

Future orbital evolution of comets discovered in 2016-2018

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Abstract

Each year dozens of new comets are being discovered. In order to investigate their future orbital evolution and potential hazard to Earth the orbits of new comets discovered in 2016-2018 were traced 100 kyr forward in time using Swifter integration package. The 8 planets and the Sun were taken into account and new comets were traced as massless test particles, without considering the non-gravitational forces caused by the outgazing. For comets that reached the 0.3 AU vicinity of Earth over the simulation period more detailed integrations were performed, for initial test particles along with their clones. Results of simulations are presented and discussed.