

## **Solar Induced Climate Changes , Past records and reflections into the future**

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### Abstracts:

Solar induced climate changes either on millennium or century or decadal scales are evident. Records of Nile floods and Lake Moris (Qarun) since 9000 BC are shown to follow Major solar episodes deduced for radiocarbon To the extent that the time series of Lake Moris can be used to extend those major solar cycles backwards.

In addition, annual records of Nile floods since 622 AD are used to show those major solar cycles.

The Dead Sea level Time series is a perfect indicator of solar induced climate changes.

Smoothed tree-rings data also reflect solar large solar cycles.

On a smaller scale, the Wolf-Gleissberg cycles are reflected in many climate phenomena.

Climate changes do occur at the turning points of those cycles. Hence there prediction can be used in long range forecast.