Synchronizing simulations of turbulence to data Yan Yang University of Delaware Francesco Pecora, University of Delaware Rohit Chhiber, University of Delaware Sarah Gibson, National Center for Atmospheric Research Nicholeen Viall, NASA Goddard Space Flight Center Craig DeForest, Southwest Research Institute William H. Matthaeus, University of Delaware Poster

Magnetized turbulence is a fundamental problem that is important in understanding and predicting the evolution of our space environment. The magnetized turbulence is chaotic, hence a challenge to model and predict due to the 'butterfly effect'. Given that observational data are becoming more accessible, we will borrow the idea of data assimilation (DA) from numerical weather forecasting to attack this problem. We will investigate the efficacy of the most advanced DA methods in the simulations of magnetized turbulence. DA will be used to improve Large Eddy Simulations (LES) of turbulence.



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