Cometary clouds and characteristics of stellar populations

G. Mulkamanov (1) and V. Orlov (2)

(1) Kasan State University, Kasan, Russia (mulkamanov@mail.ru), (2) Sobolev Astronomical Institute, St Petersburg State University, St Petersburg, Russia

Since 1950 we have been know the hypothesis about cometary cloud at periphery of Sun System, which was suggested by J. Oort. For the time being many models, which simulate a dynamics of Oort cloud, were built. Effective numerical methods, which permit us assess influence of different factors, were created. The most significant factors are gravitational field of Galaxy, stellar encounters and perturbations of planets. It can not be excluded possibility of existence of cometary clouds near other stars. To assess this probability we simulate main processes near the stars. The characteristics of stellar populations in explore areas of space can substantially affect on dynamics of cometary clouds. Identifying the borders of this influence is our main target.