Contribution ID: **6** Type: **not specified**

$\Lambda_b \to p$ transition form factors in the perturbative QCD

Friday, 12 November 2021 11:50 (20 minutes)

In this work, we calculated the $\Lambda_b \to p$ transition form factors in the perturbative QCD (PQCD) approach. Contributions beyond leading-twist light-cone distribution amplitudes (LCDAs) of both proton and Λ_b baryon are systematically investigated. The results are consistent with other methods. The dominant contributions of form factors F_1, F_2, G_1 and G_2 come from the twist-5 LCDAs of proton and the twist-4 LCDA of Λ_b baryon, while for those of F_3 and G_3, coming from both twist-4 LCDAs of proton and Λ_b baryon. We found that the higher power corrections are much more important compared with the leading power in the decay of heavy baryon.

Presentation type

Oral

Primary authors: 李, 亚 (Nanjing Agricultural University); 韩佳杰 (Nanjing Normal University)

Presenter: 韩佳杰 (Nanjing Normal University)