

Axial-vector meson contributions to the HFS of muonic hydrogen

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Extremely precise measurements in muonic hydrogen allow to extract properties from the proton, due to its impact on the energy levels. Such extractions require however from a commensurate precision for other contributions affecting the energy levels, such as two-photon exchange effects. In this talk, we compute the axial-vector meson contribution to the hyperfine splitting of muonic hydrogen, that is relevant to assess the proton Zemach radius, finding significant differences with respect to previous estimates.

Abstract

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