



Analysis of Different Solar Spectral Irradiance Reconstructions From The 17th century to 2010

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It is generally accepted that to properly simulate numerically the climate and its variability we need to take into account the solar variability on its different time scales and to include its spectral dependency. Recently new measurements became available and reconstructions based on different approaches are becoming available. However, from the best of our knowledge, they have not been compared in details in terms of absolute irradiance and amplitude of their predicted variability as a function of time. In this presentation we compare qualitatively and quantitatively five different reconstructions using different proxies, current measurements and we analyse their differences. The implications of the latter for climate and atmospheric studies will be shown.