

## **Lili Lei**

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Lili Lei received her B.S. degree and M.S. degree from the school of Atmospheric Sciences of Nanjing University, and Ph.D degree from the department of Meteorology of the Pennsylvania State University. She joined the Advance Study Program for her Postdoc at the National Center of Atmospheric Sciences. After her postdoc, she became a research scientist at the Earth System Research Laboratory (ESRL) / National Oceanic and Atmospheric Administration (NOAA). At early 2016, she joined the School of Atmospheric Sciences of Nanjing University as a professor.

Lili Lei has worked on data assimilation and its applications for earth system predictions. She developed the four-dimensional incremental analysis update (4DIAU) that is operationally used in the NCEP GFS model. She developed the hybrid nudging-EnKF, which has been used for high-resolution simulation, atmospheric dispersion model and sea-ice model. She has been worked on the adaptive localization for the ensemble Kalman filter (EnKF), which has been applied to the B-Grid Global Climate model, the CESM Model model, the GFS model and the regional model WRF. The adaptive localization was used in the 20<sup>th</sup> Century Reanalysis, to improve the assimilation of the surface pressure observations. Recently, she works on the localization for radiance assimilation in EnKF in both observation space and model space. She found a scenario in which model space localization is not better than observation space localization, which is the opposite of the consensus in the community.