

Progress towards an experiment for electromagnetic dipole moments of unstable particles at the LHC

Thursday, 12 September 2019 12:00 (20 minutes)

A unique program of measurements of electric and magnetic dipole moments of unstable particles at the LHC, based on the phenomenon of spin precession of channeled particles in bent crystals, is presented [1, 2]. The ongoing R&D, feasibility studies, and the physics reach for the proposed experiment based on the LHCb detector are discussed, along with future perspectives for the tau lepton [3].

[1] F. J. Botella et al., Eur.Phys.J. C77:181 (2017).

[2] E. Bagli et al., Eur.Phys.J. C77:828 (2017).

[3] J. Fu et al., Phys. Rev. Lett. 123, 011801 (2019).

Summary

Topic

1. Crystal Channeling and related mathematical, physical and chemical issues

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