



Results from the First Year of SOLID - the First Comprehensive European Solar Irradiance Data Exploitation

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Variations of solar irradiance are the most important natural factor in the terrestrial climate and as such, the time dependent spectral solar irradiance is a crucial input to any climate modelling. There have been previous efforts to compile solar irradiance but it is still uncertain by how much the spectral and total solar irradiance changed on yearly, decadal and longer time scales.

The major objective of SOLID is to analyze and merge the complete set of European irradiance data, complemented by archive data that include data from non-European missions. The reconstructed time series will be used to bridge gaps in time and wavelength coverage of the observational data.

Here we report on the first results obtained during the first year of SOLID. This includes the improvement of data analysis and error estimate of the irradiance and proxy time series, as well as an improved modeling of the solar spectral irradiance. The product is tailored towards the needs of the user communities, which were also compiled during the first phase of the project.

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