

# $\Delta(2390) F_{37}$

$$I(J^P) = \frac{3}{2}(\frac{7}{2}^+) \text{ Status: } *$$

OMITTED FROM SUMMARY TABLE

## $\Delta(2390)$ BREIT-WIGNER MASS

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b><math>\approx 2390</math> OUR ESTIMATE</b>			
2350 $\pm$ 100	CUTKOSKY	80 IPWA	$\pi N \rightarrow \pi N$
2425 $\pm$ 60	HOEHLER	79 IPWA	$\pi N \rightarrow \pi N$

## $\Delta(2390)$ BREIT-WIGNER WIDTH

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
300 $\pm$ 100	CUTKOSKY	80 IPWA	$\pi N \rightarrow \pi N$
300 $\pm$ 80	HOEHLER	79 IPWA	$\pi N \rightarrow \pi N$

## $\Delta(2390)$ POLE POSITION

### REAL PART

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
2350 $\pm$ 100	CUTKOSKY	80 IPWA	$\pi N \rightarrow \pi N$

### – 2×IMAGINARY PART

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
260 $\pm$ 100	CUTKOSKY	80 IPWA	$\pi N \rightarrow \pi N$

## $\Delta(2390)$ ELASTIC POLE RESIDUE

### MODULUS $|r|$

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
12 $\pm$ 6	CUTKOSKY	80 IPWA	$\pi N \rightarrow \pi N$

### PHASE $\theta$

<u>VALUE (°)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
– 90 $\pm$ 60	CUTKOSKY	80 IPWA	$\pi N \rightarrow \pi N$

## $\Delta(2390)$ DECAY MODES

Mode
$\Gamma_1 \quad N\pi$
$\Gamma_2 \quad \Sigma K$

## $\Delta(2390)$ BRANCHING RATIOS

$\Gamma(N\pi)/\Gamma_{\text{total}}$	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>	$\Gamma_1/\Gamma$
0.08 $\pm$ 0.04	CUTKOSKY	80 IPWA	$\pi N \rightarrow \pi N$	
0.07 $\pm$ 0.04	HOEHLER	79 IPWA	$\pi N \rightarrow \pi N$	

$(\Gamma_i \Gamma_f)^{1/2} / \Gamma_{\text{total}}$ in $N\pi \rightarrow \Delta(2390) \rightarrow \Sigma K$	$(\Gamma_1 \Gamma_2)^{1/2} / \Gamma$
VALUE	DOCUMENT ID TECN COMMENT
<0.015	CANDLIN 84 DPWA $\pi^+ p \rightarrow \Sigma^+ K^+$

### $\Delta(2390)$ REFERENCES

CANDLIN	84	NP B238 477	D.J. Candlin <i>et al.</i>	(EDIN, RAL, LOWC)
CUTKOSKY	80	Toronto Conf. 19	R.E. Cutkosky <i>et al.</i>	(CMU, LBL) IJP
Also	79	PR D20 2839	R.E. Cutkosky <i>et al.</i>	(CMU, LBL)
HOEHLER	79	PDAT 12-1	G. Hohler <i>et al.</i>	(KARLT) IJP
Also	80	Toronto Conf. 3	R. Koch	(KARLT) IJP