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CDPP support to the Juno and Cassini missions: data access and valorization by models and tools

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Abstract

Thanks to their unique orbital geometry, the Juno and the Cassini proximal orbits will allow for the first time a quantitative study of the characteristics of the magnetosphere-ionosphere coupling at Jupiter and Saturn.
We will report the status of our current technical and scientific efforts in order to integrate in the CDPP system (http://www.cdpp.eu) the Juno and Cassini datasets recently released by the NASA/Planetary Data System (https://pds-ppi.igpp.ucla.edu/) in order to enhance the science return of these missions. The CDPP proposes a set of tools and models aiming at valorizing the variety of its datasets.

The CDPP/AMDA (Automated Multi-Dataset Analysis, http://amda.cdpp.eu) tool is a web-based facility for on line analysis of space physics data (heliosphere, magnetospheres, planetary environments).
The CDPP/3DView (http://3dview.cdpp.eu) is a science tool that offers immediate 3D visualization of spacecraft position and attitude, planetary ephemerides, as well as scientific data representation (observations and models).
The CDPP/Propagation tool (http://propagationtool.cdpp.eu) enables to track solar storms, streams and energetic particles in the heliosphere, and predict their arrival time at planets and probes.

These tools are publicly available to the scientific community.