

Can Earth's Magnetic Micropulsations Induce Brain Activities Modifications?

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We present in this paper preliminary study on which level earth's magnetic micro pulsations might interact with human brain activities. Magnetic micro pulsations are magnetospheric plasma wave eigenmodes that are generated at the earth's magnetosphere and, via magnetospheric-ionospheric coupling induce ionospheric currents, and this ionospheric current pattern creates surface geomagnetic perturbations, which induce earth's surface electrical currents, and they are easily detected by earth's based magnetometers. These eigenmodes are basically of Alfvén type, and can be generated, for instance, by magnetic storms, situation where they are more intense and, in principle, might be felt by a more sensible human brain. Here, we also show how the modes are generated and present their basic physical properties. Finally, we compare the magnetic field level at the brain with the micro pulsation magnetic intensity.