The Latest SORCE XUV Photometer System (XPS) Calibrations and Data Products

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We present the latest data products for the XUV Photometer System (XPS) instrument on board the SOlar Radiation and Climate Experiment (SORCE) spacecraft. SORCE XPS provides a long-term record of the solar soft X-ray (0.1-40 nm) output of our home star. We present updated calibrations and data products for the entire mission.

We will present updated dark-count and visible-light-count models which are time and temperature dependent and allow us to extrapolate these values when such measurements are unavailable. This is needed due to changes in instrument operations that have occurred during the mission which limit our ability to collect dark and visible counts to only once per week, rather than for every observation as was previously done earlier in the mission.

In addition, recent special experiments conducted in 2019 allow the instrument to collect data from its full set of diodes and filter-wheel positions, which had not been done since late 2005 due to a filter-wheel anomaly that occurred at the time. The results from these experiments can be used for long term trending analysis of the instrument and improved data products.