

Search for massive invisible particle X^0 in $B^+ \rightarrow e^+ X^0$ and $B^+ \rightarrow \mu^+ X^0$ decays

We present a search for a non-Standard-Model particle X^0 in the mass range 0.1-1.8 GeV/c in $B^+ \rightarrow e^+ X^0$ and $B^+ \rightarrow \mu^+ X^0$ decays. The results are obtained from a 711 fb^{-1} data sample collected at the Y(4S) resonance, with the Belle detector at the KEKB energy asymmetric $e^+ e^-$ collider. One B meson is fully reconstructed in a hadronic mode to enable the precise analysis of the signal decay's lepton in the recoiling partner B meson. We find no evidence of a signal and upper limits of branching fractions are set.

Primary author: Mr PARK, Chan Seok (Yonsei Univ.)

Presenter: Mr PARK, Chan Seok (Yonsei Univ.)