
MMM **SEMINAR** *EOL*

What Can Polarization Radar Tell Us About the Hydrometeors in Convective and Stratiform Rainfall?

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Polarization radars are now widespread and the benefits for operational networks have been demonstrated. Better data quality by rejection of non-meteorological returns together with improved corrections for attenuation have lead to more reliable estimates of rainfall rates. The use of the polarization parameters for hydrometeor identification has proved more elusive. Four new parameters are available: differential reflectivity, differential phase shift, the co-polar correlation, and linear depolarisation ratio. In this talk I will consider the performance of the various algorithms using the new parameters, starting with the easier problem for stratiform precipitation, then moving to the more challenging tasks such as the identification and sizing of hail and detecting supercooled water in convective clouds. I will consider the accuracy required for these polarization parameters if the identification algorithms are to be trustworthy, and the implications for the scan strategy and the temporal and spatial resolution needed for various configurations of ground based and airborne radars.

*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, 24 September 2015, 3:30 PM

Refreshments 3:15 PM
NCAR-Foothills Laboratory
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