

$\Delta(2390) F_{37}$ $I(J^P) = \frac{3}{2}(\frac{7}{2}^+)$ Status: *

OMITTED FROM SUMMARY TABLE

 $\Delta(2390)$ BREIT-WIGNER MASS

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
≈ 2390 OUR ESTIMATE			
2350 ± 100	CUTKOSKY	80	IPWA $\pi N \rightarrow \pi N$
2425 ± 60	HOEHLER	79	IPWA $\pi N \rightarrow \pi N$

 $\Delta(2390)$ BREIT-WIGNER WIDTH

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
300 ± 100	CUTKOSKY	80	IPWA $\pi N \rightarrow \pi N$
300 ± 80	HOEHLER	79	IPWA $\pi N \rightarrow \pi N$

 $\Delta(2390)$ POLE POSITION

REAL PART

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
2350 ± 100	CUTKOSKY	80	IPWA $\pi N \rightarrow \pi N$

- 2xIMAGINARY PART

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
260 ± 100	CUTKOSKY	80	IPWA $\pi N \rightarrow \pi N$

 $\Delta(2390)$ ELASTIC POLE RESIDUEMODULUS $|r|$

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
12 ± 6	CUTKOSKY	80	IPWA $\pi N \rightarrow \pi N$

PHASE θ

VALUE ($^\circ$)	DOCUMENT ID	TECN	COMMENT
-90 ± 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

$\Gamma(N\pi)/\Gamma_{\text{total}}$	DOCUMENT ID	TECN	COMMENT	Γ_1/Γ
0.08 ± 0.04	CUTKOSKY	80	IPWA $\pi N \rightarrow \pi N$	
0.07 ± 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	+Lowe, Peach, Scotland+	(EDIN, RAL, LOWC)
CUTKOSKY	80	Toronto Conf. 19	+Forsyth, Babcock, Kelly, Hendrick	(CMU, LBL) IJP
Also	79	PR D20 2839	Cutkosky, Forsyth, Hendrick, Kelly	(CMU, LBL)
HOEHLER	79	PDAT 12-1	+Kaiser, Koch, Pietarinen	(KARLT) IJP
Also	80	Toronto Conf. 3	Koch	(KARLT) IJP