

$\chi_{c1}(4274)$ 

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

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  $6.0\sigma$ .

 **$\chi_{c1}(4274)$  MASS**

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

<sup>1</sup> From an amplitude analysis of the decay  $B^+ \rightarrow J/\psi\phi K^+$  with a significance of  $6.0\sigma$ .  
<sup>2</sup> From a fit to the invariant mass spectrum with a significance of  $3.1\sigma$ .

 **$\chi_{c1}(4274)$  WIDTH**

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

<sup>1</sup> From an amplitude analysis of the decay  $B^+ \rightarrow J/\psi\phi K^+$  with a significance of  $6.0\sigma$ .  
<sup>2</sup> From a fit to the invariant mass spectrum with a significance of  $3.1\sigma$ .

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

Mode	Fraction ( $\Gamma_i/\Gamma$ )
$\Gamma_1$ $J/\psi\phi$	seen

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

$\Gamma(J/\psi\phi)/\Gamma_{\text{total}}$	EVTS	DOCUMENT ID	TECN	COMMENT	$\Gamma_1/\Gamma$
<b>seen</b>	4289	<sup>1</sup> AAIJ	17C LHCB	$B^+ \rightarrow J/\psi\phi K^+$	

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

 **$\chi_{c1}(4274)$  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.)