



- FAQ
- High-Level Science Products
- Software
- FITS
- Related Sites
- NASA Datacenters
- MAST Services
- MAST and the VO
- Newsletters & Reports
- Data Use Policy
- Dataset Identifiers
- Acknowledgments



## The Multimission Archive at STScI Newsletter

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The Multimission Archive at STScI (MAST) Newsletter disseminates information to users of the HST, IUE, Copernicus, EUVE, UIT, and VLA-FIRST data archives supported by the MAST. Inquiries should be sent to [archive@stsci.edu](mailto:archive@stsci.edu).

- [Announcing the Multimission Archive at the Space Telescope Science Institute \(MAST\)](#) - Paolo Padovani
- [MAST Cross-correlations with Astronomical Catalogs](#) - Paolo Padovani & Tim Kimball
- [MAST UIT-2 Archive Support](#) - Karen Levay

### Announcing the Multimission Archive at the Space Telescope Science Institute (MAST)

STScI is proud to announce the creation of the Multimission Archive at STScI (MAST). MAST is built on the success of the Hubble Data Archive and takes advantage of its existing archive infrastructure. MAST is supported by NASA under a cooperative agreement between STScI and Goddard Space Flight Center. The MAST WWW interface is at <http://archive.stsci.edu/mast.html>. To help our users to keep up with this expansion, I summarize here the data available through the MAST:

- the Hubble Data Archive (HDA), as of May 1998, contains over 4.9 Terabytes of science and engineering data, for a total of approximately 140,000 science exposures. In the past few months the volume of archived data has reached average rates of about 4 - 5 Gigabytes/day, while 3 - 4 times as many data per day have been retrieved by archive users.
- the International Ultraviolet Explorer (IUE) Final Archive. This contains over 104,000 spectral images of approximately 10,000 individual astronomical sources (covering the 1,200 to 3,350 Angstroms range) obtained by IUE over the course of its lifetime (from 1978 to 1996). Experienced IUE staff members are also available to assist researchers working on IUE data.
- the Copernicus Archive. This includes far- (900 - 1,560 Angstroms) and near- (1,650 - 3,150 Angstroms) ultraviolet spectra of 551 objects, primarily bright stars, obtained by the Copernicus satellite, otherwise known as the Orbiting Astronomical Observatory 3 (OAO-3), from 1972 to 1981.
- the Extreme Ultraviolet Explorer (EUVE) Archive, which at present contains spectroscopic observations (in the 70 - 760 Angstroms range) of about 300 sources, mostly Galactic. EUVE, launched in 1992, is still operational.
- the Ultraviolet Imaging Telescope (UIT) Archive. This contains 758 images of 193 targets (covering the 1,200 - 3,300 Angstroms range) obtained by UIT-2 as part of the ASTRO-2 mission. UIT-1 data will be supported in the near future.
- the Faint Images of the Radio Sky at Twenty-centimeters (FIRST) Archive. The FIRST project is designed to produce a radio survey at 20 cm (1.4 GHz) of over 10,000 square degrees down to a flux of 1 mJy. STScI provides access to the radio images and the source catalog, which currently includes about 437,000 entries, at <http://sundog.stsci.edu>.
- the Digitized Sky Survey (DSS). The Catalogs and Surveys Branch of the STScI has been digitizing the photographic Sky Survey plates from the Palomar and UK Schmidt telescopes in order to support HST operations and provide a service to the astronomical community.

STScI plans to incorporate additional ultraviolet and optical data sets into the STScI archive in the future, including data from the Far Ultraviolet Spectroscopic Explorer (FUSE) currently scheduled for launch in early 1999. The Multimission Archive at STScI can be accessed at <http://archive.stsci.edu/mast.html>. E-mail inquiries about the STScI data archives can be directed to [archive@stsci.edu](mailto:archive@stsci.edu).

- Paolo Padovani

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## MAST Cross-correlations with Astronomical Catalogs

How many quasars at redshift  $> 4$  have been observed by HST? How many Seyferts with magnitude brighter than 15 have IUE spectra? Now you can get the answer to these and many other questions by using our new cross-correlation interface, available at <http://archive.stsci.edu/search/>.

Using this interface, you can select Active Galactic Nuclei (AGN) by class, redshift, magnitude, and 6cm radio flux from a catalog based on the Veron-Cetty & Veron (1996) catalog, and cross-correlate them with the HST, IUE, and EUVE archives. (For HST, you can select individual instruments, each with a different correlation radius.) Multiple missions can also be selected, with the option to show only those AGN that cross-correlate with EVERY selected mission (so you can look for AGN that have been observed with both HST and IUE, or for AGN observed with either HST or IUE.) After the correlation is performed, you can preview the images/spectra (at present only in the case of HST data), and retrieve the data.

This new interface is part of our effort to let the user take advantage of the MAST (Multimission Archive at STScI) by allowing the cross-correlation of astronomical catalogs with the various archives available. We are expanding this interface by including cluster, galaxy, and stellar catalogs. At present, a user-supplied list of positions can also be cross-correlated with any of the MAST archives.

All archival researchers are invited to use this new service and let us know how we can improve it. As usual, all comments and inquiries should be directed to [archive@stsci.edu](mailto:archive@stsci.edu).

- Paolo Padovani and Tim Kimball

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## MAST UIT ASTRO 2 Support

MAST is providing access to the Ultraviolet Imaging Telescope (UIT) data obtained during the second ASTRO mission at <http://archive.stsci.edu/uit/>.

UIT was one of three instruments which comprised the ASTRO 1 mission flown on the space shuttle Columbia from December 2-10, 1990. The second ASTRO flight, aboard Endeavor, was from March 3-17, 1995. The UIT mission has been managed by Principal Investigator Theodore P. Stecher of the GSFC Laboratory for Astronomy and Solar Physics (LASP). UIT exposures were obtained on 70-mm photographic film and later digitized using a Perkin-Elmer microdensitometer. Image resolution was 3" over a 40' field of view and exposures were made in the 1200-3300 Angstrom range using broadband filters. UIT-1 obtained 821 exposures of 66 targets and UIT-2 obtained 758 images of 193 targets.

<http://adf.gsfc.nasa.gov/adf/adf.html> GSFC Astrophysics Data Facility (ADF) and MAST staff members worked together to obtain a copy of the UIT-2 data from the UIT project. MAST was then provided a copy of the UIT-2 data and the associated database. MAST staff will now fill moderate requests for UIT-2 data. MAST plans to archive both UIT-1 and 2 data but has not yet received a copy of the UIT-1 data. UIT-1 data will continue to be available through NDADS ([http://ndads.gsfc.nasa.gov/ndads/archives\\_homepage.html](http://ndads.gsfc.nasa.gov/ndads/archives_homepage.html))

- Karen Levay

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