



Solar irradiance

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Since solar irradiance is not constant, it has become a topic of constant attention. The Sun is variable and its variability is better grasped when accounted by time series of scalar values. Among those, the Total Solar Irradiance holds a special status given its chief relevance to both solar physics and to solar forcing in the heliosphere. Yet, its challenging measurements and modeling are matters of active investigations. With new measurements, and consecutive modeling, The SSI has gained interest in the last years. It offers a more subtle diagnostic of the sun as a star, and it enables physical models that account for photochemistry, especially when controlled by the unsettled ultraviolet ranges. The talk will review the various aspects related to solar irradiance and conclude with words of prospective for the future.