+ #0086

Is the Tunguska 1908 event caused by global 3min. oscillations on the Sun?

+

+

German, B.R., Institute of Physics of the Ukrainian Academy of Sciences, R. Luxemburg str. 72, 83114 Donetsk, Ukraine, german@mail.fti.ac.donetsk.ua.

There are enigmatic 3-min. (5-7 mHz) pulsations on the Sun. These acoustic waves (i.e. 'acoustic' halo) correlate with both strong magnetic fields and global oscillations on the Sun during flares, and escape from the Sun. Further, the IMF interacts with the geomagnetic field and causes it to oscillate, producing detectable ULF-pulsations in resonance with the characteristic of solar waves [1]. Prof. Weber registered such 3-min. magnetic pulsations at Kiel on June 27-30, 1908. These ULF-oscillations vanished soon after the Tunguska explosion [2]. It is known that the D"-layer of core-mantle boundary is area where geomagnetic field is induced by a dynamo mechanism. During energetic solar events disturbances of magnetic lines in the coupling Sun-Earth system can perturb the D"-layer and hence activate mantle volcanoes [3]. Therefore we suppose the explosion of mantle palaeovolcano at the Tunguska site on June 30, 1908. Thus the Tunguska phenomenon most probably related to solar energetic event, but not to comet/asteroid falling.

[1] Thomson, D. (2008) 37th Cospar Sci. Ass., 3183. [2]
Weber, L. (1908) Astr. Nachr. 178, 23. [3] German, B.
(2009) ESA SP-676.

Cite abstract as:

German, B.R. (2013) Is the Tunguska 1908 event caused by global 3-min. oscillations on the Sun?. Paneth Kolloquium, Nördlingen (Germany), abstract URL: http://www.paneth.eu/PanethKolloquium/2013/0086.pdf (abstract #0086).