

Recent developments and initiatives in scholarly publishing

Alberto Accomazzi

IVOA Interop, Cape Town, South Africa

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Overview

- Use of API and ORCID in ADS
- The Unified Astronomy Thesaurus
- Annotating All Knowledge Coalition
- Authorship and Contributor Roles
- Software Citation Principles
- Software Publishing
- Places where this stuff is discussed

API access tied to Bumblebee accounts

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Customize Settings

USER PREFERENCES

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NOTIFICATION SETTINGS

- [Coming soon](#)

ACCOUNT SETTINGS

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API Token

KnvKe6NY7KP9iJCTsoMnCh6HCkwFwfE5iVWfowsF

Generate a new key

This API token allows you to access ADS data programmatically. For instance, to fetch the first few bibcodes for the query "star", make the following request:

```
curl -H 'Authorization: Bearer:KnvKe6NY7KP9iJCTsoMnCh6HCkwFwfE5iVWfowsF'  
'http://api.adsabs.harvard.edu/v1/search/query?q=star&fl=bibcode'
```

(If you've generated a token, you can copy-paste the preceding line directly into your terminal)

Documentation on how to use the API is available on the [ADS API Github repo](#).

Make sure to keep your API key secret to protect it from abuse.

If your key has been exposed publically (say, by accidentally being committed to a Github repo) you can generate a new one by clicking on the button above.

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ads beta

My Home Page ADS Libraries Customize Settings

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API Token

KnvKe6NY7KP9iJCTsoMnCh6HCkwFwfE5i

README.md

adsabs-dev-api

ADS Developer API description.

For bugs, feature requests or even random questions feel free to use the [issues](#) section.

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- [Access](#)
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- [Search API](#)
- [Metrics API](#)
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- [Libraries API](#)

Mailing List

Announcements and discussion related to the Developer API are available via the Google Group, [adsabs-dev-api](#). We encourage all API users to subscribe, as the functionality of the API, will likely be improving and changing rapidly.

Clients

The unofficial python client for the API is maintained by Andy Casey and can be found here:

- <https://github.com/andycasey/ads>

ADS API Usage

README.md

kpub: Kepler publication data

A database of scientific publications related to NASA's Kepler/K2 mission.

kpub is a mission-specific tool that enables NASA's Kepler/K2 Guest Observer to access and analyze scientific publications in an easy way. It leverages SQLite and the ADS API to create and curate a database that contains the metadata of mission-related publications.

Example use

Print a nicely-formatted list of Kepler-related exoplanet publications in r

```
kpub --exoplanets
```

Add a new article to the database using its bibcode. This command will classify the science:

```
kpub-add 2015arXiv150204715F
```



A Brief Analysis of Hubble, Einstein and Sagan Fellows With ADS

04 April 2016

Now that the job hunt is largely over, I thought it might be interesting to briefly examine the publication profiles of previous and current holders of fellowships which are the most in demand. The core fellowships I focus on are the NASA-funded Einstein, Hubble and Sagan fellowships which often get hundreds of applicants each year.

ORCID Claiming and Indexing in ADS

Claiming since 1/1/2016:

- 917 users
- 50,011 papers
- 81,000 unique claims

Record indexing as of 4/1/2016:

- 14,500 publisher records
- 48,942 claimed+validated records
- 62,934 records with at least one ORCID mapping

The screenshot displays the ADS beta interface. At the top, the 'ads beta' logo is on the left, and navigation links for 'Feedback', 'ORCID', 'Learn', and 'Account' are on the right. A search bar contains the text 'author:"Accomazzi,Alberto"' and shows '184 results'. A dropdown menu is open, showing the user is signed in as 'Alberto Accomazzi' and has 'ORCID Mode' turned on. The menu options include 'View my ORCID papers in ADS', 'View my ORCID profile on orcid.org', 'Learn how to claim ORCID papers', and 'Log out from ORCID in ADS'. The main content area shows a list of search results. The first result is 'Towards a Resource-Centric Data Network' by Accomazzi, A.; Murray, S. S.; Kurtz, M. J. It has a green 'In ORCID' badge. The second result is 'Making Archival Data Available for Research in the Next Decade and Beyond' by Osborn, Wayne; Accomazzi, Alberto; Castelaz, Michael, and 7 more. It also has a green 'In ORCID' badge. The third result is 'Goal-Oriented Subject Search in the NASA Astrophysics Data System' by Accomazzi, Alberto; Kurtz, M. J.; Grant, C. S., and 4 more. It has a 'Claim in ORCID' button. The fourth result is 'A Tool to Explore the Landscape of Astronomy Literature' by Henneken, Edwin A.; Rosvall, M.; Accomazzi, A., and 6 more. It has a 'Claim in ORCID' button. On the right side, there is a bar chart titled 'referred' showing the number of referred papers from 1988 to 2015. The x-axis represents years from 1988 to 2015, and the y-axis represents the number of referred papers, ranging from 0 to 28. The chart shows a general upward trend with some fluctuations. Below the chart, there is a filter for 'Limit results to papers from 1988 to 2015' with an 'Apply' button.

UNIFIED ASTRONOMY THESAURUS



[Thesaurus](#) | [Contribute](#) | [Updates](#) | [About](#) | [Contact](#)

Unified Astronomy Thesaurus v.1 is here!

[December 23, 2015](#) / [Katie Frey](#) / [No comments](#)

Today I am releasing version one of the Unified Astronomy Thesaurus (UAT v.1).

The UAT has been completely overhauled; restructured into new top level categories and re-organized throughout. There have been many major revisions to bring it more inline with the way astronomers and astrophysicists study the universe.

I want to thank Sarah Weissman, Josh Peek, Kayleigh Bohemier, Dianne Dietrich, Jane Holmquist, Barbara Kern, and especially Jill Lagerstrom for all of the work each of you put into revising and updating the thesaurus. I also want to thank the many researchers and scientists who lent their expertise to this project. Because of all of you, every term in the UAT was looked at, revised, edited, tweaked, or moved.

Version 1 of the Unified Astronomy Thesaurus has 1834 terms, 11 top level categories, a depth of 10 terms, and 319 'related term' links. For comparison, the beta version of the UAT had 1920 terms, 15 top level categories, a depth of 15 terms, and 224 'related term' links.

In addition to the major restructuring of the UATs top level categories and overall organizational structure, 321 terms were removed, 236 new terms were added, and 95 new 'related term' links were added.

Recent Posts

- Unified Astronomy Thesaurus v.1 is here! December 23, 2015
- Update on the UAT September 11, 2014
- The UAT at the e-Sciences Symposium April 10, 2014
- What's new with the Unified Astronomy Thesaurus February 10, 2014
- Download the UAT September 10, 2013

Annotating All Knowledge Coalition

Group of publishers, information providers, tech firms announce plans to work together towards open, portable annotations based on the Hypothes.is platform. This includes Wiley, CrossRef, PLOS, Project Jupyter, HighWire, arXiv and ADS

<http://www.nature.com/news/annotating-the-scholarly-web-1.18900>

<https://hypothes.is/annotating-all-knowledge/>

<https://hypothes.is/for-publishers/>



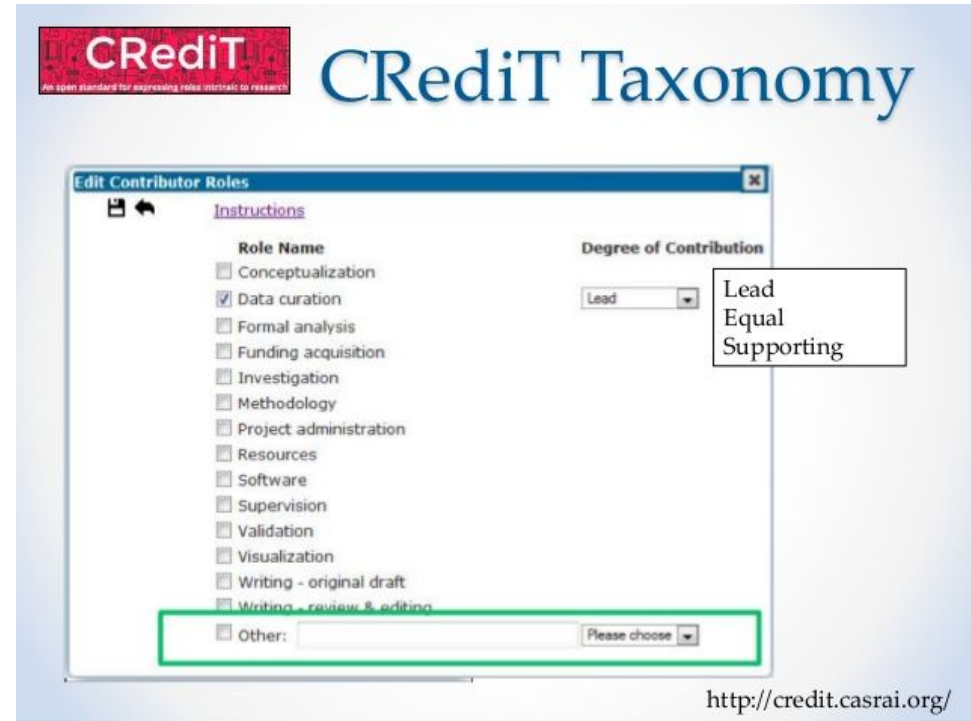
Envisioning a Scholarly Annotation Layer

- It must be built on an open but standard framework that enables global discovery and community enrichment.
- It must support granular annotation of elements in all key formats, and across different representations of the same content (e.g. PDF vs HTML).
- There must be a diversity of interoperable annotation systems.
- These systems must be fully accessible to humans, and machines that will use APIs to create and mine annotations.
- It must be possible to identify people, groups, and resources in global ways, so that sharing, discovery, and interconnection can span repositories and annotation services.

Authorship and Contributor Roles

The Contributor Roles Taxonomy project (Project CRediT) emerged to address recognition that the concept of 'authorship' in producing scientific scholarly output is outdated and no longer fit for purpose. Project CRediT aims to provide transparency to the contributions of researchers to scholarly published work, to enable discoverability and to improve attribution, credit, and accountability.

Contributor roles currently used by: Cell, PLOS, Nature. Is this the long-term destiny for all?



<http://casrai.org/credit>

Software Citation Principles

Published in April 2016, follows the data citation principles:

- Importance
- Credit and Attribution
- Unique Identification
- Persistence
- Accessibility
- Specificity

<https://www.force11.org/software-citation-principles>

FORCE11 SOFTWARE CITATION WORKING GROUP (EDITORS: ARFON M. SMITH, DANIEL S. KATZ, KYLE E. NIEMEYER)

ABSTRACT. Software is a critical part of modern research and yet there is little support across the scholarly ecosystem for its acknowledgement and citation. Inspired by the activities of the FORCE11 working group focussed on data citation, this document summarizes the recommendations of the FORCE11 Software Citation Working Group and its activities between June 2015 and April 2016. Based on a review of existing community practices, the goal of the working group was to produce a consolidated set of citation principles that may encourage broad adoption of a consistent policy for software citation across disciplines and venues. Our work is presented here as a set of software citation principles, a discussion of the motivations for developing the principles, reviews of existing community practice, and a discussion of the requirements these principles would place upon different stakeholders. Working examples and possible technical solutions for how these principles can be implemented will be discussed in a separate paper.

1. SOFTWARE CITATION PRINCIPLES

The principles in this section are written fairly concisely, and discussed further later in this document (§5). Here, for example, we do not define what software should be cited, but how it should be cited, and we talk about how such decisions might be made in the discussion section (§5).

- (1) **Importance:** Software should be considered a legitimate and citable product of research. Software citations should be accorded the same importance in the scholarly record as citations of other research products, such as publications and data; they should be included in the metadata of the citing work, for example in the reference list of a journal article, and should not be omitted or separated. Software should be cited on the same basis as any other research products such as papers or books, that is, authors should cite the appropriate set of software products just as they cite the appropriate set of papers.
- (2) **Credit and Attribution:** Software citations should facilitate giving scholarly credit and normative and legal attribution to all contributors to the software, recognizing that a single style or mechanism of attribution may not be applicable to all software.
- (3) **Unique Identification:** A software citation should include a method for identification that is machine actionable, globally unique, interoperable, and recognized by at least a community of the corresponding domain experts, and preferably by general public researchers.
- (4) **Persistence:** Unique identifiers and metadata describing the software and its disposition should persist – even beyond the lifespan of the software they describe.
- (5) **Accessibility:** Software citations should permit and facilitate access to the software itself and to its associated metadata, documentation, data, and other materials necessary for both humans and machines to make informed use of the referenced software.
- (6) **Specificity:** Software citations should facilitate identification of, and access to, the specific version of software that was used. Software identification should be as specific as necessary, such as using version numbers, revision numbers, or variants such as platforms.

These software citation principles were originally based on an adaptation of the FORCE11 Data Citation Principles [11], and then were modified based on discussions of the FORCE11 Software Citation Working Group (see Appendix A for members), information from the use cases in §3, and the related work in §4. The adaptations have been made because software, while similar to data in terms of not traditionally having been cited in publications, is also different than data in that it can be used to express or explain concepts, it is updated more frequently, and it is executable. Also, while software can be considered a type of data, the converse is not generally true.

Software Publishing

Now many options available for “[pP]ublishing” and taking credit for Software:

- Put it on Github/Bitbucket/<insert favorite repo here> with a CITATION file specifying how you would like to be acknowledged
- Make a release and push the code to a preservation system such as Zenodo (DOI is minted and code release is preserved)
- Write a minimal software paper in a publication such as the Journal of Open Source Software: <http://joss.theoj.org> (code review is applied)
- Write a full paper describing the software in an appropriate journal such as Astronomy & Computing, A&A or in AAS journals (new - see <http://journals.aas.org/policy/software.html>)



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[MetricsGraphics.js](#) is a library built on top of [D3](#) that is optimized for visualizing and laying out time-series data. It provides a simple way...

[10.5281/zenodo.50373](#)

diana-hep / carl JOSS Under Review

Carl is a toolbox for likelihood-free inference in Python.

[10.5281/zenodo.47798](#)

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ISSN: **2213-1337**

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



[← Back to Policies](#)

Policy Statement on Software

1 January 2016

AAS Journals have adopted a policy that reflects the importance of software to the astronomical community, and the need for clear communication about such software which ensures that credit is appropriately given to its authors. The policy provides clear guidelines for citing software in all papers, and supports the publication of descriptive papers about software relevant to research in astronomy and astrophysics.

Guidelines for software papers

AAS Journals welcome papers which describe the design and function of software of relevance to research in astronomy and astrophysics. Such papers should contain a description of the software, its novel features and its intended use. Such papers need not include research results produced using the software, although including examples of applications can be helpful. There is no minimum length requirement for software papers.

If a piece of novel software is important to published research then it is likely appropriate to describe it in such a paper.

Reproducible Research: Citing your execution environment using Docker and a DOI

By [Robert Haines](#), Institute Fellow & Research Software Engineering Manager, IT Services, University of Manchester and [Caroline Jay](#), Institute Fellow & Lecturer, School of Computer Science, University of Manchester.

As we move into a world where (hopefully) more and more people are trying to make their research as reproducible as possible, a lot of us are turning to **Docker** to help out with the task of distributing our research software in a way in which it is as accessible as possible to others. As we move in this direction we need to be able to cite the software environments that we are executing, not just the source code itself.



Image courtesy of Andy Brown, BBC R&D

Page Tags

[Docker](#)


[Rob haines](#)

[Caroline jay](#)

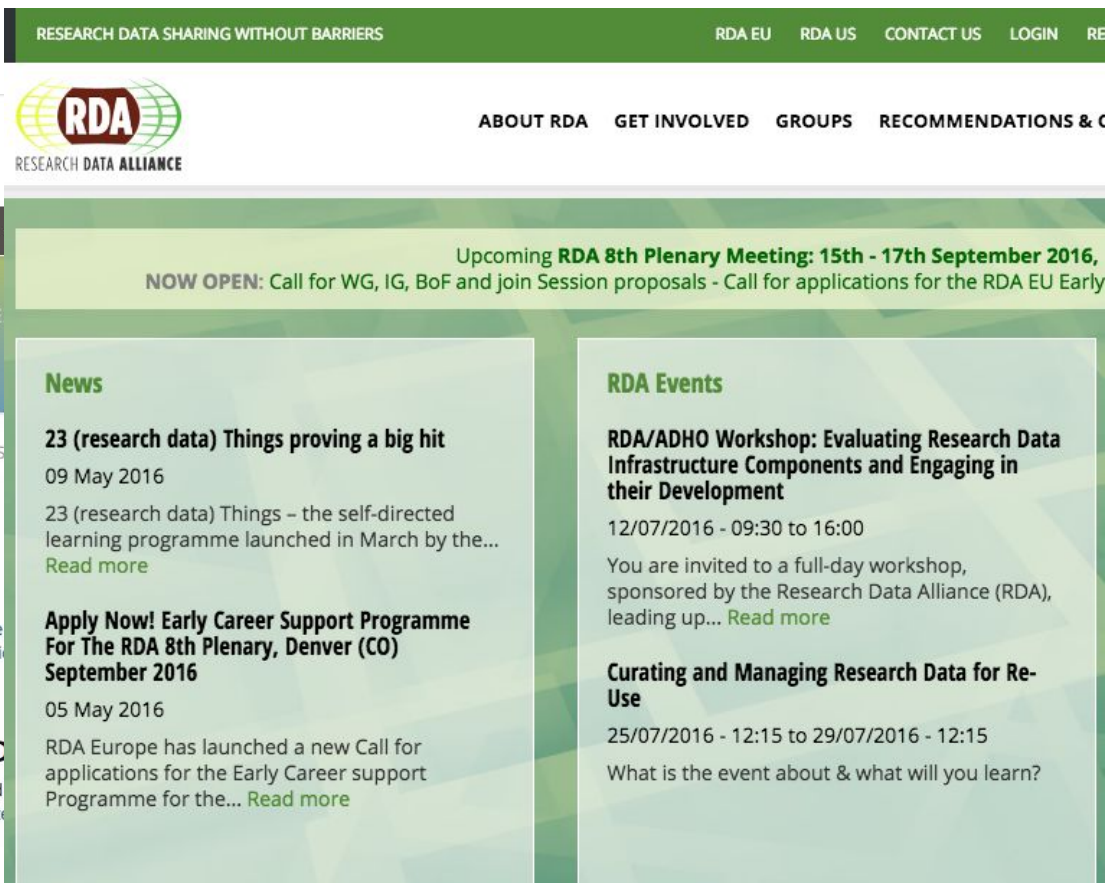
Most Popular

- [1 First ever conference of Research Software Engineers - call for participation](#) – The RSE Conference (15-16 September 2016, Manchester) is...
- [2 Senior Research Software Engineer post at University of Manchester](#) – The eScience Lab at the University of Manchester is...
- [3 Sign up for our weekly news and blog digest](#) – #mc_embed_signup{background:#fff; clear:left;...
- [4 About](#) – A national facility for cultivating and improving...
- [5 People](#) – Director &...

Where some of this stuff is discussed



The screenshot shows the FORCE11 website. At the top left is the FORCE11 logo with the tagline "The Future of Research Communications and e-Scholarship". Below the logo is a navigation bar with links for ABOUT, COMMUNITY, GROUPS, RESOURCES, and NEWS + EVENTS. A large banner for FORCE2016 is displayed, featuring the text "PORTLAND OREGON THE ARMORY, APRIL 17-19 Building Bridges, Connecting Knowledge" and a Twitter icon with the hashtag #FORCE. On the left side, there is a "FORCE2016 MENU" with links for Home, Registration, Program, General Information, Code Of Conduct, and Participant List. The main content area shows a breadcrumb trail "FORCE11 » All Conferences » HAPPENINGS" and a section titled "HAPPENINGS..." with a sub-section "OUTCOMES" containing a list of items: FIGSHARE FORCE2016 Portal - Conference, Pitch-it Innovation \$1k challenge submission, Best Poster and Demo Winners, and Twitter Analytics. Below this is a section for "PRESENTATION SLIDES AND" with a list of items: Audio and Video Recordings (to be posted) and Conference Presentations Slides and Posters.



The screenshot shows the Research Data Alliance website. At the top is a green navigation bar with the text "RESEARCH DATA SHARING WITHOUT BARRIERS" and links for RDA EU, RDA US, CONTACT US, LOGIN, and RESEARCH DATA ALLIANCE. Below the navigation bar is the RDA logo and the text "RESEARCH DATA ALLIANCE". A secondary navigation bar contains links for ABOUT RDA, GET INVOLVED, GROUPS, and RECOMMENDATIONS & C. A large green banner at the top right of the main content area reads "Upcoming RDA 8th Plenary Meeting: 15th - 17th September 2016, NOW OPEN: Call for WG, IG, BoF and join Session proposals - Call for applications for the RDA EU Early Career Support Programme". Below this banner are two columns of content. The left column is titled "News" and contains two items: "23 (research data) Things proving a big hit" dated 09 May 2016, and "Apply Now! Early Career Support Programme For The RDA 8th Plenary, Denver (CO) September 2016" dated 05 May 2016. The right column is titled "RDA Events" and contains two items: "RDA/ADHO Workshop: Evaluating Research Data Infrastructure Components and Engaging in their Development" dated 12/07/2016 - 09:30 to 16:00, and "Curating and Managing Research Data for Re-Use" dated 25/07/2016 - 12:15 to 29/07/2016 - 12:15.