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First results of statistical analysis applied on different solar spectral irradiance datasets acquired from different satellites

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Spectral solar irradiance (SSI) datasets are crucial input to atmospheric and climate modelling. The spectral and total solar irradiances (SSI and TSI) change on scales ranging from few days up to the 11-yr sunspot cycle. The European comprehensive SOLar Irradiance Data exploitation (SOLID) project aims at providing a uniform dataset of observed SSI data from the beginning of the space era to the present for the time period of around thirty years from a combination of satellite datasets. As a first step continuous wave and FFT analyses are applied to different observational datasets to diagnose and characterize the variability of the datasets and compare the results to commonly used solar proxies like Mg II and photometric sunspot indices. First results are presented.