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Mass loss of the Milky Way globular clusters on cosmological timescale: interaction with the Galactic center

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Our recent investigation (Ishchenko et al. 2023) was found the 10 Milky Way globular clusters which can potentially to interact with the nuclear star cluster during their lifetime. For the dynamical orbital integration of GCs, including the effects of stellar evolution, we employed a high-order parallel N-body code φ -GPU, which is based on the fourth-order Hermite integration scheme with hierarchical individual block time steps. The current version of the code also incorporates the up-to-date stellar evolution models. We select for subsequent full N-body modelling six GCs. First of all, we have chosen: HP1, NGC 6981, NGC 6401, NGC 6642, Palomar 6 and NGC 6681. We will present the detailed dynamical and stellar mass loss of our set of GCs6 including global evolution in a context with the interaction with the Galactic center. Also we present the dynamical evolution of the high mass remnants. The analysis will be carried out drying the whole 8 billion years of the GC's evolution in time variable potential.

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