PASA Report to the ASA

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1. Executive summary

PASA has experienced an increased volume of submissions, with overall quality remaining at a high level. PASA's newly released Impact Factor has again increased to an all-time high. For the first time, PASA is ahead of one of the astronomy majors (MNRAS), and now has the highest Impact Factor among broad astronomy journals without page charges. PASA is continuing to attract high-quality submissions, including new thematic Collections from major Australian projects, high-quality white papers, and timely review articles. PASA aims to provide our best possible support to authors who wish to enact retrospective name changes.

2. Editorial Board

Two new Associate Editors (Dr Minh Huynh, CSIRO Astronomy and Space Science) and Dr Hermine Landt (Durham University) started in 2021, replacing Prof. Melanie Johnston-Hollitt and Prof. Stephen Serjeant, who have stepped down after several years' service. I thank Melanie and Stephen for their many positive and constructive contributions to PASA. Dimitris Stamatellos (University of Central Lancashire) has accepted a position on the Editorial Board commencing January 2022.

Other members of the Editorial Board are Daniel Price (Deputy Editor, Monash University), Katie Auchettl (University of Melbourne), Ivo Seitenzahl (UNSW Canberra) and Michele Trenti (University of Melbourne).

3. PASA performance

3.1. Submissions

82 manuscripts were submitted from 1 Jan – 30 June 2021, up from 56 for the same period in 2020. This submission rate is also higher than previous years by 10-20%, suggesting that PASA is on track to publish more papers in 2021.

Of 2020 manuscripts with decisions, 57% were rejected at some stage of the reviewing process (37% rejectinappropriate, 9% reject after review, 11% reject-resubmit). This is broadly consistent with previous years: 50% (2020), 60% (2019), 45% (2018); and up from a few years ago (37% in 2017, 35% in 2016), reflecting the increase in the quality of work published by PASA, as described below. The increased number of submissions to PASA in the first half of 2021 is therefore of papers of broadly comparable quality to recent times.

3.2. Peer review process

PASA Associate Editors have been working hard on turnaround times, which have now recovered to levels I believe to be appropriate. The median time to first decision for papers sent out for review was 33 days in 2020, and 32 days in 2021. This is comparable to 2016 and 2017 (29 and 31 days), and a noticeable improvement on 2018 and 2019 (50 and 51 days).

Breakdown in median turnaround times by article type for the period 1-25 June, 2021, is below.

Decision	Number of new submissions with decisions	Median time (Interquartile Range)
	(1 Jan – 25 June 2021)	to first decision (days)
Major revision	17	31 (28 – 36)
Minor revision	12	32 (24 – 38)
Reject	42	4 (1 – 20)
TOTAL	73	23 (3 – 36)

We can still improve some of our processes, and relevant specific areas for improvement have been identified.

3.3. Citations and impact factor

Impact Factor

PASA's 2020 Impact Factor (released on 30 June) is at an all-time high of **5.57**. The IF calculation covers papers published over the period 2018-2019 and cited in 2020.

PASA's new IF retains it in the top quartile of Journal Citation Reports-listed journals, at number 13 of 68. This again puts PASA ahead of PASP (5.45) and PASP (5.07), and – for the first time – ahead of one of the astronomy "majors", MNRAS (5.29).



PASA is now the top-ranked non-review astronomy journal without page charges.

Given the high-quality submissions attracted to PASA in 2020 and 2021 (see below), PASA's Impact Factor is expected to continue performing strongly in the near future.

The journal remains well supported by the community. Of the most cited PASA papers, the top 7 are all Australian-led. The most cited PASA paper, with 823 citations, remains Tingay et al. (2013), which is now the standard reference for the MWA instrument.

I'd like to again encourage all ASA members to submit their work, particularly from Australian-led projects, to PASA. The "Collections" feature in PASA (which is well used by the MWA, and most recently ASKAP, collaborations) and the PASA datastore provide excellent additional functionality which may be useful to survey teams.

4. Publications

4.1. Recent highlights

A major new Collection was started in PASA this year. The ASKAP collection includes some previously published papers, but the highlight is definitely first results from ASKAP. The paper by McConnell et al. "The Rapid ASKAP Continuum Survey I: Design and first results" has attracted a huge number of downloads (>14,000, more than 4 times the next most downloaded paper), and a high Altmetric score. The press release associated with this publication was coordinated between PASA and CSIRO.

Well-cited papers published in 2020 include:

- "Cosmology with Phase 1 of the Square Kilometre Array Red Book 2018: Technical specifications and performance forecasts" by Bacon et al., 123 citations to date
- "Fundamental physics with the Square Kilometre Array" by Weltman et al., 89 citations to date
- "An ultra-wide bandwidth (704 to 4 032 MHz) receiver for the Parkes radio telescope" by Hobbs et al., 45 citations to date

Other recent highlights include:

- the first MeerKAT pulsar paper, by Bailes et al. (24 citations so far)
- a concept paper outlining for a new gravitational wave interferometer, by Ackley, Lasky et al.
- the first paper from the ATCA Legacy GLASS survey, by Seymour et al.
- an MWA SETI survey paper, by Tremblay et al.; this paper also received substantial publicity and a high Altmetric score
- Two concept papers by the SPace Infrared telescope for Cosmology and Astrophysics (SPICA) team.
 Although SPICA was scrapped as an M5-level mission by ESA in late 2020, the science cases developed by the SPICA team are likely to be useful to potential future mission concepts (e.g. NASA Origins and ESA L-class). The authors worked with PASA editors to generalise the results presented in their paper to beyond SPICA specifications, resulting in high-quality white papers which are likely to be useful to the community.
- Dawes Review 9 by Cortese, Catinella & Smith on "The role of cold gas stripping on galaxy quenching across environments."

4.2. Freely Available papers

Each year, the PASA Editorial Board makes 6 articles Freely Available (i.e. accessible by anyone). These are selected by the Editorial Board on their likely impact, as judged by citations or other appropriate metrics (see below). The Dawes Reviews (below) are always selected to be Freely Available.

4.3. Dawes Reviews

The eight Dawes Reviews continue to be highly cited. Of these, DR2 by Karakas & Lattanzio (2014) is the highest-cited with 348 citations to date. Seven of the eight Reviews published prior to 2021 have at least 20 citations.

Dawes Review 9 on "The role of cold gas stripping on galaxy quenching across environments" by Cortese, Catinella & Smith was published in 2021. Two more Dawes Reviews on "Pulsar Wind Nebulae" and "Image classification using Machine Learning" are in progress.

5. Policy changes

5.1. Scope

As outlined above, PASA has seen a recent increase in the number of submissions. The scope of these submissions has also broadened, in line with the growth of astronomy-related research areas (e.g. space

science, instrumentation, astrostatistics, planetary science). Several of these areas have their own professional journals. The Editorial Board's view is that the decision on whether a specific article is in-scope should remain as follows: papers published in PASA must demonstrate relevance, and be of interest, to the professional astronomy and astrophysics community.

5.2. Author name change policy

There has been much recent discussion in the international astronomy community regarding author name changes. There is currently no consistent policy across the publisher landscape: at the time of writing, several astronomy journals (e.g. AAS journals) have come out with new policies in support of this, others (e.g. MNRAS) are working on it, other still are not supportive of this move.

PASA's Editorial Board endeavours to support authors to the best of our ability. Our overarching approach, guided by Committee of Publication Ethics (COPE) recommendations (<u>https://publicationethics.org/news/update-cope-guidance-regarding-author-name-changes</u>) should be to make the process as confidential and as seamless as possible (e.g. no need for a justification, no need for a public notice).

The view of the Editorial Board is that we wish to support authors, including via name changes in pdfs, while keeping the integrity of the publication process. There are many practical details to sort out. CUP are currently working on developing an appropriate policy, consistent with COPE guidelines, and guided by high-level principles (https://publicationethics.org/news/vision-more-trans-inclusive-publishing-world).

Any authors who wish to change their name and/or other related information, such as email addresses containing names or name fragments, are asked to contact (at their preference) either the publishing ethics team at CUP (publishingethics@cambridge.org) or the Editor-in-Chief, Stanislav Shabala (Stanislav.Shabala@utas.edu.au).

6. Author features

6.1. New features

6.1.1. PASA website

Since the last PASA annual report, several improvements have been made to the PASA website.

Benefits of publishing in PASA

A "Why publish in PASA" page has been added (<u>https://www.cambridge.org/core/journals/publications-of-the-astronomical-society-of-australia/information/benefits-of-publishing-in-pasa</u>), highlighting the advantages of publishing in PASA.

Research transparency

Our publisher (Cambridge University Press) is encouraging research transparency and reproducibility across all their journals. This is an excellent initiative that PASA embraces. A new tab has been added to the PASA website (<u>https://www.cambridge.org/core/journals/publications-of-the-astronomical-society-of-australia/information/research-transparency</u>), with a brief statement encouraging transparency, including of data. This initiative links well with the PASA Datastore, and we have included that link there.

6.1.2. Copyright

Some aspects of the formal CUP copyright policy are at odds with standard practice in astronomy. Specifically, CUP would like authors to only upload submitted (not accepted) manuscripts to arXiv, with the accepted manuscripts having a 6-month period behind a paywall. Following earlier discussions, there was strong

pushback from the Editorial Board and ASA Council on this, noting that all competitor journals routinely allow this to happen. A sensible compromise is to allow authors to post their own accepted version (*not* the typeset version-of-record) to arXiv, and include a URL link to the PASA version-of-record.

6.2. Existing author features – a reminder

6.2.1. Overleaf and Datastore

Colleagues are reminded that PASA offers the Overleaf collaborative writing platform as an option. Authors can submit their article directly from Overleaf.

The PASA Datastore (<u>https://data-portal.hpc.swin.edu.au/institute/pasa</u>) provides storage for datasets linked to a published paper.

6.2.2. Double-blind review

PASA authors have the option of requesting a double-blind review. The workflow within the ScholarOne workflow makes this possible, as the reviewer does not see any author information apart from what is contained in the submitted pdf. The authors are responsible for ensuring their manuscript is de-identified appropriately.

The PASA Editorial Board notes recent evidence which suggests that double-blind reviewing of observing proposals corrects for implicit bias (e.g. against women), and we encourage authors to adopt this option if they feel it is appropriate.