

How Consistent are the Solar Absolute Irradiance Changes for the Two Latest Solar Cycle Minima with the SOHO/EIT and SDO/AIA Image Spatial Spectra and with the CODE TEC Sectorial Harmonic Spectra Changes

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The Solar Cycle minimum in 2008-09 showed a decrease compared to the minimum of 1996 in the absolute solar EUV irradiance measured by SOHO/SEM first-order (26 to 34 nm) channels, in the Mg II core-to-wing solar index, and in TSI. This decrease was also detected in the changes of thermosphere neutral gas densities as modeled and measured using satellite drag data. Some other measurements, for example the f10.7 proxy and TEC global data did not show such a decrease. We use SOHO/EIT and SDO/AIA solar image spatial spectra and CODE TEC sectorial harmonic spectra to verify whether such changes of the absolute solar irradiance are consistent with changes of the spatial structure of the Sun's He-II network layer and with the changes of the Earth's day-side ionosphere TEC detected using CODE sectorial harmonic spectra.