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Meeting

December  
15-16,  
2016

# Metadata Updates DOI/UAT/Astrotag

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# Overview

- DOI
- UAT/Astrotag
- Discussion



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**DOI**



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# DOI – What is a DOI

- DOI = Digital Object Identifier
- Issued by various providers, but they resolve through a central server
  - <https://dx.doi.org>
- Find them in publications, most journal articles get a DOI.



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# DOI – What is a MAST DOI?

- A MAST DOI is a “data bookmark.” It allows a user to collect together arbitrary data and publish a link where others can retrieve that same data.
  - Based on CAOM observation IDs
  - Some datasets have fixed IDs (e.g. Kepler quarters)
- <http://dx.doi.org/10.17909/T9FG6R>



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# DOI – MAST DOI Progress

- Partnership with AAS Journals



## MAST (Data hosted at Space Telescope Science Institute)

Does your manuscript directly refer to data in MAST (i.e. data from Hubble, Kepler, GALEX, IUE, [etc.](#))?

Yes  No

**What are DOIs for?** Data DOIs (permanent links) allow readers to access the data you used directly from the text of your article.

**How do I get one?** MAST provides DOIs for its data in two ways:

Find **existing DOIs for catalogs** (Kepler/KIC, GALEX/MCAT, etc.) and **High-Level Science Products** (CANDELS, K2SFF, etc.).  
or

Generate your own DOI using an **interface for making custom collections** of observations.

Please use this [link](#) to the MAST DOI site to find or generate the DOI relevant to your article's MAST datasets.

DOI*	
<input type="text"/>	<input type="button" value="Clear"/>
<input type="text"/>	<input type="button" value="Clear"/>
<input type="button" value="Add Datasets"/>	



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# DOI – MAST Services

- DOI Search Pages:  
<http://archive.stsci.edu/doi/search/>
- DOI Portal:  
<https://mast.stsci.edu/portal/Mashup/Clients/DOI/DOIPortal.html?tutorial>
- DOI API (restricted access):  
<https://mast.stsci.edu/portal/DOI>
- DOI Form (in development):  
[https://mastdev.stsci.edu/portal\\_sarah/DOI/form](https://mastdev.stsci.edu/portal_sarah/DOI/form)



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# DOI Limited Trial

- Only papers with STScI authors are prompted to create DOIs
- 28 manuscripts submitted by STScI authors, 6 had DOIs submitted
  - 5 minted via the portal and one HSLP DOI
  - ~6 manuscripts had significant MAST data but no DOIs submitted. Josh Peek has been chasing these down.
  - 16 manuscripts did not use MAST data
  - 6 DOIs – 1 withdrawn = 5 DOIs in the wild (once papers are published)
- Thanks to Gus Muench (AAS) for the stats.





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# Post Testing Plans

- Improve the prompting on the AAS site
- Ramp up slowly with non-STScI authors. There is about 1 paper/day with MAST data, want to try this out with 1/week.
- Follow up, for example, if the MAST question is answered in the affirmative, but no DOI is given, have scientific editors or data editors get back to the authors.
  - We think we can get some of those people “on the bounce” when it’s less urgent, but before the paper is published.



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# Future Work

- DOI catalog samples
- Work with other publishers
- Adding more DOIs for fixed datasets.
- Retrofitting bibliographies to use DOIs.
- Establish/improve integration with ADS.
- Better integration with Portal (e.g. saved searches)



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# UAT/Astrotag

- Unified Astronomy Thesaurus ([astrothesaurus.org](http://astrothesaurus.org))
- Community authored/edited thesaurus, maintained by CfA, under the stewardship of AAS
- Combines IVOAT, PACS, journal keywords
- Creative Commons Licensed



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**UAT/ASTROTAG**



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# UAT

- v 1.11: 836 concepts, 11 top level categories
- Uses PoolParty software for editing
- UAT website: <http://astrothesaurus.org/>
- Github: <https://github.com/astrothesaurus/UAT>
- ANDS hosting
  - <http://astrothesaurus.org/uat/AstrophysicalProcesses>
  - <http://vocabs.ands.org.au/repository/api/lda/aas/the-unified-astronomy-thesaurus/1-1-0/concept>



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# UAT - Timeline

- *2013 – CfA creates UAT, beta release*
- Fall 2014 – MAST Thesaurus Evaluation
- January 2015 – Initial talks with AAS
- June 2015 – UAT Meeting
- June-Dec 2016 – UAT Expansion and Improvement
- Jan 2016 – First official release coinciding with AAS meeting.
- May 2016-Nov 2016 – Adapt UAT for APT
- Oct 2016-Present – UAT Steering Committee



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# UAT Working Groups

- Taxonomy Team – Work with scientists in one hour editing sessions to improve particular sections of the thesaurus.
- **UAT Steering Committee** – “develops short and long term plans for the administration and use of the UAT with the interests of the global astronomy and astrophysics community at the forefront, and under the auspices of the AAS, steward and owner of the UAT.”
  - Meets approx once a month
  - Formalizing contribution guidelines
  - Formalize release process
  - Automated tagging for AAS Journals



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# UAT / APT

- UAT is hierarchical, APT uses flat list vocabulary
- Mapping existing vocab to UAT, finding and filling any holes.
- Working with scientists to identify areas that still need clean up.
- Reducing UAT keywords to manageable size.
- Defining calibration terms – not in UAT.





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# Astrotag (Future Work)

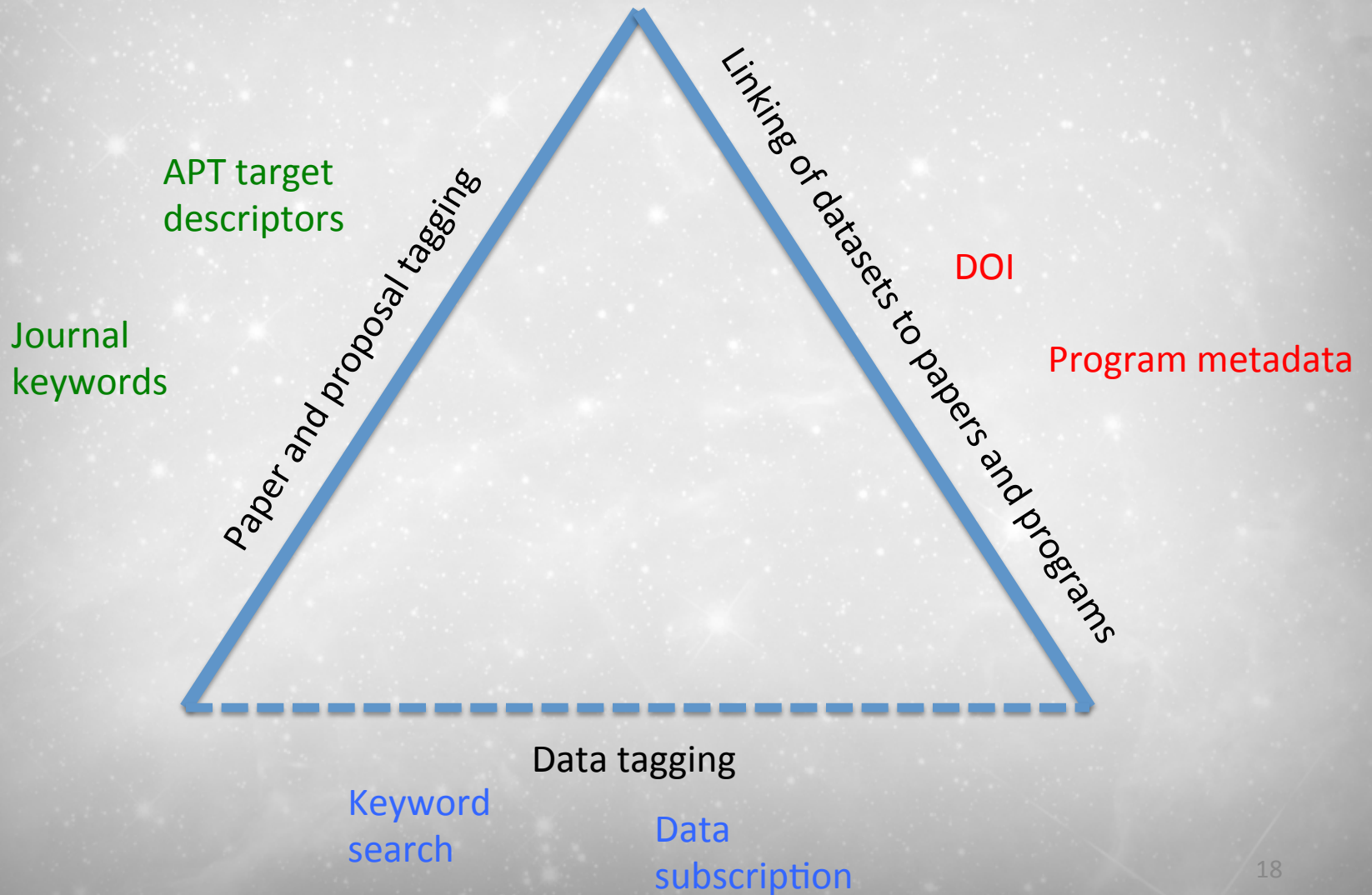
- Ultimate goal of vocab work
- Mostly still needs to be defined
- Will integrate with CAOM
- Will have an interface in the Portal



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# DOI/UAT/Astrotag





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# Astrotag Discussion

- What type of queries do you imagine being powered by Astrotag/keyword tagging?
- Other applications for UAT?



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# DISCUSSION



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# DOI Discussion

- How could we make MAST DOIs easier to create?



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# Thanks

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