
# Quasibound states of dirty wormholes

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Astrophysical objects like black holes are usually surrounded by matter in the form of accretion disks or jets of matter. These astrophysical scenarios are expected to introduce novel phenomenology in the scattering of particles and fields. Wormholes are viable candidates for exotic compact objects that can mimic some black hole properties. Hence, it is natural to wonder what would happen if the central astrophysical object were a wormhole, instead of a black hole. We investigate how the astrophysical environment influences the quasibound states of wormholes surrounded by layers of matter. Using the direct integration method, we identify additional quasibound frequencies, which appear only in configurations with heavy layers of surrounding matter.
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