

The Latest SORCE-SIM Solar Spectral Irradiance Data Release and Initial Comparison with TSIS-SIM Measurements

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The Spectral Irradiance Monitor (SIM), the SOLar STellar Irradiance Comparison Experiment (SOLSTICE), and the XUV Photometer System (XPS) instruments on board the Solar Radiation and Climate Experiment (SORCE) mission have been taking daily Solar spectral irradiance (SSI) measurements since April 2003.

It is critical to accurately track the instrument degradation over time to be able to measure the small SSI variations with the solar cycle over the wavelength range covered by SORCE-SIM (220-2400nm). The instrument degradation is constantly being updated and the corresponding model has been refined over the years to account for changes and a better understanding of the instrument's behavior over time.

We present the latest data releases from the SORCE-SIM instrument, describing the improvements in the new datasets and the trends measured during Solar cycles 23 and 24. The SSI for SORCE-SIM and first light measurements from TSIS-SIM are compared as well.