

Reference = AAIJ 16N; PR D93 052018
Verifier code = LHCB

PLEASE READ NOW



Normally we send all verifications for one experiment to one person, usually the spokesperson or data-analysis coordinator, who then distributes them to the appropriate people. Please tell us if we should send the verifications for your experiment to someone else.

Vincenzo Vagnoni

EMAIL: vincenzo.vagnoni@bo.infn.it

March 20, 2017

Dear Colleague,

- (1) Please check the results of your experiment carefully. They are marked.
- (2) Please reply within one week.
- (3) Please reply even if everything is correct.
- (4) IMPORTANT!! Please tell WHICH papers you are verifying. We have lots of requests out.
- (5) Feel free to make comments on our treatment of any of the results (not just yours) you see.

Thank you for helping us make the Review accurate and useful.

Sincerely,

Simon Eidelman
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Prospekt Lavrent'eva 11
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Russian Federation

EMAIL: simon.eidelman@cern.ch

LIGHT UNFLAVORED MESONS

($S = C = B = 0$)

For $I = 1$ (π, b, ρ, a): $u\bar{d}, (u\bar{u}-d\bar{d})/\sqrt{2}, d\bar{u}$;
for $I = 0$ ($\eta, \eta', h, h', \omega, \phi, f, f'$): $c_1(u\bar{u} + d\bar{d}) + c_2(s\bar{s})$

$a_0(980)$

$$I^G(J^{PC}) = 1^-(0^{++})$$

See our minireview on scalar mesons under $f_0(500)$. (See the index for the page number.)

NODE=MXXX005

NODE=MXXX005

NODE=M036

NODE=M036

NODE=M036205

NODE=M036M2
NODE=M036M2

$a_0(980)$ MASS

$K\bar{K}$ ONLY

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	CHG	COMMENT
925 $\pm$ 5 $\pm$ 8	190k	¹ AAIJ	16N	LHCB	$D^0 \rightarrow K_S^0 K^\pm \pi^\mp$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
~ 1053		² OLLER	99C	RVUE	$\pi\pi \rightarrow \pi\pi, K\bar{K}$
982 $\pm$ 3		³ ABELE	98	CBAR	$0.0 \bar{p}p \rightarrow K_L^0 K^\pm \pi^\mp$
975 $\pm$ 15		BERTIN	98B	OBLX	$\pm$ 0.0 $\bar{p}p \rightarrow K^\pm K_S \pi^\mp$
976 $\pm$ 6	316	DEBILLY	80	HBC	$\pm$ 1.2-2 $\bar{p}p \rightarrow f_1(1285)\omega$
1016 $\pm$ 10	100	⁴ ASTIER	67	HBC	$\pm$ 0.0 $\bar{p}p$
1003.3 $\pm$ 7.0	143	⁵ ROSENFELD	65	RVUE	$\pm$

YOUR NOTE

- ¹ Using a two-channel resonance parametrization with couplings fixed to ABELE 98.
² T-matrix pole.
³ T-matrix pole on sheet II, the pole on sheet III is at 1006-i49 MeV.
⁴ ASTIER 67 includes data of BARLOW 67, CONFORTO 67, ARMENTEROS 65.
⁵ Plus systematic errors.

NODE=M036M2;LINKAGE=B
 NODE=M036M2;LINKAGE=AN
 NODE=M036M2;LINKAGE=Q
 NODE=M036M2;LINKAGE=A
 NODE=M036M2;LINKAGE=S

$a_0(980)$ REFERENCES

YOUR PAPER

AAIJ	16N	PR D93 052018	R. Aaij <i>et al.</i>	(LHCb Collab.)
OLLER	99C	PR D60 074023	J.A. Oller, E. Oset	
ABELE	98	PR D57 3860	A. Abele <i>et al.</i>	(Crystal Barrel Collab.)
BERTIN	98B	PL B434 180	A. Bertin <i>et al.</i>	(OBELIX Collab.)
DEBILLY	80	NP B176 1	L. de Billy <i>et al.</i>	(CURIN, LAUS, NEUC+)
ASTIER	67	PL 25B 294	A. Astier <i>et al.</i>	(CDEF, CERN, IRAD)
Includes data of BARLOW 67, CONFORTO 67, and ARMENTEROS 65.				
BARLOW	67	NC 50A 701	J. Barlow <i>et al.</i>	(CERN, CDEF, IRAD, LIPV)
CONFORTO	67	NP B3 469	G. Conforto <i>et al.</i>	(CERN, CDEF, IPNP+)
ARMENTEROS	65	PL 17 344	R. Armenteros <i>et al.</i>	(CERN, CDEF)
ROSENFELD	65	Oxford Conf. 58	A.H. Rosenfeld	(LRL)

NODE=M036

REFID=57273
 REFID=47386
 REFID=45863
 REFID=46351
 REFID=20461
 REFID=20405

REFID=20041
 REFID=20411
 REFID=20396
 REFID=20399
 NODE=M149

$a_0(1450)$

$$I^G(J^{PC}) = 1^-(0^{++})$$

See minireview on scalar mesons under $f_0(500)$.

NODE=M149

$a_0(1450)$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
1467 $\pm$ 14 OUR AVERAGE				
1458 $\pm$ 14 $\pm$ 15	190k	AAIJ	16N	LHCB $D^0 \rightarrow K_S^0 K^\pm \pi^\mp$
1480 $\pm$ 30		ABELE	98	CBAR $0.0 \bar{p}p \rightarrow K_L^0 K^\pm \pi^\mp$
1470 $\pm$ 25		¹ AMSLER	95D	CBAR $0.0 \bar{p}p \rightarrow \pi^0 \pi^0 \pi^0, \pi^0 \eta \eta, \pi^0 \pi^0 \eta$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
1515 $\pm$ 30		² ANISOVICH	09	RVUE $0.0 \bar{p}p, \pi N$
1316.8 $\pm$ 0.7 +24.7 - 1.0 - 4.6		³ UEHARA	09A	BELL $\gamma\gamma \rightarrow \pi^0 \eta$
1432 $\pm$ 13 $\pm$ 25		⁴ BUGG	08A	RVUE $\bar{p}p$
1477 $\pm$ 10	80k	⁵ UMAN	06	E835 $5.2 \bar{p}p \rightarrow \eta \eta \pi^0$
1441 $\pm$ 40 - 15	35280	² BAKER	03	SPEC $\bar{p}p \rightarrow \omega \pi^+ \pi^- \pi^0$
1303 $\pm$ 16		⁶ BARGIOTTI	03	OBLX $\bar{p}p$

NODE=M149M

NODE=M149M

1296 ±10	⁷ AMSLER	02	CBAR	0.9 $\bar{p}p \rightarrow \pi^0 \pi^0 \eta$
1565 ±30	⁷ ANISOVICH	98B	RVUE	Compilation
1290 ±10	⁸ BERTIN	98B	OBLX	0.0 $\bar{p}p \rightarrow K^\pm K_S^0 \pi^\mp$
1450 ±40	AMSLER	94D	CBAR	0.0 $\bar{p}p \rightarrow \pi^0 \pi^0 \eta$
1410 ±25	ETKIN	82C	MPS	23 $\pi^- p \rightarrow n 2K_S^0$
~ 1300	MARTIN	78	SPEC	10 $K^\pm p \rightarrow K_S^0 \pi p$
1255 ± 5	⁹ CASON	76		

- ¹ Coupled-channel analysis of AMSLER 95B, AMSLER 95C, and AMSLER 94D.
² From the pole position.
³ May be a different state.
⁴ Using data from AMSLER 94D, ABELE 98, and BAKER 03. Supersedes BUGG 94.
⁵ Statistical error only.
⁶ Coupled channel analysis of $\pi^+ \pi^- \pi^0$, $K^+ K^- \pi^0$, and $K^\pm K_S^0 \pi^\mp$.
⁷ T-matrix pole.
⁸ Not confirmed by BUGG 08A.
⁹ Isospin 0 not excluded.

NODE=M149M;LINKAGE=AB
NODE=M149M;LINKAGE=PP
NODE=M149M;LINKAGE=UE
NODE=M149M;LINKAGE=BU
NODE=M149M;LINKAGE=ST
NODE=M149M;LINKAGE=BG
NODE=M149M;LINKAGE=AN
NODE=M149M;LINKAGE=BE
NODE=M149M;LINKAGE=CC

$a_0(1450)$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
271 ±11 OUR AVERAGE				
282 ±12 ±13 190k	AAIJ	16N	LHCB	$D^0 \rightarrow K_S^0 K^\pm \pi^\mp$
265 ±15	ABELE	98	CBAR	0.0 $\bar{p}p \rightarrow K_S^0 K^\pm \pi^\mp$
265 ±30	¹ AMSLER	95D	CBAR	0.0 $\bar{p}p \rightarrow \pi^0 \pi^0 \pi^0, \pi^0 \eta \eta, \pi^0 \pi^0 \eta$
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●				
230 ±36	² ANISOVICH	09	RVUE	0.0 $\bar{p}p, \pi N$
65.0 ⁺ ₋ 2.1 ⁺ ₋ 99.1 ⁺ ₋ 5.4 ⁺ ₋ 32.6	³ UEHARA	09A	BELL	$\gamma \gamma \rightarrow \pi^0 \eta$
196 ±10 ±10	⁴ BUGG	08A	RVUE	$\bar{p}p$
267 ±11 80k	⁵ UMAN	06	E835	5.2 $\bar{p}p \rightarrow \eta \eta \pi^0$
110 ±14 35280	² BAKER	03	SPEC	$\bar{p}p \rightarrow \omega \pi^+ \pi^- \pi^0$
92 ±16	⁶ BARGIOTTI	03	OBLX	$\bar{p}p$
81 ±21	⁷ AMSLER	02	CBAR	0.9 $\bar{p}p \rightarrow \pi^0 \pi^0 \eta$
292 ±40	⁷ ANISOVICH	98B	RVUE	Compilation
80 ± 5	⁸ BERTIN	98B	OBLX	0.0 $\bar{p}p \rightarrow K^\pm K_S^0 \pi^\mp$
270 ±40	AMSLER	94D	CBAR	0.0 $\bar{p}p \rightarrow \pi^0 \pi^0 \eta$
230 ±30	ETKIN	82C	MPS	23 $\pi^- p \rightarrow n 2K_S^0$
~ 250	MARTIN	78	SPEC	10 $K^\pm p \rightarrow K_S^0 \pi p$
79 ±10	⁹ CASON	76		

- ¹ Coupled-channel analysis of AMSLER 95B, AMSLER 95C, and AMSLER 94D.
² From the pole position.
³ May be a different state.
⁴ Using data from AMSLER 94D, ABELE 98, and BAKER 03. Supersedes BUGG 94.
⁵ Statistical error only.
⁶ Coupled channel analysis of $\pi^+ \pi^- \pi^0$, $K^+ K^- \pi^0$, and $K^\pm K_S^0 \pi^\mp$.
⁷ T-matrix pole.
⁸ Not confirmed by BUGG 08A.
⁹ Isospin 0 not excluded.

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NODE=M149W

NODE=M149W;LINKAGE=AB
NODE=M149W;LINKAGE=PP
NODE=M149W;LINKAGE=UE
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NODE=M149W;LINKAGE=BG
NODE=M149W;LINKAGE=AN
NODE=M149W;LINKAGE=BE
NODE=M149W;LINKAGE=CC

$a_0(1450)$ REFERENCES

YOUR PAPER	AAIJ	16N	PR D93 052018	R. Aaij <i>et al.</i>	(LHCb Collab.)
	ANISOVICH	09	IJMP A24 2481	V.V. Anisovich, A.V. Sarantsev	
	UEHARA	09A	PR D80 032001	S. Uehara <i>et al.</i>	(BELLE Collab.)
	BUGG	08A	PR D78 074023	D.V. Bugg	(LOQM)
	UMAN	06	PR D73 052009	I. Uman <i>et al.</i>	(FNAL E835)
	BAKER	03	PL B563 140	C.A. Baker <i>et al.</i>	
	BARGIOTTI	03	EPJ C26 371	M. Bargiotti <i>et al.</i>	(OBELIX Collab.)
	AMSLER	02	EPJ C23 29	C. Amsler <i>et al.</i>	
	ABELE	98	PR D57 3860	A. Abele <i>et al.</i>	(Crystal Barrel Collab.)
	ANISOVICH	98B	SPU 41 419	V.V. Anisovich <i>et al.</i>	
			Translated from UFN 168 481.		
	BERTIN	98B	PL B434 180	A. Bertin <i>et al.</i>	(OBELIX Collab.)
	AMSLER	95B	PL B342 433	C. Amsler <i>et al.</i>	(Crystal Barrel Collab.)
	AMSLER	95C	PL B353 571	C. Amsler <i>et al.</i>	(Crystal Barrel Collab.)
	AMSLER	95D	PL B355 425	C. Amsler <i>et al.</i>	(Crystal Barrel Collab.)
	AMSLER	94D	PL B333 277	C. Amsler <i>et al.</i>	(Crystal Barrel Collab.) IGJPC
	BUGG	94	PR D50 4412	D.V. Bugg <i>et al.</i>	(LOQM)

NODE=M149

REFID=57273
REFID=52719
REFID=53002
REFID=52578
REFID=51063
REFID=49414
REFID=49217
REFID=48580
REFID=45863
REFID=46331

REFID=46351
REFID=44377
REFID=44440
REFID=44441
REFID=44093
REFID=44078

ETKIN 82C PR D25 2446
MARTIN 78 NP B134 392
CASON 76 PRL 36 1485

A. Etkin *et al.* (BNL, CUNY, TUFTS, VAND)
A.D. Martin *et al.* (DURH, GEVA)
N.M. Cason *et al.* (NDAM, ANL)

REFID=20391
REFID=22446
REFID=21064
NODE=M105

$\rho(1450)$

$$I^G(J^{PC}) = 1^+(1^- -)$$

See our mini-review under the $\rho(1700)$.

NODE=M105

$\rho(1450)$ MASS

NODE=M105205

$K\bar{K}$ MODE

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	CHG	COMMENT
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YOUR DATA **1208 $\pm 8 \pm 9$** 190k ¹ AAIJ 16N LHCB $D^0 \rightarrow K_S^0 K^\pm \pi^\mp$

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

1422.8 ± 6.5 27k ² ABELE 99D CBAR $\pm$ 0.0 $\bar{p}p \rightarrow K^+ K^- \pi^0$

YOUR NOTE ¹ Using the GOUNARIS 68 parameterization with fixed width.

² K-matrix pole. Isospin not determined, could be $\omega(1420)$.

NODE=M105M7
NODE=M105M7

NODE=M105M7;LINKAGE=A
NODE=M105M7;LINKAGE=AN

$\rho(1450)$ WIDTH

NODE=M105210

$K\bar{K}$ MODE

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	CHG	COMMENT
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YOUR DATA **410 $\pm 19 \pm 35$** 190k ¹ AAIJ 16N LHCB $D^0 \rightarrow K_S^0 K^\pm \pi^\mp$

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

146.5 ± 10.5 27k ² ABELE 99D CBAR $\pm$ 0.0 $\bar{p}p \rightarrow K^+ K^- \pi^0$

YOUR NOTE ¹ Using the GOUNARIS 68 parameterization with fixed mass.

² K-matrix pole. Isospin not determined, could be $\omega(1420)$.

NODE=M105W7
NODE=M105W7

NODE=M105W7;LINKAGE=A
NODE=M105W7;LINKAGE=AN

$\rho(1450)$ REFERENCES

NODE=M105

YOUR PAPER	AAIJ	16N	PR D93 052018	R. Aaij <i>et al.</i>	(LHCb Collab.)
ABELE	99D	PL B468 178	A. Abele <i>et al.</i>	(Crystal Barrel Collab.)	
GOUNARIS	68	PRL 21 244	G.J. Gounaris, J.J. Sakurai		

REFID=57273
REFID=47401
REFID=48054
NODE=M065

$\rho(1700)$

$$I^G(J^{PC}) = 1^+(1^- -)$$

$\rho(1700)$ MASS

NODE=M065205

$K\bar{K}$ MODE

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	CHG	COMMENT
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YOUR DATA **1541 $\pm 12 \pm 33$** 190k ¹ AAIJ 16N LHCB $D^0 \rightarrow K_S^0 K^\pm \pi^\mp$

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

1740.8 ± 22.2 27k ² ABELE 99D CBAR $\pm$ 0.0 $\bar{p}p \rightarrow K^+ K^- \pi^0$

1582 ± 36 1600 CLELAND 82B SPEC $\pm$ 50 $\pi p \rightarrow K_S^0 K^\pm p$

YOUR NOTE ¹ Using the GOUNARIS 68 parameterization with a fixed width. Value is average using different $K\pi$ S-wave parametrizations in fit.

² K-matrix pole. Isospin not determined, could be $\omega(1650)$ or $\phi(1680)$.

NODE=M065M2
NODE=M065M2

NODE=M065M2;LINKAGE=A

NODE=M065M2;LINKAGE=AN

$\rho(1700)$ REFERENCES

NODE=M065

YOUR PAPER	AAIJ	16N	PR D93 052018	R. Aaij <i>et al.</i>	(LHCb Collab.)
ABELE	99D	PL B468 178	A. Abele <i>et al.</i>	(Crystal Barrel Collab.)	
CLELAND	82B	NP B208 228	W.E. Cleland <i>et al.</i>	(DURH, GEVA, LAUS+)	
GOUNARIS	68	PRL 21 244	G.J. Gounaris, J.J. Sakurai		

REFID=57273
REFID=47401
REFID=21281
REFID=48054

STRANGE MESONS ($S = \pm 1, C = B = 0$)

$K^+ = u\bar{s}, K^0 = d\bar{s}, \bar{K}^0 = \bar{d}s, K^- = \bar{u}s$, similarly for K^{*} 's

NODE=MXXX020

NODE=MXXX020

$K^*(892)$

$$I(J^P) = \frac{1}{2}(1^-)$$

NODE=M018

 $K^*(892)$ MASS

NODE=M018205

CHARGED ONLY, HADROPRODUCEDNODE=M018M1
NODE=M018M1

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	CHG	COMMENT
891.76±0.25 OUR AVERAGE					
YOUR DATA 893.2 ±0.1 ±1.0	190k	¹ AAIJ 16N	LHCB		$D^0 \rightarrow K_S^0 K^\pm \pi^\mp$
892.6 ±0.5	5840	BAUBILLIER 84B	HBC	-	$8.25 K^- p \rightarrow \bar{K}^0 \pi^- p$
888 ±3		NAPIER 84	SPEC	+	$200 \pi^- p \rightarrow 2K_S^0 X$
891 ±1		NAPIER 84	SPEC	-	$200 \pi^- p \rightarrow 2K_S^0 X$
891.7 ±2.1	3700	BARTH 83	HBC	+	$70 K^+ p \rightarrow K^0 \pi^+ X$
891 ±1	4100	TOAFF 81	HBC	-	$6.5 K^- p \rightarrow \bar{K}^0 \pi^- p$
892.8 ±1.6		AJINENKO 80	HBC	+	$32 K^+ p \rightarrow K^0 \pi^+ X$
890.7 ±0.9	1800	AGUILAR-... 78B	HBC	±	$0.76 \bar{p} p \rightarrow K^\mp K_S^0 \pi^\pm$
886.6 ±2.4	1225	BALAND 78	HBC	±	$12 \bar{p} p \rightarrow (K\pi)^\pm X$
891.7 ±0.6	6706	COOPER 78	HBC	±	$0.76 \bar{p} p \rightarrow (K\pi)^\pm X$
891.9 ±0.7	9000	² PALER 75	HBC	-	$14.3 K^- p \rightarrow (K\pi)^- X$
892.2 ±1.5	4404	AGUILAR-... 71B	HBC	-	$3.9, 4.6 K^- p \rightarrow (K\pi)^- p$
891 ±2	1000	CRENNELL 69D	DBC	-	$3.9 K^- N \rightarrow K^0 \pi^- X$
890 ±3.0	720	BARLOW 67	HBC	±	$1.2 \bar{p} p \rightarrow (K^0 \pi)^\pm K^\mp$
889 ±3.0	600	BARLOW 67	HBC	±	$1.2 \bar{p} p \rightarrow (K^0 \pi)^\pm K\pi$
891 ±2.3	620	³ DEBAERE 67B	HBC	+	$3.5 K^+ p \rightarrow K^0 \pi^+ p$
891.0 ±1.2	1700	⁴ WOJCICKI 64	HBC	-	$1.7 K^- p \rightarrow \bar{K}^0 \pi^- p$
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●					
893.5 ±1.1	27k	⁵ ABELE 99D	CBAR	±	$0.0 \bar{p} p \rightarrow K^+ K^- \pi^0$
890.4 ±0.2 ±0.5	80k	⁶ BIRD 89	LASS	-	$11 K^- p \rightarrow \bar{K}^0 \pi^- p$
890.0 ±2.3	800	^{3,4} CLELAND 82	SPEC	+	$30 K^+ p \rightarrow K_S^0 \pi^+ p$
896.0 ±1.1	3200	^{3,4} CLELAND 82	SPEC	+	$50 K^+ p \rightarrow K_S^0 \pi^+ p$
893 ±1	3600	^{3,4} CLELAND 82	SPEC	-	$50 K^+ p \rightarrow K_S^0 \pi^- p$
896.0 ±1.9	380	DELFOSSÉ 81	SPEC	+	$50 K^\pm p \rightarrow K^\pm \pi^0 p$
886.0 ±2.3	187	DELFOSSÉ 81	SPEC	-	$50 K^\pm p \rightarrow K^\pm \pi^0 p$
894.2 ±2.0	765	³ CLARK 73	HBC	-	$3.13 K^- p \rightarrow \bar{K}^0 \pi^- p$
894.3 ±1.5	1150	^{3,4} CLARK 73	HBC	-	$3.3 K^- p \rightarrow \bar{K}^0 \pi^- p$
892.0 ±2.6	341	³ SCHWEING...68	HBC	-	$5.5 K^- p \rightarrow \bar{K}^0 \pi^- p$

OCCUR=2

OCCUR=2

OCCUR=2

OCCUR=3

OCCUR=2

OCCUR=2

OCCUR=2

YOUR NOTE ¹ Average of fit results with different parametrizations for the $K\pi$ S-wave.
² Inclusive reaction. Complicated background and phase-space effects.
³ Mass errors enlarged by us to $\Gamma/\sqrt{N}$. See note.
⁴ Number of events in peak reevaluated by us.
⁵ K-matrix pole.
⁶ From a partial wave amplitude analysis.

NODE=M018M1;LINKAGE=A
 NODE=M018M;LINKAGE=I
 NODE=M018M;LINKAGE=D
 NODE=M018M;LINKAGE=W
 NODE=M018M1;LINKAGE=AN
 NODE=M018M1;LINKAGE=F

 $K^*(892)$ WIDTH

NODE=M018215

CHARGED ONLY, HADROPRODUCEDNODE=M018W1
NODE=M018W1

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	CHG	COMMENT
50.3±0.8 OUR AVERAGE					
YOUR DATA 47.2±0.3±2.3	190k	¹ AAIJ 16N	LHCB		$D^0 \rightarrow K_S^0 K^\pm \pi^\mp$
49 ±2	5840	BAUBILLIER 84B	HBC	-	$8.25 K^- p \rightarrow \bar{K}^0 \pi^- p$
56 ±4		NAPIER 84	SPEC	-	$200 \pi^- p \rightarrow 2K_S^0 X$
51 ±2	4100	TOAFF 81	HBC	-	$6.5 K^- p \rightarrow \bar{K}^0 \pi^- p$
50.5±5.6		AJINENKO 80	HBC	+	$32 K^+ p \rightarrow K^0 \pi^+ X$
45.8±3.6	1800	AGUILAR-... 78B	HBC	±	$0.76 \bar{p} p \rightarrow K^\mp K_S^0 \pi^\pm$
52.0±2.5	6706	² COOPER 78	HBC	±	$0.76 \bar{p} p \rightarrow (K\pi)^\pm X$
52.1±2.2	9000	³ PALER 75	HBC	-	$14.3 K^- p \rightarrow (K\pi)^- X$
46.3±6.7	765	² CLARK 73	HBC	-	$3.13 K^- p \rightarrow \bar{K}^0 \pi^- p$
48.2±5.7	1150	^{2,4} CLARK 73	HBC	-	$3.3 K^- p \rightarrow \bar{K}^0 \pi^- p$
54.3±3.3	4404	² AGUILAR-... 71B	HBC	-	$3.9, 4.6 K^- p \rightarrow (K\pi)^- p$
46 ±5	1700	^{2,4} WOJCICKI 64	HBC	-	$1.7 K^- p \rightarrow \bar{K}^0 \pi^- p$

OCCUR=2

OCCUR=2

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

54.8±1.7	27k	⁵ ABELE	99D	CBAR	±	0.0 $\bar{p}p \rightarrow K^+ K^- \pi^0$
45.2±1 ±2	80k	⁶ BIRD	89	LASS	—	11 $K^- p \rightarrow \bar{K}^0 \pi^- p$
42.8±7.1	3700	BARTH	83	HBC	+	70 $K^+ p \rightarrow K^0 \pi^+ X$
64.0±9.2	800	^{2,4} CLELAND	82	SPEC	+	30 $K^+ p \rightarrow K_S^0 \pi^+ p$
62.0±4.4	3200	^{2,4} CLELAND	82	SPEC	+	50 $K^+ p \rightarrow K_S^0 \pi^+ p$
55 ±4	3600	^{2,4} CLELAND	82	SPEC	—	50 $K^+ p \rightarrow K_S^0 \pi^- p$
62.6±3.8	380	DELFOSSSE	81	SPEC	+	50 $K^\pm p \rightarrow K^\pm \pi^0 p$
50.5±3.9	187	DELFOSSSE	81	SPEC	—	50 $K^\pm p \rightarrow K^\pm \pi^0 p$

OCCUR=2

OCCUR=3

OCCUR=2

YOUR NOTE

- ¹ Average of fit results with different parametrizations for the $K\pi$ S -wave.
- ² Width errors enlarged by us to $4 \times \Gamma/\sqrt{N}$; see note.
- ³ Inclusive reaction. Complicated background and phase-space effects.
- ⁴ Number of events in peak reevaluated by us.
- ⁵ K -matrix pole.
- ⁶ From a partial wave amplitude analysis.

NODE=M018W1;LINKAGE=A
 NODE=M018W;LINKAGE=D
 NODE=M018W;LINKAGE=I
 NODE=M018W;LINKAGE=W
 NODE=M018W1;LINKAGE=AN
 NODE=M018W1;LINKAGE=F

$K^*(892)$ REFERENCES

NODE=M018

YOUR PAPER

AAIJ	16N	PR D93 052018	R. Aaij <i>et al.</i>	(LHCb Collab.)
ABELE	99D	PL B468 178	A. Abele <i>et al.</i>	(Crystal Barrel Collab.)
BIRD	89	SLAC-332	P.F. Bird	(SLAC)
BAUBILLIER	84B	ZPHY C26 37	M. Baubillier <i>et al.</i>	(BIRM, CERN, GLAS+)
NAPIER	84	PL 149B 514	A. Napier <i>et al.</i>	(TUFTS, ARIZ, FNAL, FLOR+)
BARTH	83	NP B223 296	M. Barth <i>et al.</i>	(BRUX, CERN, GENO, MONS+)
CLELAND	82	NP B208 189	W.E. Cleland <i>et al.</i>	(DURH, GEVA, LAUS+)
DELFOSSSE	81	NP B183 349	A. Delfosse <i>et al.</i>	(GEVA, LAUS)
TOAFF	81	PR D23 1500	S. Toaff <i>et al.</i>	(ANL, KANS)
AJINENKO	80	ZPHY C5 177	I.V. Ajinenko <i>et al.</i>	(SERP, BRUX, MONS+)
AGUILAR-...	78B	NP B141 101	M. Aguilar-Benitez <i>et al.</i>	(MADR, TATA+)
BALAND	78	NP B140 220	J.F. Baland <i>et al.</i>	(MONS, BELG, CERN+)
COOPER	78	NP B136 365	A.M. Cooper <i>et al.</i>	(TATA, CERN, CDEF+)
PALER	75	NP B96 1	K. Paler <i>et al.</i>	(RHEL, SACL, EPOL)
CLARK	73	NP B54 432	A.G. Clark, L. Lyons, D. Radojicic	(OXF)
AGUILAR-...	71B	PR D4 2583	M. Aguilar-Benitez, R.L. Eisner, J.B. Kinson	(BNL)
CRENNELL	69D	PRL 22 487	D.J. Crennell <i>et al.</i>	(BNL)
SCHWEING...	68	PR 166 1317	F. Schweingruber <i>et al.</i>	(ANL, NWES)
BARLOW	67	NC 50A 701	J. Barlow <i>et al.</i>	(CERN, CDEF, IRAD, LIVP)
DEBAERE	67B	NC 51A 401	W. de Baere <i>et al.</i>	(BRUX, CERN)
WOJCICKI	64	PR 135 B484	S.G. Wojcicki	(LRL)

REFID=57273
 REFID=47401
 REFID=41002
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 NODE=M094

 $K^*(1410)$

$$I(J^P) = \frac{1}{2}(1^-)$$

$K^*(1410)$ MASS

NODE=M094M

NODE=M094M

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	CHG	COMMENT
1421± 9 OUR AVERAGE					
YOUR DATA 1437± 8±16	190k	¹ AAIJ	16N	LHCB	$D^0 \rightarrow (K_S^0 \pi^\mp) K^\pm$
YOUR DATA 1426± 8±24	190k	² AAIJ	16N	LHCB	$D^0 \rightarrow K_S^0 (K^\pm \pi^\mp)$
1380±21±19		ASTON	88	LASS	0 11 $K^- p \rightarrow K^- \pi^+ n$
1420± 7±10		ASTON	87	LASS	0 11 $K^- p \rightarrow \bar{K}^0 \pi^+ \pi^- n$

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

1276 ⁺⁷² ₋₇₇	^{3,4} BOITO	09	RVUE	$\tau^- \rightarrow K_S^0 \pi^- \nu_\tau$
1367±54	BIRD	89	LASS	— 11 $K^- p \rightarrow \bar{K}^0 \pi^- p$
1474±25	BAUBILLIER	82B	HBC	0 8.25 $K^- p \rightarrow \bar{K}^0 2\pi n$
1500±30	ETKIN	80	MPS	0 6 $K^- p \rightarrow \bar{K}^0 \pi^+ \pi^- n$

YOUR NOTE

- ¹ Using a parametrization for the $K\pi$ S -wave similar to ASTON 88 with fixed resonance width.

YOUR NOTE

- ² Using a $K\pi$ S -wave parametrization with resonant and non-resonant contributions.
- ³ From the pole position of the $K\pi$ vector form factor in the complex s -plane and using EPIFANOV 07 data.
- ⁴ Systematic uncertainties not estimated.

NODE=M094M;LINKAGE=A

NODE=M094M;LINKAGE=C
 NODE=M094M;LINKAGE=BI

NODE=M094M;LINKAGE=NS

$K^*(1410)$ WIDTH

NODE=M094W

NODE=M094W

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	CHG	COMMENT
236± 18 OUR AVERAGE					
YOUR DATA 210± 20±60	190k	¹ AAIJ	16N	LHCB	$D^0 \rightarrow (K_S^0 \pi^\mp) K^\pm$

YOUR DATA	270± 20±40 190k	¹ AAIJ	16N	LHCB		$D^0 \rightarrow K_S^0(K^\pm \pi^\mp)$
	176± 52±22	ASTON	88	LASS	0	11 $K^- p \rightarrow K^- \pi^+ n$
	240± 18±12	ASTON	87	LASS	0	11 $K^- p \rightarrow \bar{K}^0 \pi^+ \pi^- n$
	● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●					
	198 ⁺ ₋₈₇ ⁶¹	^{2,3} BOITO	09	RVUE		$\tau^- \rightarrow K_S^0 \pi^- \nu_\tau$
	114±101	BIRD	89	LASS	—	11 $K^- p \rightarrow \bar{K}^0 \pi^- p$
	275± 65	BAUBILLIER	82B	HBC	0	8.25 $K^- p \rightarrow \bar{K}^0 2\pi n$
	500±100	ETKIN	80	MPS	0	6 $K^- p \rightarrow \bar{K}^0 \pi^+ \pi^- n$

YOUR NOTE

¹ Using a $K\pi$ S -wave parametrization with resonant and non-resonant contributions.
² From the pole position of the $K\pi$ vector form factor in the complex s -plane and using EPIFANOV 07 data.
³ Systematic uncertainties not estimated.

OCCUR=2

NODE=M094W;LINKAGE=A
NODE=M094W;LINKAGE=BI
NODE=M094W;LINKAGE=NS

K*(1410) REFERENCES

YOUR PAPER	AAIJ	16N	PR D93 052018	R. Aaij <i>et al.</i>	(LHCb Collab.)
	BOITO	09	EPJ C59 821	D.R. Boito, R. Escribano, M. Jamin	
	EPIFANOV	07	PL B654 65	D. Epifanov <i>et al.</i>	(BELLE Collab.)
	BIRD	89	SLAC-332	P.F. Bird	(SLAC)
	ASTON	88	NP B296 493	D. Aston <i>et al.</i>	(SLAC, NAGO, CINC, INUS)
	ASTON	87	NP B292 693	D. Aston <i>et al.</i>	(SLAC, NAGO, CINC, INUS)
	BAUBILLIER	82B	NP B202 21	M. Baubillier <i>et al.</i>	(BIRM, CERN, GLAS+)
	ETKIN	80	PR D22 42	A. Etkin <i>et al.</i>	(BNL, CUNY) JP

NODE=M094

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