

$\chi_{c1}(4274)$

$$I^G(J^{PC}) = 0^+(1^{++})$$

was $X(4274)$

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.

Seen by AAIJ 17C in $B^+ \rightarrow \chi_{c1} K^+$, $\chi_{c1} \rightarrow J/\psi\phi$ using an amplitude analysis of $B^+ \rightarrow J/\psi\phi K^+$ with a significance (accounting for systematic uncertainties) of 6.0σ .

 $\chi_{c1}(4274)$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
4274 ± 8 -6 OUR AVERAGE				
$4273.3 \pm 8.3^{+17.2}_{-3.6}$	4289	¹ AAIJ	17C LHCb	$B^+ \rightarrow J/\psi\phi K^+$
$4274.4^{+8.4}_{-6.7} \pm 1.9$	22	² AALTONEN	17 CDF	$B^+ \rightarrow J/\psi\phi K^+$

¹ From an amplitude analysis of the decay $B^+ \rightarrow J/\psi\phi K^+$ with a significance of 6.0σ .

² From a fit to the invariant mass spectrum with a significance of 3.1σ .

 $\chi_{c1}(4274)$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
49 ± 12 OUR AVERAGE				
$56 \pm 11^{+8}_{-11}$	4289	¹ AAIJ	17C LHCb	$B^+ \rightarrow J/\psi\phi K^+$
$32.3^{+21.9}_{-15.3} \pm 7.6$	22	² AALTONEN	17 CDF	$B^+ \rightarrow J/\psi\phi K^+$

¹ From an amplitude analysis of the decay $B^+ \rightarrow J/\psi\phi K^+$ with a significance of 6.0σ .

² From a fit to the invariant mass spectrum with a significance of 3.1σ .

 $\chi_{c1}(4274)$ DECAY MODES

Mode	Fraction (Γ_i/Γ)
Γ_1 $J/\psi\phi$	seen

 $\chi_{c1}(4274)$ BRANCHING RATIOS

$\Gamma(J/\psi\phi)/\Gamma_{\text{total}}$	Γ_1/Γ			
VALUE	EVTS	DOCUMENT ID	TECN	COMMENT
seen	4289	¹ AAIJ	17C LHCb	$B^+ \rightarrow J/\psi\phi K^+$

¹ From an amplitude analysis of the decay $B^+ \rightarrow J/\psi\phi K^+$ with a significance of 6.0σ .

 $\chi_{c1}(4274)$ REFERENCES

AAIJ	17C	PRL 118 022003	R. Aaij <i>et al.</i>	(LHCb Collab.) JP
Also		PR D95 012002	R. Aaij <i>et al.</i>	(LHCb Collab.)
AALTONEN	17	MPL A32 1750139	T. Altonen <i>et al.</i>	(CDF Collab.)