Solar cycles around the onset of the Maunder Minimum

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The Sun indicates long-term activity variations at the time scales of a few hundred years to a few millenia, and sometimes experience grand minima when number of sunspots significantly decreases for more than several decades. In order to understand the physical mechanism of such grand minima, we conducted high-precision measurements of carbon-14 in tree rings with annal resolution and reconstructed the solar cycles around the onset of the Maunder Minimum (1645-1715 CE). In this presentation, we report the transition of cycle lengths indicated by the high-precision data.

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