



Predictability of Atlantic Nino

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Rainfall in the countries around the Gulf of Guinea and at the southern edge of the Sahel is modulated by sea surface temperature (SST) in the eastern tropical Atlantic. Reliable seasonal rainfall forecasts for these countries have been hampered by the poor skill of the eastern tropical Atlantic SST forecasts. Using the coupled Speedy-MICOM model, which simulates the tropical Atlantic climate and variability realistically, we have investigated the predictability of the SST in the eastern tropical Atlantic. Potential predictability simulations with this model reveal significant predictability on seasonal time scale for that region. This is confirmed in a 15-year hind cast ensemble experiment that shows that skillful SST predictions up to four months ahead are possible for late summer. Further analysis revealed that this skill is due to the Bjerknes-Feedback which is the dominant mechanism for SST variability in that region.