The Virtual Radiation Belt Observatory (ViRBO) and tools for radiation belt science

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Abstract

ViRBO (http://virbo.org/) is one of the domain-specific virtual observatories that began operations in Fall, 2006 and is funded under the NASA Heliophysics Data Environment program. This presentation will cover three topics: (1) the data products available or exposed through ViRBO, (2) in-progress developments of data products, and (3) the future of domain-specific virtual observatories such as ViRBO within the international data environment. Data available through ViRBO include measurements from the SAMPEX, GOES, POES, LANL GEO, Polar, and GPS satellites. A number of new data sets, not previously openly available, include measurements from the HEO-1, HEO-3, CRRES, SCATHA, OV1-19, OV3-3, ICO, and S3-3 spacecraft along with scientist-contributed model and simulation data.