

# $\Xi(1620)$

$I(J^P) = \frac{1}{2}(??)$  Status: \*  
 $J, P$  need confirmation.

## OMITTED FROM SUMMARY TABLE

What little evidence there is consists of weak signals in the  $\Xi\pi$  channel. A number of other experiments (e.g., BORENSTEIN 72 and HASSALL 81) have looked for but not seen any effect.

### $\Xi(1620)$ MASS

<u>VALUE (MeV)</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b><math>\approx 1620</math> OUR ESTIMATE</b>				
$1624 \pm 3$	31	BRIEFEL	77 HBC	$K^- p$ 2.87 GeV/c
$1633 \pm 12$	34	DEBELLEFON	75B HBC	$K^- p \rightarrow \Xi^- \bar{K} \pi$
$1606 \pm 6$	29	ROSS	72 HBC	$K^- p$ 3.1–3.7 GeV/c

### $\Xi(1620)$ WIDTH

<u>VALUE (MeV)</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
22.5	31	<sup>1</sup> BRIEFEL	77 HBC	$K^- p$ 2.87 GeV/c
$40 \pm 15$	34	DEBELLEFON	75B HBC	$K^- p \rightarrow \Xi^- \bar{K} \pi$
$21 \pm 7$	29	ROSS	72 HBC	$K^- p \rightarrow$ $\Xi^- \pi^+ K^{*0}(892)$

### $\Xi(1620)$ DECAY MODES

Mode
$\Gamma_1 \quad \Xi\pi$

### $\Xi(1620)$ FOOTNOTES

<sup>1</sup>The fit is insensitive to values between 15 and 30 MeV.

### $\Xi(1620)$ REFERENCES

HASSALL	81	NP B189 397	J.K. Hassall <i>et al.</i>	(CAVE, MSU)
BRIEFEL	77	PR D16 2706	E. Briefel <i>et al.</i>	(BRAN, UMD, SYRA+)
Also	70	Duke Conf. 317	E. Briefel <i>et al.</i>	(BRAN, UMD, SYRA+)
Hyperon Resonances, 1970				
Also	75	PR D12 1859	E. Briefel <i>et al.</i>	(BRAN, UMD, SYRA+)
DEBELLEFON	75B	NC 28A 289	A. de Bellefon <i>et al.</i>	(CDEF, SACL)
BORENSTEIN	72	PR D5 1559	S.R. Borenstein <i>et al.</i>	(BNL, MICH) I
ROSS	72	PL 38B 177	R.T. Ross <i>et al.</i>	(OXF) I

### OTHER RELATED PAPERS

HUNGERBU...	74	PR D10 2051	V. Hungerbuhler <i>et al.</i>	(YALE, FNAL, BNL+)
SCHMIDT	73	Purdue Conf. 363	P.E. Schmidt	(BRAN)
KALBFLEISCH	70	Duke Conf. 331	G.R. Kalbfleisch	(BNL) I
Hyperon Resonances 1970				
APSELL	69	PRL 23 884	S.P. Apsell <i>et al.</i>	(BRAN, UMD, SYRA+)
BARTSCH	69	PL 28B 439	J. Bartsch <i>et al.</i>	(AACH, BERL, CERN+)