

# **Solar signals in the minimum extreme temperature records in the southern region of the Gulf of Mexico**

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Five data series from different meteorological stations in the Gulf of Mexico are spectrally analyzed using the Maximum Entropy Method in order to look for solar signals. The series cover a period from January 1925 to December 1996.

From the spectral analysis a periodicity around 5 years is present in almost all series, which can be considered as a harmonic of the sunspot number. We also obtained significant periodicities similar to those found in meteorological and solar activity phenomena as the 8 year peak that is coincident with strong El Niño events and the periodicity around 3.3 yr present in all stations possibly linked to either short-term El Niño events or to various solar phenomena.