

## **Prediction of solar activity the next 100 years**

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A model of low frequency solar oscillations, in the range 50-420 years, modulating the 11.1-year Schwabe cycle is used to predict the peak sunspot number of cycle 24, and those beyond. This extends the earlier work of Damon and Jirikowic by adding further long-period components. Typically the deviation between the model and the peak sunspot number in each solar cycle since 1750 is  $\pm 27$ . The peak sunspot prediction for cycle 24 is significantly smaller than cycle 23. Peak sunspot numbers are predicted to be  $\sim 45 \pm 27$ . The model also predicts a recovery during the middle of the century to more typical solar activity cycles with peak sunspot numbers of  $\sim 120$ . Eventually the super-position of the minimum phase of 105 and 420-year cycles just after 2100 leads to another period of significantly quieter solar conditions. This lends some support to the prediction of low solar activity in 2100 made by Clilverd et al. (2003).