



Cycles in the temperature data are induced by the Sun

S. Nicolay (1), G. Mabilie (2), X. Fettweis (2), and M. Erpicum (2)

(1) University of Liege, Mathematics, Liege, Belgium (S.Nicolay@ulg.ac.be), (2) University of Liege, Climatology, Liege, Belgium

Recently, the presence of two cycles of period 30 and 42 months approximatively has been observed in temperature records and climatic indices. Moreover, it has been shown that these cycles are statistically significant. Here we outline the role played by the Sun in the presence of these cycles, observed in time series. To do so, we use IPCC AR4 climatic models, sunspot number data and the Morlet wavelet method.