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Planetary plasma data analysis and 3D visualisation tools of the CDPP in the IMPEx infrastructure

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The CDPP (Centre de Données de la Physique des Plasmas,(http://cdpp.eu/), the French data center for plasma physics, is engaged for more than a decade in the archiving and dissemination of plasma data products from space missions and ground observatories. Besides these activities, the CDPP developed services like AMDA (http://amda.cdpp.eu/) which enables in depth analysis of a large amount of data through dedicated functionalities such as: visualization, conditional search, cataloguing, and 3DView (http://3dview.cdpp.eu/) which provides immersive visualisations in planetary environments and is further developed to include simulation and observational data. Both tools provide an interface to the IMPEx infrastructure (http://impexfp7.oeaw.ac.at) which facilitates the joint access to outputs of simulations (MHD or Hybrid models) in planetary sciences from providers like LAT-MOS, FMI as well as planetary plasma observational data provided by the CDPP. Several magnetospheric models are implemented in 3Dview (e.g. Tsyganenko for the Earth, and Cain for Mars). Magnetospheric models provided by SINP for the Earth, Jupiter, Saturn and Mercury as well as Hess models for Jupiter can also be used in 3DView, through the IMPEx infrastructure. A use case demonstrating the new capabilities offered by these tools and their interaction, including magnetospheric models, will be presented together with the IMPEx simulation metadata model used for the interface to simulation databases and model providers.