

# $T_{c\bar{c}1}(4200)^+$

$$I^G(J^{PC}) = 1^+(1^{+-})$$

$I, G, C$  need confirmation.

OMITTED FROM SUMMARY TABLE

was  $Z_c(4200)^\pm, X(4200)^\pm$

This state shows properties different from a conventional  $q\bar{q}$  state.  
A candidate for an exotic structure. See the review on non- $q\bar{q}$  states.

Reported by CHILIKIN 14 in  $J/\psi\pi^+$  at a significance of  $6.2\sigma$ . As-  
signments of  $0^-, 1^-, 2^-$ , and  $2^+$  excluded at  $6.1\sigma, 7.4\sigma, 4.4\sigma$ ,  
and  $7.0\sigma$  level, respectively. Needs confirmation.

## $T_{c\bar{c}1}(4200)^+$ MASS

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
$4196^{+31+17}_{-29-13}$	CHILIKIN 14	BELL	$\bar{B}^0 \rightarrow J/\psi K^- \pi^+$

## $T_{c\bar{c}1}(4200)^+$ WIDTH

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
$370 \pm 70^{+70}_{-132}$	CHILIKIN 14	BELL	$\bar{B}^0 \rightarrow J/\psi K^- \pi^+$

## $T_{c\bar{c}1}(4200)^+$ DECAY MODES

Mode	Fraction ( $\Gamma_i/\Gamma$ )
$\Gamma_1 \quad J/\psi\pi^+$	seen

## $T_{c\bar{c}1}(4200)^+$ BRANCHING RATIOS

$\Gamma(J/\psi\pi^+)/\Gamma_{\text{total}}$	$\Gamma_1/\Gamma$		
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
seen	CHILIKIN 14	BELL	$\bar{B}^0 \rightarrow J/\psi K^- \pi^+$
possibly seen	<sup>1</sup> AAIJ	19R LHCB	$B^0 \rightarrow K^+ \pi^- J/\psi + c.c.$

<sup>1</sup> From a model-independent analysis.

## $T_{c\bar{c}1}(4200)^+$ REFERENCES

AAIJ	19R	PRL 122 152002	R. Aaij <i>et al.</i>	(LHCb Collab.)
CHILIKIN	14	PR D90 112009	K. Chilikin <i>et al.</i>	(BELLE Collab.)