AURORAL AND EQUATORIAL ELECTROJETS IN QUIET AND DISTURBED CONDITIONS – NUMERICAL MODELING

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To numerical modeling of zonal current in the ionosphere it is devoted not so many investigations. We represent the results of numerical calculations of the zonal current obtained with use of Global Self-consistent Model of the Thermosphere, Ionosphere and Protonosphere (GSM TIP), developed in WD IZMIRAN. Model GSM TIP describes the distribution of the zonal current both in high latitudes, and at geomagnetic equator. Thus, this model allows investigating the behavior of auroral and equatorial electrojets. In the given research the UT, season and Solar-cycle variations of the zonal current are considered. Besides we have carried out the researches of influence of various kinds of disturbances on global distribution of the zonal current in the Earth's ionosphere. Effects of substorms and storms, solar eclipses and earthquakes are considered.
The investigation is supported by the Grant of the Russian Foundation for Basic Research No.08-05-00274.

electrojet, zonal current, disturbances

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