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Informazioni sulla rivista

Obiettivi e ambito di applicazione

Astronomy and Computing è una rivista scientifica con revisione paritaria che si concentra sull'ampio campo di intersezione tra astronomia, informatica, sviluppo software e tecnologie dell'informazione. La rivista si propone di pubblicare i lavori di scienziati e ingegneri (del software) in tutti gli aspetti del calcolo astronomico, inclusi la raccolta, l'analisi, la riduzione, la visualizzazione, la conservazione e la diffusione dei dati, nonché lo sviluppo di software e simulazioni astronomiche. La rivista tratta le applicazioni delle tecniche informatiche all'astronomia, così come le nuove applicazioni delle tecnologie dell'informazione in ambito astronomico.

La rivista è aperta a un'ampia gamma di contributi sull'uso dell'informatica in astronomia. Incoraggia l'invio spontaneo di articoli scientifici, manoscritti su nuove versioni di software e dati di indagini astronomiche, nonché di "resoconti pratici" che descrivano i risultati (positivi e negativi) dell'applicazione pratica delle tecniche informatiche nella ricerca e nelle attività astronomiche. Gli autori che desiderano invece inviare articoli di rassegna, white paper e articoli specifici, nonché idee per numeri speciali della rivista, sono pregati di contattare preventivamente i membri del comitato editoriale.

I contributi dovranno riguardare argomenti di ricerca relativi ad applicazioni informatiche dedicate all'astronomia e all'astrofisica. Ad esempio, manoscritti che descrivono ricerche puramente informatiche o ingegneristiche, o manoscritti teorici senza alcun collegamento con l'astrofisica computazionale, non saranno presi in considerazione per la pubblicazione.

In generale, i manoscritti dovrebbero apportare un contributo significativo al settore e dimostrare un'adeguata familiarità con i lavori precedenti nell'area e con approcci alternativi allo stesso problema. È fortemente incoraggiato (ed è obbligatorio nel caso di manoscritti relativi a dati o versioni di software). Tutti i manoscritti sono soggetti a revisione paritaria. La rivista accoglie contributi su una varietà di argomenti, tra cui:

- Astroinformatica e analisi
- Simulazioni astrofisiche
- Astrostatistica e apprendimento automatico
- Infrastruttura computazionale

- Analisi dei dati e statistica
- Curatela e conservazione dei dati
- Gestione dei dati, archivi e osservatorio virtuale
- Data mining
- Pipeline di elaborazione dati e sistemi automatizzati
- Tecniche computazionali generali utilizzate in astronomia
- ingegneria del software scientifico
- Semantica
- Visualizzazione

Tipi di articoli

La rivista pubblicherà articoli che coprono tutti gli aspetti del calcolo astronomico, che apportino un contributo significativo al settore e che dimostrino un'adeguata familiarità con i lavori precedenti nell'area e con approcci alternativi allo stesso problema. Diverse tipologie di articoli possono soddisfare questi requisiti generali e, per alcune, verranno applicati criteri aggiuntivi per valutare l'idoneità alla pubblicazione sulla rivista. Le seguenti tipologie di articoli sono attualmente identificate nell'ambito del processo di invio e revisione.

La rivista supporta le seguenti tipologie di articoli:

- **Articolo completo** ;
- **Articolo di rilascio del software** : il software deve essere descritto in modo appropriato, confezionato e documentato professionalmente, incluso il codice sorgente, e reso disponibile tramite un URL stabile in un repository pubblico;
- **Articolo di rilascio dei dati** : i dati devono essere descritti in modo appropriato, formattati secondo gli standard della comunità e resi disponibili tramite un URL stabile in un repository pubblico;
- **Nota sulla pratica** , incentrata sulle lezioni apprese nel corso di un progetto di calcolo astronomico.

Gli autori che desiderano inviare un **articolo di revisione** o un **white paper** sono invitati a contattare un redattore prima dell'invio. Poiché non si ritiene opportuno applicare un filtro a priori, l'invio spontaneo di articoli di revisione e white paper è tollerato e la gestione di tali manoscritti può avvenire a discrezione dei redattori.

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This journal follows a single anonymized review process. Your submission will initially be assessed by our editors to determine suitability for publication in this journal. If your submission is deemed suitable, it will typically be sent to a minimum of two reviewers for an independent expert assessment of the scientific quality. The decision as to whether your article is accepted or rejected will be taken by our editors.

Read more about [peer review](#).

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Any such submissions will be subject to the journal's usual procedures and peer review will be handled independently of the editor involved and their research group. Read more about [editor duties](#).

Authors may submit a formal appeal request to the editorial decision, provided it meets all the requirements and follows the procedure outlined in [Elsevier's Appeal Policy](#). Only one appeal per submission will be considered and the appeal decision will be final.

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All authors should have made substantial contributions to all of the following:

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2. Drafting the article or revising it critically for important intellectual content.
3. Final approval of the version to be submitted.

Authors should appoint a corresponding author to communicate with the journal during the editorial process. All authors should agree to be accountable for all aspects of the work to ensure that the questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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- All authors must be listed in the manuscript and their details entered into the submission system. Changes can only be made prior to acceptance, and only if approved by the journal editor. This includes additions, deletion, or rearrangement of author names.
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Inclusive language acknowledges diversity, conveys respect to all people, is sensitive to differences, and promotes equal opportunities. Authors should ensure their work uses inclusive language throughout and contains nothing which might imply one individual is superior to another on the grounds of:

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There is no single, universally agreed-upon set of guidelines for defining sex and gender. We offer the following guidance:

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We advise you to read the [Sex and Gender Equity in Research \(SAGER\) guidelines](#) and the [SAGER checklist](#) (PDF) on the EASE website, which offer systematic approaches to the use of sex and gender information in study design, data analysis, outcome reporting and research interpretation.

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- Avoid non-standard or uncommon abbreviations. If any are essential to include, ensure they are defined within your abstract at first mention.

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Highlights

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- Submit math equations as editable text, not as images.
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- Present variables in italics.
- Denote powers of e by exp.
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- Cite all tables in the manuscript text.
- Number tables consecutively according to their appearance in the text.
- Please provide captions along with the tables.
- Place any table notes below the table body.
- Avoid vertical rules and shading within table cells.

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Figures, images, artwork, diagrams and other graphical media must be supplied as separate files along with the manuscript. We recommend that you read our detailed [artwork and media instructions](#). Some excerpts:

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All images must have a caption. A caption should consist of a brief title (not displayed on the figure itself) and a description of the image. We advise you to keep the amount of text in any image to a minimum, though any symbols and abbreviations used should be explained.

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We encourage the use of supplementary materials such as applications, images and sound clips to enhance research. Some guidelines:

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- Cite all supplementary files in the manuscript text.
- Submit all supplementary materials at the same time as your manuscript.
- Include a concise, descriptive caption for each supplementary file, describing its content.
- After submission supplementary files can only be added or replaced in the revision stage of the editorial process.
- Be aware that all supplementary materials provided will appear online in the exact same way as received. These files will not be checked, formatted or typeset by the production team.

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This journal accepts video material and animation sequences to support and enhance your scientific research. We encourage you to include links to video or animation files within articles. Some guidelines:

- When including video or animation file links within your article, refer to the video or animation content by adding a note in your text where the file should be placed.

- Clearly label files ensuring the given file name is directly related to the file content.
- Provide files in one of our [recommended file formats](#). Files should be within our preferred maximum file size of 150 MB per file, 1 GB in total.
- Provide "stills" for each of your files. These will be used as standard icons to personalize the link to your video data. You can choose any frame from your video or animation or make a separate image.
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