

$\chi_{c0}(4500)$

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

OMITTED FROM SUMMARY TABLE
was $X(4500)$

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 $B^+ \rightarrow \chi_{c0} K^+$, $\chi_{c0} \rightarrow J/\psi \phi$ using an amplitude analysis of $B^+ \rightarrow J/\psi \phi K^+$ with a significance (accounting for systematic uncertainties) of 6.1σ .

 $\chi_{c0}(4500)$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
$4506 \pm 11^{+12}_{-15}$	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 6.1σ .

 $\chi_{c0}(4500)$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
$92 \pm 21^{+21}_{-20}$	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 6.1σ .

 $\chi_{c0}(4500)$ DECAY MODES

Mode
$\Gamma_1 \quad J/\psi \phi$

 $\chi_{c0}(4500)$ 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 6.1σ .

 $\chi_{c0}(4500)$ 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.)