



## SOLAR SPECTRAL IRRADIANCE (SSI) FROM CODET MODEL AND THEIR RELATION WITH EARTH'S UPPER ATMOSPHERE

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### ABSTRACT

The Solar Spectral Irradiance (SSI) influences the Earth's atmosphere for each wavelength in different altitudes. The EUV emission has a considerable impact on the Earth's upper atmosphere, i.e., on the density, temperature, and total electron content (Haberreiter et al. 2014; Schmidtke 2015). Recently was developed a model called CODET (Rodríguez Gómez et al. 2018). This model uses a flux transport model. It employed line-of-sight magnetic field data from SOHO/MDI and SDO/HMI full-disk magnetograms. The data are assimilated into the flux transport model to describe the dynamics of the solar photosphere. These data are then used as boundary conditions for a series of potential-field source-surface (PFSS) extrapolations to obtain the structure of the coronal magnetic field. Additionally, we use an emission model based on the CHIANTI atomic database 8.0. The CODET model has, as an output, the SSI in the EUV band (19.3 and 21.1 nm) from the photospheric magnetic field evolution over solar cycles 23 and 24. These SSI series can be used as an input parameter in ionospheric models.