

Model of space debris density in the geostationary region

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Characteristic property of space debris in the geostationary region is the limitation of spatial area, in which the abandoned objects and their fragments move for long time. This gigantic tor requires special attention as its "eternal" population grows and carries threat to safety to the satellites. Our task was the creation of a determined model of space debris density on the basis of the orbits of catalogued objects, modeling fragments and results of observation. Used approaches are stated, numerical experiments are executed and the estimations of density and its evolution are received. The developed model can be used for planning of ground- and space-based observations, some examples are investigated and are given.