DIAGNOSTIC AND INTERVENTIONAL IMAGING

TABLE OF CONTENTS

• Description p.1
• Impact Factor p.1
• Abstracting and Indexing p.1
• Editorial Board p.1
• Guide for Authors p.5

DESCRIPTION

Diagnostic and Interventional Imaging publishes original articles and reviews of high quality in the field.

The Journal includes five issues of CME within the twelve yearly issues.

The Journal focuses on illustrated articles with great iconographic topics.

Diagnostic and Interventional Imaging is a great aid for sharpening clinical decision-making skills as well as following high Research topics.

IMPACT FACTOR

2016: 2.277 © Thomson Reuters Journal Citation Reports 2017

ABSTRACTING AND INDEXING

Current Contents / Clinical Medicine
Medline/Index Medicus
PASCAL/INIST-CNRS
Research Alert
Biological Abstracts
SciSearch/Science Citation Index Expanded
EMBASE/Excerpta Medica
Scopus
Journal Citation Reports - Science Edition
SCImago Journal Rank (SJR)
Research4Life (Hinari)

EDITORIAL BOARD

Editor-in-Chief
Philippe Soyer, MD, PhD, Hôpital Lariboisière, Paris, France
Université Paris 7
Sorbonne Paris Cité

Senior Deputy Editor
Hervé Trillaud, MD, PhD

Deputy Editors
Jean-Paul Beregi, MD, PhD
Alain Blum, MD, PhD
Xavier Leclerc, MD, PhD
Catherine Oppenheim, MD, PhD
Michel Panuel, MD
Martine Rémy-Jardin, MD

CME Coordinators
Jean-Pierre Tasu, MD, PhD
Sophie Chagnon, MD

Editors Emeriti
François Laurent, MD
Patrice Taourel, MD, PhD

Cardiac Imaging Section Editor
Jean-François Deux, MD, PhD

Cardiac Imaging Assistant Editors
Jean-Nicolas Dacher, MD, PhD
Philippe Douek, MD, PhD
Alexis Jacquier, MD, PhD
Jean-Pierre Laissy, MD, PhD
Elie Mousseaux, MD, PhD
Alban Redheuil, MD
Marc Sirol, MD, PhD

Gastrointestinal Imaging Section Editor
Maxime Ronot, MD

Gastrointestinal Imaging Assistant Editors
Lionel Arrivé, MD, PhD
Christophe Aubé, MD, PhD
Stéphanie Nougaret, MD, PhD
Pascal Rousset, MD, PhD
Valérie Vilgrain, MD, PhD
Marc Zins, MD

Genitourinary Imaging Section Editor
Olivier Rouvière, MD, PhD

Genitourinary Imaging Assistant Editors
Jean-Michel Correas, MD, PhD
Nicolas Grenier, MD, PhD
Olivier Héliénon, MD, PhD
Philippe Puech, MD, PhD

Musculoskeletal Imaging Section Editor
Alain Blum, MD, PhD

Musculoskeletal Imaging Assistant Editors
Valérie Bousson, MD, PhD
Nathalie Boutry, MD
Anne Cotten, MD
Catherine Cyteval, MD, PhD
Jean-Luc Drapé, MD, PhD
Nicolas Sans, MD, PhD

Neuroradiology-Head & Neck Imaging Section Editor
Catherine Oppenheim, MD, PhD
Neuroradiology-Head & Neck Imaging Assistant Editors
Fabrice Bonneville, MD, PhD
Françoise Héran, MD
Olivier Naggara, MD
Laurent Spelle, MD, PhD

Pediatric Imaging Section Editor
Guillaume Gorincour, MD, PhD

Pediatric Imaging Assistant Editors
Catherine Adamsbaum, MD
Jean-François Chateil, MD, PhD
Hubert Ducou-Lepointe, MD, PhD
Guillaume Gorincour, MD, PhD
Michel Panuel, MD
Dominique Sirinelli, MD

Research & New Developments Section Editor
Boris Guiu, MD, PhD

Research & New Developments Assistant Editors
Ivan Bricault, MD, PhD
Olivier Clément, MD, PhD
Charles-André Cuénod, MD, PhD
Jacques Felblinger, MD, PhD
Denis Le Bihan, MD, PhD
Alain Luciani, MD, PhD

Thoracic Imaging Section Editor
Martine Rémy-Jardin, MD

Thoracic Imaging Assistant Editors
Emmanuel Coche, MD, PhD
Gilbert Ferretti, MD, PhD
François Laurent, MD, PhD
Marie-Pierre Revel, MD, PhD

Vascular & Interventional Imaging Section Editor
Hélène Vernhet-Kovacsik, MD, PhD

Vascular & Interventional Imaging Assistant Editors
Thierry de Baere, MD, PhD
Louis Boyer, MD, PhD
François Cornelis, MD, PhD
Anthony Dohan, MD
Afshin Gangi, MD, PhD
Éric de Kerviler, MD, PhD
Jean Palussière, MD
Vincent Vidal, MD, PhD

Women's Imaging Section Editor
Isabelle Thomassin-Naggara, MD, PhD

Women's Imaging Assistant Editors
Corinne Baleyguier, MD, PhD
Cédric de Bazelaire, MD, PhD
Laure Fournier, MD
Patrice Taourel, MD, PhD
Anne Tardivon, MD

International Editorial Board
Hicham Abada, MD, Lexington, KY, USA
Shigeki Aoki, MD, PhD, Tokyo, Japan
David A. Bluemke, MD, PhD, MsB, Bethesda, MD, USA
Philippe Brunner, MD, Monaco
Rami Chemali, MD, Beirut, Lebanon
Alban Denys, MD, Lausanne, Switzerland
Elliot K. Fishman, MD, Baltimore, MD, USA
Benoît Gallix, MD, PhD, Montréal, Canada
Ricardo García-Mónaco, MD, Buenos Aires, Argentina
Jafar Golzarian, MD, Minneapolis, MN, USA
Ali Guermazi, MD, Boston, MA, USA
Lotfi Hucein Bey, MD, Sacramento, CA, USA
Masayuki Kanematsu, MD, PhD, Gifu, Japan
Karen Kinkel, MD, Geneva, Switzerland
Jongmin Lee, MD, PhD, Daegu, Korea
Riccardo Manfredi, MD, Verona, Italy
Junichi Matsumoto, MD, Kanagawa, Japan
Sabine Schmidt, MD, Lausanne, Switzerland
Gilles Soulez, MD, Montreal, Canada
Nagara Tamaki, MD, PhD, Sapporo, Japan
Bachir Taouli, MD, New York, NY, USA
GUIDE FOR AUTHORS

INTRODUCTION

*Diagnostic and Interventional Imaging* is the official Journal of Société Française de Radiologie (SFR) and official Journal of Collège des Enseignants en Radiologie de France (CERF).

*Diagnostic and Interventional Imaging* accepts publications originating from any part of the world based only on their scientific merit. *Diagnostic and Interventional Imaging* does not have publication fees. All articles are published in English. The quality of the language is of paramount importance as it influences how the manuscript is received by Editors, reviewers and readers. For authors who are not English speakers and may not be experienced in scientific writing in English we strongly recommend the use of appropriate language services. The authors may consider any option available to them including the language services provided by Elsevier. More information can be found at [http://webshop.elsevier.com/languageservices/](http://webshop.elsevier.com/languageservices/). Please note that the use of language services is at the author’s cost and does not guarantee that the manuscript will be reviewed or accepted.

The journal publishes editorials, technical notes, letters, original and review articles on abdominal, breast, cancer, cardiac, emergency, forensic medicine, head and neck, musculoskeletal, gastrointestinal, genitourinary, interventional, obstetric, pediatric, thoracic and vascular imaging, neuroradiology, nuclear medicine, as well as contrast material, computer developments, health policies and practice, and medical physics relevant to imaging.

**Original articles**

Original articles report results of a scientific study. The abstract must be sufficiently clear and informative to allow understanding of the work without reading the complete article. The abstract (of no more than 250 words) should be organized into four separate paragraphs titled *Rationale and Objectives*, *Materials (patients) and Methods*, *Results*, and *Conclusion*. Three to five keywords that are suitable for indexing the manuscript should follow.

Manuscripts should contain discrete *Introduction*, *Materials and Methods*, *Results*, and *Discussion* sections and should not exceed 15 manuscript pages, or 3300 words (excluding references, tables, and figure legends).

*Introduction:* It should be organized into three parts: the first part defines the problem, the second part briefly reviews what is known about this problem (with references), the last paragraph states clearly the objectives, taking into account what has been summarized in the previous paragraph and, briefly, the means used to achieve them.

*Material (or patients) and methods:* The selection criteria for patients and controls are precisely listed. The compositions of groups, age, sex, clinical symptoms, etc. are detailed. Protocols (imaging techniques, analytic methods, specific diagnostic criteria or criteria of analysis, standard reference selected, statistical tests, etc.) must be precisely established taking into account, however, only useful data. Techniques or evaluation criteria, clinical or radiologic that have already been described elsewhere may only be referred to the publication where they have been detailed. In case of non-clinical work, full features of the animals or devices are provided for the experiment must be reproduced in full. There are no results in this chapter and the verbs are in the past tense. The favourable opinion given by an ethics committee may be mentioned where appropriate.

*Results:* All results related to the study are provided and exposed clearly and logically, including negative results. If tables are used, there should be no redundancy between the text and the tables. They are expressed in the past tense.

*Discussion:* The purpose of this chapter is to discuss the materials and methods and to examine the validity of the results. The first paragraph of the discussion must therefore expose the answers that the authors have provided to the questions they have asked and motivated the research. Authors can then put these results in relation to previous knowledge and compare them with data from the literature. Performance, limitations, false diagnoses, pitfalls and artefacts should be discussed here, as well as the lessons from this experience and proposed solutions to problems.

*Conclusion:* It summarizes very briefly the results of the study and their implications.

**Reviews**
A review details as completely as possible the state of the art on a technique or management of a pathology or particular clinical situation. It may consist in an update on related subjects (legislation, professional, etc.). The abstract is not structured; it must specify the aim of the article and summarize the main points. It should not exceed 250 words and be accompanied by three to five keywords.

**Pictorial reviews**

This form of publication is based on illustrations of excellent quality, presenting a pathology or a technique. Figures should be carefully prepared, ensuring that all panels are at the same magnification. The text should be short and concise; the references are limited to 10. An unstructured summary, stating the main points, not exceeding 100 words, must be provided, accompanied by three to five keywords.

**Technical notes**

Technical notes briefly describe a technique, a technique modification or new equipment. A short discussion should give a general overview. The discussion should be limited to a specific message about the interest of the technique or technical equipment. There are no more than 2 figures and no summary. The manuscript length does not exceed 4 pages double-spaced, including references and figure legends, plus the title page. Three to five keywords should be provided.

**Letters (clinical observations)**

Letters are limited to 700 words, 4 figures and 6 references. Letters reporting original clinical cases only will be published, showing aspects of a pathology that have not or rarely been reported. The introduction should be brief, stating the interest of the case. The discussion should be short and focused on the new issues emerged. A literature review is not recommended in these clinical observations. The abstract is optional, three to five keywords should be provided. The length of the manuscript does not exceed 4 pages double-spaced, including references and figure captions, plus the title page. A maximum of 6 authors may sign the Letter.

**Radiologic pathologic correlations**

These articles emphasize a high quality radiologic pathologic correlation to better understand the radiological semiology. A macroscopic image of the pathology must be included. The text should be short, less than 800 words excluding figure legends and references. The abstract is not required, the number of figures should be limited to 4 including macroscopic images, and the number of references should not exceed 6. Three to five keywords should be provided.

Please submit manuscripts on the journal's editorial site (http://ees.elsevier.com/diii/). If you have any queries, contact Mikal Dion, editorial assistant: mikael.dion@sfradiologie.org

**Page charges**

This journal has no page charges.

**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
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.

Manuscripts will be returned to the authors if any of the requested information or file as per these instructions is missing.

BEFORE YOU BEGIN

Ethics in publishing
Please see our information pages on Ethics in publishing and Ethical guidelines for journal publication.

Human and animal rights
If the work involves the use of human subjects, the author should ensure that the work described has been carried out in accordance with The Code of Ethics of the World Medical Association (Declaration of Helsinki) for experiments involving humans; Uniform Requirements for manuscripts submitted to Biomedical journals. Authors should include a statement in the manuscript that informed consent was obtained for experimentation with human subjects. The privacy rights of human subjects must always be observed.

All animal experiments should comply with the ARRIVE guidelines and should be carried out in accordance with the U.K. Animals (Scientific Procedures) Act, 1986 and associated guidelines, EU Directive 2010/63/EU for animal experiments, or the National Institutes of Health guide for the care and use of Laboratory animals (NIH Publications No. 8023, revised 1978) and the authors should clearly indicate in the manuscript that such guidelines have been followed.

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

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

Contributors
Each author is required to declare his or her individual contribution to the article: all authors must have materially participated in the research and/or article preparation, so roles for all authors should be described. The statement that all authors have approved the final article should be true and included in the disclosure.
**Authorship**
All authors should have made substantial contributions to all of the following: (1) the conception and design of the study, or acquisition of data, or analysis and interpretation of data, (2) drafting the article or revising it critically for important intellectual content, (3) final approval of the version to be submitted.

**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.

**Clinical trial results**
In line with the position of the International Committee of Medical Journal Editors, the journal will not consider results posted in the same clinical trials registry in which primary registration resides to be prior publication if the results posted are presented in the form of a brief structured (less than 500 words) abstract or table. However, divulging results in other circumstances (e.g., investors’ meetings) is discouraged and may jeopardise consideration of the manuscript. Authors should fully disclose all posting in registries of results of the same or closely related work.

**Reporting clinical trials**
Randomized controlled trials should be presented according to the CONSORT guidelines. At manuscript submission, authors must provide the CONSORT checklist accompanied by a flow diagram that illustrates the progress of patients through the trial, including recruitment, enrollment, randomization, withdrawal and completion, and a detailed description of the randomization procedure. The CONSORT checklist and template flow diagram are available online.

**Registration of clinical trials**
Registration in a public trials registry is a condition for publication of clinical trials in this journal in accordance with International Committee of Medical Journal Editors recommendations. Trials must register at or before the onset of patient enrolment. The clinical trial registration number should be included at the end of the abstract of the article. A clinical trial is defined as any research study that prospectively assigns human participants or groups of humans to one or more health-related interventions to evaluate the effects of health outcomes. Health-related interventions include any intervention used to modify a biomedical or health-related outcome (for example drugs, surgical procedures, devices, behavioural treatments, dietary interventions, and process-of-care changes). Health outcomes include any biomedical or health-related measures obtained in patients or participants, including pharmacokinetic measures and adverse events. Purely observational studies (those in which the assignment of the medical intervention is not at the discretion of the investigator) will not require registration.

**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.

**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.

**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 Open Access Publication Fee. Details of existing agreements are available online.

**Green open access**

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

This journal has an embargo period of 12 months.

**Elsevier Publishing Campus**

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

**Language (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.

**Informed consent and patient details**

Studies on patients or volunteers require ethics committee approval and informed consent, which should be documented in the paper. Appropriate consents, permissions and releases must be obtained where an author wishes to include case details or other personal information or images of patients and any other individuals in an Elsevier publication. Written consents must be retained by the author and copies of the consents or evidence that such consents have been obtained must be provided to Elsevier on request. For more information, please review the Elsevier Policy on the Use of Images or Personal Information of Patients or other Individuals. Unless you have written permission from the patient (or, where applicable, the next of kin), the personal details of any patient included in any part of the article and in any supplementary materials (including all illustrations and videos) must be removed before submission.
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.

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

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

PREPARATION
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.

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.

Article structure
Please see the section on the types of papers for specific instructions.

Manuscripts should be arranged as follows: a) Title page; b) Abstract; c) Text; d) Reference List; and e) Figure captions. Any appendices should be placed after the reference list and before the figure captions. Tables and figures must be uploaded as separate files from the manuscript file. Do not import figures or tables into the text document.
Authors should retain complete copies of their manuscripts, including the figures and tables. Authors will be notified of receipt of manuscripts.

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
State the objectives of the work and provide an adequate background, avoiding a detailed literature survey or a summary of the results.

Material and methods
Provide sufficient detail to allow the work to be reproduced. Methods already published should be indicated by a reference: only relevant modifications should be described.
Theory/calculation
A Theory section should extend, not repeat, the background to the article already dealt with in the Introduction and lay the foundation for further work. In contrast, a Calculation section represents a practical development from a theoretical basis.

Results
Results should be clear and concise.

Discussion
This should explore the significance of the results of the work, not repeat them. A combined Results and Discussion section is often appropriate. Avoid extensive citations and discussion of published literature.

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.

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

Title should be no more than 10 words or 80 characters long including spaces.
List each affiliation separately, if an author is affiliated to multiple institutions (e.g. a research institute and a university), each affiliation must be numbered.

Structured abstract
A structured abstract is required for Original Articles; by means of appropriate headings (see the Type of papers section) it should provide the context or background for the research and should state its purpose, basic procedures (selection of study subjects or laboratory animals, observational and analytical methods), main findings (giving specific effect sizes and their statistical significance, if possible), and principal conclusions. It should emphasize new and important aspects of the study or observations.

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

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

Abbreviations should be avoided. Laboratory slang, clinical jargon and uncommon abbreviations are not acceptable. Such abbreviations that are unavoidable must be defined on their first appearance in the abstract and text, giving the abbreviation between parentheses. 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.

Drugs or instrumentation names
Devices cited in the text will refer to the manufacturer according to procedures to be established in accordance with the Editorial Office; the same applies for drugs whose scientific (generic) name only appears in the text.

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).

Embedded math equations
If you are submitting an article prepared with Microsoft Word containing embedded math equations then please read this (related support information).

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/halftone (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.

**Multiple panels figures**

Please provide each panel as a separate file making sure that the figure and panel number is part of the file name (e.g. Fig1a.tif, etc.). Do not add the figure number in the illustration, this will be done by the publisher.

**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). Further information on the preparation of electronic artwork.

**Illustration services**

Elsevier’s WebShop offers Illustration Services to authors preparing to submit a manuscript but concerned about the quality of the images accompanying their article. Elsevier's expert illustrators can produce scientific, technical and medical-style images, as well as a full range of charts, tables and graphs. Image 'polishing' is also available, where our illustrators take your image(s) and improve them to a professional standard. Please visit the website to find out more.

**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.

**Figures from copyrighted works**

If figures from other copyrighted works are included, the author(s) must obtain written permission from the copyright owners and credit the source(s) in the figure caption, by citing the reference(s), which will be listed in the References section of the article. This also applies to figures that were published in another language and translated to be included in the new work (please see the Copyright section).
Tables from copyrighted works
If tables from other copyrighted works are included, the author(s) must obtain written permission from the copyright owners and credit the source(s) in the table title, by citing the reference(s), which will be listed in the References section of the article. This also applies to tables that were published in another language and translated to be included in the new work (please see the Copyright section).

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: in this instance, please cite the DOI.

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 and a copy of the title page of the relevant article must be submitted.

For a reference 'in press', please provide the DOI.

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 encouraged.

A DOI can be used to cite and link to electronic articles where an article is in-press and full citation details are not yet known, but the article is available online. 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 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 obtained a different result ....[8].'
As far as possible, reference numbers are placed at the end of the sentence.
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 book:
Reference to a chapter in an edited book:
Reference to a website:

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 files in one of our recommended file formats with a preferred maximum size of 150 MB in total. Any single file should not exceed 50 MB. Video and animation files supplied will be published online in the electronic version of your article in Elsevier Web products, including ScienceDirect. Please supply 'stills' with your files: you can choose any frame from the video or animation or make a separate image. These will be used instead of standard icons and will personalize the link to your video data. For more detailed instructions please visit our video instruction pages. Note: since video and animation cannot be embedded in the print version of the journal, please provide text for both the electronic and the print version for the portions of the article that refer to this content.

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

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

3D radiological data
You can enrich your online article by providing 3D radiological data in DICOM format. Radiological data will be visualized for readers using the interactive viewer embedded within your article, and will enable them to: browse through available radiological datasets; explore radiological data as 2D series, 2D orthogonal MPR, 3D volume rendering and 3D MIP; zoom, rotate and pan 3D reconstructions; cut through the volume; change opacity and threshold level; and download the data. Multiple datasets can be submitted. Each dataset will have to be zipped and uploaded to the online submission system via the '3D radiological data' submission category. The recommended size of a single uncompressed dataset is 200 MB or less. Please provide a short informative description for each dataset by filling in the 'Description' field when uploading each ZIP file. Note: all datasets will be available for download from the online article on ScienceDirect. So please ensure that all DICOM files are anonymized prior to submission. More information.
**Interactive plots**

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

**AFTER ACCEPTANCE**

**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. Both corresponding and co-authors may order offprints at any time via Elsevier's Webshop. Corresponding authors who have published their article open access do not receive a Share Link as their final published version of the article is available open access on ScienceDirect and can be shared through the article DOI link.

**AUTHOR 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.