$\Lambda(2070)\ 3/2^+$

$J^P = \frac{3}{2}^+$ Status: *

OMITTED FROM SUMMARY TABLE

$\Lambda(2070)$ POLE POSITION

REAL PART

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
2044±20	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

−2×IMAGINARY PART

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
360±45	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

$\Lambda(2070)$ POLE RESIDUES

Normalized residue in $N\overline{K} \to \Lambda(2070) \to N\overline{K}$

MODULUS	*PHASE (°)*	*DOCUMENT ID*		*TECN*	*COMMENT*
0.15±0.05	**−37 ± 10**	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

Normalized residue in $N\overline{K} \to \Lambda(2070) \to \Sigma\pi$

MODULUS	*PHASE (°)*	*DOCUMENT ID*		*TECN*	*COMMENT*
0.10±0.03	**−47 ± 8**	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

Normalized residue in $N\overline{K} \to \Lambda(2070) \to \Xi K$

MODULUS	*PHASE (°)*	*DOCUMENT ID*		*TECN*	*COMMENT*
0.11±0.03	**0 ± 25**	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

Normalized residue in $N\overline{K} \to \Lambda(2070) \to \Lambda\omega$, S=1/2 , *P*-wave

MODULUS	*PHASE (°)*	*DOCUMENT ID*		*TECN*	*COMMENT*
0.10±0.04	**150 ± 17**	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

Normalized residue in $N\overline{K} \to \Lambda(2070) \to \Lambda\omega$, S=3/2 , *P*-wave

MODULUS	*PHASE (°)*	*DOCUMENT ID*		*TECN*	*COMMENT*
0.08±0.04	**20 ± 30**	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

Normalized residue in $N\overline{K} \to \Lambda(2070) \to \Lambda\omega$, S=3/2 , *F*-wave

MODULUS	*PHASE (°)*	*DOCUMENT ID*		*TECN*	*COMMENT*
0.04±0.02	**−175 ± 35**	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

Normalized residue in $N\overline{K} \to \Lambda(2070) \to \Sigma(1385)\pi$, *P*-wave

MODULUS	*PHASE (°)*	*DOCUMENT ID*		*TECN*	*COMMENT*
0.12±0.07	**−160 ± 55**	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

Normalized residue in $N\overline{K} \to \Lambda(2070) \to \Sigma(1385)\pi$, *F*-wave

MODULUS	*PHASE (°)*	*DOCUMENT ID*		*TECN*	*COMMENT*
0.07±0.04	**−145 ± 50**	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

Normalized residue in $N\overline{K} \to \Lambda(2070) \to N\overline{K}^*(892)$, S=1/2 , *P*-wave

MODULUS	*PHASE (°)*	*DOCUMENT ID*		*TECN*	*COMMENT*
0.36±0.07	**−45 ± 30**	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

Normalized residue in $N\overline{K} \to \Lambda(2070) \to N\overline{K}^*(892)$, S=3/2 , *P*-wave

MODULUS	*PHASE (°)*	*DOCUMENT ID*		*TECN*	*COMMENT*
0.16±0.05	**150 ± 35**	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

Normalized residue in $N\overline{K} \to \Lambda(2070) \to N\overline{K}^*(892)$, S=3/2 , *F*-wave

MODULUS	*PHASE (°)*	*DOCUMENT ID*		*TECN*	*COMMENT*
0.14±0.08	**−50 ± 30**	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

$\Lambda(2070)$ MASS

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
2070±24	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

$\Lambda(2070)$ WIDTH

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
370±50	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

$\Lambda(2070)$ DECAY MODES

	Mode	Fraction (Γ_i/Γ)
Γ_1	$N\overline{K}$	(12 ±5) %
Γ_2	$\Sigma\pi$	(7.0±3.0) %
Γ_3	ΞK	(7.0±3.0) %
Γ_4	$\Lambda\omega$, S=1/2 , *P*-wave	(7 ±4) %
Γ_5	$\Lambda\omega$, S=3/2 , *P*-wave	(3.0±2.0) %
Γ_6	$\Lambda\omega$, S=3/2 , *F*-wave	(1.0±1.0) %
Γ_7	$\Sigma(1385)\pi$, *P*-wave	(10 ±5) %
Γ_8	$\Sigma(1385)\pi$, *F*-wave	(2.0±2.0) %
Γ_9	$N\overline{K}^*(892)$, S=1/2 , *P*-wave	(42 ±8) %
Γ_{10}	$N\overline{K}^*(892)$, S=3/2 , *P*-wave	(14 ±6) %
Γ_{11}	$N\overline{K}^*(892)$, S=3/2 , *F*-wave	(10 ±6) %

$\Lambda(2070)$ BRANCHING RATIOS

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

VALUE	*DOCUMENT ID*		*TECN*	*COMMENT*
0.12±0.05	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

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

VALUE	*DOCUMENT ID*		*TECN*	*COMMENT*
0.07±0.03	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

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

VALUE	DOCUMENT ID		TECN	COMMENT
0.07±0.03	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

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

VALUE	DOCUMENT ID		TECN	COMMENT
0.07±0.04	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

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

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

$\Gamma(\Lambda\omega, \text{S=3/2}, F\text{-wave})/\Gamma_{\text{total}}$ Γ_6/Γ

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

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

VALUE	DOCUMENT ID		TECN	COMMENT
0.10±0.05	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

$\Gamma(\Sigma(1385)\pi, F\text{-wave})/\Gamma_{\text{total}}$ Γ_8/Γ

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

$\Gamma(N\overline{K}^*(892), \text{S=1/2}, P\text{-wave})/\Gamma_{\text{total}}$ Γ_9/Γ

VALUE	DOCUMENT ID		TECN	COMMENT
0.42±0.08	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

$\Gamma(N\overline{K}^*(892), \text{S=3/2}, P\text{-wave})/\Gamma_{\text{total}}$ Γ_{10}/Γ

VALUE	DOCUMENT ID		TECN	COMMENT
0.14±0.06	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

$\Gamma(N\overline{K}^*(892), \text{S=3/2}, F\text{-wave})/\Gamma_{\text{total}}$ Γ_{11}/Γ

VALUE	DOCUMENT ID		TECN	COMMENT
0.10±0.06	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

$\Lambda(2070)$ REFERENCES

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