



## **Improvements in approaches to forecasting and evaluation techniques**

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The US is embarking on an experiment to make significant and sustained improvements in weather forecasting. The effort stems from a series of community conversations that recognized the rapid advancements in observations, modeling and computing techniques in the academic, governmental and private sectors. The new directions and initial efforts will be summarized, including information on possibilities for international collaboration. Most new projects are scheduled to start in the last half of 2014. Several advancements include ensemble forecasting with global models, and new sharing of computing resources. Newly developed techniques for evaluating weather forecast models will be presented in detail. The approaches use statistical techniques that incorporate pair-wise comparisons of forecasts with observations and account for daily auto-correlation to assess appropriate uncertainty in forecast changes. Some of the new projects allow for international collaboration, particularly on the research components of the projects.