

Measurement of the Branching Fractions of the Decays $B \rightarrow D^{(*)}\bar{D}^{(*)}K$

We present a measurement of the branching fractions of the 22 decay channels B^0 and B^+ to $D^{(*)}\bar{D}^{(*)}K$, where $D^{(*)}\bar{D}^{(*)}$ are fully reconstructed. The B^0 and B^+ mesons are reconstructed in a sample of hadronic events for all the possible $D^{(*)}\bar{D}^{(*)}K$ modes, namely $B^0 \rightarrow D^{(*)}\bar{D}^{(*)}K^+$, $D^{(*)}\bar{D}^{(*)}K^0$, $D^{(*)}\bar{D}^{(*)}K^-$ and $B^+ \rightarrow D^{(*)}\bar{D}^{(*)}K^0$, $D^{(*)}\bar{D}^{(*)}K^+$, $D^{(*)}\bar{D}^{(*)}K^-$. The results are based on 423 fb^{-1} of data that contained 465 million $B\bar{B}$ pairs collected at the Upsilon(4S) resonance with the BaBar detector at the PEP-II B factory.

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