



Contribution ID: 150

Type: Poster

Measurement of the Absolute Branching Fractions of $B \rightarrow D(*, **)0\rho$ Reconstruction with the Missing Mass Method.

Monday 12 December 2022 14:00 (1 hour)

Most of the hadronic B decays observed proceed through a “D” meson (D, D^*, D^{**}), as $b \rightarrow c$ transitions dominate among other b transitions. D^{**} indicates the collection of non-strange charm mesons falling in the mass range of $2.2 - 2.8 \text{ GeV}/c^2$.

We present the study of B to charm decays in the Belle experiment with 711 fb^{-1} electron-positron collision data recorded at the center of mass energy at the $\Upsilon(4S)$ resonance mass. For this analysis, we employ the missing mass method, in which the other B-meson is reconstructed in several hadronic final states, and charm-meson is searched in the recoil of accompanying (ρ or π) mesons. The study will result in the first measurement of the decay $B \rightarrow D^{**}\rho$.

Session

Quark and Lepton Flavour Physics

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Session Classification: Poster - 1