



The impact of the stochastic physics parameterization to the predictability of precipitation from an icosahedral grid global model

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The stochastic physics parameterizations can be useful to account for model uncertainties in the global NWP models to improve ensemble predictability. In this presentation, we introduce a study in which an icosahedral grid global model, developed at NOAA/ESRL, is used to evaluate the effectiveness of using stochastic physics parameterizations in medium-range forecast. The stochastic perturbation to the closures, vertical mass flux and momentum transport is performed and analyzed to assess the impact of stochastic perturbation of the physics parameterization to the predictability of precipitation. We will present the results from the analysis of deterministic and probabilistic predictability of precipitation from the numerical experiments of ensemble forecasting.