



## **On the influence of the Earth's rotation velocity on global seismicity on the basis of observations from 1720 to 2016**

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### **Abstract**

Earth's seismic activity demonstrates a distinct non-uniformity (heterogeneity) both in space and in time. The periods of intensification of seismic activity (SA) are followed by periods of its decline. Strengthening the SA in one region may be accompanied by a decrease in the SA in another region. In the present work, an attempt has been made at first to determine the effect of low-frequency components of the variations in the angular velocity of the Earth's rotation on the dynamics of its seismic activity. The analysis of the time series of the density of seismic events and variations in the Earth's rotation velocity during period of about 300 years shows that each stage of reducing the angular velocity of rotation is accompanied by an increase in the density of seismic events, and the stages of increasing the angular velocity of rotation are accompanied by a decrease in the density of events. At present, the Earth enters the initial phase of the new rotation reducing process, which can lead to an increase in global seismic activity.

### **Keywords**

Global seismicity, Earthquakes, Magnitude, Angular velocity of Earth's rotation, Regime of retardation

### **References**



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