

Unraveling the Particle World and the Cosmos at Berkeley—Workshop in Honor of Lawrence Hall and Hitoshi Murayama



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Atomic effects relevant in the scattering of high energy leptons (e.g., neutrinos or muons) off atomic electrons

Thursday, 26 September 2024 09:10 (40 minutes)

I discuss the scattering of high energy leptons off atomic electrons. The focus of the talk is on how the cross section for this process differs from the scattering off free electrons. This involves, atomic binding corrections, Coulomb exchanges between the outgoing energetic struck electron with the remaining atomic debris and other effects. This is not beyond the standard model (BSM) physics, but the results may be relevant for experiments that constrain possible BSM physics.

Title

Abstract

Presenter: WISE, Mark