

SPLITTING OF THE NUCLEI OF COMETS. Kh. I. Ibadinov¹, A. M. Buriev¹ A. A. Rahmonov². ¹Institute of Astrophysics of the Academy of Sciences of Tajikistan. Tajikistan, 734042 Dushanbe, Str. Buhoro 22. E-mail: ibadinov@mail.ru. ²The Tajik State National University

Comets are the extremely non-stationary objects. The most catastrophic form of display of non-stationary activity of a comet is nuclear splitting. As a result of nuclear splitting some other comets sometimes and the meteoroid stream are formed or a comet disappears completely. The reasons and mechanisms of nuclei splitting are not always known. With the purpose of finding-out of laws of splitting of nucleus of comets, we make the catalogue of comets at which the nucleus was splitting or there are obvious attributes of nuclear separation. The catalogue includes 97 comets. Statistical researches of conditions of nuclear splitting are executed. It is revealed, that the greatest number of the registered cases of nuclear splitting (60 %) is necessary on an interval of heliocentric distances of a comet 0.6 – 1.6 *AU* and

geocentric distances of a comet 0.6 – 1.8 *AU*. It, most likely, is caused by conditions of visibility (near to an orbit of the Earth). Nuclear splitting occurs close perihelion of orbits (75 %) more often. It is possibly connected with tidal forces of the Sun and the maximal inflow of a solar energy on a nucleus of a comet. There are cases of nuclear splitting on heliocentric distances $r \approx 5$ *AU*, caused by indignation of the Jupiter. Unequivocal dependence of frequency of splitting of nuclei from eccentricity e orbits of a comet and an inclination i orbits to ecliptic it is not revealed. Results allow conducting search of unknown persons (not crossing an orbit of the Earth) meteoroid streams in Solar system that is very important for space missions.