$K_1(1650)$

$I(J^P) = \frac{1}{2}(1^+)$

This entry contains various peaks in strange meson systems ($K^+\phi$, $K\pi\pi$) reported in partial-wave analysis in the 1600–1900 mass region.

$K_1(1650)$ MASS

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
1650±50		FRAME	86	OMEG	+	13 $K^+ p \to \phi K^+ p$
• • • We do not use the following data for averages, fits, limits, etc. • • •						
$1861 \pm 10^{+\ 16}_{-\ 46}$	24k	[1] AAIJ	21E	LHCB		$B^+ \to J/\psi\phi K^+$
$1911 \pm 37^{+124}_{-\ 48}$	24k	[1] AAIJ	21E	LHCB		$B^+ \to J/\psi\phi K^+$
$1793 \pm 59^{+153}_{-101}$	4289	[2,3] AAIJ	17C	LHCB		$B^+ \to J/\psi\phi K^+$
~ 1840		ARMSTRONG	83	OMEG	−	18.5 $K^- p \to 3K p$
~ 1800		DAUM	81C	CNTR	−	63 $K^- p \to K^- 2\pi p$

[1] One of two K_1 states reported by AAIJ 21E. From an amplitude analysis of the decay $B^+ \to J/\psi\phi K^+$ with a significance of 4.5 σ.
[2] From an amplitude analysis of the decay $B^+ \to J/\psi\phi K^+$ with a significance of 7.6 σ.
[3] Superseded by AAIJ 21E.

$K_1(1650)$ WIDTH

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
150± 50		FRAME	86	OMEG	+	13 $K^+ p \to \phi K^+ p$
• • • We do not use the following data for averages, fits, limits, etc. • • •						
$149 \pm 41^{+231}_{-\ 23}$	24k	[1] AAIJ	21E	LHCB		$B^+ \to J/\psi\phi K^+$
$276 \pm 50^{+319}_{-159}$	24k	[1] AAIJ	21E	LHCB		$B^+ \to J/\psi\phi K^+$
$365 \pm 157^{+138}_{-215}$	4289	[2,3] AAIJ	17C	LHCB		$B^+ \to J/\psi\phi K^+$
~ 250		DAUM	81C	CNTR	−	63 $K^- p \to K^- 2\pi p$

[1] One of two K_1 states reported by AAIJ 21E. From an amplitude analysis of the decay $B^+ \to J/\psi\phi K^+$ with a significance of 4.5 σ.
[2] From an amplitude analysis of the decay $B^+ \to J/\psi\phi K^+$ with a significance of 7.6 σ.
[3] Superseded by AAIJ 21E.

$K_1(1650)$ DECAY MODES

	Mode
Γ_1	$K\pi\pi$
Γ_2	$K\phi$

$K_1(1650)$ REFERENCES

AAIJ	21E	PRL 127 082001	R. Aaij *et al.*	(LHCb Collab.)
AAIJ	17C	PRL 118 022003	R. Aaij *et al.*	(LHCb Collab.)
Also		PR D95 012002	R. Aaij *et al.*	(LHCb Collab.)
FRAME	86	NP B276 667	D. Frame *et al.*	(GLAS)
ARMSTRONG	83	NP B221 1	T.A. Armstrong *et al.*	(BARI, BIRM, CERN+)
DAUM	81C	NP B187 1	C. Daum *et al.*	(AMST, CERN, CRAC, MPIM+)