

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

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

Status: *

OMITTED FROM SUMMARY TABLE

 $\Lambda(2080)$ POLE POSITION

REAL PART

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

-2×IMAGINARY PART

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

 $\Lambda(2080)$ POLE RESIDUESNormalized residue in $N\bar{K} \rightarrow \Lambda(2080) \rightarrow N\bar{K}$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

MODULUS	PHASE (°)	DOCUMENT ID	TECN	COMMENT
0.16±0.08	-120 ± 50	SARANTSEV 19	DPWA	$\bar{K}N$ 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± 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 $N\bar{K}^*(892)$, $S=1/2$, D -wave	(17 ± 9) %
Γ_9 $N\bar{K}^*(892)$, $S=3/2$, D -wave	(25 ±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
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>	
0.15±0.05	SARANTSEV 19	DPWA	$\bar{K}N$ multichannel	
$\Gamma(\Sigma(1385)\pi, G\text{-wave})/\Gamma_{\text{total}}$				Γ_7/Γ
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>	
0.03±0.02	SARANTSEV 19	DPWA	$\bar{K}N$ multichannel	
$\Gamma(N\bar{K}^*(892), S=1/2, D\text{-wave})/\Gamma_{\text{total}}$				Γ_8/Γ
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>	
0.17±0.09	SARANTSEV 19	DPWA	$\bar{K}N$ multichannel	
$\Gamma(N\bar{K}^*(892), S=3/2, D\text{-wave})/\Gamma_{\text{total}}$				Γ_9/Γ
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>	
0.25±0.16	SARANTSEV 19	DPWA	$\bar{K}N$ multichannel	

$\Lambda(2080)$ REFERENCES

SARANTSEV 19 EPJ A55 180

A.V. Sarantsev *et al.*

(BONN, PNPI)