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Solar EUV irradiance during solar cycle 24 as observed by PROBA2/LYRA and SDO/EVE

Matthieu Kretzschmar (1), Marie Dominique (2), and Ingolf Dammasch (2)

(1) LPC2E, University of Orleans & CNRS, France (matthieu.kretzschmar@cnrs-orleans.fr), (2) Royal Observatory of Belgium/SIDC, Brussels, Belgium

Solar EUV irradiance affects the upper atmospheres of planets and is a fundamental parameters for space weather. The Large-Yield Radiometer (LYRA) is a radiometer that has monitored the solar irradiance at high cadence and in four pass bands since January 2010. Both the instrument and its spacecraft, PROBA2 (Project for OnBoard Autonomy), have several innovative features for space instrumentation, which makes the data reduction necessary to retrieve the long-term variations of solar irradiance more complex than for a fully optimized solar physics mission. In this presentation, we describe how we compute the long-term time series of the two extreme ultraviolet irradiance channels of LYRA and compare the results with those of SDO/EVE and several proxies.