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Title:	Search for the $B \rightarrow Y(4260)K$, $Y(4260) \rightarrow J/\psi \pi^+ \pi^-$ decays
Authors:	Bhardwaj, V. (/jspui/browse?type=author&value=Bhardwaj%2C+V.) Patra, S. (/jspui/browse?type=author&value=Patra%2C+S.)
Keywords:	Asymmetric-energy KEKB Respectively
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Abstract:	We report the results of a search for the $B \rightarrow Y(4260)K$, $Y(4260) \rightarrow J/\psi \pi^+ \pi^-$ decays. This study is based on a data sample corresponding to an integrated luminosity of 711 fb^{-1} , collected at the $Y(4S)$ resonance with the Belle detector at the KEKB asymmetric-energy e^+e^- collider. We investigate the $J/\psi \pi^+ \pi^-$ invariant mass distribution in the range 4.0 to 4.6 GeV/c ² using both $B^+ \rightarrow J/\psi \pi^+ \pi^- K^+$ and $B^0 \rightarrow J/\psi \pi^+ \pi^- K^0 S$ decays. We find excesses of events above the background levels, with significances of 2.1 and 0.9 standard deviations for charged and neutral $B \rightarrow Y(4260)K$ decays, respectively, taking into account the systematic uncertainties. These correspond to upper limits on the product of branching fractions, $B(B^+ \rightarrow Y(4260)K^+) \times B(Y(4260) \rightarrow J/\psi \pi^+ \pi^-) < 1.4 \times 10^{-5}$ and $B(B^0 \rightarrow Y(4260)K^0) \times B(Y(4260) \rightarrow J/\psi \pi^+ \pi^-) < 1.7 \times 10^{-5}$ at the 90% confidence level.
Description:	Only IISERM authors are available in the record.
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