$\Delta(2200)$ G_{37}

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

OMITTED FROM SUMMARY TABLE

The various analyses are not in good agreement.

$\Delta(2200)$ BREIT-WIGNER MASS

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
≈ 2200 OUR ESTIMATE				
2200 ± 80	CUTKOSKY	80	IPWA	$\pi N \rightarrow \pi N$
2215 ± 60	HOEHLER	79	IPWA	$\pi N \rightarrow \pi N$
2280 ± 80	HENDRY	78	MPWA	$\pi N \rightarrow \pi N$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
2280 ± 40	CANDLIN	84	DPWA	$\pi^+ p \rightarrow \Sigma^+ K^+$

$\Delta(2200)$ BREIT-WIGNER WIDTH

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
450 ± 100	CUTKOSKY	80	IPWA	$\pi N \rightarrow \pi N$
400 ± 100	HOEHLER	79	IPWA	$\pi N \rightarrow \pi N$
400 ± 150	HENDRY	78	MPWA	$\pi N \rightarrow \pi N$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
400 ± 50	CANDLIN	84	DPWA	$\pi^+ p \rightarrow \Sigma^+ K^+$

$\Delta(2200)$ POLE POSITION

REAL PART

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
2100 ± 50	CUTKOSKY	80	IPWA	$\pi N \rightarrow \pi N$

−2×IMAGINARY PART

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
340 ± 80	CUTKOSKY	80	IPWA	$\pi N \rightarrow \pi N$

$\Delta(2200)$ ELASTIC POLE RESIDUE

MODULUS $|r|$

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
8 ± 3	CUTKOSKY	80	IPWA	$\pi N \rightarrow \pi N$

PHASE θ

VALUE (°)	*DOCUMENT ID*		*TECN*	*COMMENT*
−70 ± 40	CUTKOSKY	80	IPWA	$\pi N \rightarrow \pi N$

$\Delta(2200)$ DECAY MODES

	Mode
Γ_1	$N\pi$
Γ_2	ΣK

$\Delta(2200)$ BRANCHING RATIOS

$\Gamma(N\pi)/\Gamma_{total}$ **Γ_1/Γ**

VALUE	DOCUMENT ID		TECN	COMMENT
0.06 ± 0.02	CUTKOSKY	80	IPWA	$\pi N \rightarrow \pi N$
0.05 ± 0.02	HOEHLER	79	IPWA	$\pi N \rightarrow \pi N$
0.09 ± 0.02	HENDRY	78	MPWA	$\pi N \rightarrow \pi N$

$(\Gamma_i\Gamma_f)^{1/2}/\Gamma_{total}$ in $N\pi \rightarrow \Delta(2200) \rightarrow \Sigma K$ **$(\Gamma_1\Gamma_2)^{1/2}/\Gamma$**

VALUE	DOCUMENT ID		TECN	COMMENT
-0.014 ± 0.005	CANDLIN	84	DPWA	$\pi^+ p \rightarrow \Sigma^+ K^+$

$\Delta(2200)$ 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) IJP
HOEHLER	79	PDAT 12-1	+Kaiser, Koch, Pietarinen	(KARLT) IJP
Also	80	Toronto Conf. 3	Koch	(KARLT) IJP
HENDRY	78	PRL 41 222		(IND, LBL) IJP
Also	81	ANP 136 1	Hendry	(IND)