

$\Delta(2390) F_{37}$

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

OMITTED FROM SUMMARY TABLE

The latest GWU analysis (ARNDT 06) finds no evidence for this resonance.

$\Delta(2390)$ 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 RESIDUE

MODULUS $|r|$

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

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

$\Delta(2390)$ REFERENCES

ARNDT	06	PR C74 045205	R.A. Arndt <i>et al.</i>	
CANDLIN	84	NP B238 477	D.J. Candlin <i>et al.</i>	(GWU)
CUTKOSKY	80	Toronto Conf. 19	R.E. Cutkosky <i>et al.</i>	(EDIN, RAL, LOWC)
Also		PR D20 2839	R.E. Cutkosky <i>et al.</i>	(CMU, LBL) IJP
HOEHLER	79	PDAT 12-1	G. Hohler <i>et al.</i>	(CMU, LBL)
Also		Toronto Conf. 3	R. Koch	(KARLT) IJP