

# FALL 2013 FACULTY LECTURE SERIES

november  
**01**

## The Origin of Long Term Natural Climate Variability

-Axel Timmermann, SOEST



Humans have modified the climate system for about 100 years by emitting greenhouse gases and aerosols, leaving a discernible imprint on global mean temperatures. In addition to the anthropogenic forcings, the climate system of the past has experienced massive reorganizations, partly internally generated, partly triggered by changes in earth's tilt, wobble and orbit. The basic processes will be reviewed that caused ice ages, abrupt climate switches, known as Dansgaard-Oeschger events, and the rapid termination of glacial periods when sea level rose by more than 100 meters. The lecture will further discuss the role of coral reefs in stabilizing the climate system over the past 10,000 years, the effect of volcanic eruptions and the occurrence of megadroughts that triggered collapses of ancient civilizations. Is the climate of the past providing clues for its future evolution? This question will be addressed in the context of a recently observed slowdown of greenhouse warming.

Dr. Axel Timmermann, Oceanography Professor at the University of Hawai'i, has published more than 100 papers on climate variability and climate change. He is a lead author of the 5th assessment report of the United Nations Intergovernmental Panel on Climate Change (IPCC) and served as Chair of the International CLIVAR Pacific Implementation Panel and coordinated climate research activities across the Pacific region.



UH Hamilton Library Room 301  
3:30 – 4:30 PM  
Admission free  
Refreshments provided  
Doors open at 3:15 PM



Presented by:  
Vice Chancellor for Research  
and  
Graduate Education  
Office of Research Relations