

HST Auroral Campaign Observations of Jupiter and Saturn enabled by the CDPP/AMDA service and the IVOA tool Aladin

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Abstract

The Plasma Physics thematic node of IDIS (<http://europlanet-plasmanode.oeaw.ac.at/>) is established in close cooperation between the IWF Graz (<http://www.iwf.oeaw.ac.at/>) and CDPP Toulouse (<http://cdpp.cesr.fr/>). These last years, CDPP has developed a new service, AMDA (Automated Multi-Dataset Analysis, <http://cdpp-amda.cesr.fr/>), which is a web-based facility for on line analysis of space physics data (heliosphere, magnetospheres, planetary environments) coming from either its local database or distant ones, such as the Cassini/MAPSKP, VEX/MAG at IWF/Graz or the CDAWeb (<http://cdaweb.gsfc.nasa.gov/>).

These last years, a large campaign of remote high resolution imaging of Jupiter and Saturn aurorae has been undertaken using the Hubble Space Telescope, in association with in situ measurements of local solar wind and magnetospheric plasma conditions using several different spacecraft (including Galileo, Cassini and New Horizons). The coordinated scientific exploitation of all these data is a major technical challenge, since it requires accessing heterogeneous data from diverse origins to perform an integrated study combining different software tools appropriate for the analysis of the solar wind, magnetospheric, ionospheric and atmospheric phenomena observed.

In the context of our IDIS activities, we will detail our current efforts in order to connect the CDPP/AMDA service with the IVOA (<http://www.ivoa.net/>) tool Aladin (<http://aladin.u-strasbg.fr/>), which is an interactive software that enable the user to visualize digitized astronomical images of Jupiter and Saturn aurorae in combination with solar wind and magnetospheric data reachable via AMDA.