$\Delta(1750) \, P_{31}$

$I(J^P) = \frac{3}{2}(\frac{1}{2}^+)$ Status: $*$

OMITTED FROM SUMMARY TABLE

$\Delta(1750)$ BREIT-WIGNER MASS

VALUE (MeV)	DOCUMENT ID		TECN	COMMENT
$\approx$ **1750** OUR ESTIMATE				
1744 ± 36	MANLEY	92	IPWA	$\pi N \to \pi N$ & $N\pi\pi$
$\bullet \bullet \bullet$ We do not use the following data for averages, fits, limits, etc. $\bullet \bullet \bullet$				
1715.2$\pm$21.0	[1] CHEW	80	BPWA	$\pi^+ p \to \pi^+ p$
1778.4$\pm$ 9.0	[1] CHEW	80	BPWA	$\pi^+ p \to \pi^+ p$

$\Delta(1750)$ BREIT-WIGNER WIDTH

VALUE (MeV)	DOCUMENT ID		TECN	COMMENT
300 ± 120	MANLEY	92	IPWA	$\pi N \to \pi N$ & $N\pi\pi$
$\bullet \bullet \bullet$ We do not use the following data for averages, fits, limits, etc. $\bullet \bullet \bullet$				
93.3$\pm$ 55.0	[1] CHEW	80	BPWA	$\pi^+ p \to \pi^+ p$
23.0$\pm$ 29.0	[1] CHEW	80	BPWA	$\pi^+ p \to \pi^+ p$

$\Delta(1750)$ DECAY MODES

	Mode
Γ_1	$N\pi$
Γ_2	$N\pi\pi$
Γ_3	$N(1440)\pi$

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

VALUE	DOCUMENT ID		TECN	COMMENT
0.08$\pm$0.03	MANLEY	92	IPWA	$\pi N \to \pi N$ & $N\pi\pi$
$\bullet \bullet \bullet$ We do not use the following data for averages, fits, limits, etc. $\bullet \bullet \bullet$				
0.18	[1] CHEW	80	BPWA	$\pi^+ p \to \pi^+ p$
0.20	[1] CHEW	80	BPWA	$\pi^+ p \to \pi^+ p$

$(\Gamma_i\Gamma_f)^{\frac{1}{2}}/\Gamma_{\text{total}}$ in $N\pi \to \Delta(1700) \to N(1440)\pi$ $\qquad\qquad$ $(\Gamma_1\Gamma_3)^{\frac{1}{2}}/\Gamma$

VALUE	DOCUMENT ID		TECN	COMMENT
$+0.15\pm0.03$	MANLEY	92	IPWA	$\pi N \to \pi N$ & $N\pi\pi$

$\Delta(1750)$ FOOTNOTES

[1] CHEW 80 reports four resonances in the P_{31} wave — see also the $\Delta(1910)$. Problems with this analysis are discussed in section 2.1.11 of HOEHLER 83.

Δ(1750) REFERENCES

MANLEY	92	PR D45 4002	+Saleski	(KENT)
Also	84	PR D30 904	Manley, Arndt, Goradia, Teplitz	(VPI)
HOEHLER	83	Landolt-Boernstein 1/9B2		(KARLT)
CHEW	80	Toronto Conf. 123		(LBL)