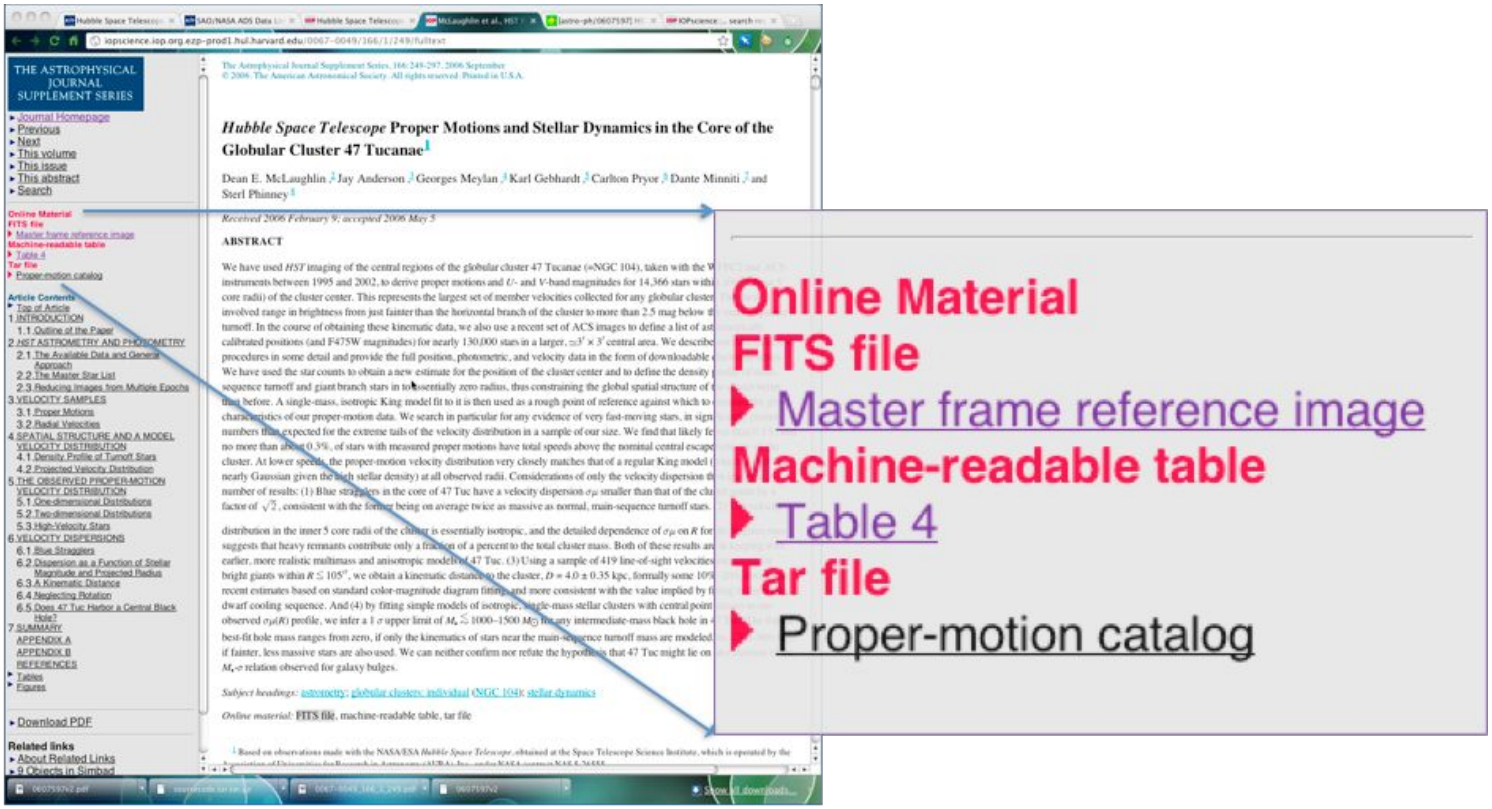
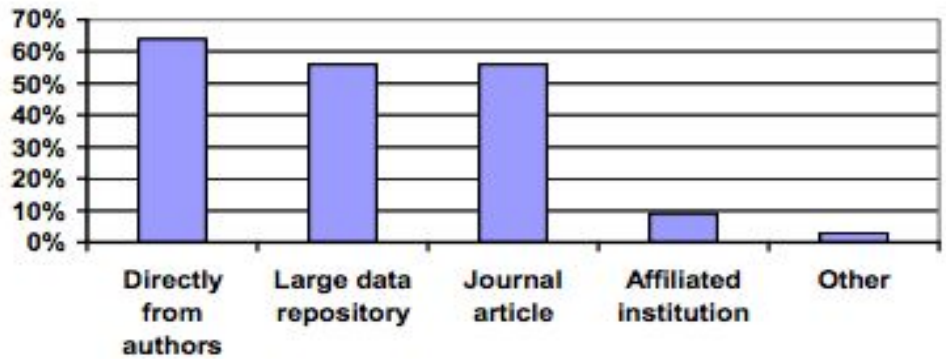
AMERICAN ASTRONOMICAL SOCIETY

Enhancing and sharing humanity's scientific understanding of the universe since 1899.



AAS Journals are evolving how we encourage data sharing and enable data linking to author datasets;

In 2013	Number of datasets	Total number of figures and tables	Number of articles
Astronomical Journal	179	4950	330
Astrophysical Journal	376	38832	3558
Astrophysical Journal Supplement	157	3307	173
Physics of Plasmas	10	8967	1135



~20% of 2013 AAS Journal articles contain datasets

Studied "*Data Accessibility in Physics and Astronomy*", a NSF funded AAS+AIP survey (2012-2014) AST-1250572;

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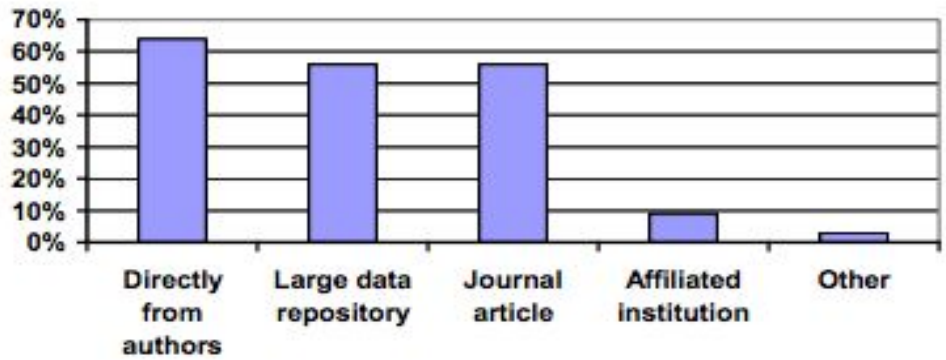
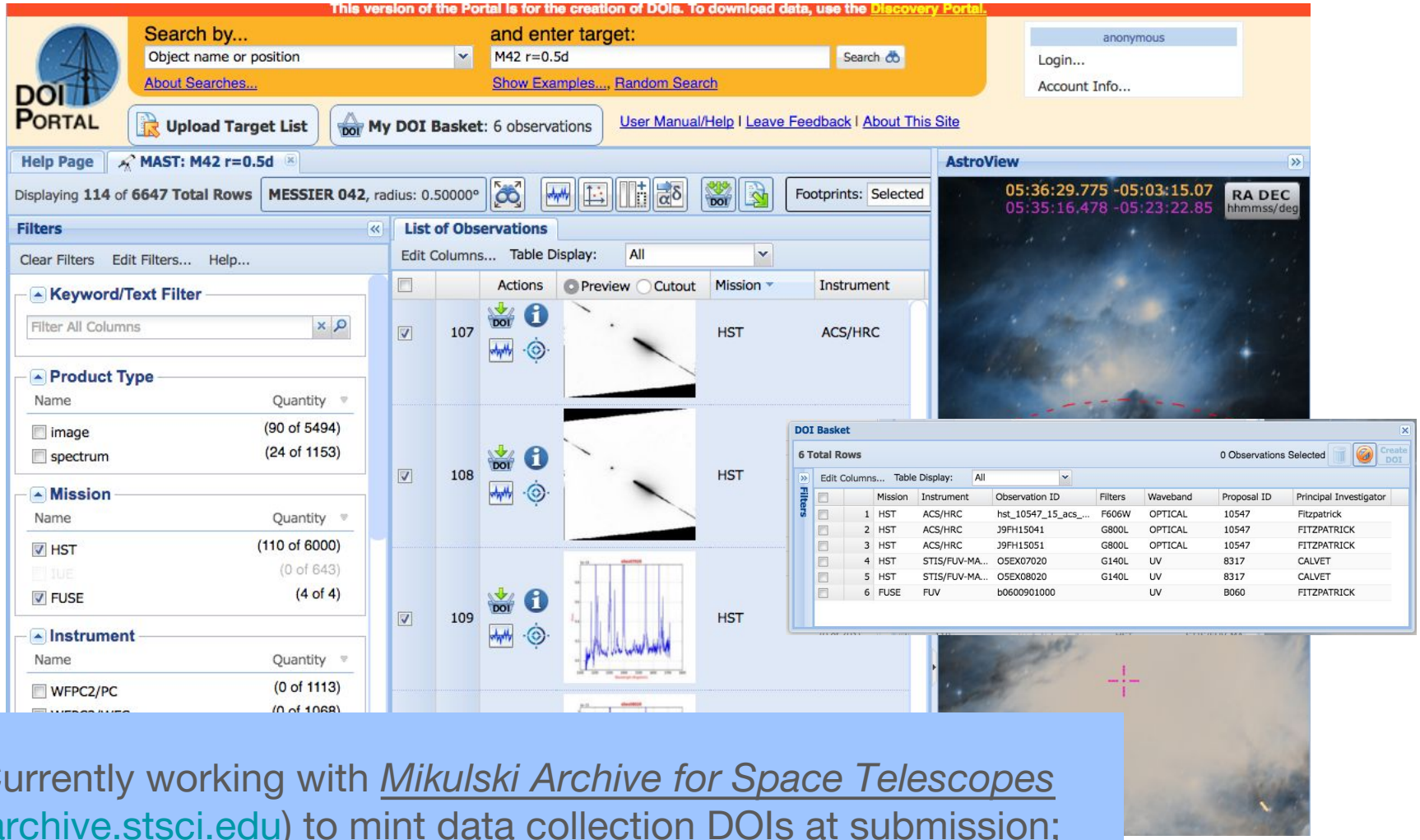


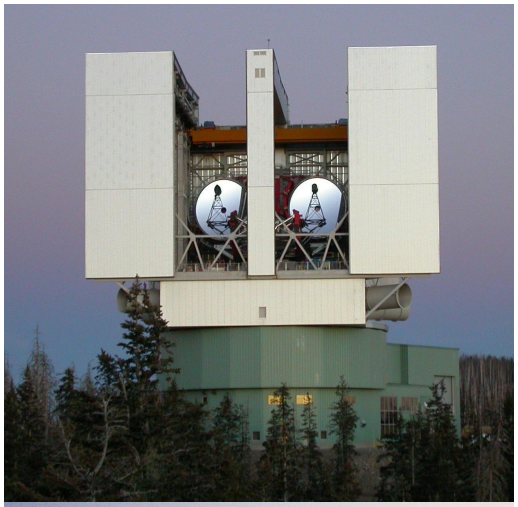
~20% of 2013 AAS Journal articles contain datasets

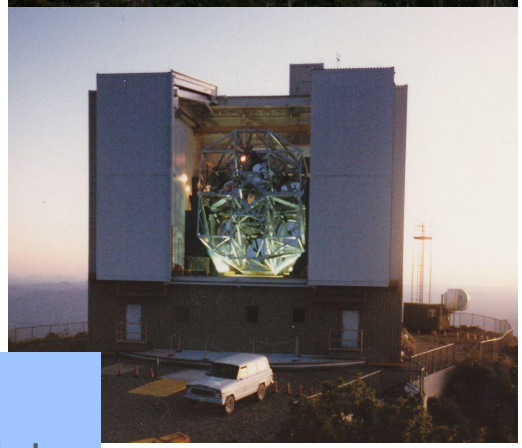
Result of Society Journal Services: *Data Review, Data behind Figures, Partnerships with Astronomy databases*;



Currently working with *Mikulski Archive for Space Telescopes* (archive.stsci.edu) to mint data collection DOIs at submission;

- ➔ *Accelerate for Success* Partnership with Arizona School of Information, Department of Astronomy/ Steward Obs., CyVerse Collaborative, UofA Library, AAS Journals;
- ➔ Prevalence of orphaned "Historic" data in the literature;
- ➔ Obtain community buy-in and manage expectations;
- ➔ Explore the landscape of custom cloud-based scientific analysis platforms or ready-made ones (e. g., Dataverse) for a particular requirement.





Building requirements for an "Arizona" Astronomy DataHub;

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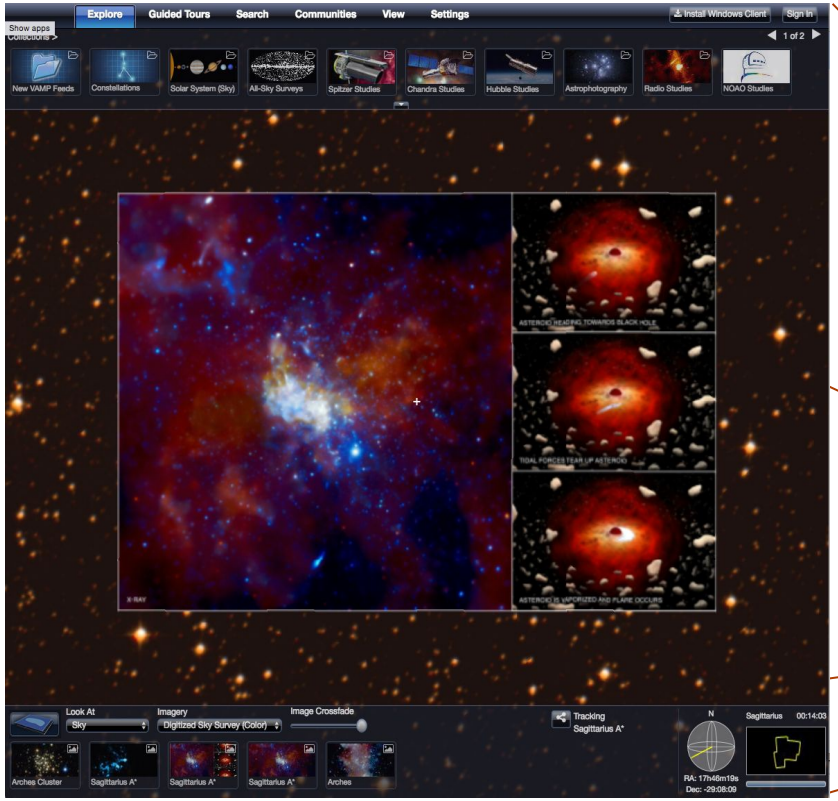

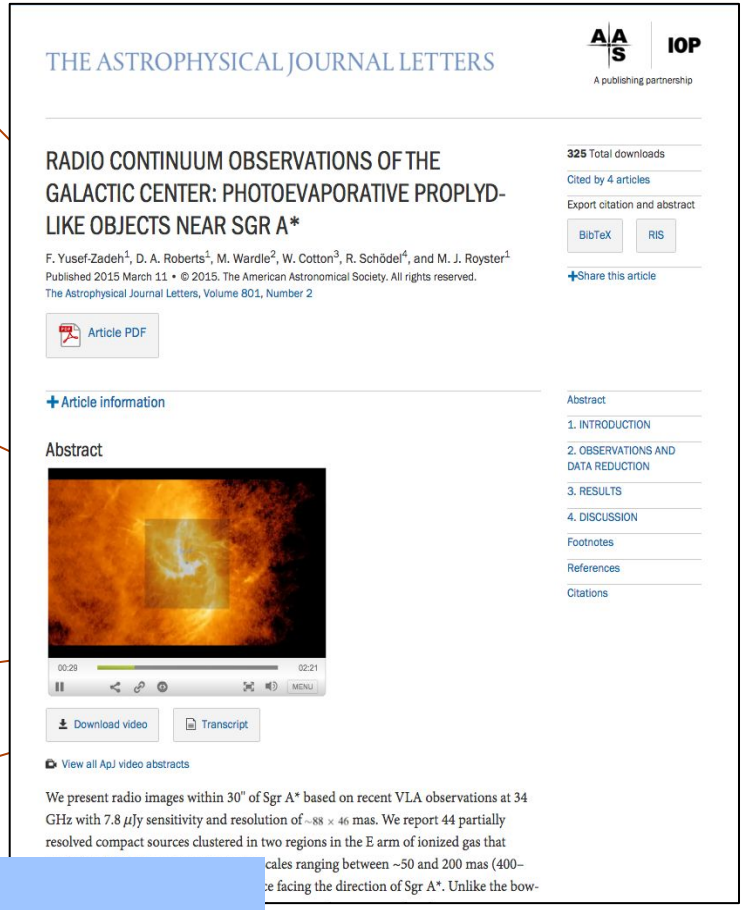

THE ASTROPHYSICAL JOURNAL LETTERS

A publishing partnership

RADIO CONTINUUM OBSERVATIONS OF THE GALACTIC CENTER: PHOTOEVAPORATIVE PROPLYD-LIKE OBJECTS NEAR SGR A*

F. Yusef-Zadeh[1], D. A. Roberts[1], M. Wardle[2], W. Cotton[3], R. Schödel[4], and M. J. Royster[1]

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The Astrophysical Journal Letters, Volume 801, Number 2

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Abstract

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We present radio images within 30" of Sgr A* based on recent VLA observations at 34 GHz with 7.8 μJy sensitivity and resolution of ~88 × 46 mas. We report 44 partially resolved compact sources clustered in two regions in the E arm of ionized gas that

cales ranging between ~50 and 200 mas (400–

ce facing the direction of Sgr A*. Unlike the bow-

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Abstract

1. INTRODUCTION

2. OBSERVATIONS AND DATA REDUCTION

3. RESULTS

4. DISCUSSION

Footnotes

References

Citations

Leading the Open Source WorldWide Telescope to support author's data visualization | www.worldwidetelescope.org;

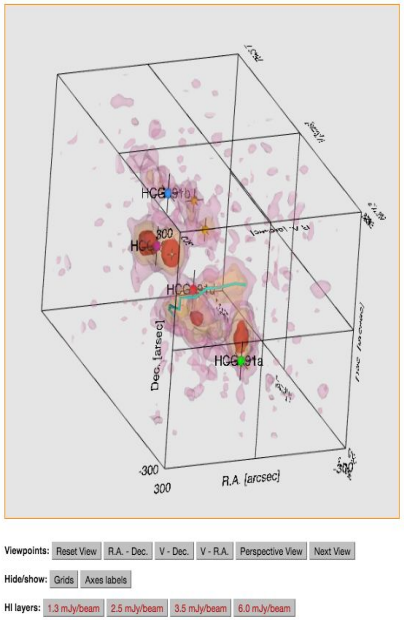

Figure 3. H I gas distribution and kinematics of the compact group of galaxies HCG 91

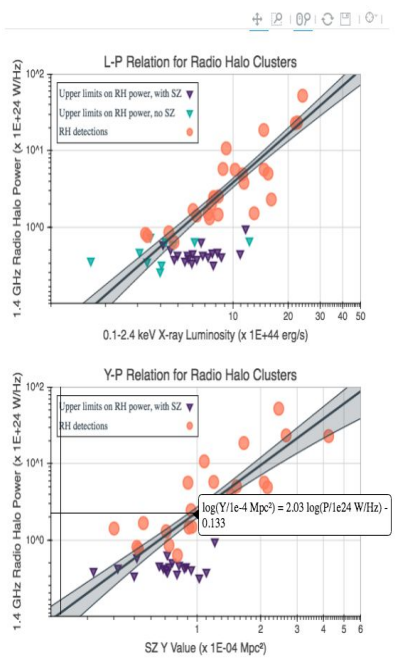

Figure 1. $L_X - P$ diagram. Clusters with only upper limits on the radio halo power are

UNIFIED ASTRONOMY THESAURUS

- ➔ The "X3D" Pathway, Vogt et al. 2015, ApJ
  doi:10.3847/0004-637X/818/2/115
  http://fpavogt.github.io/x3d-pathway/
- ➔ Ogrean et al. 2016, ApJ
  doi:10.3847/0004-637X/819/2/113
  https://github.com/gogrean/InteractiveFigs

Continuing community oriented data/software publishing:
Unified Astronomy Thesaurus, User-built Interactive Figures.