EXO.MAST: A NEW EXOPLANET-CENTERED VIEW OF MAST HOLDINGS

In one easy search users can find any confirmed exoplanet and see all of their parameters, what observations have been taken and measurements have been made, and download all the connected data through the MAST archive.

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MAST has now launched a new exoplanet serviceexo.MAST to create an easy link between the exoplanet and their system parameters (metadata provided by exoplanets.org), and the observational data associated with that planet within the MAST archive. The data linked to the relevant exoplanets includes Kepler, K2, and HST observations and will in the future directly link to TESS and JWST observations, all hosted on the MAST archive. The data of
interest can be highlighted and the menu at the bottom will reflect only the selected datasets covering the desired phase of the planetary orbit. Where Kepler data is available for a target, the phase folded lightcurve can be viewed in the second tab.

exo.MAST also hosts the Space Telescope Archive of Transiting Exoplanet Spectra (STATES) which contains the published transmission and emission spectra based on the data available in MAST (i.e. HST, and soon JWST). These datasets link to the published study, and are available to download as a table and customizable bokeh figure. The STATES measurements are also linked to the original observations hosted within the archive so users can directly download and analyze the data themselves.
In the future, users will be able to submit their peer reviewed and published exoplanet spectra to STATES to be hosted on exo.MAST as High-Level Science Products, that link directly to their data and to the published work. If you want to add spectra to STATES please contact Hannah Wakeford.
exo.MAST is now open to everyone via exo.mast.stsci.edu and will be updated automatically as data is added to the MAST archive. Additional questions or feedback can be sent through the Archive Helpdesk.

Stay tuned: exo.MAST will also be linked to the observation planning tools ExoCTK and PandExo for future telescope planning.

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HSLA DATA NOW IN MAST PORTAL
Data from the Hubble Spectroscopic Legacy Archive are now available directly through MAST portal services.
The Hubble Spectroscopic Legacy Archive (HSLA) is now available in the MAST Portal as a collection from the dropdown in the upper-left. The July 2018 standard release can also be examined using the Portal’s search engine and display capabilities. In particular, coadded spectra can now be interactively evaluated using the Portal’s “Spectral Viewer” functionality.

HSLA data are available as a unique MAST Portal collection.

All details regarding the contents of the July 2018 HSLA release and all relevant documentation can be found at

https://archive.stsci.edu/hst/spectral_legacy/. Additional questions on using or accessing these data may be directed to the Archive Helpdesk.
OPAL (Simon et al.) has released global maps of Saturn from HST Cycle 25, the first such data from Saturn as part of the OPAL long-term program. Global maps in 10 HST filters from two rotations are available.

If you are thinking about contributing a High-Level Science Product of your own, please fill out the HLSP Interest Form to get started. HLSPs archived on MAST enjoy permanent hosting space, additional visibility, and, often, increased citation rates. Any additional questions on the process can be sent to the Archive Helpdesk. We look forward to working with you!
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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