MMM SEMINAR SERIES

Vertical motions inside convection analyzed from EarthCARE satellite Cloud Radar observations and a global storm-resolving simulation

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The newly launched EarthCARE satellite, featuring the first-ever space-borne Doppler radar via its Cloud Profiling Radar (CPR), provides unprecedented insights into mesoscale circulation structures within convective clouds. Complementing these observations, global kilometer-scale atmospheric simulations using NICAM—with horizontal mesh sizes of 870 meters and 3.5 kilometers—reproduce cross-sectional views of convective systems that closely resemble those observed by EarthCARE. The NICAM simulations also offer detailed time-evolving three-dimensional structures of mesoscale convective systems, enabling in-depth analysis of convective dynamics…Link to Full Abstract.

TUESDAY, 9 December 2025, 2:00PM

Refreshments 1:45PM

Please also join colleagues for refreshments and informal discussion after the seminar until 3:30PM

NCAR-Foothills Laboratory, 3450 Mitchell Lane

FL2-1022, Large Seminar

Seminar will also be live webcast

https://sundog.ucar.edu/public/page/MMM

Participants may ask questions during the seminar via Slido.