



MAST
Users
Group
Meeting

Nov 18
2013

MAST Data Discovery Portal

Tony Rogers

- Objectives
- Demo
- Future Work

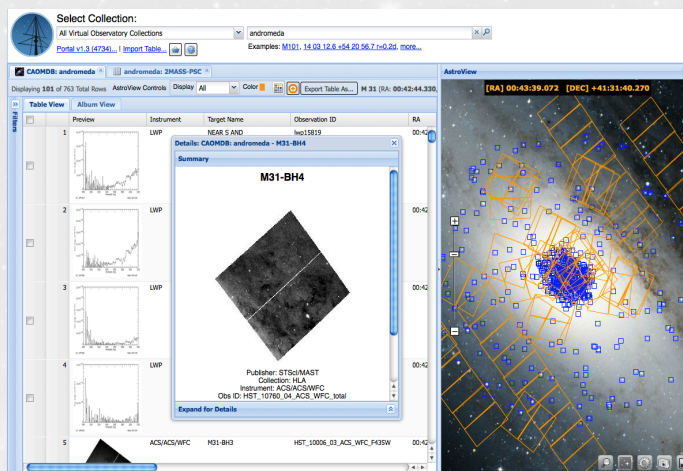


**MAST
Users
Group
Meeting**

**Nov 18
2013**

Objectives

1. Unify all MAST missions with a common web interface.
2. Provide instant access to Virtual Observatory
3. Build a framework for astronomy data interchange.





MAST
Users
Group
Meeting

Nov 18
2013

Demo Script

- Tutorial 1: Positional Search: M63
 - Filtering: string/numeric/filter-all
 - Add-To-Cart, Download: tar or wget
 - Grid: Sort, Move, Show/Hide, Export

- Tutorial 2: Crossmatch Search: 10 Messier Objects -> MAST Observations
 - Actions: Insta-Download
 - Actions: Add To Cart'
 - Actions: Details Dialog: External Viewer
 - Actions: Jump To Target

- Tutorial 3: VO Search: M51
 - Load 2MASS Catalog Objects
 - Filter brightest Objects
 - Crossmatch: 2MASS Catalog Objects -> Vizier WISE
 - Export Results Grid

- Tutorial 4: Visualization
 - Charting: Selection via Grid+AstroView+Chart, axis
 - AstroView: Selection, Navigate, Background, Grid, RA/DEC

- Tutorial 5: 'SID' JWST internal Instrument Test data
 - (<http://mast.stsci.edu/sid>)



MAST
Users
Group
Meeting

Nov 18
2013

Demo

<http://mast.stsci.edu/explore>

Select Collection:
All Virtual Observatory Collections | andromeda

Portal v1.3 (4734)... | Import Table... | Examples: [M101](#), [14 03 12.6 +54 20 56.7 r=0.2d](#), [more...](#)

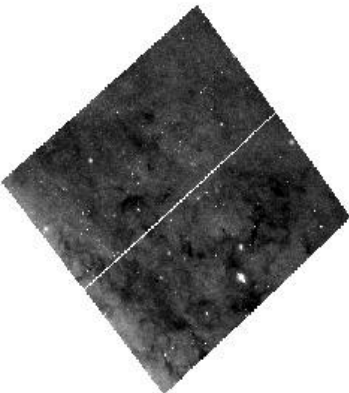
CAOMDB: andromeda | andromeda: 2MASS-PSC

Displaying 101 of 763 Total Rows | AstroView Controls | Display All | Color | Export Table As... | M 31 (RA: 00:42:44.330, [RA] 00:43:39.072 [DEC] +41:31:40.270)

Filters	Table View	Album View	Preview	Instrument	Target Name	Observation ID	RA
<input type="checkbox"/>				LWP	NEAR S AND	lwp15819	00:42:44.330
<input type="checkbox"/>				LWP			00:42:44.330
<input type="checkbox"/>				LWP			00:42:44.330
<input type="checkbox"/>				LWP			00:42:44.330
<input type="checkbox"/>				ACS/ACS/WFC	M31-BH3	HST_10006_03_ACS_WFC_F435W	00:42:44.330

Details: CAOMDB: andromeda - M31-BH4

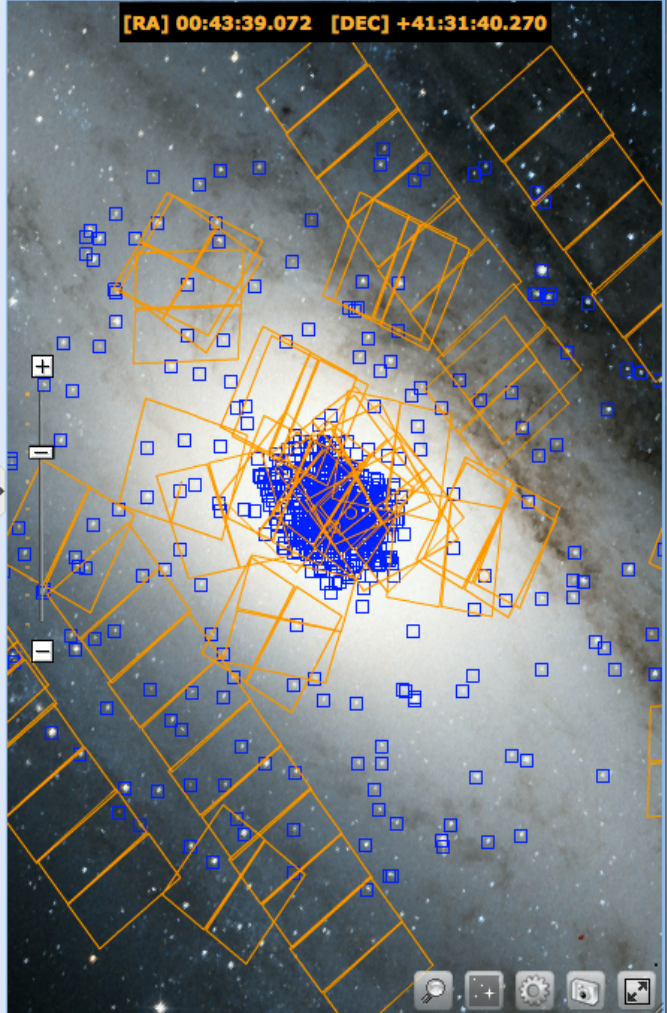
Summary



Publisher: STScI/MAST
Collection: HLA
Instrument: ACS/ACS/WFC
Obs ID: HST_10760_04_ACS_WFC_total

Expand for Details

AstroView



[RA] 00:43:39.072 [DEC] +41:31:40.270

MAST Portal Team

Nov 18
2013

Archive Scientists

- Scott Flemming
- Anton Koekemoer
- Brian McLean
- Rick White

Musher

- Karen Levay

Testing

- Lee Quick

Database Developers

- Bernie Shiao
- Randy Thompson
- Shui-Aye Tseng

Application Developers

- Geoff Wallace
- Theresa Dower
- Jacob Matusky

Tom Donaldson
Tony Rogers





Future Work

- Data Retrieval
 - Load remaining MAST observations into CAOM
 - Catalog searches, including HSC, GCAT & others
 - Parameterized query interface
 - Mission-Specific query interface

- Data Avalanche
 - Dealing with large result sets
 - Grouping similar records
 - Summary data views

- Data Visualization
 - Image services
 - Cutouts
 - Interactive FITS viewer
 - AstroView: More Surveys

- Single Sign On
 - Retain user preferences, search and download histories
 - Restrict access to proprietary data

- Other
 - Mobile
 - Improved logging and usage statistics
 - Manage UI Complexity

