

# Instructions for authors

## Article categories

EPJ A publishes **Regular Articles**, which are original research papers that report results in the domain of Hadrons and Nuclei. Besides them, EPJ A publishes also Letters, Tools for Experiment and Theory/Scientific Notes and Reviews.

• **Letters/Letters to the Editor:** Letters must describe new and original work deserving rapid publication. Their aim is fast and concise communication of material of current interest: 1) an important theoretical, computational or experimental result 2) a valuable discussion of, or a short essay on, an open scientific issue 3) a valuable presentation of innovative and promising ideas and concepts in the fields covered by the journal. In order to make a fast refereeing and decision procedure possible, and to address a broad readership, Letters should not exceed 4 printed pages in the EPJ style format, and should contain no more than 4 figures and/or tables. Letters to the Editor –about 2 pages maximum with no more than one figure and/or table– are specifically designed to accommodate items 2) and 3) in a non-traditional way: with this format the journal revives a formerly existing style of communication with the scientific community that allows for the concise expression of more personal opinions on any important scientific matter in the field. Letters will, by default, be published with immediate **Open Access** without incurring any fee.

• **New Tools and Techniques:** are articles presenting original and new developments of particle detectors, readout electronics, computational methods, theoretical frameworks or analysis tools. An important subgroup are articles detailing specific aspects of importance to understand and assess either the formalism sketched in a theoretical resp. computational paper, or the analysis tools that lead to the physics results presented in experimental collaboration papers. Direct relevance to physics topics within the “Aims and Scopes” must be demonstrated. Technical details (including but not limited to construction drawings, electronic circuit diagrams or computer codes) may be added as electronic-only supplementary material.

• **Reviews:** are by invitation only through the Editorial Board. There is no general limit to the overall length—they may contain, but should not be restricted to, original work. Reviews will fall into one of the following categories: 1) Comprehensive reviews of major topics within the “Aims and Scope” of EPJA and EPJC. Their primary assets will be pedagogical exposition, synthesis of key developments, and the inclusion of a definitive and representative bibliography. 2) Technical papers presenting an extensive review of a specialist topic within the “Aims and Scope”. 3) Reviews of a newly emerging field, providing an up-to-date synthesis and an extended discussion of the open questions. The discussion is expected to lead to an assessment of the possible further developments within the field, potentially making a substantial contribution to guiding decisions concerning the planning or running of experimental and observational facilities. 4) Outstanding thesis or working reports, the richness and importance of whose details justify the exceptional publication of the full length work.

• **Comments and Replies:** include discussion and commentary addressing significant aspects of the original paper but without a) representing essentially new papers, b) delving into too much detail, or c) becoming personal. They should address non-trivial aspects that will interest readers other than the authors of the comment and the original paper. They should not exceed two printed pages in the EPJ format and should not include an abstract.

## The submission stage

Authors are asked to **submit** their paper **electronically** through the website:

<http://mc.manuscriptcentral.com/epja>

As “Main Document” **ONLY ONE of the following files: PS, DOC, PDF, IS REQUIRED** at this stage. Detailed instructions and on-line help (**User Tutorials** link) are available step by step, you simply should follow them carefully.

Exceptionally, for authors who do not have access to the web, we also accept a hard copy to be sent to:

EPJ A, Editorial and Production Office  
Società Italiana di Fisica  
Via Saragozza, 12, I-40123 Bologna, Italy

## How to prepare a manuscript

There is no general limitation of the overall size nor of the number of figures, nor of the level of details considered to be necessary. However, the appropriate length of a manuscript depends on the information presented in the paper. A manuscript should consist of the following content.

### Title

It should be simple, concise and informative with only the first word capitalized.

### Author(s) name(s) and affiliation(s)

A list of all authors (with first and last name(s) written in full), as well as corresponding addresses, should be provided. Each address should be preceded by a numerical superscript corresponding to the same superscript after the name of the author concerned. Addresses should contain all information necessary for an effective mail delivery. E-mail should also be provided to speed up communication between readers and authors. This information will be published unless authors request otherwise.

### Abstract

An abstract should accompany each manuscript; it should be completely self-consistent (e.g., with no figure, table, equation or reference citations), not exceeding 200 words and written as a single paragraph. Mathematical expressions should be avoided, if possible.

### Main body of the paper

The body of the paper could be divided into sections. Sections should be numbered with arabic (not roman) numerals. Subsections (second level) should be numbered 1.2, 1.3, etc., and sub-subsections (third level) 1.1.1, 1.1.2, etc. Appendices should be numbered A, B, etc. All sections must have a short descriptive title, in which only the first word should be capitalized.

Equations, tables, figures, and references should follow a sequential numerical scheme in order to ensure a logical development of the subject matter. Standard copy-editing corrections are inserted by the Production Staff. For details, see the internationally agreed standards adopted by the International Union of Pure and Applied Physics (IUPAP) or defined by the International Organization of Standardization (ISO). However, sticking to the following main rules shall hasten the production procedure.

- Whichever spelling you choose (British or American English) please be consistent throughout.
- Use hyphens consistently and avoid unnecessary ones.
- The words “section(s)”, “equation(s)”, “figure(s)” and “reference(s)” are abbreviated as “sect(s).”, “fig(s).”, “eq(s).” and “ref(s).” unless they are the first word of a sentence. The word “table” is always written in full.
- Latin expressions, such as, e.g., *i.e.*, *et al.*, *versus* (vs.) should be set in italic.
- Chemical formulas, units of measure and acronyms should be set in roman.
- Mathematical symbols should be set in italic except differentials, standard mathematical functions (exp, log, sin, cos, ...), Im and Re for imaginary and real.

- Roman is preferred also for sub and superscripts to variables that stand as a label ( $R_{\text{gyr}}$ ,  $b^{\text{out}}$ , ...), particles, subparticles, quarks, etc., but if you use italic be consistent throughout.
- Vectors and tensors should be set in bold and sans-serif bold, respectively.
- Long exponential equations are better set as  $\exp(\dots)$  instead of  $e^{\dots}$ .
- For fractions in the text use the solidus putting only the parentheses necessary to avoid ambiguities.
- For normal units use the standard SI abbreviations (e.g., s instead of seconds, ...).

**Caution:** Mathematical expressions in which breaking is not possible or appropriate (long fractions or matrices) are placed at the top of the concerned page(s) by the production staff according to the page layout ( $\#10\text{atequation}$ ) with an appropriate citation in the text. E.g., see eq. (8) above.

### Footnotes

There are 3 main types of footnotes:

- 1 Introductory footnotes (referring to new addresses of authors, address of corresponding author, ...) indicated by superscript lower case letters.
- 2 Footnotes to text material, which should be kept to a minimum, and which should be designated by a numerical superscript: <sup>1</sup>, <sup>2</sup>, <sup>3</sup>, etc. They should be placed at the foot of the relevant page.
- 3 Footnotes to tables, which should be indicated by superscript lower case letters and placed in a list immediately below the concerned table.

### Acknowledgments and appendices

The acknowledgments section should follow the main body of the paper and should precede any appendix. Appendices, especially if more than one, should be labelled A, B, etc. (Appendix A or Appendix A. Complex developments, when there is a title). Equations in the appendices should be numbered consecutively, but separately from those in the main body of the paper (A.1), (A.2), etc. In each appendix equations should be numbered separately (B.1), (B.2), etc.

### References

References are quoted with arabic numerals in square brackets in order of appearance in the text. Literature citation of periodicals [1-3], books [4], proceedings [5] and preprints [6] should be organized according to the following examples. Note that journal names should be abbreviated according to the list of serial title word abbreviation of the ISDS (International Serial Data System) if available, otherwise full journal names are preferable.

1. J.M. Smith, R. Brown, C. Green, Eur. Phys. J. A **1**, 123 (2008).
2. J.M. Smith *et al.*, Z. Phys. A **4**, 123 (1997).
3. J.M. Smith *et al.*, to be published in Nuovo Cimento B.
4. J.M. Smith, *Molecular Dynamics*, 2nd ed. (Springer, Berlin, Heidelberg, 1987).
5. J.M. Smith, *Proceedings of the 9th GIFCO Conference, Lecce, 2000*, edited by S. Aiello, Vol. **68** (SIF, Bologna, 2000).
6. J.M. Smith, DESY 98-123, 1998, unpublished.

If necessary the DOI (Digital Object Identifier) of the cited literature may be added at the end of the reference.

**IMPORTANT:** To ensure that the CrossRef facility can hyper-link to the articles quoted in the bibliography, **multiple references must not be used**. I.e., a list of references under the same number is not allowed: **each reference has to be singly numbered**.

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Each caption should be written as a single brief paragraph without indentation. Figures and tables

should be consecutively numbered with *arabic numerals* as they are cited in the text.

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Each figure should be cited in the text. The final quality of the illustration depends on the quality of the original artwork so that they must conform to the criteria given below:

- Letters, numbers and symbols should have uniform strength and contrast, should be appropriately oriented on the axes and consistent with those used in the text.
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- The final size of the figures should fit either one-column width or full-page width. All details of the figure should be visible and labelling legible, therefore:
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  - avoid too thin continuous or dotted lines or too heavy lettering and thick lines that may result unsightly after reduction (if any).
- When supplying your PostScript files please strictly adhere to the criteria given in the section **Guidelines for submission after acceptance**.
- **Colour figures:** By default, figures appear in colour in the electronic version but they are published in black and white in the paper version of the journal. Therefore, reference to colour coding in both captions and main text should be avoided unless absolutely essential for the description of a figure. In cases where authors would like to have their figures in colour in print as well, the journal will charge a flat fee of EUR 600 (+VAT) per article, without any limitation on the number of colour figures in that article.

### Electronic supplementary material

Electronic multimedia files (animations, movies, audio, etc.) and other supplementary information (appendices, (large) tables, images, etc.) which can add dimension to the author's article and present results which cannot be printed or are more convenient in electronic form can be published on-line along with the article.

- Authors should submit the material in electronic format together with the article:
  - use standard file formats: MPEG-1 (.mpg) for audio, video and animations; PDF for text and presentations,
  - supply a concise and descriptive caption for each file,
  - make a specific mention of the supplementary material in the text (e.g., as shown in movie 2) and name your files accordingly, e.g., movie2.mpg.
- Electronic supplementary material will be published as received from the authors without any conversion, editing, or reformatting.

For more information, please contact the Editorial and Production Office.

## The acceptance stage

The Editor-in-Chief will send an acceptance letter to the corresponding author and, at the same time, will ask for electronic files of the final text and figures to be sent to: [epja.bologna@sif.it](mailto:epja.bologna@sif.it)

## Guidelines for submission after acceptance

Source (.tex, .doc, ...) files for the production plus a Postscript or PDF file corresponding to the final accepted version of your manuscript should be sent to the Editorial and Production office (even if your article had been previously submitted electronically).

### File formats

#### Text

We would appreciate receiving articles prepared in  $\LaTeX$ 2e with the EPJ class. In this case, authors are requested to carefully follow the instructions detailed in the documentation and to adhere as much as possible to the rules given in the section **How to prepare a manuscript**. The macro package is available at [www.epj.org](http://www.epj.org).

We will, however, accept texts written with any common variant of  $\TeX$ , including:  $\LaTeX$ 2e (standard, article class),  $\text{RevTeX}$ ,  $\text{AMS-}\LaTeX$  and Word files.

No customized or personal style files should be used. Also, no particular fonts should be used (authors are reminded that the journal will be printed with Computer Modern (CM) standard fonts). In any case, the  $\text{AMS-}\LaTeX$  package, that defines several environments for creating multiline display equations, may be used. For manuscripts prepared with Word authors should be aware that only the text will be processed and that mathematical symbols and equations will be re-typed in  $\LaTeX$  by the Production Staff.

#### Figures

Remember that figures should be in separate files, and that no unnecessary text material (captions, figure numbers, author name, frames, etc.) should be included. The preferred macro package for including EPS graphics files is the  $\LaTeX$  "graphicx" package.

- Vector Encapsulated Postscript (EPS) are welcome, although Postscript (PS) may also be sent. These files can be used directly to give high-quality results, provided the following rules are adhered to:
  - use standard fonts (Times, Helvetica, Courier, Symbol) and include them with the option saved "with fonts included" in the EPS file,
  - EPS should not include a TIFF preview and should be in ASCII (not binary) format,
  - the line strength should be greater than 0.3 pt (or higher if the figure needs scaling),
  - bitmap format such as PDF, TIFF, BMP, PNG and JPG are acceptable but they need to be transformed into EPS format in the production procedure. Bitmap images may present quality problems in the production of the printed version of the journal due to low resolution. For this reason black and white graphics files should have a resolution of at least 600 dpi and greyscale graphics files of at least 300 dpi.

For extended instructions on how to prepare graphics please contact the Editorial and Production Office.

#### Sending your files

You can choose to send your material via e-mail or ftp.

- Via e-mail:
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  - please include a message indicating the names of the author(s), along with the title and the reference number of the accepted manuscript.
- Via ftp:

Good reception of the files will be acknowledged with an e-mail, where you will also be informed about the CIOP inquiry facility. By connecting to the CIOP (<http://ciop.sif.it/>) you can poll the

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## The proof correction stage

- Once proofs are ready, an e-mail will inform the authors on how to download them by visiting the CIOP inquiry facility (<http://ciop.sif.it/>). Should they meet with difficulties following this procedure, we will immediately send the proofs by e-mail (attached .pdf), fax or regular mail, as per authors' request.
- Authors are asked to carefully check the proofs by following the **guidelines for corrections** they receive with the e-mail. They should keep in mind that the aim of proofreading is to correct errors that may have occurred during the production. Therefore they should particularly check completeness of text, equation breaks, figures, tables and references.
- Only **essential corrections are accepted**. Any substantial modification of the text or mathematical formulas altering the content of the accepted version of the paper might re-open the revision process.
- The author has the final responsibility for the corrections.
- Corrections should be returned **within 48 hours** and can be sent back either as a detailed list by e-mail (quoting the amendments location with page, columns and line number) or by fax. Please **do not alter the PDF proof file, add annotations or send back an amended manuscript file**.
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## Policy on publishing integrity

EPJ is committed to safeguarding good scientific practice in publishing at all levels. Strong measures will be taken in all cases of misconduct. For more information see this link.