DESCRIPTION

*Information & Management* serves researchers in the information systems field and managers, professionals, administrators and senior executives of organizations which design, implement and manage *Information Systems Applications*. The major aims are:

- To collect and disseminate information on new and advanced developments in the field of information systems;
- To provide material for training and education in information systems;
- To encourage further progress in information systems methodology and applications;
- To cover the range of information system development and usage in their use of managerial policies, strategies, and activities for business, public administration, and international organizations.

**Benefits to authors**
We also provide many author benefits, such as free PDFs, a liberal copyright policy, special discounts on Elsevier publications and much more. Please click here for more information on our author services.

Please see our Guide for Authors for information on article submission. If you require any further information or help, please visit our Support Center.

AUDIENCE

Researchers & Practitioners involved in the management of information systems

IMPACT FACTOR

2018: 4.120 © Clarivate Analytics Journal Citation Reports 2019
ABSTRACTING AND INDEXING

Data Manager
ANBAR
EDP Performance Review
DP Directory
ACM Computing Reviews
Computer Abstracts
Computer & Control Abstracts
Data Processing Digest
Information Retrieval and Library Automation
Information Science Abstracts
Current Contents
Quarterly Bibliography of Computers and Data Processing
Engineering Index
INSPEC
Embase
UMI Data Courier
Mathematical Management & Physics Abstracts
Management Contents
Statistical Reference Index
Cambridge Scientific Abstracts
Science Citation Index
Social Sciences Citation Index

EDITORIAL BOARD

Editor-in-Chief
Patrick Chau, University of Nottingham - Ningbo China, Ningbo, China

Founding Editor
Ed Sibley

Associate Editors
D. Avison, ESSEC Business School, Cergy Pontoise, France
S.J. Barnes, King’s College London, England, United Kingdom
Jose Benitez, Rennes School of Business France, Rennes, France
Gee-Woo (Gilbert) Bock, Sung Kyun Kwan University Business School, Seoul, The Republic of Korea
David Bodoff, University of Haifa, Haifa, Israel
Indranil Bose
Kathryn Brohman, Queen’s University, Kingston, Ontario, Canada
Irwin Brown, University of Cape Town, Rondebosch, South Africa
Michael Chau, University of Hong Kong, Hong Kong, China
Guoqing Chen, Tsinghua University, Beijing, China
Rui Chen, Ball State University, Muncie, Indiana, United States
Xi Chen, Zhejiang University, Hangzhou, China
Christy Cheung, Hong Kong Baptist University, Kowloon, Hong Kong
Alain Chong, University of Nottingham - Ningbo China, Ningbo, China
Cecil Chua, The University of Auckland, Auckland, New Zealand
Mark Chun, Pepperdine University, Malibu, California, United States
Wendy Currie, Audencia Business School, Nantes, France
James Denford, Royal Military College of Canada, Kingston, Ontario, Canada
John Qi Dong, University of Groningen, Groningen, Netherlands
Amitava Dutta, George Mason University, Fairfax, Virginia, United States
P. Ein-Dor, Tel Aviv University - Leon Recanati Graduate School of Business Administration, Tel Aviv, Israel
Patrick Fan, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, United States
Yulin Fang, City University of Hong Kong, Kowloon, Hong Kong
Xianjun Geng, University of Texas at Dallas, Richardson, Texas, United States
Sigi Goode, Australian National University, Canberra, Australia
Gerald Grant, Carleton University, Ottawa, Ontario, Canada
Carol Hsu, Tongji University, Shanghai, China
Jimmy Huang, University of Warwick, Coventry, United Kingdom
Ming-Hui Huang, National Taiwan University, Taipei, Taiwan
<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>W. Huang</td>
<td>Ohio University, Athens, Ohio, United States</td>
</tr>
<tr>
<td>Shin-Yuan Hung</td>
<td>National Chung Cheng University Department of Information Management, Chia-Yi, Taiwan</td>
</tr>
<tr>
<td>Ghiyoung Im</td>
<td>University of Louisville, Louisville, Kentucky, United States</td>
</tr>
<tr>
<td>Donald Jones</td>
<td>Texas Tech University, Lubbock, Texas, United States</td>
</tr>
<tr>
<td>Weiling Ke</td>
<td>Clarkson University, Potsdam, New York, United States</td>
</tr>
<tr>
<td>Rajiv Kishore</td>
<td>University at Buffalo School of Management, Amherst, New York, United States</td>
</tr>
<tr>
<td>Dong-Gil Ko</td>
<td>University of Cincinnati, Cincinnati, Ohio, United States</td>
</tr>
<tr>
<td>Sherrie Komiak</td>
<td>Memorial University of Newfoundland, St John's, Newfoundland and Labrador, Canada</td>
</tr>
<tr>
<td>Kevin Kuan</td>
<td>The University of Sydney, Sydney, Australia</td>
</tr>
<tr>
<td>Sherah Kurnia</td>
<td>The University of Melbourne Department of Management and Marketing, Melbourne, Victoria, Australia</td>
</tr>
<tr>
<td>Karl Lang</td>
<td>City University of New York, New York, New York, United States</td>
</tr>
<tr>
<td>Dahui Li</td>
<td>University of Minnesota Duluth, Duluth, Minnesota, United States</td>
</tr>
<tr>
<td>Yung-Ming Li</td>
<td>National Chiao Tung University, Hsinchu, Taiwan</td>
</tr>
<tr>
<td>Huiqiang Liang</td>
<td>East Carolina University, Greenville, North Carolina, United States</td>
</tr>
<tr>
<td>Yaobin Lu</td>
<td>Huazhong University of Science and Technology, Wuhan, China</td>
</tr>
<tr>
<td>Nirup Menon</td>
<td>George Mason University, Fairfax, Virginia, United States</td>
</tr>
<tr>
<td>Fiona Nah</td>
<td>Missouri University of Science and Technology, Rolla, Missouri, United States</td>
</tr>
<tr>
<td>Eric W.T. Ngai</td>
<td>Hong Kong Polytechnic University, Kowloon, Hong Kong</td>
</tr>
<tr>
<td>Carol Ou</td>
<td>Tilburg University, Tilburg, Netherlands</td>
</tr>
<tr>
<td>P. Palvia</td>
<td>University of North Carolina at Greensboro, Greensboro, North Carolina, United States</td>
</tr>
<tr>
<td>Gary Pan</td>
<td>Singapore Management University, Singapore, Singapore</td>
</tr>
<tr>
<td>Shan Ling Pan</td>
<td>University of New South Wales, Sydney, New South Wales, Australia</td>
</tr>
<tr>
<td>Chee Wei (David) Phang</td>
<td>University of Nottingham - Ningbo China, Ningbo, China</td>
</tr>
<tr>
<td>Greta Polites</td>
<td>Kent State University, Kent, Ohio, United States</td>
</tr>
<tr>
<td>Clay Posey</td>
<td>University of Central Florida, Orlando, Florida, United States</td>
</tr>
<tr>
<td>Lingyun Qiu</td>
<td>Peking University, Beijing, China</td>
</tr>
<tr>
<td>V.V. Racham</td>
<td>Mahidol University College of Management, Bangkok, Thailand</td>
</tr>
<tr>
<td>M. N. Ravishankar</td>
<td>Loughborough University, Loughborough, United Kingdom</td>
</tr>
<tr>
<td>Sourav Biswas</td>
<td>National Tsing Hua University, Hsinchu, Taiwan</td>
</tr>
<tr>
<td>Lionel Robert</td>
<td>University of Michigan, Ann Arbor, Michigan, United States</td>
</tr>
<tr>
<td>Gregory Rose</td>
<td>Washington State University, Washington, Washington, United States</td>
</tr>
<tr>
<td>Shu Schiller</td>
<td>Wright State University, Dayton, Ohio, United States</td>
</tr>
<tr>
<td>Colleen Schwarz</td>
<td>University of Louisiana at Lafayette, Lafayette, Louisiana, United States</td>
</tr>
<tr>
<td>Darshana Sederera</td>
<td>Monash University, Clayton, Australia</td>
</tr>
<tr>
<td>Alexander Serenko</td>
<td>Lakehead University, Thunder Bay, Ontario, Canada</td>
</tr>
<tr>
<td>Benjamin Shao</td>
<td>Arizona State University, Tempe, Arizona, United States</td>
</tr>
<tr>
<td>Ramanath Subramanyam</td>
<td>University of Illinois at Urbana-Champaign, Champaign, Illinois, United States</td>
</tr>
<tr>
<td>Kil-Soo Suh</td>
<td>Yonsei University School of Business, Seoul, The Republic of Korea</td>
</tr>
<tr>
<td>Barney Tan</td>
<td>University of Sydney, Sydney, Australia</td>
</tr>
<tr>
<td>Chee-Wee Tan</td>
<td>Copenhagen Business School, Frederiksborg, Denmark</td>
</tr>
<tr>
<td>Angsana Techatassanasoontorn</td>
<td>Pennsylvania State University, University Park, Pennsylvania, United States</td>
</tr>
<tr>
<td>Thompson Sian Hin Teo</td>
<td>National University of Singapore, Department of Analytics &amp; Operations, Singapore, Singapore</td>
</tr>
<tr>
<td>Douglas R. Vogel</td>
<td>Harbin Institute of Technology, Haerbin, China</td>
</tr>
<tr>
<td>Gert-Jan de Vreede</td>
<td>University of South Florida, Tampa, Florida, United States</td>
</tr>
<tr>
<td>C. Wagner</td>
<td>City University of Hong Kong, Kowloon, Hong Kong</td>
</tr>
<tr>
<td>Linda Wallace</td>
<td>Virginia Tech University Bookstore, Blacksburg, Virginia, United States</td>
</tr>
<tr>
<td>Eric Wang</td>
<td>National Central University, Taoyuan City, Taiwan</td>
</tr>
<tr>
<td>Kan-Liang Wang</td>
<td>Renmin University of China, Beijing, China</td>
</tr>
<tr>
<td>Maggie Wang</td>
<td>University of Hong Kong, Hong Kong, China</td>
</tr>
<tr>
<td>Merrill Warkentin</td>
<td>Mississippi State University, Mississippi State, Mississippi, United States</td>
</tr>
<tr>
<td>Mary Beth Watson-Manheim</td>
<td>University of Illinois at Chicago, Chicago, Illinois, United States</td>
</tr>
<tr>
<td>C.P. Wei</td>
<td>National Taiwan University, Taipei, Taiwan</td>
</tr>
<tr>
<td>Christopher Westland</td>
<td>University of Illinois at Chicago, Chicago, Illinois, United States</td>
</tr>
<tr>
<td>Markus Westner</td>
<td>OTH Regensburg Library, Regensburg, Germany</td>
</tr>
<tr>
<td>Dongming Xu</td>
<td>University of Queensland, St Lucia, Queensland, Australia</td>
</tr>
<tr>
<td>Xuen Yang</td>
<td>Nanjing University, Nanjing, China</td>
</tr>
<tr>
<td>David Yen</td>
<td>Texas Southern University, Houston, Texas, United States</td>
</tr>
<tr>
<td>Dongsong Zhang</td>
<td>University of North Carolina at Charlotte, Charlotte, North Carolina, United States</td>
</tr>
<tr>
<td>Han Zhang</td>
<td>Georgia Institute of Technology, Atlanta, Georgia, United States</td>
</tr>
<tr>
<td>Bin Zhu</td>
<td>Oregon State University, Corvallis, Oregon, United States</td>
</tr>
</tbody>
</table>

**Editorial Board**

- Ivan Aaen, Aalborg University, Dept. of Computer Science, Aalborg Øst, Denmark
- Mokhtar Amami, Royal Military College of Canada, Kingston, Ontario, Canada
- Yoris Au, University of Texas at Dallas, Richardson, Texas, United States
Joerg Becker, University of Münster, Munster, Germany
Edward Bernroider, Vienna University of Economics and Business, Vienna, Austria
Albert Boonstra, University of Groningen, Groningen, Netherlands
Imed Bouzhala, TELECOM SudParis, Evry, France
Shobha Chenganur-Smith, University at Albany State University of New York, New York, New York, United States
Byounggu Choi, Kookmin University Department of Information Security Cryptology and Mathematics, Seoul, The Republic of Korea
Rahul De’, School of Management of Indian Institute of Management Bangalore, Bengaluru, India
Xiaodong Deng, Oakland University, Rochester, Michigan, United States
Peter Duchessi, University at Albany School of Business, New York, New York, United States
Amany Elbanna, Loughborough University School of Business and Economics, Loughborough, United Kingdom
Ahmed Elragal, German University in Cairo, Cairo, Egypt
Hajime Eto
Inas Ezz, Sadat Academy for Management Sciences, Cairo, Egypt
Nitza Geri, Open University of Israel, Ra'anana, Israel
Oeter Green, University of Queensland, St Lucia, Queensland, Australia
Milena Head, McMaster University, Hamilton, Ontario, Canada
Esperanza Huerta, University of Texas at El Paso, El Paso, Texas, United States
Zahir Irani, Brunel University, Uxbridge, United Kingdom
Gary Klein, University of Colorado at Colorado Springs, Colorado Springs, Colorado, United States
Ralf Klischewski, German University in Cairo, Cairo, Egypt
Kee-hung Lai, Hong Kong Polytechnic University, Kowloon, Hong Kong
Frank Land, Stowford Barton, Devon, United Kingdom
J.-L. Le Moigne, Aix-Marseille I University, Marseille, France
Tom Lee, Hanyang University, Seongdong-gu, The Republic of Korea
Eldon Li, Chung Yuan Christian University College of Business, Taoyuan, Taiwan
Wenhong Luo, Villanova University, Villanova, Pennsylvania, United States
Ronald Maier, University of Innsbruck, Innsbruck, Austria
Alemayehu Molla, RMIT University, Melbourne, Australia
Konrad Peszynski, RMIT University, Melbourne, Australia
Nancy Pouloudi, Athens University of Economics and Business, Athens, Greece
Angeliki Poulymenakou, Athens University of Economics and Business, Athens, Greece
Nicolau Reinhard, University of Sao Paulo, Sao Paulo, Brazil
Ulrich Remus, University of Canterbury, Christchurch, New Zealand
Tapi Reponen, Turku School of Economics, TURKU, Finland
Pieter Ribbers, Tilburg University, Tilburg, Netherlands
Michael Rosemann, Queensland University of Technology, Brisbane, Australia
Jia-Lang Seng, National Chengchi University, Taipei, Taiwan
Choon Ling Sia, City University of Hong Kong, Kowloon, Hong Kong
H.G. Sol, University of Groningen, Groningen, Netherlands
Abdullah Uz Tansel, Baruch College, New York, New York, United States
Monideepa Tarafdar, UNIVERSITY OF TOLEDO, Toledo, Ohio, United States
Hubert Tardieu, Atos SE, Bezons, France
G.K. Tayi, University at Albany Department of Physics, New York, New York, United States
Reza Torkzadeh, University of Nevada Las Vegas, Las Vegas, Nevada, United States
Hurtado Torres, University of Granada, Granada, Spain
Virpi Kristiina Tuunainen, Aalto University Department of Information and Service Economy, Aalto, Finland
R.T. Vidgen, University of New South Wales, Sydney, New South Wales, Australia
Robin Wakefield, Baylor University, Waco, Texas, United States
Rita Walczuch, Maastricht University, Maastricht, Netherlands
Eric Wang, Villanova University, Villanova, Pennsylvania, United States
Nilmini Wickramasinghe, RMIT University, Melbourne, Australia
M. Wiener, Friedrich-Alexander University Erlangen-Nuremberg, Germany
Rob Wilson, Newcastle University, Newcastle Upon Tyne, United Kingdom
Jen-Her Wu, National Sun Yat-sen University, Kaohsiung, Taiwan
Benjamin Yen, University of Hong Kong, Hong Kong, China
GUIDE FOR AUTHORS

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

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

Authors in Japan please note: Upon request, Elsevier Japan will provide authors with a list of people who can check and improve the English of their paper (before submission). Please contact our Tokyo office: Elsevier Japan, 1-9-15 Higashi-Azabu, Minato-ku, Tokyo 106-0044; Tel. (03)5561 5033; fax (03)5561 5047.

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 and verification
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. To verify originality, your article may be checked by the originality detection service Crossref Similarity Check.

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 1800, 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 36 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 Author Services.

Submission

Submission to this journal proceeds totally online and you will be guided stepwise through the creation and uploading of your files. The system automatically converts source files to a single PDF file of the article, which is used in the peer-review process. Please note that even though manuscript source files are converted to PDF files at submission for the review process, these source files are needed for further processing after acceptance. All correspondence, including notification of the Editor's decision and requests for revision, takes place by e-mail removing the need for a paper trail.

Submit your article

Please submit your article via: http://ees.elsevier.com/infman/

PREPARATION

NEW SUBMISSIONS

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

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

References

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

Formatting requirements

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

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

Divide the article into clearly defined sections.

Figures and tables embedded in text

Please ensure the figures and the tables included in the single file are placed next to the relevant text in the manuscript, rather than at the bottom or the top of the file. The corresponding caption should be placed directly below the figure or table.

Peer review

This journal operates a double 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.
Double-blind review
This journal uses double-blind review, which means the identities of the authors are concealed from the reviewers, and vice versa. More information is available on our website. To facilitate this, please include the following separately:
Title page (with author details): This should include the title, authors' names, affiliations, acknowledgements and any Declaration of Interest statement, and a complete address for the corresponding author including an e-mail address.
Blinded manuscript (no author details): The main body of the paper (including the references, figures, tables and any acknowledgements) should not include any identifying information, such as the authors' names or affiliations.

REVISED SUBMISSIONS
Use of word processing software
Regardless of the file format of the original submission, at revision you must provide us with an editable file of the entire article. Keep the layout of the text as simple as possible. Most formatting codes will be removed and replaced on processing the article. The electronic text should be prepared in a way very similar to that of conventional manuscripts (see also the Guide to Publishing with Elsevier). See also the section on Electronic artwork.
To avoid unnecessary errors you are strongly advised to use the 'spell-check' and 'grammar-check' functions of your word processor.

Article structure
Authors should use a scientific/engineering attitude towards their analyses. The numbers computed should have the appropriate number of significant figures. Please do not use more significant figures than the observations allow (i.e., for most surveys 2 or 3 are sufficient). Decimal fractions should have a leading zero, e.g. 0.001 rather than .001

Authors are encouraged to look at the articles recently published in the journal to understand the aims of the journal.

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

Highlights
Highlights are optional yet highly encouraged for this journal, as they increase the discoverability of your article via search engines. They consist of a short collection of bullet points that capture the novel results of your research as well as new methods that were used during the study (if any). Please have a look at the examples here: example Highlights.

Highlights should be submitted in a separate editable file in the online submission system. Please use 'Highlights' in the file name and include 3 to 5 bullet points (maximum 85 characters, including spaces, per bullet point).
Abstract
A concise and factual abstract is required. The abstract should state briefly the purpose of the research, the principal results and major conclusions. An abstract is often presented separately from the article, so it must be able to stand alone. For this reason, References should be avoided, but if essential, then cite the author(s) and year(s). Also, non-standard or uncommon abbreviations should be avoided, but if essential they must be defined at their first mention in the abstract itself.
The abstract should not be more than 100 words.

Keywords
The first page of the manuscript should also contain a short list of carefully chosen keywords or content indicators.

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.

Footnotes
Footnotes should be used sparingly. Number them consecutively throughout the article. Many word processors build footnotes into the text, and this feature may be used. Should this not be the case, indicate the position of footnotes in the text and present the footnotes themselves separately at the end of the article.

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

A detailed guide on electronic artwork is available.

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

Formats
Regardless of the application used, when your electronic artwork is finalized, please 'save as' or convert the images to one of the following formats (note the resolution requirements for line drawings, halftones, and line/halftone combinations given below):
EPS (or PDF): Vector drawings. Embed the font or save the text as 'graphics'.
TIFF (or JPG): Color or grayscale photographs (halftones): always use a minimum of 300 dpi.
TIFF (or JPG): Bitmapped line drawings: use a minimum of 1000 dpi.
TIFF (or JPG): Combinations bitmapped line/half-tone (color or grayscale): a minimum of 500 dpi is required.
Please do not:
- Supply files that are optimized for screen use (e.g., GIF, BMP, PICT, WPG); the resolution is too low.
- Supply files that are too low in resolution.
- Submit graphics that are disproportionately large for the content.

Color artwork
Please make sure that artwork files are in an acceptable format (TIFF (or JPEG), EPS (or PDF), or MS Office files) and with the correct resolution. If, together with your accepted article, you submit usable color figures then Elsevier will ensure, at no additional charge, that these figures will appear in color online (e.g., ScienceDirect and other sites) regardless of whether or not these illustrations are reproduced in color in the printed version. For color reproduction in print, you will receive information regarding the costs from Elsevier after receipt of your accepted article. Please indicate your preference for color: in print or online only. Further information on the preparation of electronic artwork.

Figure captions
Ensure that each illustration has a caption. 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.

Text graphics
Text graphics may be embedded in the text at the appropriate position. See further under Electronic artwork.

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.

Citations to well known facts, statistical and psychological documents, mathematical techniques or articles more than eight years old should, in general, be avoided.

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.

Please only refer to peer reviewed articles.
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/information-and-management
When preparing your manuscript, you will then be able to select this style using the Mendeley plug-ins for Microsoft Word or LibreOffice.

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

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:
Reference to a journal publication with an article number:
Reference to a book:
Reference to a chapter in an edited book:
Reference to a website:
Reference to a dataset:
Journal abbreviations source
Journal names should be abbreviated according to the List of Title Word Abbreviations.

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

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](https://www.mendeley.com/data/).

**Data in Brief**

You have the option of converting any or all parts of your supplementary or additional raw data into one or multiple data articles, a new kind of article that houses and describes your data. Data articles ensure that your data is actively reviewed, curated, formatted, indexed, given a DOI and publicly available to all upon publication. You are encouraged to submit your article for **Data in Brief** as an additional item directly alongside the revised version of your manuscript. If your research article is accepted, your data article will automatically be transferred over to **Data in Brief** where it will be editorially reviewed and published in the open access data journal, **Data in Brief**. Please note an open access fee of 600 USD is payable for publication in **Data in Brief**. Full details can be found on the [Data in Brief website](https://www.datainbrief.com/). Please use this template to write your Data in Brief.

**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](https://www.elsevier.com/locate/im).

**AFTER ACCEPTANCE**

As per the style of this journal, biographies of the authors are mandatory. Please include a short biography for all the authors.

**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](https://www.elsevier.com/locate/im) 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 [Author Services](https://www.elsevier.com/locate/im). 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](https://www.elsevier.com/locate/im) 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](https://www.elsevier.com/locate/im) or find out when your accepted article will be published.