

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

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

OMITTED FROM SUMMARY TABLE

$\Delta(1750)$ 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 $\pi N \rightarrow \pi N, \eta N$
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 $\pi N \rightarrow \pi N, \eta N$
68	VRANA	00	DPWA Multichannel

$\Delta(1750)$ 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 $\pi N \rightarrow \pi N, \eta N$

PHASE θ

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

$\Delta(1750)$ 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

$\Delta(1750)$ 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

$\Delta(1750)$ DECAY MODES

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

$\Delta(1750)$ BRANCHING RATIOS

$\Gamma(N\pi)/\Gamma_{\text{total}}$					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	
$\Gamma(N(1440)\pi)/\Gamma_{\text{total}}$					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	
$\Gamma(\Sigma K)/\Gamma_{\text{total}}$					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	

$\Delta(1750)$ BREIT-WIGNER PHOTON DECAY AMPLITUDES

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

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

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

$\Delta(1750)$ REFERENCES

PDG	06	JP G33 1	W.-M. Yao <i>et al.</i>	(PDG Collab.)
ARNDT	04	PR C69 035213	R.A. Arndt <i>et al.</i>	(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)