

Cool Tools 2011.1

CfA



SEAMLESS ASTRONOMY

Linking scientific data, publications, and communities

ABOUT PEOPLE PROJECTS PUBLICATIONS PRESENTATIONS SOFTWARE CFA DATA (BETA) EVENTS

Cool Tools 2011.1

in cfa software tools VAO

Date: Tuesday, November 22, 2011, 10:00am - 11:10am

Cool Tools 2011.1 Online Astronomy Research Tools from the CfA

Come have COFFEE & BAGELS from 10-11 AM in PHILLIPS on TUESDAY, 11/22

Learn more about ADS Labs, options for valuable Data Citations, the ADS All-Sky Survey, cool new SED and Data-Mining Tools, WorldWide Telescope, and More!

VIDEO will be streamed at <http://tinyurl.com/cooltoolsvideo>

sponsored by the Seamless Astronomy team at the CfA

You can refer to this page and all its hyperlinks at:

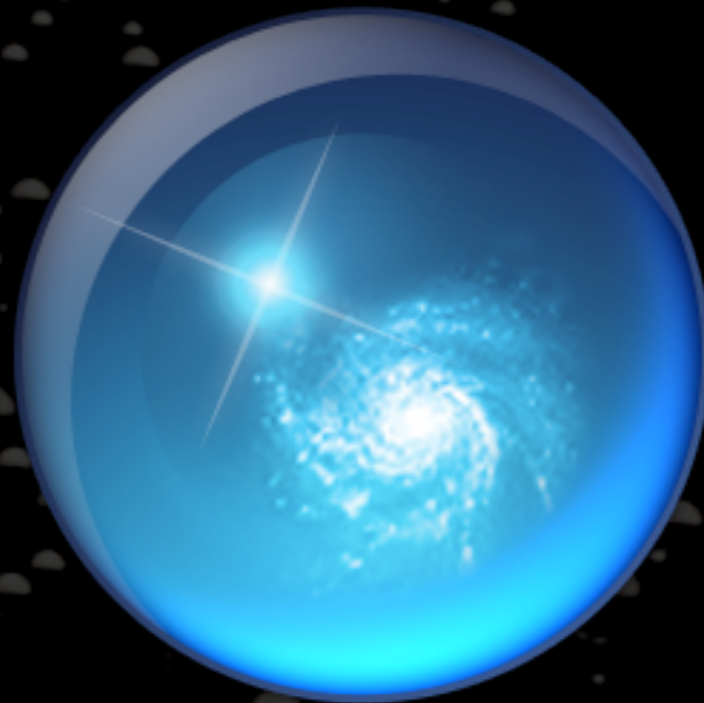
<http://tinyurl.com/cooltools2011>



Gus Muench

...and you might even find out why a Lego Eiffel Tower is on this poster.





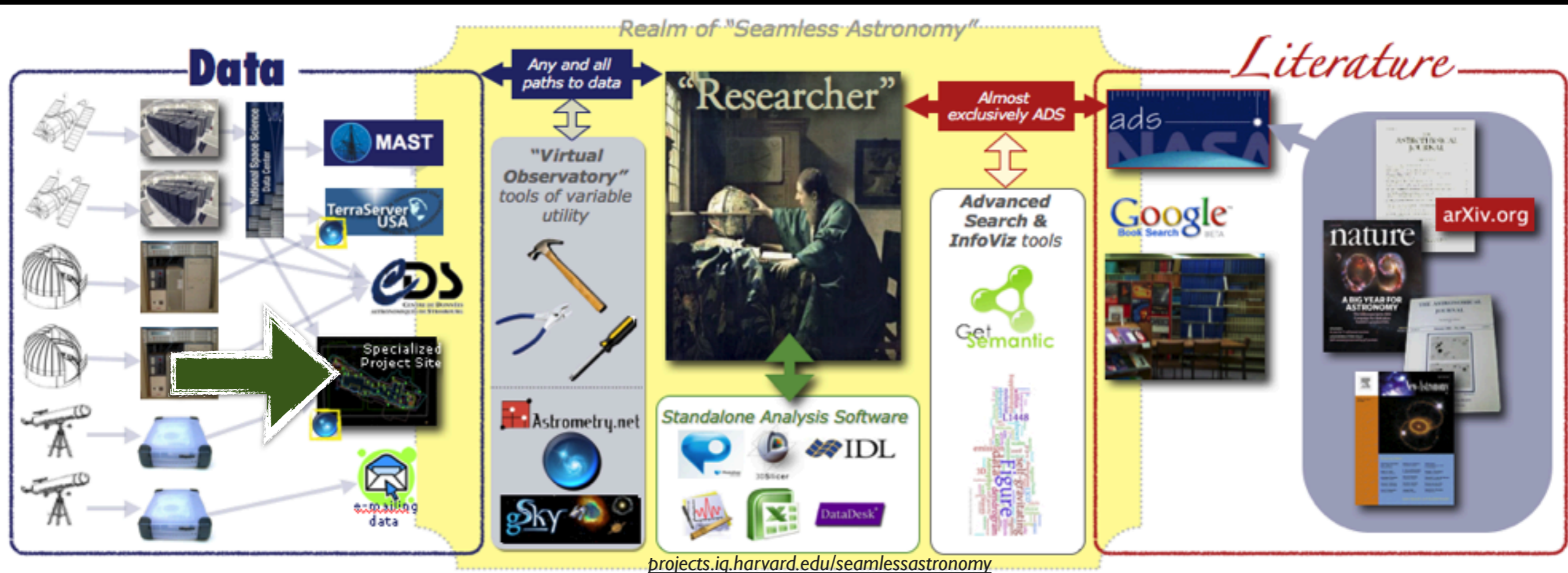
WorldWide Telescope in “Real” Research and Education

*Alyssa Goodman, Gus Muench, Alberto Pepe, and Patricia Udomprasert
(Harvard-Smithsonian Center for Astrophysics)
and Jonathan Fay and Curtis Wong (Microsoft Research)*

Research

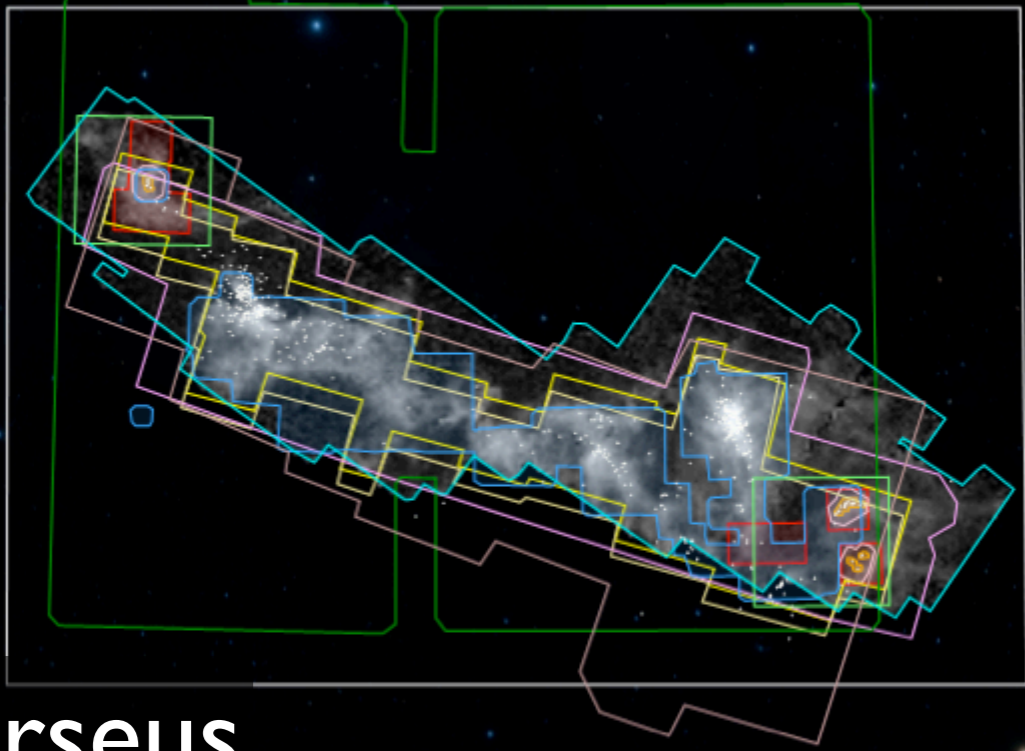
COMPLETE • SAMP • ADS Labs & All Sky Survey

WWT as part of “Seamless Astronomy”



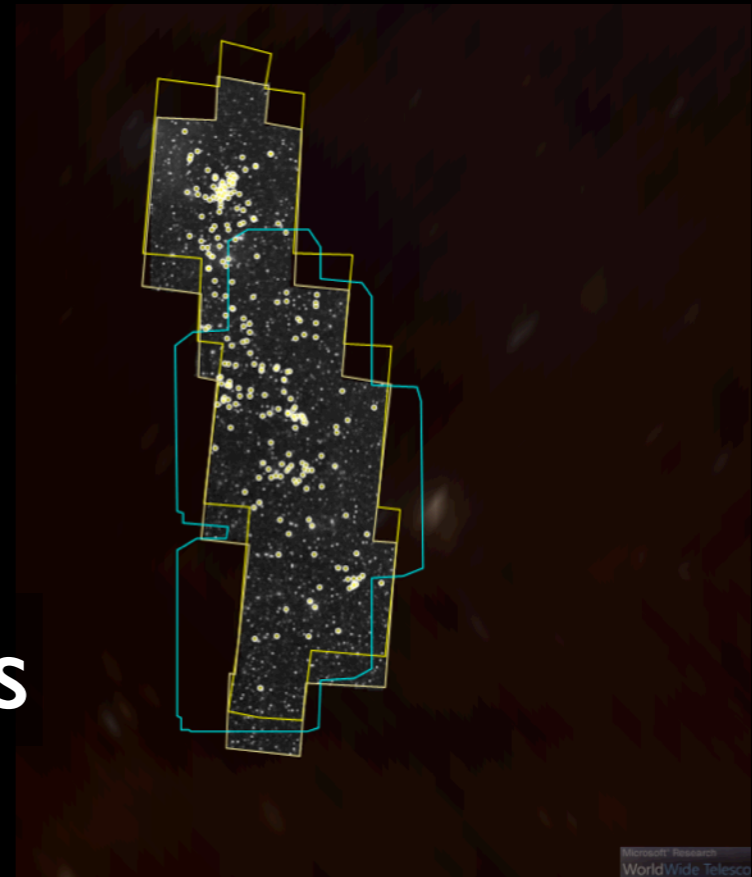
Alberto Accomazzi, Douglas Burke, Raffaele D’Abrusco, Rahul Davé, Alyssa Goodman, Christopher Erdmann, Pepi Fabbiano, Jay Luker, Gus Muench, Michael Kurtz & Alberto Pepe, Arnold Rots (Harvard-Smithsonian CfA); Eli Bressert (U. Exeter); Tim Clark (Massachusetts General Hospital/Harvard Medical School); Mercé Crosas (Harvard Institute for Quantitative Social Science; Chris Borgman (UCLA); Alberto Conti (STScI); Jonathan Fay & Curtis Wong (Microsoft Research)



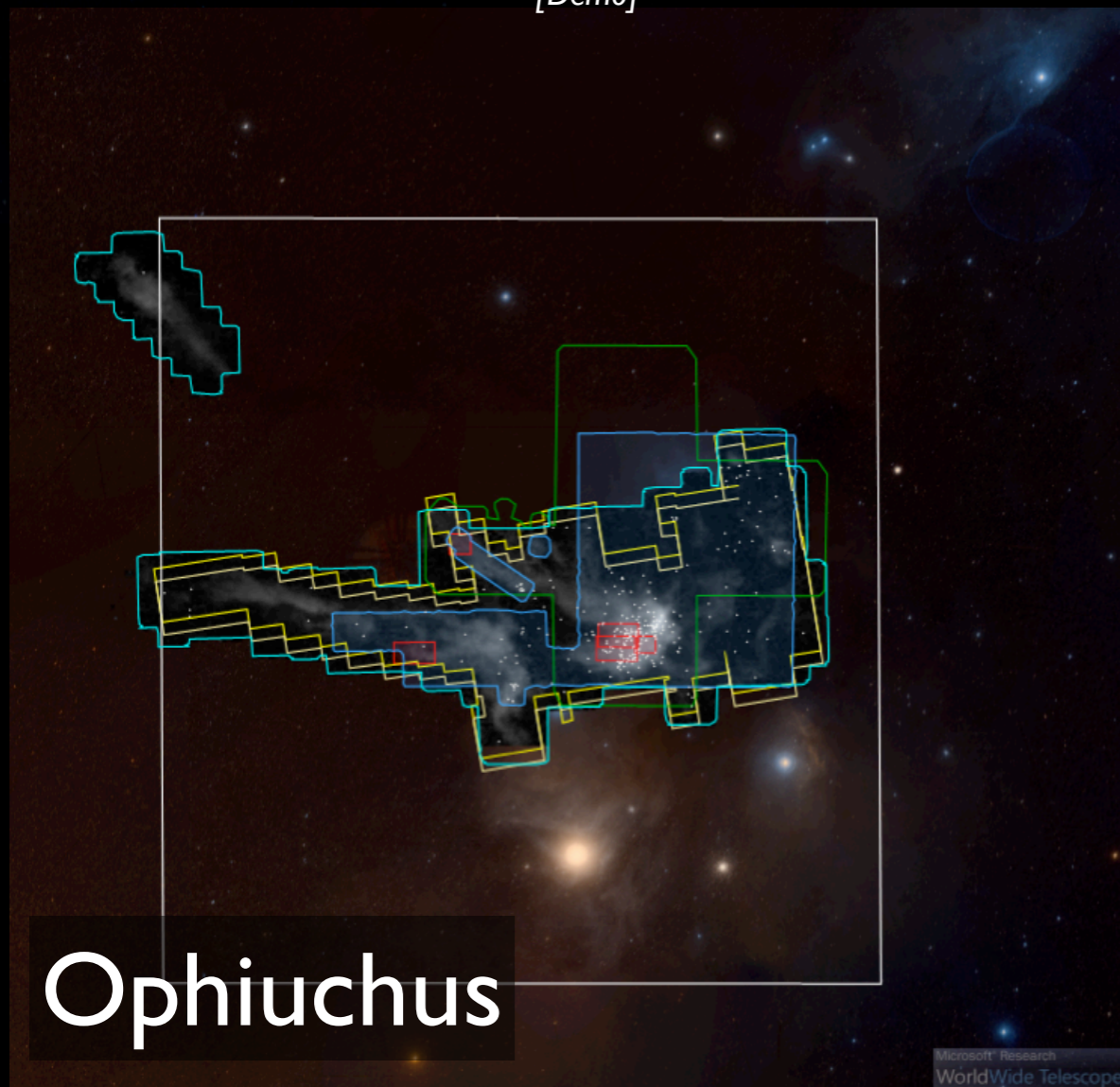


Perseus

[Demo]



Serpens



Ophiuchus

Microsoft Research
WorldWide Telescope

Microsoft Research
WorldWide Telescope

COMPLETE

The COordinated Molecular Probe Line Extinction Thermal Emission
Survey of Star-Forming Regions

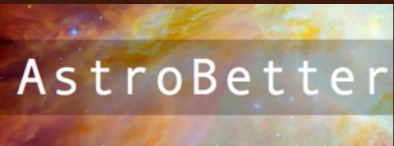
www.cfa.harvard.edu/COMPLETE

tinyurl.com/completepapers

Literature



WIKIPEDIA
The Free Encyclopedia



Blogs, Wikis, etc.

Data



“Registries”



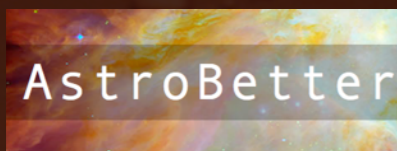
DataScope

Disclaimer: This slide shows key excerpts from within the astronomy community & excludes more general s/w that is used, such as Papers, Zotero, Mendeley, EndNote, graphing & statistics packages, data handling software, search engines, etc.

Literature

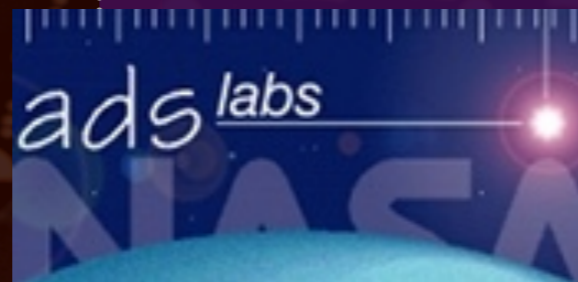


WIKIPEDIA
The Free Encyclopedia



Blogs, Wikis, etc.

"Seamless Astronomy" (Tools)



WorldWide Telescope



TOPCAT



ds9



"Registries"



DataScope

Disclaimer: This slide shows key excerpts from within the astronomy community & excludes more general s/w that is used, such as Papers, Zotero, Mendeley, EndNote, graphing & statistics packages, data handling software, search engines, etc.

Literature



Blogs, Wikis, etc.

"Seamless Astronomy" (Tools)



Data



"Registries"



Disclaimer: This slide shows key excerpts from within the astronomy community & excludes more general s/w that is used, such as Papers, Zotero, Mendeley, EndNote, graphing & statistics packages, data handling software, search engines, etc.

Literature



Blogs, Wikis, etc.

"Seamless Astronomy" (Tools)



SAMP



Data



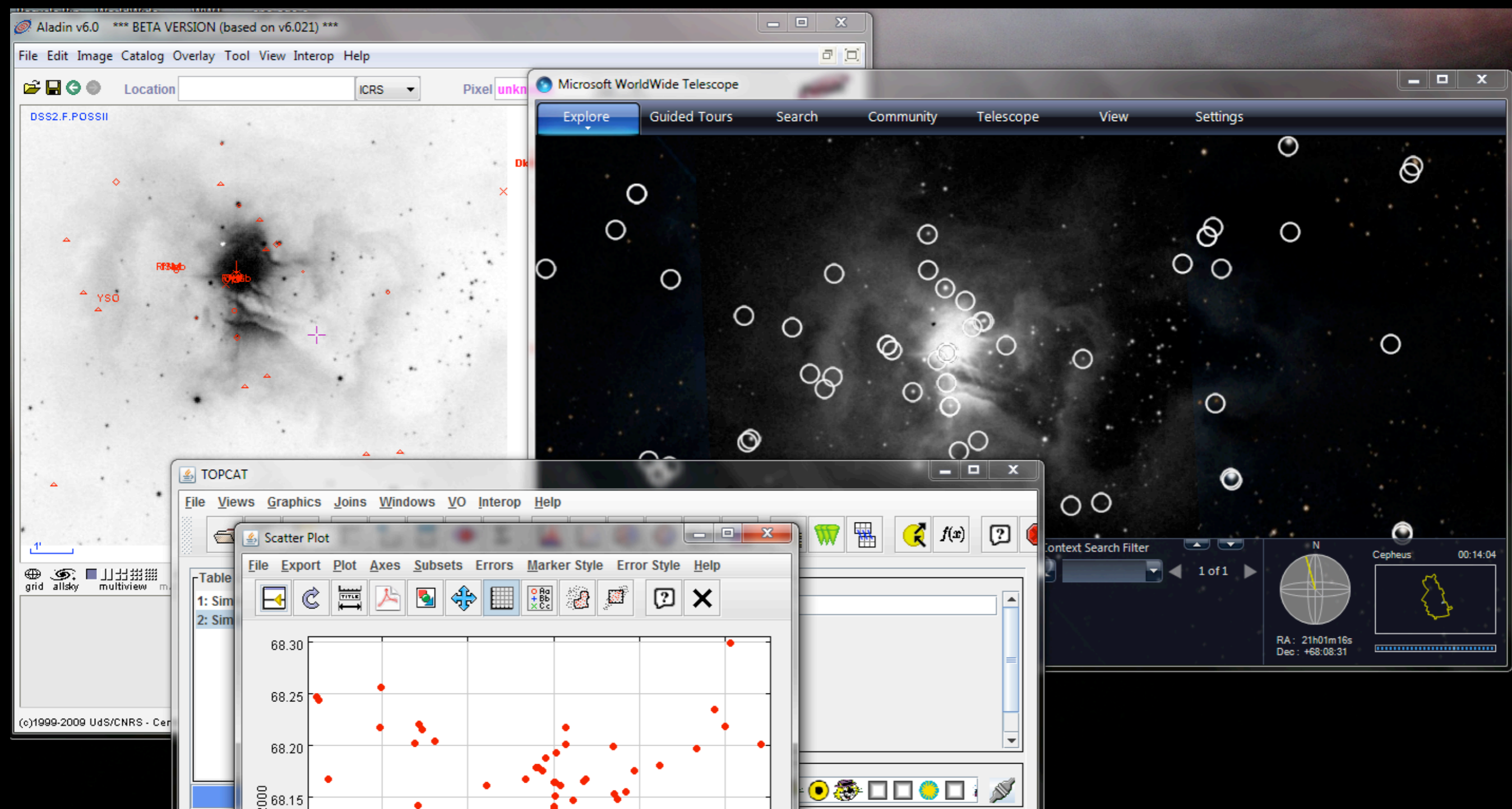
"Registries"



DataScope

Disclaimer: This slide shows key excerpts from within the astronomy community & excludes more general s/w that is used, such as Papers, Zotero, Mendeley, EndNote, graphing & statistics packages, data handling software, search engines, etc.

SAMP (Simple Application Messaging Protocol)

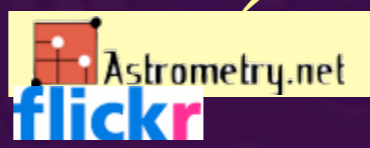


[link](#) to I2/2010 IVOA recommendation

Literature

"Seamless Astronomy" (Tools)

Data



Registries"



DataScope



Disclaimer: This slide shows key excerpts from within the astronomy community & excludes more general s/w that is used, such as Papers, Zotero, Mendeley, EndNote, graphing & statistics packages, data handling software, search engines, etc.



ADS Labs ADS Beta Search

[Home](#)[Labs Home](#)[ADS Classic](#)[Help](#)[agoodman@cfa.harvard.edu](#) - [Sign off](#)[Astronomy](#)

Sort by

- Most recent
- Most relevant
- Most cited
- Most popular

Explore the field

- What people are reading
- What experts are citing
- Reviews and introductory papers



**Alberto
Accomazzi**



The ADS is operated by the Smithsonian Astrophysical Observatory under NASA Grant NNX09AB39G
Contact: ads at cfa.harvard.edu or through the feedback form.

ADS Labs/Seamless Astronomy Collaboration
A. Accomazzi, A. Goodman, M. Kurtz, R. Davé, J. Luker, G. Muench, A. Pepe



zeeman effect ch - *Most recent*

[Export to ADS Classic](#)Object: Other object [X] OR Nebula [X]

FILTER BY:

Authors

- Uitenbroek, H (4)
- Amano, T (2)
- Angel, J (2)
- Asensio Ramos, A (2)
- Balasubramaniam, K (2)



Keywords

Archives

Missions

SIMBAD Objects

- Other object (3)
- Star (3)
- Nebula (1)

- NGC 7027 (1)
- ADS Publications X
- SIMBAD Info
- World Wide Telescope
- Aladin applet

Vizier Tables

Refereed status

Dates

3. [2010ApJ...716L...1A](#) **The J = 1-0 Transitions of 12CH+, 13CH+, and 12CD+**
Amano, T.
The Astrophysical Journal Letters, Volume 716, Issue 1, pp. L1-L3 (2010). Jun 2010
4. [2009ApJ...705L.176S](#) **Detection of the Zeeman Effect in the 36 GHz Class I CH3OH Maser Line with the EVLA**
Sarma, A. P.; Momjian, E.
The Astrophysical Journal Letters, Volume 705, Issue 2, pp. L176-L179 (2009). Nov 2009
11. [2003A&A...412..513B](#) **The molecular Zeeman effect and diagnostics of solar and stellar magnetic fields. II. Synthetic Stokes profiles in the Zeeman regime**
Berdyugina, S. V.; Solanki, S. K.; Frutiger, C.
Astronomy and Astrophysics, v.412, p.513-527 (2003) Dec 2003
12. [2000PASP..112..873W](#) **Magnetism in Isolated and Binary White Dwarfs**
Wickramasinghe, D. T.; Ferrario, Lilia
The Publications of the Astronomical Society of the Pacific, Volume 112, Issue 773, pp. 873-924. Jul 2000

Explore

Guided Tours

Search

View

Settings



WorldWide Telescope

Collections > Open Collections > Link Collection >



NGC 7027

1 of 1

“shift-click”
on object



Finder Scope



Classification:
Planetary Nebula
in Cygnus

NGC7027

RA: 21h07m01s	Magnitude: 10.5
Dec: 42 : 14 : 10	Distance: n/a
Alt: -02 : 33 : 41	Rise: 23:50
Az: 342 : 18 : 46	Transit: 09:40
	Set: 19:35

Image Credits:
Copyright DSS Consortium

Info
<http://gsss.stsci.edu/Acknowledgements/DataCo>

Research Show Object Close

Look At

Imagery

Sky

Digitized Sky Survey (Color)



Cygnus



NGC7027

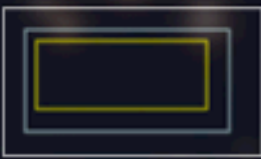


1 of 1



RA : 21h07m02s
Dec : 42:14:09

Cygnus 00:03:37



Done



NGC 7027



WorldWide Telescope

click "Research, Information"

Finder Scope



Classification: Planetary Nebula in Cygnus

NGC7027

RA:	21h07m01s	Magnitude:	10.5
Dec:	42 : 14 : 10	Distance:	n/a
Alt:	02 : 36 : 57	Rise:	23:50
Az:	042 : 29 : 00	Transit:	09:40
		Set:	19:35

Name: NGC7027

- Information
- Imagery
- Virtual Observatory Searches
- Set as Foreground Imagery
- Set as Background Imagery
- Properties
- Copy Shortcut
- Share on Facebook



- Look up on SIMBAD
- Look up on SEDS
- Look up on Wikipedia
- Look up publications on ADS
- Look up on NED
- Look up on SDSS

...more data

...or more literature



Look At: Sky

Imagery: Digitized Sky Survey (Color)

Cygnus

NGC7027

1 of 1



ads labs

NASA

RA : 21h07m02s

Dec : 42:14:09

Literature



"Seamless Astronomy" (Tools)



SAMP



Data



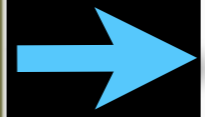
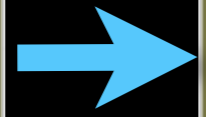
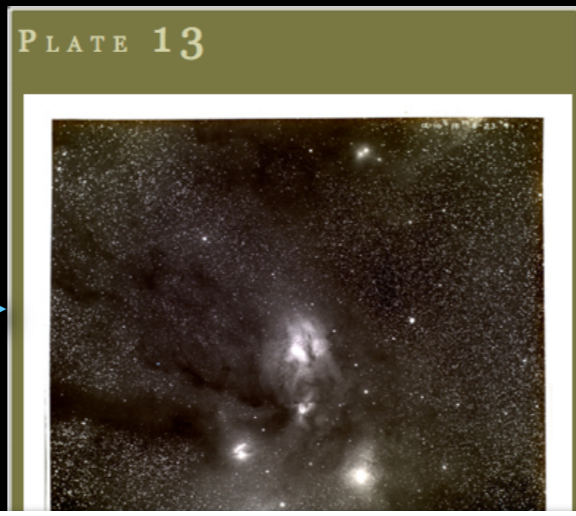
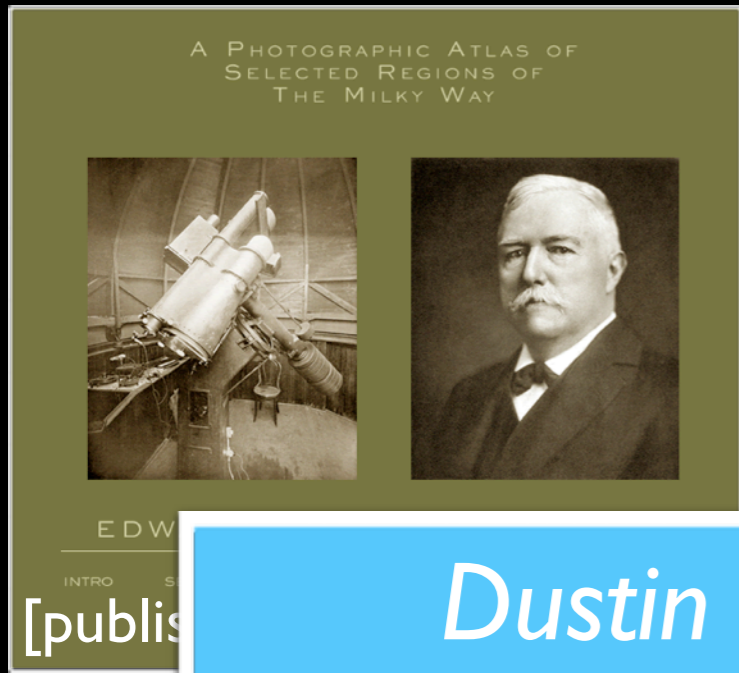
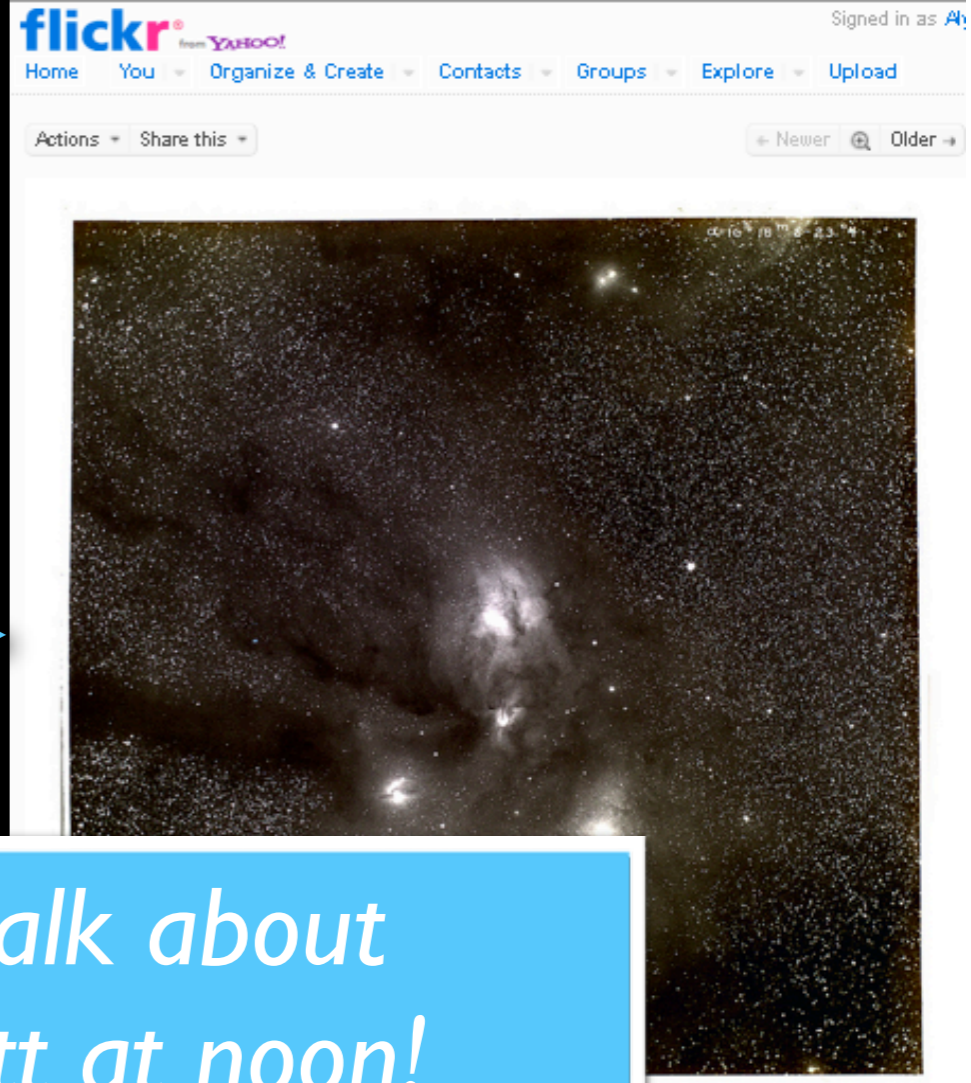
Registries"



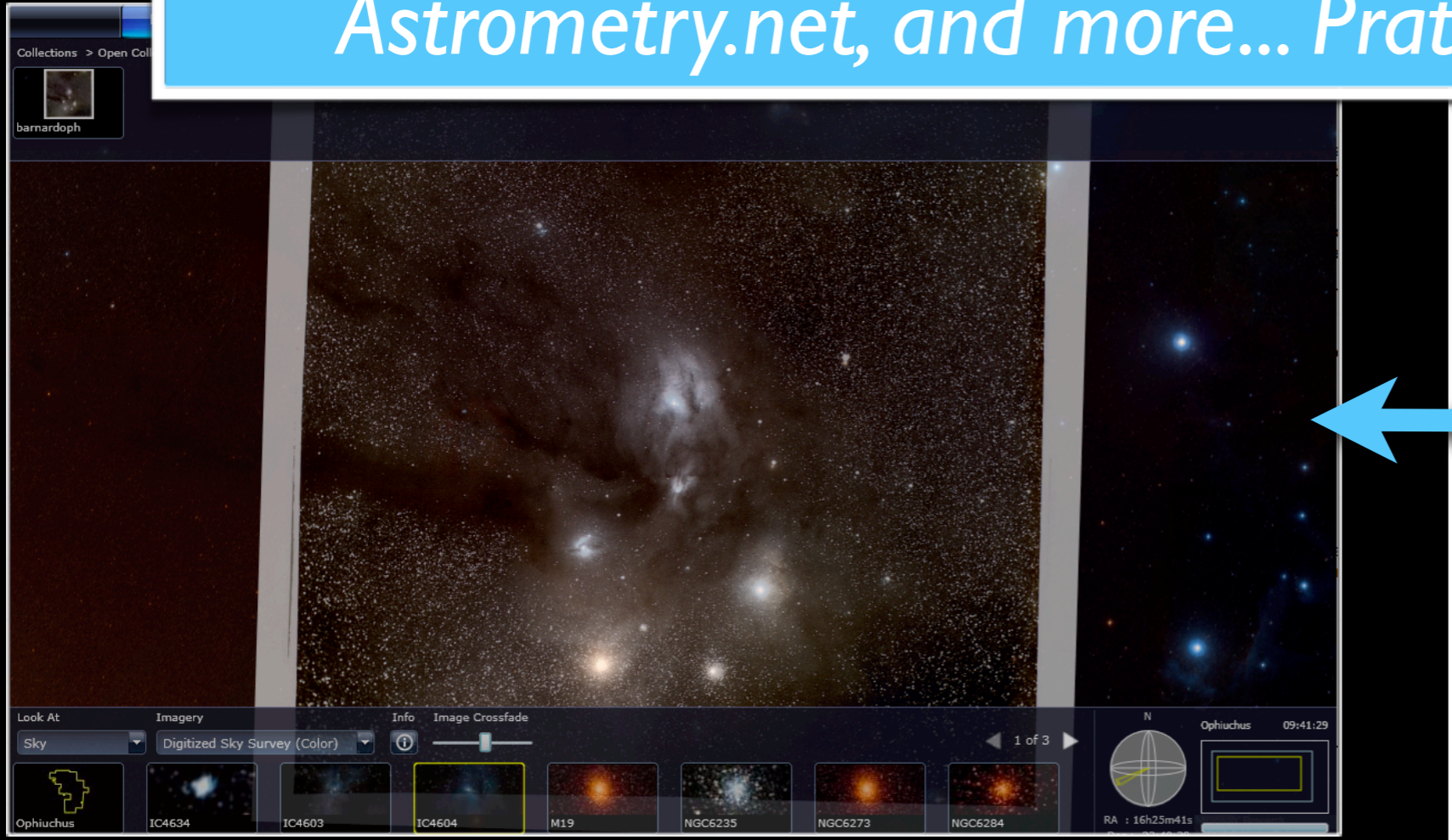
Disclaimer: This slide shows key excerpts from within the astronomy community & excludes more general s/w that is used, such as Papers, Zotero, Mendeley, EndNote, graphing & statistics packages, data handling software, search engines, etc.

“Seamless Astronomy” ...

astrometry.net + flickr + WWT



Dustin Lang is here today to talk about Astrometry.net, and more... Pratt at noon!



barnardoph
E.E. Barnard's image of Ophiuchus
www.library.gatech.edu/bpdi/bpdi.php

Comments and faves **astrometry.net**

astrometry.net (6 days ago | reply | delete)
Hello, this is the blind astrometry solver. Your results are:
(RA, Dec) center:(246.421365149, -23.6749819397) degrees
(RA, Dec) center (H:M:S, D:M:S):(16:25:41.128, -23:40:29.935)
Orientation:178.34 deg E of N

Pixel scale:52.94 arcsec/pixel
Parity:Reverse ("Left-handed")
Field size :9.41 x 9.41 degrees

Your field contains:
The star Antares (α Sco)
The star Graffias (β 1 Sco)
The star Al Niyat (σ Sco)
The star τ Sco
The star ω 1 Sco
The star ν Sco
The star ω 2 Sco
The star ω Oph
The star 13 Sco
The star ρ Sco
IC 4592
IC 4601
NGC 6121 / M 4
IC 4603
IC 4604 / rho Oph nebula
IC 4605

[View in World Wide Telescope](#)



Education

WWT Ambassadors



WWT Ambassadors: WorldWide Telescope For Interactive Learning

Alyssa Goodman
*Harvard University Professor of Astronomy,
Microsoft Academic Partner*

Pat Udomprasert
WWT Program Coordinator

Curtis Wong
Microsoft Research, WWT Creator

Stephen Strom
NOAO, WWT Tucson Site Advisor

Sarah Block
Web site development



Using WWT to give experts and learners access to the Universe

WWT Ambassadors Program Recruiting, Vetting, Coordination

data,
literature,
media



WWT



WWT Ambassadors

YOU?!


Community Presentations



WWT Tours



Ambassadors Program



In-school programs




[Home](#)
[About](#)
[My Account](#)
[Find Tours](#)
[Resources](#)
[Log Out](#)

About the WWT Telescope Ambassadors Program



WorldWide Telescope (WWT) is a rich visualization environment that functions as a virtual telescope, allowing anyone to make use of professional astronomical data to explore and understand the universe. As of early 2010, the new WWT Ambassadors Program is recruiting astronomically-literate volunteers, including retired scientists engineers—all of whom will be trained to be experts in using WWT as a teaching tool. Ambassadors will give volunteer presentations at public libraries, community centers, museums, and schools, demonstrating WWT's power to help laypeople visualize and understand our universe.

[Read more](#)

John Huchra's Universe

Submitted by [patudom](#) on Jan. 11

John Huchra, former president of the **American Astronomical Society**, passed away on October 8, 2010.

John's colleagues at the Harvard-Smithsonian Center for Astrophysics, in collaboration with the creators of WorldWide Telescope at Microsoft Research, have created a new, interactive, WWT Tour to honor John and his career. The Tour primarily focuses on John's quest to map the Universe in three dimensions. It is 12.5 minutes long.

The Tour is best experienced inside the WorldWide Telescope program itself. **(Note: You must have the version of WWT released on 1/13/2011 to view all of this Tour's content. You can download it from [here](#).)** As viewed within the WWT program, the Tour content is interactive, allowing users to pause and explore the parts of the Universe featured in the tour, explore web hyperlinks, and more. For those who do not have the desktop client, the Tour has been posted as a video as well.

Video (Interactive WWT features will be disabled)

John Huchra's Universe



Friends of John Huchra have released a new WWT Tour to honor John and his work. The Tour primarily focuses on John's quest to map the Universe in three dimensions. You can view the Tour [here](#).

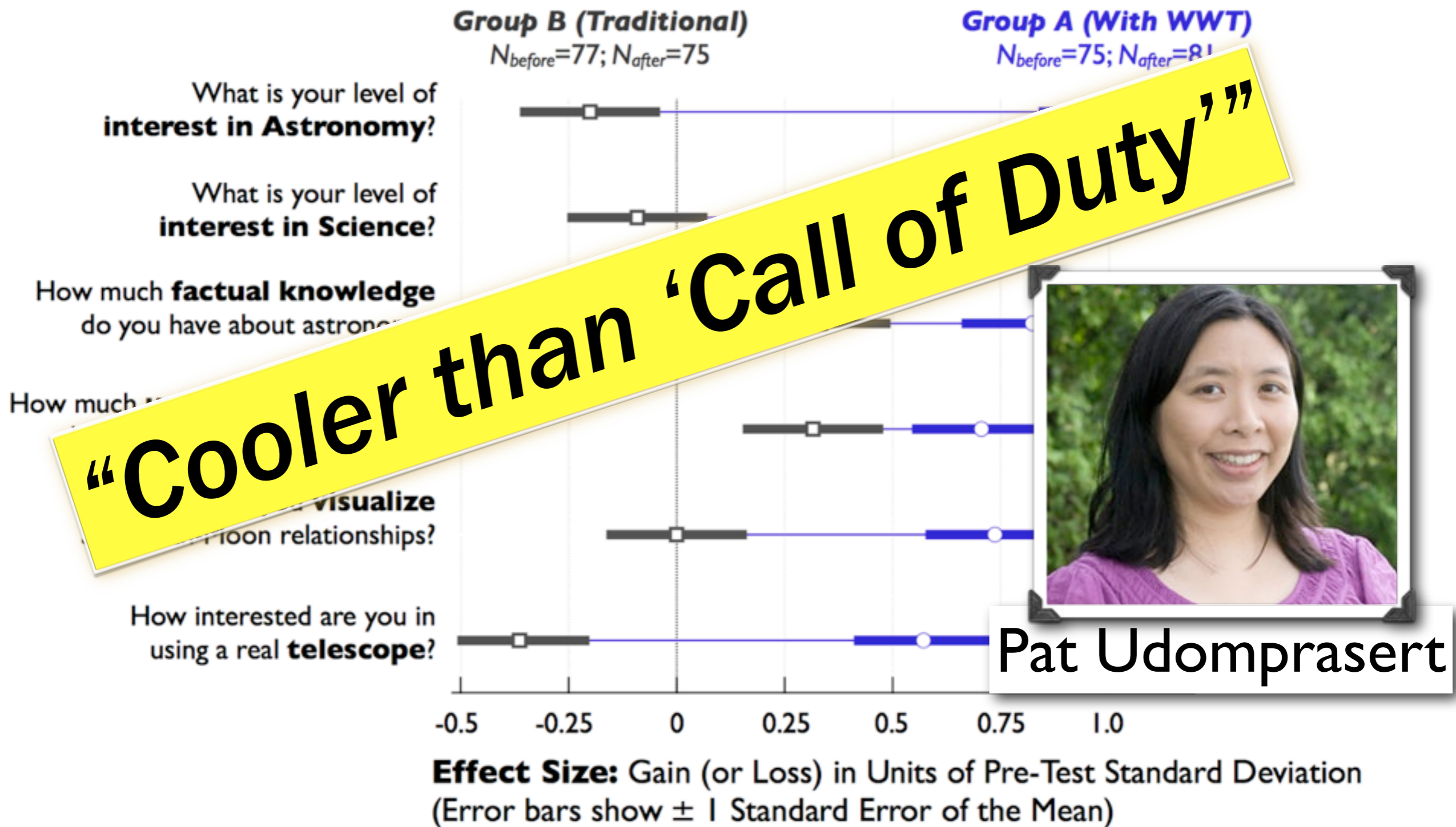
Upcoming

- [Cyberlearning Tools for STEM Education Conference](#)
Mar. 8 - Mar. 9
- [Cambridge Science Festival](#)
Apr. 30 - May. 10



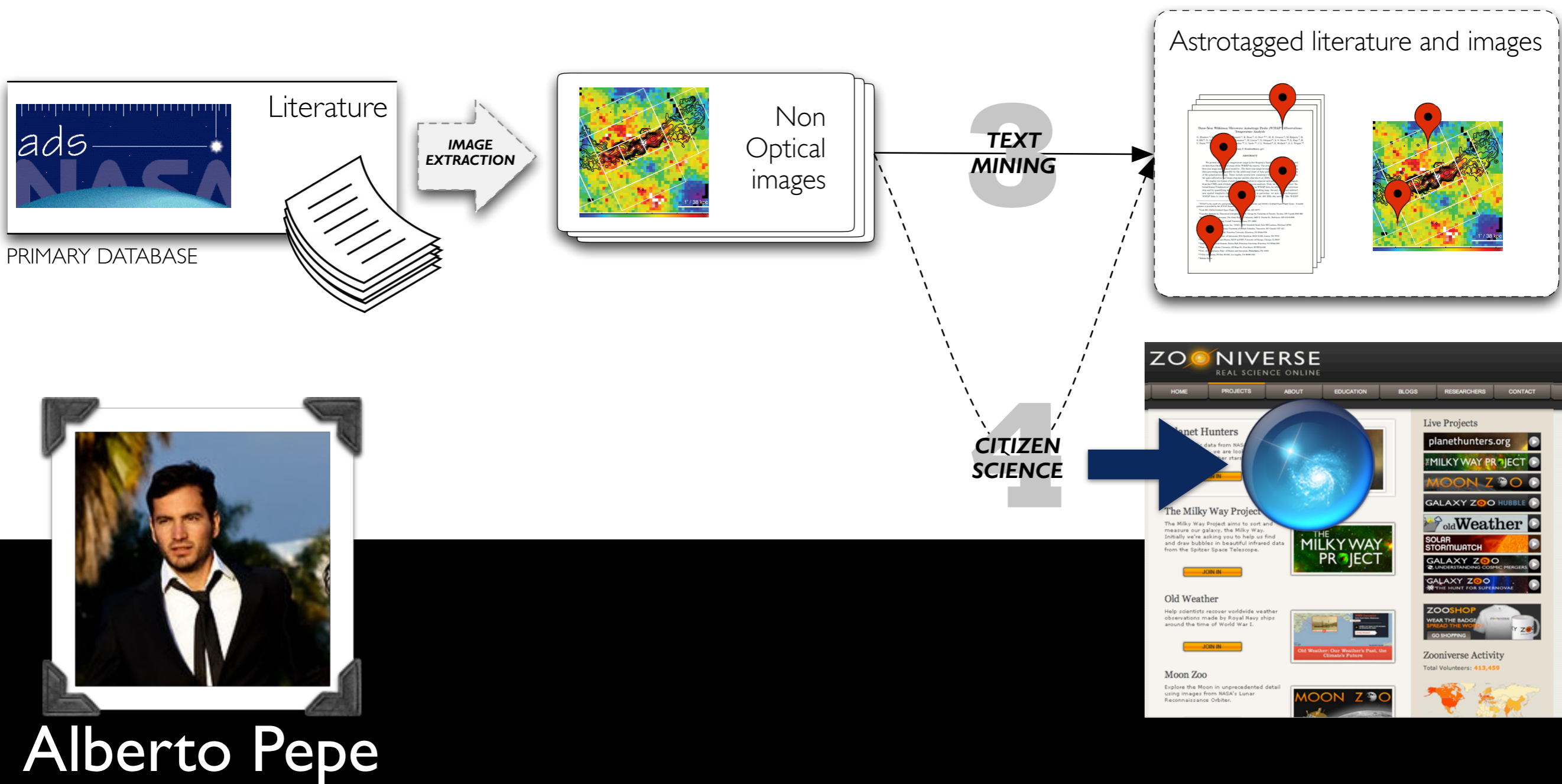
Clarke Middle School, Lexington, MA (WWT Ambassadors Pilot School)

Gains in Student Interest and Understanding (“Traditional Way” vs “WWT Way”)



Research+Education

Citizen Science in ADS All Sky Survey (Coming Soon...)



PRIMARY DATABASE

Literature

IMAGE EXTRACTION

Non Optical images

TEXT MINING

Astrotagged literature and images

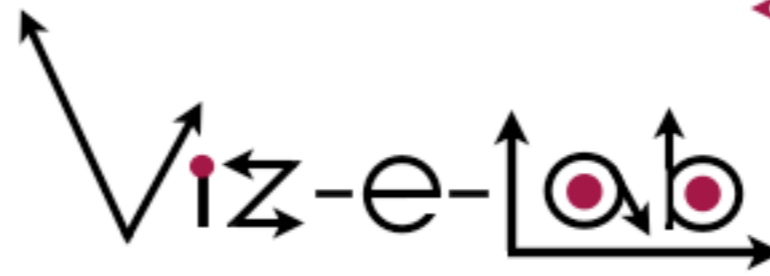
CITIZEN SCIENCE



Alberto Pepe

Viz-e-Lab

3rd floor at 160 Concord



Projects
2011

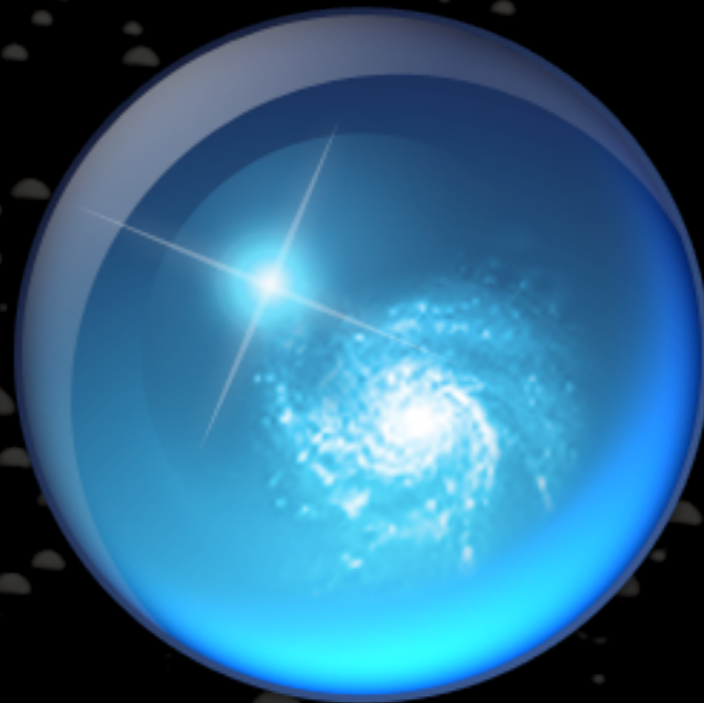
 <i>"Taste-Testing"</i>	 <i>Worldwide Telescope/Ambassadors</i>	 <i>Linked Views/Dendrograms</i>
 <i>High-D Data Viz</i>	 <i>Seamless Astronomy</i>	 <i>Walbach User Experience Lab</i>
 <i>ADS Labs</i>	 <i>CfA Astronomy Dataverse</i>	 <i>VIRTUAL ASTRONOMICAL OBSERVATORY VAO/Online Astronomy User Group</i>

collaborators/contacts at CfA

Astronomy: Alyssa Goodman Online Astronomy Group, CfA Data Archives: Gus Muench ADS Group: Alberto Accomazzi
 Telescope Ambassadors: Pat Udomprasert High-Dimensional Data Visualization & Interactions: Michelle Borkin
 Library Lab at CfA: Christopher Erdmann VAO at CfA: Pepi Fabbiano Social Networks in Science: Alberto Pepe

Questions about using the Viz-e-Lab? Contact Sarah Block, 5-7331, sblock@cfa.harvard.edu





WorldWide Telescope in “Real” Research and Education

*Alyssa Goodman, Gus Muench, Alberto Pepe, and Patricia Udomprasert
(Harvard-Smithsonian Center for Astrophysics)
and Jonathan Fay and Curtis Wong (Microsoft Research)*