

$\Sigma(1915) 5/2^+$  $I(J^P) = 1(\frac{5}{2}^+)$  Status: \*\*\*\*

Discovered by COOL 66. For results published before 1974 (they are now obsolete), see our 1982 edition Physics Letters **111B** 1 (1982).

This entry only includes results from partial-wave analyses. Parameters of peaks seen in cross sections and invariant-mass distributions in this region used to be listed in a separate entry immediately following. They may be found in our 1986 edition Physics Letters **170B** 1 (1986).

### $\Sigma(1915)$ POLE POSITION

#### REAL PART

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
<b>1885 to 1915 (<math>\approx</math> 1900) OUR ESTIMATE</b>			
1908 $\pm$ 7	SARANTSEV	19	DPWA $\bar{K}N$ multichannel
1890 $^{+3}_{-2}$	<sup>1</sup> KAMANO	15	DPWA $\bar{K}N$ multichannel
• • • We do not use the following data for averages, fits, limits, etc. • • •			
1897	ZHANG	13A	DPWA $\bar{K}N$ multichannel
<sup>1</sup> From the preferred solution A in KAMANO 15.			

#### –2×IMAGINARY PART

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
<b>90 to 110 (<math>\approx</math> 100) OUR ESTIMATE</b>			
98 $\pm$ 12	SARANTSEV	19	DPWA $\bar{K}N$ multichannel
97 $^{+4}_{-6}$	<sup>1</sup> KAMANO	15	DPWA $\bar{K}N$ multichannel
• • • We do not use the following data for averages, fits, limits, etc. • • •			
133	ZHANG	13A	DPWA $\bar{K}N$ multichannel
<sup>1</sup> From the preferred solution A in KAMANO 15.			

### $\Sigma(1915)$ POLE RESIDUES

The normalized residue is the residue divided by  $\Gamma_{pole}/2$ .

#### Normalized residue in $N\bar{K} \rightarrow \Sigma(1915) \rightarrow N\bar{K}$

MODULUS	PHASE (°)	DOCUMENT ID	TECN	COMMENT
<b>0.08 <math>\pm</math> 0.02</b>	<b>–33 <math>\pm</math> 15</b>	SARANTSEV	19	DPWA $\bar{K}N$ multichannel
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.0391	–15	<sup>1</sup> KAMANO	15	DPWA $\bar{K}N$ multichannel
<sup>1</sup> From the preferred solution A in KAMANO 15.				

#### Normalized residue in $N\bar{K} \rightarrow \Sigma(1915) \rightarrow \Sigma\pi$

MODULUS	PHASE (°)	DOCUMENT ID	TECN	COMMENT
<b>0.09 <math>\pm</math> 0.02</b>	<b>180 <math>\pm</math> 12</b>	SARANTSEV	19	DPWA $\bar{K}N$ multichannel

• • • We do not use the following data for averages, fits, limits, etc. • • •

0.157            157                            <sup>1</sup> KAMANO            15    DPWA     $\bar{K}N$  multichannel

<sup>1</sup> From the preferred solution A in KAMANO 15.

### Normalized residue in $N\bar{K} \rightarrow \Sigma(1915) \rightarrow \Lambda\pi$

<u>MODULUS</u>	<u>PHASE (°)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b>0.07 ± 0.02</b>	<b>-170 ± 20</b>	SARANTSEV	19	DPWA $\bar{K}N$ multichannel

• • • We do not use the following data for averages, fits, limits, etc. • • •

0.0757            166                            <sup>1</sup> KAMANO            15    DPWA     $\bar{K}N$  multichannel

<sup>1</sup> From the preferred solution A in KAMANO 15.

### Normalized residue in $N\bar{K} \rightarrow \Sigma(1915) \rightarrow \Xi K$

<u>MODULUS</u>	<u>PHASE (°)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b>0.02 ± 0.01</b>	<b>-65 ± 35</b>	SARANTSEV	19	DPWA $\bar{K}N$ multichannel

• • • We do not use the following data for averages, fits, limits, etc. • • •

0.002            -88                            <sup>1</sup> KAMANO            15    DPWA     $\bar{K}N$  multichannel

<sup>1</sup> From the preferred solution A in KAMANO 15.

### Normalized residue in $N\bar{K} \rightarrow \Lambda(1915) \rightarrow \Sigma(1385)\pi, P\text{-wave}$

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

• • • We do not use the following data for averages, fits, limits, etc. • • •

0.0724            161                            <sup>1</sup> KAMANO            15    DPWA     $\bar{K}N$  multichannel

<sup>1</sup> From the preferred solution A in KAMANO 15.

### Normalized residue in $N\bar{K} \rightarrow \Lambda(1915) \rightarrow \Sigma(1385)\pi, F\text{-wave}$

<u>MODULUS</u>	<u>PHASE (°)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b>0.05 ± 0.03</b>	<b>-30 ± 50</b>	SARANTSEV	19	DPWA $\bar{K}N$ multichannel

• • • We do not use the following data for averages, fits, limits, etc. • • •

0.0162            -163                            <sup>1</sup> KAMANO            15    DPWA     $\bar{K}N$  multichannel

<sup>1</sup> From the preferred solution A in KAMANO 15.

### Normalized residue in $N\bar{K} \rightarrow \Sigma(1915) \rightarrow \Lambda(1520)\pi, D\text{-wave}$

<u>MODULUS</u>	<u>PHASE (°)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b>0.08 ± 0.02</b>	<b>-105 ± 50</b>	SARANTSEV	19	DPWA $\bar{K}N$ multichannel

### Normalized residue in $N\bar{K} \rightarrow \Sigma(1915) \rightarrow \Delta\bar{K}, P\text{-wave}$

<u>MODULUS</u>	<u>PHASE (°)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b>0.12 ± 0.03</b>	<b>-10 ± 20</b>	SARANTSEV	19	DPWA $\bar{K}N$ multichannel

### Normalized residue in $N\bar{K} \rightarrow \Sigma(1915) \rightarrow \Delta\bar{K}, F\text{-wave}$

<u>MODULUS</u>	<u>PHASE (°)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b>0.07 ± 0.02</b>	<b>-35 ± 25</b>	SARANTSEV	19	DPWA $\bar{K}N$ multichannel

### Normalized residue in $N\bar{K} \rightarrow \Sigma(1915) \rightarrow \Lambda(1520)\pi, G\text{-wave}$

<u>MODULUS</u>	<u>PHASE (°)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b>0.01 ± 0.01</b>		SARANTSEV	19	DPWA $\bar{K}N$ multichannel

**Normalized residue in  $N\bar{K} \rightarrow \Sigma(1915) \rightarrow N\bar{K}^*(892)$ ,  $S=1/2$ ,  $F$ -wave**

<u>MODULUS</u>	<u>PHASE (<math>^\circ</math>)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b>0.07</b>	<b><math>\pm 0.04</math></b>	<b><math>-60 \pm 45</math></b>	SARANTSEV 19	DPWA $\bar{K}N$ multichannel

• • • We do not use the following data for averages, fits, limits, etc. • • •

0.00476	4	<sup>1</sup> KAMANO	15	DPWA $\bar{K}N$ multichannel
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<sup>1</sup>From the preferred solution A in KAMANO 15.

**Normalized residue in  $N\bar{K} \rightarrow \Sigma(1915) \rightarrow N\bar{K}^*(892)$ ,  $S=3/2$ ,  $P$ -wave**

<u>MODULUS</u>	<u>PHASE (<math>^\circ</math>)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
0.0494	51	<sup>1</sup> KAMANO	15	DPWA $\bar{K}N$ multichannel

• • • We do not use the following data for averages, fits, limits, etc. • • •

0.0494	51	<sup>1</sup> KAMANO	15	DPWA $\bar{K}N$ multichannel
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<sup>1</sup>From the preferred solution A in KAMANO 15.

**Normalized residue in  $N\bar{K} \rightarrow \Sigma(1915) \rightarrow N\bar{K}^*(892)$ ,  $S=3/2$ ,  $F$ -wave**

<u>MODULUS</u>	<u>PHASE (<math>^\circ</math>)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b>0.07</b>	<b><math>\pm 0.03</math></b>	<b><math>-40 \pm 45</math></b>	SARANTSEV 19	DPWA $\bar{K}N$ multichannel

• • • We do not use the following data for averages, fits, limits, etc. • • •

0.000314	16	<sup>1</sup> KAMANO	15	DPWA $\bar{K}N$ multichannel
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<sup>1</sup>From the preferred solution A in KAMANO 15.

 **$\Sigma(1915)$  MASS**

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
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**1900 to 1935 ( $\approx$  1915) OUR ESTIMATE**

1918 $\pm$ 6	SARANTSEV	19	DPWA $\bar{K}N$ multichannel
1920 $\pm$ 7	ZHANG	13A	DPWA $\bar{K}N$ multichannel
1937 $\pm$ 20	ALSTON-...	78	DPWA $\bar{K}N \rightarrow \bar{K}N$
1894 $\pm$ 5	<sup>1</sup> CORDEN	77C	$K^- n \rightarrow \Sigma \pi$
1909 $\pm$ 5	<sup>1</sup> CORDEN	77C	$K^- n \rightarrow \Sigma \pi$
1920 $\pm$ 10	GOPAL	77	DPWA $\bar{K}N$ multichannel
1920 $\pm$ 30	BAILLON	75	IPWA $\bar{K}N \rightarrow \Lambda \pi$
1914 $\pm$ 10	HEMINGWAY	75	DPWA $K^- p \rightarrow \bar{K}N$
1920 $^{+15}_{-20}$	VANHORN	75	DPWA $K^- p \rightarrow \Lambda \pi^0$
1920 $\pm$ 5	KANE	74	DPWA $K^- p \rightarrow \Sigma \pi$

• • • We do not use the following data for averages, fits, limits, etc. • • •

not seen	DECLAIS	77	DPWA $\bar{K}N \rightarrow \bar{K}N$
1925 or 1933	<sup>2</sup> MARTIN	77	DPWA $\bar{K}N$ multichannel
1900 $\pm$ 4	<sup>3</sup> CORDEN	76	DPWA $K^- n \rightarrow \Lambda \pi^-$
1915	DEBELLEFON	76	IPWA $K^- p \rightarrow \Lambda \pi^0$

<sup>1</sup>The two entries for CORDEN 77C are from two different acceptable solutions.

<sup>2</sup>The two MARTIN 77 values are from a T-matrix pole and from a Breit-Wigner fit.

<sup>3</sup>Preferred solution 3; see CORDEN 76 for other possibilities.

**$\Sigma(1915)$  WIDTH**

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
<b>80 to 160 (<math>\approx 120</math>) OUR ESTIMATE</b>			
102 $\pm$ 12	SARANTSEV 19	DPWA	$\bar{K}N$ multichannel
149 $\pm$ 17	ZHANG 13A	DPWA	Multichannel
161 $\pm$ 20	ALSTON-...	78	DPWA $\bar{K}N \rightarrow \bar{K}N$
107 $\pm$ 14	<sup>1</sup> CORDEN 77C		$K^- n \rightarrow \Sigma \pi$
85 $\pm$ 13	<sup>1</sup> CORDEN 77C		$K^- n \rightarrow \Sigma \pi$
130 $\pm$ 10	GOPAL 77	DPWA	$\bar{K}N$ multichannel
70 $\pm$ 20	BAILLON 75	IPWA	$\bar{K}N \rightarrow \Lambda \pi$
85 $\pm$ 15	HEMINGWAY 75	DPWA	$K^- p \rightarrow \bar{K}N$
102 $\pm$ 18	VANHORN 75	DPWA	$K^- p \rightarrow \Lambda \pi^0$
162 $\pm$ 25	KANE 74	DPWA	$K^- p \rightarrow \Sigma \pi$
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●			
171 or 173	<sup>2</sup> MARTIN 77	DPWA	$\bar{K}N$ multichannel
75 $\pm$ 14	<sup>3</sup> CORDEN 76	DPWA	$K^- n \rightarrow \Lambda \pi^-$
60	DEBELLEFON 76	IPWA	$K^- p \rightarrow \Lambda \pi^0$

<sup>1</sup> The two entries for CORDEN 77C are from two different acceptable solutions.<sup>2</sup> The two MARTIN 77 values are from a T-matrix pole and from a Breit-Wigner fit.<sup>3</sup> Preferred solution 3; see CORDEN 76 for other possibilities. **$\Sigma(1915)$  DECAY MODES**

Mode	Fraction ( $\Gamma_i/\Gamma$ )
$\Gamma_1$ $N\bar{K}$	0.05 to 0.15
$\Gamma_2$ $\Lambda\pi$	( 6.0 $\pm$ 2.0 ) %
$\Gamma_3$ $\Sigma\pi$	(10.0 $\pm$ 2.0) %
$\Gamma_4$ $\Xi K$	
$\Gamma_5$ $\Sigma(1385)\pi$ , <i>P</i> -wave	( 2.0 $\pm$ 2.0 ) %
$\Gamma_6$ $\Sigma(1385)\pi$ , <i>F</i> -wave	( 4.0 $\pm$ 2.0 ) %
$\Gamma_7$ $\Sigma(1385)\pi$	<5 %
$\Gamma_8$ $\Sigma(1385)\pi$ , <i>P</i> -wave	
$\Gamma_9$ $\Sigma(1385)\pi$ , <i>F</i> -wave	
$\Gamma_{10}$ $\Lambda(1520)\pi$ , <i>D</i> -wave	( 8.0 $\pm$ 2.0 ) %
$\Gamma_{11}$ $\Lambda(1520)\pi$ , <i>G</i> -wave	
$\Gamma_{12}$ $N\bar{K}^*(892)$ , <i>S</i> =1/2, <i>F</i> -wave	( 5.0 $\pm$ 3.0 ) %
$\Gamma_{13}$ $N\bar{K}^*(892)$ , <i>S</i> =3/2, <i>P</i> -wave	
$\Gamma_{14}$ $N\bar{K}^*(892)$ , <i>S</i> =3/2, <i>F</i> -wave	( 5.0 $\pm$ 2.0 ) %
$\Gamma_{15}$ $\Delta\bar{K}$ , <i>P</i> -wave	(16 $\pm$ 5 ) %
$\Gamma_{16}$ $\Delta\bar{K}$ , <i>F</i> -wave	( 5.0 $\pm$ 3.0 ) %

**$\Sigma(1915)$  BRANCHING RATIOS**

See “Sign conventions for resonance couplings” in the Note on  $\Lambda$  and  $\Sigma$  Resonances.

 **$\Gamma(N\bar{K})/\Gamma_{\text{total}}$   $\Gamma_1/\Gamma$** 

<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b>0.05 to 0.15 OUR ESTIMATE</b>			
0.08 $\pm$ 0.02	SARANTSEV 19	DPWA	$\bar{K}N$ multichannel
0.026 $\pm$ 0.004	ZHANG 13A	DPWA	$\bar{K}N$ multichannel
0.03 $\pm$ 0.02	<sup>1</sup> GOPAL 80	DPWA	$\bar{K}N \rightarrow \bar{K}N$
0.14 $\pm$ 0.05	ALSTON-...	78	DPWA $\bar{K}N \rightarrow \bar{K}N$
0.11 $\pm$ 0.04	HEMINGWAY 75	DPWA	$K^- p \rightarrow \bar{K}N$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
0.036	<sup>2</sup> KAMANO 15	DPWA	$\bar{K}N$ multichannel
0.05 $\pm$ 0.03	GOPAL 77	DPWA	See GOPAL 80
0.08 or 0.08	<sup>3</sup> MARTIN 77	DPWA	$\bar{K}N$ multichannel

<sup>1</sup> The mass and width are fixed to the GOPAL 77 values due to the low elasticity.

<sup>2</sup> From the preferred solution A in KAMANO 15.

<sup>3</sup> The two MARTIN 77 values are from a T-matrix pole and from a Breit-Wigner fit.

 **$\Gamma(\Lambda\pi)/\Gamma_{\text{total}}$   $\Gamma_2/\Gamma$** 

<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b>0.06 <math>\pm</math>0.02</b>			
• • • We do not use the following data for averages, fits, limits, etc. • • •			
0.127	<sup>1</sup> KAMANO 15	DPWA	$\bar{K}N$ multichannel

<sup>1</sup> From the preferred solution A in KAMANO 15.

 **$\Gamma(\Sigma\pi)/\Gamma_{\text{total}}$   $\Gamma_3/\Gamma$** 

<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b>0.10 <math>\pm</math>0.02</b>			
• • • We do not use the following data for averages, fits, limits, etc. • • •			
0.678	<sup>1</sup> KAMANO 15	DPWA	$\bar{K}N$ multichannel

<sup>1</sup> From the preferred solution A in KAMANO 15.

 **$\Gamma(\Xi K)/\Gamma_{\text{total}}$   $\Gamma_4/\Gamma$** 

<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
$<0.01$			
• • • We do not use the following data for averages, fits, limits, etc. • • •			
not seen	<sup>1</sup> KAMANO 15	DPWA	Multichannel

<sup>1</sup> From the preferred solution A in KAMANO 15.

 **$\Gamma(\Sigma(1385)\pi, P\text{-wave})/\Gamma_{\text{total}}$   $\Gamma_5/\Gamma$** 

<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b>0.02 <math>\pm</math>0.02</b>			
• • • We do not use the following data for averages, fits, limits, etc. • • •			
0.112	<sup>1</sup> KAMANO 15	DPWA	$\bar{K}N$ multichannel

<sup>1</sup> From the preferred solution A in KAMANO 15.

$\Gamma(\Sigma(1385)\pi, F\text{-wave})/\Gamma_{\text{total}}$   $\Gamma_6/\Gamma$

<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
• • • We do not use the following data for averages, fits, limits, etc. • • •			
0.004	<sup>1</sup> KAMANO 15	DPWA	$\bar{K}N$ multichannel

<sup>1</sup>From the preferred solution A in KAMANO 15.

$\Gamma(\Lambda(1520)\pi, D\text{-wave})/\Gamma_{\text{total}}$   $\Gamma_{10}/\Gamma$

<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b>0.08 ± 0.02</b>	SARANTSEV 19	DPWA	$\bar{K}N$ multichannel

$\Gamma(\Lambda(1520)\pi, G\text{-wave})/\Gamma_{\text{total}}$   $\Gamma_{11}/\Gamma$

<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
def 0	SARANTSEV 19	DPWA	$\bar{K}N$ multichannel

$\Gamma(N\bar{K}^*(892), S=1/2, F\text{-wave})/\Gamma_{\text{total}}$   $\Gamma_{12}/\Gamma$

<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b>0.05 ± 0.03</b>	SARANTSEV 19	DPWA	$\bar{K}N$ multichannel
• • • We do not use the following data for averages, fits, limits, etc. • • •			
0.001	<sup>1</sup> KAMANO 15	DPWA	Multichannel

<sup>1</sup>From the preferred solution A in KAMANO 15.

$\Gamma(N\bar{K}^*(892), S=3/2, P\text{-wave})/\Gamma_{\text{total}}$   $\Gamma_{13}/\Gamma$

<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
• • • We do not use the following data for averages, fits, limits, etc. • • •			
0.042	<sup>1</sup> KAMANO 15	DPWA	Multichannel

<sup>1</sup>From the preferred solution A in KAMANO 15.

$\Gamma(N\bar{K}^*(892), S=3/2, F\text{-wave})/\Gamma_{\text{total}}$   $\Gamma_{14}/\Gamma$

<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
• • • We do not use the following data for averages, fits, limits, etc. • • •			
not seen	<sup>1</sup> KAMANO 15	DPWA	Multichannel

<sup>1</sup>From the preferred solution A in KAMANO 15.

$\Gamma(\Delta\bar{K}, P\text{-wave})/\Gamma_{\text{total}}$   $\Gamma_{15}/\Gamma$

<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b>0.16 ± 0.05</b>	SARANTSEV 19	DPWA	$\bar{K}N$ multichannel

$\Gamma(\Delta\bar{K}, F\text{-wave})/\Gamma_{\text{total}}$   $\Gamma_{16}/\Gamma$

<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b>0.05 ± 0.03</b>	SARANTSEV 19	DPWA	$\bar{K}N$ multichannel

$(\Gamma_i\Gamma_f)^{1/2}/\Gamma_{\text{total}}$  in  $N\bar{K} \rightarrow \Sigma(1915) \rightarrow \Lambda\pi$   $(\Gamma_1\Gamma_2)^{1/2}/\Gamma$

<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
− 0.09 ± 0.03	GOPAL 77	DPWA	$\bar{K}N$ multichannel
− 0.10 ± 0.01	<sup>1</sup> CORDEN 76	DPWA	$K^- n \rightarrow \Lambda\pi^-$

$-0.06 \pm 0.02$	BAILLON	75	IPWA	$\bar{K}N \rightarrow \Lambda\pi$
$-0.09 \pm 0.02$	VANHORN	75	DPWA	$K^-p \rightarrow \Lambda\pi^0$
$-0.087 \pm 0.056$	DEVENISH	74B		Fixed- $t$ dispersion rel.

• • • We do not use the following data for averages, fits, limits, etc. • • •

$-0.09$ or $-0.09$	<sup>2</sup> MARTIN	77	DPWA	$\bar{K}N$ multichannel
$-0.10$	DEBELLEFON	76	IPWA	$K^-p \rightarrow \Lambda\pi^0$

<sup>1</sup> Preferred solution 3; see CORDEN 76 for other possibilities.

<sup>2</sup> The two MARTIN 77 values are from a T-matrix pole and from a Breit-Wigner fit.

$(\Gamma_i\Gamma_f)^{1/2}/\Gamma_{\text{total}}$  in  $N\bar{K} \rightarrow \Sigma(1915) \rightarrow \Sigma\pi$   $(\Gamma_1\Gamma_3)^{1/2}/\Gamma$

VALUE	DOCUMENT ID	TECN	COMMENT
$-0.14 \pm 0.01$	ZHANG	13A	DPWA Multichannel
$-0.17 \pm 0.01$	<sup>1</sup> CORDEN	77C	$K^-n \rightarrow \Sigma\pi$
$-0.15 \pm 0.02$	<sup>1</sup> CORDEN	77C	$K^-n \rightarrow \Sigma\pi$
$-0.19 \pm 0.03$	GOPAL	77	DPWA $\bar{K}N$ multichannel
$-0.16 \pm 0.03$	KANE	74	DPWA $K^-p \rightarrow \Sigma\pi$

• • • We do not use the following data for averages, fits, limits, etc. • • •

$-0.05$ or $-0.05$	<sup>2</sup> MARTIN	77	DPWA	$\bar{K}N$ multichannel
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<sup>1</sup> The two entries for CORDEN 77C are from two different acceptable solutions.

<sup>2</sup> The two MARTIN 77 values are from a T-matrix pole and from a Breit-Wigner fit.

$(\Gamma_i\Gamma_f)^{1/2}/\Gamma_{\text{total}}$  in  $N\bar{K} \rightarrow \Sigma(1915) \rightarrow \Sigma(1385)\pi$ , *P*-wave  $(\Gamma_1\Gamma_8)^{1/2}/\Gamma$

VALUE	DOCUMENT ID	TECN	COMMENT
$< 0.01$	CAMERON	78	DPWA $K^-p \rightarrow \Sigma(1385)\pi$

$(\Gamma_i\Gamma_f)^{1/2}/\Gamma_{\text{total}}$  in  $N\bar{K} \rightarrow \Sigma(1915) \rightarrow \Sigma(1385)\pi$ , *F*-wave  $(\Gamma_1\Gamma_9)^{1/2}/\Gamma$

VALUE	DOCUMENT ID	TECN	COMMENT
$+0.06 \pm 0.02$	ZHANG	13A	DPWA Multichannel
$+0.039 \pm 0.009$	<sup>1</sup> CAMERON	78	DPWA $K^-p \rightarrow \Sigma(1385)\pi$

<sup>1</sup> The published sign has been changed to be in accord with the baryon-first convention.

### Σ(1915) REFERENCES

SARANTSEV	19	EPJ A55 180	A.V. Sarantsev <i>et al.</i>	(BONN, PNPI)
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ZHANG	13A	PR C88 035205	H. Zhang <i>et al.</i>	(KSU)
PDG	86	PL 170B 1	M. Aguilar-Benitez <i>et al.</i>	(CERN, CIT+)
PDG	82	PL 111B 1	M. Roos <i>et al.</i>	(HELS, CIT, CERN)
GOPAL	80	Toronto Conf. 159	G.P. Gopal	(RHEL) IJP
ALSTON-...	78	PR D18 182	M. Alston-Garnjost <i>et al.</i>	(LBL, MTHO+) IJP
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CAMERON	78	NP B143 189	W. Cameron <i>et al.</i>	(RHEL, LOIC) IJP
CORDEN	77C	NP B125 61	M.J. Corden <i>et al.</i>	(BIRM) IJP
DECLAIS	77	CERN 77-16	Y. Declais <i>et al.</i>	(CAEN, CERN) IJP
GOPAL	77	NP B119 362	G.P. Gopal <i>et al.</i>	(LOIC, RHEL) IJP
MARTIN	77	NP B127 349	B.R. Martin, M.K. Pidcock, R.G. Moorhouse	(LOUC+) IJP
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CORDEN	76	NP B104 382	M.J. Corden <i>et al.</i>	(BIRM) IJP
DEBELLEFON	76	NP B109 129	A. de Bellefon, A. Berthon	(CDEF) IJP
BAILLON	75	NP B94 39	P.H. Baillon, P.J. Litchfield	(CERN, RHEL) IJP
HEMINGWAY	75	NP B91 12	R.J. Hemingway <i>et al.</i>	(CERN, HEIDH, MPIM) IJP
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KANE	74	LBL-2452	D.F. Kane	(LBL) IJP
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