

INFLUENCE OF ROTARY POST-EFFECT ON DISCHARGE IN THE CRUSTAL LAYER

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This work represents experiments which have been performed in an attempt to establish a correlation between the constantly changing rotational regime of the planet and the discharge in the crustal layer. From the displacement of the TAI, UTC, and UT1 time scales taken from the site of the International Earth Rotation Service (IERS), the average annual and monthly angular rotation rates were calculated for the period from 1962 to 2018, and a catalog of earthquakes with 1962 to 2018. The compiled algorithm and the written program found partial derivatives of the total deforming potential and the distribution of annual number of earthquakes over the Earth's surface per one square kilometer. The article presents the results of analytical analysis and calculations for further investigation of the rotational regime of the Earth and other planets.

Keywords: WGS-84, angular velocity, Earth, deforming potential, deforming forces, centrifugal forces, critical parallels

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