



DECEMBER 2017

MAST NEWSLETTER

THE LATEST UPDATES FROM THE BARBARA A. MIKULSKI ARCHIVE FOR SPACE TELESCOPES AT

STSCI

MAST PORTAL ACCESS TO HST CALIBRATION DATA

HUBBLE CALIBRATION FILES AND CALIBRATION PROGRAM DATA ARE NOW AVAILABLE FOR DOWNLOAD THROUGH THE MAST DATA DISCOVERY PORTAL.

DECEMBER 11, 2017



The MAST Portal is now providing delivery of calibration data for Hubble Space Telescope (HST) instruments. This includes calibration files (bias, dark, and flat frames), as well as data from HST calibration programs, such as observations of standard stars for flux calibration or dispersion solutions.

MAST Advanced Search

Search Export Table Records Found: 28,156

Applied Filters

Clear All Obs Type: cal Mission: HST Instrument: ACS/WFC

Columns

Defaults Hide All

Filter columns: Column name

Project Filters Waveband Target Name Target Classification Observation ID RA Dec Observation Title Proposal ID Principal Investigator Calibration Level Start Time End Time Exposure Length Min. Wavelength

Filters

Object Name or Position

Enter object name or RA and Dec to cone search

Show Examples... No positional search performed.

Observation Type

Science Calibration All

Product Type

Enter text here or choose from below

Name	Quantity
image	(1,724,985 Total)
timeseries	(1,390,824 Total)
spectrum	(525,450 Total)
cube	(272,103 Total)

Mission

Enter text here or choose from below

Name	Quantity
K2	(1,185,200 Total)
PS1	(998,018 Total)
HST	(491,104 Total)
GALEX	(330,914 Total)
HLA	(326,494 Total)

Show 12 More

Instrument

Enter text here or choose from below

Name	Quantity
UVOT	(146,200 Total)
WFC2/WFC	(148,479 Total)
ACS/WFC	(130,164 Total)
WFC2/PC	(125,219 Total)
STIS/CCD	(88,781 Total)
WFC3/IR	(63,269 Total)
SWP	(54,259 Total)

Show Fewer

Filters

Enter text here or choose from below

Name	Quantity
KEPLER	(1,402,861 Total)
i	(200,182 Total)
r	(199,704 Total)
g	(199,415 Total)
y	(199,406 Total)

Show 424 More

Figure 1: A MAST Portal advanced search set to show calibration data for the ACS/WFC instrument on HST.

Calibration data can be retrieved using the Advanced Search functionality in the Portal. As an example, Figure 1 shows how to select calibration data for the ACS/WFC instrument on HST. After making these selections and hitting the “Search” button, the main Portal grid shows a list of calibration observations. Further filtering for bias or dark frames can be done using the “Calibration Level” selector on the left-hand side of the display (choose 1 and/or 2; see Figure 2). Filtering for calibration program data can be done by selecting Calibration Level = 3.

Select a collection...

MAST Observations by Object Name c

About Collections...

Upload Target List My

Home Page MAST: Advanced Search 1

28156 Total Rows of Observations

Filters

Clear Filters Edit Filters... Help...

Keyword/Text Filter

Product Type

Filters

Waveband

Target Classification

Calibration Level

Name	Quantity
2	(19,371 of 19,371)
1	(5,944 of 5,944)
3	(2,841 of 2,841)

Figure 2: Available 'Calibration Level' filters.

Additional questions about retrieving calibration data through the MAST Portal can be directed to the Archive Helpdesk at archive@stsci.edu.

NEW 'DOWNLOAD HISTORY' MAST PORTAL FEATURE

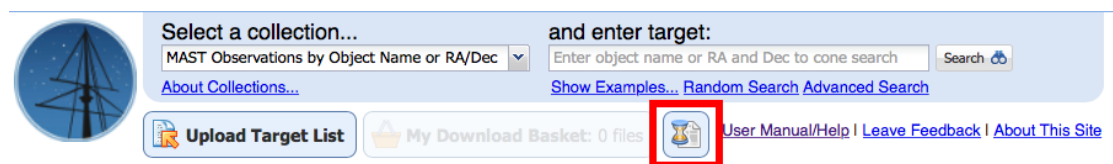
THIS FEATURE ALLOWS USERS TO REVIEW AND RE-DOWNLOAD PREVIOUSLY-
ACCESSED DATA WITHOUT THE NEED TO PERFORM ANOTHER QUERY.

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Version 3.3 of the MAST Data Discovery Portal includes a new 'Download History' feature within the download manager. Users who are logged in with a MyST account will be able to select the 'Display Download History' button in the Portal header (see below) to launch a Download Manager window with previous data downloads listed by date. In this window, users will be able to see details of data accessed previously, filter history results for various Portal parameters, and re-download data without the need to perform another query.

The download history feature is also available to anonymous users, though the history is limited to data downloaded during the current session. Additional questions or comments on this new feature may be sent to archive@stsci.edu.

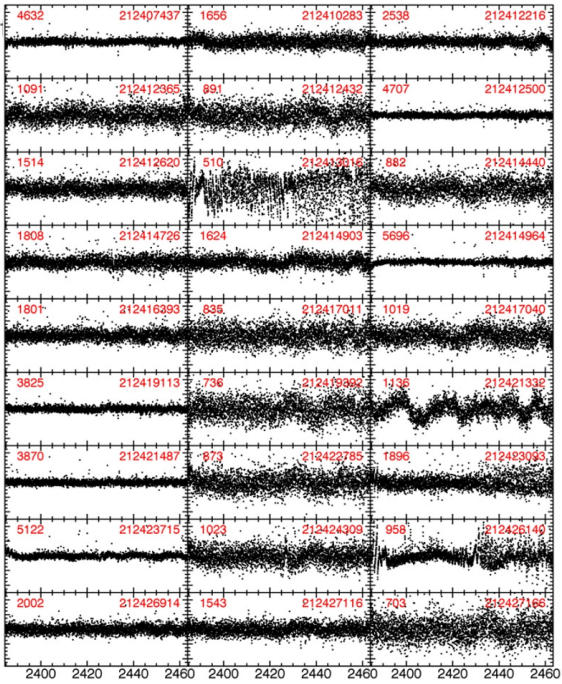


'Display Download History' button highlighted in red

preview plots using differing numbers of CBVs. The showing all extragalactic targets for a given K2 channel, like the one shown to the right, which allows for visual checking of variability shared between multiple targets: often a sign of residual systematics.

A pair of simulation projects received updates over the past month. The Frontier Fields Lens Models received “version 4” and/or “version 4.1” models of the Abell S1063 and Abell 370 clusters from the Sharon, Keeton, Williams, Diego, and CATS groups, while “version 4” models from the GLAFIC group were added for the Abell 2744, Abell 370, Abell S1063, and MACS 0416 clusters. The BOSZ Model Stellar Atmospheres were updated with a high metallicity set at $[M/H] = +0.75$, across the range of temperatures, gravities, abundances, and spectral resolutions already available.

The Outer Planet Atmospheres Legacy (OPAL, Simon et al.) released its next set of observational data: HST observations of Neptune from Cycle 24. The data release includes global maps from two rotations in seven different filters, plus three-color images. Fans of OPAL should stay tuned, as Uranus Cycle 25 data will be released shortly as well, so as always, check the MAST What’s New feed on our website, or follow us on Twitter (@MAST_News).



Sample KEGS diagnostic plot.

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JONATHAN HARGIS



NEW 'DOWNLOAD HISTORY' MAST PORTAL FEATURE

PETER FORSHAY



NEW AND UPDATED HLSPS: KEGS, FRONTIER FIELDS LENS MODELS, BOSZ, AND OPAL

SCOTT FLEMING



ABOUT

This newsletter is a MAST publication produced by Jonathan Hargis, Peter Forshay, and Randy Thompson, on behalf of the entire MAST staff, who welcome your comments and suggestions.

The Mikulski Archive for Space Telescopes (MAST) is a NASA funded project to support and provide to the astronomical community a variety of astronomical data archives, with the primary focus on scientifically related data sets in the optical, ultraviolet, and near-infrared parts of the spectrum. MAST is located at the Space Telescope Science Institute (STScI).

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