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## Measurement of the Absolute Branching Fractions of $B \rightarrow D(*, *)\rho$ 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→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 GeV/c<sup>2</sup>.

We present the study of B to charm decays in the Belle experiment with 711 fb<sup>-1</sup> 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 ( $\rho$  or  $\pi$ ) 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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