MMM SEMINAR NCAR

Recent Developments in Tropical Cyclogenesis Research

Mel Nicholls

University of Colorado, Department of Atmospheric and Oceanic Sciences Cooperative Institute for Research in Environmental Sciences Boulder, Colorado

In this seminar a brief summary will be given of recent developments in tropical cyclogenesis research, predominantly from a numerical modeling perspective. This will be followed by a more detailed description of my own specific work in this area that includes investigation of: (1) two distinct pathways to tropical cyclogenesis found to occur in idealized simulations with a non-sheared environment, (2) the mechanisms leading to the formation of a strong mid-level vortex, (3) the development of positive vertical vorticity around the edges of surface cold pools when there is a large scale cyclonic flow present and the role this phenomenon may sometimes play in the formation of vortical hot towers, and (4) how radiation may cause accelerated rates of tropical cyclogenesis and diurnal cycles of convective activity.

This seminar will be webcast live at: http://www.fin.ucar.edu/it/mms/fl-live.htm

Recorded seminar link can be viewed here: https://www.mmm.ucar.edu/events/seminars

Thursday, 14 May 2015, 3:30 PM

Refreshments 3:15 PM NCAR-Foothills Laboratory 3450 Mitchell Lane Bldg 2 Main Auditorium, Room 1022

MMM SEMINAR COORDINATOR Morris Weisman, 303.497.8901, weisman@ucar.edu http://www.mmm.ucar.edu/events/seminars