

Thinking inside the grid: from multi-instrument satellite data to uniform space-time information

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Space-Time Gridding

Characterizing the signal-to-noise ratio of instrument measurements mapped to a uniform equal-angle space-time domain

- Multi-instrument data analysis
 - Imager: Suomi-NPP Visible Infrared Imaging Radiometer Suite (VIIRS)
 - Sounder: Suomi-NPP Cross-track Infrared Sounder (CrIS)
- Comparison of Brightness Temperature measurements
 - Infrared window region (~11 micron)
 - Sounder spectra convolved to Imager band (M15)
 - Calculate bias and root-mean-square-error (RMSE) at different spatial scales, from 0.25 to 2.0 degree.

The lessons learned here will apply directly to the aggregation of geophysical retrieved parameters (Level 2) into a global gridded product (Level 3)

