

# Physics Seminar

Wednesday 2/27/2013, 4:30 pm  
Science & Engineering Building Auditorium

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## Lakes and Oceans – Thermal Density Gradients, Seiches, and El Niño Southern Oscillation

Minor variations in the density of water dictate significant impacts on the vertical structure and compartmentalization in lakes and oceans. We will discuss the thermal budgets of aquatic systems, the development of seasonal thermal stratification. The secondary impacts of wind energy to produce an internal wave pattern (a seiche) and how the rotation of the Earth results in secondary phenomena stemming from the Coriolis Effect will be examined. Finally, the lake model will be extrapolated to water circulation patterns in the Equatorial Pacific Ocean to understand the cyclical occurrence of the El Niño and La Niña Southern Oscillations.

*Please join us for light refreshments  
at 4:15pm outside SEB 203.*