$T_{c\overline{c}}(4250)^+$

$I^G(J^{PC}) = 1^-(?^{?+})$
I, G, C need confirmation.

OMITTED FROM SUMMARY TABLE
was $X(4250)^{\pm}$

Properties incompatible with a $q\overline{q}$ structure (exotic state). See the review on non-$q\overline{q}$ states.

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.

$T_{c\overline{c}}(4250)^+$ MASS

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
$\mathbf{4248^{+44}_{-29}{}^{+180}_{-35}}$	[1] MIZUK	08	BELL	$\overline{B}^0 \to K^-\pi^+\chi_{c1}(1P)$

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

$T_{c\overline{c}}(4250)^+$ WIDTH

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
$\mathbf{177^{+54}_{-39}{}^{+316}_{-61}}$	[1] MIZUK	08	BELL	$\overline{B}^0 \to K^-\pi^+\chi_{c1}(1P)$

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

$T_{c\overline{c}}(4250)^+$ DECAY MODES

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

$T_{c\overline{c}}(4250)^+$ BRANCHING RATIOS

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

VALUE	*DOCUMENT ID*		*TECN*	*COMMENT*
seen	[1] MIZUK	08	BELL	$\overline{B}^0 \to K^-\pi^+\chi_{c1}(1P)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
not seen	[2] LEES	12B	BABR	$B \to K\pi\chi_{c1}(1P)$

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

[2] With a product branching fraction limit of $B(\overline{B}^0 \to T_{c\overline{c}}(4250)^+ K^-) \times B(T_{c\overline{c}}(4250)^+ \to \chi_{c1}\pi^+) < 4.0 \times 10^{-5}$ at 90% CL.

$T_{c\overline{c}}(4250)^+$ REFERENCES

LEES	12B	PR D85 052003	J.P. Lees *et al.*	(BABAR Collab.)
MIZUK	08	PR D78 072004	R. Mizuk *et al.*	(BELLE Collab.)