

$\chi_{c0}(4500)$

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

OMITTED FROM SUMMARY TABLE
was $X(4500)$
See the review on the "Spectroscopy of Mesons Containing two Heavy Quarks."

$\chi_{c0}(4500)$ MASS

VALUE (MeV)	EVTs	DOCUMENT ID	TECN	COMMENT
4474± 3± 3	24k	¹ AAIJ	21E	LHCB $B^+ \rightarrow J/\psi \phi K^+$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
4506±11 ⁺¹² ₋₁₅	4289	^{2,3} 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 20 σ .				
² From an amplitude analysis of the decay $B^+ \rightarrow J/\psi \phi K^+$ with a significance of 6.1 σ .				
³ Superseded by AAIJ 21E.				

$\chi_{c0}(4500)$ WIDTH

VALUE (MeV)	EVTs	DOCUMENT ID	TECN	COMMENT
77± 6⁺¹⁰₋₈	24k	¹ AAIJ	21E	LHCB $B^+ \rightarrow J/\psi \phi K^+$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
92±21 ⁺²¹ ₋₂₀	4289	^{2,3} 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 20 σ .				
² From an amplitude analysis of the decay $B^+ \rightarrow J/\psi \phi K^+$ with a significance of 6.1 σ .				
³ Superseded by AAIJ 21E.				

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

Mode	Fraction (Γ_i/Γ)
$\Gamma_1 \quad J/\psi \phi$	seen

$\chi_{c0}(4500)$ BRANCHING RATIOS

$\Gamma(J/\psi \phi)/\Gamma_{\text{total}}$					Γ_1/Γ
VALUE	EVTs	DOCUMENT ID	TECN	COMMENT	
seen	24k	¹ AAIJ	21E	LHCB $B^+ \rightarrow J/\psi \phi K^+$	
• • • We do not use the following data for averages, fits, limits, etc. • • •					
seen	4289	^{2,3} 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 20 σ .					
² From an amplitude analysis of the decay $B^+ \rightarrow J/\psi \phi K^+$ with a significance of 6.1 σ .					
³ Superseded by AAIJ 21E.					

$\chi_{c0}(4500)$ REFERENCES

AAIJ	21E	PRL 127 082001	R. Aaij <i>et al.</i>	(LHCb Collab.)
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.)
