

## XXII Meeting of Physics 2022



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# Odd-parity perturbations in the most general scalar-vector-tensor theory

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In the context of the most general scalar-vector-tensor theory, we study the stability of static spherically symmetric black holes under linear odd-parity perturbations. We calculate the action to second order in the linear perturbations to derive a master equation for these perturbations. For this general class of models, we obtain the conditions of no-ghost and Laplacian instability. Then, we study in detail the generalized ReggeWheeler potential of particular cases to find their stability conditions.

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