

ATS/CIRA Colloquium

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Aerosol Influences on Clouds and Precipitation

October 4, 2008

ATS room 101; Discussion will begin at 3:30pm

Refreshments will be served at 3:00pm in the coffee lounge

In this talk I will overview the influences of aerosols on clouds and precipitation. Material used for this talk will be derived from our own work using RAMS and as well as a summary of other investigators contributions. I will begin with an overview of how aerosol indirect effects are treated in RAMS. Then I will discuss how aerosols influence boundary layer stratocumuli and cumuli, wintertime orographic clouds, deep convective clouds, and hurricanes. The theme of the talk is that once aerosols alter the precipitation process the cloud responses are highly nonlinear making the representation of those processes very challenging and in many cases unpredictable.