

What can super-parameterization teach us about the tropical climate system?

Frontiers in Global Change Seminar Series

Presented by...

Dr. David Randall



- Professor of Atmospheric Science, Colorado State University
- Director of the Center for Multiscale Modeling of Atmospheric Processes
- Chief Editor of the *Journal of Advances in Modeling Earth Systems (JAMES)*
- Coordinating Lead Author for the Fifth Assessment of the Intergovernmental Panel on Climate Change (IPCC)

Awards:

- ❖ NASA's Medal for Exceptional Scientific Achievement
- ❖ Meisinger Award of the American Meteorological Society
- ❖ NASA's Medal for Distinguished Public Service
- ❖ Colorado State University for Scholarship Impact, Research, and Graduate Advising

Fellow of:

- ❖ The American Meteorological Society,
- ❖ The American Geophysical Union, and
- ❖ The American Association for the Advancement of Science

Abstract

The super-parameterized Community Atmosphere Model (SP-CAM) uses a simplified cloud-resolving model in place of the conventional parameterizations of the CAM. The SP-CAM produces more realistic variability than the standard CAM, although the mean state is less realistic in the northern summer. Coupling with an ocean model leads to major improvements of the basic state, and further improvements of the variability as well. Results are analyzed to understand the mechanisms involved. Particular attention is given to the Asian monsoon and tropical waves.

**Please join us for a meet and greet opportunity with
Dr. Randall after the seminar.**

Refreshments will be served~

March 17, 2011

EMSL Auditorium

9:00 am