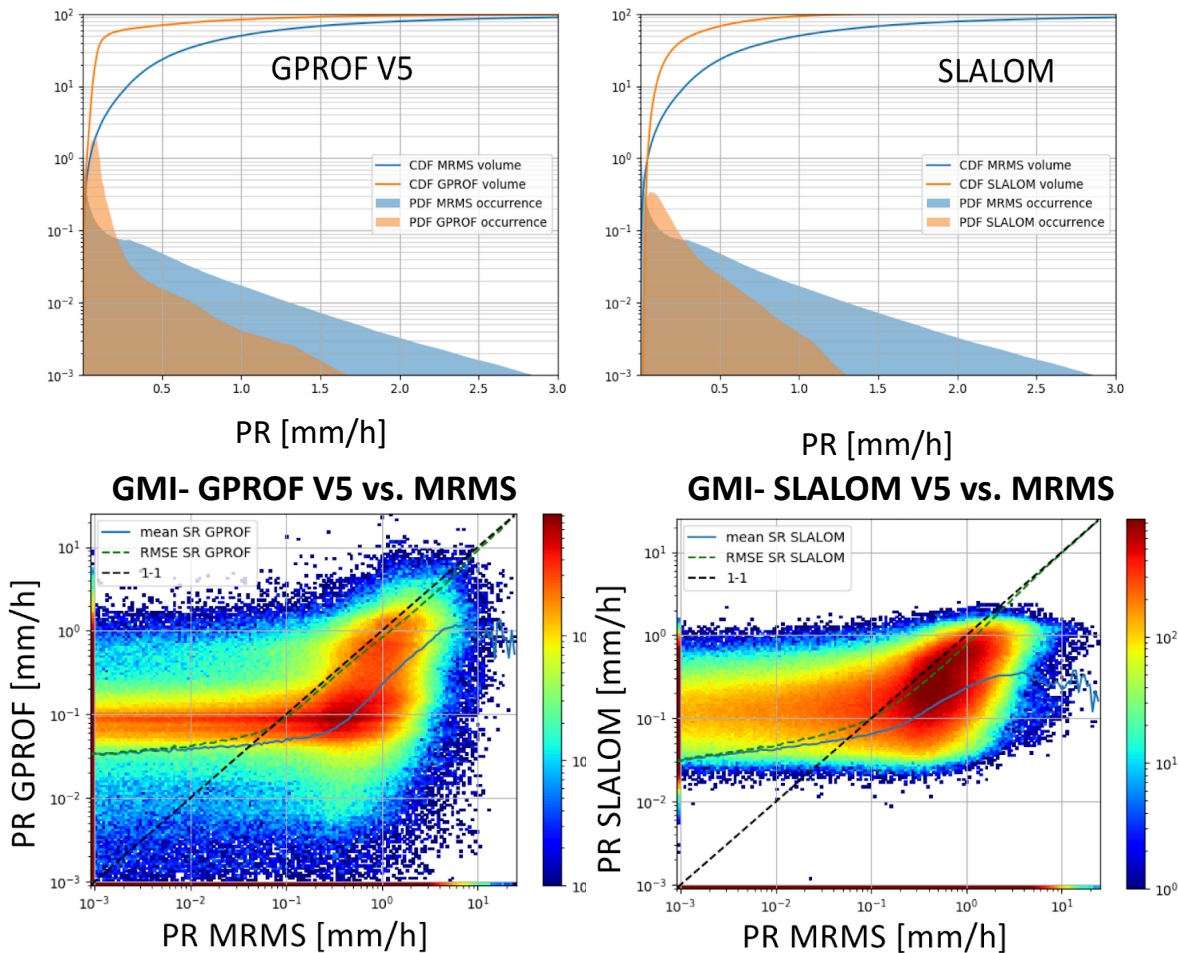
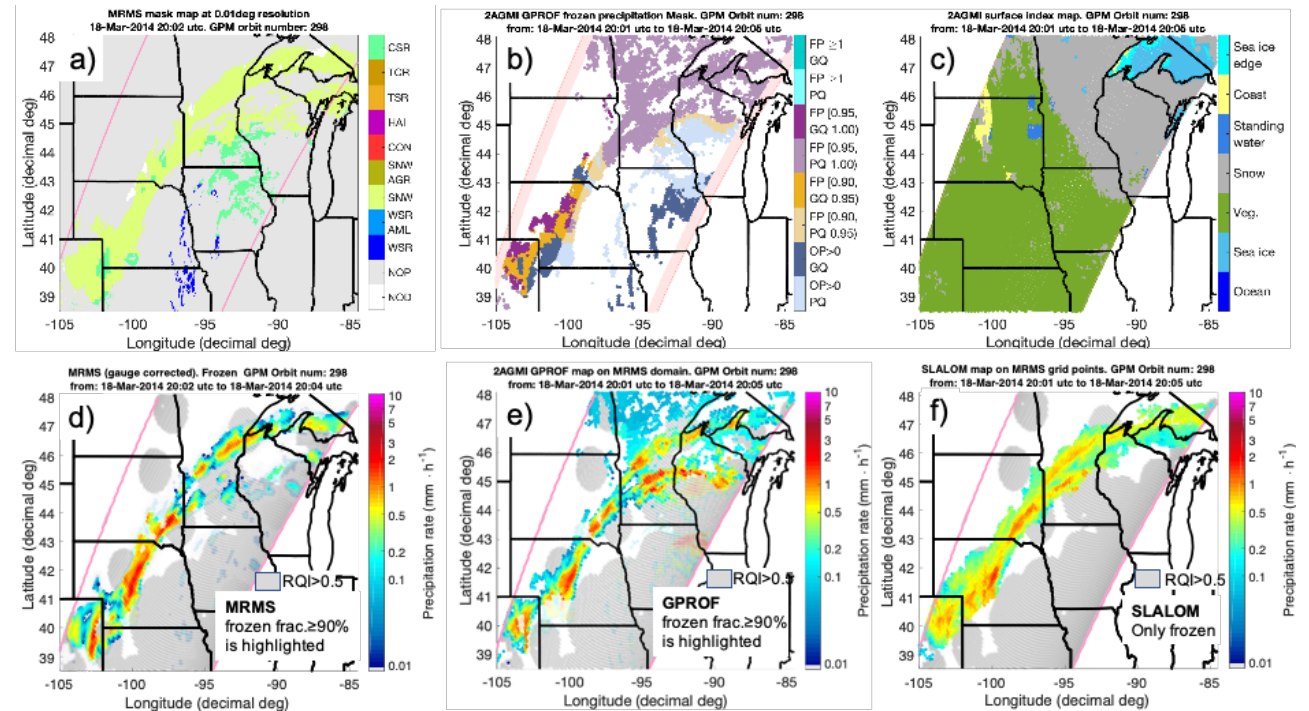


Verification study of passive microwave snowfall products using ground-based radar network observations

- **4-year (2016-2020) statistic of collocated Ground MRMS gauge adjusted radar and GPM-GMI retrievals from GRPOF and SLALOM of frozen precipitation over US and South Canada**



- **March 18st, 2014 snow case study.**



- **Main findings**

- Frozen precipitation retrievals are characterised by higher uncertainty compared to liquid regimes due to their complex scattering properties.
- Detection of light precipitation is an issue affecting spaceborne and ground based systems.
- Snow covered surfaces negatively impact snowfall detection capabilities of PMW retrievals.
- The analysis of 4 years of collocated PMW and ground-based snowfall estimates shows advantages of CloudSat/Calipso-based Machine Learning retrievals (SLALOM) over traditional estimation theory approaches (GPROF).