



Re-analysis data base from a 3D data assimilation tool covering the RBSP-time period

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An Ensemble Kalman filter combined with the Salammbô 3D tool has been used to produce a re-analysis data base of the electron radiation belt from September 2012 to end of 2015. RBSP-A&B/MagEis data, GOES-13/MagEd and GOES-13/SEM data were ingested by the system. So far only omni-directional fluxes have been considered in this study. The time resolution of the re-analysis data base is 10 minutes and covers electron energies above 300 keV.

The results obtained are compared/validated against INTEGRAL/SREM data. Performance of the data assimilation tool will be discussed as well as ways of improvement for the future.