

Characteristics of the Cloudy Atmosphere Observed the Atmospheric Infrared Sounder (AIRS)

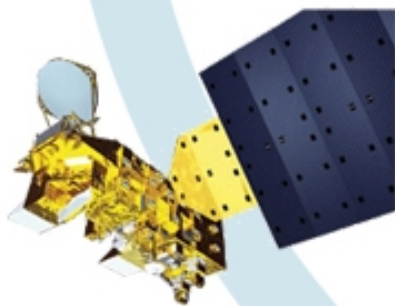
Evan Fishbein, Luke Chen and Sung-Yung Lee

¹Jet Propulsion Laboratory, California Institute of Technology

The Atmospheric Infrared Sounder (AIRS) derives surface and profiles quantities under partial cloudy conditions by estimating the clear sky component of the observed radiances. The procedure uses microwave and infrared radiances to provide independent estimates of the clear component. It also assumes variability at scales less than 50 km occurs only in the cloudy component. We are validating both the assumptions and results of the procedure. We compare clear sky radiances produced from forecasts with those from our algorithms. We compute the spatial coherency of the cloudy component and are examining its daily and seasonal variability.

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