

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

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

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 $N\overline{K} \rightarrow \Lambda(2080) \rightarrow N\overline{K}$**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

<u>MODULUS</u>	<u>PHASE ($^\circ$)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
0.20 ± 0.14	60 ± 50	SARANTSEV 19	DPWA	$\bar{K}N$ multichannel

 $\Lambda(2080)$ MASS

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
2082 ± 13	SARANTSEV 19	DPWA	$\bar{K}N$ multichannel

 $\Lambda(2080)$ WIDTH

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
181 ± 29	SARANTSEV 19	DPWA	$\bar{K}N$ multichannel

 $\Lambda(2080)$ DECAY MODES

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

 $\Lambda(2080)$ BRANCHING RATIOS

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

<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
0.11 ± 0.03	SARANTSEV 19	DPWA	$\bar{K}N$ multichannel

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

<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
0.05 ± 0.02	SARANTSEV 19	DPWA	$\bar{K}N$ multichannel

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

<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
0.04 ± 0.01	SARANTSEV 19	DPWA	$\bar{K}N$ multichannel

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

<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
0.04 ± 0.02	SARANTSEV 19	DPWA	$\bar{K}N$ multichannel

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

<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
0.08 ± 0.03	SARANTSEV 19	DPWA	$\bar{K}N$ multichannel

$\Gamma(\Sigma(1385)\pi, D\text{-wave})/\Gamma_{\text{total}}$				Γ_6/Γ
VALUE	DOCUMENT ID	TECN	COMMENT	
0.15±0.05	SARANTSEV 19	DPWA	$\overline{K}N$ multichannel	
$\Gamma(\Sigma(1385)\pi, G\text{-wave})/\Gamma_{\text{total}}$				Γ_7/Γ
VALUE	DOCUMENT ID	TECN	COMMENT	
0.03±0.02	SARANTSEV 19	DPWA	$\overline{K}N$ multichannel	
$\Gamma(N\overline{K}^*(892), S=1/2, D\text{-wave})/\Gamma_{\text{total}}$				Γ_8/Γ
VALUE	DOCUMENT ID	TECN	COMMENT	
0.17±0.09	SARANTSEV 19	DPWA	$\overline{K}N$ multichannel	
$\Gamma(N\overline{K}^*(892), S=3/2, D\text{-wave})/\Gamma_{\text{total}}$				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 <i>et al.</i>	(BONN, PNPI)
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