

# $\eta_2(1645)$

$$I^G(J^{PC}) = 0^+(2^{-+})$$

OMITTED FROM SUMMARY TABLE

## $\eta_2(1645)$ MASS

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>CHG</u>	<u>COMMENT</u>
<b>1632 ± 14 OUR AVERAGE</b>				
1620 ± 20	BARBERIS	97B OMEG		450 $pp \rightarrow$ $pp2(\pi^+\pi^-)$
1645 ± 14 ± 15	ADOMEIT	96 CBAR 0		1.94 $\bar{p}p \rightarrow \eta 3\pi^0$

## $\eta_2(1645)$ WIDTH

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>CHG</u>	<u>COMMENT</u>
<b>180<sup>+22</sup><sub>-20</sub> OUR AVERAGE</b>				
180 ± 25	BARBERIS	97B OMEG		450 $pp \rightarrow$ $pp2(\pi^+\pi^-)$
180 <sup>+40</sup> <sub>-21</sub> ± 25	ADOMEIT	96 CBAR 0		1.94 $\bar{p}p \rightarrow \eta 3\pi^0$

## $\eta_2(1645)$ DECAY MODES

Mode	Fraction ( $\Gamma_i/\Gamma$ )
$\Gamma_1$ $a_2(1320)\pi$	
$\Gamma_2$ $K\bar{K}\pi$	
$\Gamma_3$ $K^*\bar{K}$	
$\Gamma_4$ $\eta\pi^+\pi^-$	not seen

## $\eta_2(1645)$ BRANCHING RATIOS

$\Gamma(K\bar{K}\pi)/\Gamma(a_2(1320)\pi)$	$\Gamma_2/\Gamma_1$		
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b>0.07 ± 0.03</b>	<sup>1</sup> BARBERIS	97C OMEG	450 $pp \rightarrow ppK\bar{K}\pi$

<sup>1</sup> Using  $2(\pi^+\pi^-)$  data from BARBERIS 97B.

$\Gamma(\eta\pi^+\pi^-)/\Gamma_{\text{total}}$	$\Gamma_4/\Gamma$		
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
not seen	AMELIN	00 VES	37 $\pi^-p \rightarrow \eta\pi^+\pi^-n$

## $\eta_2(1645)$ REFERENCES

AMELIN	00	NP B668 83	D. Amelin <i>et al.</i>	(VES Collab.)
BARBERIS	97B	PL B413 217	D. Barberis <i>et al.</i>	(WA102 Collab.)
BARBERIS	97C	PL B413 225	D. Barberis <i>et al.</i>	(WA102 Collab.)
ADOMEIT	96	ZPHY C71 227	J. Adomeit <i>et al.</i>	(Crystal Barrel Collab.)