



The importance of the accurate solar irradiance prediction for the assessment of the future climate changes

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It was suggested that the current grand maximum of the solar activity will end up within the next 100 years. Projected decline of the solar activity is expected to result in a decrease of the solar irradiance followed by the total column ozone depletion and global cooling of the surface climate. The mechanisms responsible for the solar irradiance influence on climate will be presented and discussed in the talk using the results of several model experiments. It will be demonstrated that if potential decrease of the solar irradiance is substantially large its effects can lead to a delay of the ozone recovery and partial compensation of the greenhouse warming in the future. This conclusion emphasizes the necessity of the better constrained predictions of the future solar irradiance.