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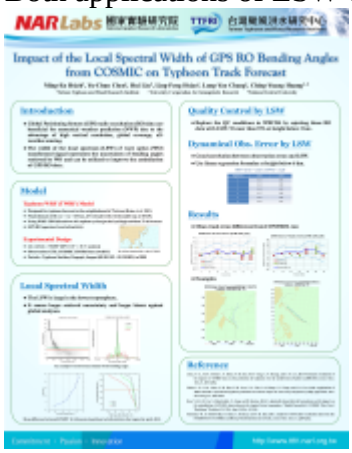
Poster
In the lower troposphere, retrieval of GPS radio occultation (RO) bending angles is difficult due to multi-path propagation and refraction caused by inhomogeneity of moisture. The local spectral width (LSW) of wave optics transformed GPS signal can be used as a measure of the uncertainty of RO observation retrieval. In this preliminary study it is used as a quality control and dynamical observation error of COSMIC GPS RO refractivity data operationally assimilated in numerical weather prediction at Central Weather Bureau in Taiwan. Both applications of LSW can improve track forecast in this case study.


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