

Abstract Submitted
for the TSF21 Meeting of
The American Physical Society

The effect of magnetic fields on particle propagation in stellar environments FAIZ KHAN, SAMINA MASOOD, UHCL — We show there is an effect in highly dense stellar cores that has not been explored in prior work. We discuss the renormalizability of QED in such an environment. It is found that the renormalization constants of QED are modified in stellar media. The newly computed renormalization constants can be used as effective parameters of QED to study the particle processes in hot and dense stars. We propose to use modified parameters to analyze astrophysical data and investigate the structure and composition of stars.A

Faiz Khan
University of Houston - Clear Lake

Date submitted: 17 Sep 2021

Electronic form version 1.4