Solar activity not a key cause of climate change, study shows
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Scientists at the University of Edinburgh carried out the study using records of past temperatures constructed with data from tree rings and other historical sources. They compared this data record with computer-based models of past climate, featuring both significant and minor changes in the sun.

They found that their model of weak changes in the sun gave the best correlation with temperature records, indicating that solar activity has had a minimal impact on temperature in the past millennium.

The findings show that periods of low sun activity should not be expected to have a large impact on temperatures on Earth, and are expected to improve scientists' understanding and help climate forecasting.

Research examining the causes of climate change in the northern hemisphere over the past 1000 years has shown that until the year 1800, the key driver of periodic changes in climate was volcanic eruptions. These tend to prevent sunlight reaching the Earth, causing cool, drier weather. Since 1900, greenhouse gases have been the primary cause of climate change.

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More information: Small influence of solar variability on climate over the past millennium, DOI: 10.1038/ngeo2040

Provided by University of Edinburgh