

We determine the quasinormal mode (QNM) frequencies of a black hole with quadrupole moment in the eikonal limit using the light-ring method. The generalized black holes that are discussed in this work possess arbitrary quadrupole and higher mass moments in addition to mass and angular momentum. Static collapsed configurations with mass and quadrupole moment are treated in detail and the QNM frequencies associated with two such configurations are evaluated to linear order in the quadrupole moment. For a rotating system we consider the Hartle-Thorne spacetime. This collapsed system as well as its QNMs is characterized by mass M , quadrupole moment Q and angular momentum J . When the quadrupole moment is set equal to the relativistic quadrupole moment of the corresponding Kerr black hole, the Hartle-Thorne QNMs reduce to those of the Kerr black hole to second order in angular momentum J .