Development of the discrete quasitomographic method of the meteoric radar goniometric data analysis in view of amendments on a zenith attraction and gravitational acceleration.

Filin I.V., Lubimov D.V. Sidorov V.V. Kazan state university

Unique results on number of registration and measurement accuracy of arrival meteoric radioreflections' corners have been received as a result of long-term meteoric researches spent in the Kazan State University. The special method of the analysis of orbital heterogeneity's structure of falling stream of meteors - meteoric streams, small meteoric streams and microstreams – flow like fragments of a sporadic meteoric complex has been developed as meteoric particles' individual orbits on the Kazan radar have not been measured. The extensive data on orbital structure of a meteoric complex have been received, however, without taking into account amendments on the zenith attraction and gravitational acceleration The purpose of this work was to remove this lack discrete quasitomographic method, and also the lacks related to a problem of the given supervision's arbitrary splitting on three uncrossed small samples. The new algorithm provides 3 multiple splitting of the data into uncrossed samples to different attributes, takes into account deformation of lines of radiant's possible position in view of an zenith attraction and the amendment on a gravitational attraction. New cards of radiant's distribution are constructed with exception of repeated hits of meteoric registration in different groups of microstreams. It is shown, that a significant part of microstreams found out before was kept, new microstreams were added, however, the total amount of the meteors belonging to streams and microstreams, has decreased approximately in three times as the methodical threshold of streams' detection had risen. Results of researches of this work are submitted, taking into account changes in a technique of search and amendments, and are important for the further orbital structure's studying of meteoric particles' complexes, as near the Earth orbit, and as in Solar system as a whole.