UNIVERSITY of HAWAI'I MĀNOA

Department of Atmospheric Sciences Seminar Announcement

Department of Atmospheric Sciences, S.O.E.S.T., University of Hawai'i at Mānoa
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SCHOOL OF OCEAN AND EARTH SCIENCE AND TECHNOLOGY

Theories for Ceaseless El Niño Cycles and its Complexity

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You are invited to our weekly online Atmospheric Sciences Fall 2021 seminars via Zoom meeting.
When: August 25, 2021 at 3:15PM HST

Register in advance for this meeting:
https://hawaii.zoom.us/meeting/register/tJwlcOmtpz8iGtFAfj1LmB2t-J89CV76hI1s

After registering, you will receive a confirmation email containing information about joining the meeting.
Please save this information for future seminars.

Abstract:

The term El Niño refers to abnormal and significant warm temperatures in a vast upper-ocean water body of the equatorial central to eastern Pacific oceans. It often has significant manifestations near the Peru coast where a few centuries ago, fishermen coined its name as they noted its full strength occurring almost always near the Christmas time. An El Niño event normally lasts over a year and is often followed by the so-called La Niña which is a cold anomaly lasting sometimes longer than El Niño. El Niño and La Niña often alternate and together form 2-7 year irregular cycles dominating the earth's natural climate variability. They dramatically alter global weather activity patterns and thus have great global impacts. With a brief introduction of this widely known phenomenon, this talk will address the questions about the fundamental mechanisms that are responsible for the genesis of its ceaseless cycles and complexity. By using analogies to explain relevant math concepts, I hope to convey some findings from theoretical studies to delineate a hidden beauty residing in dynamics of the El Niño–Southern Oscillation (ENSO). I may also briefly discuss how understanding of El Niño and its strong global influences may have implications improving climate predictions.