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Astronomical Seeing Forecast for the Thai National Observatory

Forecasting the astronomical seeing above an observatory can assist astronomers plan their observations. In this study, the astronomical seeing above the Thai National Observatory (TNO) in Doi Inthanon, Chiang Mai, Thailand was simulated using the Weather Research Forecasting (WRF) model. The model outputs were then compared to seeing observations using Polaris and the Differential Image Motion Monitor (DIMM). The model outputs can qualitatively capture the variability of the observations moderately well. However, some discrepancies were observed during periods of elevated seeing. Further investigation is therefore necessary, particularly on the vertical profile of the refractive index, by comparing the model outputs with SLOpe Detection and Ranging (SLODAR) observations.

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