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SEMINAR TEILCHENPHYSIK

Thema

Amplitude Analysis of $B \to KK\pi$ using Run 2 LHCb Data

Abstract

This study presents the amplitude analysis of the $B^{\pm} \to K^{\mp}K^{\pm}\pi^{\pm}$ decay using LHCb Run II data. The previous Run I analysis revealed one of the largest single-amplitude CP asymmetries observed, around -66%, highlighting the importance of revisiting this channel with improved statistics and modeling. This work refines the understanding of dominant S-wave contributions, which account for approximately 60% of the decay amplitude, and explores charmonium resonances.

Two models are considered: one incorporating PolarFFNR, and another using δ_{Pol2} to introduce a more dynamic representation of the $K\pi$ low-mass region. The baseline model includes resonances such as $K^{*0}(892)$, $K^{*0}(1430)$, $\rho^0(1700)$, $\rho^0(1450)$, $f_2(1270)$, Rescattering, $\phi(1020)$, and χ_{c0}.

Vortragender

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Ort

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Zeit

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16:00 – 17:00 Uhr

im Auftrag:

Dr. Maik Becker