$\Delta(1750)\ 1/2^+$

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

OMITTED FROM SUMMARY TABLE

Δ(1750) POLE POSITION

REAL PART

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
• • • We do not use the following data for averages, fits, limits, etc. • • •				
1748	ARNDT	04	DPWA	$\pi N \to \pi N, \eta N$
1714	VRANA	00	DPWA	Multichannel

−2×IMAGINARY PART

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
• • • We do not use the following data for averages, fits, limits, etc. • • •				
524	ARNDT	04	DPWA	$\pi N \to \pi N, \eta N$
68	VRANA	00	DPWA	Multichannel

Δ(1750) ELASTIC POLE RESIDUE

MODULUS $|r|$

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
• • • We do not use the following data for averages, fits, limits, etc. • • •				
48	ARNDT	04	DPWA	$\pi N \to \pi N, \eta N$

PHASE θ

VALUE (°)	*DOCUMENT ID*		*TECN*	*COMMENT*
• • • We do not use the following data for averages, fits, limits, etc. • • •				
158	ARNDT	04	DPWA	$\pi N \to \pi N, \eta N$

Δ(1750) BREIT-WIGNER MASS

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
• • • We do not use the following data for averages, fits, limits, etc. • • •				
1712± 1	PENNER	02C	DPWA	Multichannel
1721±61	VRANA	00	DPWA	Multichannel

Δ(1750) BREIT-WIGNER WIDTH

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
• • • We do not use the following data for averages, fits, limits, etc. • • •				
643±17	PENNER	02C	DPWA	Multichannel
70±50	VRANA	00	DPWA	Multichannel

Δ(1750) DECAY MODES

	Mode	Fraction (Γ_i/Γ)
Γ_1	$N\pi$	seen
Γ_2	$N(1440)\pi$	seen
Γ_3	ΣK	seen

Δ(1750) BRANCHING RATIOS

$\Gamma(N\pi)/\Gamma_{total}$ Γ_1/Γ

VALUE (%)	*DOCUMENT ID*		*TECN*	*COMMENT*
• • • We do not use the following data for averages, fits, limits, etc. • • •				
1 ± 1	PENNER	02C	DPWA	Multichannel
6 ± 9	VRANA	00	DPWA	Multichannel

$\Gamma(N(1440)\pi)/\Gamma_{total}$ Γ_2/Γ

VALUE (%)	*DOCUMENT ID*		*TECN*	*COMMENT*
• • • We do not use the following data for averages, fits, limits, etc. • • •				
83 ± 1	VRANA	00	DPWA	Multichannel

$\Gamma(\Sigma K)/\Gamma_{total}$ Γ_3/Γ

VALUE (%)	*DOCUMENT ID*		*TECN*	*COMMENT*
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.1 ± 0.1	PENNER	02C	DPWA	Multichannel

Δ(1750) BREIT-WIGNER PHOTON DECAY AMPLITUDES

Papers on γN amplitudes predating 1981 may be found in our 2006 edition, Journal of Physics **G33** 1 (2006).

Δ(1750) → $N\gamma$, helicity-1/2 amplitude $A_{1/2}$

VALUE ($GeV^{-1/2}$)	*DOCUMENT ID*		*TECN*	*COMMENT*
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.053	PENNER	02D	DPWA	Multichannel

Δ(1750) REFERENCES

PDG	06	JP G33 1	W.-M. Yao *et al.*	(PDG Collab.)
ARNDT	04	PR C69 035213	R.A. Arndt *et al.*	(GWU, TRIU)
PENNER	02C	PR C66 055211	G. Penner, U. Mosel	(GIES)
PENNER	02D	PR C66 055212	G. Penner, U. Mosel	(GIES)
VRANA	00	PRPL 328 181	T.P. Vrana, S.A. Dytman, T.-S.H. Lee	(PITT, ANL)