Community Contributed High-Level Science Products (HLSP)

High Level Science Products are community contributed, fully processed images and spectra that are ready for scientific analysis. HLSP also include object catalogs and spectral atlases.

We contact all HST Treasury and Legacy PI's as well as PI's for Large programs. We have also contacted teams who have published data that appears to be of interest to MAST users.

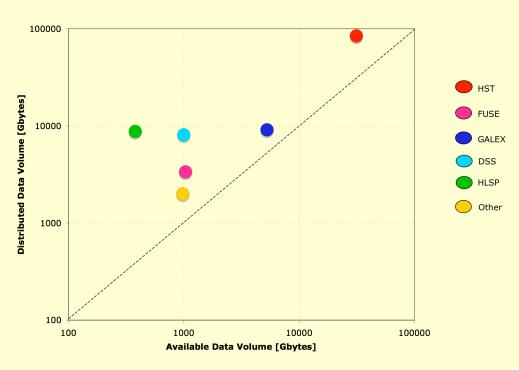
MAST staff that contribute to HLSP include:

Brian McLean, Karen Levay, Randy Thompson, and Myron Smith.

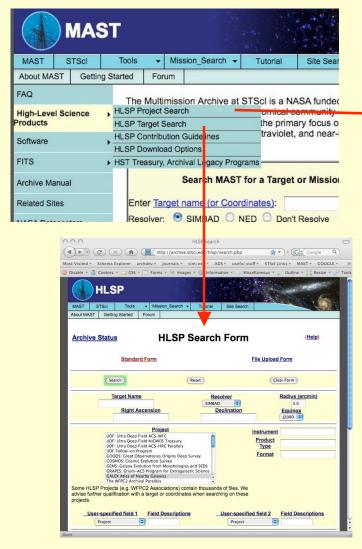
HLSP Use

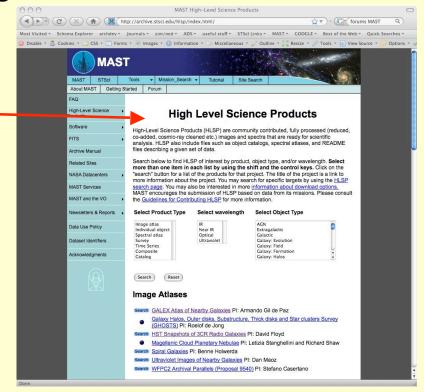
This plot compares the data volume for all MAST downloads over the past 4 years to the quantity of data currently stored in MAST for each mission. The line represents equal quantities available and distributed, so it is easy to see that HLSP are very popular.

Distribution and Data Volume



Finding HLSP

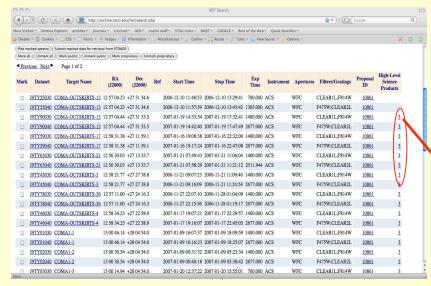




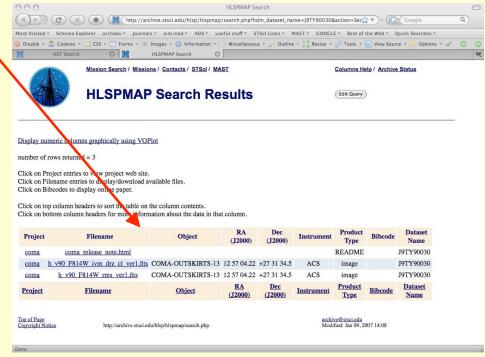
Users may search for types of projects or for specific targets.

We also have lists of all "TALL" programs (HST Treasury, Archival Legacy and Large Programs).

HLSP products are mapped to originating data



Since all HLSP products are mapped to the original data, it is easy to provide links from the original data to associated HLSP from the mission searches.



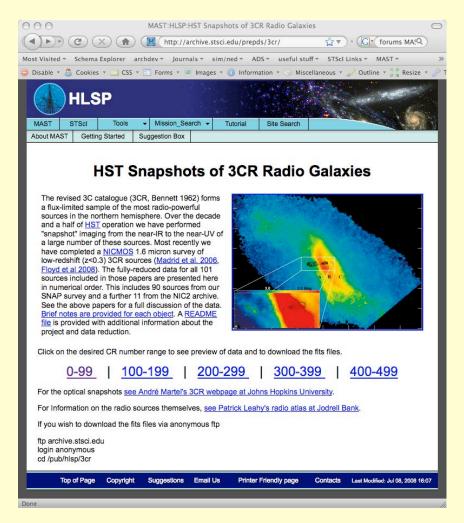
HLSP highlights from last year

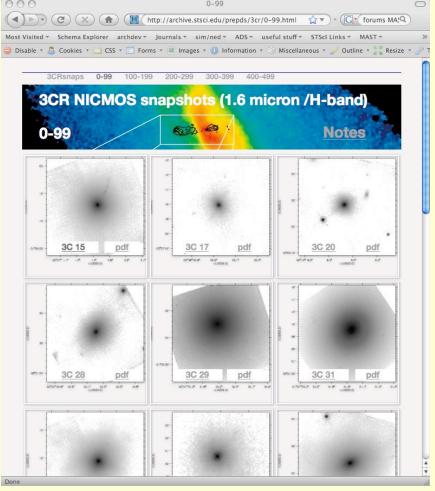
- NICMOS Snapshots of 3CR Radio Galaxies Floyd et. al
 - http://archive.stsci.edu/prepds/3cr
- FUSE Magellanic Clouds Legacy Atlas Blair et. al
 - http://archive.stsci.edu/prepds/fuse_mc
- STIS Next Generation Spectral Library Heap et. al
 - http://archive.stsci.edu/prepds/stisngsl
- Heritage addition 3 merging galaxies Mutchler
 - http://archive.stsci.edu/prepds/merggal
- GOODS Version2 Giavalisco et.al
 - http://archive.stsci.edu/prepds/goods
- UDF/HDF UV Treasury program Teplitz et. al
 - http://archive.stsci.edu/prepds/udfuv
- Coma Cluster Treasury program Carter et. al
 - http://archive.stsci.edu/prepds/coma
- PEARS Malhotra et. al

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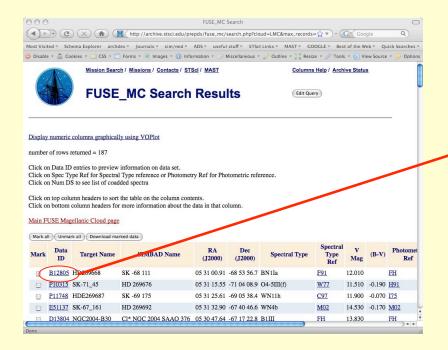
- http://archive.stsci.edu/prepds/pears
- GALEX Atlas of Nearby Galaxies Gil de Paz et. al
 - http://archive.stsci.edu/prepds/galex atlas

HST Snapshots 3CR Radio Galaxies - Floyd

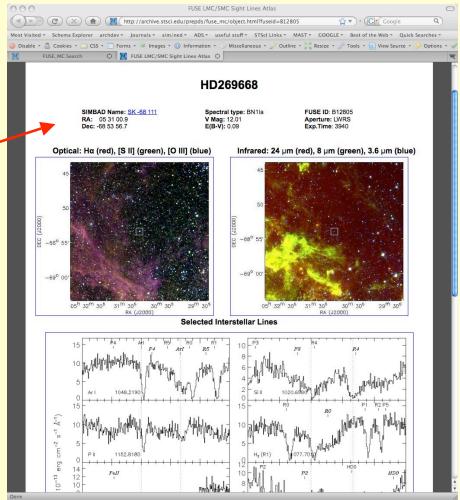




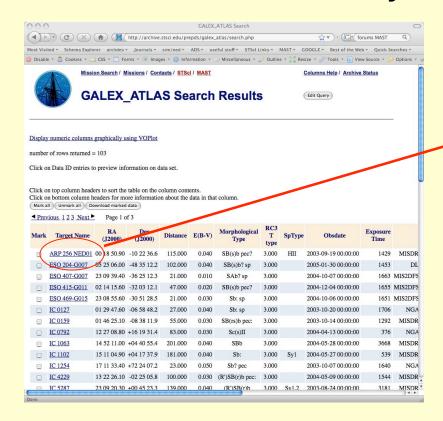
FUSE Magellanic Cloud Legacy Atlas - Blair



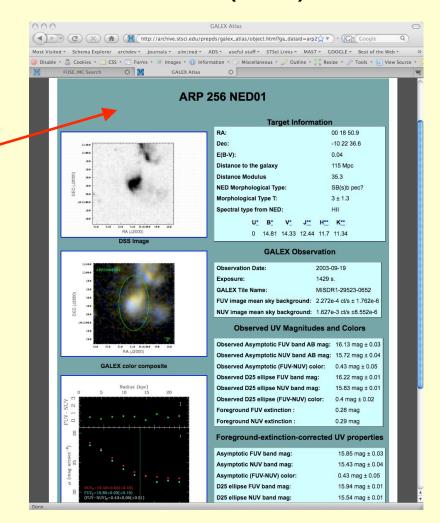
 We worked extensively with FUSE Magellanic Cloud team to develop website and associated database and search interface.



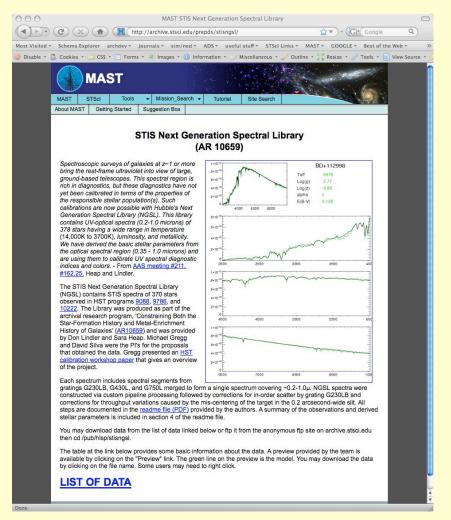
GALEX Atlas of Nearby Galaxies - Gil de Paz (et. al)



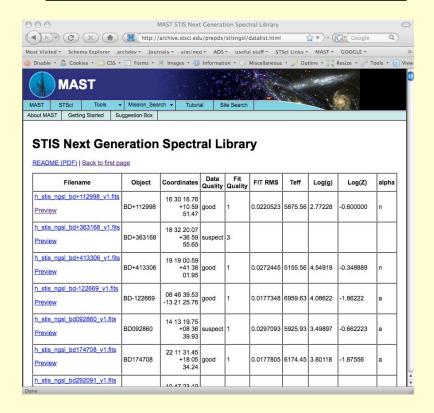
After publication of the associated paper, we created database and search interface using tables from the paper for this HLSP.



STIS Next Generation Spectral Atlas - Heap



This set of HLSP was set up in record time. The data were delivered, verified, the web pages created, and the data released in about 24 hours.



Near term HLSP

- ANGST (ACS Nearby Galaxy Survey Treasury Program) Dalcanton
 - Team will have own web site we will host data and simple website.
- Ultraviolet Cataclysmic Variable Atlas (FUSE) Godon
 - We are working with PI to develop database, interface and atlas page.
 - This atlas will release with observed data but will eventually include theoretical data.
 - Team plans to add STIS data to the atlas in the future.
- Carina Nebula Mutchler / Smith
 - Max and student working with Nathan Smith to create large mosaic of Carina Nebula.

Longer Term HLSP

- STAGES (Space Telescope A901/902 Galaxy Evolution Survey) Gray
- HAGGLES (HST Archive Galaxy-scale Gravitational Lens Survey) -Marshall
- New reprocessing of IUE High Dispersion data Van Steenburg
- Other HST Treasury programs