Cécile Penland

National Oceanic and Atmospheric Administration

Markovian Dynamics of El Niño

April 4, 2012, MH320

Abstract: El Niño is a result of extremely complex air-sea interactions acting on multiple timescales. In fact, these interactions are so complex that most of the nonlinear interactions can be treated as white noise, allowing El Niño to be modeled as a simple multivariate linear system driven by stochastic forcing. In this talk, we shall discuss the phenomenology of El Niño, the mathematical justification for a simple linear model of it, and linear algebraic methods used to produce useful forecasts.

Background: One semester of linear algebra.

About the speaker: Cécile Penland earned her Ph.D. in Physics at the University of Texas in 1984. She is currently a Physical Scientist with the National Oceanic and Atmospheric Administration in Boulder Colorado. Her specialty is stochastic modeling of geophysical systems.

Snacks in MH331B at 2:30 pm
Talk starts at 3 pm

For more information, see our full schedule at:

http://www.math.sjsu.edu/∼hsu/colloq/