Morphology of energetic proton quasidrift motion in the geomagnetic field

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On the ground of modelling accounts the basic morphological features of motion of cosmic ray protons of a rigidity range of penumbra in the real geomagnetic field are investigated. The complex quasidrift character of trajectories is shown as well as their common features: quasiperiodicity and presence of uniform belt of asymptotic direction distribution. As is shown the basic regularities of this kind of motion can be explained within the framework of the analysis of trajectories in a dipole magnetic field.
The instability of the given type of orbits and its effect on the geomagnetic cutoff accounts is investigated.