

Abstract Submitted
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Quasi-normal modes of black holes in scalar-tensor theories with non-minimal derivative couplings¹ RUIFENG DONG, State Univ of NY - Buffalo, JEREMY SAKSTEIN, University of Pennsylvania, DEJAN STOJKOVIC, State Univ of NY - Buffalo — We study the quasi-normal modes of asymptotically anti-de Sitter black holes in a class of shift-symmetric Horndeski theories where a gravitational scalar is derivatively coupled to the Einstein tensor. The space-time differs from exact Schwarzschild-anti-de Sitter, resulting in a different effective potential for the quasi-normal modes and a different spectrum. We numerically compute this spectrum for a massless test scalar coupled both minimally to the metric, and non-minimally to the gravitational scalar. We find interesting differences from the Schwarzschild-anti-de Sitter black hole found in general relativity.

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