

Abstract Submitted
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Lepton Decay in Hot and Dense Media SAMINA MASOOD, Univ. of Houston Clear Lake — We study the lepton decays in hot and dense media. For this purpose, we use renormalization scheme of QED and compute the radiative corrections to lepton decay rates in hot and dense background. The radiative corrections to these decay rates are calculated up to the two-loop level. We estimate the lepton decay rates as a function of temperature and density of the possibly existing media of the early universe and stellar cores. Some of the possible applications of these results in astrophysics and cosmology are also mentioned.

Samina Masood
Univ. of Houston Clear Lake

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