$\Lambda(2080)\ 5/2^-$

$J^P = \frac{5}{2}^-$ Status: *

OMITTED FROM SUMMARY TABLE

$\Lambda(2080)$ POLE POSITION

REAL PART

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
2070±15	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

−2×IMAGINARY PART

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
172±28	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

$\Lambda(2080)$ POLE RESIDUES

Normalized residue in $N\overline{K} \to \Lambda(2080) \to N\overline{K}$

MODULUS	*PHASE (°)*	*DOCUMENT ID*		*TECN*	*COMMENT*
0.12±0.03	**−35 ± 22**	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

Normalized residue in $N\overline{K} \to \Lambda(2080) \to \Sigma\pi$

MODULUS	*PHASE (°)*	*DOCUMENT ID*		*TECN*	*COMMENT*
0.07±0.03	**11 ± 16**	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

Normalized residue in $N\overline{K} \to \Lambda(2080) \to \Xi K$

MODULUS	*PHASE (°)*	*DOCUMENT ID*		*TECN*	*COMMENT*
0.06±0.02	**115 ± 20**	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

Normalized residue in $N\overline{K} \to \Lambda(2080) \to \Lambda\omega$, S=1/2, *D*-wave

MODULUS	*PHASE (°)*	*DOCUMENT ID*		*TECN*	*COMMENT*
0.06±0.03	**115 ± 25**	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

Normalized residue in $N\overline{K} \to \Lambda(2080) \to \Lambda\omega$, S=3/2 , *D*-wave

MODULUS	*PHASE (°)*	*DOCUMENT ID*		*TECN*	*COMMENT*
0.09±0.03	**−10 ± 35**	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

Normalized residue in $N\overline{K} \to \Lambda(2080) \to \Sigma(1385)\pi$, *D*-wave

MODULUS	*PHASE (°)*	*DOCUMENT ID*		*TECN*	*COMMENT*
0.14±0.04	**155 ± 45**	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

Normalized residue in $N\overline{K} \to \Lambda(2080) \to \Sigma(1385)\pi$, *G*-wave

MODULUS	*PHASE (°)*	*DOCUMENT ID*		*COMMENT*
0.05±0.03	**30 ± 45**	SARANTSEV	19	$\overline{K}N$ multichannel

Normalized residue in $N\overline{K} \to \Lambda(2080) \to N\overline{K}^*(892)$, S=1/2 , *D*-wave

MODULUS	*PHASE (°)*	*DOCUMENT ID*		*TECN*	*COMMENT*
0.16±0.08	**−120 ± 50**	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

Normalized residue in $N\overline{K} \rightarrow \Lambda(2080) \rightarrow N\overline{K}^*(892)$, S=3/2 , *D*-wave

MODULUS	*PHASE (°)*	*DOCUMENT ID*		*TECN*	*COMMENT*
0.20±0.14	**60 ± 50**	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

Λ(2080) MASS

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
2082±13	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

Λ(2080) WIDTH

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
181±29	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

Λ(2080) DECAY MODES

	Mode	Fraction (Γ_i/Γ)
Γ_1	$N\overline{K}$	(11.0± 3.0) %
Γ_2	$\Sigma\pi$	(5.0± 2.0) %
Γ_3	ΞK	(4.0± 1.0) %
Γ_4	$\Lambda\omega$, S=1/2, *D*-wave	(4.0± 2.0) %
Γ_5	$\Lambda\omega$, S=3/2, *D*-wave	(8.0± 3.0) %
Γ_6	$\Sigma(1385)\pi$, *D*-wave	(15 ± 5) %
Γ_7	$\Sigma(1385)\pi$, *G*-wave	(3.0± 2.0) %
Γ_8	$N\overline{K}^*(892)$, S=1/2, *D*-wave	(17 ± 9) %
Γ_9	$N\overline{K}^*(892)$, S=3/2, *D*-wave	(25 ±16) %

Λ(2080) BRANCHING RATIOS

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

VALUE	*DOCUMENT ID*		*TECN*	*COMMENT*
0.11±0.03	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

$\Gamma(\Sigma\pi)/\Gamma_{total}$ **Γ_2/Γ**

VALUE	*DOCUMENT ID*		*TECN*	*COMMENT*
0.05±0.02	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

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

VALUE	*DOCUMENT ID*		*TECN*	*COMMENT*
0.04±0.01	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

$\Gamma(\Lambda\omega$, S=1/2, *D*-wave$)/\Gamma_{total}$ **Γ_4/Γ**

VALUE	*DOCUMENT ID*		*TECN*	*COMMENT*
0.04±0.02	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

$\Gamma(\Lambda\omega, S=3/2, D\text{-wave})/\Gamma_{total}$ **Γ_5/Γ**

VALUE	DOCUMENT ID		TECN	COMMENT
0.08±0.03	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

$\Gamma(\Sigma(1385)\pi, D\text{-wave})/\Gamma_{total}$ **Γ_6/Γ**

VALUE	DOCUMENT ID		TECN	COMMENT
0.15±0.05	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

$\Gamma(\Sigma(1385)\pi, G\text{-wave})/\Gamma_{total}$ **Γ_7/Γ**

VALUE	DOCUMENT ID		TECN	COMMENT
0.03±0.02	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

$\Gamma(N\overline{K}^*(892), S=1/2, D\text{-wave})/\Gamma_{total}$ **Γ_8/Γ**

VALUE	DOCUMENT ID		TECN	COMMENT
0.17±0.09	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

$\Gamma(N\overline{K}^*(892), S=3/2, D\text{-wave})/\Gamma_{total}$ **Γ_9/Γ**

VALUE	DOCUMENT ID		TECN	COMMENT
0.25±0.16	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

$\Lambda(2080)$ REFERENCES

SARANTSEV 19 EPJ A55 180 A.V. Sarantsev *et al.* (BONN, PNPI)