

Think Spatial

The UCSB brown-bag forum on spatial thinking

Presents

Timothy Devries

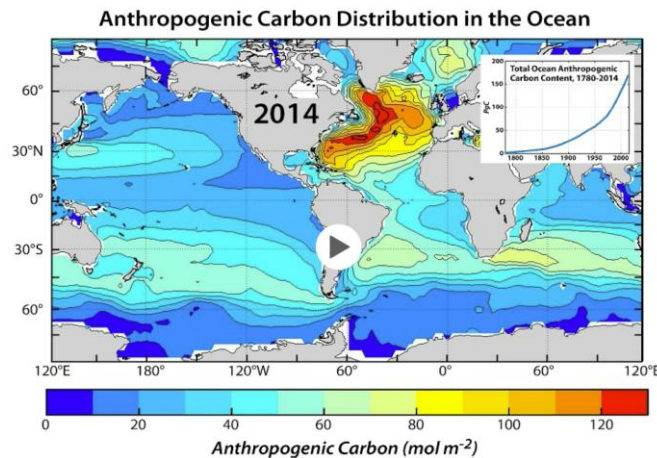
Department of Geography
University of California, Santa Barbara

Assimilating Spatial Data into a Global Ocean Model

Tuesday, March 6, 2018

12:00 p.m.

3512 Phelps Hall



ABSTRACT:

The circulation of the ocean plays a major role in controlling Earth's climate, but most global ocean circulation models have significant errors and biases, making their predictions suspect. This talk presents a way to correct these biases by assimilating large spatial datasets of oceanographic observations into a global ocean circulation model. Devries will discuss what observations can be used to correct model biases, how these are assimilated into the model, and provide examples of how the data-assimilated model can be applied to simulate ocean processes.

BIO:

Timothy Devries received his Ph.D. at UC Irvine in Earth System Science in 2010, and completed postdoctoral training at UCLA. Since 2014 he has been an Assistant Professor in the Geography Department at UCSB. His research interests include the ocean's role in the global carbon cycle, the cycling of nutrients and trace metals in the ocean, and ocean heat uptake. His research tools include numerical models, data assimilation, probabilistic models, and machine learning.