

The RAL Seminar Series



NCAR

Snowflake Video Imager: Lab to Field

by

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Foothills Lab Building 2, Auditorium Room 1022

11:00 a.m.

The Snowflake Video Imager (SVI) is a new instrument for characterizing frozen precipitation. It utilizes a video camera with sufficient frame rate, pixels and shutter speed to record thousands of snowflake images. The camera housing and lighting produce little air-flow distortion, so SVI data is quite representative of natural conditions, which is important for volumetric data products such as snowflake size distributions. Long duration, unattended operation of a SVI is feasible because data-logging software provides data compression and the hardware can operate for months in harsh winter conditions.

We use data from a storm near Boulder to (a) compute snowflake size distributions (SSDs) and (b) provide visualizations of frozen particles (i.e., snowflake aggregates as well as individual crystals). Another SVI operated during the winter of 2006-07 as part of Canadian CALIPSO/Cloudsat validation program (C3vp), so we will present preliminary comparisons between the SVI data set and Parsival data sets.