

# MAST HLSP

High Level Science Products are community-contributed data that relate to a MAST-supported mission. These can include images, spectra, catalogs, linelists, time series, models and simulations.

[archive.stsci.edu/prepds/<HLSP>](https://archive.stsci.edu/prepds/<HLSP>)

MAST High-Level Science Products

archive.stsci.edu/hlsp/index.html

Barbara A. MIKULSKI ARCHIVE OF THE SPACE TELESCOPES

MAST STScI Tools Mission Search Search Website Follow Us

About MAST Getting Started

Please take [the MAST Survey](#).

As of April 13, the archive is now using the STScI Single Sign-On (SSO) identity manager. To check on your account click [here](#). For more information about how accounts were transitioned click [here](#).

## High Level Science Products

High-Level Science Products (HLSP) are community contributed, fully processed (reduced, co-added, cosmic-ray cleaned etc.) images and spectra that are ready for scientific analysis. HLSP also include files such as object catalogs, spectral atlases, and README files describing a given set of data.

Search below to find HLSP of interest by product, object type, and/or wavelength. **Select more than one item in each list by using the shift and the control keys.** Click on the "search" button for a list of the products for that project. The title of the project is a link to more information about the project. You may search for specific targets by using the [HLSP search page](#). You may also be interested in more [information about download options](#). MAST encourages the submission of HLSP based on data from its missions. Please consult the [Guidelines for Contributing HLSP](#) for more information.

**Select Product Type**

- Catalog
- Composite
- Image Atlas
- Individual Object
- Model
- Spectral Atlas
- Spectral Linelist
- Survey
- Time Series

**Select wavelength**

- IR
- Near IR
- Optical
- Ultraviolet
- X-Ray
- None

**Select Object Type**

- AGN
- Dust
- Extragalactic
- Galactic
- Galaxy: Evolution
- Galaxy: Field
- Galaxy: Formation
- Galaxy: Halos
- Galaxy: High Redshift

Search Reset

[Catalogs](#) | [Composites](#) | [Image Atlases](#) | [Individual Objects](#) | [Models](#) | [Spectral Atlases](#) | [Spectral Linelists](#) | [Surveys](#) | [Time Series](#)

### Catalogs

[Search](#) [A Cataclysmic Variables and Related Objects Ultraviolet Spectral Catalog \(CVAROV-USCAT\)](#) PI: Patrick Godon

- [A Catalog and Atlas of Cataclysmic Variables](#) PI: Ronald Downes

[Search](#) [ACS Nearby Galaxy Survey](#) PI: J. Dalcanton

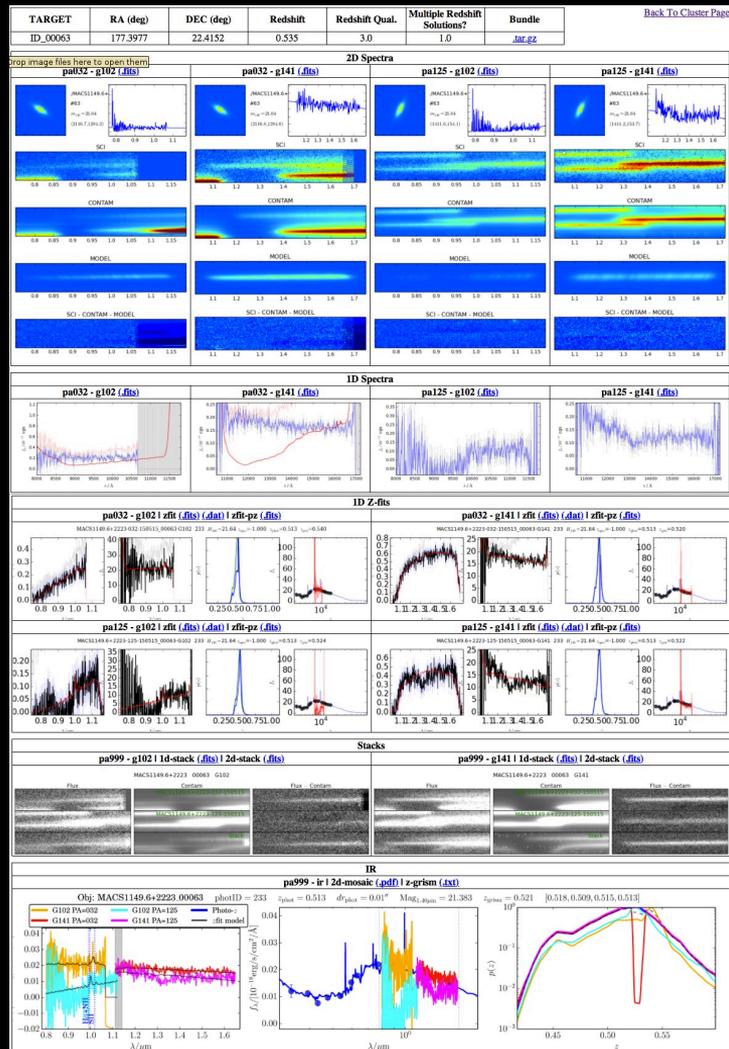
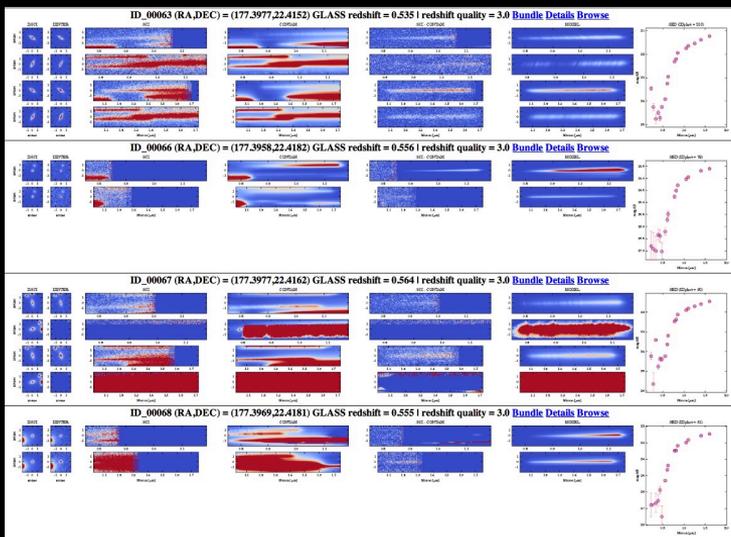
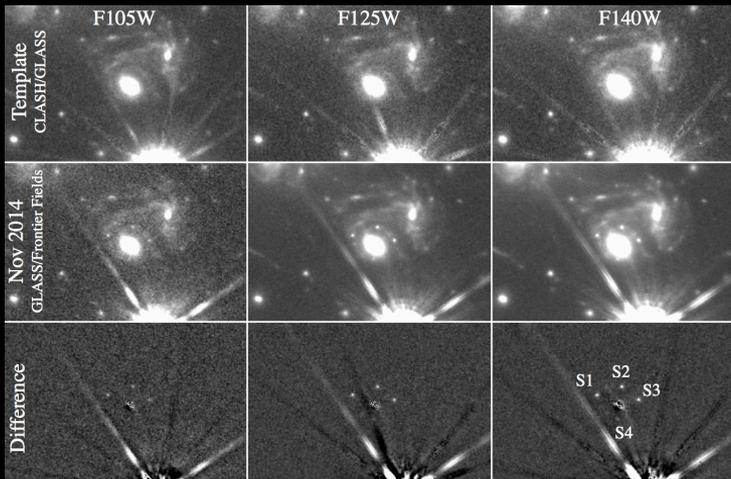
[Search](#) [All-Sky Mapping of the UV Diffuse Radiation As Observed by GALEX](#) PI: Jayant Murthy

[Search](#) [Archive of Nearby Galaxies: Reduce, Reuse, Recycle \(ANGRRR\)](#) PI: Julianne Dalcanton

- [Bianchi, Conti, Shiao \(BCS\) Catalog of Unique GALEX Sources](#) PI: Luciana Bianchi

# GLASS

Cycle 21 HST program to survey 10 galaxy clusters using grism spectroscopy. A total of 140 primary orbits and 140 parallel orbits.



# Frontier Lens Models

Lensing models from 7 teams for the six Frontier Fields. Includes shear, mass surface density, lensing deflection and image magnification.

[\[Click to close x\]](#)

### Hubble Frontier Fields lens model magnification estimates

Calculated at your input redshift(s) based on the mass and shear maps submitted by each team (see [lensing refiner](#)).  
(Not interpolated / extrapolated from the magnification maps pre-calculated at  $z = 1, 2, 4, 9$  [available for download](#).)  
[Lens model main page](#)  
This page in [new window](#)

Single lensed galaxy:  
RA:   
Dec:   
 $z =$    
observed radius (arcseconds):

List of lensed galaxies: RA, Dec,  $z$ , (optional) radius

0.1423219	-30.234407	10.8	
00.05012366	-24.06055918	7.8	
109.36955	37.774248	5.1	
11.4938588	22.241819	3.2	
342.2028	-44.58609	2.1	
2.29251	-1.34509	0.9	
3.47968	-30.37596	9.6	

Save results with run number and optional passcode:

(\* = Based in part on Frontier Fields imaging. # = Based on Frontier Fields imaging and best available shared data.)

Models: [availability](#) is for all clusters unless noted otherwise below.  68.3 % confidence, calculated from a range of models provided by each group  show all results from each range of models, yielding likelihood distributions

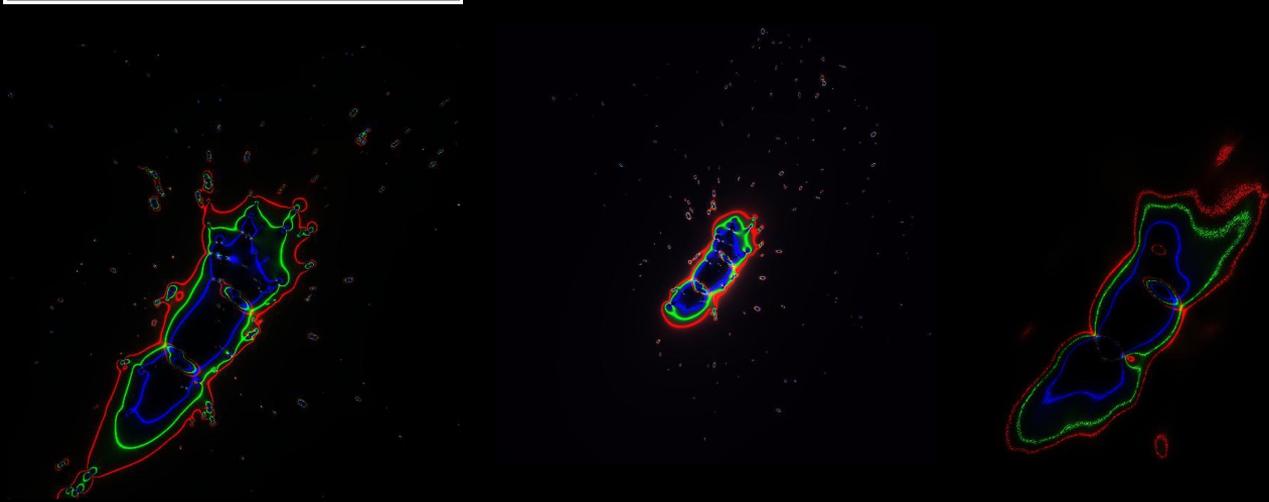
[\(README\)](#)

CATS (Lenstool)

<input type="checkbox"/> version 1	with uncertainties <input type="checkbox"/>
<input type="checkbox"/> version 2* (MACS0416)	with uncertainties <input type="checkbox"/>
<input type="checkbox"/> version 2.1* (A2744)	with uncertainties <input type="checkbox"/>
<input type="checkbox"/> version 2.2* (A2744)	with uncertainties <input type="checkbox"/>
<input checked="" type="checkbox"/> version 3# (A2744, MACS0416)	with uncertainties <input type="checkbox"/>
<input checked="" type="checkbox"/> version 3.1# (A2744, MACS0416)	with uncertainties <input type="checkbox"/>

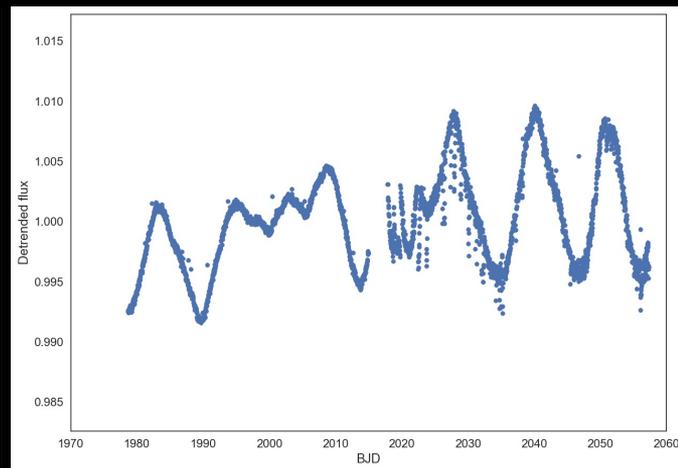
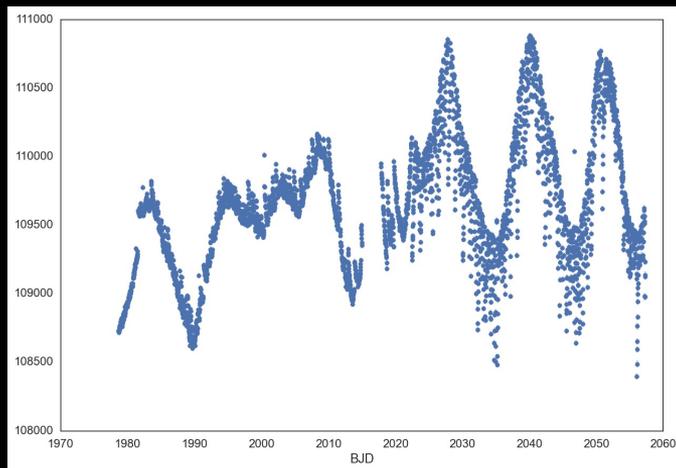
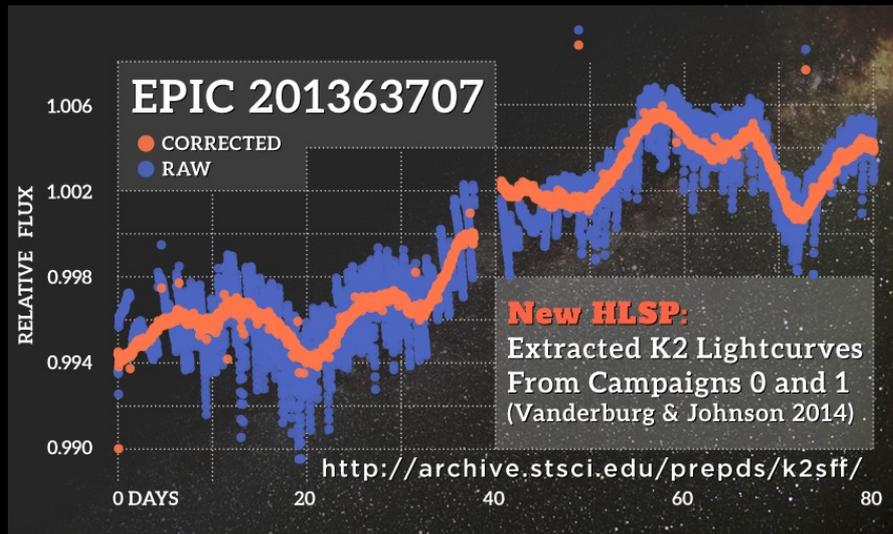
Sharon & Johnson (Lenstool)

<input type="checkbox"/> version 1	with uncertainties <input type="checkbox"/>
<input type="checkbox"/> version 2	with uncertainties <input type="checkbox"/>
<input type="checkbox"/> version 2.1 (MACS1149)	with uncertainties <input type="checkbox"/>



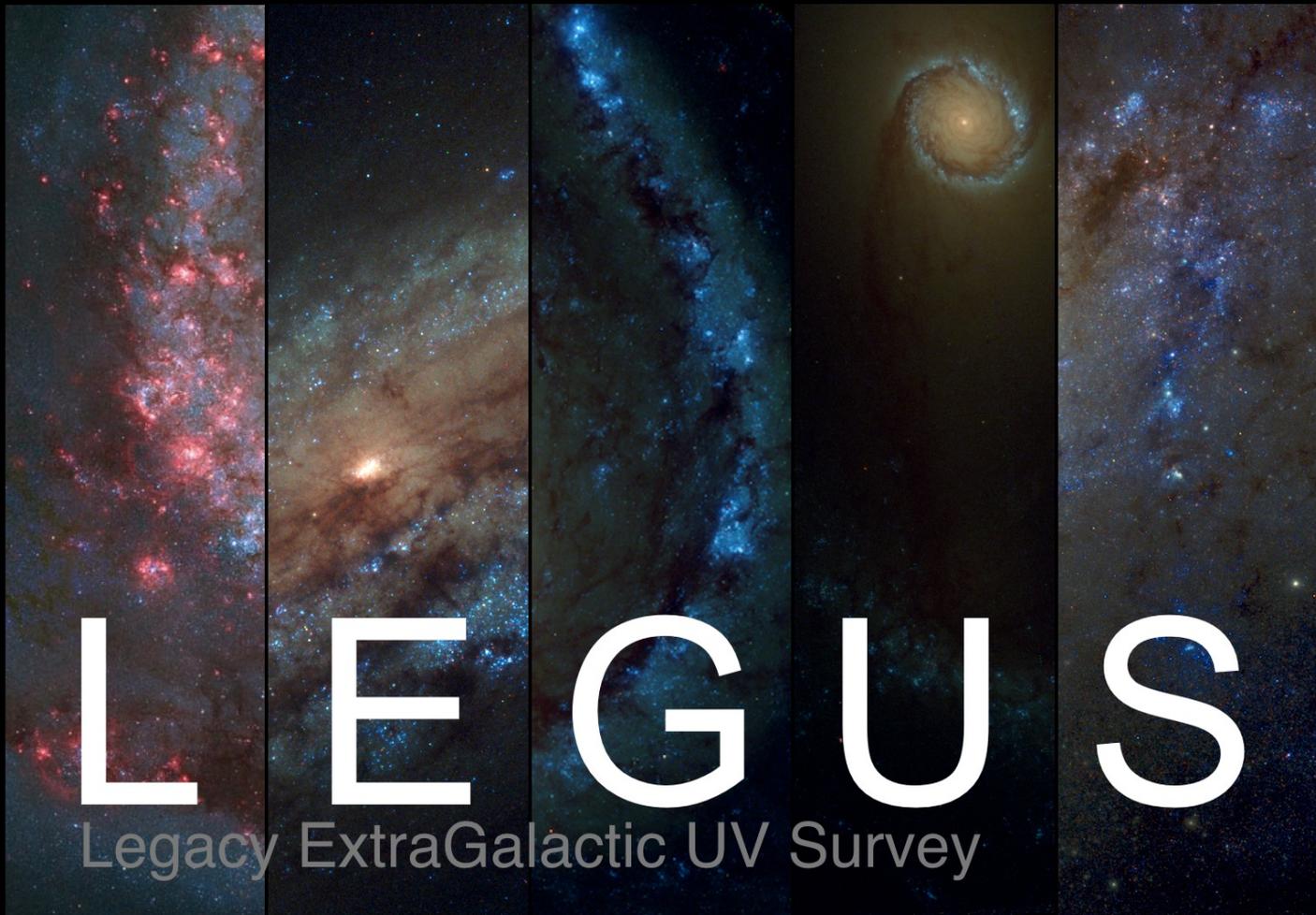
# K2SFF & K2VARCAT

Extracted and calibrated light curves for K2 targets from Vanderburg et al. (K2SFF) and Armstrong et al. (K2VARCAT). K2VARCAT also includes variability classification.



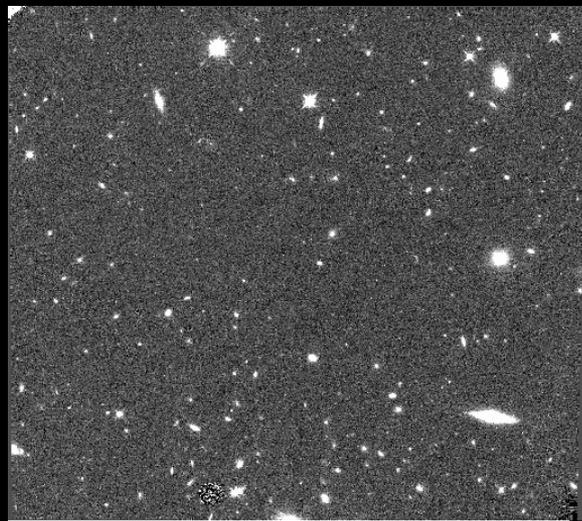
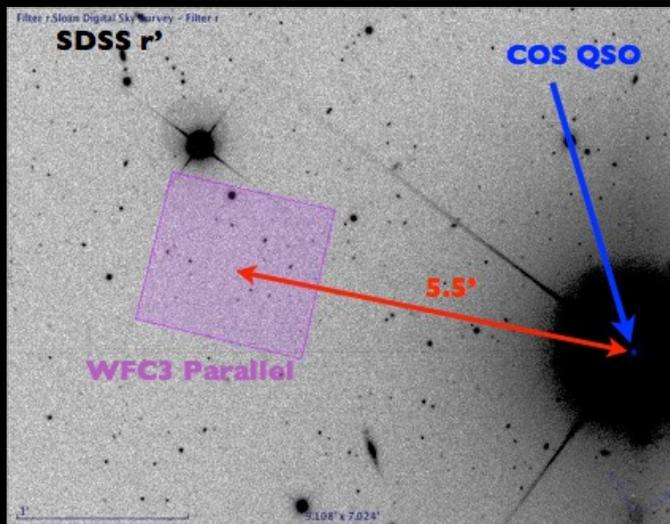
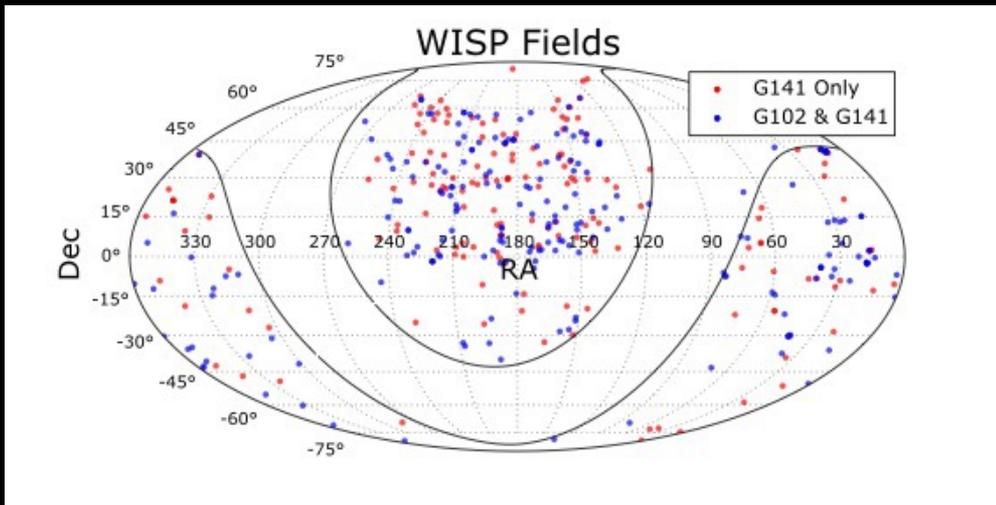
# LEGUS

HST Treasury  
Program to image  
50 nearby galaxies  
in multiple colors  
with ACS and  
WFC3. The  
galaxies are  
resolved into stars,  
clusters, and  
associations.



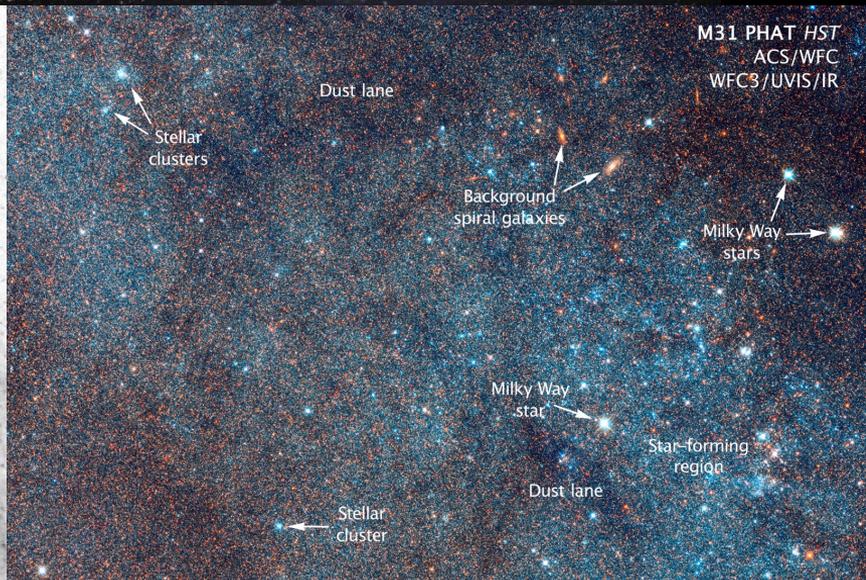
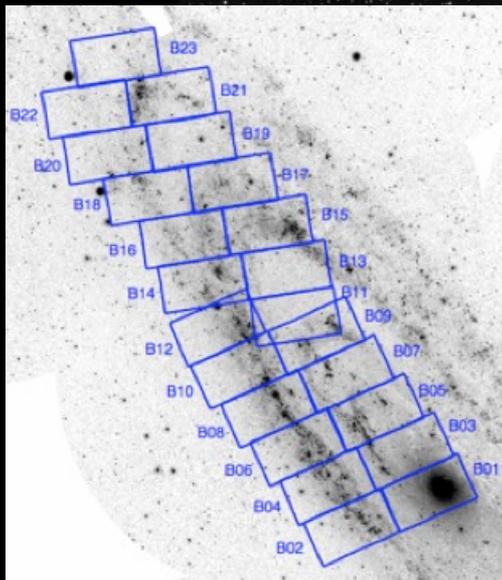
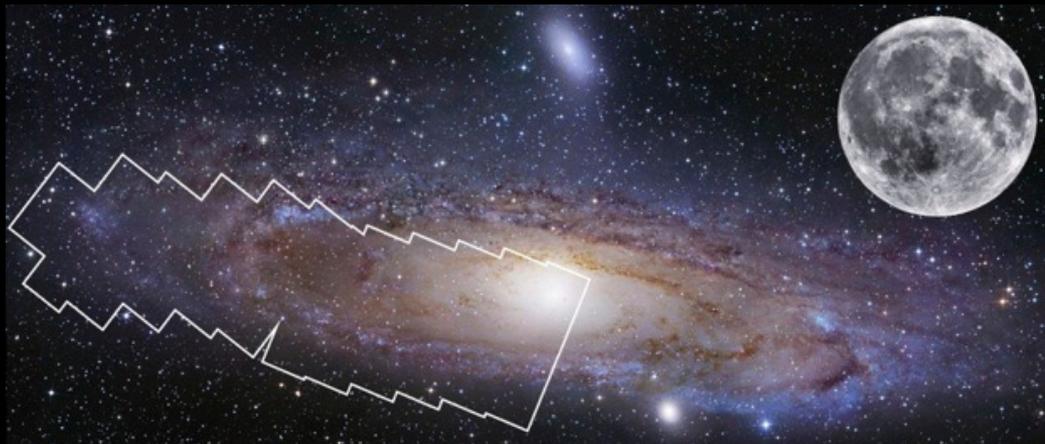
# WISP

A large HST pure-parallel program using WFC3 grisms to obtain images, spectra, and catalogs of star forming galaxies at redshifts  $0.5 < z < 2.5$ . A total of 385 fields will be observed.



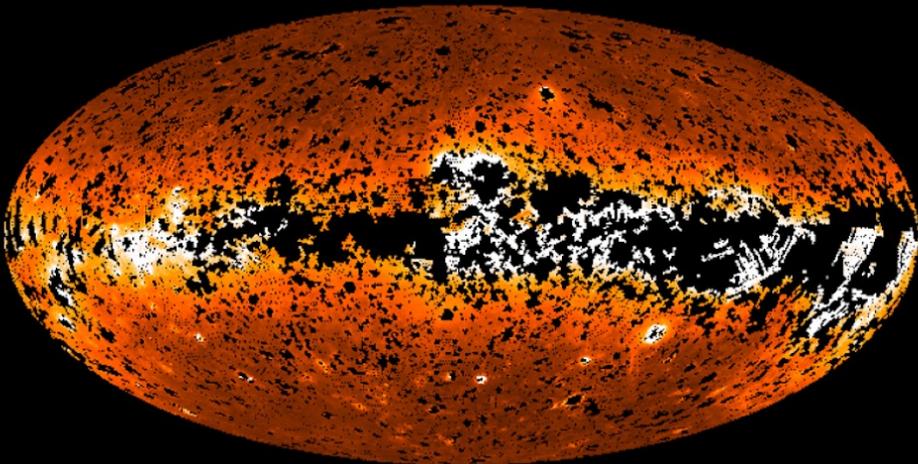
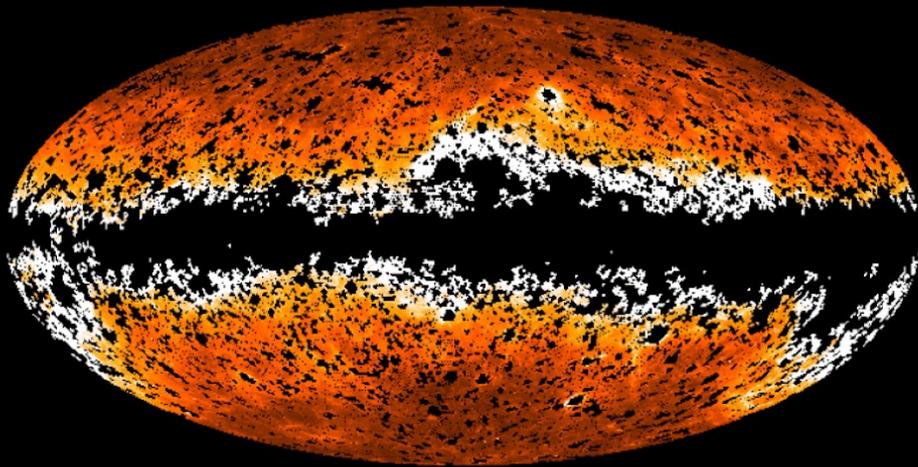
# PHAT

A multi-cycle HST program to map 1/3 of Andromeda in 6 filters from the UV to NIR. The disk is resolved into  $> 100$  million stars. The observations are grouped into 23 “bricks”.



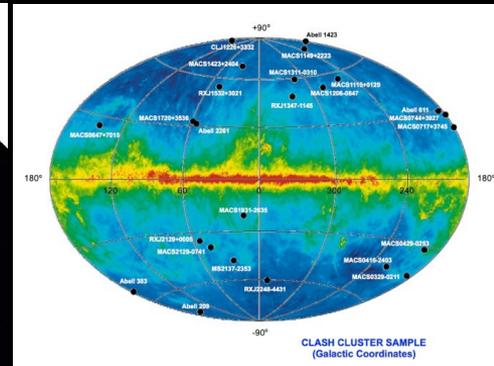
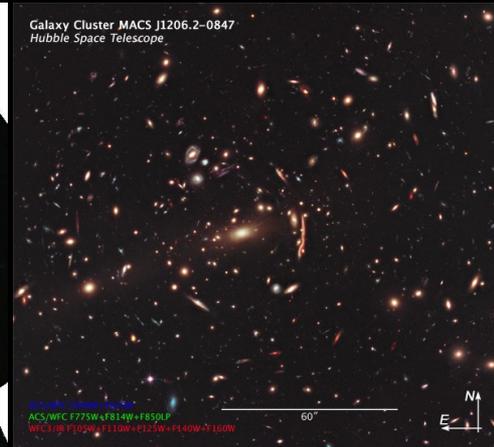
# UV-BKGD

An all-sky mapping of diffuse UV background, in FUV and NUV, using GALEX data. Includes estimates of geocoronal and zodiacal foreground per pixel. Maps are 2x2 arcminute grids.



# CLASH

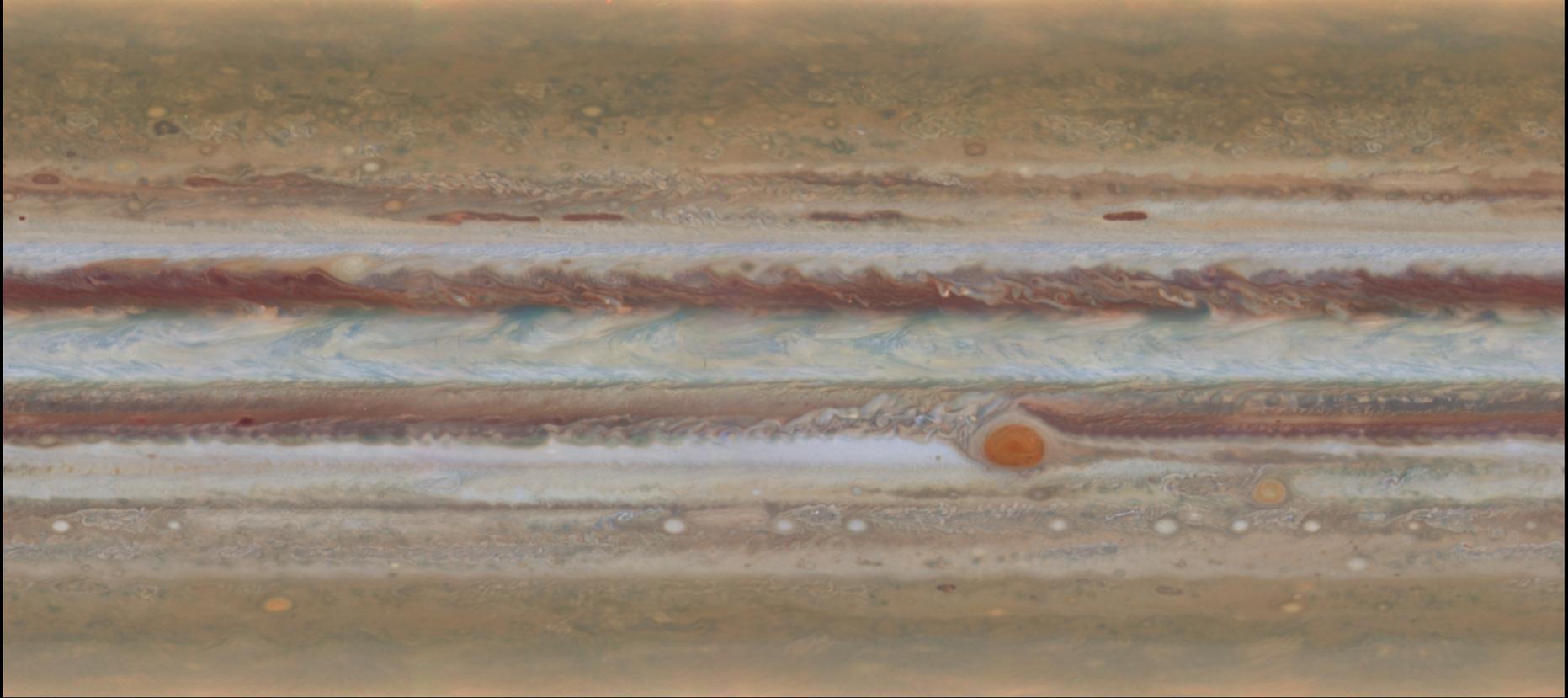
An HST survey of 25 massive galaxy clusters using WFC3 and ACS. Includes mosaics, source catalogs, and lensing models, along with Subaru mosaics and source catalogs from ground-based imaging.

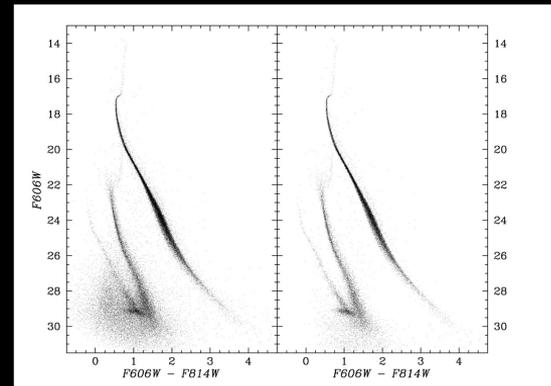
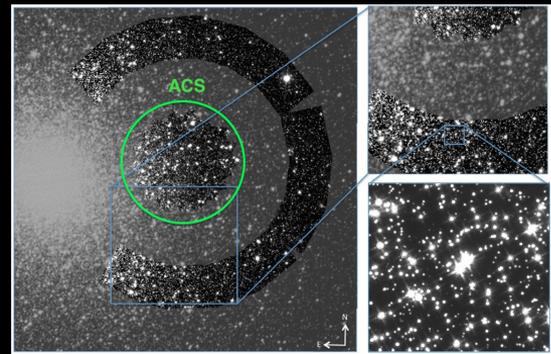


CLASH CLUSTER SAMPLE  
(Galactic Coordinates)



# OPAL (Outer Planets Atmospheres Legacy)





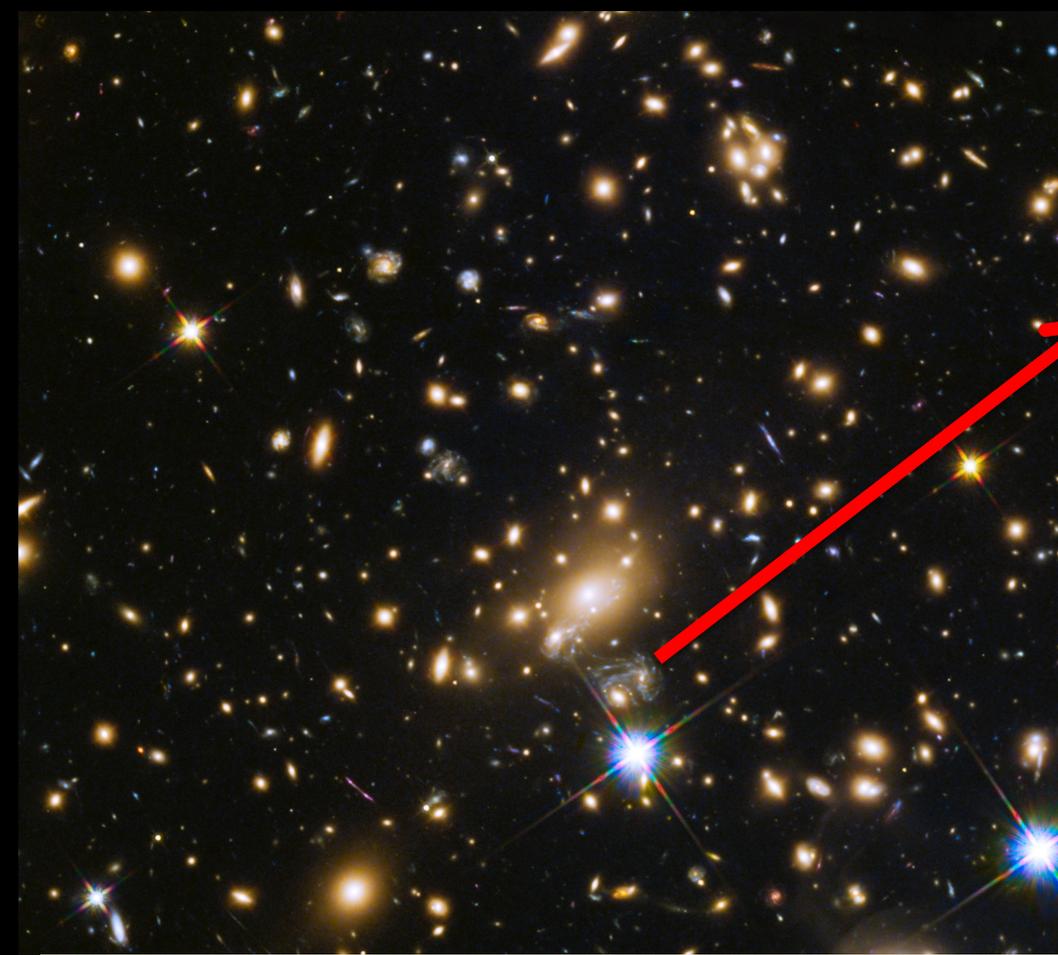
Deep 47 Tuc



**Hubble  
Heritage**



**M83**  
**Mosaics**



**Credit:** NASA, ESA, and S. Rodney (JHU) and the FrontierSN team; T. Treu (UCLA), P. Kelly (UC Berkeley), and the GLASS team; J. Lotz (STScI) and the Frontier Fields team; M. Postman (STScI) and the CLASH team; and Z. Levay