Tidal Evolution of Multi-Mass Component Globular Clusters

Young Kwang Kim and Kap-Soo Oh
Department of Astronomy and Space Science, Chungnam National University

We investigate the dynamical evolution of globular clusters with multi-mass component under the diffusion and the Galactic tide. We compare the results with our previous work which considers the cases of single-mass component in the globular clusters. And we find the followings.

1) The general evolution is similar to the case of single-mass component.
2) There is no evidence for dependence on the orbital phase of the cluster as in the case of single-mass component.
3) The diffusion process makes the limiting radius in apogalacticon similar size of tidal radius at perigalacticon.
4) The escape rate with the Galactic tide and the diffusion process is larger than that in the single-mass component case.
5) The mass-function evolutions are different with radius.