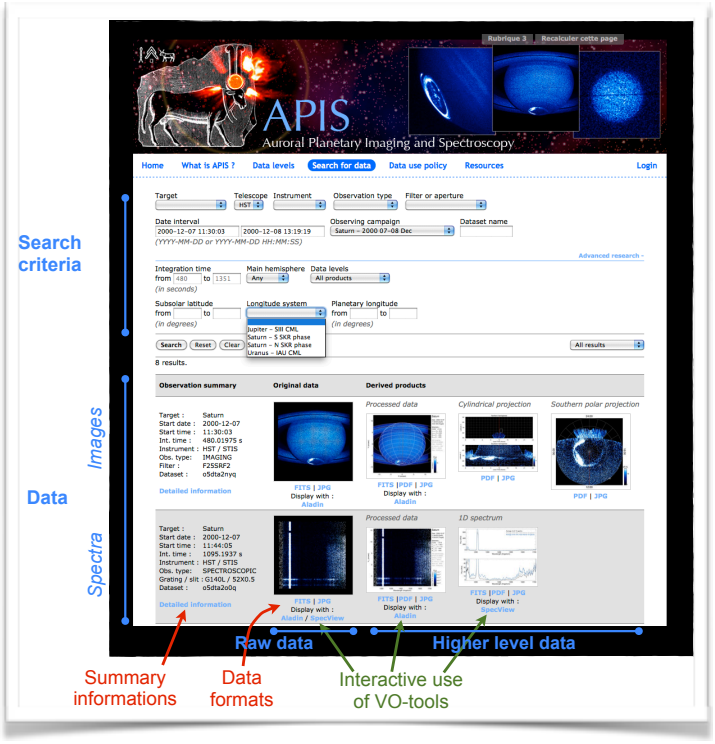

APIS Service -VAMDC

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The APIS service (for Auroral Planetary Imaging and Spectroscopy) is freely accessible at http://lesia.obspm.fr/apis since mid-2013. It consists of :

A. a high level database of auroral planetary observations (images and spectra) of the outer planets and their satellites taken by the Hubble Space Telescope in the Far-UV window from 1997 up to now, including more than 5000 individual observations. APIS data are archived at VO Paris – Data Centre (VO for Virtual Observatory);
B. a dedicated search interface aimed at browsing the database quickly and efficiently (see Figure 1);
C. VO tools as Aladin and Specview, which enable the user to interactively work with images and spectra online

Both 1D and 2D spectra can be plotted online with the VO software Specview (see Figure 1). As planetary aurorae result from the collisional excitation of the upper atmosphere by magnetospheric electrons. spectra of the outer planets

provide a direct mean to probe the upper atmospheric composition, mainly populated by atomic and molecular hydrogen. Specview is able to retrieve transitions lines from VAMDC catalogues (H-Lya is provided by default with Specview, while H2 lines can be retrieved from the SESAM database), and to superimpose them to the observations (see Figure 1).

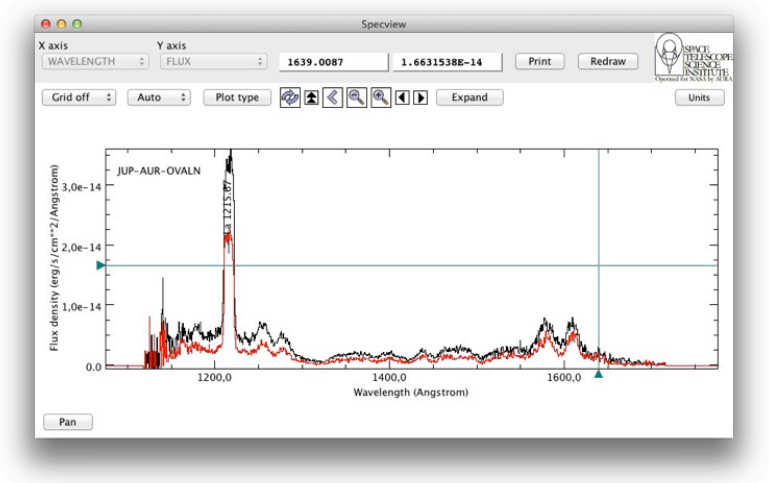

Figure 1 : Far-UV spectrum of Jupiter plotted with Specview. The H-Lya transition is marked by a vertical line.

Support to access VAMDC Databases

You can implement protocols that VAMDC has designed: http://www.vamdc.eu/standards.

You might want to save time and to use our libraries in Java or other languages: http://www.vamdc.eu/software.

You may need some tutorials: see http://tutorial.vamdc.org.

You may need some help: send a mail to support@vamdc.eu.

You may want to exchange: http://forum.vamdc.org