Quasinormal modes of black holes in dRGT massive gravity under electromagnetic perturbations

M Momennia[1,2] and S H Hendi[1,2]

1. Department of Physics, School of Science, Shiraz University, Shiraz, Iran;
2. Biruni Observatory, School of Science, Shiraz University, Shiraz, Iran

E-mail: hendi@shirazu.ac.ir

Abstract

Upon semi-analytical and numerical methods, the quasinormal frequencies of dRGT massive black holes under electromagnetic perturbation are calculated and the dynamical stability of these black holes is investigated. The effect of graviton's mass on the frequencies is investigated and it is shown that the WKB approximation is valid not only for $n < l$ but also only for low-mass gravitons.

Keywords: dynamic stability, quasinormal modes, massive gravity

For full article, refer to the Persian section