



UNIVERSITY  
of HAWAII  
MĀNOA

## Department of Atmospheric Sciences Seminar Announcement

Department of Atmospheric Sciences, S.O.E.S.T., University of Hawai'i at Mānoa  
2525 Correa Road, HIG 350; Honolulu, HI 96822 ☎956-8775



# Could an El Niño happen in the Indian Ocean?

**Dr. Pedro DiNezio**

Research Scientist  
Institute for Geophysics  
University of Texas

**Date:** Wednesday, September 5, 2018  
**Refreshments:** 3:00pm at MSB courtyard  
**Free Cookies, Coffee & Tea Provided  
(Please Bring Your Own Cup)**  
**Seminar Time:** 3:30pm  
**Location:** Marine Sciences Building, MSB 100

### Abstract:

The Indian Ocean is expected to warm following a pattern conducive to stronger year-to-year climate variability; however model projections are equivocal about this. Our team has explored this question by looking at the Last Glacial Maximum (LGM), the period about 21,000 years ago when ice sheets reached their maximum extent. Paleoclimate proxies and model simulations suggest that the Indian Ocean experienced similar changes in background conditions as predicted for the future, albeit under a cooler mean state. In this seminar I will show how these changes can favor the emergence of an El Niño-like mode of climate variability. I will also present new paleoclimatic evidence supporting a dramatic increase in climate variability in the eastern Indian Ocean consistent with the proposed El Niño mode. To conclude I will discuss a potential activation of this mode under continued greenhouse warming.