Subseasonal Predictions at GFDL

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At the frontier of climate forecasting, subseasonal prediction (usually referring to the timescales between two weeks and one season) has become an increasingly active research topic in recent years followed the rapidly growing societal demands for forecast products at these timescales. In this talk, I will give a brief overview of the research activities on subseasonal predictions at GFDL. The focus will be placed on predictions of tropical cyclone geneses, wintertime temperature and cold extremes. Understanding the potential sources of predictability is another important topic, and I will explore the potential contribution from MJO, NAO, PNA, stratospheric polar vortex, snow-atmosphere feedback on subseasonal predictions. Our ongoing and future work using our current generation of model (SPEAR/SHiELD) will be also presented together with some preliminary results. Finally, I will talk about the great challenges as well as opportunities for subseasonal predictions.

Keywords: Subseasonal prediction, sources of predictability, SPEAR , SHiELD