

SEMINAR

Data Assimilation in WACCM and WACCMX: Implementation and Science Investigations

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The capability to perform data assimilation in the Whole Atmosphere Community Climate Model (WACCM) and WACCM with thermosphere-ionosphere eXtension (WACCMX) has been implemented using the Data Assimilation Research Testbed (DART) ensemble Kalman filter. This provides the capability to constrain the model meteorology at altitudes extending above existing reanalyses, improving the representation of the dynamics in the mesosphere and lower thermosphere (MLT) compared to nudging towards reanalysis. It additionally provides a framework that can be used initializing predictions, enabling studies of the error growth and forecast skill in the middle and upper atmosphere. This presentation will provide an overview of the WACCM(X)+DART data assimilation system. Scientific investigations of WACCM(X)+DART will be discussed, including the transport of NO_x during SSWs and the predictability of the MLT.

Monday, April 20, 3:30 pm

Virtual seminar

meet.google.com/kfu-qui-u-xwe

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