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IPShocks: Database of Interplanetary Shock Waves

Alexey Isavnin (1), Erkka Lumme (1), Emilia Kilpua (1), Mikko Lotti (1), Katerina Andreeova (1), Hannu Koskinen (1), and Shabnam Nikbakhsh (2)

(1) University of Helsinki, Department of Physics, Helsinki, Finland, (2) Finnish Meteorological Institute, Helsinki, Finland

Fast collisionless shocks are one of the key interplanetary structures, which have also paramount role for solar-terrestrial physics. In particular, coronal mass ejection driven shocks accelerate particles to high energies and turbulent post-shock flows may drive intense geomagnetic storms. We present comprehensive Heliospheric Shock Database (ipshocks.fi) developed and hosted at University of Helsinki. The database contains currently over 2000 fast forward and fast reverse shocks observed by Wind, ACE, STEREO, Helios, Ulysses and Cluster spacecraft. In addition, the database has search and sort tools based on the spacecraft, time range, and several key shock parameters (e.g., shock type, shock strength, shock angle), data plots for each shock and data download options. These features allow easy access to shocks and quick statistical analyses. All current shocks are identified visually and analysed using the same procedure.