$P_{c\overline{c}}(4312)^+$

$I(J^P) = \frac{1}{2}(?^?)$ Status: *

OMITTED FROM SUMMARY TABLE
Was $P_c(4312)^+$.

$P_{c\overline{c}}(4312)^+$ MASS

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
$4311.9 \pm 0.7^{+6.8}_{-0.6}$	AAIJ	19W	LHCB	pp at 7, 8, 13 TeV

$P_{c\overline{c}}(4312)^+$ WIDTH

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
$9.8 \pm 2.7^{+3.7}_{-4.5}$	AAIJ	19W	LHCB	pp at 7, 8, 13 TeV

$P_{c\overline{c}}(4312)^+$ DECAY MODES

	Mode	Fraction (Γ_i/Γ)
Γ_1	$J/\psi p$	seen
Γ_2	$\Lambda_c^+ \overline{D}^0$	not seen
Γ_3	$\Lambda_c^+ \pi^+ D^-$	not seen
Γ_4	$\overline{\Lambda}_c^- \pi^+ D^+$	[a] not seen

[a] Searched for the charge conjugate mode from $\overline{P}^-_{c\overline{c}}$ decays.

$P_{c\overline{c}}(4312)^+$ BRANCHING RATIOS

$\Gamma(J/\psi p)/\Gamma_{\text{total}}$ Γ_1/Γ

VALUE	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
seen	246k	[1] AAIJ	19W	LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
not seen	797	[2] AAIJ	22H	LHCB	pp at 7, 8, 13 TeV

[1] Amplitude analysis of $\Lambda_b^0 \to J/\psi p K^-$.

[2] Amplitude analysis of $B_s^0 \to J/\psi p \overline{p}$. AAIJ 22H finds evidence at just over 3 σ for a $J/\psi p$ structure at $4337^{+7}_{-4} \pm 2$ MeV.

$\Gamma(\Lambda_c^+ \overline{D}^0)/\Gamma_{\text{total}}$ Γ_2/Γ

VALUE	*DOCUMENT ID*		*TECN*	*COMMENT*
not seen	AAIJ	24Z	LHCB	pp, 5.7 fb^{-1} at 13 TeV

$\Gamma(\Lambda_c^+ \pi^+ D^-)/\Gamma_{\text{total}}$ Γ_3/Γ

VALUE	*DOCUMENT ID*		*TECN*	*COMMENT*
not seen	AAIJ	24Z	LHCB	pp, 5.7 fb^{-1} at 13 TeV

$\Gamma(\overline{\Lambda}_c^- \pi^+ D^+)/\Gamma_{\text{total}}$ Γ_4/Γ

VALUE	DOCUMENT ID		TECN	COMMENT
not seen	AAIJ	24Z	LHCB	$\overline{P}^-_{c\overline{c}} \to \Lambda_c^+ \pi^- D^-$

$P_{c\overline{c}}(4312)^+$ REFERENCES

AAIJ	24Z	PR D110 032001	R. Aaij *et al.*	(LHCb Collab.)
AAIJ	22H	PRL 128 062001	R. Aaij *et al.*	(LHCb Collab.)
AAIJ	19W	PRL 122 222001	R. Aaij *et al.*	(LHCb Collab.)