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GUIDE FOR AUTHORS

Types of article
The journal will publish papers covering all aspects of astronomical computing that make a valuable contribution to the field and that display an appropriate familiarity with previous work in the area and alternative approaches to the same problem. A variety of classes of article may satisfy these general requirements, and for some there will be additional criteria to be applied in considering whether an article is suitable for publication in the journal.

The following types of article are currently identified within the submission and refereeing process.

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Standard Article: This is the most general category of paper and the one into which most papers published in the journal will fall. Articles are expected to describe an innovative piece of work in astronomical computing. This could relate to either a discrete project - a new algorithm, system or application of technique or technology - or a substantial change to an established system, such as the restructuring of a major pipeline. Examples of types of article within this category are:

(i) Software Release Papers. To be suitable for publication in the journal, these should do more than just describe a new or updated software package. They should emphasize innovative factors like the intellectual contribution represented by a new algorithm or the use of a new technology, and should make clear the ways in which the software is of significant value to the community. The editors anticipate that software releases that merit a journal publication will be professionally packaged and documented, and made available from a stable URL, preferably with the source code available in a public repository: (see section below on "Source code repositories").

(ii) Data Release Papers. These should emphasize the technical aspects of the design, development and delivery of a new dataset, and will be naturally complementary to an astronomy-focused data-release paper in another journal. As with the release of an update to a software package, it will not always be true that papers detailing subsequent data releases from a project will merit publication in the journal even if the first release did. Similarly, authors should describe the releases' value to the community and the ways in which they will adopt community standards (e.g. those of the International Virtual Observatory Alliance) for the description and publication of the data.

Notes on Practice
These articles will focus on the lessons learned in the course of an astronomical computing project, often the first (or an early) application of a particular approach or technology within the field. Their value will not rely on the project having been scientifically or technically successful, but, rather, on the usefulness to the community of the analysis of the project presented in the paper: for example, an unsuccessful project may yield a very valuable paper if it convincingly explains why a seemingly attractive choice of technology proved to inappropriate and if it clearly identifies the characteristics of possible future projects in which the same choice is likely to prove unwise.

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In common with review papers in existing journals, these are expected to provide a comprehensive, possibly chronological, overview of a topic in astronomical computing or of a subject from computer science or the commercial IT sector with clear applicability to astronomy. Review papers will be pedagogical in tone, and not required to present new material of their own.

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