

ROLE OF THE OCEAN IN PREDICTING CLIMATE VARIABILITY



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The ocean with its large thermal inertia and its slow and deep movement of water is an important controller of climate variability. Climatic changes like increased European air temperatures, enhanced hurricane activity, increased Sahel rainfall as well as a decline of Arctic sea ice have been recently observed when the Atlantic Ocean remained anomalously warm for few decades. While these changes have been mainly attributed to natural fluctuations of the climate system, interestingly, comparable climate impacts can occur in response to increased greenhouse gases. This complicates the attribution of such anomalies when they occur in the present time and their prediction in the future. We present in this talk recent advance in predicting climate variability and discuss the remaining challenges.



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