

## 2014 Review of the Implementation of the RCUK Open Access Policy: Response from the Royal Astronomical Society

### Introduction

1. The Royal Astronomical Society (RAS) has around 3800 members (Fellows) and is the leading UK advocate for the fields of astronomy, space science and geophysics. Our membership includes professional scientists working in academia and industry who announce their research in papers in peer reviewed academic journals and who therefore have a central interest in modes of publishing.
2. In partnership with Oxford University Press, we also publish three academic journals, namely Monthly Notices of the Royal Astronomical Society (MNRAS), MNRAS Letters and Geophysical Journal International (GJI), the latter jointly with the Deutsche Geophysikalische Gesellschaft (DGG, the German Geophysical Society). The Society also publishes the interdisciplinary journal A&G, which publishes review articles but is not refereed.
3. We therefore welcome the opportunity to contribute to the consultation on the implementation of Open Access and would be happy to discuss this further.

### Declaration of Interests

4. The Royal Astronomical Society receives income from two primary sources: membership subscriptions and income from subscriptions to its journals. As a result the Society has a financial interest in a sustainable publication model. Our staff and treasurer are direct beneficiaries of this revenue (which partly supports the salaries of employees), but all other members of our governing Council are unpaid volunteers.

### Publications

5. As noted above, the RAS publishes three research journals: MNRAS, MNRAS Letters and GJI. There are no page charges and authors are actively encouraged to place their articles on online repositories with no embargo. There are charges for the printing of colour figures for MNRAS and GJI. In pursuit of the interests of our international community of members, the overarching editorial policy is to publish research papers of the highest quality in order to advance our sciences by disseminating knowledge widely.
6. For **MNRAS**, Article Publishing Charges (APCs) are charged at £1450 per article (£1320 for RAS Fellows). MNRAS published 3400 papers in the period 1/4/13 to 31/7/14 and 18% of the first authors of these papers were affiliated to UK institutions. Of these, 9 articles (0.3%) have been published Open Access (gold) at full rate, 7 of which acknowledged RCUK funding and 3 (0.1%) were published at the RAS member rate. 66% of the authors contributing to Gold OA articles were from UK institutions.
7. 441 of these papers had figures printed in colour for which there is a flat rate of £200. The colour figure fee was waived for 7 of these.

8. **MNRAS Letters** published 236 papers during the same period, with 17% of the first authors of these affiliated to UK institutions. Of these only one (0.5%) was published Open Access and none of its authors were affiliated to UK institutions nor acknowledged RCUK funding. Letters are published online only so there are no colour figure charges.
9. For **GJI** APCs are charged at £1500 per article. Discounted rates are available for RAS Fellows and DGG Members (£1350) as well as for authors based in some developing countries. 672 papers were published during the period 1/4/13 to 31/7/14, with 8% of the first authors of these affiliated to UK institutions. 21 papers (3.1%) were published Open Access at full rate, with 9 of these acknowledging RCUK funding and 2 (0.3%) were published at the RAS Fellow / DGG member rate. 39% of the authors contributing to Gold OA articles were from UK institutions.
10. The GJI colour figure printing fee is the same as MNRAS (a flat rate of £200) and 377 of these papers had figures printed in colour. The colour charge was waived for 5 of these.
11. For all three RAS journals, there has been no notable change in submission rates since the RCUK OA policy was introduced and it appears that the Gold OA option has been taken up by a very limited number of researchers, most commonly by those based in the UK but with a significant proportion from other countries. Even assuming that UK scientists were first authors on multiple MNRAS and GJI papers in this period, there seems little evidence that more than a handful of them are electing to publish using the Gold OA route.

#### **arXiv repository**

12. According to data from the RAS editorial team, more than 90% of MNRAS and MNRAS Letters authors post their papers simultaneously on the arXiv (green OA) repository that was set up in 1993, either at the submission or acceptance stage or both.
13. By 2003, a decade after arXiv was established, around 80% of astronomy papers were placed there, rising to the present value of over 90% by 2008. The historical pattern of usage indicates that in astronomy at least, green Open Access publishing in a subject-based repository has been standard practice for many years. At present no equivalent subject repository exists for papers in geophysics, but the use of the gold Open Access option is similarly extremely limited.

#### **Licensing**

14. The RAS offers a CC-BY license to authors for Gold OA articles, in line with the recommendations of the RCUK policy, enabling free use of the work provided the source is attributed.

#### **Survey of our Fellowship**

15. The Society contacted 68 of our 'Points and Contact' and 91 heads of department in astronomy and geophysics groups across the UK. We only received four responses (all from astronomy groups) describing how institutions were adapting to the new publishing policy.

16. All four indicated that the new RCUK policy had not affected the attitude of individual researchers to publication. In one case the institutional structures are adapting at a higher level to reflect the new approach.
17. In three cases however researchers expressed the discontent they and their colleagues have with the new regime. They referred to issues such as lack of clarity i.e. the difference between Open Access routes, the implications of choosing a particular route and the need to 'box tick' or 'jump through hoops' to remain compliant with the RCUK policy, without any advantage to the research community.
18. The same three respondents also expressed strong support for arXiv and suggest RCUK fund this and similar subject-based repositories, rather than those run by higher education institutions. They point out that the overwhelming majority of astronomers have published there for years and indeed not doing so reduces the number of peers aware of their work. The respondents see the Gold OA charge as irrelevant to the publication of their research, except that it wastes funds that could be spent elsewhere.
19. The RAS will continue to develop its publishing policy by responding to the fundamental values and changing needs of its international community of scientists. Our overall conclusion at this stage is that the astronomy community at least has implemented a working open-access policy to which the RCUK policy has been largely irrelevant.