COLLISION WITH METEOROIDS AS ONE OF POSSIBLE MECHANISMS OF COMETARY

NUCLEI' SPLITTING by Guliyev A.S. - The results of the statistical analysis of the dynamic parameters of 114 comets undergoing to nuclear splitting are presented in the article. The list of the objects contains: splitted in the period of the observation comets; one fragment from each comet couples; the lost comets with designation D; comets with large-scale formations in the atmosphere. Some aspects of the following hypothesis are studied: disintegration of the comet nuclear happens us results of their collision with meteoroid streams. For the verification of this hypothesis the position of splitted comet' orbits relatively to 58 meteor streams from Cook' catalogue is analyzed. Number (N) of orbital nodes of splitted comets according to the distances 0.001, 0.005, 0.01, 0.05 u 0.1 a.u. from each stream is calculated. For the determination of the exceed' measure of N the special algorithm is developed. It allows to find the expected value and dispersion for these comet nodes. Comparative analysis of the parameter N in 29 cases displays its redundancy. It means one of possibility reasons of disintegration of comet nuclear is their collision with meteoroids in the streams. Asteroid and Kuiper belts as potential sources of vast number of sporadic meteoroids are tested similarity. According of results of calculations first of them may be considered the most efficient region of the disintegration of the periodic comets.