

**TROPINET X-BAND POLARIMETRIC RADAR AND GLOBAL PRECIPITATION
MISSION (GPM) RAINFALL COMPARISON FOR CALIBRATION OF THE GPM'S
RAINFALL RETRIEVAL ALGORITHMS OVER TROPICAL COMPLEX-OROGRAPHY
TERRAIN**

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Through a collaboration with NASA's Global Precipitation Mission validation and algorithm development team, the University of Puerto Rico at Mayagüez aims to compare our X-Band Polarimetric Doppler Radar (TropiNET) with the Global Precipitation Mission (GPM), Dual Precipitation Radar (DPR) and the Tropical Rainfall Measuring Mission (TRMM) Precipitation Radar (PR) with the intention of assessing and improving the existing GPM and TRMM rainfall algorithms in the presence of variables such as type of precipitation, terrain, warm or cold cloud rain in the West Region of Puerto Rico. This collaboration also aims to include the TropiNet Radar Network data into the GPM Validation Network. In addition, a comparison of hourly precipitation data from TRMM 3B42v.7 and GOES Hydro-Estimator over the West Region of Puerto Rico from the past two decades will be presented and analyzed.