

## Instructions to Authors

These Author Instructions are designed to help you prepare your chapter.

### Aims and Scope of Encyclopedia of Astrophysics, First Edition by Ilya Mandel

#### General scope

*Encyclopedia of Astrophysics* is a brand new, up to date reference work consisting of approximately 200 articles, headed up by an editorial board of world-leading astrophysicists. It provides a first point of entry to the literature for all graduate and post-graduate students and early career-researchers working in and studying physics, especially those with an interest in astrophysics, astronomy, and cosmology. It is indispensable to all readers in the interdisciplinary areas where astrophysics is of utility.

Advanced interactive features such as videos and 3D viewers are included, significantly increasing the practicality, and learning outcomes for the modern-day reader for whom online usage is preferred. The result is the ideal one-stop foundational resource to the complex field of astrophysics and an essential tool for physicists to refer to time and again.

The Encyclopedia is expected to be ready for publication in November 2025.

#### Length and focus

Three volumes with approximately 200 articles

Please ensure that the article's subject matter is covered in-depth and with technical coverage of the given topic area. The subject matter should dictate the length of the article to some extent, but please discuss with your section editor if you have any questions – articles are likely to be in range of **10,000–11,000 words** (excluding references, figure legends and tables).

In calculating the length of your manuscript, assume that one printed book page will accommodate about 920 words of text. Allow at least one printed page of your manuscript for every two tables or figures.

### Chapter Structure

Your chapter should include the following:

Elements	Elements	Description
Mandatory	Chapter title	Precise, concise, and informative description of the focus of this work. Avoid abbreviations and formulae in the title
Mandatory	Author names and affiliation details	Only include the names of authors who contributed to this chapter. Provide correct and current affiliations with full postal details (including e-mails of all). Indicate the corresponding author.
Mandatory	Abstract	Approx. 100-150 words abstract of the chapter, used to summarise the work (in print & online)
Optional	Graphical abstract	Single figure visually illustrating the key topic/method/outcome described in the chapter

<b>Mandatory</b>	<b>Keywords</b>	5-10 words that embody the key topics in the chapter. What terms would someone put into a search engine if they were looking for a chapter like this? ( <a href="https://astrothesaurus.org/">https://astrothesaurus.org/</a> , please use this site for the keywords to be included in the chapter)
<b>Mandatory</b>	<b>Chapter Outline</b>	List of the sections in the chapter; typically created by the typesetter based on main headings in the manuscript
<b>Mandatory</b>	<b>Glossary</b>	A dictionary-style definition of any unusual or key terms used in your article. (This section can be combined into a single section with Nomenclature)
<b>Mandatory</b>	<b>Nomenclature</b>	System of abbreviations/terms/symbols used in the specific field of study/community. List and define (This section can be combined into a single section with Glossary)
<b>Mandatory</b>	<b>Objectives/Learning Objectives</b>	A short bulleted list of key points or objectives for the chapter
<b>Mandatory</b>	<b>Introduction</b>	Introduction to the topic providing foundational background information. Targeted at readers with limited knowledge of the specific topic
<b>Mandatory</b>	<b>Body of the chapter</b>	Divided into appropriate sections with headings as required, covering the contents as agreed with the Editors Please be aware that we will require your manuscript in an editable format (e.g. MS Word or LaTeX/ PDF) not a PDF file alone.
<b>Mandatory</b>	<b>Figures</b>	<p>Illustration or explanatory diagram in a text. Figures are used to make a paper more readable by showing visual presentation of results or key points. For information on what file formats we will accept and the level of resolution we require please refer to the Instructions to Authors.</p> <p>Complete the Permission Log which is available on the 'Resources' tab of EMSS. We ask that you complete the permissions log to identify whether the artwork is either original, copyright free or copyrighted material.</p> <p>Please note that it is the Author's responsibility to obtain permission to reproduce any copyrighted material.</p>

<b>Optional</b>	<b>Tables</b>	Organizes and displays data along 2 axes with columns and rows. Used to explain information that is too detailed or complicated to be described adequately in the text, allowing the reader to quickly see results. They can be used to highlight trends or patterns in the data and to make a manuscript more readable by removing numeric data from the text.
<b>Optional</b>	<b>Multimedia</b>	<p>Catch-all definition for all non-textual online content which can only be provided non-textually, principally to help visualize key points, drive pedagogy or to otherwise support the article.</p> <p>Examples include videos, audio presentation, slideshows, animations. Multi-media components are files that provide supplementary information to your chapter and appear in the online version of the work only</p>
<b>Optional</b>	<b>Acknowledgements</b>	Acknowledge any kind of support and/or financial assistance here when applicable.
<b>Mandatory</b>	<b>Conclusion/Summary/Outlook</b>	A concluding paragraph summing up your main points in the chapter
<b>Mandatory</b>	<b>References</b>	A list of references to research articles and books which have been cited in the text (This section can be combined with Further Information)
<b>Mandatory</b>	<b>Further information</b>	A list of references to other relevant works/articles/websites which are not cited in the text but that would further enhance a readers understanding of this topic (This section can be combined with References)
<b>Optional</b>	<b>Relevant websites</b>	A list of websites relevant to the chapter

### Spelling

- American spelling should be used
- Merriam-Webster's Collegiate Dictionary will be followed for spelling and hyphenation
- After acceptance, minor changes may be made to your manuscript to reflect this

### Emphasis

- It is our house style not to use italics, bold or underlining to emphasize text
- Single quotation marks or italics may used to define new terms but are not used for general emphasis of words within the text

### Headings

- All text must be prefaced by a heading
- Use up to five levels of heading:
  - 1**                      **Heading One**
  - 1.1**                  **Heading Two**
  - 1.1.1*                *Heading three*
  - 1.1.1.1**              **Heading four**
  - 1.1.1.1.1*          *Heading five*
- Finer levels of organization should be captured using bullet lists

### Units and nomenclature

- SI units should be used
- These should be expressed in the form  $\text{m s}^{-1}$  ( not m/s)
- Where the community commonly uses non-SI measures (for example:  $\text{gal. ha}^{-1}$ ), the standard units should be given, with the SI equivalent expressed in parentheses

## References

All listed references must be cited within the text and tables, using the Harvard reference style (name date) as detailed below. Please could you limit references to 30 or fewer if possible.

### *Text Citations:*

All citations in the text should refer to:

Single author: the author's name (without initials, unless there is ambiguity) and the year of publication;

Two authors: both authors' names and the year of publication;

Three or more authors: first author's name followed by 'et al.' and the year of publication.

Citations may be made directly (or parenthetically). Groups of references should be listed first alphabetically, then chronologically.

### *Examples:*

"as demonstrated (Allan, 1996a, 1996b, 1999; Allan and Jones, 1995). Kramer et al. (2000) have recently shown ...."

### *Reference 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.1., Lupton, R.A., 2000. The art of writing a scientific article. 1. Sci. Commun. 163,51-59.

Reference to a book:

Strunk Jr., W., White, E.B., 1979. The Elements of Style, third ed. Macmillan, New York.

Reference to a chapter in an edited book:

Mettam, G.R., Adams, L.B., 1999. How to prepare an electronic version of your article, in: Jones, B.S., Smith, R.Z. (Eds.), Introduction to the Electronic Age. E-Publishing Inc., New York, pp. 281-304.

Letheridge, S., Cannon, C.R. (Eds.), 1980. Bilingual Education: Teaching English as a Second Language. Praeger, New York.

## **Website citations**

- Websites may not remain active for the life of publication and may not be peer-reviewed. Please only submit the top-level of any website addresses and not deeply-linked sources as they are unlikely to remain active for the life of the publication
- Please supply a short title with each web address, as guidance for the reader (e.g. 'BBC News' [www.bbc.co.uk/news](http://www.bbc.co.uk/news))
- As reference works are expected to be a valid reference source for a long time, only the website addresses which are expected to remain valid for a long time should be used. Website addresses may be edited to conform to this stylistic requirement
- Websites should be cited in a "List of Relevant Websites" section at the end of the article, not in the text
- Web addresses may be used in tables in the text, but please note that the links in these will not be active in the online environment

## Extensive reliance on earlier sources

- We prefer that your contribution be prepared drawing on your broad knowledge of the available literature on the subject
- For any verbatim quotation(s), please ensure that they are fully attributed with author, year and page number and that they are for illustrative purposes only. In no way should these be presented as your own original work. **If in any doubt seek permission**
- For more information on copyright permissions and obtaining them, see below: “Permissions”

## Figures and Tables

Each figure, scheme, important equation, structure and table should be cited within the text in numerical order, indicating their position in the text as follows:

<Figure 6 near here>

<Table 1 near here>

If there are problems with the typesetting of any given element, these will be addressed in your proof.

## Tables

- Please submit tables as separate files
- Each table should include: title, table number, column headings, indication of units used (stated in the column headings)
- Any explanatory material which is essential to the understanding of the table should be placed in footnotes to the table
- Data sources – references for tables should be given in full and will be placed in the footnotes to the table

## Figures/Artwork

Preferred and accepted file formats for artwork submission		
Application/format	Extension	Accepted
Tagged Image File Format (TIFF)	TIF, TIFF	Recommended image format for halftones and bitmaps
Joint Photographic Experts Group (JPEG)	JPG, JPEG	Recommended image format for halftones
Encapsulated PostScript (EPS)	EPS	Recommended image format for vector-based images (*and embedded images)
Portable Document Format (PDF)	PDF	Recommended format for texts, notes, documents, vector-based images
Microsoft Word	DOC, DOCX	Recommended format for texts, notes, documents
Microsoft Excel	XLS, XLSX	Recommended format, typically charts when used for images, and tables for documents
Microsoft Powerpoint	PPT, PPTX	Recommended format for annotated images

- Please provide electronic files for all of your figures/artwork (where possible)
- Please submit all your figure/artwork files separately from your manuscript file
- Figures may be redrawn to meet house-style
- We can accept items that require scanning: please supply these in a form suitable for reproduction without retouching or redrawing, clearly labeling the reverse with your manuscript number, figure number. **Please do not send us unique or precious artwork as we cannot guarantee it will be returned**
- Full details on the preparation of artwork and multimedia can be found at:

<https://www.elsevier.com/authors/author-schemas/artwork-and-media-instructions>

- If you have any questions about preparing artwork please don't hesitate to contact your Project Manager.

### **Figure legends**

Figure legends should be provided for every figure included in your manuscript. They will appear in the print and electronic versions of your content. The figure combined with the legend should be self-explanatory, and understandable when viewed separately from the surrounding text. This ensures reader comprehension and increases the likelihood that the figure will be indexed by search engines (enhancing discoverability to online users).

### **Best practices for authoring legends to maximize online discovery**

1. Abbreviations included in the figure should be defined in the legend.
2. Figures without legends or figures titled simply "Figure 1" or "Figure A" should not be used (except in the context of tests, question sets, etc.)
3. Important and relevant *keywords* (widely used words or phrases that identify an important concept, process or element) should be incorporated in the legends.
4. All legends should state the *general figure type* (for example: flowchart, diagnostic image, micrograph...). The more *specific figure type* should also be stated (for example: if a flowchart → *decision tree*, if a diagnostic image → *ultrasound*, if a micrograph → *electron micrograph*).
5. Include a reference to the source of your image, if required. Please note that sometimes permission for re-use requires specific wording to be used.

### **Examples of general and specific figure types:**

General figure type	Specific figure type
Flowchart	process, swimlane, workflow, data flow, decision tree, algorithm, etc.
Diagnostic Image	radiography/xrays, magnetic resonance imaging, computed tomography, nuclear imaging, molecular Imaging, ultrasound, elastography, photoacoustic imaging, etc.
Micrograph	microscopy, light micrograph, photomicrograph, electron micrograph, microscope slides and stains, etc.

### **Multi-media Annexes**

- Multi-media annexes are files (sound, video, spreadsheets, Word documents, etc) that provide supplementary information to your article and appear in the online version of the work
- They appear at the end of an article online: they are not referenced in the print version of the work
- Please note that any multimedia material supplied is subject to the same review process as the articles.
- Please supply a description for each multimedia annex supplied. When published on-line, the descriptive text will appear as captions alongside links to the multimedia annexes. These should be not less than 50 words or greater than 1000.

### **Types of files**

- Movies/animations
- Additional images (beyond those included as part of the main article)
- Audio files
- Application-specific files (note this excludes executable applications)
- Word documents containing additional information (e.g. samples from a corpus)
- Excel spreadsheets
- PowerPoint presentations
- Acrobat PDF documents

- **We cannot use executable files**

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- **It is the Author's responsibility to ensure that they have secured permissions for any multimedia annexes**

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- Use an editable word-processing application, e.g., Microsoft Word
- Do not submit your text files in PDF-format unless you are submitting a LaTeX file
- **Do not format your article to look like the sample articles**



## Proofs

- Please consider the manuscript you submit after the review process to be the final version
- You will have an opportunity to correct the proof, but changes should be kept to a minimum
- We will send you detailed information about the proof stage, as the Work gets closer to publication
- As soon as a significant proportion of manuscripts have been approved by the Editor the production of the Work will start
- Once production has started, your manuscript will be copy-edited and typeset before the proofs are sent to you

### *Use of Inclusive Language*

Inclusive language acknowledges diversity, conveys respect to all people, is sensitive to differences, and promotes equal opportunities. Content should make no assumptions about the beliefs or commitments of any reader; contain nothing which might imply that one individual is superior to another on the grounds of age, gender, race, ethnicity, culture, sexual orientation, disability, or health condition; and use inclusive language throughout. Authors should ensure that writing is free from bias, stereotypes, slang, reference to dominant culture, and cultural assumptions. Seek gender neutrality by using plural nouns (“clinicians, patients/clients”) as default/wherever possible to avoid using “he, she,” or “he/she.” We recommend avoiding the use of descriptors that refer to personal attributes such as age, gender, race, ethnicity, culture, sexual orientation, disability, and health condition unless there is scientific or clinical relevance. Statements and claims about personal attributes should be factual and supported by an evidentiary reference. These guidelines are meant as a point of reference to help identify appropriate language but are by no means exhaustive or definitive.

### **Capitalization of Racial and Ethnic Terms**

Racial and ethnic groups are designated by proper nouns and are capitalized. Therefore capitalize “Black,” “White,” and “Brown” to align with the capitalization preference applied to other racial and ethnic categories. Use the capitalized term as an adjective in a racial or ethnic sense: Blacks are disproportionately affected by COVID-19 (proper noun usage); diabetes disproportionately affects the Black population (adjectival usage).

### **Reporting Sex, Gender, or Both in Research**

The terms male and female should be used when describing the sex of human participants or other sex-related biological or physiological factors. Descriptions of differences between males and females should carefully refer to “sex differences” rather than “gender differences.” Gender comprises the social, environmental, cultural, and behavioral factors and choices that influence a person’s self-identity and health. Gender includes gender identity (how individuals and groups perceive and present themselves), gender norms (unspoken rules in the family, workplace, institutions, and global culture that influence individual attitudes and behaviors), and gender relations (the power relations between individuals of different gender identities). Authors should consider appropriate use of the words sex and gender to avoid confusing both terms.

### **LGBTQ+ Terminology**

When content is referring to the lesbian, gay, bisexual, transgender, queer, or questioning community, Elsevier’s suggested terminology is LGBTQ+.

### *Religion and Politics*

Religious and political beliefs and practices must be described with accuracy. Statements and claims about religion and politics should be factual and supported by an evidentiary reference. If no reference exists, one should be requested and provided.

## Contact Information

- If you have any questions or comments concerning the *Encyclopedia of Astrophysics, First Edition*, please feel free to contact us
- Regarding article deadlines, these instructions and any other administrative matters please contact: **Snehil Sharma**

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Major Reference Works  
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