

RIOJA

Repository Interface for Overlaid Journal Archives: results from an online questionnaire survey

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1. Introduction

1.1 *The RIOJA project*

The Repository Interface for Overlaid Journal Archives (RIOJA) project (<http://www.ucl.ac.uk/ls/rioja>) is an international partnership of members of academic staff, librarians and technologists from UCL (University College London), the University of Cambridge, the University of Glasgow, Imperial College London and Cornell University. It aims to address some of the issues around the development and implementation of a new publishing model, that of the overlay journal - defined, for the purposes of the project, as a quality-assured journal whose content is deposited to and resides in one or more open access repositories. The project is funded by the Joint Information Systems Committee (JISC, <http://www.jisc.ac.uk/>) and runs from April 2007 to June 2008.

The RIOJA project will create an interoperability toolkit to enable the overlay of certification onto papers housed in subject repositories. The intention is that the tool will be generic, helping any repository to realise its potential to act as a more complete scholarly resource. The project will also create a demonstrator overlay journal, using the arXiv repository and OJS software, with interaction between the two facilitated by the RIOJA toolkit.

To inform and shape the project, a survey of Astrophysics and Cosmology researchers has been conducted. The findings from that survey form the basis of this report.

The project team will also undertake formal and informal discussion with publishers and with academic and managing members of editorial boards. The survey and supplementary discussions will help to ensure that the RIOJA outputs address the needs and expectations of the research community. Finally, the overall long-term sustainability of a repository-overlay journal will be assessed. The project will examine the costs of adding peer review to arXiv deposits, of implementing and maintaining the functionality which the survey shows to be most valued by researchers, and of providing long-term preservation of content, and will aim to identify and appraise possible cost-recovery business models.

The RIOJA outputs will be made publicly available. It is hoped that the deliverables from RIOJA, and the lessons learned in the course of the project, will help to advise and inform the future development of overlay journals, including journals grounded in other subject areas and using other repositories.

1.2 *Scope and definition*

An overlay journal is defined, for the purposes of the project, as a quality-assured journal whose content is deposited to and resides in one or more open access repositories.

1.2.1 *The arXiv repository*

The impetus for the RIOJA project comes directly from academic users of the arXiv subject repository. arXiv is perhaps the most prominent subject repository. It was founded in 1991 to facilitate the exchange of pre-prints between physicists. Now housed

at Cornell University, it holds over 460,000 e-prints, both pre-refereed and refereed, and in recent years its coverage has extended to mathematics, nonlinear sciences, quantitative biology and computer science in addition to physics. arXiv is very firmly embedded in the research workflows of these communities. In disciplines covered by arXiv, a substantial portion of newly-written papers are contributed to arXiv as a matter of course, and arXiv is most researchers' first port of call for current awareness.

1.2.2 arXiv and the publishing process

Despite the everyday importance of arXiv to researchers, depositing papers to the repository remains a supplement to the traditional publishing process, rather than a replacement for it. Peer review is as important to arXiv-depositing researchers as to those in other scientific disciplines, and, to achieve peer acceptance, papers continue to be submitted for publication in the traditional way. Once a paper is accepted for publication, an author will typically update the corresponding arXiv version to denote the publishing journal title and the date of acceptance. These annotations, indicating acceptance for publication, serve as badges of quality for arXiv deposits.

It is clear that arXiv provides three of the four "first order" functions of a journal, which have been identified¹ as follows:

- * Registration: an author wishes to be acknowledged as the person who carried out a specific piece of research and made a specific discovery
- * Certification: the author's claims are tested through independent peer review, and it is determined that they are reasonable
- * Awareness: the research is communicated to the author's peer group
- * Archiving: the research is retained for posterity

Registration occurs when a research paper is received by arXiv, at which point it is assigned a unique identifier and date stamp. It is commonplace for papers to be referenced thereafter by arXiv identifier.

arXiv satisfies the Awareness function. Once registered, an arXiv paper can appear in the public domain on the same day. It is openly and freely available, without barriers to access. arXiv offers alerts to new papers, and is OAI-harvestable.

arXiv also satisfies the Archiving function, with an emphasis on stable and portable formats at ingest, and the retention for public scrutiny of version-controlled superseded papers alongside the most recent update: certainly not every publishing house manages its archival responsibilities so successfully.

Certification is not yet provided by arXiv. This is the starting-point for the RIOJA project. Although arXiv fulfils most of the functions of the traditional journal, depositing papers to the repository has not supplanted the traditional publishing process. The quality stamp which peer review provides remains essential. To acquire it, however, researchers must engage with the full machinery of formal publication. This can be a protracted process, which can involve page charges and/or author/funder charges; a requirement to reformat the arXiv manuscript into a publishers' preferred format; the introduction of scientific errors through third-party copy-editing; restrictive copyright transfer agreements; version control issues between the arXiv version of a paper (already widely-read) and its published counterpart; and post-publication barriers to access because of subscription

¹ Prosser, David C. (2005) *Fulfilling the promise of scholarly communication - a comparison between old and new access models*, in Nielsen, Erland Kolding and Saur, Klaus G. and Ceynowa, Klaus, Eds. *Die innovative Bibliothek : Elmar Mittler zum 65.Geburtstag*, pp. 95-106. K G Saur. (Also available at <http://eprints.rclis.org/archive/00003918>)

and licensing arrangements. Researchers, meanwhile, are interested primarily in getting validation for their research, often already publicly and freely available in the repository,

There is evidence that some researchers are frustrated by this situation². Much interest is on record in the concept of enriching arXiv through the incorporation of a speedy but robust quality-stamping system, bypassing the perceived redundancies of the formal publication system, while retaining its most important function - quality assurance - and so minimising the costs of research validation and dissemination while maximising the value of arXiv to researchers.

Could rapid quality certification be overlaid directly onto the arXiv repository? What other value, besides the quality stamp, does journal publication typically add? What are the costs of the ideal overlay journal for the astrophysics community, and how could those costs be recovered? Would researchers really be willing to submit work to a new journal overlaid on the arXiv repository? These are some of the questions which the RIOJA project will explore.

1.3 Methodology

This report discusses the results from an online questionnaire survey, aiming to explore the views of scientists in the fields of astrophysics and cosmology about the feasibility of an overlay journal model.

1.3.1 Questionnaire survey sample

The Times Higher Education Supplement World Rankings was used to identify scientists in the top 100 academic and 15 non-academic institutions in the fields of astrophysics and cosmology, in order to elicit responses from the research community at an international level. Additionally, the invitation to participate in the survey was posted to the members of a domain-specific discussion list, “CosmoCoffee” [<http://cosmocoffee.info>].

The survey was launched on June 8th 2007, and closed on July 15th 2007. The questionnaire comprised 5 sections. The first section aimed to gather information that would allow an indicative profile of the respondents to be drawn. Sections 2 and 3 were designed to gather information about the research norms and practices of the scientists, from their perspectives as both producers and readers of research. Section 4 aimed to identify issues around the researchers’ use of arXiv; and the final section sought their views regarding the viability of the overlay journal model. 4012 scientists were contacted, and 683 participated in the survey.

1.4 Limitations on the study

The chosen sample placed some limitations on the survey. Identifying and collecting contact details for the scientists proved to be a difficult and lengthy process, for various reasons. For instance, astrophysics research groups in academic institutions often conduct interdisciplinary research, and can be spread across more than one department such as physics, mathematics and astronomy. In most cases, contact details for scientists, academic and research staff were not disclosed on institutional Web sites, and

² See, for instance, the following threads on the *CosmoCoffee* discussion forum: <http://cosmocoffee.info/viewtopic.php?t=276>; <http://cosmocoffee.info/viewtopic.php?t=280>

visits to various additional Web pages were required. Additionally, academic institutions are dynamic organisations, and academic and research staff can hold positions in more than one institution. Some overlap of contacts was therefore inevitable, although duplication was avoided wherever possible. These limitations should be borne in mind when the survey results are considered.

2. Summary of significant observations

2.1 Identity characteristics

- The respondents have a range of research interests, but the response is representative of scientists in astrophysics (52%), and cosmology (36%).
- The roles most represented are professors (24%) and research fellows (20%). Almost half of respondents have more than 15 years of experience conducting research, and the vast majority (90%) noted “research” as their main responsibility. Responses were, additionally, received from postdoctoral researchers, emeritus and/or retired staff, and government staff and scientists.
- The response was almost equally divided (51%/49%) between those whose first language is English and those whose first language is not.

2.2 Publishing your research

- The main publishing output in the scientific fields surveyed is papers for submission to peer-reviewed journals (97%).
- The average number of papers produced by a scientist in astrophysics and cosmology over a period of 2 years is 13.
- The journals in which the respondents had mostly published their research were: The Astrophysical Journal (476 people), Monthly Notices of the Royal Astronomical Society (382) and Astronomy and Astrophysics (331). All of those journals are among the top 10 journals by impact factor (as identified by the ISI Journal Citation Reports, 2005 (<http://wok.mimas.ac.uk>). Irrespective of ongoing discussions in the literature about the role of citation reports, these findings indicate that they do have weight in the scientists’ decision of where to publish. The respondents also supplied a range of journal titles that were not in the list provided. Those most commonly noted were: Astroparticle Physics, Classical and Quantum Gravity, Journal of High Energy Physics, and New Astronomy. Factors that influence the decision of the scientists about where to publish are:
 - Perceived quality of the journal by the scientific community (97%)
 - High journal impact factor (89%)
 - Being kept up-to-date during the refereeing process (82%)
 - Other factors that were deemed important by the respondents were primarily concerned with the process of peer review. In particular, the comments revolved around the speed, quality and reliability of the process. Other factors mentioned included the subject coverage of the journal, the efficiency and ease of use of the submission system and the time that it takes for a paper to reach publication after acceptance open access, indexing in services such as the ADS and project requirements for publication.

2.3 You as a reader

- 80% of the respondents noted that they visit arXiv's “new/recent” to keep up to date with advances in their fields.
- 89% of the respondents to the survey noted that they use e-print archives (such as the arXiv) to get the full text of a paper that appears of interest to them.
- To search for back literature, 68% of the scientists prefer the ADS service.

2.4 Your use of the arXiv

- More than three quarters of the scientists who replied to the questionnaire survey tend to visit the arXiv either on a daily (53%) or on a weekly basis (24%).
- Scientists at the early stages of their career (86% of scientists who indicated up to 5 years of research experience past their PhD studies) appear to use the arXiv more frequently compared to their more experienced.
- Scientists whose first language is not English and scientists whose first language is English follow a similar pattern of arXiv usage.
- More than half of the respondents (66%) indicated that when they come across an interesting paper they read it straight away and only 7% prefer to read the publisher's version at the journal's website. Typesetting and appearance of the paper was nonetheless deemed important.
- Less than half (44%) of the scientists indicated that they tend to submit their peer-reviewed papers to the arXiv after the paper has been accepted for publication. Another 37% of the respondents replied that they tend to submit their published papers around the time that they submit to a journal.
- Scientists at more advanced stages in their careers thought that both the arXiv version and the published version of a paper are of roughly the same quality. Scientists at an early stage in their careers were more inclined to consider the published version of a paper better than the one deposited in the arXiv.
- Comments suggest that it is not always easy clearly to distinguish between the published version of a paper and the preprint that is deposited in the arXiv.

2.5 Overlay journal model

- More than half of the respondents (53%) were positioned favourably towards the idea of an overlay journal model.
- Respondents highlighted some issues, however, some of which concerned long term archiving of the papers, the perceived quality and reputation of the journal, its impact, and the transparency of the refereeing process.
- If an arXiv-overlay journal were launched, 549 of the respondents (80%) would consider acting as referees.
- The online archive of the journal's back issues, the journal's website and maintenance of the journal software were identified as the most important functions of a journal.
- It was suggested that journal production costs should be covered by research funders and libraries' subscriptions.
- Some of arXiv's current policies and practices (for example, policies about file sizes, submission, acceptance and citation of unrefereed papers, multiple versions of papers, etc.) were highlighted as issues which would need to be addressed.
- The factor that would encourage most of the scientists to publish in an overlay journal is the quality of the submitted papers (77%). Other factors listed were the journal's impact factor, and the acceptance of the journal by the community, defined as the acquisition of a reputation as a quality, scientific publication with increased readership and breadth of coverage. The quality of the refereeing and some guarantee of open access and low charging costs were also mentioned.
- Concerns were expressed about new and untested models of publishing, the overlay model included. However, the respondents were comfortable with the idea of trying new models and means for publishing of scientific research - provided that it could be ensured that the published research outcomes would be eligible for helping to establish an academic record, for attracting funding and ensure tenure. The following issues received particular mention:
 - Impact, readership, sustainability.
 - The peer review process, with particular emphasis on ensuring quality

- Open access, repositories and long term archiving,
 - Clarity and proof of viability of the proposed model.
- Copy editing costs should be borne by the journal; copy editing changes should be carried out by the author.
- 46% of the respondents noted that they would like to see referees' reports made publicly available, subject to agreement by both the author and the reviewer of a paper. However, another 40% of the respondents indicated that they would not like to see refereeing reports made publicly available.

2.6 Other comments made by respondents

- An area of concern that was repeatedly mentioned in the respondents' comments was whether there is a need or even a market for a new journal - irrespective of publishing model - in astrophysics and cosmology. On the other hand, the reportedly substantial use of arXiv, and the fact that the vast majority of the respondents use arXiv to get the full text of a paper, suggests that there may be grounds for further exploration of whether a more efficient and speedy way of publishing quality-assured scientific research might be introduced.
- The peer review process was repeatedly mentioned in comments made by the respondents. It is not always clear to authors how peer review is being conducted by a given journal, and their comments suggest that, perhaps, there is room for improvement in the system. Broadly speaking, the suggestions which were made fell into two categories. The first called for a more open, publicly available peer review system, incorporating the use of new technologies such as wikis, voting systems, and discussion forums, and so on. The second one called for the maintenance of the anonymity of peer review, and for the exploration and possible adaptation of more rigorous models of peer review which are applied in other disciplines.
- Copy editing, the level of author involvement and who should be responsible for any costs associated with it were also issues that were commented upon. Some respondents favoured the idea of charging extra for papers that require extensive copy editing. The appearance and layout of the published papers were considered important.
- Open access was also an issue brought up by several scientists and they emphasised the importance of having free access to the scientific literature. In particular, free access to those underprivileged, taking into account the changes of technology and times and without compromising the quality of the published papers were commented upon positively
- Indexing and alerting services were deemed important. The ADS services are regarded favourably as an access point to the literature by the majority of the respondents.

3. Questionnaire results analysis

This section presents and discusses the results pertaining to some identity characteristics of the respondents, their attitudes to publishing their research and their norms when it comes to keeping up to date with current literature. Furthermore, this section discusses the use of the arXiv in this community, and its positioning towards a potential overlay publishing model. Six hundred and eighty three (683) scientists completed the RIOJA questionnaire survey.

3.1 *Identity characteristics*

This section aimed to gather information that would allow the RIOJA team to draw an indicative profile of the scientists who participated in the questionnaire survey. The aim was to allow the team to explore whether the current role and responsibilities of the respondents, and their research experience and research interests, had any effect on their research and readership patterns and their views on a potential overlay journal model.

The questionnaire survey received responses from scientists from all academic and research ranks, but primarily from scientists with more than 10 years of experience in astrophysics and cosmology research. In particular, almost a quarter of the responses came from scientists who have reached professorship status in their career (163 people, 24% of base=683). This was followed by research fellows (135 people, 20% of base=683) and others in the roles of lecturer (79 people, 12%); senior research fellow (81 people, 12% of base=683) and research associate (81 people, 12%). The remaining response was divided between readers, senior lecturers, and other categories. Almost half of the scientists (46%) reported having more than 10 years of research involvement past their doctoral research. Furthermore, the vast majority (90%) denoted their primary responsibility as research. Teaching (38%) and heading a research group/unit (21%) followed as further indicative responsibilities of the scientists. The respondents were split almost equally (51% / 49%) between native English speakers and those whose mother tongue is not English. (Figures 1- 5).

Subject area representation

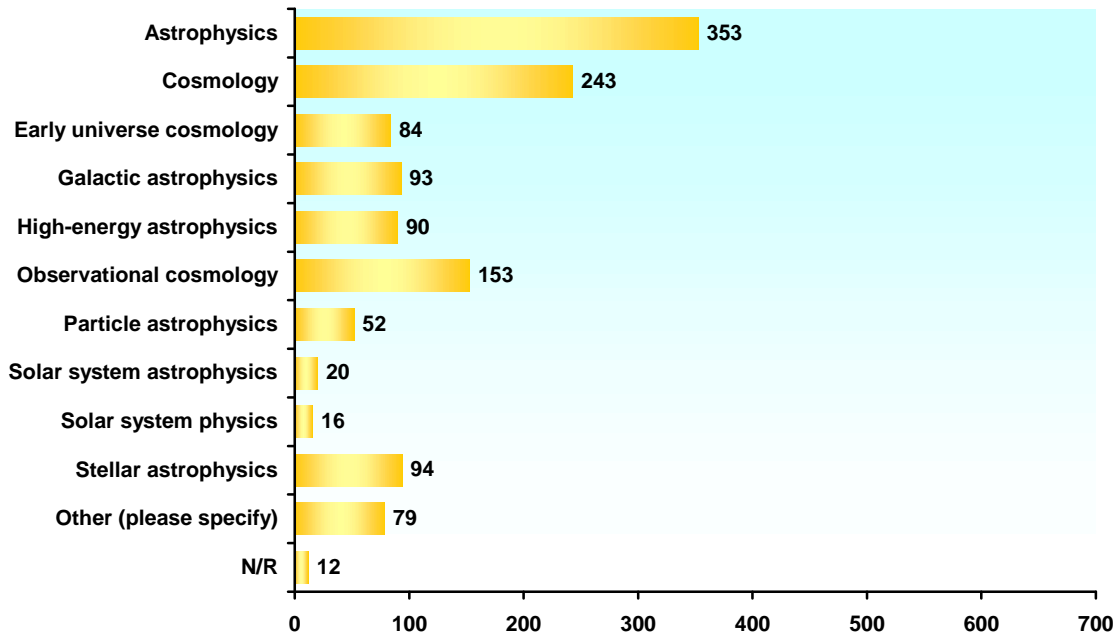


Figure 1: Identity characteristics - Response by subject area

Those indicating subject areas other than those listed above specified the following areas: High-energy physics, classical and quantum gravity, instrumentation, solar system astrophysics, high-energy astrophysics, stellar astrophysics and observational cosmology. Comments in full can be found in Appendix B (on page 56).

Response by role

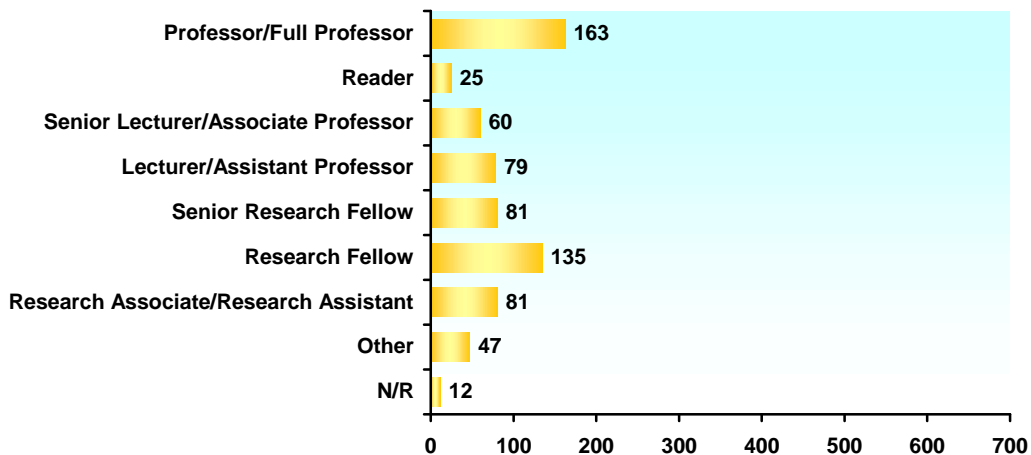


Figure 2: Identity characteristics - Response by role

Other roles held by the respondents included postdoctoral researchers, emeritus and/or retired staff, government staff and scientists. Comments in full can be found in Appendix B (on page 58).

Responsibilities of the respondents

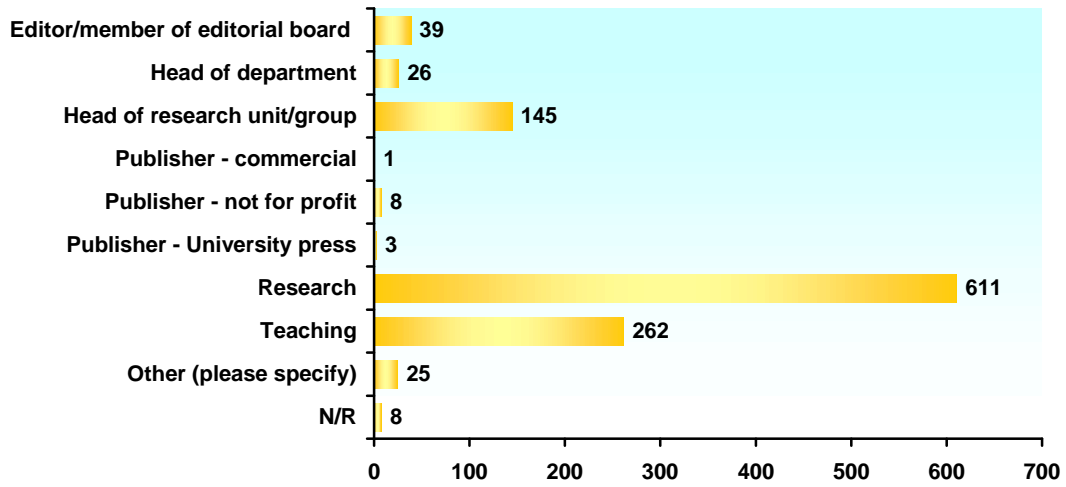


Figure 3: Identity characteristics - Response by responsibilities

Those that indicated other responsibilities specified a range referring to industrial research and further engagement in managerial, editorial and academic posts. Comments in full can be found in Appendix B (on page 60).

Research experience

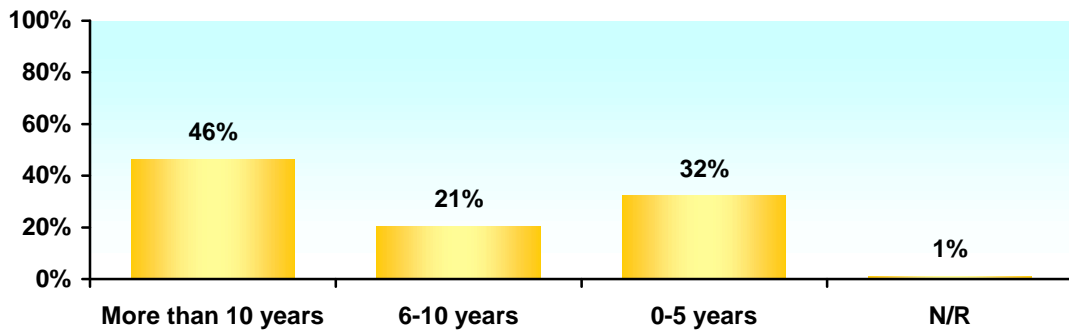


Figure 4: Identity characteristics - Response by research experience

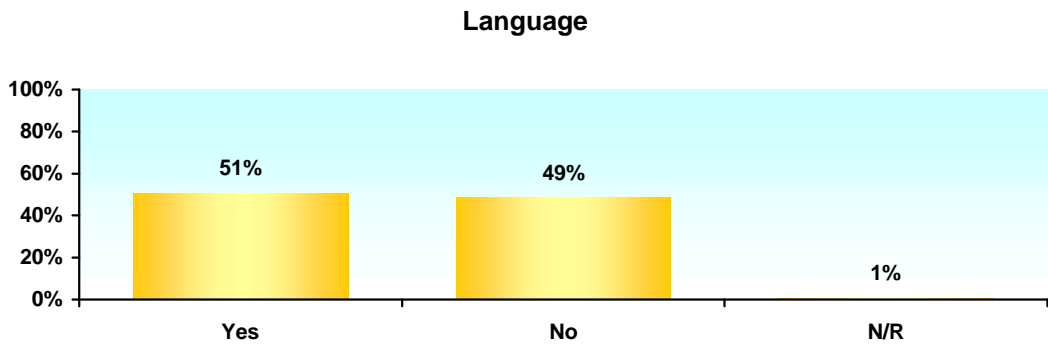


Figure 5: Identity characteristics - Response by language

3.2 Publishing your research

The second section of the questionnaire was designed to gather information about the research and publishing patterns of scientists in the fields of astrophysics and cosmology. In particular, the following issues were of interest:

- The extent to which scientists in these fields use journals to publish their research.
- The factors that affect their publishing patterns and decisions on where to publish.

Scientists were asked to indicate the form in which their research was most commonly written up. The aim was to gain an understanding of the means used to communicate research in astrophysics and cosmology and to explore the role of scientific journals in this community. The vast majority of the respondents (97%, of base=683) noted that the most common form in which their research is written up is papers for submission to peer reviewed journals. This confirms that scientific journals are very much a reality and necessity in those disciplines, despite anecdotal evidence of dissatisfaction with the ways in which scientific publishing is conducted in these fields.

Other popular means to communicate research noted by 200 respondents (29%, of base=683) were papers included in conferences proceedings and workshop papers (59 people, 9%, of base=683,). This result indicates that, in addition to journal publishing, scientists rely on personal communication and interaction. Other written outputs specified included arXiv preprints; internal notes (experimental collaborations); semi-public, electronically-distributed reports; presentation files for meetings and conferences; technical documents; wikis, web-pages, etc.; research notes; technical memos; film documentaries; direct web publication; and technical reports.

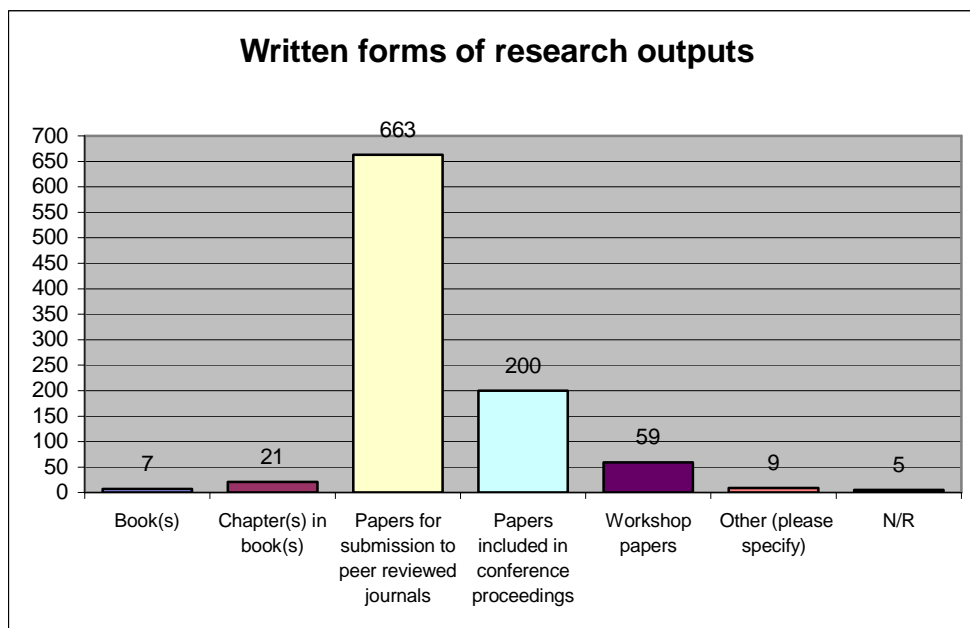


Figure 6: Publishing your research - Written form of research outputs

Further to the previous question, scientists were asked to indicate the number of papers they have produced in the last 2 years. The average number of papers produced by a scientist in those fields is 13 papers over a two year period. This number indicates that astrophysics and cosmology remain active research fields despite the fact that they are considered expensive sciences for research investment.

The scientists were provided with a list of 10 journals in the fields of astronomy and astrophysics (those ranked with the highest impact factor in the ISI Journal Citation Reports, 2005³) plus 4 other journals that the Advisory Board of the project regarded as important to be added to the list due to their perceived quality. The aim was to explore whether the impact factor of a journal has weight in the scientists' decision on where to publish. Furthermore, the aim was to correlate results from this question with those from the following question, which asked the scientists to list the factors that affect their decision on where to publish their research findings. The journals in which the respondents had mostly published their research were: The Astrophysical Journal (476 people), Monthly Notices of the Royal Astronomical Society (382) and Astronomy and Astrophysics (331). All three are among those with a high impact factor. However, the respondents noted another 123 journal titles in which they had published their research (Table 1). Those most commonly noted were: Astroparticle Physics, Classical and Quantum Gravity, Journal of High Energy Physics and New Astronomy. These four journals also have a high impact factor, disciplines related to astrophysics and cosmology (e.g., ISI list those journals under the following areas:

- Physics, Multidisciplinary
- Physics, Particle & Fields)

The full list of journals named can be found in Appendix B (on page 62).

In which of the following peer reviewed journals have you published your papers?	Response	% (Base: 683)
Annual Review of Astronomy and Astrophysics	34	5
Astronomical Journal	171	25
Astronomy and Astrophysics	331	48.5
Astronomy and Astrophysics Review	4	0.6
Astrophysical Journal	476	69.7
Astrophysical Journal Supplement Series	108	15.8
Journal of Cosmology and Astroparticle Physics	66	9.7
Monthly Notices of the Royal Astronomical Society	382	55.9
Nature	137	20.1
New Journal of Physics	7	1
Physical Review D	195	28.6
Physical Review Letters	128	18.7
Science	48	7
Other	126	18.4
N/R	15	2.2

Table 1: Publishing your research - Preferred peer-reviewed journals for publication

Irrespective of ongoing discussion in the literature about the role and the validity of citation reports, the findings indicate that they are a consideration in the scientists' decision on where to publish. In some countries the number of publications in highly ranked journals (models of assessment for rankings vary but the ISI Journal Citation Reports have been dominant in the past years) is a criterion for funding allocation. Therefore, it came as no surprise that a large number of the respondents (593 people, 88.9% of base=669) noted the high impact factor of the journal as the second most

³ At the time of the survey the ISI Journal Citation Reports, 2006 reports were not available. Therefore, the list of journals and comments were made based on the 2005 reports. In the 2006 reports the results for the first two journals are the same. However, the Astronomy & Astrophysics journal ranks number 11 instead of number 10 in the 2005 reports.

important factor when they decided where to publish. The most important determining factor, however, is the perceived quality of the journal by the scientific community (650 people, 97.3% of base=668). Later sections of the survey aimed to help the team to identify what quality means to the survey respondents. Another factor considered important was the process of peer review and being kept up to date while review was under way (537 people, 81.6% of 667=base). This finding was also highlighted in the comments which were made by the respondents (discussed below). The least important factors when it comes to choosing a journal to publish were found to be: a high rejection rate of papers; the fact that a journal is published by a professional society; and the availability of a print version of a journal (Table 2).

Other factors that were specified as important by respondents emphasised the process of peer review - in particular, the speed, quality and reliability of the process. Some comments on the ***speed of peer review*** concerned the role of the editorial team and other support services (e.g. publishers' role). Comments show that an easily accessible editorial team that keeps scientists informed at each stage of the review process while responding promptly and reliably to questions is desirable. Also welcomed, perhaps as an alternative, would be access to an online system that allows authors to keep track of the peer review process, supplemented by a clear statement how the review is conducted and the assessment criteria in place. Comments about the ***quality of peer review*** raised issues around the transparency of the process, the selection of the referees and a proven record of past refereeing alongside what a respondent called "*respected peer review*". Furthermore, comments also referred to the competence, care, efficiency and responsibility of editors and editorial boards. The subject coverage of the journal, the efficiency and ease of use of the submission system, handling of images and various file formats (eg LaTeX), and the time that it takes for a paper to reach publication were also noted as influential factors.

The respondents' comments are listed in full in Appendix B (on page 66).

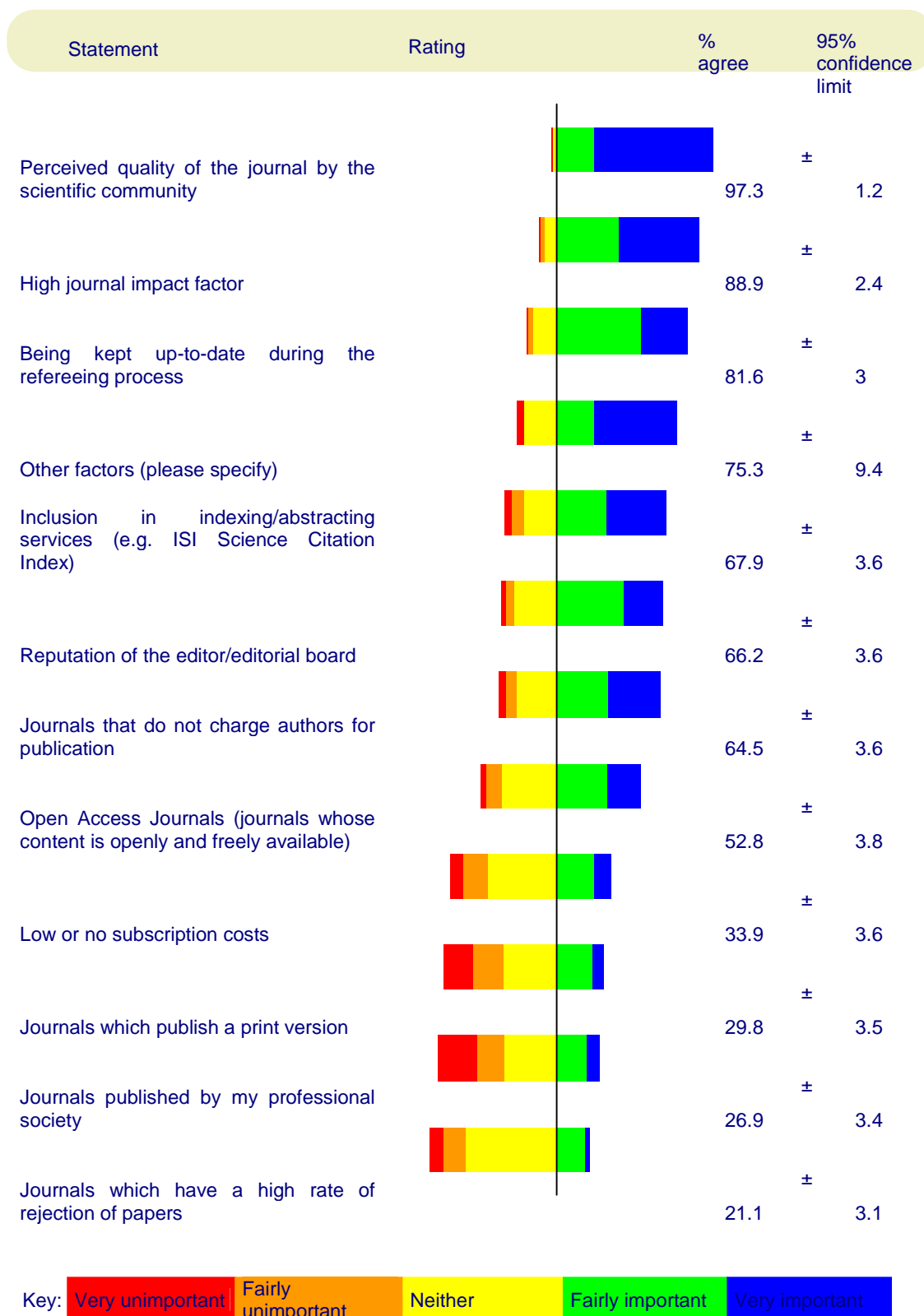


Table 2: Publishing your research - Factors affecting the scientists' decision where to publish

3.3 You as a reader

This section aimed to gather information about the reading patterns of scientists in astrophysics and cosmology. Such information could prove useful when identifying the audience for a potential overlay journal model, in those scientific fields, and could help to determine the functions required of an overlay journal in order to meet the needs of that audience.

The scientists were asked to indicate the means by which they keep up to date with the advances in their fields. The majority of the respondents (549 people, 80.4% of base=683) visits the arXiv and in particular the "new/recent" section to keep up to date with new research. This finding confirms the role of the arXiv in these fields as an active and vital point for publicising research, and is encouraging for implementing an overlay publishing model onto arXiv. Additionally, 396 people (58% of base=683) noted that they visit the ADS website to look for new papers (Figure 7). This finding indicates that indexing services still have a role in publicising research to this community. Those with "other" responses mentioned having recourse to colleagues for information and discussion, alert services (such as RSS and journal table of contents), attendance at conferences and workshops, as well as visiting SPIRES. The comments of the respondents can be found in detail in Appendix B (on page 68).

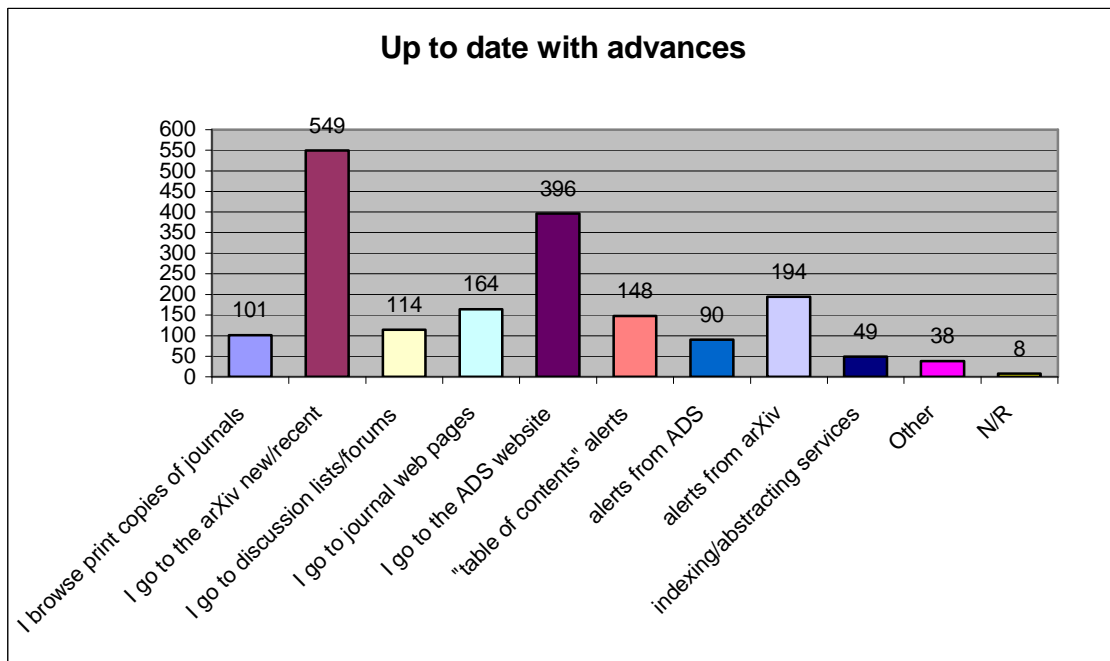


Figure 7: You as a reader - Keeping up to date with research advances

In addition to the means for keeping up to date with new research the scientists were asked to indicate where they go to retrieve the full text of a potentially interesting paper. e-print repositories (such as the arXiv) were denoted the primary source of information for accessing the full text of a paper by 610 people (89% of base=683, Figure 8). Visiting the journal's website was the second most popular option (443 people, 65% of base=683) noted that their second most preferred option is to visit the journal's website. Those who indicated "other" sources (111 people, 16% of base=683) referred mainly to the ADS services and SPIRES. The full comments of the researchers can be found in Appendix B (on page 70).

Sources for obtaining the full text of papers

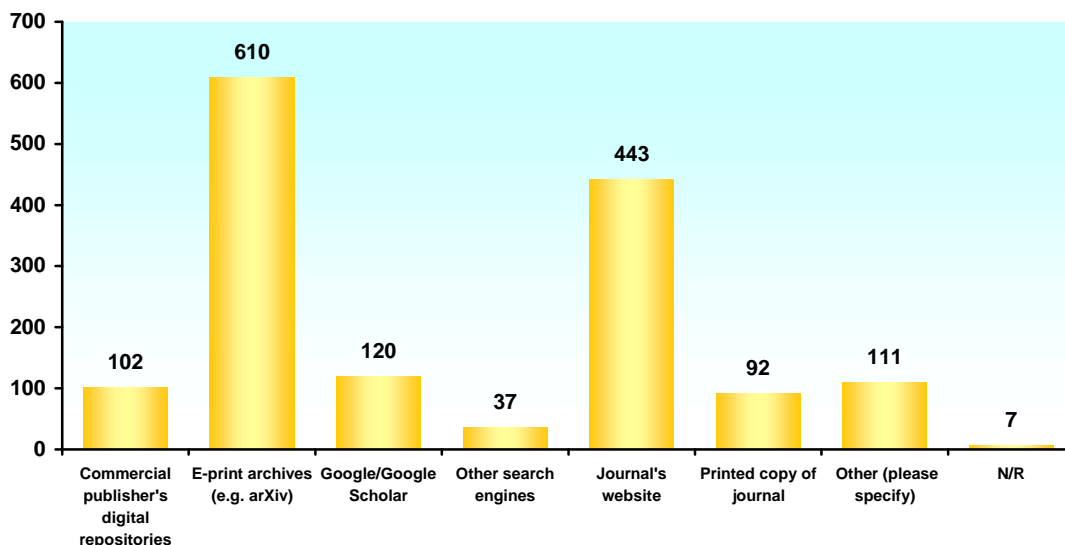


Figure 8: You as a reader - Full text of papers – Sources

When asked about the sources they tend to use while looking for past literature, the majority of respondents (68%) noted that their first port of call is the ADS service, compared to other sources including the arXiv (16%) (Figure 9). The use and impact that the ADS service had on the way the astrophysical community conducts research, as well as the impact that access to information via the ADS has contributed to the exploration of new bibliographic metrics for journal use and citation, have been reported in the literature (Kuntz et. al., 2005a, 200b, 2000). This result could be interpreted as a confirmation of the acceptance of ADS by the astrophysical community.

Journal archives - Back literature

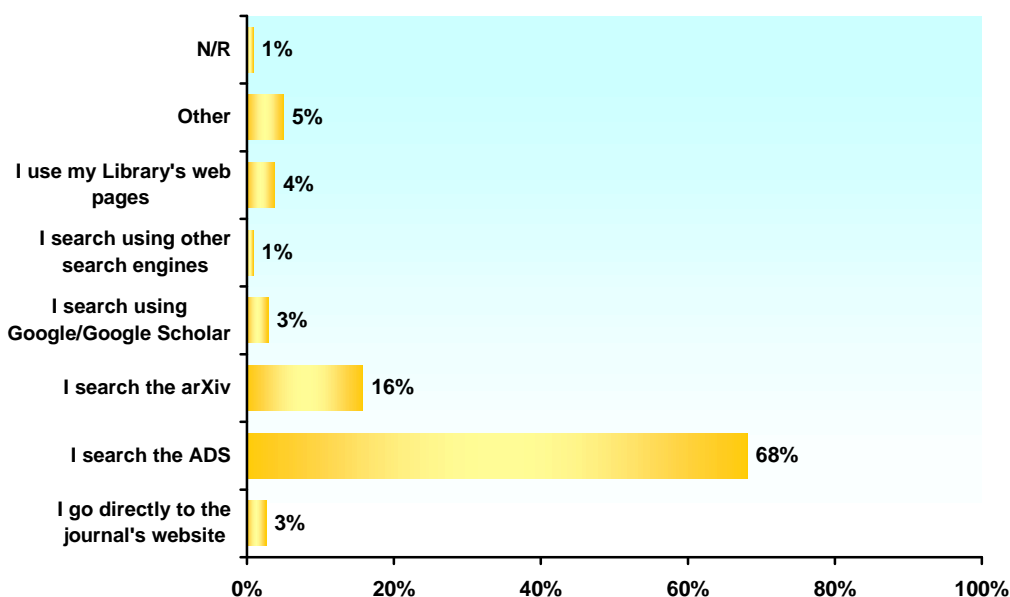


Figure 9: You as a reader - Journal archives - Past literature

3.4 Your use of the arXiv

The fourth section of the questionnaire aimed to gather information about the use of arXiv by astrophysicists and cosmologists. They were asked how frequently they visit arXiv and what they do on finding an interesting paper there; if and when they deposit copies of their own work with arXiv; and how they perceived the quality of papers found on arXiv.

More than three quarters of the scientists who replied to the questionnaire survey tend to visit arXiv either on a daily (53%) or weekly basis (24%). Fifty eight respondents (9%, of base=683) suggested an infrequent use of arXiv and only 24 scientists (3.5% of the response) indicated non-use (1%) or rare/sporadic use (2%). Finally, another 9% noted that they rely on arXiv's alerting service, only visiting on notification of a potentially interesting paper (Figure 10).

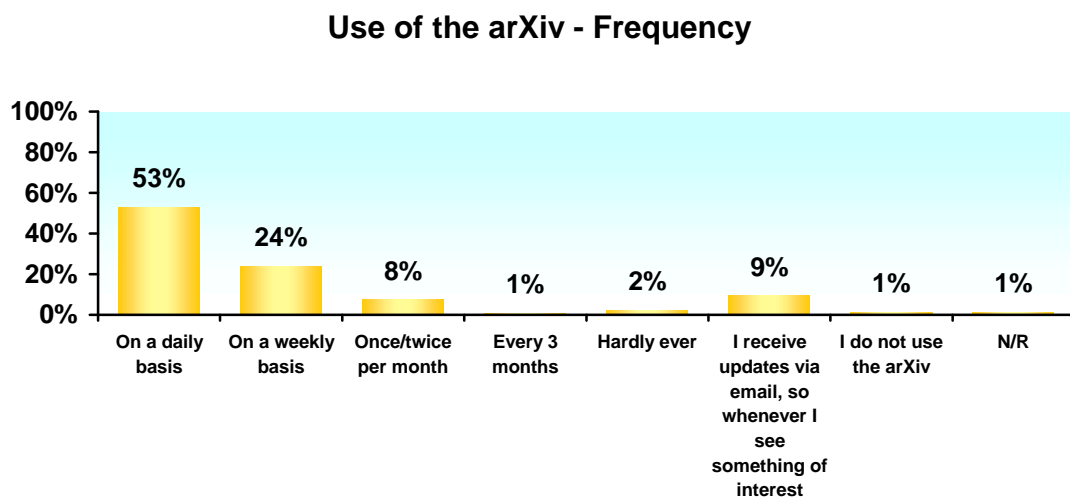


Figure 10: Use of the arXiv - Frequency

Scientists at the early stages of their career (86% of scientists who indicated up to 5 years of research experience past their PhD studies) appear to use the arXiv more frequently than their colleagues with more years of research experience. A pattern of daily use is replaced by one of weekly use for scientists at more advanced stages of their careers. For example, 71% of those scientists with up to 5 years of research experience post-PhD use the arXiv on a daily basis; while daily arXiv use of those with 6-10 years and those with over 10 years of post-PhD research experience is 54% and 41% respectively. Weekly use, on the other hand, is made by 15%, 26% and 30% respectively of the three groups (Figure 11). Use of arXiv by role follows similar patterns. Scientists at advanced stages of their careers (e.g., senior lecturers/associate professors, readers and professors) tend to visit the arXiv less frequently compared to their colleagues at earliest stages in their careers.

It was found that native English speakers and scientists whose first language is not English used arXiv in similar ways (Figure 12).

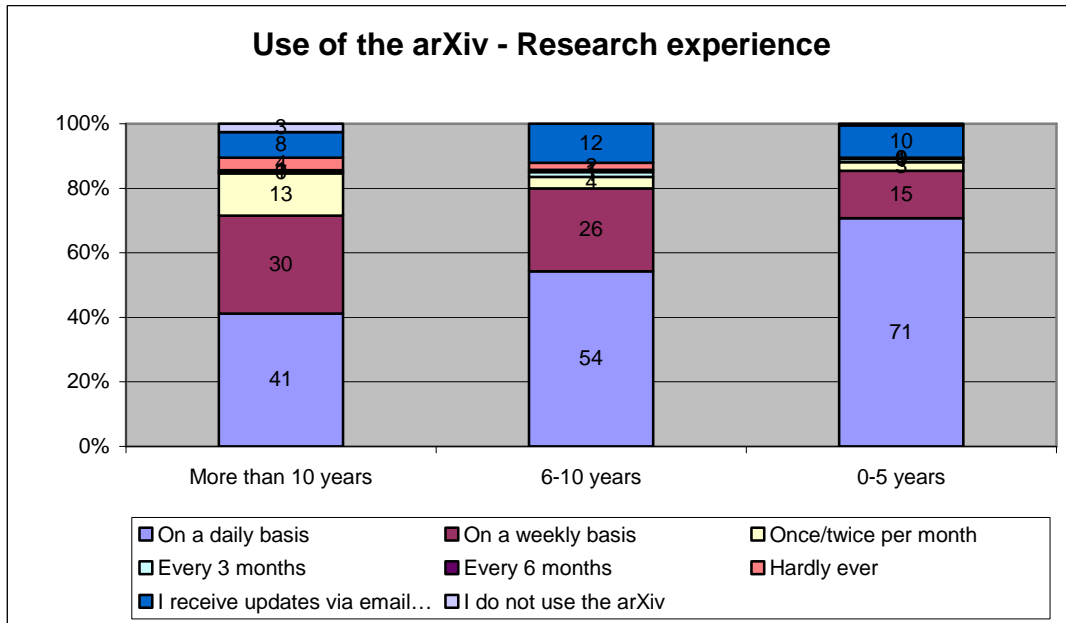


Figure 11: Use of the arXiv – Response by research experience

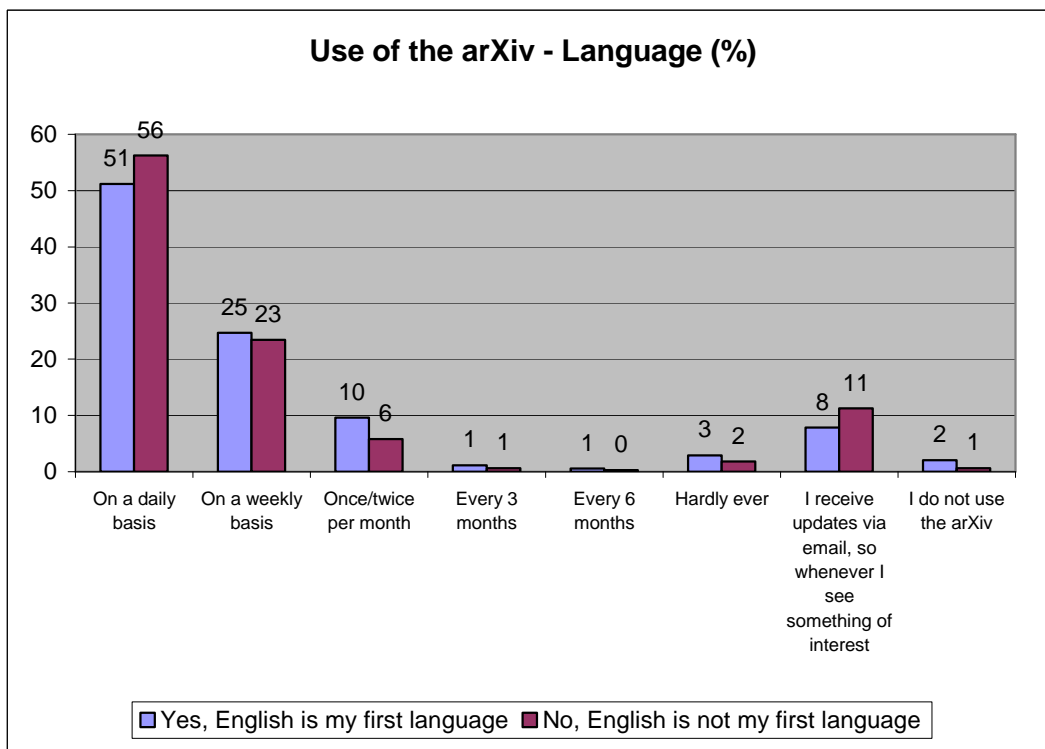


Figure 12: Use of the arXiv – Response by language

The scientists were asked to state their typical action having come across an interesting paper on arXiv. More than half of the respondents (66%) would read the new paper straight away. Only 7% noted that they would prefer to read the publisher’s version at the journal’s website. Almost a quarter of the scientists (21%) noted that their typical action is usually dependent upon their particular circumstances and time. However, when a paper appears to be relevant and of interest to the scientists’ current research, then they tend to

read it straight away. An almost equal number of responses was received from scientists who stated a preference for the refereed version of a paper and those who said that they would read the arXiv version irrespective of publication status. In general, scientists pointed out that lack of time prevents them from spending too much time going back and forth to locate different versions of papers, but refereed versions were preferred. Comments in full can be found in Appendix B (on page 73).

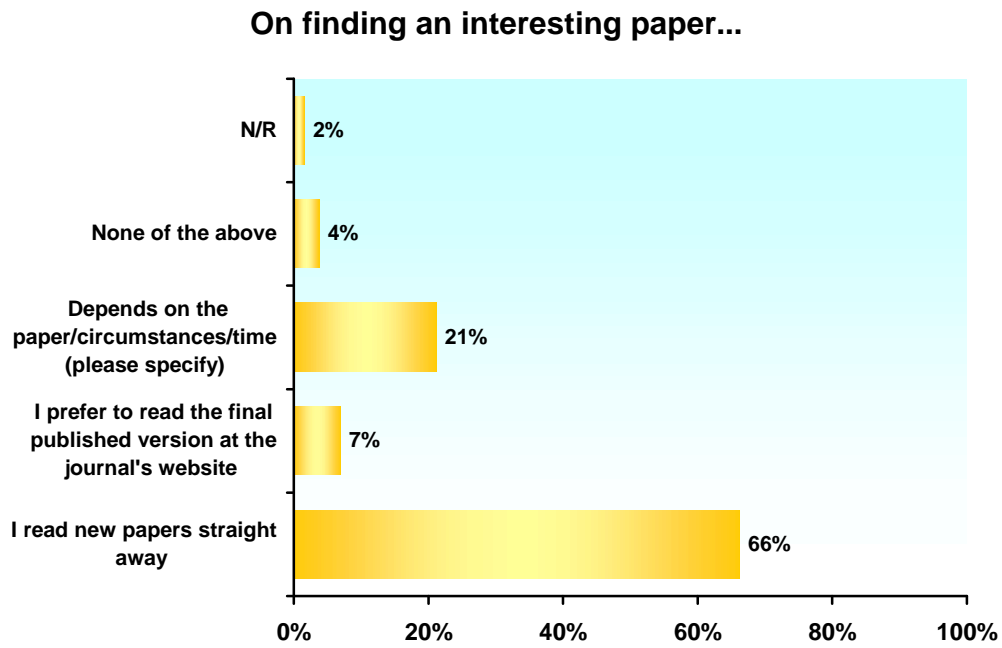


Figure 13: Use of the arXiv – Reading papers norms

The respondents were asked to indicate whether they submit their published papers to the arXiv and if so, at what point of the publication process. Less than half (44%) noted that they tend to do so after the paper has been accepted for publication and another 37% of the respondents replied that they tend to submit their published papers around the time that they submit to a journal (Figure 14). Scientists who described their subject area as astrophysics and stellar astrophysics were more likely to submit their published versions after acceptance to the arXiv (Figure 15) and are tend to think that the published versions of papers are better than those stored on the arXiv (Table 3). By contrast, scientists who described their subject area as cosmology tend to submit their published version of papers around the same time they submit to a journal, and consider the versions of papers stored on the arXiv of better quality compared to their published versions (Table 3).

Submission of published papers to the arXiv

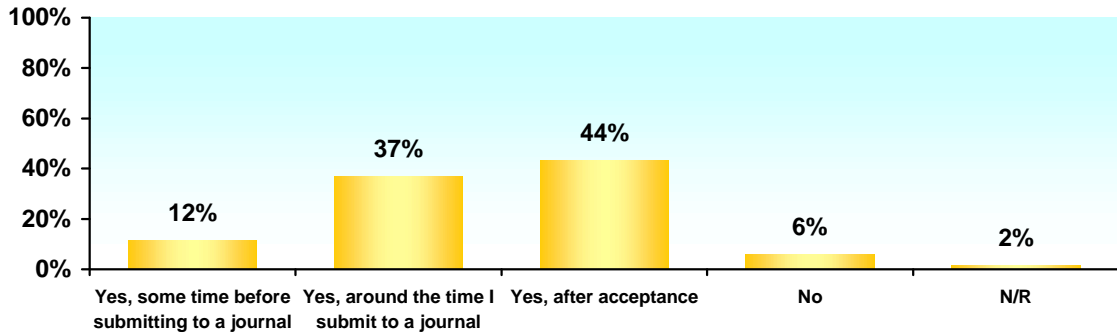


Figure 14: Submission of published papers to the arXiv

Perceived quality of arXiv papers

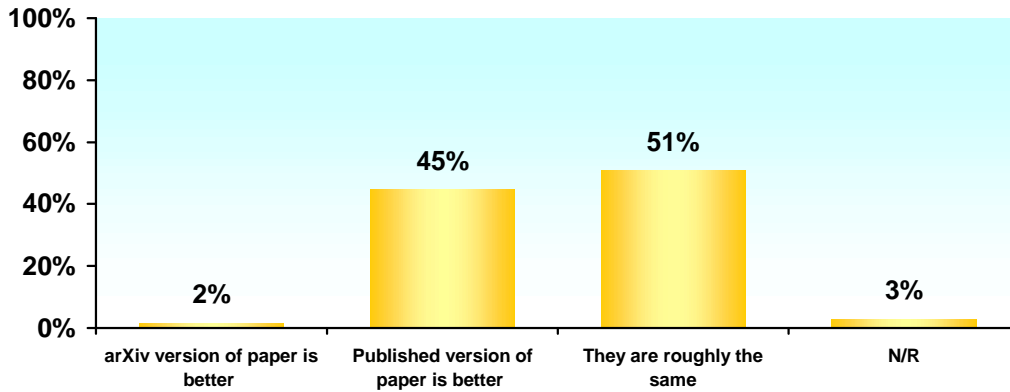


Figure 15: Perceived quality of arXiv versions of papers vs published versions

Perceived quality of arXiv papers by subject area (base=656)	arXiv version of paper is better	Published version of paper is better	They are roughly the same	Totals
Astrophysics	4	193	150	347
Cosmology	0	32	76	108
Early universe cosmology	1	1	11	13
Galactic astrophysics	0	20	20	40
High-energy astrophysics	0	11	15	26
Observational cosmology	1	16	18	35
Particle astrophysics	0	2	15	17
Solar system astrophysics	1	2	4	7
Solar system physics	1	1	2	4
Stellar astrophysics	0	17	10	27
Other	2	9	21	32

Table 3: Perceived quality of arXiv versions of papers – Subject area

3.5 Overlay journal model

The scientists contacted in the questionnaire survey were asked to indicate their views on the feasibility of an overlay journal model. Specifically, the question was as follows:

“The RIOJA project is investigating the feasibility of the “overlay journal” model in the field of Astrophysics and Cosmology. Overlay journals are journals whose content is submitted to and held in one or more repositories. For the field of Astrophysics and Cosmology, a fully peer-reviewed, open access journal could be built on top of the arXiv repository. Among other things, this means papers accepted for publication would reside at the arXiv. What are your views about this model of publication?”

More than half of the respondents to the questionnaire survey (53%) were positioned favourably towards the concept of the overlay journal as a future model for scientific journal publishing. More than one third (35%) of the respondents, however, noted that although an overlay journal model sounded interesting they did not consider it important, indicating that they were fairly satisfied with their current access to research outputs. 6% were uninterested in the overlay model and wholly satisfied with existing publishing arrangements. A further 7% of the scientists either did not reply or did not agree with any of the options provided (Figure 16).

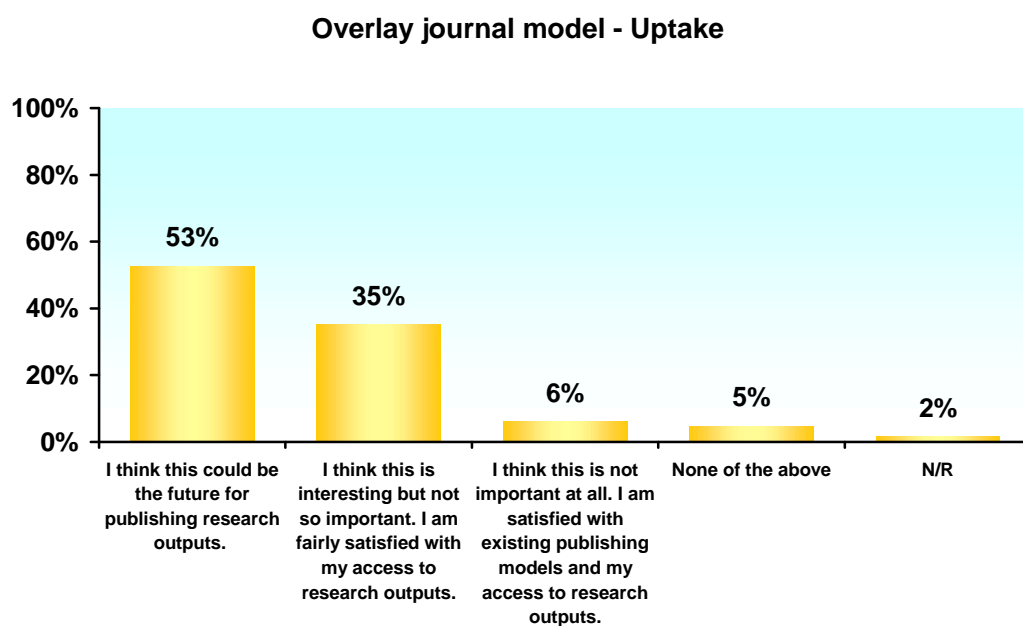


Figure 16: Overlay journal model - Uptake

Many interesting comments were made in response to this question. Scientists who did not welcome the overlay journal model highlighted their currently unclear perception and understanding of the overlay journal model, and their concerns about new publishing models. Comments from all respondent groups noted that forming an opinion about the possible role of overlay journal models in the future of publishing scientific journals would first require clarification of some matters of detail: for example,

- *“...how the journal was explicitly set-up in practice”*
- *“...I am concerned about long-term archival, which assumes much greater importance when you are dealing with completed, peer-reviewed works as opposed to electronic preprints or open-access copies of material that is archived elsewhere”*

- *“...on how widely used by readers the system becomes. If no-one reads it, there's no point submitting to it”*
- *“An overlay of "accepted" papers is O.K. if the acceptance standards are objective”*
- *“if this is replace all other journals, as it should, particular care has to be taken with the review process to allow authors challenge the peer review or editor; parallel alternate structures need to be in place”.*
- *“I think it could be the future for publishing, as long as you introduce a system for open peer review, i.e., readers being able to evaluate the papers”*
- *“...because I do not think that overlay journals will become the only and maybe not even the predominant outlet”⁴*

Additionally, concerns relating to the use of arXiv as the repository to be overlaid (policies about file sizes, submission, acceptance and citation of unrefereed papers, multiple versions of papers, etc.) were also raised by some of the respondents. For example:

- *“...arXiv papers that are submitted before refereeing and then resubmitted 1-2 times are both annoying and scientifically irresponsible. If there was really a new category of arXiv that only had accepted papers, that is a plus, but even better would be to make it clearer to insist that papers should not even be posted on arXiv unless they have been reviewed. Too often I see papers never go past arXiv or get referenced many times despite having multiple arXiv versions. If we are not careful, publishing will lose all meaning, and we will be buried in an avalanche of half-baked, wrong, or deceitful papers that are never intended to be refereed or critically reviewed...”*
- *arXiv allows for replacements. Journal would need to specify which version was peer reviewed and should be considered as "published". This may lead to confusion.*
- *I think the traditional journals play a crucial role, so I am wary of new journals. On the other hand, I am all for a refereed, better organized arXiv.*
- *A point I have with this new idea is: do the "accepted" papers be in the same repository of the "normal" arXiv (so that it will not be that easy to find them) or will there be a devoted repository which keep them separated from the others?*

Perhaps, more research around the role of e-print archives in both learning and research could enhance our understanding about their future role and uses.

Furthermore, researchers at an early career stage (those with up to 5 years post-PhD research experience) were more eager to note that an overlay journal model could be a favourable model for publishing research outputs in the future (125 (57%) of researchers with up to 5 years of post-PhD research experience). The same response was received from, respectively, 76 (57%) and 157 (50%) of those respondents with 6-10 years and those with more than 10 years of post PhD research experience (Table 4). Although more than half of the respondents (53% of overall response, Figure 16) were favourably disposed to the overlay journal model, those who had the greater number of years of research experience were less enthusiastic (50%) than those of average (55%) and those with the fewest years (57%) of post-PhD experience. However, the response of this latter group demonstrated the widest disparity.

⁴ The full comments by the respondents can be found at Appendix (on page 76).

Response by research experience (base=669)	More than 10 years	6-10 years	0-5 years
I think this could be the future for publishing research outputs.	157	76	125
I think this is interesting but not so important. I am fairly satisfied with my access to research outputs.	110	49	81
I think this is not important at all. I am satisfied with existing publishing models and my access to research outputs.	27	5	7
None of the above	19	8	5
Total	313	138	218

Table 4: Overlay model journal uptake - Research experience

A breakdown of responses by role of the respondents does not provide any significant insight to add to those already mentioned. Those who stated their role to be Head of Department were the group most warmly inclined towards the overlay publishing model (68% of Heads of Departments). However, the number of respondents in that role is too small to allow any general comments to be made. Meanwhile, more than half of the scientists who denoted research as their primary responsibility (54% of 481 people) were positioned favourably towards a new publishing model (Table 5).

Response by responsibilities (base=668)	Editor/ editorial board	HoDs	Head research unit/group	Publisher - not for profit	Research	Teaching	Other
I think this could be the future for publishing research outputs.	18	13	61	3	259	1	2
I think this is interesting but not so important. I am fairly satisfied with my access to research outputs.	16	4	39	1	178	0	2
I think this is not important at all. I am satisfied with existing publishing models and my access to research outputs.	3	2	11	1	23	0	0
None of the above	1	0	9	0	21	0	0
Total	38	19	120	5	481	1	4

Table 5: Overlay model journal uptake – Responsibilities

Response by language did not indicate significant differences in the attitudes of the respondents (Figure 17). More than half of respondents in non-native (55%) and native (52%) English-speaking categories expressed a preference for experimenting with a new publishing model.

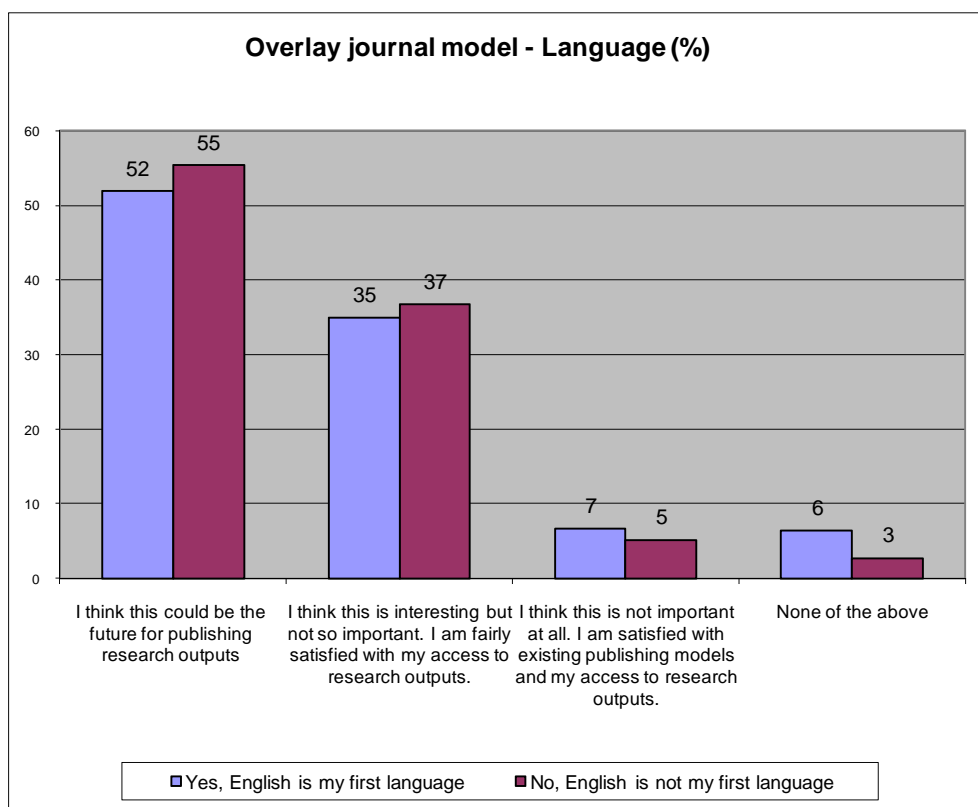


Figure 17: Overlay journal model uptake - Language

Respondents to the questionnaire survey were asked to provide their views about what fraction of money, within a given budget, should be spent on different functions of a journal. We used a ranking scale of five points, ranging from “none”, to little (1) and very little (2), moderate amount (3), and considerable (4) and most of the amount (5), with the additional option of “not sure”. It was hoped that this would provide some indication of which journal functions the scientists considered important; the question was not designed to be the basis of a costing exercise for a potential new journal. Most of the responses indicated that the scientists place importance on the role of scientific and copy editors and ensuring the maintenance of the journal software (Table 6). However, the majority of the respondents in every group emphasised the importance of the journal website (Table 7, Table 8), with the online archive of the journal’s back issues also given some priority

Suggested expenditure/priority	None	1	2	3	4	5	Not sure
Paying scientific editors	23	23	60	240	141	15	21
Paying copy editors	8	28	73	256	134	6	15
Maintenance of journal software	4	20	73	238	147	9	30
Journal website	5	28	79	225	149	20	15
Online archive of journal's own back issues	9	27	52	202	189	18	19
Production of paper version	138	101	125	107	29	4	14
Extra features such as storage of associated data	30	63	105	182	100	6	26
Publisher profits	142	122	138	91	9	0	19
Paying referees	249	70	70	85	22	8	18
Other	3	1	1	1	3	2	3

Table 6: Suggested expenditure/priorities by journal functions

Suggested expenditure- Role	Professor/ Full Professor	Reader	Senior Lecturer/ Associate Professor	Lecturer/ Assistant Professor	Senior Research Fellow	Research Fellow	Research Associate/ Research Assistant
	Paying scientific editors (who match papers with referees and resolve disputes)	12	0	3	1	3	3
Paying copy editors (who check grammar etc)	14	1	3	4	3	3	2
Maintenance of journal software	21	2	4	10	9	17	9
Journal website	74	12	28	36	45	53	44
Online archive of journal's own back issues	27	7	17	14	18	47	18
Production of paper version	2	1	2	6	0	3	1
Extra features such as storage of associated data	4	1	1	6	2	8	2
Publisher profits	0	0	0	0	0	0	0
Paying referees	1	0	0	0	0	0	0
Total	155	24	58	77	80	134	79

Table 7: Suggested expenditure/priorities – Response by role

Suggested expenditure-Responsibilities (base=657)	Editor/mem ber of editorial board of peer reviewed journal	Head of department	Head of research unit/group	Publisher - not for profit	Research	Teaching	Other
Paying scientific editors (who match papers with referees and resolve disputes)	4	0	5	0	17	0	1
Paying copy editors (who check grammar etc)	2	0	10	0	19	0	0
Maintenance of journal software	8	5	15	2	45	0	1
Journal website	17	8	54	3	227	1	0
Online archive of journal's own back issues	7	2	26	0	132	0	1
Production of paper version	0	1	1	0	14	0	0
Extra features such as storage of associated data	0	0	5	0	23	0	0
Publisher profits	0	0	0	0	0	0	0
Paying referees	1	0	0	0	0	0	0
Total	39	16	116	5	477	1	3

Table 8: Suggested expenditure/priorities - Response by responsibilities

When asked where the funding to meet those costs should come from, the respondents preferred to select research funders (485 people, 71% of base=683), library subscriptions (432 people, 63%) and sponsorship, for example by a Learned Society (350 people, 51%). A model requiring an author to pay from research funds either on acceptance (218 people) or on submission (47 people) of a paper was endorsed. Other sources mentioned in comments included: personal donations, professional association contributions, commercial and/or not-for-profit organisations, advertisements, subscriptions and even models of having authors pay partially on submission and partially acceptance. Although the general trend picked out research funders, responses from different subject groups tended to pick out library subscriptions (Table 9). The responses from scientists whose first language is English and from those whose first language is not English were broadly similar (Table 10). The full comments of the researchers can be found in Appendix B (on page 80).

Sources for covering journals' costs

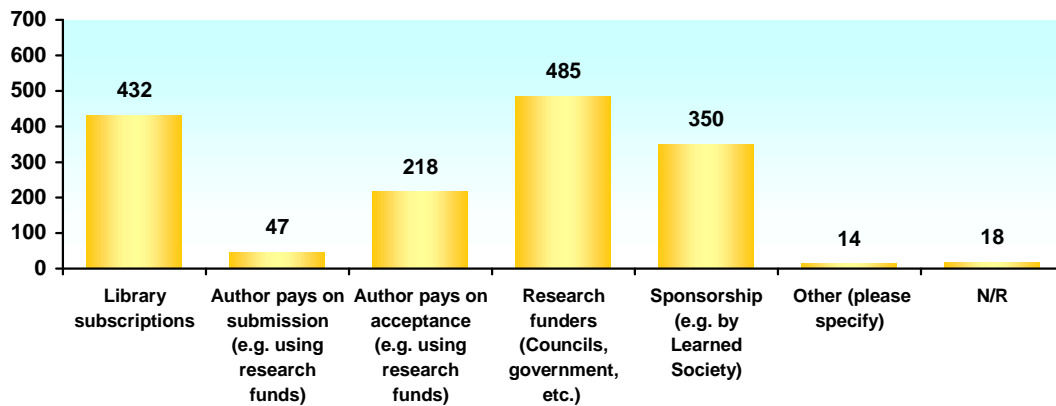


Figure 18: Sources for covering journals' costs

Funding sources – Subject area	Library subscriptions	Author pays on submission	Author pays on acceptance	Research funders	Sponsorship	Other
(base=658)						
Astrophysics	228	13	39	61	4	1
Cosmology	71	2	7	20	3	1
Early universe cosmology	6	0	0	6	0	1
Galactic astrophysics	27	2	5	5	1	0
High-energy astrophysics	17	1	4	6	0	0
Observational cosmology	17	3	8	4	2	0
Particle astrophysics	10	1	2	4	0	0
Solar system astrophysics	8	1	1	0	0	0
Solar system physics	1	0	1	1	1	1
Stellar astrophysics	21	0	5	3	0	0
Other	22	2	0	8	0	0

Table 9: Sources for covering journals' costs – Response by subject area

Sources by language (base=(664))	Library subscriptions	Author pays on submission	Author pays on acceptance	Research funders	Sponsorship	Other
Yes	219	17	47	49	4	4
No	212	8	25	72	7	0
Total	431	25	72	121	11	4

Table 10: Sources for covering journals' costs – Response by language

In line with responses discussed in previous sections (e.g., Table 2), the scientists emphasised once again that the most important factor that would encourage them to publish in any journal is the quality of the other submitted papers (526 people, 77% of base=683). This result could be interpreted as directly associated with the following two factors: the transparency of the peer review process (410 people, 60% of base=683) and next the reputation of the editor/editorial board (386 people, 57%, Figure 19). Response by subject area and role of the respondents, though, clearly puts the emphasis on the role, integrity and experience of the editorial board (Table 11, Table 12). In comments, the respondents noted several other factors that would encourage them to publish in an overlay journal. Those listed included references to the impact factor of the journal, the acceptance of the journal by the community, and acquiring a reputation as a quality, scientific publication with increased readership and breadth of coverage. The quality of the refereeing and some guarantee of open access and low charges were also mentioned (comments in full are listed in Appendix B, on page 81).

Factors that would encourage publishing

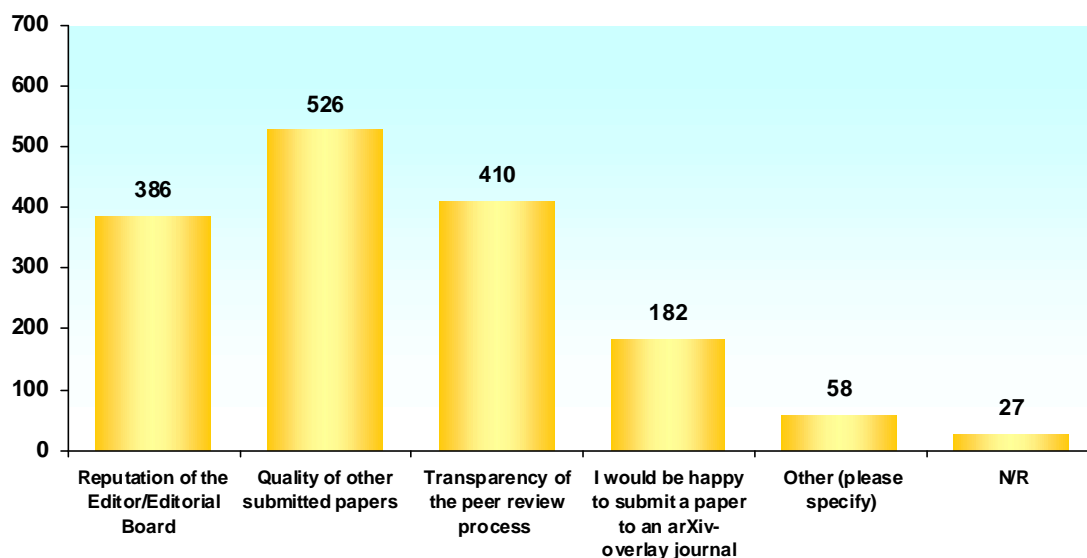


Figure 19: Factors that would encourage publication in an arXiv overlay journal

Factors – Subject area	Reputation of the Editor/ Editorial Board	Quality of other submitted papers	Transparency of the peer review process	I would be happy to submit a paper to an arXiv-overlay journal	Other
Astrophysics	213	87	19	9	11
Cosmology	56	31	12	7	1
Early universe cosmology	9	2	0	1	1
Galactic astrophysics	21	12	4	0	3
High-energy astrophysics	15	8	3	1	1
Observational cosmology	22	10	1	0	2
Particle astrophysics	7	8	1	1	0
Solar system astrophysics	7	1	1	0	0
Solar system physics	2	0	1	0	1
Stellar astrophysics	13	11	3	0	0
Other	16	12	0	1	1

Table 11: Factors that would encourage publication in an arXiv overlay journal – Response by subject area

Factors - Role	Reputation of the Editor/ Editorial Board	Quality of other submitted papers	Transparency of the peer review process	I would be happy to submit a paper to an arXiv-overlay journal	Other
Professor/ Full Professor	91	48	7	1	7
Reader	8	4	6	3	1
Senior Lecturer/ Associate Professor	35	18	1	1	4
Lecturer/ Assistant Professor	45	16	8	4	3
Senior Research Fellow	49	20	6	3	2
Research Fellow	83	39	8	2	1
Research Associate/ Research Assistant	44	26	5	4	1
Other	27	10	4	2	2

Table 12: Factors that would encourage publication in an arXiv overlay journal – Response by role

The questionnaire participants were asked to indicate their willingness, in principle, to participate in an arXiv-overlay journal. The vast majority of the scientists (549 people, 80% of base=683) stated that they would act as referees (Figure 20). Given the emphasis that the researchers place on the process of peer review, noted throughout this report, this result suggests that there is genuine interest in contributing to the improvement of what they consider an important process. A willingness to referee for an overlay journal was expressed by over three quarters of respondents in every role group except that of Readers (68%) (Table 13).

Willingness to participate

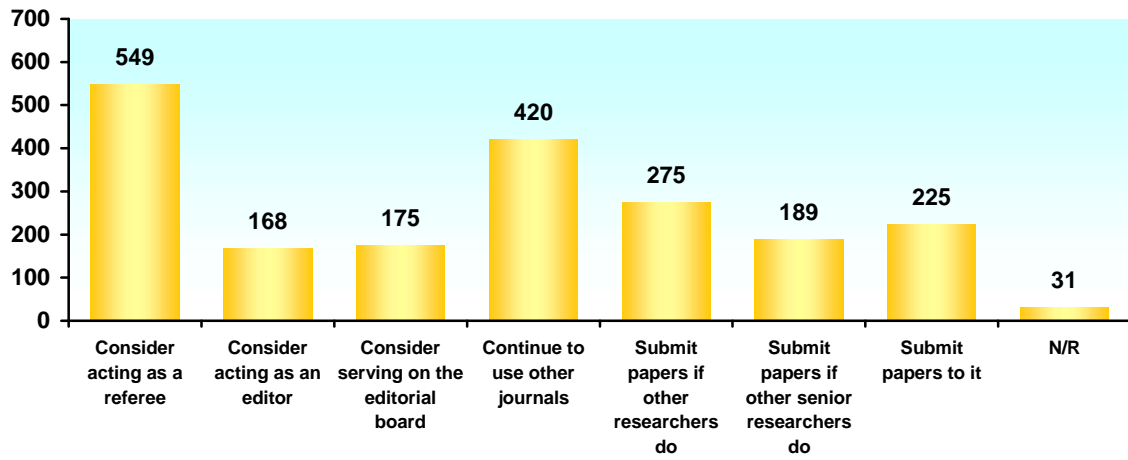


Figure 20: Scientists' willingness to participate in an overlay journal

Intend for participation - Role (base=546)	Professor/ Full Professor	Reader	Senior Lecturer/ Associate Professor	Lecturer/ Assistant Professor	Senior Research Fellow	Research Fellow	Research Associate /Research Assistant	Other
Consider acting as a referee	128	17	51	65	68	116	69	30
Consider acting as an editor	2	0	1	1	0	0	0	1
Consider serving on the editorial board	1	1	0	0	0	0	0	0
Continue to use other journals	16	2	6	5	8	11	5	6
Submit papers if other researchers do	2	2	0	3	1	5	4	3
Submit papers if other senior researchers do	0	0	2	1	0	1	3	2
Submit papers to it	1	1	0	0	2	1	0	1
Total	150	23	60	75	79	134	81	43

Table 13: Scientists' willingness to participate in an overlay journal – Response by role

Despite the encouraging replies of the respondents towards participation in an overlay journal model (Figure 20), some concerns were also raised. The scientists were asked to note any factors that would make them sceptical about submitting papers to an overlay journal. General concerns were expressed about any new and untested models of publishing, the overlay model included towards trying new models and means for publishing of scientific research - provided that they could ensure that the published research outcomes would qualify for assisting them in establishing an academic record, attracting funding and ensuring tenure⁵. Specifically, the following issues received particular mention:

- Impact, readership, and sustainability.
- peer review process, with particular emphasis on ensuring quality
- Open access, repositories and long term archiving,
- Clarity and proof of viability of the proposed model.

Impact, readership, sustainability

Some of the concerns that the respondents to the questionnaire survey raised were associated with the quality standards that any new journal would set, the means for establishing its readership, and its long term sustainability. For example, it was noted that, in current conditions, any new journal would need a number of years to acquire a record of quality papers and compete against current journals. Researchers at the early stages of their career, in particular, appeared reluctant to support a journal that could not ensure that their research outputs would materially assist with career advancement. In addition, readership appears to increase according to a journal's perceived quality and community acceptance. The scientists suggested that such factors could only be accomplished by a journal's ensuring a credible and experienced editorial board, adhering to high quality standards and assuming transparent processes in its running. Some indicative comments, referring to concerns about quality and impact are listed below:

- *“Perceived quality is critical. If it is viewed as less prestigious than, say, ApJ, I would be reluctant to send a good paper there because it will not look as good in my merit reviews”*
- *If the quality of the papers were perceived to be low, or the editing shoddy”*
- *“...would have to see if it is a worthwhile venue (maintains high standards of scientific quality”.*
- *“It just depends on how good and selective the journal is. I don't care if it is overlay or not. My papers are always on the web once I have submitted them...”*
- *“I choose a journal based on what I know of the readership. I want the paper to be useful to people active in the area”*
- *“We are all under severe pressure to read the huge amount of published papers. Name s and established reputations of journals help to classify where to put the limited resources. A new-comer which has its prime advantages in the interface and cost (for libraries etc) first has to establish a quality label”*
- *“The publishing costs and the journal's commitment to retaining the accepted material on user accessible media for future use for several decades is another important factor. A paper printout has the advantage that it lasts for several generations, while electronic storage media tends to become outdated with a matter of a decade”.*
- *“Standard of refereeing, permanency of archives”*

⁵ The comments made by the respondents in this section, can be found in full, in Appendix B, (on page 83).

Peer review process

The process of peer review, as noted above, was raised by the scientists as a very important factor when selecting the journals in which they publish their research and, and in informing their opinion about a journal. Aspects of peer review that the respondents considered important were the transparency of the process, the proven track record of the referees, that of the scientific editor and his/her role in the peer review process, high reviewing standards, and relevance of the chosen reviewers. These factors were cited as acceptance criteria for an overlay journal. Some of the respondents' comments are listed below:

- *“The most important aspect is to have a high quality refereeing system; so that only good papers are accepted”*
- *“Quality of refereeing is everything, and this comes down to choices and judgment of the editor, so choosing the right editor is crucial”.*
- *“I would need to be convinced that there would be both adequate peer review, editing (including language editing), and long-term arrangements for archiving and access...”*
- *“I would want to be sure of the quality of the referees”*
- *“If the peer review process is not transparent, I would definitely not submit papers to an overlay (or indeed to any other) journal”.*
- *“The most important things to me are a rigorous peer-review process (to ensure paper quality) and easy accessibility of the journal articles via ADS and the arXiv”.*
- *“Not be sure that the refereeing process is rigorous enough”*

Further comments and suggestions about peer review are described later in this report.

Open access, repositories and long term archiving

Ensuring open access, and waiving fees for those researchers in underprivileged countries, were mentioned as factors that should be in place in order to secure the endorsement of a potential overlay journal. Furthermore, the inclusion of overlay journal papers in indexing and alerting services, for example the ADS, would be welcomed. Facilitating ease of access and making those papers that have undergone peer review clearly distinguishable on the arXiv were noted as important. Specifically:

- *“ADS is truly wonderful and any journal should be fully accessible thereby. Non-refereed papers should not clutter up arXiv - if a result is really ur[g]ent, use Astronomical telegrams! Models in which the author pays but reading is free don't really help the 3rd world as it makes it harder for poor institutes to publish - Africa is not just a passive co[n]sumer of science (sorry to go on about this, maybe it is not your model, but it has been raised many times in a similar context)”.*
- *“In case page charges for publishing is introduced, it can be waived off for the scientists coming from the economically backward countries or who don't have funding from any agencies”*
- *“I'd need to assess if there are any limitations in access to papers for other interested parties”.*

The role of the arXiv repository in communicating and disseminating research was once again commented on as being of particular importance. However, some concerns were made about the current policies of arXiv, concerning the submission and acceptance of papers and file/size formats. One of the respondents went to the extent of expressing fears about an arXiv monopoly should the overlay model materialise: *“...it would be a monopoly built on the special institution astro-ph, whereas journals are in competition with each other for the best authors. I do not see a fair market situation protecting the authors interests, and therefore do not like the idea”.* Also, any failure clearly to differentiate between peer-reviewed and non-peer-reviewed papers on arXiv was mentioned as a matter which would require attention. Some indicative comments are listed below:

- *“The biggest problem with arXiv-astroph is that the papers are not uniformly refereed and they can change with time. These make them unsuitable as a primary journal”.*
- *“Would a peer-reviewed paper be obvious, as opposed to a non-reviewed submission? (to filter reviewed from non-reviewed)”*
- *“Papers have to be well separated from the other “normal” arXiv submissions. I guess that, as for any other journal, much it will depend on the quality of the journal itself: if well organized and with high quality reviews and papers, I guess I would use it like the others”.*

Finally, longevity of the journal and long-term archiving were commented upon repeatedly as very important factors. In response to an earlier question about factors that scientists regard as important when they consider publication, almost 30% noted that a print version of a journal is unimportant (Table 2). In contrast to this finding, several respondents mentioned the role of print copies of a journal in maintaining an historical record and ensuring future access to the literature. This finding, perhaps, suggests the potential for collaboration between repositories and libraries and/or other memory organisations. In any arXiv-overlay venture, arXiv's digital preservation and archiving policies would need to address the concerns raised, or other arrangements would have to be put into place. Other comments suggested a role for journal funders in this respect.

- *“You get what you pay for. I'd need to understand the business model for the journal including its “longevity” --- i.e. will it be archival in the classical sense of the word.*
- *“I am sceptical about purely electronic journals. Will there be print version?”*
- *“I do not see the business model as being viable, especially when considering the long-term archiving and access commitments necessary for a front-line journal”*
- *“Archival integrity. Given the way data storage changes (quite radically every generation or faster), some guaranteed way to ensure that ideas are not lost to technological change is crucial”*
- *“long-term archiving print version”*
- *“Absence of paper copy”*
- *“It may be interesting to invest on hardcopy production for an year or so so that the arXiv-overlay journal in Astrophysics does indeed appear on Diaplay racks in the Libraries”*
- *“It is important to understand how the archival guarantee is to be met and that the editorial/review process is guaranteed”*
- *“the long term archive appears to me a major problem”*
- *“I can find a 100 year old copy of many journals. Will online-only journal articles be accessible in 100 years?”*
- *“Longevity of funding sources”*
- *““...Longevity is usually provided by a solid backer with huge inertia and proven longevity (e.g. IOP or APS). You must have one...”*
- *“Longevity and permanency”*
- *“Some guarantee of permanence”*

Clarity and proof of viability of the proposed model

Some scientists sought further clarity about the overlay model, and proof of its viability. It was suggested that a trial issue would have been useful to enhance their understanding about how a potential overlay journal could work and help them to make more informed comment about the flaws and strengths of the model.

- *Startup issues -- will the journal survive? Will it attract[t] quality submissions? Will it make errors in archiving and retrieval?*
- *Who is funding the enterprise*
- *I don't fully understand the model. What makes it distinct from the standard journals?*

- *Honestly, I'd have to understand more about the whole process first*
- *Sounds similar to the present state of affairs. Most papers already reside both on a journal's web-site and arXiv*

Copy editing received particular mention by several scientists. The survey showed that it is considered an essential journal function: it was found to be the second most important feature, after the maintenance of the long term archive of the journal's back issues in terms of resource priority (Table 6). Researchers were asked how they would prefer copy editing to be carried out. Almost half of the respondents favoured the suggestion that the cost of copy editing should be borne by the author, and that it should also be variable based on the amount of copy editing required. Furthermore, almost half of the respondents (47%) appear to be in agreement that those changes should be carried out by the author. The role, responsibilities and language of the respondents did not reveal any significant differences in their attitudes towards copy editing (Tables 14-17).

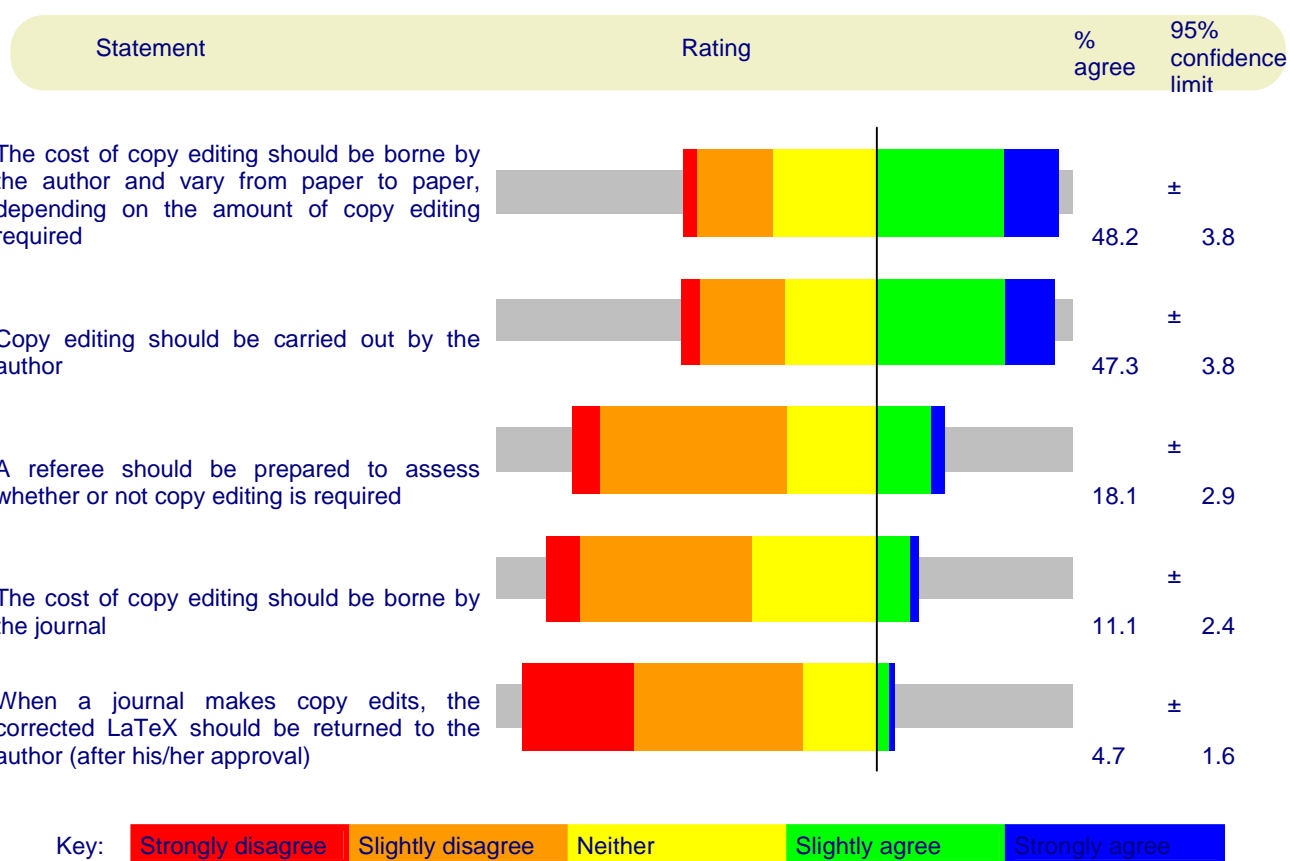


Table 14: Copy editing

Copy editing – Response by role (base=655)	When a journal makes copy edits, the corrected LaTeX should be returned to the author (after his/her approval)	A referee should be prepared to assess whether or not copy editing is required	The cost of copy editing should be borne by the author and vary from paper to paper, depending on the amount of copy editing required	The cost of copy editing should be borne by the journal	Copy editing should be carried out by the author
Professor/Full Professor	4	4	37	72	42
Reader	0	2	9	4	8
Senior Lecturer/Associate Professor	0	2	13	29	15
Lecturer/Assistant Professor	2	3	14	34	22
Senior Research Fellow	0	3	14	29	34
Research Fellow	2	3	26	59	43
Research Associate/Research Assistant	0	0	12	46	23
Other	1	4	7	22	11

Table 15: Copy editing – Response by role

Copy editing – Language (base=660)	When a journal makes copy edits, the corrected LaTeX should be returned to the author (after his/her approval)	A referee should be prepared to assess whether or not copy editing is required	The cost of copy editing should be borne by the author and vary from paper to paper, depending on the amount of copy editing required	The cost of copy editing should be borne by the journal	Copy editing should be carried out by the author
Yes, English is my first language	7	9	66	149	107
No, English is not my first language	3	12	66	148	93
Totals	10	21	132	297	200

Table 16: Copy editing – Response by language

Copy editing – Response by responsibilities (base=659)	When a journal makes copy edits, the corrected LaTeX should be returned to the author (after his/her approval)	A referee should be prepared to assess whether or not copy editing is required	The cost of copy editing should be borne by the author and vary from paper to paper, depending on the amount of copy editing required	The cost of copy editing should be borne by the journal	Copy editing should be carried out by the author
Editor/member of editorial board of peer reviewed journal	3	4	10	10	11
Head of department	0	0	5	13	1
Head of research unit/group	4	4	22	49	38
Publisher - not for profit	0	0	1	2	2
Research	3	13	93	219	148
Teaching	0	0	0	1	0
Other	0	0	1	2	0

Table 17: Copy editing – Response by responsibilities

We asked the scientists to note their preference about making referees' reports public. Forty six (46%) of the respondents noted that they would like to see the referees' reports made publicly available, subject to the agreement of the author and the reviewer. Another 40% of the response, however, indicated that they would not like to see referees' reports made publicly available. This view was particularly strongly held by the group at the most advanced stage in their careers, e.g. professors (80 people, 49% of those professors who answered this question). The other group of scientists who held the same view were those at the early stages of their academic careers, e.g. lecturers (34 people, 44% of those lecturers who answered this question). Those in the roles of research assistants and research and senior research fellows were keener to have referees' reports made publicly available (Table 18). It also appears that the responsibilities of the researchers have some effect on their attitude to the public availability of referees' reports. Those acting as editors or members of editorial boards of peer-reviewed journals, and heads of research groups and departments, were more inclined to say that they would prefer the referees' reports to remain confidential (Table 19). Further research into the editorial process and responsibilities, particularly the issues associated with the selection and assignment of reviewers and policies about the conduct of peer review will help to understand these responses. Finally, 12% of the respondents noted that they would support the public availability of referees' reports. (Figure 21).

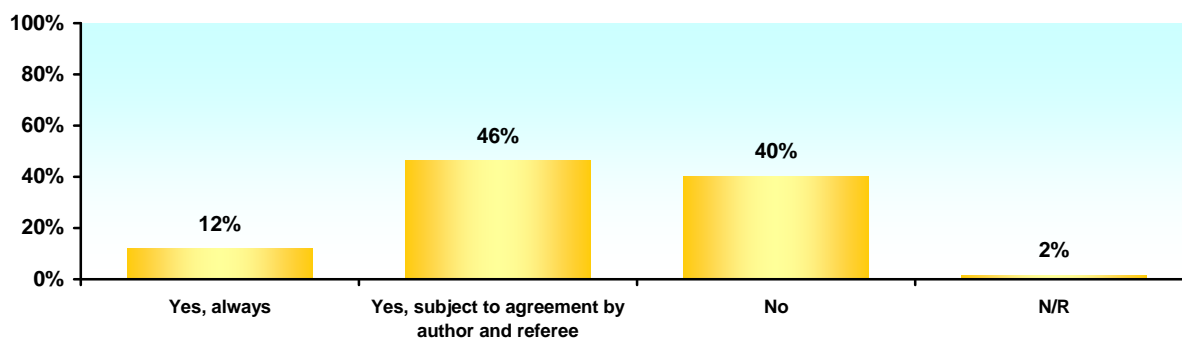


Figure 21: Referees reports

Referees reports – Role (base=662)	Yes, always	Yes, subject to agreement by author and referee	No	Totals
Professor/ Full Professor	18	64	80	162
Reader	4	12	9	25
Senior Lecturer/ Associate Professor	8	30	22	60
Lecturer/ Assistant Professor	10	33	34	77
Senior Research Fellow	10	43	28	81
Research Fellow	16	68	50	134
Research Associate/ Research Assistant	7	40	34	81
Other	7	24	15	46

Table 18: Referees reports – Response by role

Referees reports – Responsibilities (base=670)	Yes, always	Yes, subject to agreement by author and referee	No	Totals
Editor/member of editorial board of peer reviewed journal	5	16	18	39
Head of department	1	7	11	19
Head of research unit/group	14	48	56	118
Publisher - not for profit	0	3	2	5
Research	59	237	188	484
Teaching	0	1	0	1
Other	1	3	0	4

Table 19: Referees reports – Response by responsibility

3.6 Other comments

Space was included in the final section of the questionnaire for the scientists to provide any additional comments that they may have had.

The scientists raised quite a few questions, expressed concerns and made suggestions⁶. These are listed as follows:

ArXiv content and arXiv policies

The responses received by the scientists who participated in the questionnaire survey confirmed the role of the arXiv as a focal point for disseminating and communicating research in the field of astrophysics. However, current practices and policies of arXiv regarding submitted papers and their associated files received criticism. For example, the quality of the submitted papers, and the fact that papers which have been submitted to peer review and those which have not co-exist without being clearly distinguished was a criticism which was made. Also, mention was given to limitations on the size and the formats of the files that are acceptable for submission. Some example of the comments the scientists made:

- *“arXiv has its own flaws, mostly related to the freewheeling unrefereed nature of the papers posted there... ”*
- *“To be fair, arxiv is quick and fast in spreading information, but the quality of papers in terms of language and typesetting varies greatly - and this is the (expensive) benefit of having journals copy-editing the papers, which I do appreciate. Furthermore, other changes that they would welcome would be in the policies about file formats and image sizes”.*
- *“Large versions of color figures should be available”*
- *“I think the idea of “enhancing” the arXiv with a proper peer-review lens is a good idea, provided that what I see are the key advantages of current journal articles are retained: 1. The refereeing process; 2. Proper copy editing; 3. High-quality figures (the current arXiv limits on file sizes for figures leads to figures which are often illegible)”.*

Need and/or market for a new journal

An area of concern that was brought up repeatedly in the respondents comments was whether there is, indeed, a need or even a market for a new journal (irrespective of the publishing model) in astrophysics and cosmology. The nature of research in these two fields does not always necessitate the urgent publication of research results, compared to other scientific fields, such as the biomedical sciences, where research can quickly become outdated and fast publication of findings is an absolute requirement. Furthermore, the comments from the scientists imply that existing scientific journals absorb the majority of the research outputs that are produced in these fields, also raising concerns whether there is a requirement for a new journal. On the other hand, the reportedly extensive use of arXiv, and the fact that the vast majority of respondents noted that they use arXiv to access the full text of a paper (Figure 8), suggests that there is ground for exploring whether a more efficient and quick, quality assured way is needed when it comes to publishing scientific research. Furthermore, given the numerous comments about the process of peer review, and criticism of its transparency and validity, as well as comments on the entire publishing process (from editorial to production and distribution processes, etc.) it is probably valid to explore, alongside the proposed model, whether these general points could be addressed. Some indicative comments expressing concerns about the necessity of a new journal are listed below:

⁶ The comments made by the respondents in this section, can be found in full, in Appendix B, (on page 93).

- *“...High quality journals such as ApJ and MNRAS accept 90% of what gets submitted, and most referee reports don't affect a huge improvement. An overlay journal would be useful if (a) everyone used it and (b) the refereeing was hugely stringent, so that (say) only 30% of the papers on arXiv were accepted. Then one could just read the journal papers and ignore the others, thus saving a lot of time...”*
- *“I think that the kinds of changes motivating this proposal are needed, but that they are better implemented within the structure of the existing journals which are closely linked to the professional societies of our field and so to the user base (in its organised form). A collaboration with the archive is an interesting idea for publication and could (should?) be pursued by the existing journals as an alternative to using commercial publishers...”*
- *“It is important to have a journal where papers rejected from quality journals can be published, if th[e] author[r] feels strongly enough. Astrophysics and Space Science plays this role currently. I am not sure we need another such journal”.*
- *“I see no reason for this journal. We have astro-ph and we have library subscriptions to ApJ and A&A. What would the "added value" be?”*
- *“...I don't think there is a need for the proposed journal in astrophysics”*
- *“Astronomy is in the fortunate situation that almost everything is published in a few core journals. I am somewhat worried that the increasing number of alternative publications like New Astronomy (Reviews) and JCAP will fragment the publication landscape to such a degree that this current fortunate situation will disappear”.*

Peer review

Some of the most prominent findings of the survey relate to the peer review process. The comments of the respondents indicate that it is not always clear how the peer review is conducted and their comments suggest that, perhaps, there is room for improvement. Although no specific journals were researched, the comments the researchers made showed two schools of thought. The first called for a more open, publicly available peer review with the use of new technologies such as wikis, voting systems, being part of a discussion forum, etc. It was noted that the agreement of both the author and the referee would be essential in those situations.

The second called for the maintenance of the anonymity in peer review, and for an exploration of the adaptation of more rigorous models of peer review which are applied in other disciplines. For example: *“One of the major flaws of current astronomy journals is that they use only a single referee. Compare this to other journals in physics, which can use up to 3 or 4 referees. Additional referees really help in the critique of a paper....”*. Other models could also include adopting blind or double blind peer review. Educating the reviewers and having clear guidelines about what is expected from them was also commented upon. In detail: *“Besides, there is an appalling lack of appropriate referencing in all current journals. Somehow giving adequate credit to previous work carefully does not seem to be part of the educational training of astrophysicists”.*

To summarise, the comments from the respondents raised issues around the transparency of the process, the adoption of more stringent models of peer review, public access (after author-referee agreement) to referees' reports, and the use of technologies to assist the process. In particular, those that were in favour of making the referees' reports publicly available noted:

- *“I think a wiki should be opened for each article/subject, so that the community can improve/comment/elaborate on the article. This would be very efficient for the dissemination of knowledge and to draw attention on possible implications, flaws, links with other aspects of a problem, etc. And it would allow a sort of second stage of the refereeing process, allowing a more complete discussion about the paper, and helping correcting mistakes that sometimes occur (even though both the author and the referee were honest and fair). The progress of science should be reflected in the progress of already published articles, not only in an increase of the number of*

papers, where it's often hard to know if a given past result still holds or not. Wiki-like journals are in my opinion the real future of publication in science”.

- *“The overlay journal should have a discussion forum directly linked to each article, loosely moderated by editors who can delete spam. --Considerable thought should be given to a "live section", where, upon agreement with authors and referees, an article can be kept live for a while, regularly updated, possibly in response to comments”*
- *“There should be an easy way for readers to post comments about the papers in a way that will be "attached" and easily accessible to others”.*
- *“... I think after the paper has been accepted, the referee should always be disclosed - so that all readers can see who was partly responsible for getting the paper published in the final version. That way, a sloppy referee report - which results in sloppily published papers - could at least in part be blamed on the referee”.*

Those in favour of maintaining the anonymity of the referees and their reports commented:

- *“That last question is pretty interesting. The idea is not to turn papers into blogs. This can happen anyway, quite independently of what the referee process is. But, as an author, it would be insane to try to keep up, let alone address, all the possible comments that could be generated by a controversial or complicated paper if it were, in effect, opened up to a world of referees”.*
- *“Regarding the point about a possible open forum to discuss the review of an article, this could have a very negative effect: a tremendous delay in the review process. Every author wants the review process to be as quick and transparent as possible”.*
- *“The final paper should be assumed to be something agreed by referee and authors, perhaps with some indicator of having been refereed and edited by means of a flag. Publishing the comments and replies could be embarrassing to all concerned. Usually a referee is asked whether or not a paper should be published. Would this still apply?”*
- *“While i don't think referee report and author responses should be public, the name of the referee should be published with the paper. it can remain anonymous while being refereed, but once accepted for publication it should be public record who the referee was”.*
- *“I think it would be great if we had a better system than currently exists to encourage discussion and quality assurance. Building on arXiv.org is good as it already exists, but I'm unsure how you could get a large volume of users, as people might be reluctant to enter into using a system unless it seems permanent and useful. I think anonymity for referees (especially junior ones) is essential in whatever system, but this is difficult to balance with openness and general discussion”.*
- *“There is a lot of discussion about having an 'open' refereeing system. I am against this because it will inevitably have an impact on the referee's report (and on whether someone agrees to referee a paper). The report etc should nevertheless be kept in case of future legal or other reasons”.*

Costs of journals

Discussion around the costs of journals is not easily separated from their apparent usage (and related methods and metrics to measure it) and the usefulness of their content. Furthermore, long-term archiving and availability of content are also closely linked with costs.

A question included in this survey enquiring about the scientists' inclination to apportion expenditure towards particular functions of a journal was subject to criticism. The respondents argued whether a scientist has adequate knowledge of the publishing process and its associated costs to make any useful observations. It was also observed that the publishing process entails more than the distribution phase, which some

respondents felt that this survey appeared only to address.⁷ However, the costs associated with the work of scientific editors, with the integrity and long term archiving of journal issues, and with the transparency of peer review were highlighted as worthwhile. Some indicative comments are listed below:

- *“... Very-little of a high-cost journal may be more than a considerable amou[n]t of a low-cost one. Perhaps it would be better posed in terms of one's priorities in paying for the journal. I think that in this day paying those such as the editors and referees, and ensuring the integrity of the archive, ought to be a higher priority than producing a paper version of the journal. Especially for an overlay journal such as you propose”.*
- *The main reason to switch to the overlay journal would be cutting costs. The arXiv is cheap (little cost to authors, small government grant), presumably because it avoids procedural costs such as copy-editing and paper printing, and I find it to be just as useful as traditional journals. If the overlay journal provides the same utility and recognition as current journals at less cost, we should adopt it. If the overlay journal is just as expensive as the current system, there's no point in changing.*

Copy editing

Copy editing, the level of author involvement in it, and who should be responsible for any costs associated with it, were also issues that were commented upon. Some respondents favoured the idea of charging extra for papers that require extensive copy editing. The appearance and layout of the published papers were considered important.

- *“The idea of charging authors for papers that require excessive copyediting is a great one!”*
- *“Copy editing is a difficult issue: it should be the [responsibility] of authors to improve their writing, on the other hand the journal should take [responsibility] for what it published. Perhaps an author could have say three chances and after that should pay for copy editing?”*
- *“...my position is that a basic copy editing should be provided by the journal, but that extremely messy papers should be penalized, perhaps by introducing extra costs”*
- *“I do believe money [is] being wasted on the copy-editing of already copy-edited articles, on paper copies of journals, on library subscriptions, etc. The publications process needs to be streamlined and a new type of open-access peer-reviewed journal might just be the right thing”.*
- *“Other than refereeing, it is the improvement in typesetting over LaTeX that I most appreciate from a journal - in both an aesthetic sense and in the creation of standard formatting, for tables/figures/text and particularly for equations. From the questions, it sounds as if this is still planned to be done in LaTeX. Appearance does matter”.*

Open access

Open access was also an issue brought up by several scientists and they emphasised the importance of having free access to the scientific literature, especially for developing countries, without compromising the quality of the published papers. Some comments are listed below:

- *“The main advantage that I can see with Open Access journals is that the material will be available for people that would not have access to a normal journal, for instance researchers in poor countries or researchers without an affiliation to a major university. The most important aspect of such a journal is that the papers must be of at least equal quality as those in the leading journals today. Otherwise it will not be attractive to publish in an open access journal”.*

⁷ RIOJA is also, in a separate line of work, engaging with publishers, editors of scientific journals, and other open access and overlay journals. Reaction and comment from these groups will be presented in the final project report.

- *“Scientific results should be accessible to all (for free). Making printed copies etc. is probably not practical in this era of deforestation and global warming concerns. Moreover, manufacturing costs are high. Therefore, I think it is a great idea to have web based, free and transparent journal”*
- *“...i like the idea. :) IMHO, closed journals that restrict online readership to their articles belong to the pre-Jurassic era...”*
- *“I would definitively like and support a journal which is open to *all* readers and aiming at the quality of the best present day journals”.*
- *“Any 'overlay' journal must seriously address the issue of freedom of access for authors”.*

Indexing and taking advantage of new technologies

The scientists have indicated their preference for the ADS services when they look for past literature (Figure 9). Further comments received highlight this as an important feature for a journal. Indicative comments:

- *“I also think any new journal should work with existing services, such as NED, Simbad, ADS, CDS, etc., to make sure that data are quickly shared among these services”*
- *“My priorities are: Refereeing, indexing, good selection of keywords, conformation to IAU nomenclature rules, inclusion of data in SIMBAD/VizieR/other VO-enabled, stable online archives, access for astronomers in developing countries as authors and readers. A lot of this implies a big role for copy editors and librarians. An article is useless if it is verbose, jargonistic or does not appear in an ADS search”.*

4. Summary

The questionnaire survey received responses from 683 scientists in the fields of astrophysics and cosmology (a 17% return). The respondents represented a range of research interests, roles and research experience, and an almost equal proportion of returns (51/49) came from scientists who were English native speakers and those who were not.

The respondents indicated that they each produce, on average, 13 papers over each 2-year period. They confirmed the important role of scientific journals in communicating research: 97% indicated that papers for submission to peer-reviewed journals are the main written output of their research.

When it comes to choosing a journal in which to publish, the scientists highlighted a journal's impact factor, readership levels and acceptance by the scientific community as having the most weight in the decision. This is exemplified by the list of journals in which the respondents had mostly published their research, which included the 10 with the highest impact factor in these fields (ISI Journal Citation Reports, 2005). Other factors which affect the scientists' decision on where to publish include the subject coverage of the journal, the efficiency and ease of use of the submission system, the time that it takes for a paper to reach publication, open access, indexing in services such as the ADS and the publishing requirements of particular projects.

The most important functions of a journal were identified as the online archive of the journal's back issues, the journal's website and maintenance of the journal software. Journal production costs should, it was felt, be covered by research funders and libraries' subscriptions

In the context of an overlay journal, repository policy clearly needs to be sympathetically aligned with the journals's objectives - some of arXiv's current policies and practices (for example, policies about file sizes, submission, acceptance and citation of unrefereed papers, multiple versions of papers, etc.) were highlighted by this community as issues which would need to be addressed if arXiv overlay were trialled.

Open access was also an issue brought up by several scientists, and they emphasised the importance of having free access to the scientific literature. In particular, free access to less privileged scientists was highlighted as desirable.

The inclusion of journal content in indexing and alerting services was deemed important. The ADS services are regarded favourably as an access point to the literature by the majority of the respondents.

The respondents showed particular concern with the speed, quality and reliability of the peer review process, which was repeatedly mentioned in comments made by the respondents. It is not always clear to authors how peer review is being conducted by a given journal. Their comments suggest that, perhaps, there is room for improvement in the system, although opinion was polarised on the best way to make those improvement. One school of thought called for a more open, publicly available peer review system, incorporating the use of new technologies such as wikis, voting systems, and discussion forums, and so on. A second preferred to maintain the anonymity of peer review, but was keen to see more exploration and possible adaptation of the more rigorous models of peer review which are applied in other disciplines.

As documented elsewhere, arXiv use is prevalent in this community:

- 77% of respondents access arXiv on a daily or weekly basis

- 80% visit arXiv's "new/recent" to keep up to date with advances in their fields
- on reading an interesting abstract, 89% of respondents use e-print repositories to search for the full text of a paper that appears to be of interest
- on discovering an interesting paper on arXiv, only 7% always prefer to seek the final published version.

The respondents were broadly receptive to the idea of overlay publishing: 53% welcomed it, and 80% would be happy to be involved as referees for an arXiv-overlay journal.

The questionnaire survey, therefore, found some encouragement for the overlay journal model in the fields of Astrophysics and Cosmology. However, general issues were raised about new and untested models of publishing, the overlay model included. It is clear that, for any new publishing model to succeed, it will have to address many 'traditional' publishing issues, among them impact, peer review quality and efficiency, building a readership and reputation, arrangements for copy-editing, visibility in indexing services, and long-term archiving. These are generic concerns, for which repository overlay is not necessarily the complete answer.

This survey was undertaken as part of a wider investigation by the RIOJA project into the feasibility of the overlay publishing model. Further research is being carried out among publishers, editors, members of editorial boards, encompassing 'traditional' publishing as well as exemplars of new publishing models. It is hoped that these further investigations will enable the project team to build on the findings of the questionnaire survey reported here.

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Appendices

Appendix A – Questionnaire

ABOUT YOU

Q1. Please let us know the primary area of your research:

TICK ALL THAT APPLY

- Astrophysics
- Cosmology
- Early universe cosmology
- Galactic astrophysics
- High-energy astrophysics
- Observational cosmology
- Particle astrophysics
- Solar system astrophysics
- Solar system physics
- Stellar astrophysics
- Other (please specify)

Q2. From the following options, please select the one that best describes your current role:

TICK ONE ONLY

- Professor/Full Professor
- Reader
- Senior Lecturer/Associate Professor
- Lecturer/Assistant Professor
- Senior Research Fellow
- Research Fellow
- Research Associate/Research Assistant
- Other

Q3. From the following options, please select those that best describe your current responsibilities (tick all boxes that apply):

TICK ALL THAT APPLY

- Editor/member of editorial board of peer reviewed journal
- Head of department
- Head of research unit/group
- Publisher - commercial
- Publisher - not for profit
- Publisher - University press
- Research
- Teaching
- Other (please specify)

Q4. Please let us know how for many years (post Ph.D.) you have been engaged in research:

TICK ONE ONLY

- More than 10 years
- 6-10 years
- 0-5 years

Q5. Is English your first language?

TICK ONE ONLY

Yes

No

PUBLISHING YOUR RESEARCH

Q6. In which form is your research most commonly written up?

TICK ALL THAT APPLY

- Book(s)
- Chapter(s) in book(s)
- Papers for submission to peer reviewed journals
- Papers included in conference proceedings
- Workshop papers
- Other (please specify)

Q7. Approximately, how many papers for submission to refereed journals have you produced in the last 2 years?

WRITE IN

Q8. In which of the following peer reviewed journals have you published your papers?

TICK ALL THAT APPLY

- Annual Review of Astronomy and Astrophysics
- Annual Review of Earth and Planetary Sciences
- Astronomical Journal
- Astronomy and Astrophysics
- Astronomy and Astrophysics Review
- Astrophysical Journal
- Astrophysical Journal Supplement Series
- Journal of Cosmology and Astroparticle Physics
- Monthly Notices of the Royal Astronomical Society
- Nature
- New Journal of Physics
- Physical Review D
- Physical Review Letters
- Science
- Other (please specify)

Q9. How important are the following factors when you choose where to publish?

TICK ONE ONLY PER ROW

	Very important	Fairly important	Neither important nor unimportant	Fairly unimportant	Very unimportant
Being kept up-to-date during the refereeing process	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
High journal impact factor	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅

Inclusion in indexing/abstracting services (e.g. ISI Science Citation Index)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Journals published by my professional society	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Journals that do not charge authors for publication	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Journals which have a high rate of rejection of papers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Journals which publish a print version	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Low or no subscription costs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Open Access Journals (journals whose content is openly and freely available)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Perceived quality of the journal by the scientific community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reputation of the editor/editorial board	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other factors (please specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>					

YOU AS A READER

Q10. How do you keep up to date with new advances in your field?
TICK ALL THAT APPLY

- I browse print copies of journals
- I go to the arXiv new/recent
- I go to discussion lists/forums (e.g. cosmocoffee, etc.)
- I go to journal web pages
- I go to the ADS website
- I receive "table of contents" alerts
- I receive alerts from ADS (ADS emails)
- I receive alerts from arXiv (arXiv emails)
- I use indexing/abstracting services (e.g. ISI Science Citation Index)
- Other (please specify)

Q11. On finding an interesting title/abstract, where do you look for the full article (tick all boxes that apply)

TICK ALL THAT APPLY

- Commercial publisher's digital repositories (e.g. ScienceDirect, SwetsWise, etc.)
- E-print archives (e.g. arXiv)
- Google/Google Scholar
- Other search engines
- The journal's website
- The printed copy of journal
- Other (please specify)

Q12. When you search for past papers, where do you prefer to look?
TICK ONE ONLY

- I go directly to the journal's website

- O₂ I search the ADS
- O₃ I search the arXiv
- O₄ I search using Google/Google Scholar
- O₅ I search using other search engines
- O₆ I use my Library's web pages (e.g. list of ejournals, list of databases)
- O₇ Other (please specify)

YOUR USE OF THE arXiv

Q13. How frequently do you access the arXiv?

TICK ONE ONLY

- O₁ On a daily basis
- O₂ On a weekly basis
- O₃ Once/twice per month
- O₄ Every 3 months
- O₅ Every 6 months
- O₆ Hardly ever
- O₇ I receive updates via email, so whenever I see something of interest
- O₈ I do not use the arXiv

Q14. On finding a new paper of interest on the arXiv what do you do?

TICK ONE ONLY

- O₁ I read new papers straight away
- O₂ I prefer to read the final published version at the journal's website
- O₃ Depends on the paper/circumstances/time (please specify)

- O₄ None of the above

Q15. Do you usually submit papers your published papers to the arXiv?

TICK ONE ONLY

- O₁ Yes, some time before submitting to a journal
- O₂ Yes, around the time I submit to a journal
- O₃ Yes, after acceptance
- O₄ No

Q16. How do you perceive the relative quality of arXiv versions and published versions of papers which have been accepted in journals?

TICK ONE ONLY

- O₁ arXiv version of paper is better
- O₂ Published version of paper is better
- O₃ They are roughly the same

OVERLAY JOURNALS

Q17. The RIOJA project is investigating the feasibility of the "overlay journal" model in the field of Astrophysics and Cosmology. Overlay journals are journals whose content is submitted to and held in one or more repositories. For the field of Astrophysics and Cosmology, a fully peer-reviewed, open access journal could be built on top of the arXiv repository. Among other things, this means papers accepted for publication would reside at the arXiv. What are your views about this model of publication?

TICK ONE ONLY

- O₁ I think this could be the future for publishing research outputs.
- O₂ I think this is interesting but not so important. I am fairly satisfied with my access to research outputs.

- O₃ I think this is not important at all. I am satisfied with existing publishing models and my access to research outputs.
- O₄ None of the above

Q18. If you answered NONE of the above, could you please let us know your views:
WRITE IN

Q19. Journals can provide a number of features. What fraction of the total journal cost do you feel should be spent on each feature?
TICK ONE ONLY PER ROW

	None	Very little	Little	Moderate amount	Considerable amount	Most of it	Not sure
Paying scientific editors (who match papers with referees and resolve disputes)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Paying copy editors (who check grammar etc)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maintenance of journal software	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Journal website	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Online archive of journal's own back issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Production of paper version	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extra features such as storage of associated data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Publisher profits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Paying referees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q20. Where should this money come from?
TICK ALL THAT APPLY

- ₁ Library subscriptions
- ₁ Author pays on submission (e.g. using research funds)
- ₁ Author pays on acceptance (e.g. using research funds)
- ₁ Research funders (Councils, government, etc.)
- ₁ Sponsorship (e.g. by Learned Society)
- ₁ Other (please specify)

Q21. What factors would encourage you to publish your papers in an arXiv overlay journal?

TICK ALL THAT APPLY

- ₁ Reputation of the Editor/Editorial Board
- ₁ Quality of other submitted papers
- ₁ Transparency of the peer review process
- ₁ I would be happy to submit a paper to an arXiv-overlay journal
- ₁ Other (please specify)

Q22. If an arXiv-overlay journal were launched, would you:

TICK ALL THAT APPLY

- Consider acting as a referee
- Consider acting as an editor
- Consider serving on the editorial board
- Continue to use other journals
- Submit papers if other researchers do
- Submit papers if other senior researchers do
- Submit papers to it

Q23. Are there any factors which would make you sceptical about submitting papers to an overlay journal?

WRITE IN

Q24. How strongly do you feel about the following statements?

TICK ONE ONLY PER ROW

	Strongly disagree	Disagree	Indifferent	Agree	Strongly agree
When a journal makes copy edits, the corrected LaTeX should be returned to the author (after his/her approval)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A referee should be prepared to assess whether or not copy editing is required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The cost of copy editing should be borne by the author and vary from paper to paper, depending on the amount of copy editing required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The cost of copy editing should be borne by the journal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Copy editing should be carried out by the author	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q25. Do you feel referees' reports (and ensuing correspondence) should be publicly available (and included in a discussion forum where others could post comments)?

TICK ONE ONLY

- Yes, always
- Yes, subject to agreement by author and referee
- No

OTHER COMMENTS

Q26. If you would like to add something to this survey or have any further comments, please let us know:

WRITE IN

Q27. If you would like to be kept informed about the "overlay journal" model in the field of Astrophysics and Cosmology please let us have your preferred contact details:
WRITE IN

Q28. If you wish to be included in the prize draw please let us have your preferred contact details:
WRITE IN

Appendix B - Free text responses

B1. Identity characteristics – Subject area

Q1. Please let us know the primary area of your research:

- Gravitation
- gravitational theory
- statistics and computer science
- Quantum Gravity; Quantum Cosmology
- physics education
- Precision measurements
- extragalactic astronomy
- Observational astronomy, instrumentation
- Observational Galaxy Evolution
- Molecular astrophysics (astrochemistry)
- high energy physics
- Astronomical instrumentation
- astrophysics telescopes and instrumentation
- Extragalactic Astronomy / Galaxy Evolution
- instrumentation
- Extra-galactic astronomy
- Astrochemistry
- neutrino physics
- globular clusters
- Numerical relativity
- Gravitational waves astronomy
- Gravitational waves
- General Relativity, Black holes and string theory
- Extragalactic astronomy
- General Relativistic Astrophysics
- Interstellar medium
- Planet formation
- Nuclear astrophysics
- Statistics
- extrasolar planets
- string theory
- extra solar planets, interstellar material
- Interstellar medium, star formation
- stellar dynamics
- Heliospheric Physics
- particle physics, gravitation
- solar physics, MHD
- Nucleosynthesis
- solar physics
- Active Galactic Nuclei
- planetary physics, accretion disks, astrophysical hydrodynamics
- radiative transfer, mhd
- Accretion power in binary stars and active galactic nuclei
- astrophysical fluid dynamics
- extragalactic stellar populations
- High energy nuclear physics

- General Relativity
- extragalactic astrophysics
- Stellar Dynamics, Astrophysical Theory
- Extragalactic astrophysics
- Extragalactic astronomy
- Supernovae
- Hadron and Nuclear physics
- space instrumentation
- Solar physics
- extragalactic astrophysics
- Accelerator Physics
- string theory w/some cosmology
- string theory
- plasma astrophysics
- Solar Physics
- Adaptive Optics, Nonlinear Optics
- first stars, nuclear astrophysics
- astronomy software
- MHD phenomena
- Solar physics
- Nuclear Physics
- relativity
- Instrumentation for astronomy
- Cosmic Ray Physics
- magnetohydrodynamics
- astronomical site characterisation
- observational astronomy
- High-energy physics
- Nuclear astrophysics
- Astrophysics instrumentation
- tests of fundamental symmetries
- Atomic astrophysics=application of atomic & molecular physics to Astrophysics
- planetary science
- Pulsar astrophysics
- Relativistic cosmology
- Astronomical instrumentation
- Atmospheric Physics
- quantum physics, foundational issues
- Accelerator physics
- star formation, ISM dynamics
- Nuclear astrophysics
- Brane Physics
- gravitation
- magnetohydrodynamics
- AGN astrophysics
- High energy theory
- String Theory; Astronomy.

B2. Identity characteristics – Role

Q2. From the following options, please select the one that best describes your current role:

- postdoc
- Post doctoral fellow
- PostDoc
- jobless because of off-mainstream research
- PhD student
- Research Director
- Research staff
- Staff Astronomer
- Postdoctoral Fellow
- Experimental Physicist/ Lab Staff
- support scientist
- Visiting Scholar
- support scientist
- Government scientist
- Staff astronomer at a U.S. national centre
- postdoc
- Retired
- Professor emeritus
- Research Physicist
- post-doctoral research fellow
- Grad Student
- Research Scientist
- Associate Research Scientist
- staff
- postdoc
- Ricercatore Astronomo/ Astronomer
- Postdoctoral staff researcher
- PhD student
- Postdoc Fellow
- engineering staff member
- Senior researcher plus honorary associate professor
- Tenure track
- Research Staff
- PhD
- I hold a joint position in research and E/PO
- permanent reseach staff
- post-doctoral fellow
- Astronomer
- Graduate student
- PhD student
- Research Engineer
- postdoctoral researcher
- emeritus researcer
- PhD candidate
- Technical Staff member, National Laboratory
- Staff Scientist
- Retired research

- Senior Astrophysicist
- PhD student
- Postdoctoral fellow
- post-doc
- Postdoc
- Postdoc

B3. Identity characteristics - Responsibilities

From the following options, please select those that best describe your current responsibilities (tick all boxes that apply):

- Chair of the Publications Board for a [*information omitted*] -person collaboration
- jobless because of off-mainstream research
- Research Computing Manager
- Coordinator, EU Research and Training Network
- former Deputy Letters Editor for [*information omitted*]
- Satellite science operations
- Industrial R&D
- Manager of research/data centre group
- user support, tool/pipeline design
- spokesperson of international experiment
- Observatory Director
- public outreach and management of satellite instrument project
- Retired
- Editorial Board of [*information omitted*]
- Instrument project management
- Editor of non-peer reviewed journal
- Subject specialist
- Research & Development
- referee
- Dean of sciences, [*information omitted*]
- Webmaster
- Public engagement in research
- space missions: software development and mission planning
- Director of astrophysical institute
- Development of future telescope facilities
- head of observatory
- radioastronomic instruments maintenance
- Edited two International [*information omitted*] Workshop Proceedings Volumes (Kluwer, ASP)
- Admin support (Associate Derivative Classifier, Classified Matter Protection Custodian, grant opportunities support) for group at National Laboratory
- [...] assistant director of the Instıtute
- support scientist
- VLBI friend at Noto radiotelescope
- about to start 1-2 year stint as temporary bureaucrat in US Federal science agency
- Ordering books for Physics library

B4. Publishing your research - Written form of research outputs

Q6. In which form is your research most commonly written up?

- arxiv
- internal notes (experimental collaborations)
- semi-public, electronically-distributed reports
- presentation files for meetings and conferences
- Technical documents, wikis, web-pages, etc.
- research notes
- technical memos
- none
- film documentaries
- Direct web publication
- Technical report
- arXiv preprints

B5. Publishing your research - Preferred peer review journals for publication

Q8. In which of the following peer reviewed journals have you published your papers?

- General Relativity and Gravitation Journal
- Nuclear Physics B
- CQG
- JCAP, PASP
- JHEP
- JHEP
- BASI,ChJA&A
- physics letters B
- Astroparticle physics
- Classical and Quantum Gravity
- Physics Letters B
- New Astronomy, PASA, PASP
- Physics Letters B, Modern Physics Letters A, Int. Journal of Modern Physics D
- Applied Optics
- Nuclear Physics B, Classical and Quantum Gravity, IJMP
- Nuclear Physics B, Journal of High Energy Physics, Classical and Quantum Gravity, International Journal of Modern Physics D
- Physics Letters B, Nucl. Phys. Lett., Classical & Quant. Gravity
- Astrophysics and Space Science
- International Journal of Modern Physics D, Modern Physics letters A, Advances in space Research, Bulletin of the Astronomical Society of India
- Physics Letters B
- Staistical Science
- Astroparticle Physiscs, Astrophysics Letters, Journal of High Energy Physics, Journal of Physics G, Nuclear Instruments and Methods, Nuclear Physics B, Physics Letters B, Reports on Progress in Physics
- Classical and Quantum Gravity
- Icarus, BASI
- Physics Letters B
- Astronomische Nachrichten
- New Astronomy, GRL, et al.
- American Journal of Physics
- astroparticle physics
- Ann Rev Nucl Part Sci
- PRA
- Astrophysics and Space Science
- General Relativity and Gravitation, Naturwissenschaften, Astrophysics and Space Science, Physics Reports
- New Astronomy Reviews
- Astroparticle Physics
- Only the last two years are listed.
- PASP
- JSID
- Publications of the Astronomical Society of the Pacific
- Astron. Nachrichten
- plasma physics and controlled fusion
- Solar Physics
- New Astronomy

- Astrophysics & Space Science
- cqq, nim, etc.
- JHEP, Nuclear Physics B
- The Messenger
- Annual Review of Nuclear and Particle Science, Space Science Reviews, Astrophysics and Space Science, Sov. J. of Nuclear Physics
- Classical and Quantum Gravity
- JGR, JASTP, Annales Geophysicae
- PASJ, JAA. BASI
- Classical & Quantum Gravity, Physical Review C
- Publications of the Australian Astronomical Society
- Publications of Astronomical Society of Japan
- JGR, Publications of the Astron Soc of Australia
- Astroparticle Physics, Physics Letters B, Class. Quant. Grav
- Physical Review C
- Journal of Physics G: Particle and Nuclear Physics, International Journal of Modern Physics D
- Z. f. Naturforschung
- Classical and Quantum Gravity
- Solar Physics
- Classical and Quantum Gravity, Journal of Mathematical Physics, General Relativity and Gravitation
- New Astronomy
- Other Phys Rev, Journal of Physics
- Astroparticle Physics
- Icarus, Contemporary Physics, Astrophys & Space Sci, Space Science Reviews, Proc. S.P.I.E.
- Physics Letters B
- PASP
- Journal of Geophysical research, Annales Geophysicae, Solar Physics, Geophysical Research Letters
- JHEP
- Solar Physics
- Future Generation Computing Systems
- Publications of the Astronomical Society of Australia
- PASP
- Space Science Reviews
- Historica Mathematic, Observatory
- PASJ
- New Astronomy
- J. Comp. Phys.
- Nuclear Physics
- JHEP, JCAP, Classical and Quantum Gravity
- Chaos, Solitons & Fractals; European Journal of Physics; Astrophysical Letters and Communications
- New Astronomy
- Publications of the Astronomical Society of the Pacific
- Physical Review E
- radiation physics and chemistry, revista mexicana de fisica
- New Astronomy, Rev. Mex. A&A, Il Nuovo Cimento, Mod.Phys.Lett. A, A&A Sup. Ser.
- PASP, PASA
- European Journal of Physics, IEEE Transactions on Nuclear Science, Measurement Science and Technology (IOP)
- Physical Review C

- Progress of Theoretical Physics
- JHEP, Physics Letters B, Int. J. Mod. Phys. A & D
- Classical and Quantum Gravity
- Journal of Computational Physics
- Nature Physics
- Annual Reviews of Nuclear and Particle Science
- Classical and Quantum Gravity
- Advances in Space Research
- Phys. Rev. E
- Classical and Quantum Gravity
- Astroparticle Physics
- EPJC
- Planetary & Space Science, Journal of Geophysical Research, Icarus
- PASP
- Revista Mexicana de Astronomia y Astrofisica
- Geophysical Research Letters, Faraday Discussions of the Royal Society of Chemistry (UK), Journal of Chemical Physics
- Modern Physics
- Review of Scientific Instruments
- Journal of Applied Physics
- Solar Physics
- SPIE, C.R. Physique
- PRSTAB, Applied Surface Science
- Astroparticle Physics
- Publications of the Astronomical Society of Australia
- New Astronomy Reviews
- JHEP
- Nucl. Phys. B, Phys. Lett. B, Eur.Phys.J.C, Fortsch.Phys.
- Space Science Reviews
- Icarus
- Solar Physics,
- Solar Physics
- astro-ph
- Applied Optics, Optics Communication etc
- Astroparticle Physics
- Physica A: Statistical Mechanics and its Applications
- New Astronomy
- New Astronomy
- Publications of the Astronomical Society of the Pacific
- Classical and Quantum Gravity
- Cryogenics, IEEE applied optics, SPIE
- journal of astrophysics and astronomy, bulletin of astronomical society of india
- Journal of Astronomy & Astrophysics, Bulletin of Astronomical Society of India and Korean Astronomical Journal
- Solar Physics
- pasp also computer science journals
- Physical Review C
- Classical and Quantum Gravity
- Acta Astronomica
- Clasical and Quantum Gravity
- Cryogenics, Review of Scientific Instruments
- NIMA
- Astroparticle physics
- none

- optics journals
- Nucl. Phys. B, Phys. Lett. B, Eur. Phys. J. C, J. Phys. G
- Nucl Phys B
- Journal of High Energy Physics
- Nuclear Physics B
- Physical Review C
- Electronics Letters
- Nuclear Instruments and Methods
- JQSRT(3), Mem.S.A.It (1), A&A (2), ApJ(1)
- Space Science Reviews
- Communications in Asteroseismology, Astrophysics & Space Science
- IJMPD, Spacetime and Substances
- new astronomy
- New Astronomy
- New Astronomy
- Modern Physics Letters A, Astronomical Notes, Nuclear Physics B
- Classical and Quantum Gravity & General Relativity and Gravitation
- New Astronomy
- Rev Sci Instr; PASP; Chinese J. Astron & Ap (suppl)
- GRG (Gravitation and General Relativity)
- Classical and Quantum Gravity
- Applied Optics
- The Observatory, Astronomische Nachrichten, PASP, New Astronomy, Romanian Astronomical Journal, J. Astrophys. Astr., Bulletin of the Astr Soc. India, Astrophys. Letters, A&A Supplements, JRAS Canada, MNASSA, Unt. Amateur-Professional Photoelectric Photometry Commun.
- New Astron. Rev.
- Journal of Quantitative Spectroscopy and Radiative Transfer
- JHEP, Nuclear Physics B, Physics Letters B
- Icarus, Journal of Geophysical Research
- quantum information journals
- Nuclear Instrument and Methods
- Physical Review C, Nuclear Instruments and Methods B
- Advances in Space Research
- Physical Review C, Nuclear Physics A
- NPB and JHEP
- PhysRevE
- PASJ and Progress of Theoretical Physics (PTP) Supplement
- Physics Letters, General relativity and Gravitation
- Journal of Chemical Physics, Computer Physics Communications, Spectrochimica Acta, Molecular Physics
- PASP
- J. Geophysical Research
- NIM A
- Icarus, Ann. Geophysicae, Advances in Space Science
- J. Opt. Soc. Am., J. Chem. Phys., Opt. Comm., Ast. Sp. Sci.
- JHEP
- Classical and Quantum Gravity
- JGR, Solar Physics, Ann. Geophys. , Space Sci. Rev.
- Nuclear Physics B, Physics Letters B
- Physics Letters B, International Journal of Modern Physics D, International Journal of Modern Physics A, Modern Physics Letters A, Physics Letters A.

B6. Publishing your research - Factors affecting the scientists' decision where to publish

Q9. How important are the following factors when you choose where to publish?

- requirements of host lab
- speed of review process
- quality of refereeing process
- rapid response
- I think K is part of J. Not being published as a paper version is a bonus, as the paper versions are superfluous and wasteful.
- Faster referee process
- dictatorship
- good tex package, e.g. RevTex
- appropriateness for the subject of the paper
- interesting to read
- speed of refereeing process
- tradition of topical coverage
- Speed of review process
- turn around time
- Being able to access recent papers online for free
- easy to use web site (good example: ApJ, bad example: MNRAS)
- Speedy processing during refereeing process
- Speed of publication
- Time to publication
- Regular publishing, not just one or twice a year
- availability of colour reproduction
- Respected peer review. Easy publication of electronic data. ADS access. Open access is important but only after refereeing, if journals want a short restricted period that's OK by me.
- transparency of the review process
- time of refereeing process
- Personal contact with editors, participation as a reviewer
- Ease of the submission process.
- Ease of use in terms of upload process and Latex macros, avoiding publishers like Elsevier whose journals are very expensive.
- quick publication
- color figures welcomed
- Electronic access to subscribing universities
- period between submission and publication
- Journals that are available to libraries of small institutions at rational cost
- clear statement of policies
- speed of refereeing process
- Fast turn-around
- Good management and type facing
- past history with referees
- My opinion about the journal's quality
- Little/no Interference by editors in actual content. Selection of appropriate referees by editors and rejection of poor referees reports.
- papers published in the journal on the same general subject
- Editorial responsibility in the refereeing process
- quality of refereeing process

- Select a proper referee for reviewing
- Easy of dealing with Journal
- timeliness and quality of the refereeing process
- Speed of refereeing process
- quality of refereeing
- Duration of publication process
- un censored
- refereeing process
- Quality of refereeing
- Editorial care
- in ADS
- quality of the refereeing and editing process
- journal not being a private profitable business
- simplicity of the process
- electronically accessible
- Fast publication
- easy to use interface
- the journal that has no biases for certain areas of research
- Editor competence
- Do NOT like journals that exist to make a profit for a commercial publisher
- fair refereeing process
- Speed of review process/access to editor
- no restrictions on posting preprint
- promptness; proper handling of complex figures
- I boycott PRL because of their subjective criterion of broad importance
- Good refereeing record
- editors efficiency
- journal's science emphasis area

B7. Your as a reader - Keeping up with advances

Q10. How do you keep up to date with new advances in your field?

- Communications with colleagues
- Discussions with collaborators, astro-ph discussion meetings
- receive alerts from IoP
- informal discussions at work (eg, journal clubs, coffee talks)
- physorg.com forums
- use SPIRES
- I browse spires
- I go to the SPIRES website
- table of content RSS feeds
- conferences, workshops
- rss
- private communication / journal clubs
- eNewsletters, <http://www.manchester.ac.uk/jodrellbank/~agnews/>;
<http://aftar.uaa.alaska.edu/blazar/>
- Journal Discussion sessions, colleagues' recommendations
- journal clubs, seminars, conferences
- Montana solar e-archive
- I regularly attend seminars, colloquia and relevant conferences
- Talks, and I talk to people who read arXiv...
- I attend talks within my department and conferences
- I get my students and PDRA to do the searching
- Star Formation Newsletter
- Seminar, conferences, discussion with colleagues,...
- I used to use arXiv directly but find it overwhelming and now use ADS to filter
- conferences
- Field-specific mailing list which gives all recently published papers in field
- Talk to Colleagues and Students, attend conferences and workshops
- in most cases, I search for papers on the topic of interest
- Google Scholar
- talking to colleagues, conferences, seminars
- SPIRES
- e.g., using NED (<http://nedwww.ipac.caltech.edu/>) to find all publications on a certain object
- Attend Conferences
- I receive personal 'alerts' from colleagues
- community newsletters
- Regularly attending conferences
- I go to conferences
- RSS feed
- AGB newsletter
- SLAC SPIRES
- Discussions with colleagues
- colleagues
- I use a web link to a search for keywords in recent papers on arXiv
- Newsletters
- colleagues refer me to preprints
- conferences and seminars
- gossip
- seminars

- I rely on colleagues and students to alert me
- scientific meetings and live journal clubs

B8.You as a reader – Full text of papers - Sources

Q11. On finding an interesting title/abstract, where do you look for the full article (tick all boxes that apply)

- ADS
- SPIRES, ADS
- ADS
- NASA ADS website.
- ADS
- arxiv (only for not-yet-published papers)
- forums
- ADS
- ADS web service
- SPIRES
- ADS
- SPIRES website
- SPIRES HEP
- ADS
- ADS
- ADS
- ADS
- ADS, my library's electronic journals
- web of science
- SPIRES
- I check arXiv first, then the journal website; if not available at either one, then the print journal
- ADS
- ADS
- ADS
- ADS
- ADS
- ADS
- NASA ADS scanned articles (for older publications)
- ads
- Whereever the ADS link takes me to a printable copy!
- ADS
- ADS
- ADS
- ADS
- ADS
- ADS
- ADS
- ADS
- NASA ADS
- ADS as secondary to arXiv
- journal sites, but linked off ADS
- ads
- ADS website
- ads scanned archives & electronically linked texts
- ADS direct link
- My University's electronic collection of journals
- links to journal websites via ADS.
- ADS
- ADS Search Engine
- University Library website

- ADS
- ADS
- SPIRES
- ADS
- ADS
- ADS
- ADS
- ADS
- ADS
- SPIRES-HEP database
- Links from ADS
- ADS
- links through ADS
- Other search engine = ADS; Google scholar usage rare
- ADS
- ADS website
- I usually go to the ADS website
- ADS
- wherever ADS takes me
- ADS
- full text via ADS
- ADS
- NASA ADS
- Journal's website via ADS
- ADS
- ADS
- ADS
- I only go to the printed copy of a journal if I cannot access it on-line.
- ADS
- my Institutional library internet page
- ADS links
- ADS
- ADS and Google, Google softens directs to Science Direct etc
- ADS
- Spire
- SPIRES
- SPIRES
- ADS (which provides link to article in journal's website)
- ADS
- ads
- ADS
- ADS links to the publisher's site
- ADS
- ADS
- ADS
- ADS
- ADS
- hep-spire
- NASA ADS
- NASA ADS
- ADS
- SPIRES
- NASA ADS
- ADS
- link from ADS
- ADS link

- ADS
- ADS
- ADS link
- ADS
- ADS
- ADS
- ADS
- ADS
- ADS
- ADS
- SLAC SPIRES
- hep spires
- SPIRES
- ADS
- ADS
- ads
- ADS
- ADS
- ADS
- ADS
- ADS
- ADS
- ADS website
- ADS
- my library's e-journal subscription links
- ADS
- ads
- ADS
- ADS
- SPIRES and ADS
- ADS
- ADS
- ADS links

B9. Use of the arXiv – Reading papers norms

Q14. On finding a new paper of interest on the arXiv what do you do?

Depends on the paper/circumstances/time (please specify)

- depends on time and length of the paper. generally i read abstract, intro and conclusion and quickly browse the content before deciding to read the paper.
- usually read abstract, download some papers, read later
- Depends on how interesting the paper is. If only a little, I bookmark the arXiv page of the paper. If a bit more, I print it out and put into a pile where it may be read sooner or later. I never wait for the published version on purpose - it would be pointless.
- Paper, browse quickly.
- If the paper is important I might go to the publisher website.
- read about 1 paper per day (if interesting)
- i read them when i find the time
- I read abstract immediately and try and read the papers in a few weeks
- if very relevant to my current research I print it. Otherwise, I store title, number and short comments on a personal wiki I have on a flash memory card.
- Varies a lot; I usually read the arxiv version, but I am more likely to wait to read the paper if it is only the "subitted" version not the "accepted" one.
- I print them and read when convenient, ad then file them.
- If brief/interesting I read rightaway - otherwise file for later reading
- Scan paper contents within a few days, read thoroughly if appropriate within a few weeks.
- I read very interesting papers immediately, irrespective of whether they have passed peer review. For others I usually wait for the refereed version.
- More likely to read arXiv papers if they are already accepted; tend to only read papers that are merely submitted if they are highly relevant to my work
- I read some straight away, for others I just keep a copy of the abstract
- usually I print it out, put it in a pile based on subject and read when relevant. If the published version is out by then, I will substitute.
- reputation of authors, topical interest, not of submission or acceptance
- relevant to own research immediately/ not relevant but interesting on weekends
- Depends on paper and time. I usually read the abstract from the arXiv and if it is interesting enough then go for full paper.
- Usually time pressure
- Read the abstract. May download the paper and browse if I have the time
- generally read on a "need to know" basis unless particularly interesting
- virtually never return to final published version!
- Usually I read papers related to current research needs.
- usually print off and read when travelling
- If accepted, I'll read.. if only submitted, I'll probably have a look at the figs.
- if it's unpublished then I will read the arXiv version, but if it is published then I will always try to read the final version
- Read straight away if time permits; otherwise note details and read later (possibly published version)
- Depends whether paper is accepted or just submitted
- check for published version, otherwise read paper straight away
- Prefer refereed version, occasionally I need info rapidly so I use arXiv version
- print it and read it as soon as I can
- if directly related to my work, I read the arxiv version, if generically interesting, I earmark it for later reading in the journal
- Print out then read when not busy

- I read the accepted version of the paper, preferably, unless the paper is very closely connected to my research, in which case I read drafts.
- I prefer to read accepted papers, unless the topic is very hot
- Read a promptly as possible depending on available time
- abstracts right away, full papers later as desired
- if the paper is 'accepted' in a journal then I'll read it immediately
- Pile them on my desk - read when time permits
- I read them straight away *if* they have been accepted for publications. I do not read 'submitted' papers
- Depending on the no. of pages (depends on format) I may print out to read.
- have a look and read more carefully later
- I usually print it out to read when time permits (and often it doesn't!)
- Print a copy to read later in the day
- I flag papers for reading when I find time to do so
- sometimes I print and read in subway or at home
- immediately, if very relevant; published version if less urgent or not yet accepted
- relevance to my own research
- if busy, may bookmark the paper or print it for later
- depends on all three of these
- read the abstract; come back to it when I have time
- If the paper has an impact in my research I read it right away otherwise I read it later when I see it published
- Print it and try to get to it during the week ahead
- Usually I read the abstract and skim the paper right away, then archive the pdf for later reading with the application "Papers"
- I often print the article and read it within a few days
- print and read
- I (usually) read straight away only the 'accepted' papers
- Sometimes read right away, sometimes download and read later, sometimes simply note in my abstract database
- I read some right away and download the PDF files of others to read later
- very interesting i print out, mildly interesting i read in journal
- I read abstracts straight away and save the file to computer to read the full article later in the day
- Tricky; if of immediate importance, I read it. But I do actually prefer to see the paper has gone through a refereeing process.
- read abstract immediately, then download if interesting, then read more if still interesting
- Keep track of paper for future reading (on arXiv)
- I read papers on a topic I am actively working on immediately.
- time or whether I plan to cite it
- It depends on my time availability, but I usually read it within the same week.
- I prefer to read the final published version if already available.
- If peripheral, I download to read later. If directly relevant I download and read immediately.
- I wait for the published paper if I know that there will be one soon or if I have the feeling the paper is an early draft.
- I don't generally read papers not yet accepted
- I read papers of direct relevance to my work straight away. I keep records of other interesting abstracts for future reference.
- I read as much as I have time to read straight away
- print it out for later reading
- I tend to bookmark the papers and read them when I have time (e.g. on trains or planes).
- print and save for later

- usually wait to read papers, but not waiting for specific version
- depends upon how busy I am and how interesting the paper looks
- I print it and read it
- depends on the relevance of the paper for my research at the moment of noticing
- I prefer to read the paper when it is accepted by the journal
- Time
- I read the paper straight away if it is relevant to the research project I am involved at the moment, otherwise I wait for the final published version
- get paper immediately but read them as time allows
- If I'm busy I'll print it and hope to read it later.
- Record details and go back when time. Prefer Journal version when available.
- Will read it when I have time
- if journal copy already available, I may download it instead of preprint
- I generally prefer to read the final published version but if the paper has immediate relevance to my research I read it straight away
- If the paper is not accepted in general I wait for the accepted version
- The published version have usually smaller number of pages so, when printing, I always prefer the published version
- Usually within a few days
- I either read the paper or print the pdf file to read offline
- circumstances
- circumstances and topic
- Usually read them within a week or two.
- I keep the abstract
- depends on how close the topic of the paper to my current interest
- Read the paper away but only look at the final version if it interests me.
- print and read when I can
- I keep a note of the paper and read it later
- Depends on urgency and how busy I am.
- If the paper is directly related to my work on hand I read it immediately, otherwise I keep it for the time I am searching some references about that specific subject.
- Depends on how relevant the paper is to my current research and the time I have to read it
- Read straight away or later
- Read the Abstract -- if very interesting print it and read it later
- discuss it at our weekly journal club
- I download the paper and stick it in a ToRead folder.
- If it is newly submitted to the arxiv, I read the paper straight off the arxiv. If it is 'new' to me - e.g. a search on a topic brings it up - but old in the sense that it is already published in the journal, I go to the journal website.
- read it and download it
- I may just download it for later reading or read it straight away
- I scan if I have time, then print out for later (too often never) reading on train etc
- all three
- Accepted papers preferred
- I read immediately the paper if there are data or images
- depends on situation!
- hot news read immediately, others I print out and read later
- I only read papers already accepted for publication by a Journal; then I read the arXiv version
- Go through the paper straight away, but postpone thorough reading for another time
- read straight away, but if it's double-spaced annoying format, read from journal's website when published
- Peer reviewed versions on arXiv are preferred, followed by ads.

B10. Overlay journal model - Views

Q18. If you answered NONE of the above, could you please let us know your views:

- To be honest, I just do not know....
- It is really not clear to me the answer to this question.
- My choice between the above options would depend on how the journal was explicitly set-up in practice.
- I am currently satisfied with submission to refereed journals (and to arXiv) and then having the published paper on ADS. But ADS often includes only abstracts of papers in conference proceedings.
- I think this is interesting but not so important. It is not obvious that the pursuit of good science is limited by existing publishing models. If not, then this is not important at all.
- I am fairly satisfied with my current access to research outlets; nonetheless I think this is a change which will come. I did not check "this could be the future" because I do not think that overlay journals will become the only and maybe not even the predominant outlet.
- It is difficult to say 'this could be the future' as it will depend on the uptake of the overlay journal compared to existing publishing routes. However, I do think the idea is a little more than 'interesting' and to a large extent I believe its success will be down to marketing the overlay compared to traditional journals.
- The current arXiv model works for me mainly because it allows everyone rapid access to papers, but still rely on the traditional journals to perform the refereeing process. In that sense I prefer to see preprints only after they have been accepted/refereed. Open-access is good, but the quality of the refereeing will be essential to attract the right kind of papers.
- I think this is interesting and should be tried but I cannot yet be sure of its importance.
- I could have been saying "I think this could be the future for publishing research outputs." but you did not really explain to me what exactly you want to do. The devil is in the details and without an exact definition and correct and peer reviewed impact study, no person should be able to answer your question here.
- Actually, I would say ALL of the above. I think the traditional journals play a crucial role, so I am wary of new journals. On the other hand, I am all for a refereed, better organized arXiv.
- I don't have sufficient information on your model nor its consequences to judge.
- I think that this is an interesting concept and should be explored further.
- I think this is interesting and important. I don't know that I believe it to be "the future" for publishing research outputs. I am concerned about long-term archival, which assumes much greater importance when you are dealing with completed, peer-reviewed works as opposed to electronic preprints or open-access copies of material that is archived elsewhere.
- It is interesting, but it depends on how widely used by readers the system becomes. If no-one reads it, there's no point submitting to it.
- It sounds like an interesting idea. I am fairly satisfied with my access to research outputs. However, exploring and testing new forms of access can only benefit science. Even if this new experiment fails, it's still been useful.
- Well, I actually agree with the first item the most, but the real issue to me is what does publishing actually 'mean'? arXiv papers that are submitted before refereeing and then resubmitted 1-2 times are both annoying and scientifically irresponsible. If there was really a new category of arXiv that only had accepted papers, that is a plus, but even better would be to make it clearer to insist that papers should not even be posted on arXiv unless they have been reviewed. Too often I see papers never go past arXiv or get referenced many times despite having multiple arXiv versions. If we are not careful, publishing will lose all meaning, and we will be buried in an avalanche of half-baked, wrong, or deceitful papers that are never intended to be

refereed or critically reviewed. I note that these views are not meant to be inconsistent with my general tendency in this survey to disfavor printed versions of journals. I understand the cost/space issues. But I also want to emphasize that I do *not* favor getting rid of print journals entirely. If we were to do this, we'd basically be condemning all our 'published' output to a shelf life of a few decades at best.

- I highly support using ONLY the arXiv, and close all the Journals. However, I have a different view on how the referee should be done. I published it in a section (section 3) of a paper: [*information omitted*] I will be happy to expand my view if you contact me directly: [*information omitted*]
- I haven't thought about this model before so don't yet have an opinion.
- It will still need to gain credence and reputation before I send important new results for publication there.
- I think this is interesting, and it could be important. Currently I am satisfied with access to research; but it is clear that journals need to change/adapt, and different options should be explored.
- It is the first time I think about it and I don't fully understand the implications, so I cannot say I have an opinion.
- I think the non peer-reviewed arXiv papers are the most important. An overlay of "accepted" papers is O.K. if the acceptance standards are objective.
- I think this could be the future for publishing research outputs, however, if this is to replace all other journals, as it should, particular care has to be taken with the review process to allow authors challenge the peer review or editor; parallel alternate structures need to be in place.
- How is this different from the ADS notification service, myADS-arXiv?
- I think it could be the future for publishing, as long as you introduce a system for open peer review, i.e., readers being able to evaluate the papers. Evidently this will need some certification, but would go miles to remove the "evils" of peer review as we know it.
- I think this is an interesting concept, but as with all such proposals, there is the issue of a new, non-traditional journal lacking the "prestige" of publishing via more traditional channels
- arXiv allows for replacements. Journal would need to specify which version was peer reviewed and should be considered as "published". This may lead to confusion.
- It would be a monopoly built on the special institution astro-ph, whereas journals are in competition with each other for the best authors. I do not see a fair market situation protecting the authors interests, and therefore do not like the idea.
- Somewhere between the first & second answers -- I would need to know more about how it would work, though, to make a real decision about how important this approach might become.
- I do not understand the system
- I think this could be the future but am concerned about many issues that would arise with this solution including costs associated and quality of referees etc...
- In my opinion there should be only one journal for each different sub-fields of the subject in matter. The article to be thoroughly checked by experts of the field, based on purely scientific and logical investigations. There is no point in ranking journals with impact factor, if any work is based on purely scientific fundamentals then it is equally good and it should be accepted for publication, why there is need to grade any work i.e. any journal, if grading is needed then that only shows lackness of science in the work then those work should not be granted for final publication. The thing is there is no need of too many journals with different impact factor (grading, it look very unscientific), there should be only one journal for each sub-fields, if any work is based on science then it should be given place else should be rejected. Impact factor doesn't play any role in it. if it is science then it is science and if not then not. And if any work is of high value it will be known inspite it is published in any kind of journal and if it is not have any productive result then it will remain in dark. so there is no use of wasting money and time on publishing so many journal and then ranking

them, doing that it seems scientists are involved in some kind of business rather doing science.

- I think this is interesting but I cannot judge how important can become in future. And I am fairly satisfied with my access to research outputs (so... my answer is in the middle of the first two points). A point I have with this new idea is: do the "accepted" papers be in the same repository of the "normal" arXiv (so that it will not be that easy to find them) or will there be a devoted repository which keep them separated from the others?
- It is not clear to me how the scientific journals will evolve. I find the on-line access extremely convenient, and the few journals that I need which are not free on-line (Nature) to be extremely inconvenient. I think that a number of publishing models will have to be explored and I expect that several will survive. I am pleased that RIOJA is exploring a new model.
- Unsure as would depend on several factors. Perhaps a trial period would be good.
- I'm in the same department as the [*information omitted*] editor, which is switching publishers (so I hear about the snags...). I am also a former Scientific Editor for [*information omitted*]. There's a lot more to running an electronic journal than distributing the product! Your bare question sounds like you don't appreciate this. ArXiv has a major drawback for astronomy -- it cannot accept figures of any size. If you don't get that fixed, the journal project is a non-starter. I don't see why the file sizes have to be so limited, as it's not 1990 any more.
- Interesting, but would like to know more about the pros and cons. For example, electronic-only publishing seems vulnerable to loss or corruption in a way that hardcopy is not.

B11. Journal costs

Q19. Journals can provide a number of features. What fraction of the total journal cost do you feel should be spent on each feature?

- Ads
- referees = forums readers
- Production of DVD/CD ROM journal
- Would prefer to see modest contribution to ADS and Virtual Observatory-type facilities like Vizier to act as repositories/link/search engines for online articles and data. I want a one-stop shop, not individual publisher's websites.
- pay a knowledgeable people at the journal or associated with it who will read and judge the papers on quality and fit to the journal besides the referees. playing pingpong with referees is necessary but not adequate.
- Maintenance??????????
- No opinion
- data needs to be archived somewhere
- long term robust storage of articles in a form that can be adapted to future software applications
- This is a silly question to ask an author. Authors have little insight into these costs.
- I cannot be a judge on most of these issues
- to pay for those authors from developing countries who otherwise can't pay the page charges
- At present state of technology, I don't think that there is any necessity for separate publications and every thing must be an addition to arXiv.
- no basis for comparison
- Not my area of expertise
- I have no idea about costs -- find out what current journals do and weak it, don't ask the ignorant

B12. Sources for covering journal costs

Q20. Where should this money come from?

- personal donation
- authors should not pay anything otherwise the journal won't work.
- University site licenses
- 2 tier acceptance: accept without paper cost high quality papers, rest pay
- Adverts
- Online advertising if (and only if) the journal is freely accessible online (i.e., available to the public in general without a subscription)
- If its to come from funding councils they have to pay for it - in the UK they do not at the moment
- Readers from for-profit organizations. Why do they get our life for free and make profit out of it?
- Open access laws may change in the USA, potentially with big implications
- Selling copies if the papers/journal...
- I'd even be happy to have professional association dues go into this.
- I do not know
- Interesting idea to pay partially on submission; and then the rest on acceptance
- How about relevent advertising?
- advertisements
- Industries with related interests
- no opinion
- No opinion
- no opinion -- one size may not fit all

B13. Encouraging factors

Q21. What factors would encourage you to publish your papers in an arXiv overlay journal?

- Quality of the referees
- reputation by scientific community & impact factor
- I think the first two are the important factors.
- Quality of refereeing
- After the whole field moves to the journal
- None
- I do not see the need for this journal
- That copyright remain with the author (as is true with arxiv itself) and the journal receives a non-exclusive license.
- completeness in achieving such overlay
- Impact factor and the journal's weighting within the RAE
- Quantity of other high quality accepted papers
- Speed would be most important.
- Reputation of journal in Astrophysics community
- open access, guaranteed long-term archiving
- I would be happy to subsidise access to support scientists in developing countries have access - as authors of papers, as well as readers.
- relevant readership
- Acceptability on par with existing journals for RAE
- Competence of the referees
- None
- citations of articles published in the journal and reputation of journal. currently arxiv has *NO* refereeing - i.e. no standard and one cannot really trust any publication. Also the fact that people do not need to have papers refereed before they are cited means that research standards are dropping.
- impact factor and community respect
- Citations to existing papers in the arXiv-overlay journal (i.e. impact factor)
- Journal impact factor, once established, is very important.
- commitment to use only "free software" as defined by the Free Software Foundation
- reputation in the community
- I don't know. All of these things matter. I am reluctant to abandon the traditional journals. I do see a clear need for better focused, more topical journals. So far, I have found these (New Astronomy, Astroparticle Physics) to be less than worthless.
- Reputation of overlay journal
- Acceptance of overlay journal as high quality by community
- I'd wait to see if & how it works.
- I would do it only if it PROVED it had become the highest-impact method of publication.
- Breadth of readership
- None, I would not publish there.
- Demonstrated increased impact of papers over and above that of other arXiv papers
- IMPACT and READERSHIP -- journal must compete favorably with ApJ
- there are some reputation and tradition factors that go beyond the editor's reputation. The editor of ApJ could be an idiot and we would all still publish there.
- If it would avoid or save on page charges without sacrificing quality of reviewing
- Good and efficient peer review process (much more important than transparency)
- Quality of other accepted papers; reputation of journal
- whether or not I can get a job based on these publications

- How it competes on all aspects compared to other alternatives
- Reputation of journal within community - substantial numbers of authors moving away from existing journals.
- rapidity of peer review process, with no unexplained 'sinks' of time
- at present nothing would persuade me to do so
- Impact Factor for RQE purposes
- good support & style files (LaTeX), good copyediting
- Guarantee that the archived paper is peer reviewed and unchangeable.
- Better and less arrogant arxiv policies!
- Free access to: [1]paper, including submitted version and modified version(s) through the refereeing process; [2]latex source files; [3]associated data
- I will continue to use ApJ and AJ
- avoiding the expense of scientific budgets into the profit of private organizations
- I don't publish any paper
- the Editorial Board should be truly International/ One can elect or promote Editorial board members every 3 year term, like in IAU Commissions
- Cost
- Lack of fees
- less wastage of important resources on junk papers
- Impact of journal
- Ease/speed of publication process and good referees
- My ONLY consideration is if it would be considered as good as a peer reviewed journal when my research is assessed
- a more transparent refereeing process
- quality of *accepted* papers
- Demonstrably high refereeing standards
- No opinion
- Possibly cheaper, if overlay journal doesn't have some costs of traditional journal e.g. paper version, copy editors
- impact factor, guarantee of permanence, quality of peer review

B14. Concerns

Q23. Are there any factors which would make you sceptical about submitting papers to an overlay journal?

- Fear of not being recognised by funding bodies as a "valid" journal.
- In order to be interesting such journal should offer something arxiv does not offer. some thoughts are: peer review process 'intelligent' search engine (based on research topics, key words, related research area, etc..) 'intelligent' access/search to other journals articles, e.g. referenced in ADS. In general the use of internet/archiving techniques is not something current journals use efficiently, this might be a niche for a new journal.
- low visibility and impact; in other words how to estimate "confidence" that papers will be cited and recognized as "good" as in other traditional journals.
- tenure review process may disfavor publication in new journals compared to established journals
- If overly large amounts of crap make it through.
- If the refereeing process was as bad as it is e.g. for Physical Review.
- no
- usual rick associated with new journal, the impact factor may end up being low.
- If it has a tendency to accept bad papers
- Quality is crucial. Impact factor will follow.
- None
- no
- Have not ever submitted to JCAP, so do not see myself submitting to the overlay journal soon either. Old habits die hard.
- Need to show benefits over current system for MNRAS, which is 'free at point of sale' to UK researchers.
- Low quality of science. Low quality of referees work.
- If there is no refereeing If all the editors are unknown to me
- return to the old dictatorship of traditional journals!
- Their acceptance or impact on the community.
- Only the traditional problem of having my papers "count" when I'm applying for a job.
- No
- Yes, If no senior researchers do. In practice I would wait until the Journal Impact factor grows up to the level of the best journals in the field. Then I would start submitting papers to it.
- Erosion of referee anonymity
- I do not see the need for this journal. The current publication model is not, in my view, broken for Astrophysics. The main journals are published (efficiently) by academic societies. In some academic disciplines the publication model is broken, with journals being run for profit by publishers. Its not broken, so don't fix it.
- If none of the obvious deficiencies with existing publication models were improved on, in particular biases (scientific, institutional or otherwise) that can appear in the refereeing process.
- #NAME?
- Overlay journal's record of bias in publication selection.
- Longevity of funding sources
- At present I'm not sure it would be perceived as having the same standing as a refereed paper in ApJ or MNRAS; hopefully this would change with time, but I think there would be a year or two before this was accepted as equivalent. So for junior researchers it might be seen as a risk, whereas for senior researchers they wouldn't lose out by people not accepting this mode of publication initially.

- In my case, the national funding of Institutes/universities is (among many other factors) linked to publication rates in refereed journals. Here, a clear distinction is made between the most prestigious journals (based on bibliometrics such as citation statistics) and other journals. Any overlay journal would need to be in the former category, otherwise most astronomers in my country would continue using traditional journals.
- No. I think overlay journals are how publishing should go.
- No quality control in typesetting, visual layout, copyediting
- If the standards/quality of both the papers and the peer review process are not widely respected.
- I don't fully understand the model. What makes it distinct from the standard journals?
- low quality of refereeing
- Yes. Even in refereed journals with inadequate editing and copy editing and inattention to referee's comments, the quality can be embarrassingly low. I would not want to publish in a journal with poorly written and edited articles.
- The amount of crackpot papers on the arXiv would require any overlay journal to have as tough or tougher refereeing standards as the current journals.
- would stay against the reputation of high impact journals, so many papers which should have been rejected end up there (comparable to JCAP)
- I can find a 100 year old copy of many journals. Will online-only journal articles be accessible in 100 years?
- Only that the established network of journals seems to work fairly well.
- primarily reputation. I mainly submit to ApJ, which has the highest reputation in my field, it's hard to compete with that.
- Fundamentally the RAE ranking. This, as far as I'm aware, is based on impact factors and its very difficult for a new journal to get decent impact, as can be seen by the inability of new journals to supplant ApJ and MNRAS.
- Acceptance of community
- You get what you pay for. I'd need to understand the business model for the journal including its "longevity" --- i.e. will it be archival in the classical sense of the word.
- I have seen other fledgling journal efforts fail, despite good intentions. It is not clear to me there is a market for a new journal.
- Right now, publication in archival journal (i.e., something more than the arxiv) is important only from my employer's point of view, i.e., for raises and promotions. I feel it contributes nothing beyond this to the scientific enterprise. However, I would be concerned that an overlay journal would not be considered a "real" journal from the point of view of the university administration.
- (1) Presence of poor quality papers (2) Lack of interest in rejecting mediocre papers (3) Small audience
- Startup issues -- will the journal survive? Will it attract quality submissions? Will it make errors in archiving and retrieval?
- Some guarantee of permanence.
- If the quality of the papers were perceived to be low, or the editing shoddy. Would also suspect that I'd stop if the impact factor were not high.
- I'd need to assess if there are any limitations in access to papers for other interested parties.
- reaching critical mass - would have to be sufficiently interesting for enough submitters to participate.
- Still unclear how it works. A sample 'issue' might have been useful before this survey.
- long-term archiving print version
- Transparency of peer-review process is crucial. Submission to an e-print repository must remain an additional and independent choice from submitting to an overlay journal. Financing and administration of repositories must remain independent of that of the overlay journals.
- Do we need another journal? Would it have the take-up required to be worth the effort?

- ADS is truly wonderful and any journal should be fully accessible thereby. Non-refereed papers should not clutter up arXiv - if a result is really urgent, use Astronomical telegrams! Models in which the author pays but reading is free don't really help the 3rd world as it makes it harder for poor institutes to publish - Africa is not just a passive consumer of science (sorry to go on about this, maybe it is not your model, but it has been raised many times in a similar context).
- Reputation takes time, benefits may not be obvious in the early stages of such a journal (i.e. why would it be better than an arXiv preprint of a paper accepted by an established journal; the preprint is effectively open-access)
- Need to be sure that papers visible are accepted and not released prior to that.
- Standard of refereeing, permanency of archives
- no
- no
- Honestly, I'd have to understand more about the whole process first.
- Whether the publication would be considered "prestigious" by Research Assessment Exercises.
- Reputation and quality of refereeing
- Quality of refereeing is everything, and this comes down to choices and judgment of the editor, so choosing the right editor is crucial. One or two bad experiences and authors will go elsewhere.
- Lack of effective vetting of new submissions
- Yes. It is difficult to believe that suddenly, everyone would submit his/her favourite result in a new, not yet established in reputation journal. Look at the fate of New Astronomy or Experimental Astronomy (the former is not an entirely failure but close). That means the best astrophysical papers would still go to ApJ, MN, A&A and nothing changes. There is too much inertia in the community and as building someone's career strongly depends on the impact factor, I cannot see a sea change to come.
- I am concerned about having the science seen, perceived properly, and cited.
- how would you manage the volume of publications submitted. in the hypothetical situation where all arxiv submissions are published by you - this is the volume currently published by 5-6 major journals with several decades of experience. I am skeptical that any standards would be maintained. Currently we *know* that arxiv papers are likely to change significantly on refereeing so are careful to watch out for the refereed version before we assume a certain result is valid. It would take decades for your journal to achieve the kind of journalistic credibility currently held by ApJ, MNRAS, Nature, Science etc.
- It might live. It might die. You have to establish yourself, then it will come. Why should people waste their time publishing in a journal which goes away any time. Longevity is usually provided by a solid backer with huge inertia and proven longevity (e.g. IOP or APS). You must have one...
- Other similar electronic-only journals have not been very successful, while the electronic forms of existing journals are already sufficient. I would rather just publish in the established journals.
- It will require time to establish a significant impact factor; in the absence of a theme which ensures impact (such as annual reviews, etc.), this seems difficult.
- As with any new journal it will take some time to establish the quality of the papers produced by the journal and the reputation it will be able to build amongst the senior members of the field.
- What I'm unclear on is how this would impact the current arXiv, which also contains extensive non-refereed holdings. The overlay journal would have to be clearly distinguished.
- no
- It adds yet more confusion to the subject of publishing standards and judging the quality of them
- I would be sceptical if this were a purely commercial venture.

- I would need to be convinced that the quality of the peer review is comparable to that of established journals.
- Untested at this stage
- Longevity and permanency
- An overlay journal not being a very widely recognized format, I feel its impact factor & recognizability would be low. Furthermore, I feel that a careful copyediting adds to the quality of the final, published version.
- The Journal might not be taken seriously in all continents. I.E., it might be respected in Europe, but not in the US.
- Simply put: until such a journal achieves sufficient status/impact factor to make it equivalent to traditional journals in the eyes of a tenure committee, I would not currently consider submitting to the journal for publication. It would be suicidal. Once I'm tenured, it would possibly be a different story. I think an open-access overlay journal is a great idea, but it is facing a tremendous institutional inertia with respect to funding models and perceived status that junior faculty and postdocs cannot afford to ignore.
- We are all under severe pressure to read the huge amount of published papers. Names and established reputations of journals help to classify where to put the limited resources. A new-comer which has its prime advantages in the interface and cost (for libraries etc) first has to establish a quality label. Thus it will be risky to help the start-up. My other point is that I do not see easily that the long-term archival access of an overlay journal is given on the same level as with printed and well distributed classical journals.
- Yes, it likely would not have the same perceived value as established scholarly journals.
- lower perceived scientific standards; possible rise in traditional journals' costs and split of science/publishing scene into high- and low-budget classes
- Currently I see no need for launching another journal. In astronomy, we are in the fortunate situation that all journals are owned by the community (and not by publishers). I've seen no model where the cost per page (including html markup, language editing, reference checking, web-site maintenance) is appreciably lower than, say, for A&A. JCAP, for example, strongly supports this view -- the subscription price per page is several times that of A&A.
- Once in a while, everybody attempts to publish a good paper which gets rejected multiple times. Such things just happen; so, in my opinion, an overlay journal should be an addition, but not a replacement to the arXiv server.
- This is not scepticism, but the journal would need to reasonably quickly (few years?) get accepted on the Thomson-Reuters Corporation list of scientific journals, also known as the "Master List" of Thomson ISI/Thomson Scientific or in Poland, "the Philadelphia List" in order for Polish scientists to publish in it without risking funding loss. http://en.wikipedia.org/wiki/Institute_for_Scientific_Information
- Sounds similar to the present state of affairs. Most papers already reside both on a journal's web-site and arXiv
- I would like to see that the journal provides something else in addition to a peer review process, so that it will be attractive enough to a wide portion of the community. For instance, including in the webpage material related to the journal like high resolution graphics (and even movies), scanned notes, etc, will be definitely a plus.
- The perceived quality of the papers will be very important.
- Quality and perceived quality of refereeing
- I would want to be sure of the quality of the referees.
- I think the critical issue is credibility. There is a lot of nonsense on arXiv, so any refereeing process that can be overlaid on that is beneficial. But the real issue seems to me to be the establishment of a reputation. Why should I start submitting papers to a new journal in preference to well established, credible publications like ApJ and MNRAS?
- Insufficient refereeing. Insufficient impact factor.

- Quality of the refereeing process
- The reputation of the journal is important. If poorly known, I wouldn't use it.
- If it became the journal of last chance for rejected papers from other journals, and if the community did not embrace it as a high quality, low cost substitute for the present journals.
- Not really...
- The arXiv is instant and has immediate impact therefore I still consider submitting to this the priority.
- the main concern I'd have towards new publishing journals in general, is the impact that an accepted paper would make to the scientific community. Given the lack of history of the journal (by definition) people has to make up their mind on the level of the publications. The credibility of the editors, the referees, and, mainly, the importance and *reliability* of the first publications on the journal are definitely key factors.
- The same as make me sceptical of any new journal: will it simply add to a paper glut or will it fill a need that is not otherwise being filled?
- I do not want "trial by media" instead of refereeing.
- Acceptance comes slowly, and until it comes, impact is reduced. I invest too much work in my papers to want to make them be part of an experiment. I will not be surprised if publishing evolves in the direction that you propose, but this evolution has to prove its success before I am likely to take part. One benefit of the present situation that I would not like to lose is a consequence of diversity: different journals have different aims and standards, and I can tell some useful things about a paper by where it is published. A similar situation might eventually exist with overlay journals, but I would not like to see just one of them, and any pattern of behavior that involves many of them will have to be established over a considerably time.
- Don't quite see the point.
- ApJ, MNRAS, and PRD seem sufficient. Not entirely clear there is a need for another journal. These existing journals already publish plenty of papers which are of dubious merit. It's not clear to me there are enough worthwhile papers to go around.
- As a new journal, it would have to establish itself in preference to other journals before I would consider using it.
- I think I would feel uneasy if there are not an existing reasonable number of users, as it might lead to doubts about my work. Unfortunately it is hard to get a large number of users using it straight away.
- reputation
- Yes, if the journal acquired a reputation for accepting papers of questionable quality.
- We have to make sure that this takes off as an accepted mechanism for publishing research. arXiv has been so successful, especially among the mathematics community, that I am sure it would take over from the current journal model if the prices came down.
- WE already have in effect 'overlay journals'. Everything an overlay journal provides, is already provided by the major journals. There is therefore no incentive to 'publish' a paper with a new journal, nor to expect anything worth reading to be published there.
- It takes many years to build a reputation as being a "good journal", probably at least a generation. Reputation partially determines impact and impact factor is very important to most authors. If papers can be published in BOTH the overlay and normal journal (e.g. MNRAS, ApJ etc.) then I'm sure some people would also publish in the overlay journal. However, most authors want to be sure that their (and/or their students') papers have a high impact. They will therefore want to AT LEAST publish in an established traditional journal. "Experimenting" with only publishing in an overlay journal may not be attractive for this reason. There may also be strong pressure from funding agencies to publish in the traditional journals since many people's funding is partially determined by the number of papers published in high impact journals.

- Archival integrity. Given the way data storage changes (quite radically every generation or faster), some guaranteed way to ensure that ideas are not lost to technological change is crucial.
- The 'overlay journal' concept is not really a problem. The main issue in starting a new journal is to make it compete favorably with existing journals. Unless the impact and circulation (number of readers) is better than the existing options (ApJ, PRL, MNRAS), there is no point.
- If quality of the papers is not good enough they will not be freely accessible
- Not that I can see at this moment
- Low numbers of papers and low scientific and typographical quality of accepted papers.
- It just depends on how good and selective the journal is. I don't care if it is overlay or not. My papers are always on the web once I have submitted them.
- Most of my skepticism lies in the uncertainty of the quality of the final product. If the journal would have high quality science and reasonable rates of citation, I would be more likely to use the journal. But I would not like my papers to appear in the journal if rigorous scientific standards are not kept, and/or if the readership was small and citation rate low.
- Will it be easily citable? Will the citations be fully tracked? What will the Impact Factor be?
- I think some in the community would not see it as legitimately refereed. I also think it would be difficult to deal with some of the integrity issues -- eg, making sure that the "accepted version" is clearly the version that people are downloading from arXiv.
- Quality of other submitted papers
- I would need to be convinced that it is accepted as a respectable journal by the community.
- It would need to be counted in my country's funding schemes (which are currently highly weighted towards journal impact) otherwise the financial hit to my department if people published in an overlay journal could be severe.
- Not sure if others will follow suit
- The fact that it is new, but only until it becomes popular among the leading scientists.
- How is the project different than JCAP?
- Low quality of figures (arXiv has strong limits on file size of included figures, which leads to fuzzy, low-resolution versions of figures which are hard to read).
- The most important aspect is to have a high quality refereeing system; so that only good papers are accepted. To be successful, the journal would need a good reputation.
- Its experimental character, uncertain reputation
- While I believe that it is important to adapt to modern electronic reality, I do not see a need for a new journal, rather than updating the procedures of the existing journals. In addition, an overlay journal will need to deal with the issue that the journal does not have full control over its own archive which will also have to serve other communities with (possibly) other priorities.
- The main factor to me is the quality (and perceived quality) of the journal. It does me no good to publish papers in a journal unless other researchers will take that work seriously.
- As a young researcher, the acceptance of the journal publications for my career advancement is particularly important for me. Consequently if the overlay journal is not initially well accepted by the community, I would be reluctant to publish there exclusively. Other more general concerns (e.g. the general quality of papers published) I have already mentioned above.
- If I understand your idea correctly, you are planning to make public every paper since the moment of submission. This is not what every author wants. If an author wants his/her article to be public since submission, he/she will simply post it on astro-ph immediately.

- Just the overall quality...If the thing gets stuffed with crap, I am not going to be that interested - or if it doesn't have enough interesting papers, then again, doesn't seem that interesting.
- IF it is not commonly accepted as a good idea and not being read...
- It really depends on the acceptance within the community.
- No
- I am sceptical about purely electronic journals. Will there be print version?
- It has to be verified how this new form of publishing is perceived by funding agencies and faculties. Often when presenting a project/applying for a job there is the bad habit by review committees, of applying the impact factor of the journal as weight to the publications of of the applicant(s). If this use persists and the impact factor of the overlay journal is lower than that of traditional journals I will be encouraged to publish in traditional journals. I note in passing that there is an indiscriminate use of the impact factors provided by ISI, which have been proved to be wrong and unreliable for astronomy (see <http://www.astro.su.se/%7Eaage/OSA5.pdf> and all the querelle on the impact factor of A&A). ADS is by far more complete than ISI and should be used for measurement of impact factors.
- The impact factor of such journal would be important for me and I guess for most scientists to whom the impact factors of their publications are somehow evaluated
- NO
- Nothing I can think of now.
- I would need to be convinced that there would be both adequate peer review, editing (including language editing), and long-term arrangements for archiving and access. The latter would need to be comparable to what long-established learned societies provide.
- I would be reluctant to submit papers until/unless it became clear that the standard of refereeing was at least comparable to journals such as MNRAS/A&A. At the moment, I feel that these journals provide a rather good service - hence I don't feel the need to switch to using another type of journal. However, I am aware that it is growing more and more difficult for the traditional journals to fund themselves and therefore I realise that an alternative model for scientific publishing may be needed in the future.
- Reputation
- Achieving "critical mass" quickly enough. A considerable amount of resources has to be spent on early PR and outreach. Also, any new journal has to compete with existing journals: There should be a strategy for this
- Absence of paper copy
- Why do we need it? I don't see what problems with the current system such an overlay journal would solve.
- The arXiv already contains contributions with a very wide range of quality. It seems to me that an "overlay" journal would blur the distinction between peer-reviewed and unreviewed work, and leave too much discretion to authors about what actually gets posted after acceptance. Would papers be forcibly frozen (which would seem to defeat the purpose of arXiv)? Or would "published" papers be continually evolving? I'd like to see some details before endorsing this approach.
- Only that I would probably wait to see if good papers are being published (but not for too long). This seems very similar to my feelings at the launch of JHEP.
- perceived value in large community (e.g. for grant applications/tenure review etc where reviewers are not astronomers)
- Small impact, obscurity of journal
- I would not like to be exposed to all and sundry through my work.
- Not sure at this point. I would have to know more about this model and think some more about it
- no
- low Cost, and high standard
- The peer-review must be objective.
- No

- No
- The final look of the paper is very important. I find ApJ papers much easier to read than, for example, A&A.
- Bad referring process; some referee comment need to be competently assessed by the editors. This requires many editors. So, too few editors who a swamped with papers would be bad.
- The biggest problem with arXiv-astro-ph is that the papers are not uniformly refereed and they can change with time. These make them unsuitable as a primary journal.
- seems hard to get going!
- I'm not sure how much it would be in my field - instrumentation.
- It would have to build a good reputation very quickly: possibly taking over from an existing well-reputed journal.
- In case page charges for publishing is introduced, it can be waived off for the scientists coming from the economically backward countries or who don't have funding from any agencies.
- high manuscript acceptance fraction
- Quality of whole process. Present discussion seems ill-defined.
- I am happy with the current journals, the overlay capabilities exist via ADS, who needs a new bureaucracy?
- yes. If only a small group of research appears in the Overlay Journal.
- If very few people use it, then of course I would rather avoid it as well. But otherwise, I'll go for it happily.
- All new journals have no track record or status in the community. It would take several years and an acknowledged, community-wide acceptance that such a journal is the place to look for the highest quality work. I can't imagine such a journal having the impact or reputation of Nature, ApJ, or MNRAS until it has successfully operated for a decade or so.
- Younger collaborators may be driven by the fact that papers published in some well-established journals may get higher rating during their career reviews.
- I do not see the business model as being viable, especially when considering the long-term archiving and access commitments necessary for a front-line journal.
- The most important things to me are a rigorous peer-review process (to ensure paper quality) and easy accessibility of the journal articles via ADS and the arxiv. I believe that another secondary issue is an attempt to bring the journal to the mainstream - in essence, you need a critical mass of people who are willing to contribute to this journal, and that is hard to do.
- I believe there are already many possibilities to read articles and have data in the archives
- Impact factor.
- It would be a monopole built on the special institution astro-ph, whereas journals are in competition with each other for the best authors. I do not see a fair market situation protecting the authors interests, and therefore do not like the idea.
- Not be sure that the refereeing process is rigorous enough
- the long term archive appears to me a major problem
- Would a peer-reviewed paper be obvious, as opposed to a non-reviewed submission? (to filter reviewed from non-reviewed)
- Perception of the review process and the impact.
- Who is funding the enterprise
- I would need a couple of months of evaluating this issue
- possibly loose standards of refereeing and/or copy editing
- worry that no one will read it and no one will cite it.
- No.
- It takes time for the Authors/ readers to get used to a new format. It feels good to see the printed version, in an attractive format (especially when the authors are young. It may be interesting to invest on hardcopy production for an year or so so

that the arXiv-overlay journal in Astrophysics does indeed appear on Display racks in the Libraries.

- The impact of papers published in that journal
- if this also going to be a part of the mad race of impact factor since giving any rank to journals create doubts about it and ultimately about the kind of work published, that only shows the works are not considered purely on basis of science otherwise how science can differ from one place to other i.e. from one journal to other.
- Perceived quality is critical. If it is viewed as less prestigious than, say, ApJ, I would be reluctant to send a good paper there because it will not look as good in my merit reviews.
- The big question is: will such a journal have the same status as a conventional journal in the eyes of Dept Heads/Deans when it comes to tenure/promotion ??
- No. But I wish that the peer review process be transparent on both sides, and even multiple sides. With arXiv it is very easy to put all comments from dedicated referees and the answer of authors to them on-line with the identity of the referees/commentators.
- If I am charged for publishing.
- An important issue is whether a university considers such a paper a publication in the traditional sense. Some universities have strict policies differentiating between paper and web-based publications. It would be important to get learned societies and funding agencies to endorse such a journal.
- Track record is important: if created by existing journal it would be more acceptable than as a new start-up. There are several low-grade electronic/most-electronic journals out there now.
- Lack of historical record, possibly
- yes
- Papers have to be well separated from the other "normal" arXiv submissions. I guess that, as for any other journal, much it will depend on the quality of the journal itself: if well organized and with high quality reviews and papers, I guess I would use it like the others.
- I would think twice if it was necessary for a paper already accepted in a peer reviewed journal to be refereed again, separately, for the overlay journal. This would be a waste of everyone's time.
- If the archive imposed file-size limits that forced me to direct people to the "high-res" version.
- Publishing costs for authors
- It is important to understand how the archival guarantee is to be met and that the editorial/review process is guaranteed.
- At the start, there will always be the group hesitation to see how everyone looks at it. If that passes safely, I don't see a problem afterward.
- low impact factor? It may take time to gain the readership of ApJ or A&A
- Low quality editorship and papers
- My ONLY consideration is that it must be considered equivalent to an article in a peer reviewed journal. I am dismayed by the primitive use of simple metrics to judge output but my research lives and dies by how others measure my output.
- still not.
- If it turned out accepted papers don't get cited, as is the case for ("refereed") conference proceedings.
- The quality of the editorial board and refereeing process.
- the difficulty in making sure the journal will become a high impact factor one.
- No more than with any new journal - a good reputation needs to be built.
- I don't believe you can get something for nothing!
- I choose a journal based on what I know of the readership. I want the paper to be useful to people active in the area. If I learn that the journal is widely read by, for example, pulsar researchers, I will consider submitting a paper to the journal. I don't publish so many papers that I am interested in experimenting with journals.

- Lack of experience with this publishing model - seeing a case study comparison would help.
- would have to see if it is a worthwhile venue (maintains high standards of scientific quality).
- At the moment I am not quite sure how it is going to work and how it is going to be accepted by the community.
- If the community were to perceive it as "not a proper journal" then I (and other junior researchers) would probably submit elsewhere...
- I don't see the need for this.
- figure-handling; possibly poor refereeing.
- It basically come down to reputation of the journal. Because several journals are established, it may be hard to establish a new one. However in the days where everything is available online a fully online web-based journal makes sense. This can be especially important to work against the skyrocket costs for publishing in journals and the subscription of them.
- no
- Survival of overlay journal
- none
- no
- Conflicts and bureaucracy concerning replacing / maintaining paper revisions and accepted version at the online repository. Eg must every intermediate version before acceptance be put there. Is the accepted version 'set in stone'. Who controls the issuing of errata / addenda.
- If the peer review process is not transparent, I would definitely not submit papers to an overlay (or indeed to any other) journal. The publishing costs and the journal's commitment to retaining the accepted material on user accessible media for future use for several decades is another important factor. A paper printout has the advantage that it lasts for several generations, while electronic storage media tends to become outdated with a matter of a decade.
- If the overlay journal gets a reputation of excellence is widely read and accepted by the community it would make sense to submit papers.
- Quality of refereeing, integrity of repository, impact factor.

B15. Other comments

Q26. If you would like to add something to this survey or have any further comments, please let us know:

- This is a very good idea to start changing the way science publication is done. I'm not sure if RIOJA will succeed and is THE solution, but definitively a system more open, flexible, quicker (and cheaper?), and as "safe" or safer (i.e. ensuring science quality) would be needed. Good luck.
- Other than refereeing, it is the improvement in typesetting over LaTeX that I most appreciate from a journal - in both an aesthetic sense and in the creation of standard formatting, for tables/figures/text and particularly for equations. From the questions, it sounds as if this is still planned to be done in LaTeX. Appearance does matter.
- If the overlay journal was strongly associated with particular universities I would not be interested. It should belong to the whole community.
- I think an overlay journal makes a lot of sense. I would be very supportive of this, particularly if it puts additional pressure on for-profit journals.
- Good initiative. Personally, I feel the need for a journal like JCAP, but more dedicated to astrophysics and observational/phenomenological cosmology. Many of these papers are currently going to PRD, but I would rather publish in a free journal like JCAP.
- Interesting idea. Copy-editing and formatting is one of the primary advantages for me of journals over preprints.
- I think you have a problem. There are already more good papers on arXiv than I can keep up with. High quality journals such as ApJ and MNRAS accept 90% of what gets submitted, and most referee reports don't affect a huge improvement. An overlay journal would be useful if (a) everyone used it and (b) the refereeing was hugely stringent, so that (say) only 30% of the papers on arXiv were accepted. Then one could just read the journal papers and ignore the others, thus saving a lot of time. But I doubt both these conditions can be met, in which case I see little point putting some sort of quality stamp on a subset of arXiv. If you end up having to look through all the papers, the existence of the journal isn't saving you any time.
- I think it is a great idea to introduce the possibility of peer reviewing arXiv articles. I think it is the next natural step in the electronic editorial revolution.
- --The overlay journal should have a discussion forum directly linked to each article, loosely moderated by editors who can delete spam. --Considerable thought should be given to a "live section", where, upon agreement with authors and referees, an article can be kept live for a while, regularly updated, possibly in response to comments.
- I think that it is a good idea to post referee comments and the resulting correspondence in an open forum. However this should be done only if the author agrees to do so. The referee's agreement should not be required. This is because the referee is anonymous whereas the author's name would be known to all. So author's permission is a must.
- I believe the quality of the refereeing would be crucial to the success of this endeavor.
- Not another online journal, please.
- I know that publishing models have been continuously evolving in recent years. But I wonder how you can create the necessary authority "out of nothing" (even if there are good scientists on the editorial board). I suppose that I am most comfortable publishing in journals with a high quality and impact factor, and with some commitment to furthering my subject area. In any case, good luck with this endeavour.
- I would definitively like and support a journal which is open to *all* readers and aiming at the quality of the best present day journals.
- Try accept all readers to be referees!

- When a paper is retracted from arxiv the corresponding paper and all editorial/referee communications must also be removed from public open access domain.
- I've long thought that a system like on Slashdot would be interesting, where each participant gets rated, both on their papers as well as on their reviews and comments, by the other participants.
- I feel this model (subject to transparent high quality refereeing) is the only sensible way to proceed. I have long since stopped reading journals, and only use them for refereeing, which I view as essential. Having a way of picking out refereed publications from arXiv would greatly improve the archive for me aswell.
- Your attempt is a very interesting one. Maybe the first version of the overlay journal will not be 100% perfect, but it is worth trying and improving on it. Go ahead, please! Better use money to support fellowships than paying journal subscriptions...
- Authors must never be asked to transfer copyright to the journal.
- As noted above, I don't think there is a need for the proposed journal in astrophysics.
- Astronomy is in the fortunate situation that almost everything is published in a few core journals. I am somewhat worried that the increasing number of alternative publications like New Astronomy (Reviews) and JCAP will fragment the publication landscape to such a degree that this current fortunate situation will disappear.
- Overall I think this is an interesting and worthwhile project. The details of how best to achieve its aims seem less clear to me, but the main barrier I see is the public perception of papers refereed and published in this way as being equivalent to papers in the current major journals.
- It's a great idea.
- In contentious fields submitted papers can serve to trash a previously accepted paper without the submitted paper ever receiving the proper refereeing. I really don't like having unrefereed papers out in the ethernet.
- I think publishing is indeed moving to full electronic with minimal (but not zero) copyediting. The best business model for such a journal (to cover the full costs of editorial office, archiving and data storage, etc) probably should be "author pays," either through research support or some other mechanism (referee a paper well, get one free page???), perhaps through the funding agencies. The current model of mixed library subscriptions, page charges and other user fees (selling abstract databases) won't support the change.
- I don't like the name RIOJA -- what has it got to do with London, Glasgow and Cambridge?
- Please see my comment on the previous page - I think this is an important consideration for many of us.
- I have previously thought about open refereeing, along the lines of an "eBay" model where both the referees and authors build up "quality" points from previous work.
- From what I found on google, this survey is just the end in itself, and not a project to publish an on-line journal. If so that is too bad. I think on-line journal success pre-supposed negotiation with the "big" astrophysics journals (e.g, ApJ, MNRAS,) to find a niche. I don't think that an adversarial competition would be successful.
- Regarding the copy editing.. I liked the old MNRAS style, i.e., a copy-editor annotated, but the author did the actual `manual' changes in the LaTeX file. I think many non-native english speakers still struggle with some language aspects and leaving it just up to them would be too difficult.
- Consideration of the competition element between existing journals and a new overlay journal must be considered. I think it is a potentially beneficial entity for the publishing community, but careful 'positioning' of the new journal in the market place must be considered. The overlay journal is probably ideal to address publishing a greater number of perhaps less impact papers than say, Nature et al, would consider; there is a lot of knowledge being generated today, and accessing it via a 'searchable' journal is needed.
- Refereeing and scientific editing are thoroughly altruistic activities and should be rewarded in some way

- Sorry, made too many comments earlier! My priorities are: Refereeing, indexing, good selection of keywords, conformation to IAU nomenclature rules, inclusion of data in SIMBAD/VizieR/other VO-enabled, stable online archives, access for astronomers in developing countries as authors and readers. A lot of this implies a big role for copy editors and librarians. An article is useless if it is verbose, jargonistic or does not appear in an ADS search.
- Your idea is an interesting one, but I can see a future to this only if a good reputation is quickly established, as the example of New Astronomy showed (when they tried to launch an "electronic journal", superseded very quickly by the other journals going online). To be fair, arXiv is quick and fast in spreading information, but the quality of papers in terms of language and typesetting varies greatly - and this is the (expensive) benefit of having journals copy-editing the papers, which I do appreciate. I would be in strong favour of scrapping the paper copies altogether, if this would introduce savings for the journals.
- The Living Reviews in Solar Physics journal can be used as a model.
- I think we're very fortunate in astronomy that we have relatively few journals. I think the energies of the people behind the proposed overlay journal would be better spent trying to ameliorate some of the problems with the existing journals than setting up a new one, which would seem very unlikely to succeed.
- The final paper should be assumed to be something agreed by referee and authors, perhaps with some indicator of having been refereed and edited by means of a flag. Publishing the comments and replies could be embarrassing to all concerned. Usually a referee is asked whether or not a paper should be published. Would this still apply?
- Web sites for print journals are clearly a transitional form on the way to some unknown fully digital future. arXiv has its own flaws, mostly related to the freewheeling unrefereed nature of the papers posted there, so this might be a good approach. I support a trial.
- I am very supportive of searching for new principles in publishing but am also very sceptical about the community's response.
- Please make a definition document and a peer reviewed feasibility/impact study document. Then people can consider the viability of your specific idea.
- This sounds like a very promising model, although I would be intrigued to see how it competes with JCAP/JHEP/NJP and other entries in this space. This is a very minor point -- namely, while I often simply refer to the archive copy, and not the journal version, it would be nice to see a consistent typeset format (via a set of macros) which might be harder to enforce with an overlay journal.
- I am very interested in this idea. If there is any scope for me to become involved in this project, please contact me.
- Such a journal is good idea!
- I have long argued that the refereeing process could be improved. Often, referee reports are done sloppily, and because they're anonymous, the author can do very little about it other than complain to the editor. In general, I think after the paper has been accepted, the referee should always be disclosed - so that all readers can see who was partly responsible for getting the paper published in the final version. That way, a sloppy referee report - which results in sloppily published papers - could at least in part be blamed on the referee.
- For me the most important function of a journal is the value added by peer review, which I think does improve most, though certainly not all, papers. If the quality of the peer review of the overlay journal is as good or better than of other journals, I would submit to it.
- I like this idea.
- I'm have some enthusiasm for this concept, but my willingness to publish in an overlay journal is strongly dependent on the breadth of acceptance within the community and the rapidity with which others are willing to start publishing their papers in the journal and citing papers from the journal. I have mixed feelings about

publishing referee comments along with the article. I've seen this done in some non-astronomical journals where I had the feeling that this process was causing authors to withhold important data that was required to fully evaluate their work and the referees to be less critical than might otherwise have been the case. On the other hand, I've seen cases where anonymous referees have done savage injustices to young astronomers when they wouldn't have dared make the same comments about an senior astronomer with a good reputation. The costs of journals have become a very severe burden on libraries. I believe this model will work only if it 1) does not cost libraries, or 2) replaces some journals whose costs are exorbitant.

- It seems to me that the central issue would rather be to improve the refereeing system which arguably has many problems at the moment.
- The idea of charging authors for papers that require excessive copyediting is a great one!
- I really like the idea of an optional overlay journal, since it increases the value of a submitted manuscript in terms of undergoing a referee process, while simultaneously allowing easy access to the paper, which is getting increasingly difficult in times of an increasing amount of journals and a decreasing amount of available funding.
- while i don't think referee report and author responses should be public, the name of the referee should be published with the paper. it can remain anonymous while being refereed, but once accepted for publication it should be public record who the referee was.
- i like the idea. :) IMHO, closed journals that restrict online readership to their articles belong to the pre-Jurassic era (no offense intended towards the dinosaurs).
- The main issue I have with current online journals is that due to the large number of acting editors, the journal policies are not adhered to in a uniform way. Instead editors frequently render "summary judgements" on papers, without a referee report being produced. There is then no appeal process mediated by a disinterested 3rd party.
- In principle, I think this is a great idea. In practice, I see considerable obstacles to morphing from our traditional mode of publication. Perhaps it is inevitable that arXiv will displace the current journals, in which case this effort is absolutely essential. On the other hand, I don't want to see the traditional journals displaced!
- I think in addition to a referee report, which I definitely think should be public, an approval system along the lines of digg.com could be added. This way, the public can sort of override a referee's decision if he/she is way off base. Also, in the public discussion of a referee's report, I think the referee should be anonymous, but everyone else not. And of course, all the diggs/buries should be public as well. But in any case, this kind of model that you are already proposing is definitely a step in the right direction. Glad you are doing it. :)
- I see no reason for this journal. We have astro-ph and we have library subscriptions to ApJ and A&A. What would the "added value" be?
- The question about how much should be paid for various things is very poor since it is presented as a proportion of the total costs of the journal. Very-little of a high-cost journal may be more than a considerable amount of a low-cost one. Perhaps it would be better posed in terms of one's priorities in paying for the journal. I think that in this day paying those such as the editors and referees, and ensuring the integrity of the archive, ought to be a higher priority than producing a paper version of the journal. Especially for an overlay journal such as you propose.
- It would be nice if referees when looking at papers to realise that they are the one in the minority, and although the majority are not necessarily correct all the time, they are most of the time and it's a waste of time on occasions with long debates and discussions... Also, it would be good if referees were not anonymous in many circumstances as then conflicts of interest/views can easily be resolved...
- I think it would be great if we had a better system than currently exists to encourage discussion and quality assurance. Building on arXiv.org is good as it already exists, but I'm unsure how you could get a large volume of users, as people might be reluctant to enter into using a system unless it seems permanent and useful. I think

anonymity for referees (especially junior ones) is essential in whatever system, but this is difficult to balance with openness and general discussion.

- I think the introduction to the survey should explain more in details what is meant by "overlay journal".
- I read most new research, old research, newspapers, and other news on the internet. It seems to me that moving to electronic publication is the wave of the future.
- It is important to have a journal where papers rejected from quality journals can be published, if the author feels strongly enough. Astrophysics and Space Science plays this role currently. I am not sure we need another such journal.
- That last question is pretty interesting. The idea is not to turn papers into blogs. This can happen anyway, quite independently of what the referee process is. But, as an author, it would be insane to try to keep up, let alone address, all the possible comments that could be generated by a controversial or complicated paper if it were, in effect, opened up to a world of referees.
- The editor must be a strong person to be able to endorse ideas which are not always in line with the 'party line'. THIS is the most important quality an editor must have.
- The main advantage that I can see with Open Access journals is that the material will be available for people that would not have access to a normal journal, for instance researchers in poor countries or researchers without an affiliation to a major university. The most important aspect of such a journal is that the papers must be of at least equal quality as those in the leading journals today. Otherwise it will not be attractive to publish in an open access journal.
- There should be an easy way for readers to post comments about the papers in a way that will be "attached" and easily accessible to others.
- As I wrote before, I suggest considering a refereeing system where the author picks referees. It may sound crazy at first, but it is in a paper I posted on astro-ph, and I will be happy to elaborate on this.
- I think that copy editing is undervalued by many scientists; although copy editors often do weird things, they have kept many glaring and embarrassing errors of mine out of print. I also think any new journal should work with existing services, such as NED, Simbad, ADS, CDS, etc., to make sure that data are quickly shared among these services.
- I think that costs for publishing should be borne by authors, in page charges, because publishing benefits the author much more than the reader, and it reduces the incentive for journals to obtain copyright. I think copyright is a big issue for this effort -- you should consider requiring that all content be released GPL or equivalent. I think you have data integrity issues, because the main service the journal provides is the stamping of a high integrity version. I don't think you should drop copy editing; it does a lot of good; indeed the ApJ would be greatly improved if it had stronger copy editing on the text (and weaker on the equations). One final note: MNRAS is ruining itself with its zero page charges, draconian library policies, and closed copyright. ApJ is much better because it is society-owned and puts the cost on the authors! Don't authors want to be read, and don't the public deserve free access to the research they fund?
- I have not thought about the last question before (making refereeing process public). It is interesting but I'd need to think about it more before having a definite view.
- It is very important to find good editors who can both choose good referees and also know when to use their own judgment instead of blindly follow the advice of bad referees.
- It appears that the idea of an overlay journal is very similar to what JCAP and JHEP have already achieved. I do not see the need of duplication.
- One of the major flaws of current astronomy journals is that they use only a single referee. Compare this to other journals in physics, which can use up to 3 or 4 referees. Additional referees really help in the critique of a paper. You should definitely consider using more than 1 referee.

- I think the idea of "enhancing" the arXiv with a proper peer-review lens is a good idea, provided that what I see are the key advantages of current journal articles are retained: 1. The refereeing process; 2. Proper copy editing; 3. High-quality figures (the current arXiv limits on file sizes for figures leads to figures which are often illegible).
- There is a lot of discussion about having an 'open' refereeing system. I am against this because it will inevitably have an impact on the referee's report (and on whether someone agrees to referee a paper). The report etc should nevertheless be kept in case of future legal or other reasons.
- I think that the kinds of changes motivating this proposal are needed, but that they are better implemented within the structure of the existing journals which are closely linked to the professional societies of our field and so to the user base (in its organised form). A collaboration with the archive is an interesting idea for publication and could (should?) be pursued by the existing journals as an alternative to using commercial publishers. A possible disadvantage may be that the archive could be less responsive to requests/specific needs of each journal than a commercial publisher, but this could be monitored as in any other kind of contract. An interesting issue is whether the journal should keep its own reference copy of its electronic archive for long-term security.
- I do believe money are being wasted on the copy-editing of already copy-edited articles, on paper copies of journals, on library subscriptions, etc. The publications process needs to be streamlined and a new type of open-access peer-reviewed journal might just be the right thing.
- Regarding the point about a possible open forum to discuss the review of an article, this could have a very negative effect: a tremendous delay in the review process. Every author wants the review process to be as quick and transparent as possible.
- To Q24: Quality of the copy editing process is very important, in particular to ensure that the scientific content is not diluted by incomprehensible language. However, I think non-native speakers should not be put at a financial disadvantage - especially if that would affect a lot of scientist from countries with low funding. The cost of that process should be shared among the entire international community.
- I would like to thank your efforts. I already thought about the idea that you try to put in practise and I strongly believe that it should substitute traditional scientific journals in the future.
- My answer to the question regarding the fraction of the total cost to be destined to various items is highly uncertain, as I have no idea of a journal's budget. Regarding Q24, my position is that a basic copy editing should be provided by the journal, but that extremely messy papers should be penalized, perhaps by introducing extra costs. Several questions of the first two pages or so are formulated in such a way that they seem to admit only one answer, yet it make sense to tick more than one, and the survey form indeed allows this. So I feel there's a certain ambiguity.
- Copy editing is a difficult issues: it should be the responsibility of authors to improve their writing, on the other hand the journal should take responsibility for what it published. Perhaps an author could have say three chances and after that should pay for copy editing?
- I believe that some fraction of current refereeing methods is totally unsatisfactory. Thus any new process that overcomes unfairness, pettiness, poor quality, long waiting times and that tries as far as possible to be open and clear, is to be welcomed. I believe that there are too many instances of anonymity that lead to corruption. At the same time I believe that in the final instance it is the authors who are responsible for their own work and the powers of referees to block publication should be carefully monitored.
- In relation to copy editing: I feel that copy editing is an important step in which journals must have a role and I would be sceptical about a journal with no routine copy editing. However, the responsibility for producing a high quality manuscript lies with the author(s) - manuscripts should only reach journal copy editors once they have a high standard of presentation and would require only very light editing. I.e., if

a referee feels that significant copy editing is required, the paper should be returned to the authors rather than recommended for special attention (involving extra costs to either the journal or authors).

- no
- I'm still not totally clear about what the benefits of this actually would be! I think one thing that is extremely important is the "competition" between journals. A single journal would not fulfill this.
- This is a very interesting project, and I wish someone were considering it in high energy physics, as well! The discussion forum is a welcome addition, especially if you can keep discussion civil. I do feel that refereeing should remain a confidential process (for both author and referee).
- Referee comments should be anonymous or should be embargoed for reasonable period of time (e.g. 10-20 years)
- No
- The most important point is that the content of the paper should be controlled by the author - not the referee.
- My main concern is the quality of the refereeing process, but it may also be that I don't fully understand the overlay process.
- I hope that works. Best would be if the cost could be moderate and the journal be run by a non-profit organization with international government support or from private donations.
- I have had many dealings with Arxiv in the past. I do not like dealing with them. (i) Format requirement and file size requirements are way too restrictive and make for a lot of unnecessary work. Modern figures are naturally large for high-quality. (ii) Staff are rude and arrogant in their responses to questions/issues.
- Scientific results should be accessible to all (for free). Making printed copies etc. is probably not practical in this era of deforestation and global warming concerns. Moreover, manufacturing costs are high. Therefore, I think it is a great idea to have web based, free and transparent journal. Best wishes and looking forward!
- The referee's privacy should be maintained, and the official report should be private. Otherwise, I think a discussion forum for each paper would be a useful idea.
- You are wasting your time
- Go for the prize. Well though, what you propose could be the end of the evils of peer review, without renouncing to the benefits. It is much overdue. Transparency should be the goal.
- The role of the editor in resolving author/referee disagreements, and his ability to make decisions in that respect, is primordial to the quality and reputation of the journal
- I think a wiki should be opened for each article/subject, so that the community can improve/comment/elaborate on the article. This would be very efficient for the dissemination of knowledge and to draw attention on possible implications, flaws, links with other aspects of a problem, etc. And it would allow a sort of second stage of the refereeing process, allowing a more complete discussion about the paper, and helping correcting mistakes that sometimes occur (even though both the author and the referee were honest and fair). The progress of science should be reflected in the progress of already published articles, not only in an increase of the number of papers, where it's often hard to know if a given past result still holds or not. Wiki-like journals are in my opinion the real future of publication in science.
- Did you compare your project with CERN's Open Access Publishing ?
- I think that the most important thing to do is to initially raise the visibility of the journal by encouraging well-known scientists to submit papers to it, to possibly do refereed conference proceedings via this journal (which will force a lot of people to use it), and the like.
- When setting up a new journal, I believe it is greatly beneficial if at least some people with experience as editor for a high impact journal are involved.

- It could be interesting that referees do not know the name of the authors (at least in the first stages of the refereeing process)
- No
- Please explain in more detail how the system works, and what are the major differences from the present state of affairs.
- I think RIOJA is very interesting because: * Hardly anyone needs paper copies any more; * Journal costs are horrendous and keep rising because of the publishers' monopoly; * The only difference between arXiv and journals is the refereeing process, which I think is useful and should be kept.
- 1. Have a letters section to start with to see how it works out. 2. Monthly issues, with about 15-20 papers per issue is fine. If there are more papers submitted Vol (x)/ No (y) system is good.
- Large versions of color figures should be available
- My guess is that this will be a troublesome and vexatious process, but I think it is likely to be worth it and of enormous value in the long run.
- I am not fully certain about what this would look like, but would be interested in being a part of the discussion about it -- though I find the arXiv pretty much fine as is, I do see a place for a minimally expensive system of overlay refereed journal. I think particularly the English of non-native speakers could be cleaned up, but this could be done on a semi-voluntary basis -- e.g. I'd do it for friends whose (reasonably short) papers I was interested in.
- I like this survey act somehow one does not have to check all journal websites to find a paper. The main matter in fact is to have the access to all old papers. I usually get confused when I want to find a old paper online and sometimes after finding a paper I should pay a lot to have that only one paper. I think someone should be in charge somehow one not to need to pay much by frequently using of its services.
- Your implied proposal seems to me to be unnecessary and will tend towards the further proliferation of things that are stored in ephemeral media and will not be accessible in a hundred years' time
- There are already too many papers accepted for publication in the refereed literature. Can your journal model solve this problem?
- Another feature I would like to see in a journal is a way of easily finding the "significant" papers - perhaps by something like Google page rank applied to citation data.
- I am not sure I fully understand what the "overlay journal" model is, how it would be accessed and whether or not it would be freely accessible by anyone without charge or through a library that has a paid subscription.
- I like the idea. I am sceptical you can overcome the barrier of the existing old fashioned model. I'd prefer to ditch all formal refereeing and all journals as I find the quality variable (as an author and a referee). As long as archives were backed up the community can add its comments (=refereeing) in some open blog type thing attached to a document. All would have to be funded by national research funding bodies.
- no
- Great idea! I hope it works.
- The refereeing process at most journals is inefficient and not particularly good. The existence of petty personal rivalries seems to get carried into what ought to be an objective process. Besides, there is an appalling lack of appropriate referencing in all current journals. Somehow giving adequate credit to previous work carefully does not seem to be part of the educational training of astrophysicists.
- I haven't seen enough examples of having the reviews and correspondence included with the on-line journal to know if this is a valuable addition. I can see pros and cons to the issue and I think more experimentation is required.
- 1. university libraries cannot bear increasing costs. we need to find a non-commercial method to fund journals. learned societies like AIP are carrying an increasing burden for the community. user fees restrict access to the well-funded. this initiative is a good

idea, but it remains to be seen if content quality standards can be maintained. 2. copy editors' time should be reserved for cases where authors are truly unable to adequately correct themselves. as an editor of proceedings, i find most papers that need major editing are the result of author's simple laziness/refusal to spend adequate time. authors who really cant write coherent english should be encouraged to consult local resources like english dept faculty or students, colleague who writes well, etc. 3. the most important lesson learned from the ArXiv's success is open everything: free open access, no restrictions, very simple and transparent process.

- The main reason to switch to the overlay journal would be cutting costs. The arXiv is cheap (little cost to authors, small government grant), presumably because it avoids procedural costs such as copy-editing and paper printing, and I find it to be just as useful as traditional journals. If the overlay journal provides the same utility and recognition as current journals at less cost, we should adopt it. If the overlay journal is just as expensive as the current system, there's no point in changing.
- *Please* talk to those who run existing journals and understand the process. At ApJ, copy-editing was done on the sgml and not on the author's latex -- so they can't return corrected latex to the author. They tag the sgml in all sorts of ways that may not work on LaTeX -- ADS needs it to do what it does. And someone looks after sgml as it evolves, for compatibility issues; probably not true for LaTeX. Copy-editing is a tough one -- MNRAS seems to have given up, A&Ap always had a political problem. ApJ and AJ still do it, often with too heavy a hand. But I find it makes a BIG difference to readability, and if nobody reads it, you might as well not publish it. My main gripes with journals are poor refereeing, possibly because we are all overworked, and mishandling figures, especially color (will be easier if you don't have to print anything as you can keep it all in RGB). Your model won't help with either of those. It was unclear what about the current system you were trying to fix; if you focus that better, it may tell you what you want to change. You can e-mail me at [information omitted] if you want to "talk", but no general-distribution mails please.
- Any 'overlay' journal must seriously address the issue of freedom of access for authors. For example the 'arxiv' has restricted access for authors via an 'endorsement' system which is potentially open to abuse or conflict with the decisions of journal editors.
- I feel strongly that we should stop using Springer for publishing A&A and other journals. We should find another publisher for those journals. Springer is the most egregious in reducing access by increasing costs.