Contribution ID: **457** Type: **Poster**

Study the particle identification performance for K_{s}->piˆ{+} piˆ{-} decays using sPlot method

Thursday 15 December 2022 14:00 (1 hour)

The K_{s}->piˆ{+} piˆ{-} sample gives access to low momentum pions, which are useful for studying the particle-identification performance. In this work, we have validated the sPlot technique using Belle II simulated sample for K_{s}->piˆ{+} piˆ{-} at integrated luminosity of 10fbˆ{-1}. The Belle II is the upgraded experimental facility at SuperKEKB, KEK, Japan. In this work, we study the relative difference between true efficiencies and that obtained from the sPlot technique for different pion-identification criteria in bins of momentum and cosine of the polar angle. This study is now included as part of the Belle II Systematic Correction Framework.

Session

Future Experiments and Detector Development

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