

## Correlation Analysis of Tropospheric Refractive Index Irregularities from MU Radar Spaced Antenna Interferometry Observations

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Space Domain Interferometry can obtain in-beam angular information on scatterers along the baseline between two receivers. Combining simultaneous information from independent baselines, and utilizing a correlation analysis technique, it is possible to determine horizontal wind components, vertical wind, and refractive index irregularity parameters.

Among these are the horizontal scale sizes and orientations, and a measure of the turbulence intensity of the layer observed.

In this experiment, additional analysis was carried out to study the vertical scale sizes and the effects of the radar transmitting and receiving aperture sizes. The assumptions regarding the scattering model of the irregularities underlying the technique are also discussed.