$\Xi_c(2645)$

$I(J^P) = ?(?^?)$ Status: ***

A narrow peak seen in the $\Xi_c^+\pi^-$ mass spectrum. The natural assignment is that this is the $J^P = 3/2^+$ excitation of the Ξ_c in the same SU(4) multiplet as the $\Delta(1232)$. We advance this to the Summary Table since it has also been seen by CLEO in $\Xi_c^0\pi^+$ (CLNS 96/1394, submitted but not yet approved, so not reported below).

$\Xi_c(2645)$ MASS

VALUE (MeV)	DOCUMENT ID
2643.8±1.8 OUR FIT	

$m_{\Xi_c(2645)^0} - m_{\Xi_c^+}$

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
178.2±1.1 OUR FIT					
178.2±0.5±1.0	55	AVERY	95	CLEO	$e^+e^- \approx \Upsilon(4S)$

$\Xi_c(2645)$ WIDTH

VALUE (MeV)	CL%	EVTS	DOCUMENT ID		TECN	CHG	COMMENT
<5.5	90	55	AVERY	95	CLEO	0	$e^+e^- \approx \Upsilon(4S)$

$\Xi_c(2645)$ DECAY MODES

$\Xi_c\pi$ is the only strong decay allowed to a Ξ_c resonance having this mass.

	Mode	Fraction (Γ_i/Γ)
Γ_1	$\Xi_c^+\pi^-$	seen

$\Xi_c(2645)$ BRANCHING RATIOS

$\Gamma(\Xi_c^+\pi^-)/\Gamma_{total}$ **Γ_1/Γ**

VALUE	EVTS	DOCUMENT ID		TECN	CHG	COMMENT
seen	55	AVERY	95	CLEO	0	$e^+e^- \approx \Upsilon(4S)$

$\Xi_c(2645)$ REFERENCES

AVERY 95 PRL 75 4364 +Freyberger, Lingel+ (CLEO Collab.)