

Corrections on the electron $g-2$ from ultra light dark matter backgrounds

Wednesday, 10 July 2024 17:10 (20 minutes)

In this talk I will show how an ultra light dark matter background affects the electron $g-2$ value. The effect comes from an enhancement in the triangle diagram due to the high occupancy number of a boson field with a very low mass. The results are immediately used to put strong constraints on axion-electron couplings and dark photon kinetic mixing parameters, for masses below 10^{-15} eV.

Primary author: ARZA, Ariel (Nanjing Normal University)

Presenter: ARZA, Ariel (Nanjing Normal University)

Session Classification: Poster session

Track Classification: Poster session: Axion/Sterile