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Λb→pK decay in the perturbative QCD

We improved the framework of the perturbative QCD (PQCD) approach and calculated the branching ratio and direct CP violation of $\Lambda_b \to pK$ decay. We concentrate on the contributions beyond leading power, and find that the higher power corrections are much more important compared with the leading power in the decay of heavy baryon. Power counting is valid in the case of infinite scale, while practical calculations are performed under finite scale, such as m_b scale. This causes a situation that enhancements from end-point regions of high-twist LCDAs may overcome the power suppression.

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