1.2 WRFDA Overview: current status and future plan

Liu, Zhiquan, Jenny Sun, Hui-Chuan Lin, Xin Zhang, Michael Kavulich, Craig Schwartz, Syed Rizvi, Hans Huang, Dongmei Xue, Chun Yang, *National Center for Atmospheric Research*

In this talk, the new features from the latest release of WRFDA version 3.7 will be firstly introduced, including a new option for the background error covariance modeling with univariate analysis of the model variables (i.e., cv_options=7) and new options for radar data assimilation. These new features will be demonstrated with convective-scale applications. Some ongoing research and development within NCAR/MMM and contributed from community researchers will then be described. Some to highlight here are: (1) all-sky microwave radiance data assimilation from AMSR2; (2) four-dimensional extension of hybrid-3DVAR; (3) high-resolution GOES Imager radiance data assimilation; (4) Tangent linear and adjoint code development of the WRF/Chem model. Some future plan will also be discussed.