

# Abstract

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## **Studying of the Solar–Climate Interaction in Canada**

Abstract It is well known that the solar radiation output changes periodically and also that it affects the Earth's near-space environment in various ways. The Earth climate system has shown irregular changes during the second half of the 20th century, especially for the last four decades. The scientific and public discussions about the influence of the solar radiation on global warming are still ongoing. It is obvious that the man-made gases (e.g., the concentration of carbon dioxide in the atmosphere was never as high during the last thousand years as it is today) is an important factor affecting the Earth's surface temperature, but it may be not the only one. The present work presents a correlative study to investigate the possible effect of some geomagnetic and solar parameters on climate variability of global temperature represented by the temperature of Canada. Two components (monthly averages) that may be closely associated with the climate have been studied, which are the geomagnetic activity,  $aa$  and the sunspot number,  $R_z$  throughout a long period of 114 years from (1890-2004).