



## **Data assimilation and forecasting of radiation-belt electrons**

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We present a newly updated data assimilation dataset of radiation belt electrons in the Earth's magnetosphere utilizing the data-assimilative VERB code. The updated dataset includes the adoption of the TS07d magnetic field model and magnetopause shadowing. Further, we demonstrate the forecast capability of our data assimilation model, and the dependence of the forecast performance on the field model, and choice of diffusion coefficients, and model parameters.

This work has resulted in a robust forecast tool which is currently producing forecasts every two hours at UCLA. <http://rbm.epss.ucla.edu/realtime-forecast/>