## ASTRONOMICAL GEOPHYSICS, GEOLOGY AND BIOLOGY

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Abstract. The geometric progressions of distributions of stable periods of the Universe with octaves from 8, 16 and 32 notes, which look like as piano musical octaves with 12 notes, were presented in [Berry, 2010, 2012]. Deviations of members of geometric progressions from terrestrial and astronomical periods allow us to determine the external sources of geological and geophysical rhythms. The extinction intensity of biodiversity (%), which has been registered 500 million years in geological sediments, associated with the regular passages of the Solar system (SS) through the galactic flows. In these predictable dangerous time intervals appeared random catastrophic events caused by moving any star of the galactic flow close to the Sun and by falling down of large bodies of these galactic flows on the Earth.

**Keywords:** the solar system, Universe, Galaxy, impact on terrestrial processes, oscillation periods, forecasts, dangerous events, extinction of biodiversity.