X(4250)

$$I(J^P) = ?(??)$$

OMITTED FROM SUMMARY TABLE

Observed by MIZUK 08 in the $\pi^+\chi_{c1}(1P)$ invariant mass distribution in $\overline B{}^0 \to K^-\pi^+\chi_{c1}(1P)$ decays. Not seen by LEES 12B in this same mode after accounting for $K\pi$ resonant mass and angular structure.

$X(4250)^{\pm}$ MASS

4248 + 44 + 180 -29 - 35BELL $\overline{B}^0 \rightarrow K^- \pi^+ \chi_{c1}(1P)$ ¹ MIZUK

$X(4250)^{\pm}$ WIDTH

TECN COMMENT

BELL $\overline{B}^0 \rightarrow K^- \pi^+ \chi_{c1}(1P)$ ² MIZUK 80

$X(4250)^{\pm}$ DECAY MODES

Mode Fraction (Γ_i/Γ) $\pi^{+} \chi_{c1}(1P)$ Γ_1

X(4250) BRANCHING RATIOS

 $\Gamma(\pi^+\chi_{c1}(1P))/\Gamma_{total}$ Γ_1/Γ

TECN COMMENT 08 BELL $\overline{B}^0 \rightarrow K^- \pi^+ \chi_{c1}(1P)$

• • • We do not use the following data for averages, fits, limits, etc. • •

12B BABR $B \rightarrow K\pi\chi_{c1}(1P)$ ⁴ LEES not seen

³With a product branching fraction measurement of B($\overline{B}^0 \to K^- X(4250)^+$) \times B($X(4250)^+ \to \pi^+ \chi_{c1}(1P)$) = $(4.0^{+2.3}_{-0.9} + 19.7_{-0.5}) \times 10^{-5}$.

⁴With a product branching fraction limit of B($\overline{B}^0 \to X(4250)^+ K^-$) \times B($X(4250)^+ \to X(4250)^+ K^-$)

 $\chi_{\rm C1}\,\pi^+) < ~4.0\times 10^{-5}$ at 90% CL.

$X(4250)^{\pm}$ REFERENCES

LEES 12B PR D85 052003 J.P. Lees et al. (BABAR Collab.) MIZUK PR D78 072004 (BELLE Collab.) R. Mizuk et al.

Created: 5/30/2017 17:21

¹ From a Dalitz plot analysis with two Breit-Wigner amplitudes.

²From a Dalitz plot analysis with two Breit-Wigner amplitudes.