



TABLE OF CONTENTS

•	Description	p.1
•	Audience	p.1
•	Impact Factor	p.2
•	Abstracting and Indexing	p.2
•	Editorial Board	p.2
•	Guide for Authors	p.4



ISSN: 0377-2217

DESCRIPTION

The *European Journal of Operational Research (EJOR)* publishes high quality, original papers that contribute to the methodology of **operational research (OR)** and to the practice of **decision making**. *EJOR* contains the following types of papers:

- Invited Reviews, explaining to the general OR audience the developments in an OR topic over the recent years
- Innovative Applications of OR, describing novel ways to solve real problems
- Theory and Methodology Papers, presenting original research results contributing to the methodology of OR and to its theoretical foundations,
- Short Communications, if they correct important deficiencies of papers previously published in *EJOR*

The Theory and Methodology Papers are classified into one of the seven headings:

- Continuous Optimization
- Discrete Optimization
- Production, Manufacturing and Logistics
- Stochastics and Statistics
- Decision Support
- Computational Intelligence and Information Management
- Interfaces with Other Disciplines

In addition to these types of papers, *EJOR* contains Book Reviews.

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 and practitioners working in the area of operational research/management science

IMPACT FACTOR

2017: 3.428 © Clarivate Analytics Journal Citation Reports 2018

ABSTRACTING AND INDEXING

International Abstracts in Operations Research
Science Citation Index Expanded
Zentralblatt MATH
COMPENDEX
Current Contents/Engineering, Computing & Technology
CompuMath Citation Index
Research Alert
Mathematical Reviews
Executive Sciences Institute
Engineering Index
INSPEC
Management Contents
QCAS
Decision Sciences Web
Bio Systems
dblp - Computer Science Bibliography

EDITORIAL BOARD

Co-ordinating Editor in Chief:

R. Slowinski, Inst. of Computing Science, Poznan University of Technology, Piotrowo 2, PL-60-965, Poznan, Poland, Fax: 48 61 8771525

Editors:

E. Borgonovo, Dept. of Decision Sciences, Università Bocconi, Via Roentgen 1, 20139, Milano, Italy, Fax: 0039-02-5836-5640

R.G. Dyson, Warwick Business School, University of Warwick, Gibbet Hill Road, CV4 7AL, Coventry, England, UK

J.F. Oliveira, INESC TEC, Faculty of Engineering, University of Porto, Rua Dr. Roberto Frias, 4200-465 Porto, Portugal

S. Rebennack, Inst. für Operations Research, Karlsruhe Institute of Technology (KIT), 76128, Karlsruhe, Germany

R. Teunter, University of Groningen, Antonius Deusinglaan 1, 9713AV, Groningen, Netherlands

Past Editors

J. Artalejo, (2007-2010)

J.-Ch. Billaut, (2007-2014)

I. Bomze, (2011-2017)

A. Mercer, (1977-1999)

B. Tilanus, (1977-1999)

L. Peccati, (2005-2014)

J. Teghem, (1999-2007)

J. Wallenius, (1999-2004)

H.-J. Zimmermann, (1977-1999)

Editorial Board:

C. Akkaya, Dokuz Eylül University, Izmir, Turkey

E. Balas, Carnegie Mellon University, Pittsburgh, Pennsylvania, USA

V. Belton, University of Strathclyde, Glasgow, Scotland, UK

A. Ben-Tal, Technion - Israel Institute of Technology, Haifa, Israel

J.-C. Billaut, Université François-Rabelais de Tours, Tours, France

I. Bomze, University of Vienna, Wien, Austria

N. Boysen, Friedrich-Schiller-Universität Jena, Jena, Germany

J. Carlier, Université de Technologie de Compiègne, Compiègne Cedex, France

W.D. Cook, York University, Toronto, Ontario, Canada

D. de Werra, École Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Switzerland

F. Della Croce, Politecnico di Torino, Torino, Italy

E.D. Demeulemeester, KU Leuven, Leuven, Belgium

S.M. Disney, Cardiff Business School, Cardiff, Wales, UK
I. Durbach, University of Cape Town, Cape Town, South Africa
L.A. Franco, Loughborough University, Leicestershire, England, UK
A. Gaviou, Ben Gurion University, Beer Sheva, Israel and Ono Academic College, Kiryat Ono, Israel
M. Gendreau, École Polytechnique de Montréal, Montreal, Quebec, Canada
J. Gondzio, University of Edinburgh, Edinburgh, UK
S. Greco, Università degli Studi di Catania, Catania, Italy
M. Inuiguchi, Osaka University, Osaka, Japan
F. Jaehn, Helmut Schmidt University, Hamburg, Germany
C. Kao, National Cheng Kung University, Tainan, Taiwan
C. Koulamas, Florida International University, Miami, Florida, USA
M.Y. Kovalyov, National Academy of Sciences of Belarus (NASB), Minsk, Belarus
G. Laporte, HEC Montreal, Montreal, Quebec, Canada
U. Leopold-Wildburger, Karl-Franzens-Universität Graz, Graz, Austria
J.M. Martinez, State University of Campinas, Campinas, Brazil
B. Matarazzo, Università degli Studi di Catania, Catania, Italy
S. Minner, Technische Universität München, München, Germany
V. T. Paschos, Université Paris-Dauphine, Paris Cedex 16, France
L. Peccati, Università Bocconi, Milano, Italy
E. Pesch, Universität Siegen, Siegen, Germany
U. Pferschy, University of Graz, Graz, Austria
D. Pisinger, Danmarks Tekniske Universitet (DTU), Kgs. Lyngby, Denmark
J.A.C. Resing, Technische Universiteit Eindhoven, Eindhoven, Netherlands
S. Robinson, Loughborough University, Loughborough, Leicestershire, England, UK
R. Ruiz, Universidad Politècnica de València, Valencia, Spain
Y. Siskos, University of Piraeus, Piraeus, Greece
T.S. Spengler, Technische Universität Braunschweig, Braunschweig, Germany
E. Taillard, University of Applied Sciences Western Switzerland (HES-SO), Yverdon Les Bains, Switzerland
K.C. Tan, National University of Singapore, Singapore, Singapore
J. Teghem, Université de Mons, Mons, Belgium
T. Terlaky, Lehigh University, Bethlehem, Pennsylvania, USA
E. Thanassoulis, Aston University, Birmingham, UK
P. Toth, Università di Bologna, Bologna, Italy
G. Vanden Berghe, KU Leuven, Gent, Belgium
J. Wallenius, Aalto University, Helsinki, Finland
J. Weglarz, Poznan University of Technology, Poznan, Poland
H. Zhang, Chinese Academy of Sciences (CAS), Beijing, China
J. Zhu, Worcester Polytechnic Institute, Worcester, Massachusetts, USA
C. Zopounidis, Technical University of Crete, Chania, Greece

Book Review Editor:

J. R. Figueira, Instituto Superior Técnico, Lisboa, Portugal

GUIDE FOR AUTHORS

INTRODUCTION

Editorial policies

The *European Journal of Operational Research* (EJOR) publishes high quality, original papers that contribute to the methodology of operational research (OR) and to the practice of decision making. Extended versions of papers published in conference proceedings are not solicited. The relation with ongoing research should be demonstrated by providing proper reference to the recent OR literature. With application papers, originality should be demonstrated by applying OR to a problem with interesting new aspects or by providing fresh insights leading to successful implementation. Practitioners often suffer from the need to conceal commercial secrets. Referees will take this into sympathetic consideration when advising on an application paper, but it will not be allowed to detract from the clarity of the presentation.

Types of paper

EJOR includes the following types of papers:

• **Theory and Methodology Papers**

Papers presenting original research results contributing to the methodology of OR and to its theoretical foundations. The Theory and Methodology Papers will be classified by the Editors into one of seven sub-headings, based on the List of EJOR Keywords:

1. Continuous Optimization
2. Discrete Optimization
3. Production, Manufacturing, Transportation and Logistics
4. Stochastics and Statistics
5. Decision Support
6. Computational Intelligence and Information Management
7. Interfaces with Other Disciplines

• **Innovative Applications of OR**

Papers describing novel ways to solve real problems. A paper presenting an Innovative Application of OR may be worthy of publication simply because it can be used to convince managers of the value to be gained by applying OR to particular problems.

• **Short Communications**

Short Communications are considered, but only if they correct important deficiencies of papers published in EJOR during the last 5 years.

• **Invited Reviews**

Review papers, submitted by invitation only, which explain to the general OR audience the developments in an OR topic over recent years. An Invited Review may be either on a specific research topic, a tutorial, or a bibliographic survey. Note: Anyone interested in writing a review is requested to suggest a topic to one of the Editors, or to a member of the editorial board of EJOR before submitting a paper. If the topic is considered suitable, an invitation to submit will then be given. Unsolicited review papers will be returned to the authors.

• **Special Issue Papers**

EJOR occasionally publishes groups of papers on topical themes. Submissions are handled by one or more Guest Editors. Special issues that are open for new submissions will each have their own paper type available in the submission system. Please visit the current list of [Calls for Papers](#) to see which special issues are open for new submissions.

Advice from the Editors

EJOR has a very high volume of submissions and acceptance is competitive. Therefore, papers that do not contain a major new research finding, or novel approach to the application of OR, are likely to be rejected. A paper may also be rejected because- in the opinion of the Editor- it does not make a sufficient scientific contribution.

All papers will be subject to an initial screening and technical check by the EJOR Managing Editor. Please carefully read the guidelines for **NEW SUBMISSIONS**, below. If your article is written in poor English or does not contain all of the required components, it will not progress to peer review stage.

Articles that do not pass the Managing Editor screening or do not conform to the Editorial Policy are likely to be rejected without peer review.

• **Are you making a new submission?**

All papers will be screened by the EJOR Managing Editor to make sure they conform to all Journal requirements. Please carefully read the **PREPARATION** section of this Guide for Authors for more details on each of the required components for New Submissions. We recommend you check this even if you have submitted to EJOR recently, as some requirements may have changed.

• **Has your submission been returned by the Managing Editor?**

The Editorial Policy of EJOR is such that your paper will not be able to progress to peer review until it is of a good standard of English and contains all of the required components. If you have received the message Send Back to Author then your paper has not passed the technical checks and unfortunately does not comply with one or more of the Journal policies. Please carefully read the feedback from the Managing Editor, to establish the reason your paper was returned, then consult the relevant **PREPARATION** section below for more information on how to improve and progress your paper.

• **Have you received an Editorial decision of Revise?**

If an Editor has made the decision that you need to revise your paper, for example Minor Revision or Major Revision, please carefully read the decision letter and any Editor and reviewer comments in order to make the required changes to your paper. When you are ready to resubmit, visit the **REVISED SUBMISSIONS** section. It contains advice, and details of the extra components required with your resubmission.

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 1950**, 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 [green open access page](#) for further information. Authors can also self-archive their manuscripts immediately and enable public access from their institution's repository after an embargo period. This is the version that has been accepted for publication and which typically includes author-incorporated changes suggested during submission, peer review and in editor-author communications. Embargo period: For subscription articles, an appropriate amount of time is needed for journals to deliver value to subscribing customers before an article becomes freely available to the public. This is the embargo period and it begins from the date the article is formally published online in its final and fully citable form. [Find out more](#).

This journal has an embargo period of 24 months.

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 <https://ees.elsevier.com/ejor>

Peer review

This journal operates a single blind review process. All contributions will be screened by the EJOR Managing Editor for language and completeness and, if they pass, assessed by an EJOR Editor for suitability for the journal. Papers deemed suitable are 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](#)

PREPARATION

NEW SUBMISSIONS

New submissions should be submitted as a single file, which will be used in the refereeing process. The single manuscript file can be a PDF file or word document. If you prefer to do so, you may still provide some or all source files in addition to the single file. Please note that individual figure files larger than 10MB must be uploaded separately.

If your source files are in LaTeX, please visit our [LaTeX site](#).

Requirements for New Submissions

Your article will be screened by the EJOR Managing Editor and must conform to the following guidelines in order to progress:

1. Standard of English

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.

Papers written in poor English will immediately be returned to the authors.

2. Article format

• Page extent

The article should not exceed 30 pages (or 10 pages for Short Communications). The page limit includes the abstract, figures and tables, the main manuscript and the references. If necessary, Appendices can be uploaded as Supplementary Materials.

• Format of text

The article should be A4 or letter size, in single column pages, with 11pt font and 1.5 line spacing. Please do not use double column format or line numbering; line numbers will be added to your paper by the submission system.

• Figures and tables

Please ensure that figures and tables embedded in the single manuscript file are placed next to the relevant text in the article, not at the bottom or top of the file.

Figures should be of a high enough quality for refereeing.

• Reference format

References should follow the style used by the American Psychological Association (APA), with the reference list arranged alphabetically. The use of DOIs is encouraged. Please see the references section in **MORE INFORMATION** for details.

3. Article structure

The structure should be easy to follow. Sections should be clearly defined and numbered, with headings on separate lines.

Please include the following sections, taking into account the requirements for each:

• Title Page

Article Title. Please avoid formulae wherever possible. Abbreviations and acronyms are not permitted.

All author names and affiliations, including email addresses and postal addresses.

Clearly indicate which author is the **corresponding author**.

• Abstract

A 50-250 word summary of the article.

Please do not include formulae.

Please do not include unqualified abbreviations or acronyms. Any abbreviation or acronym that you have defined in the abstract should be redefined in the manuscript text.

References should be avoided, but if necessary, include the full reference.

• Keywords

The first keyword should be selected from the list of EJOR Keywords.

Please note that the first keyword should also be **entered separately under Section/Category in the submission system**.

Please include up to 4 additional keywords of your choice.

4. Supplementary materials

If your article contains any videos or other supplementary materials, these should be included in your initial submission for peer review purposes.

Please upload supplementary materials as separate files. Note that they will be available in the online version only.

New Submissions: file inventory

Mandatory

- Manuscript file in PDF or Word format

Optional

- Cover letter
- Manuscript source files
- Graphical abstract*
- Highlights*
- Supplementary materials*

New Submissions: checklist

Before submitting a new manuscript to EJOR, please ensure that your article:

- Conforms to Elsevier's Ethical Guidelines for Journal Publication
- Is written in good British or American English
- Does not exceed 30 manuscript pages (or 10 pages if a Short Communication)
- Uses single column formatting, 11pt font, 1.5 line spacing, and has no line numbers
- Has figures and tables embedded next to relevant text
- Includes references in APA format, with an alphabetical reference list*
- Includes a Title Page, containing all of the essential title page information*
- Includes one keyword from the list of EJOR Keywords and no more than 4 additional keywords*
- Does not contain formulae, abbreviations or acronyms in the Title
- Does not contain formulae or unqualified abbreviations or acronyms in the Abstract
- Does not contain unqualified abbreviations or acronyms in the main text
- Is in a single PDF or Word document (source files and/or supplementary materials* can be uploaded separately if needed)

*Please see the relevant sections in **MORE INFORMATION** for details.

REVISED SUBMISSIONS

After peer review, if an editorial decision of "Revise" is made, authors are asked to update their manuscript, according to the advice given by the Editors and referees. Authors are advised to revise and resubmit their manuscript no later than 6 months after the decision. If the revision is not submitted within this time, the review process of the paper will be terminated, and the revised paper will need to be submitted as a new submission.

Requirements for Revised Submissions

All revised submissions will be screened (again) by the EJOR Managing Editor, before being passed back to the relevant Editor.

In order for the Editor and/or referees to be certain that the requested changes have been carried out, please clearly outline all of the changes made to the article since its last submission, for example by colouring any new text in red. Changes should also be referred to in the 'Comments to reviewers' file. If there are too many changes, please explain this in the 'Comments to reviewers' file. Note that there is no need to include an additional, clean, version of the manuscript.

At revision stage, several additional components are needed. These should be submitted as separate files:

• Highlights

A short collection of bullet points that convey the core findings of the article.

Please see the Highlights section in **MORE INFORMATION** for details.

• Comments to reviewers

A separate document containing author responses to each of the Editor and/or reviewer queries and suggestions. Each of the changes made to the manuscript since the last review should be explained in this file.

• Manuscript source files

Regardless of the file format of the original submission, at revision stage authors must provide editable files of the entire manuscript.

These source files (e.g. Word, LaTeX) are required to typeset your article for final publication, in the event that an editorial decision of "Accept" is later made.

Revised submissions: file inventory

Mandatory

- Manuscript file, with changes clearly shown
- Highlights*
- Comments to reviewers
- Manuscript source files

Optional

- Cover letter
- Graphical abstract*
- Supplementary materials*

Revised submissions: checklist

Before submitting a revised manuscript to EJOR, please ensure that your article (still):

- Conforms to Elsevier's Ethical Guidelines for Journal Publication
- Is written in good British or American English
- Does not exceed 30 manuscript pages (or 10 pages if a Short Communication)
- Uses single column formatting, 11pt font, 1.5 line spacing, and has no line numbers
- Has figures and tables embedded next to relevant text
- Includes references in APA format, with an alphabetical reference list*
- Includes a Title Page, containing all of the essential title page information*
- Includes one keyword from the list of EJOR Keywords and no more than 4 additional keywords*
- Does not contain formulae, abbreviations or acronyms in the Title
- Does not contain formulae or unqualified abbreviations or acronyms in the Abstract
- Does not contain unqualified abbreviations or acronyms in the main text
- **Shows changes made to the manuscript**
- **Includes a separate Highlights* file**
- **Includes a separate Comments to reviewers file**
- **Includes separate source files**

*Please see the relevant sections in **MORE INFORMATION** for details.

MORE INFORMATION

Essential title page information

- **Title.** Concise and informative. Titles are often used in information-retrieval systems. Abbreviations, formulae and acronyms are not permitted.
- **Author names and affiliations.** Please clearly indicate the given name(s) and family name(s) of each author and check that all names are accurately spelled. Present the authors' affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lower-case superscript letter immediately after the author's name and in front of the appropriate address. Provide the full postal address of each affiliation, including the country name and, if available, the e-mail address of each author.
- **Corresponding author.** Clearly indicate who will handle correspondence at all stages of refereeing and publication, also post-publication. **Ensure that the e-mail address is given and that contact details are kept up to date by the corresponding author.**
- **Present/permanent address.** If an author has moved since the work described in the article was done, or was visiting at the time, a 'Present address' (or 'Permanent address') may be indicated as a footnote to that author's name. The address at which the author actually did the work must be retained as the main, affiliation address. Superscript Arabic numerals are used for such footnotes.

Abstract

A concise and factual abstract of between 50 and 250 words is required for all New and Revised Submissions. 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, the full reference must be included. (For Short Communications, which address deficiencies in previous EJOR papers, the full reference to the original paper should always be included.)

Abstracts should not contain any formulae, or any unqualified abbreviations or acronyms. Abbreviations and acronyms used and defined within the abstract should be defined for a second time within the manuscript main text.

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 optional for New Submissions but **mandatory for Revised Submissions**, as they are included within all accepted papers in this Journal. They consist of a short collection of bullet points that convey the core findings of the article 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.

Highlights must not contain acronyms, abbreviations, formulae, or references.

Keywords

Keywords are required for all New Submissions and Revised Submissions. At least the first keyword should be selected from the official list of EJOR Keywords, below. Please note that the first keyword should also be **entered separately under Section/Category in the submission system**. Some keywords from outside the list may be added but the total number of keywords should not exceed five.

The letters before the keywords represent the Editor who will receive the paper, if it progresses through the initial screening process.

Codes of Editors: (R) - Steffen Rebennack; (B) - Emanuele Borgonovo; (D) - Robert Dyson; (O) - José Fernando Oliveira; (S) - Roman Slowinski; (T) - Ruud Teunter

List of EJOR keywords

- (D) Analytics
- (R) Applied probability
- (S) Artificial intelligence
- (S) Assignment
- (D) Auctions/bidding
- (D) Behavioural OR
- (R) Bioinformatics
- (S) Branch and bound
- (O) Combinatorial optimization
- (D) Community operational research
- (S) Complexity theory
- (B) Computing science
- (R) Conic programming and interior point methods
- (O) Constraint programming
- (R) Control
- (R) Convex programming
- (D) Cost benefit analysis
- (O) Cutting
- (D) Data envelopment analysis
- (R) Data mining
- (B) Decision analysis
- (D) Decision processes
- (S) Decision support systems
- (B) Distributed decision making
- (O) Distribution
- (S) Dynamic programming
- (D) E-commerce
- (O) Education
- (D) Ethics in OR
- (S) Evolutionary computations
- (R) Facilities planning and design
- (B) Finance
- (O) Flexible manufacturing systems
- (T) Forecasting
- (R) Fractional programming
- (S) Fuzzy sets
- (R) Game theory

- (O) Genetic algorithms
- (R) Global optimization
- (S) Goal programming
- (R) Graph theory
- (S) Group decisions and negotiations
- (O) Heuristics
- (D) Human resource planning
- (O) Humanitarian logistics
- (B) Integer programming
- (T) Inventory
- (B) Investment analysis
- (S) Knowledge-based systems
- (R) Large scale optimization
- (R) Linear programming
- (O) Location
- (T) Logistics
- (T) Maintenance
- (T) Manufacturing
- (R) Markov processes
- (O) Metaheuristics
- (D) Multi-agent systems
- (S) Multiple criteria analysis
- (S) Multiple objective programming
- (R) Multivariate statistics
- (R) Networks
- (R) Nonlinear programming
- (D) OR in agriculture
- (R) OR in airlines
- (B) OR in banking
- (T) OR in defence
- (O) OR in developing countries
- (O) OR in disaster relief
- (R) OR in energy
- (B) OR in entertainment
- (D) OR in environment and climate change
- (D) OR in government
- (O) OR in health services
- (O) OR in maritime industry
- (D) OR in marketing
- (S) OR in medicine
- (D) OR in natural resources
- (B) OR in organization theory
- (D) OR in research and development
- (R) OR in scientometrics
- (O) OR in service industries
- (D) OR in societal problem analysis
- (D) OR in sports
- (R) OR in telecommunications
- (O) Packing
- (S) Preference learning
- (D) Pricing
- (D) Problem structuring
- (O) Production
- (D) Productivity and competitiveness
- (B) Project management
- (S) Project scheduling
- (T) Purchasing
- (R) Quality control
- (T) Quality management
- (R) Queueing

- (B) Reliability
- (R) Replacement
- (O) Retailing
- (D) Revenue management
- (B) Risk analysis
- (B) Risk management
- (B) Robustness and sensitivity analysis
- (S) Rough sets
- (O) Routing
- (B) Scenarios
- (S) Scheduling
- (R) Semi-infinite programming
- (B) Simulation
- (R) Stochastic processes
- (R) Stochastic programming
- (D) Strategic planning
- (T) Supply chain management
- (D) System dynamics
- (O) Timetabling
- (R) Traffic
- (O) Transportation
- (O) Travelling salesman
- (B) Uncertainty modelling
- (B) Utility theory
- (O) Validation of OR Computations

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.

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 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.

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.

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

As the publishing language of the *European Journal of Operational Research* is English, authors are required to keep references to sources in other languages to a necessary minimum, and to provide an English translation of the title in parentheses.

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.

Web references

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

Data references

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

References in a special issue

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

Reference management software

Most Elsevier journals have their reference template available in many of the most popular reference management software products. These include all products that support [Citation Style Language styles](#), such as [Mendeley](#) and [Zotero](#), as well as EndNote. Using the word processor plug-ins from

these products, authors only need to select the appropriate journal template when preparing their article, after which citations and bibliographies will be automatically formatted in the journal's style. If no template is yet available for this journal, please follow the format of the sample references and citations as shown in this Guide. 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.](#)

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/european-journal-of-operational-research>

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

Reference style

Text: Citations in the text should follow the referencing style used by the American Psychological Association. You are referred to the Publication Manual of the American Psychological Association, Sixth Edition, ISBN 978-1-4338-0561-5, copies of which may be [ordered online](#) or APA Order Dept., P.O.B. 2710, Hyattsville, MD 20784, USA or APA, 3 Henrietta Street, London, WC3E 8LU, UK.

List: references should be arranged first alphabetically and then further sorted chronologically if necessary. More than one reference from the same author(s) in the same year must be identified by the letters 'a', 'b', 'c', etc., placed after the year of publication.

Examples:

Reference to a journal publication:

Van der Geer, J., Hanraads, J. A. J., & Lupton, R. A. (2010). The art of writing a scientific article. *Journal of Scientific Communications*, 163, 51–59. <https://doi.org/10.1016/j.Sc.2010.00372>.

Reference to a journal publication with an article number:

Van der Geer, J., Hanraads, J. A. J., & Lupton, R. A. (2018). The art of writing a scientific article. *Heliyon*, 19, e00205. doi:10.1016/j.heliyon.2018.e00205.

Reference to a book:

Strunk, W., Jr., & White, E. B. (2000). *The elements of style*. (4th ed.). New York: Longman, (Chapter 4).

Reference to a chapter in an edited book:

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

Reference to a website:

Cancer Research UK. Cancer statistics reports for the UK. (2003). <http://www.cancerresearchuk.org/aboutcancer/statistics/cancerstatsreport/> Accessed 13 March 2003.

Reference to a dataset:

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

Reference to a conference paper or poster presentation:

Engle, E.K., Cash, T.F., & Jarry, J.L. (2009, November). The Body Image Behaviours Inventory-3: Development and validation of the Body Image Compulsive Actions and Body Image Avoidance Scales. Poster session presentation at the meeting of the Association for Behavioural and Cognitive Therapies, New York, NY.

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.

Large data tables and long proofs of theorems should also be treated as supplementary data.

Research data

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

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

Data linking

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

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

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

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

Mendeley Data

This journal supports Mendeley Data, enabling you to deposit any research data (including raw and processed data, video, code, software, algorithms, protocols, and methods) associated with your manuscript in a free-to-use, open access repository. During the submission process, after uploading your manuscript, you will have the opportunity to upload your relevant datasets directly to *Mendeley Data*. The datasets will be listed and directly accessible to readers next to your published article online.

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

Data in Brief

You have the option of converting any or all parts of your supplementary or additional raw data into one or multiple data articles, a new kind of article that houses and describes your data. Data articles ensure that your data is actively reviewed, curated, formatted, indexed, given a DOI and publicly available to all upon publication. You are encouraged to submit your article for *Data in Brief* as an

additional item directly alongside the revised version of your manuscript. If your research article is accepted, your data article will automatically be transferred over to *Data in Brief* where it will be editorially reviewed and published in the open access data journal, *Data in Brief*. Please note an open access fee of 500 USD is payable for publication in *Data in Brief*. Full details can be found on the [Data in Brief website](#). Please use [this template](#) to write your Data in Brief.

Data statement

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

AFTER ACCEPTANCE

Proofs

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

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

Offprints

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

AUTHOR INQUIRIES

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

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

© Copyright 2018 Elsevier | <https://www.elsevier.com>