

Long-Term Ground-Based TSI Measurements

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We will review efforts to model variations in TSI using ground-based photometry, and what can be learned from these models. We will discuss different modeling techniques and show how accurately the models can reconstruct irradiance measurements made by spacecraft. We will argue that the construction of such models is an important adjunct to the measurement of TSI from space-based instruments because it can help identify possible scale changes in a single instrument, help bridge data gaps between two different instruments and, most importantly, will lead to an understanding of the sources of solar variability.