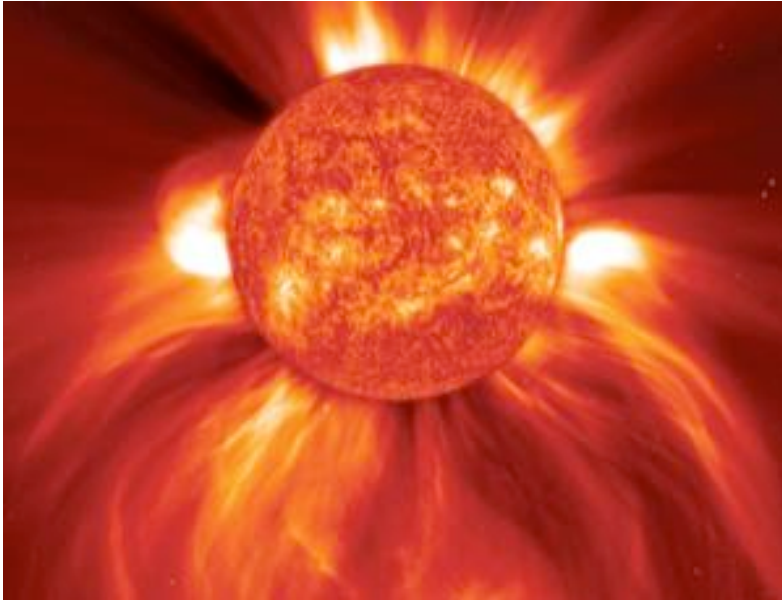


A quiet sun won't save us from global warming



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EVEN if the sun were to quieten down appreciably for the rest of this century, it would still be business as usual for global warming.

The sun goes through an 11-year solar cycle during which its luminosity varies according to [the number of sunspots](#) appearing on its face. The normal cycle has a small effect on Earth's weather. But sometimes lulls in sunspot activity can last several decades, driving down the sun's luminosity to a "grand minimum". The Maunder minimum lasted from 1645 to 1715 and may have [contributed to the little ice age](#).

[Stefan Rahmstorf](#) and [Georg Feulner](#) of the Potsdam Institute for Climate Impact Research in Germany modelled what would happen to temperatures on Earth if a grand minimum started now and lasted until 2100. They found that while temperatures would go down by as much as 0.3 °C, global warming would push up temperatures by 3.7 to 4.5 °C - more than negating any effect of a global minimum (*Geophysical Research Letters*, DOI: [10.1029/2010gl042710](#), [in press](#)).

[Gavin Schmidt](#), a climate modeller at NASA's Goddard Institute for Space Studies in New York, agrees. "Even if the sun does something really weird, it would still be dwarfed by what we're doing," he says.