SSMI/S Satellite Rainfall Retrievals during CHUVA-GLM Experiment

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This research effort regards the properties of the rain regimes over Brazil and the retrieval of instantaneous rain itself from passive microwave radiometers on board low-orbiting satellites like DMSP/SSMI/S. This study is conducted in the framework of the CHUVA-GLM campaign (Vale do Paraiba) which is aimed at deploying a series of instruments in various locations over Brazil in order to better characterize the various rainfall regimes.

The performance of two different algorithms, the Bayesian Rain retrieval Algorithm Including Neural network (BRAIN) and Goddard Profile algorithm (GPROF), were carried out through a comparison between SSMI/S retrievals and radar data during November 2011 - March 2012 over the Vale do Paraiba region (15 S - 31 S, 37 W - 57 W).