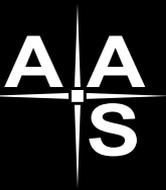


On Publishing in the AAS Journals (as an author)

Frank Timmes
AAS Journals Lead Editor
Corridor: High Energy Phenomena and Fundamental Physics
School of Earth and Space Exploration
Arizona State University



THE ASTRONOMICAL JOURNAL

THE ASTROPHYSICAL JOURNAL

THE ASTROPHYSICAL JOURNAL LETTERS

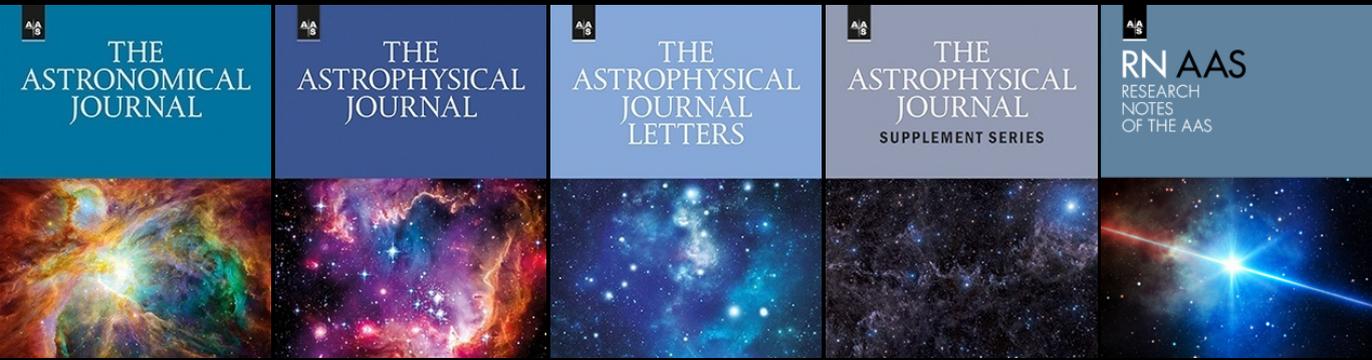
THE ASTROPHYSICAL JOURNAL SUPPLEMENT

RESEARCH NOTES OF THE AAS



Our journals specialize in manuscripts presenting new results on astronomical observations or theory applied directly to astrophysical systems.

(Remarkable brevity for what this does and does not say.)



Does your article contain significant new results or theories and does it reflect sufficiently high scientific standards to warrant publication in the AAS Journals?

- Your article must report a major advance or a new approach (i.e., no comment papers, no review papers).
- Incremental steps is usually not good enough. For example, adding 1 object to a previous survey of 1000 is usually not a major new result, but there are exceptions.
- The article should be set in context of previous research by yourself and others.

Scientific writing is a process involving at least two stages: thinking and planning, and then writing and packaging.

The goal is to tell a convincing and well-woven science story.

Your paper is probably important to you - the invested author. Appreciate, respect, and engage your potential readers. Put significant effort into effective communication.

Use the AASTex v6 markup package:
<http://journals.aas.org/authors/aastex.html>

Title

The title is the most visible part of your article.
Often it may be the only item that is read by others.

It should to be short, accurate and give a good idea
of the main topic.

It is a main source of information for indexing services
and search engines.

The Good, the Bad and the Ugly Trendy/Humorous

The Crab Pulsar at Centimeter Wavelengths

The $^{12}\text{C}(\alpha,\gamma)^{16}\text{O}$ Reaction and its Implications for Stellar Helium Burning

The Effects of Dark Matter Annihilation on Cosmic Reionization

Approaching the Cramér–Rao Bound with PDF Symmetrization

LAXPC reveals variability of GRS 1915+105 in the χ class

Impulsively Generated Sausage Waves with Continuous Structuring

To Infinity and Beyond: ...

Ashes to Ashes: ...

Wait for it: ...

Author Names

Simple in principle, highly nuanced in practice.

Usually the first author has done the majority of the research and writing, the second author helped significantly with the entire project, and the remaining authors played an key role in one or two aspects. **Many counterexamples exist.**

Policy: You are obligated to ensure all co-authors agree to the content of the original submission and subsequent revisions.

Abstract

Nobody reads a paper without first reading the abstract, and often only the abstract. So, this is arguably the most important part of the paper.

A good abstract summarizes the whole paper. Usually a sentence on the aim, a few sentences on quantitative results, and a sentence on the conclusions.

This is often a challenging to write and usually is done last.

Policy: The abstract must be a single paragraph of not more than 250 words.

Introduction

An introduction says what you are writing about, why the topic is relevant, provides background with references, and says why your approach offers significant new results.

Good introductions are not necessarily long. One to two pages that only includes useful information should be sufficient for most topics.

Avoid self-plagiarism text overlap.
Ideas can be paraphrased or reworded but not copied exactly.

<http://journals.aas.org/policy/ethics.html>

Methods / Observations / Experiment

Give enough information so that someone else could repeat the calculation, observation, or experiment (science 101).

\software{Use it!}

The AAS Journals recognizes the importance of software to the community, and the need for clear communication about such software which ensures that credit is given to its authors.

<http://journals.aas.org/policy/software.html>

Results

This section is where you extract the science from your data, often with figures and tables. This section is often written first.

Include a discussion of the uncertainties or limitations.

The AAS Journals encourages the enrichment of articles with data behind the figure, visualizations, and other digital assets.

<http://journals.aas.org/authors/manuscript.html>

Discussion

Say how the quantitative results relate to the science questions you are addressing.

Relate your results to the “big picture” given in the introduction.

Describe the advantages of your results and how they compare to past work (i.e., put your results in perspective).

Describe how your science can be further tested through observations, experiment, or calculations.

Conclusions

This section is usually written just before the abstract, and is usually a bit longer and more detailed than the abstract.

It commonly restates: your goals (briefly), what observations, experiments or models you did (briefly), your main results (with error bars), and what model is/isn't supported by your results.

Acknowledgements

Thank those that helped make your paper possible. Sponsor funding, support staff, and researchers that are not co-authors but helped you.

Authors may also acknowledge the referee for helping improve their paper if they wish (currently ~45% of papers do so.)

It is inappropriate to acknowledge AAS journal staff.

References

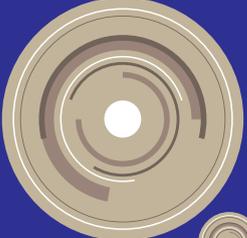
Usually a topic did not originate with your article.

Be as complete as reasonable (i.e., do not excessively self-cite.)

Use a bibliographic reference manager with an import tool (e.g., BibDesk + ads_bibdesk) for error free citations and ensuring that all citations, and only those citations, are resolved.

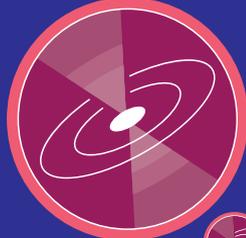
Submit your paper to <http://journals.aas.org>

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GALAXIES AND COSMOLOGY



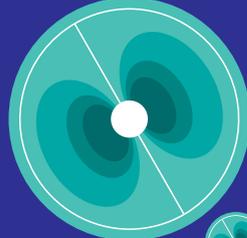
Chris Conzelice

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HIGH ENERGY PHENOMENA AND FUNDAMENTAL PHYSICS



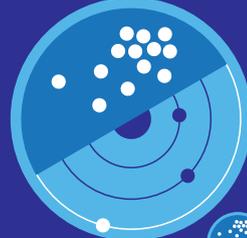
Frank Timmes

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STARS AND STELLAR PHYSICS



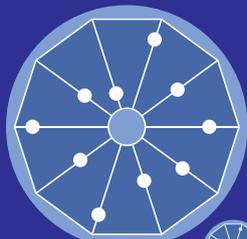
Steve Kawaler

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PLANETARY SYSTEMS AND ASTROBIOLOGY



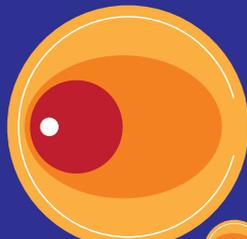
Michael Endl

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INTERSTELLAR MATTER AND THE LOCAL UNIVERSE



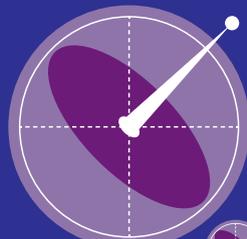
Judy Piper

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THE SUN AND THE HELIOSPHERE



Leon Golub

AAS AMERICAN ASTRONOMICAL SOCIETY
INSTRUMENTATION, SOFTWARE, LABORATORY ASTROPHYSICS AND DATA



Chris Lintott

Await the referee report



Peer Review Process

The goal of the sometimes intense review process is to improve a manuscript and arrive at publication.

The acceptance rate for the AAS Journals is $\approx 85\%$.

The review process should thus be viewed as constructive.

The AAS Journals receives ≈ 100 new submissions each week.

Some are stopped at the gate and are not sent out for review.
These submissions are usually

- appropriate for another science journal.
- comment papers.
- not suitable for publication in any serious scholarly journal.

Manuscripts that enter the review process are submitted to a self-plagiarism text-overlap tool (CrossCheck).

Manuscripts with a significant statistical component are routinely previewed by the AAS Statistics Editor.

Manuscripts with a significant software component are routinely previewed by the AAS Data Editors.

Manuscripts are then assigned to one of ≈ 25 Scientific Editors.

The Scientific Editor

- 1) chooses the referee,
- 2) supervises the review process,
- 3) adjudicates any impasses, and
- 4) makes the final accept/reject decision.

The Scientific Editor is expected to have a general knowledge of the subject of the manuscript.

The referee is expected to be an expert in the field.

Who is chosen as referee? We consider every publishing author, worldwide, as a potential referee:

- A subject matter expert, usually at the post-PhD level.
- Not a previous co-authored with the authors.
- Not someone from the same institution.
- Not someone known to be a mortal enemy.
- Referees are expected to reveal potential conflict-of-interests.

Finding a referee can be challenging for specialized manuscripts, or manuscripts with many authors from many institutions.

When a potential referee does not accept the invitation, it is helpful if alternative potential referees are suggested.

The AAS journals keeps a databank on authors and referees: who has served as referee, when, on which subjects, length of time in submitting reports, and so on.

Although peer review can be difficult and time consuming, scientists have an obligation to participate in the process.

Our goal is to receive a referee report within 3 weeks of the referee accepting. Don't confuse the 3 weeks with the submission date of their manuscript.

Referees are anonymous by default. If a referee wishes to waive anonymity (and the Scientific Editor agrees), then direct correspondence between authors and referee is forbidden.

Experience shows that the author/referee interaction is usually positive and constructive.

The Scientific Editor can edit the referee report or the author reply (personal attacks, bombast, gender neutrality, etc.)

Receiving a referee report

Relax.

Read the report carefully.

If a report contains some critical comments, take a few days to cool off. You have 6 months to reply. Firing an angry response within an hour is rarely useful.

If a referee misinterprets a point it is not necessarily their fault, you may not have explained it as clearly as you think you did.

Remind yourself of the goal of the review process.

A sense of humor can be useful.

Closure is usually reached after 2 or 3 author/referee iterations with a timescale of a few months.

In the case of a stalemate, a Scientific Editor may seek a second referee on their own, grant the author's request for a second referee, or make a decision.

If a second referee is sought, the second referee is always asked for an independent review, and sometimes informed about the general nature of the impasse.

Science Editors serve as arbitrators and mediators, and eventually as judges, in an evolved peer-review process.

Celebrate when your paper is accepted
for publication in the AAS Journals!

It might even be highlighted on AAS Nova!

<http://aasnova.org>