



An overview of the KIAPS global model development

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Korea Institute of Atmospheric Prediction Systems (KIAPS), Seoul, Korea, has embarked a national project in developing a new global forecast system in 2011. The ultimate goal of this 9-year project is to replace the current operational model at Korea Meteorological Administration (KMA), which has been adopted from the United Kingdom's Meteorological Office's model. As of January 2015, the initial version of the KIAPS Integrated Model (KIM) system that consists of a spectral element dynamical core on a cubed sphere and a standard physics package from existing models such as the GRIMs, WRF, and GFS, was prepared. This system is scheduled to be tested in 2015, along with a standard data assimilation of 3-D Var. The target resolution in 2020 is a 10-km grid. The advanced model system, which is scheduled to be tested around 2016, includes advanced or newly developed components in dynamical core, physical parameterizations, and data assimilation. The GRIMs and WRF models are used as tools in developing/revising advanced physics schemes, in addition to the usage of reference models. The data assimilation is to adapt the ensemble Kalman filter technology, along with the variational method.