



Contribution ID : 279

Type : Oral talk

New splitting functions for inelastic bremsstrahlung from Pauli electromagnetic form factor

Thursday, 24 October 2024 11:00 (15)

We revisit the production of vector portal mediators, dark photons with masses 0.4-1.8 GeV, via inelastic proton bremsstrahlung. For the first time, we add the contribution associated with the Pauli electromagnetic proton form factor and obtain new splitting functions according to the factorization procedure originally proposed by Altarelli and Parisi. We also demonstrate the significance of the found corrections numerically and update sensitivity estimates for the T2K, DUNE, and SHiP experiments. The talk is based on arXiv preprints 2409.11089, 2409.11386.

Primary author(s) : KRIUKOVA, Ekaterina (INR RAS)

Co-author(s) : GORBUNOV, Dmitry (Institute for Nuclear Research of RAS)

Presenter(s) : KRIUKOVA, Ekaterina (INR RAS)

Session Classification : HEP Theory

Track Classification : High energy physics: theory