

“Scientific Data Analysis Can Be Hectic”

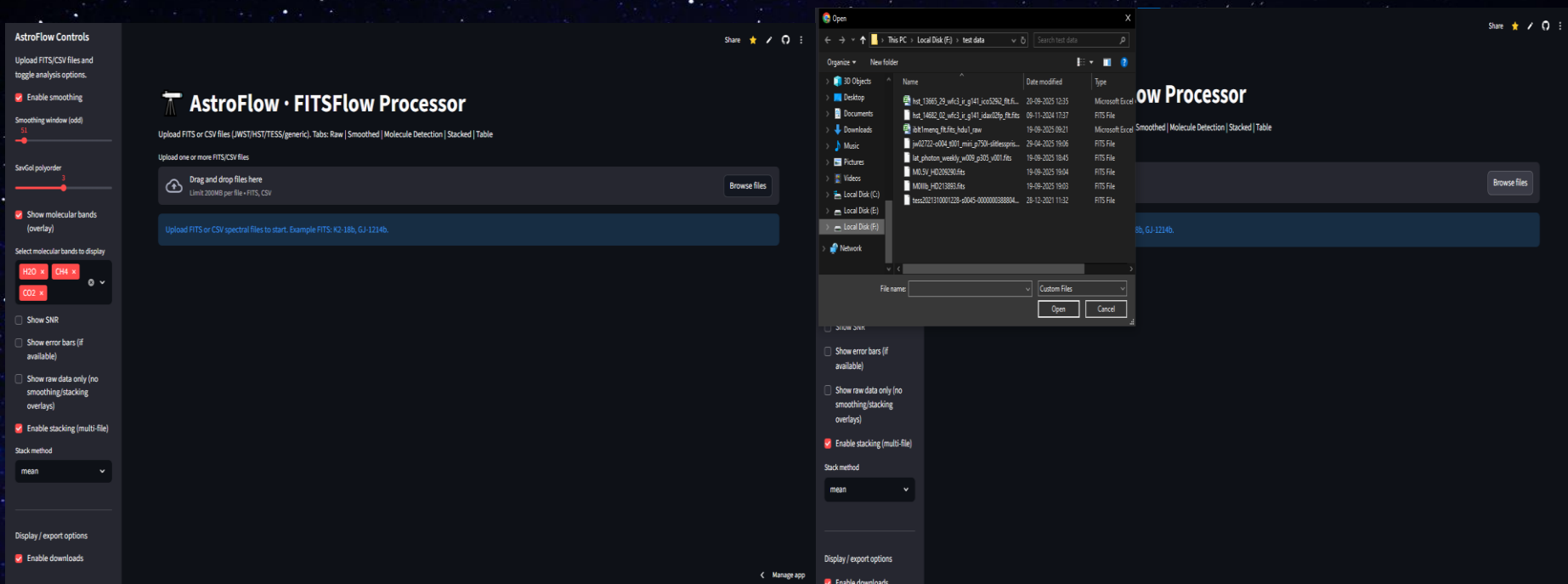
With petabytes of data waiting to be explored, researchers often spend hours on tasks that could be automated.

“AstroFlow”

A next-generation FITS and CSV processor — supporting JWST, HST, TESS, and more.

From **exoplanets** to **planetary science** to **Earth observations**, AstroFlow makes analysis faster, seamless, and accessible.

-By Ali Nawaz



Getting Started

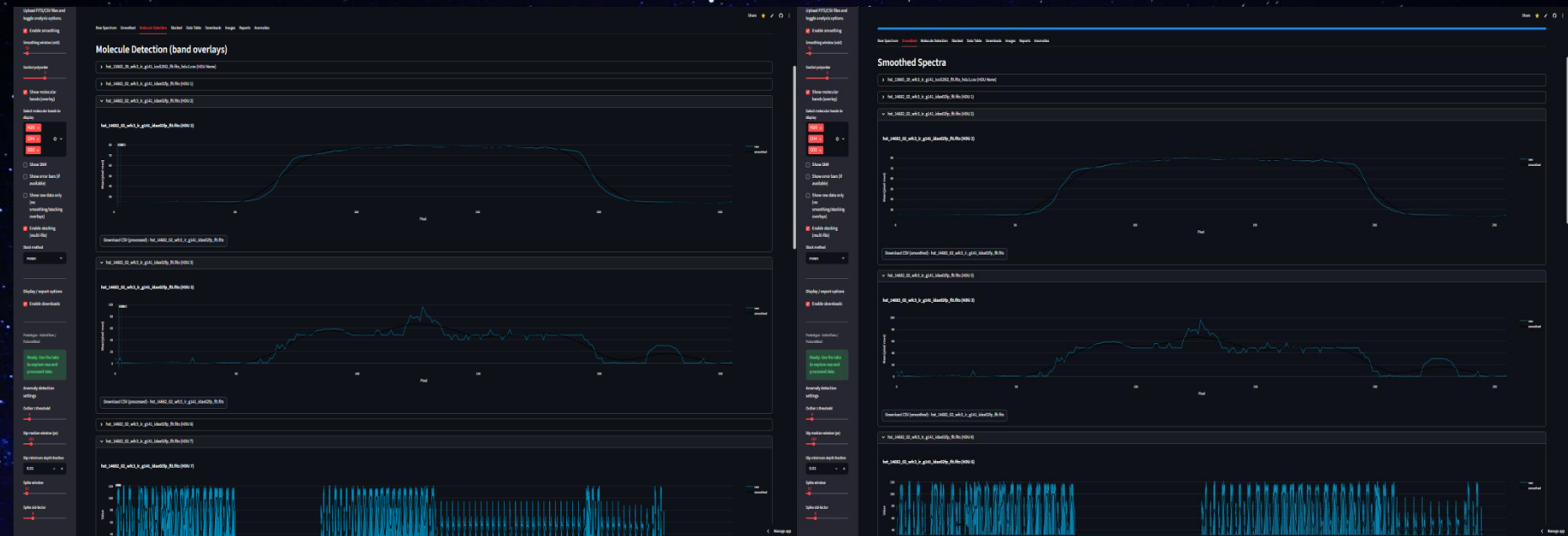
Uploading a mix of data: exoplanet observations, planetary science, Earth science, sub-observations, photon flux datasets — including JWST, HST, TESS FITS files and CSVs.



Automated Processing

Within seconds (depending on file size, structure, and number), AstroFlow processes all uploaded data.

Interactive Plotly spectra
Multi-HDU visualization
HDU header information



Smoothed & Stacked Spectra
AstroFlow provides:
Multiple smoothing options (toggleable from the sidebar)
Molecular detection band overlays
Multi-HDU and multi-band stacking for combined visualization

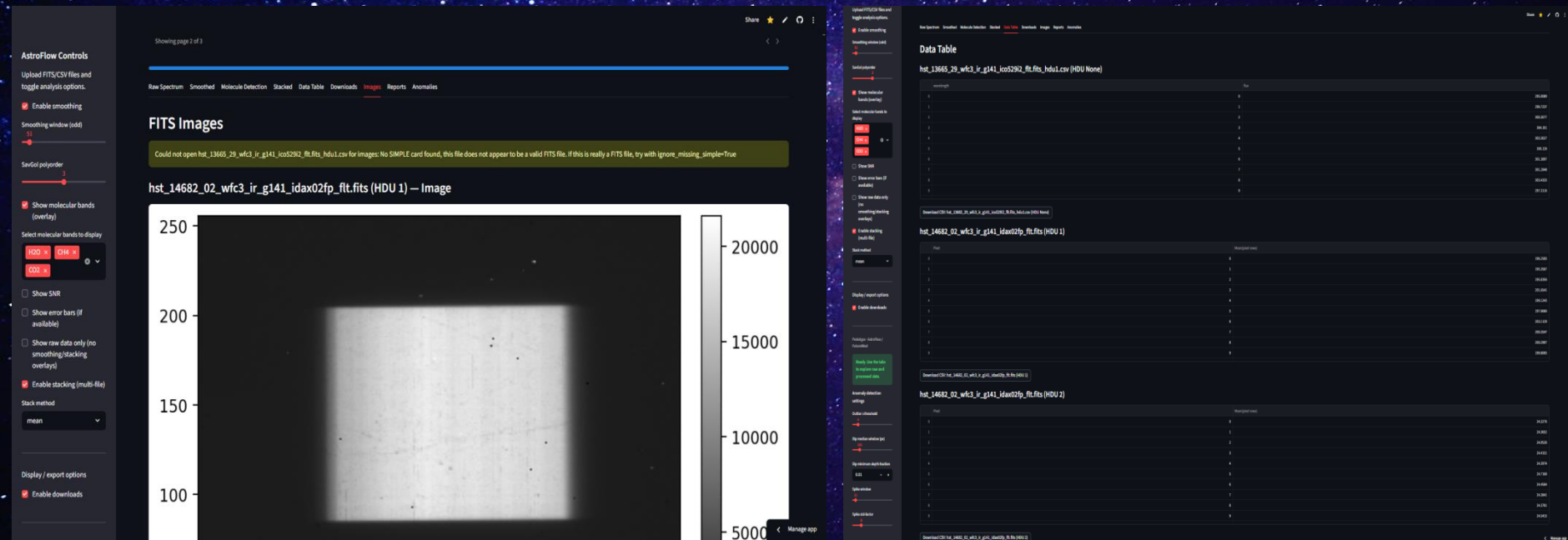
Images & Data Tables

Additional features include:

Viewing 2D arrays and images (e.g., HST imaging data)

Interactive data tables for flux–wavelength information

CSV table extraction and visualization

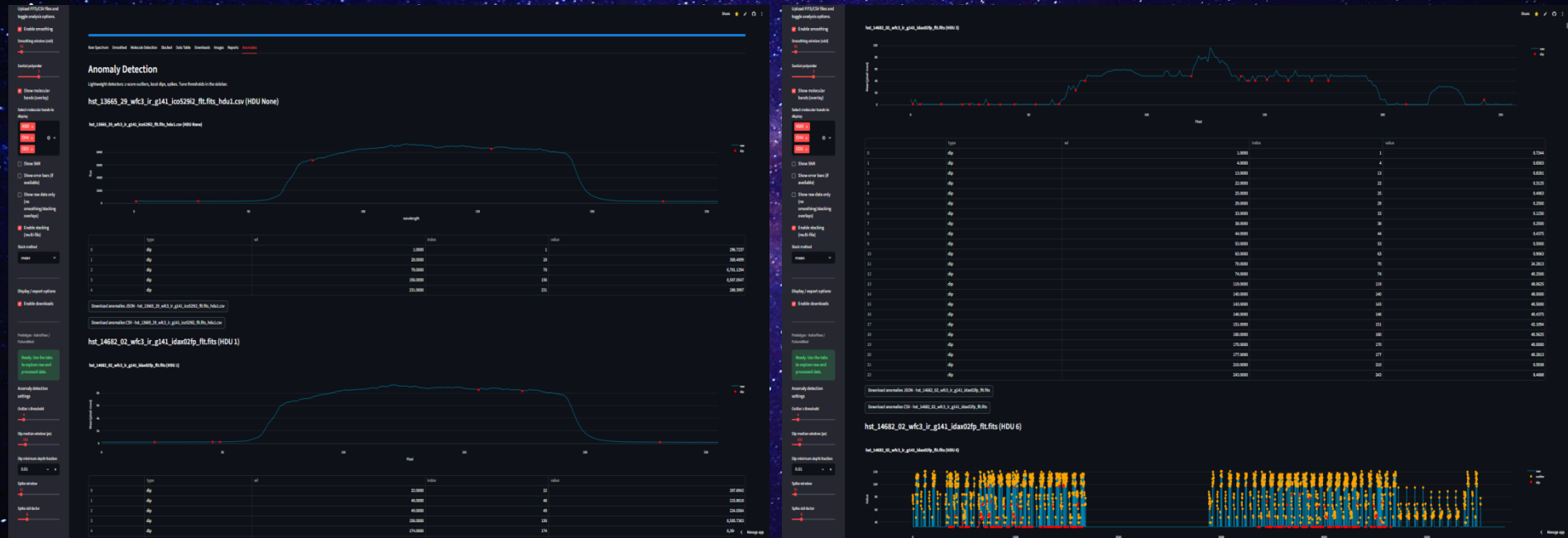


Anomaly Detection

AstroFlow automatically detects and highlights:

Dips
Spikes
Outliers

Results are shown both visually and in data tables with precise markers.



Reporting & Export

Generate a full PDF report with one click.

Compiles spectra, images, and data tables into a formatted report

Includes all results from the analysis

Each plot, table, or image can also be downloaded individually

The screenshot displays the AstroFlow FITSFlow Processor web interface. At the top, there's a navigation bar with a share icon, a star, a pencil, and a menu icon. Below the header, the title "AstroFlow • FITSFlow Processor" is followed by a sub-header "Upload FITS or CSV files (JWST/HST/TESS/generic). Tabs: Raw | Smoothed | Molecule Detection | Stacked | Table". A section for uploading files includes a "Drag and drop files here" area with a "Limit 200MB per file • FITS, CSV" note and a "Browse files" button. Three files are listed: "lat_photon_weekly_w009_p305_v001.fits" (16.1MB), "jw02722-o004_t001_miri_p750i-slitlessprism_x1dints.fits" (2.1MB), and "iblt1meng_fit.fits_hdu1_raw.csv" (26.0KB). A "Showing page 2 of 3" indicator and navigation arrows are present. A horizontal blue line separates the upload section from the report generation section. The "Reports" tab is selected in the navigation bar. The "Generate PDF Report" section includes the instruction "Compile spectra, images, and tables into a single PDF." and a "Generate Report" button. A footer note states "AstroFlow • FITSFlow MVP — upload data, toggle options, export results." and a "Manage app" link is at the bottom right.

>> Share ★ ✎ ⌵

AstroFlow • FITSFlow Processor

Upload FITS or CSV files (JWST/HST/TESS/generic). Tabs: Raw | Smoothed | Molecule Detection | Stacked | Table

Upload one or more FITS/CSV files

Drag and drop files here
Limit 200MB per file • FITS, CSV

Browse files

- lat_photon_weekly_w009_p305_v001.fits 16.1MB ×
- jw02722-o004_t001_miri_p750i-slitlessprism_x1dints.fits 2.1MB ×
- iblt1meng_fit.fits_hdu1_raw.csv 26.0KB ×

Showing page 2 of 3 < >

Raw Spectrum Smoothed Molecule Detection Stacked Data Table Downloads Images Reports Anomalies

Generate PDF Report

Compile spectra, images, and tables into a single PDF.

Generate Report

AstroFlow • FITSFlow MVP — upload data, toggle options, export results.

< Manage app