

# CGD SEMINAR



DATE: Tuesday, 02 January 2018

TIME: 11 a.m.

LOCATION: NCAR, 1850 Table Mesa Drive  
Mesa Lab, Main Seminar Room

TITLE: Can the collapse of coral reef ecosystems  
be avoided?

SPEAKER: Joanie Kleypas, NCAR

## ABSTRACT:

The coral reef ecosystem has changed so significantly over the past three decades that many reef scientists now feel it will be one of the first ecosystems to suffer catastrophic collapse. Until recently, the causes of reef degradation have been attributed more to direct causes, such as overfishing and pollution, rather than to climate change. The approach to reef conservation was largely one of simultaneously encouraging reductions in CO<sub>2</sub> emissions, while reducing the land-based threats through the establishment of marine protected areas. The third global coral bleaching event of 2014-2017, which was the most severe and long-lasting of any on record, has shifted this more passive approach to one of intervention, including reef restoration, assisted evolution, and assisted migration. Oceanographic modeling has been a key element in the projections of coral reef bleaching, and in some cases, identifying regions where coral reefs can survive. Now the challenges of ocean modeling are to identify those regions where interventions can be successful. This talk will cover the history of how ocean modeling has been applied to reef conservation, and how it can be used to help avoid coral reef collapse.

Live webcast: <http://www.fin.ucar.edu/it/mms/ml-live.htm>

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