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Séminaire de Physique Nucléaire Théorique

Charm CP and B baryonic helicity asymmetries from FSI

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The final state interaction (FSI) appears as mechanism to enhance the CP asymmetry in the neutral D decays in two pions and kaons, due to the strong coupling between the two channels [1]. Another manifestation of the hadronic FSI is in the solution of the helicity asymmetry puzzle in the charged B three-body decays into proton-antiproton and pion or kaon [2]. In this last case the consideration of the FSI, demands the analysis of the Faddeev-Bethe-Salpeter equations for the three-body decay to define the decay amplitudes.

[1] I. Bediaga, T. Frederico and P. C. Magalhães, Phys. Rev. Lett. 131, 051802 (2023)

[2] I. Bediaga, M. A. Shalchi, T. Frederico and P. C. Magalhães, Phys. Rev. D 110, 096026 (2024)

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