Europlanet-IDIS Data model: a Data Model for a Planetology Virtual Observatory

Baptiste Cecconi (1,A), Michel Gangloff (2,A), Christian Jacquey (2,A), Nataliya Bourrel (2,A), Nicolas André (2,A), Stéphane Erard (1,B), Sandrine Vinatier (1,B), Jérôme Berthier (2,B), Pierre Le Sidaner (3,B), Cédric Leyrat (1,B)

(1) LESIA, CNRS-Observatoire de Paris, Meudon, France (baptiste.cecconi@obspm.fr), (2) IRAP, CNRS-Université Paul Sabatier, Toulouse, France, (3) IMCCE, CNRS-Observatoire de Paris, Paris, France, (4) DIO, Observatoire de Paris, Paris, France, (A) CDPP, CNRS-CNES, (B) VO-Paris, Observatoire de Paris

IDIS (Integrated and Distributed Information System) is part of the Europlanet project and aims to develop a prototype of a planetology Virtual Observatory. In the frame of its participation to this project, the CDPP (Data Centre for Plasma Physics, based in Toulouse) is developing a new data model to describe the wide variety of data products that can be found in the planetology community, which includes a wide variety of science thematics such as plasma physics, planetary surfaces, interiors, atmospheres or small bodies. This data model is making extensive use of existing standards provided by various groups (IVOA, SPASE...). The scope of this data model is to describe the scientific content of the data sets, in order to be able to locate and retrieve the data files corresponding to a given request. Hence, the data model is organized around 6 types of metadata: Generic Informations, Observation Target, Instrument, Axis, Physical Parameter, Support Parameter.

The initial version has been developed to describe plasma data, which can be very heterogeneous (time series, spectra, dynamic spectra, maps...). The model is tested in collaboration with VO-Paris (Virtual Observatory Paris Data Centre) in order to take into account characteristics of data from other thematics of planetary sciences.