

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

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

Status: \*

OMITTED FROM SUMMARY TABLE

 **$\Lambda(2080)$  POLE POSITION****REAL PART**

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

**-2×IMAGINARY PART**

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

 **$\Lambda(2080)$  POLE RESIDUES****Normalized residue in  $N\bar{K} \rightarrow \Lambda(2080) \rightarrow N\bar{K}$** 

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

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

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

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

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

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

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

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

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

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

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

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

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

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

<u>MODULUS</u>	<u>PHASE (°)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b>0.16±0.08</b>	<b>-120 ± 50</b>	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 (<math>^\circ</math>)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b>0.20±0.14</b>	<b>60 ± 50</b>	SARANTSEV 19	DPWA	$\bar{K}N$ multichannel

 **$\Lambda(2080)$  MASS**

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

 **$\Lambda(2080)$  WIDTH**

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

 **$\Lambda(2080)$  DECAY MODES**

Mode	Fraction ( $\Gamma_i/\Gamma$ )
$\Gamma_1$ $N\bar{K}$	(11.0± 3.0) %
$\Gamma_2$ $\Sigma\pi$	( 5.0± 2.0) %
$\Gamma_3$ $\Xi K$	( 4.0± 1.0) %
$\Gamma_4$ $\Lambda\omega$ , $S=1/2$ , $D$ -wave	( 4.0± 2.0) %
$\Gamma_5$ $\Lambda\omega$ , $S=3/2$ , $D$ -wave	( 8.0± 3.0) %
$\Gamma_6$ $\Sigma(1385)\pi$ , $D$ -wave	(15 ± 5 ) %
$\Gamma_7$ $\Sigma(1385)\pi$ , $G$ -wave	( 3.0± 2.0) %
$\Gamma_8$ $N\bar{K}^*(892)$ , $S=1/2$ , $D$ -wave	(17 ± 9 ) %
$\Gamma_9$ $N\bar{K}^*(892)$ , $S=3/2$ , $D$ -wave	(25 ±16 ) %

 **$\Lambda(2080)$  BRANCHING RATIOS**

<b><math>\Gamma(N\bar{K})/\Gamma_{\text{total}}</math></b>	<b><math>\Gamma_1/\Gamma</math></b>		
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b>0.11±0.03</b>	SARANTSEV 19	DPWA	$\bar{K}N$ multichannel

<b><math>\Gamma(\Sigma\pi)/\Gamma_{\text{total}}</math></b>	<b><math>\Gamma_2/\Gamma</math></b>		
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b>0.05±0.02</b>	SARANTSEV 19	DPWA	$\bar{K}N$ multichannel

<b><math>\Gamma(\Xi K)/\Gamma_{\text{total}}</math></b>	<b><math>\Gamma_3/\Gamma</math></b>		
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b>0.04±0.01</b>	SARANTSEV 19	DPWA	$\bar{K}N$ multichannel

<b><math>\Gamma(\Lambda\omega, S=1/2, D\text{-wave})/\Gamma_{\text{total}}</math></b>	<b><math>\Gamma_4/\Gamma</math></b>		
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b>0.04±0.02</b>	SARANTSEV 19	DPWA	$\bar{K}N$ multichannel

$\Gamma(\Lambda\omega, S=3/2, D\text{-wave})/\Gamma_{\text{total}}$				$\Gamma_5/\Gamma$
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>	
<b>0.08±0.03</b>	SARANTSEV 19	DPWA	$\bar{K}N$ multichannel	
$\Gamma(\Sigma(1385)\pi, D\text{-wave})/\Gamma_{\text{total}}$				$\Gamma_6/\Gamma$
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>	
<b>0.15±0.05</b>	SARANTSEV 19	DPWA	$\bar{K}N$ multichannel	
$\Gamma(\Sigma(1385)\pi, G\text{-wave})/\Gamma_{\text{total}}$				$\Gamma_7/\Gamma$
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>	
<b>0.03±0.02</b>	SARANTSEV 19	DPWA	$\bar{K}N$ multichannel	
$\Gamma(N\bar{K}^*(892), S=1/2, D\text{-wave})/\Gamma_{\text{total}}$				$\Gamma_8/\Gamma$
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>	
<b>0.17±0.09</b>	SARANTSEV 19	DPWA	$\bar{K}N$ multichannel	
$\Gamma(N\bar{K}^*(892), S=3/2, D\text{-wave})/\Gamma_{\text{total}}$				$\Gamma_9/\Gamma$
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>	
<b>0.25±0.16</b>	SARANTSEV 19	DPWA	$\bar{K}N$ multichannel	

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### $\Lambda(2080)$ REFERENCES

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

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