



## **People and environment: how and why we react to weather and space weather changes.**

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Our environment includes many natural and artificial agents affecting any person on the Earth in one way or other. This work is focused on two of them – weather and space weather, which are permanently effective. Their cumulative effect is proved by means of the modeling. It is shown that combination of geomagnetic and solar indices and weather strength parameter (which includes six main meteorological parameters) correlates with health state significantly better (up to  $R=0.7$ ), than separate environmental parameters do (usually  $R$  does not exceed 0.3). The typical shape of any health characteristics' time-series during human body reaction to any negative impact represents a curve, well-known in medicine as a General Adaptation Syndrome curve by Hans Selye. This is demonstrated on the base of blood pressure time-series and acupunctural experiment data (obtained within the frame of international project "Geosol"). It is shown that not only extreme environmental changes are bioeffective, but variations, having "bioeffective frequencies", could be resonant with own frequencies of body organs and systems. For example, both geomagnetic field variations and atmospheric pressure micropulsations of some frequencies produce a stress-adaptation reaction of people. The mechanism of human body response is supposed to be a parametrical resonance in low-frequency range (which is determined by the resonance in large-scale organs and systems) and a simple forced resonance in GHz-range of variations (the resonance of micro-objects in the organism such as DNA, cell membranes, blood ions etc.).