NODE=B191

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

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

OMITTED FROM SUMMARY TABLE

$\Lambda(2080)$ POLE POSITION

NODE=B191225

REAL PART

NODE=B191RE
NODE=B191RE

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

−2×IMAGINARY PART

NODE=B191IM
NODE=B191IM

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

$\Lambda(2080)$ POLE RESIDUES

NODE=B191250

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

NODE=B191A01
NODE=B191A01

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

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

NODE=B191A00
NODE=B191A00

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

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

NODE=B191A02
NODE=B191A02

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

NODE=B191A03
NODE=B191A03

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

NODE=B191A04
NODE=B191A04

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

NODE=B191A05
NODE=B191A05

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

NODE=B191A06
NODE=B191A06

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

NODE=B191A08
NODE=B191A08

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

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

NODE=B191A07
NODE=B191A07

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

$\Lambda(2080)$ MASS

NODE=B191M

NODE=B191M

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

$\Lambda(2080)$ WIDTH

NODE=B191W

NODE=B191W

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

$\Lambda(2080)$ DECAY MODES

NODE=B191215;NODE=B191

	Mode	Fraction (Γ_i/Γ)	
Γ_1	$N\overline{K}$	(11.0± 3.0) %	DESIG=1
Γ_2	$\Sigma\pi$	(5.0± 2.0) %	DESIG=2
Γ_3	ΞK	(4.0± 1.0) %	DESIG=3
Γ_4	$\Lambda\omega$, S=1/2, D-wave	(4.0± 2.0) %	DESIG=4
Γ_5	$\Lambda\omega$, S=3/2, D-wave	(8.0± 3.0) %	DESIG=5
Γ_6	$\Sigma(1385)\pi$, D-wave	(15 ± 5) %	DESIG=6
Γ_7	$\Sigma(1385)\pi$, G-wave	(3.0± 2.0) %	DESIG=7
Γ_8	$N\overline{K}^*(892)$, S=1/2, D-wave	(17 ± 9) %	DESIG=8
Γ_9	$N\overline{K}^*(892)$, S=3/2, D-wave	(25 ±16) %	DESIG=9

$\Lambda(2080)$ BRANCHING RATIOS

NODE=B191220

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

NODE=B191R01
NODE=B191R01

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

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

NODE=B191R00
NODE=B191R00

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

$\Gamma(\Xi K)/\Gamma_{total}$ Γ_3/Γ

NODE=B191R02
NODE=B191R02

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

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

NODE=B191R03
NODE=B191R03

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

NODE=B191R04
NODE=B191R04

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

NODE=B191R05
NODE=B191R05

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

NODE=B191R06
NODE=B191R06

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

NODE=B191R07
NODE=B191R07

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

NODE=B191R08
NODE=B191R08

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

$\Lambda(2080)$ REFERENCES

NODE=B191

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

REFID=59986