A Technique for Estimating Liquid Droplet Diameter and Liquid Water Content in Stratocumulus Clouds Using Radar and Lidar Measurements

Dr. Jothiram “Vivek” Vivekanandan
Senior Scientist, NCAR EOL Remote Sensing Facility
vivek@ucar.edu

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TIME: 3:30 - 4:30 pm MST
WEBCAST: operations.ucar.edu/live-eol
QUESTIONS: During the seminar, participants will have the opportunity to ask questions via Slido

ABSTRACT
This presentation describes a technique for estimating the liquid water content (LWC) and a characteristic particle diameter in stratocumulus clouds using radar and lidar observations. The technique is independent of the drop size distribution (DSD). It is applicable for a broad range of W-band reflectivity (Z) between -30 and 0 dBZ and all values of lidar backscatter (β) observations. No partitioning of cloud or drizzle is required based on an arbitrary threshold of Z as in prior studies. The retrieved LWC was validated using the concurrent G-band radiometer estimates of the liquid water path.

EOL Seminar Series Coordinator: Jacquie Witte: jwitte@ucar.edu

This webcast will be recorded and uploaded to the NCAR Earth Observing Laboratory YouTube Channel

For more information, contact Melissa Ward: mward@ucar.edu