

## **Fluctuations of the gravitational field of the planetary system and nonlinear interactions with matter.**

For the first time, extensive studies have been carried out on the harmonics of the planetary gravitational field [1]. Gravity is a force that acts both on large scales, the planetary system, and on small scales, on the micro scale of atoms. The kinematics of the planets correspond to oscillators that have been stable and have been able to exert their effects over billions of years of evolution. The gravitational forces are weak and sensually only in the coupling of sun and moon in the tides directly noticeable. As in nonlinear optics, the special effects of the fluctuating gravitational field become visible only in the harmonics. A correlation function constructed to indicate the change in probabilities for stable (harmonic) and unstable (disharmonic ) states is applied to a wide variety of situations and events.

The correlation function found has been used to study the triggering of earthquakes, the structure formation of human intelligence, the stability of mental processes, human developmental psychology, and also social events and crises.

The investigations have made it probable that certain patterns recur in the harmonic as well as disharmonic states of the planetary system. Similar relationships are present in phenomena and processes on planet Earth, because most events in our environment are multifactorial in nature and unfold within systems that strive to maintain equilibrium (steady state). If, on the basis of the model presented here, screening programs and then learning programs based on them are developed, then not only events with maximum discharge (such as earthquakes of very high magnitude) can be identified. Furthermore, the option arises to consider the selected processes with much higher resolution. In addition, the quality of the correlation can be confirmed and continuously improved. Nonlinear pulses (triggers) play a non-negligible role in this process. The method presented here can not only be verified on events of the past but also with forecasts.

[1] *Further information:* <http://www.planetare-korrelation.eu/>