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Analytical Quasinormal modes of charged fermions in Einstein-Born-Infeld dilaton black hole spacetime

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We consider the charged massless Dirac fields in the background of 4-dimensional Einstein-Born-Infeld dilaton black hole spacetime. We derive the analytical spin-half quasinormal modes, whose Dirac equations are obtained in terms of the hypergeometric functions. The stability analysis of those black holes under the charged Dirac perturbations is also discussed. Obtained results are highlighted with graphs and tables.

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