analysis of the submitted manuscript must be in the body of the submitted manuscript. Elsevier does accept electronic supplementary material to support and enhance your scientific research. Supplementary files offer the author additional possibilities to publish high resolution images, background datasets, and necessary sound or video clips. Approved supplementary files supplied will be published online alongside the electronic version of your article in Elsevier Web products, including [ScienceDirect](#): <http://www.sciencedirect.com>. In order to ensure that your submitted material is directly usable, please provide the data in one of our recommended file formats. Authors should submit the material in electronic format together with the article and seek the approval of the EIC. Each request should include a concise and descriptive caption for each file. For more detailed instructions please visit our [artwork instruction pages](#) at <https://www.elsevier.com/artworkinstructions>.

## **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. During the submission process, after uploading your manuscript, you will have the opportunity to upload your relevant datasets directly to *Mendeley Data*. 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 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](#).

## **AFTER ACCEPTANCE**

### **Online proof correction**

Corresponding authors will receive an e-mail with a link to our online proofing system, allowing annotation and correction of proofs online. The environment is similar to MS Word: in addition to editing text, you can also comment on figures/tables and answer questions from the Copy Editor. Web-based proofing provides a faster and less error-prone process by allowing you to directly type your corrections, eliminating the potential introduction of errors.

If preferred, you can still choose to annotate and upload your edits on the PDF version. All instructions for proofing will be given in the e-mail we send to authors, including alternative methods to the online version and PDF.

We will do everything possible to get your article published quickly and accurately. 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. 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 gold 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 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 2018 Elsevier | <https://www.elsevier.com>