



Ultra High-Resolution Simulations of Tornadoes Embedded Within Supercells

Leigh Orf

*Cooperative Institute for Meteorological Satellite Studies, University of Wisconsin-Madison
Madison, WI, U.S.A*

Tornadoes are among nature's most destructive forces. The most violent, long-lived tornadoes form within supercell thunderstorms. Tornadoes ranked EF4 and EF5 on the Enhanced Fujita scale that exhibit long paths are the least common but most damaging and deadly type of tornado.

In this talk, results from numerical simulations of supercells containing violent, long-track tornadoes will be presented, focusing primarily on a 30 meter simulation of a supercell modeled within the 24 May 2011 El Reno, OK supercell environment. Preliminary results from a recent 20 meter simulation of the 24 May 2011 storm will also be presented, including the entire life cycle of a multiple-vortex EF5 tornado which transitions from a single-celled tornado, to a two celled tornado, to a multiple vortex tornado before dissipating. The genesis, maintenance, and decay phases of the tornadoes will be explored using high quality visualization techniques designed to provide insight into the storm.

*This seminar will be webcast live at:
<http://www.fim.ucar.edu/it/mms/fl-live.htm>*

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

Thursday, 18th February 2016, 3:30 PM
Refreshments 3:15 PM
NCAR-Foothills Laboratory
3450 Mitchell Lane
Bldg 2 Main Auditorium, Room 1022