Contribution ID: 135 Type: Poster

Proton Structure Corrections to Hyperfine Splitting in Muonic Hydrogen

Tuesday, 17 October 2023 17:14 (3 minutes)

In this poster presentation, I will discuss the two-photon exchange (TPE) as a crucial higher-order contribution to lepton-proton scattering and the theory of light muonic atoms. In particular, I will focus on the proton polarizability contribution as the dominant uncertainty in the theory prediction of the Lamb shift and the hyperfine splitting (HFS) in muonic hydrogen (μ H). It is important to provide the best possible theoretical estimate for the TPE correction to guide the upcoming high-precision measurements of the μ H ground-state HFS.

Parallel Session

Poster Session

Primary author: SHARKOVSKA, Vladyslava (Paul Scherrer Institute)

Presenter: SHARKOVSKA, Vladyslava (Paul Scherrer Institute)

Session Classification: Poster Session