

# ASCOT: AStromonomical COllaborative Toolkit

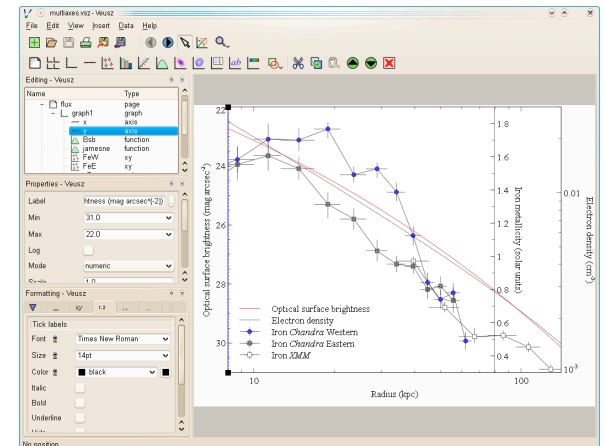
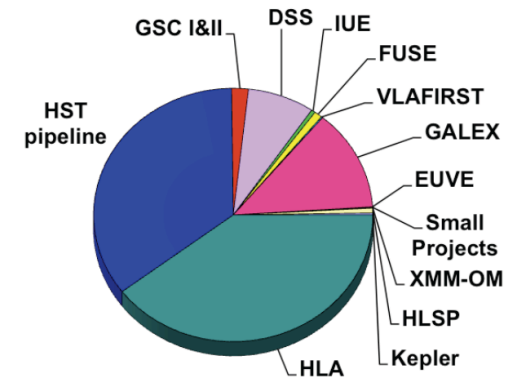
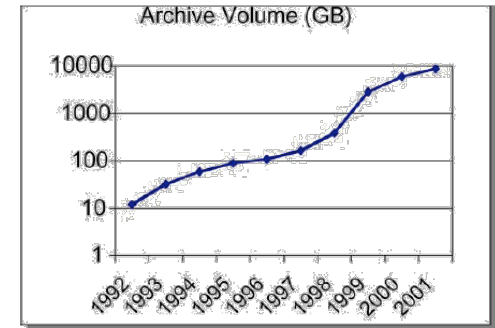
Andrew Connolly, Ian Smith, Rob Gibson, Simon Krughoff  
University of Washington

We gratefully acknowledge support from the  
NASA AISRP program NNX09AK48G

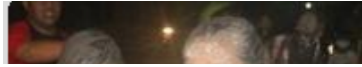


# A Surfeit of Riches.....

- **Data and Analytics in Astronomy**
  - **Large Heterogeneous archives**
    - Distributed across US and the world
    - Common protocols but range of UIs
    - Hard to customize an interaction
  - **Diversity of Powerful Tools**
    - Topcat, Veusz, DS9, Data Miner
    - Rich and complex desktop applications
    - Learning curving not always shallow
    - UI not always intuitive
    - Hard to customize and adapt
  - **Want to Simple Intuitive Interfaces**
    - Ease of use
    - Customizable
    - Shareable



# Analytics Outside of Astronomy



TOP NEWS STORY

Embedded KML Viewer

© 2010 Google  
 © 2010 Europa Technologies  
 US Dept of State Geographer  
 © 2010 Tele Atlas

Gmail

Weather

Seattle, WA

54°F Current: Cloudy  
 Wind: SE at 5 mph  
 Humidity: 79%

Thu 60° | 51°   Fri 57° | 47°   Sat 57° | 50°   Sun 52° | 47°

Google Calendar

October 2010						
S	M	T	W	T	F	S
26	27	28	29	30	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6

Today (Thu, Oct 21)

Baltimore, Penn, Boston

- 10:30am UW LSST meeting
- 12:00pm CalSim phonecon
- 12:30pm escience brown bag
- 1:00pm LSST Management Phonecon
- 4:00pm Colloquium

Tomorrow (Fri, Oct 22)

Baltimore, Penn, Boston

- 11:00am Bhuv

[Today](#) | [Add](#) [Options](#) ▾

Google Map Search

© 2010 Google - Map data © 2010 Google

Google Notebook

My Notebook [Open in full page](#)

New note Saved Tools ▾

- Ned and SIMBAD Ned works for < 0.5 degrees SIMBAD
- Week 26 August: Phone cons: David Malin GEMS data

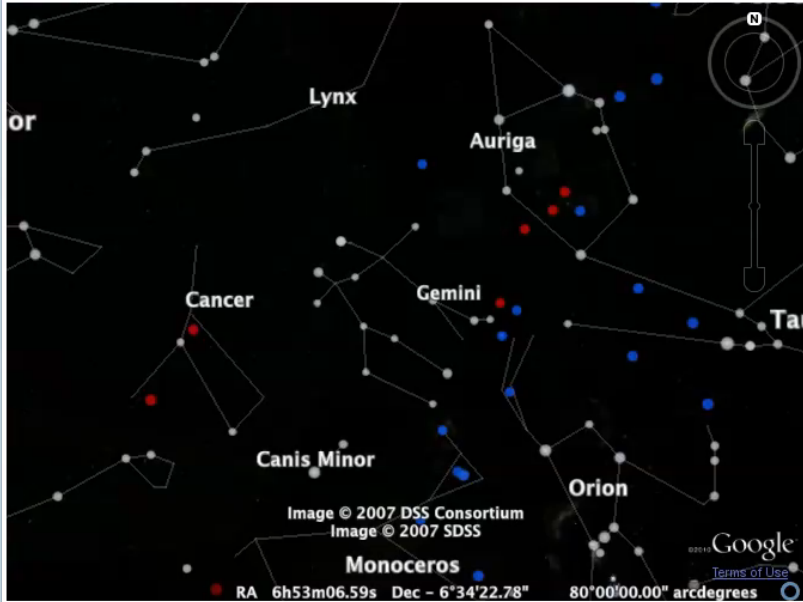
Sci & Environment Edit x

Probe sweeps past

Dax	6734.69	▲	116.89
Cac 40	3916.78	▲	73.84

15 minute delay | [Terms and Conditions](#)

**Viewport Sky** | [toggle](#)



**Name Resolve** | [toggle](#)

Enter object or RA and DEC   e.g. "M67" or "190 00 00 -11 37 21.2"

**Data Query** | [toggle](#)

Dataset Name:

Catalog:

Query String:

**Viewport Bounds**  
ra between -75.5518 and 160.7827 and  
dec between -25.0000 and 59.5996

**Plot** | [toggle](#)

Dataset:  X Axis:  Y Axis:

Selection Color:   Select  Zoom  Info

**Data Gadget** | [toggle](#)

DataGadget v0.1

**Dataset Selector** | [toggle](#)

**Plot** | [toggle](#)

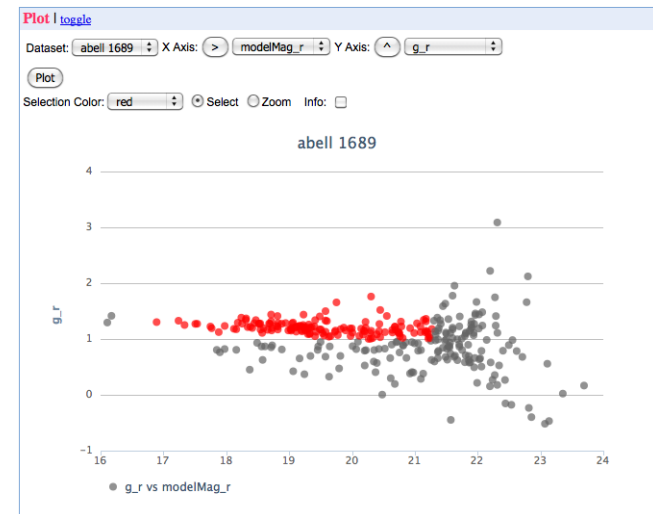
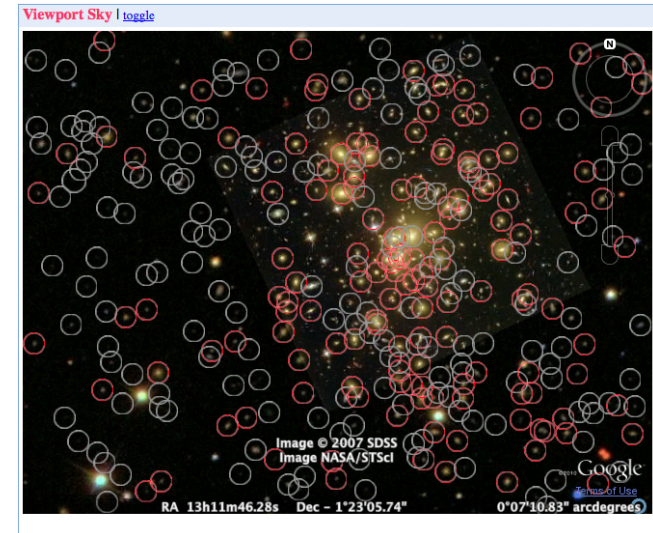
Dataset:  X Axis:  Y Axis:

Selection Color:   Select  Zoom  Info

**Data Table** | [toggle](#)

# ASCOT: A Collaborative Gadget Framework

- **Browser-based Exploration**
  - Fast inter-gadget communication
  - Event driven (register and unregister)
  - Compact and efficient (data gadget)
  - No client download
- **Customizable**
  - Embed in web pages or gadget servers
  - User selects tools (configurable)
  - Name spaces so we choose which components interact
- **Shareable**
  - Scales to a few thousand points
  - Share interface or share view (future)
  - Cloud-based applications



## Collaborative Astronomy (ASCOT)

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- **Social Networking Tools in Astronomy**
  - Intuitive and responsive interface
  - Customizable access to data and analytics
  - Scalable through cloud services
  - Sharable
  
- **Alpha Release**

<http://ssg.astro.washington.edu/research.shtml>

Please send us feedback