

CGD SEMINAR



DATE: Tuesday, 19 September 2017

TIME: 11 a.m.

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

TITLE: Why Are High-Resolution Western
Boundary Currents Required to
Properly Model Their Influence on
Mid-latitude Weather and Climate?

SPEAKER: Rhys Parfitt,
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ABSTRACT:

This talk considers some of the key processes that determine the impact of Western Boundary Currents on mid-latitude weather and climate. Specifically, we focus on the coupled interaction between the oceanic frontal zone and individual atmospheric fronts, and discuss why this is primarily responsible for the local as well as basin-scale ocean-to-atmosphere feedback in the seasonal mean and longer time scale. As this interaction is highly sensitive to resolution, it is suggested that the influence of the Gulf Stream on climate can't be properly realised in general circulation models unless they are at sufficiently high resolution (i.e. horizontal grid size of 25km or less). The implications for current general circulation models and reanalysis datasets are addressed.

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

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