

Solar activity and solar wind phenomena mechanisms

A note on the nature of the orbiting planets' gravity originated sound waves within the solar mass

(an answer to the critique that tidal forces from orbiting planets are very weak to produce any visible effect to sun)

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Solar activity and even solar wind can be accurately computed and predicted. And in fact they are the climate variability drivers. I have shown the complete mechanisms in my recent papers. It is the orbiting planets tidal forcing to the low density solar atmosphere that drives solar activity and heat transfer rate to the exterior of the sun by forming sound waves in the solar gas atmosphere.

Sun's rotational period is about 25 days so the oscillators' frequencies are very low (a month to several years). Solar photosphere is not a liquid – water like – fluid with high viscosity values to absorb those waves and transform them to heat. Instead it is a high temperature, very low density gas. So these waves form and propagate within the solar mass continuously and eternally as sound waves. Their interference produces solar surface observed phenomena and oscillators' induced frequencies oscillations. The orbiting planets' tidal force is very weak but it's continuous eternal additive interference produces high scale phenomena.

As a result it indeed drives the rate of heat flux from the solar surface.

The main mistake scholars do about solar activity is they use navier-stokes equations of uncompressed liquids, but this is not the case for the very low density solar atmosphere where the phenomena take place.

Hope this helps you clarify why planetary tides on solar surface drive indeed solar activity.

Just wanted to add that the tidal forcing of the solar atmosphere and the solar activity variability it produces, isn't in fact even a high scale phenomenon. The solar temperature varies by some 6000 K at surface to some millions K at core. So if only you dig into some kilometers into the ultra low density gas solar atmosphere by tidal perturbation, you can have some 1000 K increase in temperature. This is not a high scale phenomenon. It is only perceived as high scale because it influences our lives.