Instructions for authors

1 General

1.1 Conditions of acceptance
Submission of a manuscript implies that the work has not been published and is not submitted for publication anywhere else. Publication must be approved by all authors. Authors should accept publication fees. For ethics in publishing consult COPE http://publicationethics.org/.

Authors are invited to comply with the “Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly work in Medical Journals”, which were established and made available by the International Committee of Medical Journal Editors (ICMJE) at: http://www.icmje.org/recommendations/.

1.2 Authorship
The ICMJE recommends that all those designated as authors meet all of the described criteria. The list of criteria is available at http://www.icmje.org/recommendations/browse/roles-and-responsibilities/. Those contributors who do not meet all of the criteria shall be acknowledged.

For further information see the Ethical standards of EPJ Applied Physics.

1.3 Conflicts of interest

Authors must disclose whether or not they have a financial relationship with the organization that sponsored the research. They should also state that they have full control of all primary data and that they agree to allow the journal to review their data if requested.

Therefore the manuscript must be accompanied by the Disclosure Statement at the initial submission (for more information please see Conflicts of Interest in section 3.3 here below).

Any additional conflict of interest, on personal or any other level must also be disclosed. For further information see the Ethical standards of EPJ Applied Physics.

1.4 Open Access Option

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1.5 Publication fees

- There is no submission charge in EPJ Applied Physics.
- For authors who have not chosen the Open Access Option for publication of their paper (those papers will be read only by subscribers), there are no publication charges.
- Open Access Option: To favour a broad and easy access to all published scientific information, EPJ Applied Physics proposes the Open Access Option (OAO). It offers the possibility for authors to make their papers freely available to all readers, as soon as the articles are published online, in exchange for payment of a basic fee.
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  - EDP Sciences provides a waiver to authors based in countries included in Group A of the Research4Life programme.
  - EDP Sciences has signed an APC agreement with the NSLC (National Science Library CAS) the research library service system for the Chinese Academy of Sciences (CAS). Corresponding authors affiliated with one of the eligible CAS institutes, can publish in open access at a 20 percent discounted APC price.
  - EDP Sciences has signed with the Technische Informationsbibliothek (TIB) a German National APC agreement. Corresponding authors affiliated with German academic institutions including universities and research institutions, can publish in open access at a 20 percent discounted
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For further, updated agreements, please see the Waivers and Discounts.

### 1.6 Manuscript compliance with the instructions for authors

Authors are invited to carefully read the below instructions. Articles not compliant with these instructions will be immediately sent back to the author. In order to avoid these additional delays in the publication of their articles, authors should know that their articles will enter the peer review process only if they are compliant after re-submission.

A frequent reason of immediate rejection is plagiarism. Using the Similarity Check tool for all submitted articles, allows to detect even minimal plagiarism. Thus authors are invited to read the ethical standards and apply the given indications in order to avoid this sanction.

### 1.7 Data sharing policy

Authors may be invited to share with the peer reviewers during the article evaluation process in a confidential manner the data on which the research is based. Further, as long as the publication of data is not in opposition with patients’ privacy (in the case of a medical application), authors are invited to upload supplemental datasets related to their research to an online repository. Doing so makes it available for both human and machine reading in order to further aid the acceleration of scientific discovery.

Authors are invited to prepare and deposit their data according to the FAIR data principles. FAIR stands for Findable, Accessible, Interoperable and Re-usable. The principles are available here. To summarize this, the dataset should be findable through a complete set of metadata, including a license for re-use and a data identifier (DOI or other). The dataset is accessible when access is open. Interoperable means that the data can be used and combined with other datasets in a format that is sufficiently widely distributed. Re-usability is achieved when the dataset is deposited with a corresponding Creative Commons open license and is downloadable. Furthermore, re-usability implies that parameters describing how this dataset has been collected needs to be disclosed. Machine and experimental conditions must be documented.

### 2 Submission Checklist

Before the submission, please:

1. Read the Aims & Scope to gain an overview and assess if your manuscript is suitable for this journal;
2. Use the Microsoft Word template to prepare your manuscript;
3. Make sure that issues about ethical standards and instructions for authors have been appropriately considered;
4. Check the Open Access Options (see section 1.5 here above)
5. Check the submission and peer-review system
6. Prepare the appropriate keywords.
7. Check if your title and abstract are effective.
8. Prepare the cover letter.
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12. Make sure you included a disclosure statement and declared any competing interests.
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   - Figure files,
   - Table files,
   - Any extra files such as supplemental materials or biographical notes,
   - Cover letter.
16. You can submit at: https://articlestatus.edpsciences.org/is/epjap/submit_a_paper.php

3 Manuscript Submission

3.1 Types of Publications

EPJ Applied Physics has no restrictions on the length of manuscripts, provided that the text is concise and comprehensive. Full experimental details must be provided so that the results can be reproduced. EPJ Applied Physics requires that authors publish all experimental controls and make full datasets available where possible.

Manuscripts submitted to EPJ Applied Physics should neither be published previously nor be under consideration for publication in another journal. The main article types are as follows:

- **Original Article**: A research original article is a primary source. It reports the methods and results of an original study performed by the authors. The kind of study may vary (it could have been an experiment, survey, interview, etc.), but in all cases, raw data have been collected and analyzed by the authors, and conclusions drawn from the results of that analysis.
- **Review**: A review article is a survey of previously published research on a topic. It should give an overview of current thinking on the topic. And, unlike an original research article, it will not present new experimental results. Writing a review of literature is to provide a critical evaluation of the data available from existing studies. Review articles can identify potential research areas to explore next, and sometimes they will draw new conclusions from the existing data.
- **Mini-Review**: Mini-reviews provide a concise summary of a specific research topic or field relevant to the journal. They put previous research and findings in context and present current developments in a critical and focused manner. Mini-reviews should be balanced and an excessive focus on the authors’ own work should be avoided.
- **Editorial**: These are non-peer-reviewed texts used to announce the launch of a new journal, a new section, a new Editor-in-Chief, a Special Issue, or an invited editorial. The main text should provide a brief introduction of the purpose and aim of the Editorial—to present the new journal, close the Special Issue, report on a pressing topic, etc. Editorials should not include unpublished or original
data, although must provide a Conflicts of Interest statement. Editorials prepared for the launch of new journals may also include a short biography of the Editor-in-Chief.

- **Viewpoint**: Viewpoints are opinion pieces grounded in evidence rather than new experimental data or literature reviews. Authors are encouraged to cite up to 20 references in support of their key assertions, and to use a logical structure for their piece. We encourage all authors to include a display item (a figure, photo, or illustration).

- **Short Communication**: These are contributions deserving priority in publication and report work that it technically sound, innovative and significantly unique in a length that does not exceed four printed pages. The authors that submit such an article are invited to provide, during the submission stage, a concise statement indicating the novelty, the outstanding and the significant aspects of their work.

### 3.2 Submission Process

Manuscripts for EPJ Applied Physics should be submitted online at [https://articlestatus.edpsciences.org/is/epjap/submit_a_paper.php](https://articlestatus.edpsciences.org/is/epjap/submit_a_paper.php). The submitting author, who is the corresponding author, is responsible for the manuscript during the submission and peer-review process. The submitting author must ensure that all eligible co-authors have been included in the author list (read the **JOURNAL POLICY ON AUTHORSHIP AND CONTRIBUTORSHIP** in the **Ethical Standards**) and that they have all read and approved the submitted version of the manuscript.

**Cover letter**

Submissions should be accompanied by a concise and clear statement about the novelty or originality aspects of the scientific work and explaining why it would be of interest to the readers of this journal. This statement should point out the original features of the work, not just say that it is new. Please make sure you have read the **Aims & Scope**, the **instructions for authors** and the Ethical standards of the journal.

The following structure covers all the necessary points that need to be included.

- Specify the current professional position of the authors, for instance if they are PhD Student, Engineer, Researcher, Doctor, Post Doc, Professor, Head of Research Dept., Head of Technical or Production Dept, or other. If any of the authors does not use to login an ORCID or institutional email address, explain the reason.
- First paragraph: include the title of your manuscript and the type of manuscript it is (e.g. review, original paper etc.). Then briefly explain the background to your study, the question you sought out to answer and why.
- Second paragraph: you should concisely explain what was done, the main findings and the novelty of your work (in respect to other work performed and published for the same topic).
- Third paragraph: here you should indicate why the readers of the journal would be interested in the work. Take your cues from the journal’s aims and scope. For example, if the journal requires that all work published has broad implications explain how your study fulfils this. It is also a good idea to include a sentence on the importance of the results to the field.
- Fourth paragraph: If you have previously submitted this manuscript to another journal and it was not accepted, you may include and address the reviewer’s comments. If you choose to do so, please provide the name of the journal and the date of the decision letter. If this is the first time the manuscript is submitted to a journal write ‘this manuscript has not been submitted to another journal previously’.
- Fifth paragraph: confirm that: ‘All authors have approved the submission of this manuscript. The results have not been previously published and are not being considered for publication in another journal’. We confirm that this work is original and has not been published elsewhere, nor is it currently under consideration for publication elsewhere.
Sixth paragraph: conflicts of interest, financial and other, should be listed. If there are none, this should be stated.

Seventh paragraph: if the authors request specific reviewers or would like us to avoid particular reviewers, they should be listed. Please suggest three potential reviewers with the appropriate expertise to review the manuscript. The editors will not necessarily approach these referees. Please provide detailed contact information (address, homepage, phone, e-mail address). The proposed referees should neither be current collaborators of the co-authors nor have published with any of the co-authors of the manuscript within the last five years. Proposed reviewers should be from different institutions to the authors. You may identify appropriate Editorial Board members of the journal as potential reviewers.

3.3 Manuscript structure

Manuscripts should be prepared according to the following order (Reviews, very long articles may use a different presentation):

Original article
Title
Authors List and Affiliations
Abstract and 4–6 keywords
Introduction
Materials and Methods
Results
Discussion
Conclusion
Conflicts of interest
Acknowledgements
Funding
Data availability statement
Author contribution statement
References

For Review articles, mini-reviews and Viewpoints, there is no need of the ‘Materials and Methods’ section.

**Title:** The title of your manuscript should be concise, specific and relevant. It should identify if the study reports trial data, or is a systematic review, meta-analysis or replication study. Please do not include abbreviated or short forms of the title, such as a running title or head.

**Authors List and Affiliations:** Authors' full first and last names must be provided. The initials of any middle names can be added. The format for affiliations: complete address information including city, and country. At
least one author should be designated as the corresponding author, and their email address and other details included at the end of the affiliation section. After acceptance, updates to author names or affiliations may not be permitted. Equal Contributions: authors who have contributed equally should be marked with a superscript letter (to their names). The letter must be in footnote, and the following statement added: “These authors contributed equally to this work”. The equal roles of authors should also be adequately disclosed in the author contribution statement. Please read the Ethical Standards.

Abstract: The abstract should be a total of about 300 words maximum, describe the main objective(s) of the study, explain how the study was done, including any model organisms used, without methodological detail, summarize the most important results and their significance. Abstracts should not include citations and abbreviations.

Keywords: Four to six pertinent keywords need to be added after the abstract. We recommend that the keywords are specific to the article, yet reasonably common within the subject discipline.

Introduction: The introduction should briefly place the study in a broad context and highlight why it is important. It should define the purpose of the work and its significance, including specific hypotheses being tested. The current state of the research field should be reviewed carefully and key publications cited. Please highlight controversial and diverging hypotheses when necessary. Finally, briefly mention the main aim of the work and highlight the main conclusions.

Materials and Methods: They should be described with sufficient detail to allow others to replicate and build on published results. New methods and protocols should be described in detail while well-established methods can be briefly described and appropriately cited, but the submission should include sufficient information to be understood independent of these references.

Results: Provide a concise and precise description of the experimental results, their interpretation as well as the experimental conclusions that can be drawn. Authors should explain how the results relate to the hypothesis presented as the basis of the study and provide a succinct explanation of the implications of the findings, particularly in relation to previous related studies and potential future directions for research.

Discussion: Authors should discuss the results and how they can be interpreted in perspective of previous studies and of the working hypotheses. The findings and their implications should be discussed in the broadest context possible and limitations of the work highlighted. Future research directions may also be mentioned. This section may be combined with Results.

Conclusions: This section is not mandatory but can be added to the manuscript if the discussion is unusually long or complex.

Conflicts of Interest: This section, which is mandatory, shall describe whether yes or no, each individual author has to disclose any kind of conflict of interest (Disclosure Statement).

Depending on the type of conflict, the following sentences are recommended to be added for each author (please use the authors’ initials here):

For author AA receiving directly research funding please state:
"AA has received funding from" and note the source.

In case BB’s institution received any sort of support, state:
"The institution of BB has received funding from..." and note the source.
If CC received no financial support please state,
"CC certifies that he or she has no financial conflicts of interest (eg., consultancies, stock ownership, equity interest, patent/licensing arrangements, etc.) in connection with this article."

If DD has received or may receive any personal payment or other benefit from a commercial entity (eg, serve as a consultant), please note:
"DD has or may receive payments or benefits from ... (note the source) related to this work."

If authors have no conflicts of interest, make this clear by stating ‘The authors have nothing to disclose’.

Acknowledgments: In this section you can acknowledge any support given which is not covered by the author contribution or funding sections. This may include administrative and technical support, or donations in kind (e.g., materials used for experiments).

Funding: All sources of funding of the study should be disclosed. Clearly indicate grants that you have received in support of your research work and if you received funds to cover publication costs. Please add: “This research received no external funding” or “This research was funded by [name of funder] grant number [xxx]” and/or “The APC was funded by [XXX]” in this section. Check carefully that the details given are accurate and use the standard spelling of funding agency names at https://search.crossref.org/funding, any errors may affect your future funding.

Data availability statement: In this section, please provide, if your study reports data, details regarding where data supporting reported results can be found. For more information please refer to Data sharing and reproducibility in Ethical Standards.

Author contribution statement: We expect that all authors will have reviewed, discussed, and agreed to their individual contributions ahead of this time. Contributions will be published before the references section, and they should accurately reflect contributions to the work. The following statements should be used "Conceptualization, X.X. and Y.Y.; Methodology, X.X.; Software, X.X.; Validation, X.X., Y.Y. and Z.Z.; Formal Analysis, X.X.; Investigation, X.X.; Resources, X.X.; Data Curation, X.X.; Writing – Original Draft Preparation, X.X.; Writing – Review & Editing, X.X.; Visualization, X.X.; Supervision, X.X.; Project Administration, X.X.; Funding Acquisition, Y.Y.”.

References: References should be cited in the text by placing sequential numbers in brackets (for example, [1], [2,5,7], [8–10]). They should be numbered in the order in which they are cited. The reference list comes at the end of an article and consists of an unnumbered “References” section containing references sorted according to the following referencing style: Journals (all authors should be cited):


Books or Theses


Proceedings


### 4 Style and Format

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<thead>
<tr>
<th>File format</th>
<th>Manuscript files can be in the following formats: DOC or DOCX. Microsoft Word documents should not be locked or protected. LaTeX manuscripts must be submitted as PDFs. Authors are encouraged to use the Microsoft Word template and LaTeX Template to prepare their manuscript. Using the template file will substantially shorten the time to complete copy-editing and publication of accepted manuscripts. For any problem, please contact the Editorial Office at: <a href="mailto:epjap@edpencies.org">epjap@edpencies.org</a></th>
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<tr>
<td>Length</td>
<td>Manuscripts can be any length. There are no restrictions on word count, number of figures, or amount of supporting information. We encourage you to present and discuss your findings concisely.</td>
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<td>Font</td>
<td>Use a standard font size and any standard font, except for the font named “Symbol”. To add symbols to the manuscript, use the Insert → Symbol function in your word processor or paste in the appropriate Unicode character.</td>
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<td>Headings</td>
<td>Limit manuscript sections and sub-sections to 3 heading levels. Make sure heading levels are clearly indicated in the manuscript text.</td>
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<tr>
<td>Layout and spacing</td>
<td>Manuscript text should be double-spaced. Do not format text in multiple columns.</td>
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<td>Include page numbers and line numbers in the manuscript file. Use continuous line numbers (do not restart the numbering on each page).</td>
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<tr>
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2) performs language editing (optional service, $29).

This avoids potential delays in the peer review process.

**Abbreviations**

Define abbreviations upon first appearance in the text.

Do not use non-standard abbreviations unless they appear at least three times in the text.

Keep abbreviations to a minimum.

**Equations and numbers**

Equations that are referred to in the text should be numbered with the number on the right-hand side and should be numbered sequentially throughout the text (i.e., (1), (2), (3)). Be careful to make a clear distinction between the figure zero (0) and the letter O, the figure one (1) and the letter 1, the Roman letter v and the Greek letter nu (ν). It is important to distinguish between ln (= log e ) and lg (= log 10)

**Figures and Tables**

Each figure and table should be cited in the text. Figures should be numbered sequentially - “Figure 1”, “Figure 2” - and should be cited in the text as “Figure 1”, “Figure 2” and (Fig. 1), (Fig. 2) in brackets. Each figure and table should have a brief caption describing it. Captions should be placed below the figure and at the top of the table.

Lettering (symbols, numbers, etc.) should not differ from figure to figure and should be of sufficient size to remain legible after reduction (letters 1–2 mm high after reduction to either one- or two-column format). Authors should note that as part of the production and typesetting processes, figures may be resized to fit the design of the journal. Scaling of graphics will, of course, affect line thickness and text size in the figures.

By default, figures appear in colour.

Files for Figures must be provided during submission at a sufficiently high resolution (minimum 1000 pixels width/height, or a resolution of 300 dpi or higher). Common formats are accepted, however, TIFF, JPEG, EPS and PDF are preferred.

Tables (numbered as Table 1, Table 2, etc.) should be presented as one per page. Avoid complex formatting and use the basic Table format in Word or Excel.

All Figures, Schemes and Tables should have a short explanatory title and caption.

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**5 Appendices and Online Supplementary Material**

Please use appendices if vital to the understanding of complex formulae and in this case, treat them as normal sections. If there are equations, they should be numbered separately from those in the main text as (A.1), (A.2), etc. We encourage authors to submit multimedia attachments to enhance the online versions of published articles (animations or supplementary data such as data files, tables of extra information or extra figures, programs, etc.). For more information on the submission of this material (file requirements, etc.),
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