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Amala Mahadevan* (amala@bu.edu), Earth Sciences, Boston University, 675 Commonwealth Avenue, Boston, MA 02215. *Challenges to physical-biological coupling in climate models.*

Our increasing physical understanding and computational abilities have led to significant advances in modeling the climate system. Some of the greatest uncertainties lie in the carbon cycle, and in using biological models for prediction. Capturing the underlying physics is necessary for realistically modeling physical-biological feedbacks. Using some examples from oceanography, I will demonstrate the challenges for climate models with a carbon cycle. (Received March 03, 2009)