τ – THIS IS PART 3 OF 4

To reduce the size of this section's PostScript file, we have divided it into four PostScript files. We present the following index:

PART 1

PART 2

PART 3

PART 4

$\Gamma(h^- \geq 2\pi^0 \nu_\tau)/\Gamma_{total}$ Γ_{16}/Γ

$\Gamma_{16}/\Gamma = (\Gamma_{19}+\Gamma_{20}+\Gamma_{23}+\Gamma_{24}+\Gamma_{26}+0.157\Gamma_{32}+0.157\Gamma_{34}+0.157\Gamma_{36}+0.157\Gamma_{38}+0.0246\Gamma_{41}+0.319\Gamma_{110})/\Gamma$

Data marked "avg" are highly correlated with data appearing elsewhere in the Listings, and are therefore used for the average given below but not in the overall fits. "f&a" marks results used for the fit and the average.

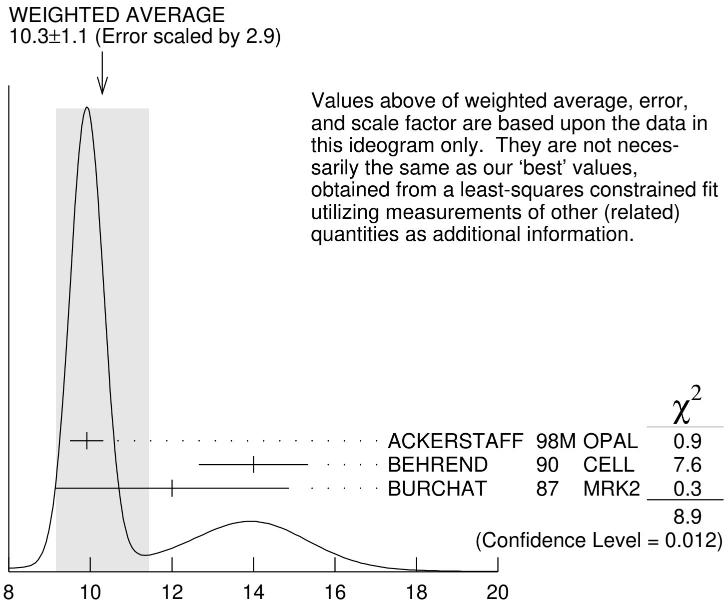
VALUE (%)		EVTS	DOCUMENT ID	TECN	COMMENT
10.79±0.16 OUR FIT Error includes scale factor of 1.2.					
10.3 ±1.1 OUR AVERAGE Error includes scale factor of 2.9. See the ideogram below.					
9.91±0.31±0.27	f&a		ACKERSTAFF 98M	OPAL	1991–1995 LEP runs
14.0 ±1.2 ±0.6	avg	938	[60] BEHREND 90	CELL	E^{ee}_{cm}= 35 GeV
12.0 ±1.4 ±2.5	f&a		[61] BURCHAT 87	MRK2	E^{ee}_{cm}= 29 GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
9.89±0.34±0.55			[62] AKERS 94E	OPAL	Repl. by ACKERSTAFF 98M
13.9 ±2.0 $^{+1.9}_{-2.2}$			[63] AIHARA 86E	TPC	E^{ee}_{cm}= 29 GeV

[60] No independent of BEHREND 90 $\Gamma(h^- 2\pi^0 \nu_\tau (\text{exp. } K^0))$ and $\Gamma(h^- \geq 3\pi^0 \nu_\tau)$.

[61] Error correlated with BURCHAT 87 $\Gamma(\rho^- \nu_e)/\Gamma(\text{total})$ value.

[62] AKERS 94E not independent of AKERS 94E $B(h^- \geq 1\pi^0 \nu_\tau)$ and $B(h^- \pi^0 \nu_\tau)$ measurements.

[63] AIHARA 86E (TPC) quote $B(2\pi^0 \pi^- \nu_\tau) + 1.6B(3\pi^0 \pi^- \nu_\tau) + 1.1B(\pi^0 \eta \pi^- \nu_\tau)$.



$\Gamma\left(h^- \geq 2\pi^0 \nu_\tau\right)/\Gamma_{total}$ (%)

$\Gamma(h^- 2\pi^0 \nu_\tau)/\Gamma_{total}$ Γ_{17}/Γ

$\Gamma_{17}/\Gamma = (\Gamma_{19}+\Gamma_{20}+0.157\Gamma_{32}+0.157\Gamma_{34})/\Gamma$

VALUE (%)	EVTS	DOCUMENT ID	TECN	COMMENT
9.39±0.14 OUR FIT	Error includes scale factor of 1.2.			
9.48±0.13±0.10	12k	[64] BUSKULIC 96	ALEP	LEP 1991–1993 data

[64] BUSKULIC 96 quote 9.29 ± 0.13 ± 0.10. We add 0.19 to undo their correction for $\tau^- \to h^- K^0 \nu_\tau$.

$\Gamma(h^- 2\pi^0 \nu_\tau (\text{ex.}K^0))/\Gamma_{total}$ Γ_{18}/Γ

$\Gamma_{18}/\Gamma = (\Gamma_{19}+\Gamma_{20})/\Gamma$

Data marked "avg" are highly correlated with data appearing elsewhere in the Listings, and are therefore used for the average given below but not in the overall fits. f&a marks results used for the fit and the average.

VALUE (%)		EVTS	DOCUMENT ID	TECN	COMMENT
9.23±0.14 OUR FIT	Error includes scale factor of 1.2.				
8.95±0.33 OUR AVERAGE	Error includes scale factor of 1.1.				
8.88±0.37±0.42	f&a	1060	ACCIARRI 95	L3	1992 LEP run
8.96±0.16±0.44	avg		[65] PROCARIO 93	CLEO	$E^{ee}_{cm} \approx$ 10.6 GeV
10.38±0.66±0.82	f&a	809	[66] DECAMP 92C	ALEP	1989–1990 LEP runs
5.7 ±0.5 $^{+1.7}_{-1.0}$	f&a	133	[67] ANTREASYAN 91	CBAL	E^{ee}_{cm}= 9.4–10.6 GeV
10.0 ±1.5 ±1.1	f&a	333	[68] BEHREND 90	CELL	E^{ee}_{cm}= 35 GeV
8.7 ±0.4 ±1.1	f&a	815	[69] BAND 87	MAC	E^{ee}_{cm}= 29 GeV
6.0 ±3.0 ±1.8	f&a		BEHREND 84	CELL	E^{ee}_{cm}= 14,22 GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
6.2 ±0.6 ±1.2			[70] GAN 87	MRK2	E^{ee}_{cm}= 29 GeV

[65] PROCARIO 93 entry is obtained from $B(h^- 2\pi^0 \nu_\tau)/B(h^- \pi^0 \nu_\tau)$ using ARTUSO 94 result for $B(h^- \pi^0 \nu_\tau)$.

[66] We subtract 0.0015 to account for $\tau^- \to K^*(892)^- \nu_\tau$ contribution.

[67] ANTREASYAN 91 subtract 0.001 to account for the $\tau^- \to K^*(892)^- \nu_\tau$ contribution.

[68] BEHREND 90 subtract 0.002 to account for the $\tau^- \to K^*(892)^- \nu_\tau$ contribution.

[69] BAND 87 assume $B(\pi^- 3\pi^0 \nu_\tau) = 0.01$ and $B(\pi^- \pi^0 \eta \nu_\tau) = 0.005$.

[70] GAN 87 analysis use photon multiplicity distribution.

$\Gamma(h^- 2\pi^0 \nu_\tau (\text{ex.}K^0))/\Gamma(h^- \pi^0 \nu_\tau)$ Γ_{18}/Γ_{12}

$\Gamma_{18}/\Gamma_{12} = (\Gamma_{19}+\Gamma_{20})/(\Gamma_{13}+\Gamma_{15})$

VALUE	DOCUMENT ID	TECN	COMMENT
0.357±0.006 OUR FIT	Error includes scale factor of 1.2.		
0.342±0.006±0.016	[71] PROCARIO 93	CLEO	$E^{ee}_{cm} \approx$ 10.6 GeV

[71] PROCARIO 93 quote 0.345 ± 0.006 ± 0.016 after correction for 2 kaon backgrounds assuming $B(K^{*-} \nu_\tau)$=1.42 ± 0.18% and $B(h^- K^0 \pi^0 \nu_\tau)$=0.48 ± 0.48%. We multiply by 0.990 ± 0.010 to remove these corrections to $B(h^- \pi^0 \nu_\tau)$.

$\Gamma(\pi^- 2\pi^0 \nu_\tau (\text{ex.}K^0))/\Gamma_{\text{total}}$ Γ_{19}/Γ

Data marked "avg" are highly correlated with data appearing elsewhere in the Listings, and are therefore used for the average given below but not in the overall fits. "f&a" marks results used for the fit and the average.

VALUE (%)		DOCUMENT ID		TECN	COMMENT
9.15±0.15 OUR FIT	Error includes scale factor of 1.2.				
9.21±0.13±0.11	**avg**	[72] BUSKULIC	96	ALEP	LEP 1991–1993 data

[72] Not independent of BUSKULIC 96 B($h^- 2\pi^0 \nu_\tau$(ex. K^0)) and B($K^- 2\pi^0 \nu_\tau$(ex. K^0)) values.

$\Gamma(K^- 2\pi^0 \nu_\tau (\text{ex.}K^0))/\Gamma_{\text{total}}$ Γ_{20}/Γ

VALUE (%)	EVTS	DOCUMENT ID		TECN	COMMENT
0.080±0.027 OUR FIT					
0.081±0.027 OUR AVERAGE					
0.08 ±0.02 ±0.02	59	BUSKULIC	96	ALEP	LEP 1991–1993 data
0.09 ±0.10 ±0.03	3	[73] BATTLE	94	CLEO	$E^{ee}_{cm} \approx$ 10.6 GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
0.04 ±0.03 ±0.02	11	BUSKULIC	94E	ALEP	Repl. by BUSKULIC 96

[73] BATTLE 94 quote $0.14 \pm 0.10 \pm 0.03$ or $< 0.3\%$ at 90% CL. We subtract $(0.05 \pm 0.02)\%$ to account for $\tau^- \rightarrow K^-(K^0 \rightarrow \pi^0\pi^0)\nu_\tau$ background.

$\Gamma(h^- \geq 3\pi^0 \nu_\tau)/\Gamma_{\text{total}}$ Γ_{21}/Γ

$\Gamma_{21}/\Gamma = (\Gamma_{23}+\Gamma_{24}+\Gamma_{26}+0.157\Gamma_{36}+0.157\Gamma_{38}+0.0246\Gamma_{41}+0.319\Gamma_{110})/\Gamma$

Data marked "avg" are highly correlated with data appearing elsewhere in the Listings, and are therefore used for the average given below but not in the overall fits. "f&a" marks results used for the fit and the average.

VALUE (%)		EVTS	DOCUMENT ID		TECN	COMMENT
1.40±0.11 OUR FIT	Error includes scale factor of 1.1.					
1.8 ±0.6 OUR AVERAGE	Error includes scale factor of 1.1.					
1.53±0.40±0.46	f&a	186	DECAMP	92C	ALEP	1989–1990 LEP runs
3.2 ±1.0 ±1.0	f&a		BEHREND	90	CELL	E^{ee}_{cm}= 35 GeV

$\Gamma(h^- 3\pi^0 \nu_\tau)/\Gamma_{\text{total}}$ Γ_{22}/Γ

$\Gamma_{22}/\Gamma = (\Gamma_{23}+\Gamma_{24}+0.157\Gamma_{36}+0.157\Gamma_{38})/\Gamma$

Data marked "avg" are highly correlated with data appearing elsewhere in the Listings, and are therefore used for the average given below but not in the overall fits. "f&a" marks results used for the fit and the average.

VALUE (%)		EVTS	DOCUMENT ID		TECN	COMMENT
1.23±0.10 OUR FIT	Error includes scale factor of 1.1.					
1.22±0.10 OUR AVERAGE						
1.24±0.09±0.11	f&a	2.3k	[74] BUSKULIC	96	ALEP	LEP 1991–1993 data
1.70±0.24±0.38	f&a	293	ACCIARRI	95	L3	1992 LEP run
1.15±0.08±0.13	avg		[75] PROCARIO	93	CLEO	$E^{ee}_{cm} \approx$ 10.6 GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •						
$0.0\ ^{+1.4}_{-0.1}\ ^{+1.1}_{-0.1}$			[76] GAN	87	MRK2	E^{ee}_{cm}= 29 GeV

[74] BUSKULIC 96 quote B($h^- 3\pi^0 \nu_\tau$(ex. K^0)) = $1.17 \pm 0.09 \pm 0.11$. We add 0.07 to remove their correction for K^0 backgrounds.

[75] PROCARIO 93 entry is obtained from B($h^- 3\pi^0 \nu_\tau$)/B($h^- \pi^0 \nu_\tau$) using ARTUSO 94 result for B($h^- \pi^0 \nu_\tau$).

[76] Highly correlated with GAN 87 $\Gamma(\eta \pi^- \pi^0 \nu_\tau)/\Gamma_{\text{total}}$ value. Authors quote B($\pi^\pm 3\pi^0 \nu_\tau$) + 0.67B($\pi^\pm \eta \pi^0 \nu_\tau$) = 0.047 ± 0.010 ± 0.011.

$\Gamma(h^- 3\pi^0 \nu_\tau)/\Gamma(h^- \pi^0 \nu_\tau)$ — Γ_{22}/Γ_{12}

$\Gamma_{22}/\Gamma_{12} = (\Gamma_{23}+\Gamma_{24}+0.157\Gamma_{36}+0.157\Gamma_{38})/(\Gamma_{13}+\Gamma_{15})$

VALUE	*DOCUMENT ID*	*TECN*	*COMMENT*
0.048±0.004 OUR FIT	Error includes scale factor of 1.1.		
0.044±0.003±0.005	[77] PROCARIO 93	CLEO	$E^{ee}_{\text{cm}} \approx$ 10.6 GeV

[77] PROCARIO 93 quote 0.041 ± 0.003 ± 0.005 after correction for 2 kaon backgrounds assuming B($K^{*-} \nu_\tau$)=1.42 ± 0.18% and B($h^- K^0 \pi^0 \nu_\tau$)=0.48 ± 0.48%. We add 0.003 ± 0.003 and multiply the sum by 0.990 ± 0.010 to remove these corrections.

$\Gamma(\pi^- 3\pi^0 \nu_\tau (\text{ex.}K^0))/\Gamma_{\text{total}}$ — Γ_{23}/Γ

VALUE (%)	*DOCUMENT ID*
1.11±0.14 OUR FIT	

$\Gamma(K^- 3\pi^0 \nu_\tau (\text{ex.}K^0))/\Gamma_{\text{total}}$ — Γ_{24}/Γ

VALUE (%)	*DOCUMENT ID*	*TECN*	*COMMENT*
$0.043^{+0.100}_{-0.029}$ OUR FIT			
0.05 ±0.13	[78] BUSKULIC 94E	ALEP	1991-1992 LEP runs

[78] BUSKULIC 94E quote B($K^- \geq 0\pi^0 \geq 0K^0 \nu_\tau$) − [B($K^- \nu_\tau$) + B($K^- \pi^0 \nu_\tau$) + B($K^- K^0 \nu_\tau$) + B($K^- \pi^0 \pi^0 \nu_\tau$) + B($K^- \pi^0 K^0 \nu_\tau$)] = 0.05 ± 0.13% accounting for common systematic errors in BUSKULIC 94E and BUSKULIC 94F measurements of these modes. We assume B($K^- \geq 2K^0 \nu_\tau$) and B($K^- \geq 4\pi^0 \nu_\tau$) are negligible.

$\Gamma(h^- 4\pi^0 \nu_\tau (\text{ex.}K^0))/\Gamma_{\text{total}}$ — Γ_{25}/Γ

$\Gamma_{25}/\Gamma = (\Gamma_{26}+0.319\Gamma_{110})/\Gamma$

VALUE (%)	*EVTS*	*DOCUMENT ID*	*TECN*	*COMMENT*
0.17±0.06 OUR FIT				
0.16±0.06 OUR AVERAGE				
0.16±0.04±0.09	232	[79] BUSKULIC 96	ALEP	LEP 1991–1993 data
0.16±0.05±0.05		[80] PROCARIO 93	CLEO	$E^{ee}_{\text{cm}} \approx$ 10.6 GeV

[79] BUSKULIC 96 quote result for $\tau^- \to h^- \geq 4\pi^0 \nu_\tau$. We assume B($h^- \geq 5\pi^0 \nu_\tau$) is negligible.

[80] PROCARIO 93 quotes B($h^- 4\pi^0 \nu_\tau$)/B($h^- \pi^0 \nu_\tau$) =0.006 ± 0.002 ± 0.002. We multiply by the ARTUSO 94 result for B($h^- \pi^0 \nu_\tau$) to obtain B($h^- 4\pi^0 \nu_\tau$). PROCARIO 93 assume B($h^- \geq 5\ \pi^0 \nu_\tau$) is small and do not correct for it.

$\Gamma(h^- 4\pi^0 \nu_\tau (\text{ex.}K^0,\eta))/\Gamma_{\text{total}}$ — Γ_{26}/Γ

VALUE (%)	*DOCUMENT ID*
0.11±0.06 OUR FIT	

$\Gamma(K^- \geq 0\pi^0 \geq 0K^0 \nu_\tau)/\Gamma_{\text{total}}$ Γ_{27}/Γ

$\Gamma_{27}/\Gamma = (\Gamma_{10}+\Gamma_{15}+\Gamma_{20}+\Gamma_{24}+\Gamma_{34}+\Gamma_{38})/\Gamma$

Data marked "avg" are highly correlated with data appearing elsewhere in the Listings, and are therefore used for the average given below but not in the overall fits. "f&a" marks results used for the fit and the average.

VALUE (%)		*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
1.66±0.10 OUR FIT						
1.69±0.07 OUR AVERAGE						
1.70±0.05±0.06	avg	1610	[81] BUSKULIC	96	ALEP	LEP 1991–1993 data
1.54±0.24	f&a		ABREU	94K	DLPH	LEP 1992 Z data
1.70±0.12±0.19	f&a	202	[82] BATTLE	94	CLEO	$E^{ee}_{\text{cm}} \approx$ 10.6 GeV
1.6 ±0.4 ±0.2	f&a	35	AIHARA	87B	TPC	E^{ee}_{cm}= 29 GeV
1.71±0.29	f&a	53	MILLS	84	DLCO	E^{ee}_{cm}= 29 GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •						
1.60±0.07±0.12		967	[83] BUSKULIC	94E	ALEP	Repl. by BUSKULIC 96

[81] Not independent of BUSKULIC 96 B($K^-\nu_\tau$), B($K^-\pi^0\nu_\tau$), B($K^-2\pi^0\nu_\tau$), B($K^-K^0\nu_\tau$), and B($K^-K^0\pi^0\nu_\tau$) values.

[82] BATTLE 94 quote 1.60 ± 0.12 ± 0.19. We add 0.10 ± 0.02 to correct for their rejection of $K^0_S \rightarrow \pi^+\pi^-$ decays.

[83] Not independent of BUSKULIC 94E B($K^-\nu_\tau$), B($K^-\pi^0\nu_\tau$), B($K^-2\pi^0\nu_\tau$), B($K^-K^0\nu_\tau$), and B($K^-K^0\pi^0\nu_\tau$) values.

$\Gamma(K^- \geq 1\,(\pi^0 \text{ or } K^0)\,\nu_\tau)/\Gamma_{\text{total}}$ Γ_{28}/Γ

$\Gamma_{28}/\Gamma = (\Gamma_{15}+\Gamma_{20}+\Gamma_{24}+\Gamma_{34}+\Gamma_{38})/\Gamma$

Data marked "avg" are highly correlated with data appearing elsewhere in the Listings, and are therefore used for the average given below but not in the overall fits. "f&a" marks results used for the fit and the average.

VALUE (%)		*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
0.95±0.10 OUR FIT						
0.76±0.23 OUR AVERAGE						
0.69±0.25	avg		[84] ABREU	94K	DLPH	LEP 1992 Z data
1.2 ±0.5 $^{+0.2}_{-0.4}$	f&a	9	AIHARA	87B	TPC	E^{ee}_{cm}= 29 GeV

[84] Not independent of ABREU 94K B($K^-\nu_\tau$) and B($K^- \geq 0$ neutralsν_τ) measurements.

$\Gamma(K^0(\text{particles})^-\nu_\tau)/\Gamma_{\text{total}}$ Γ_{29}/Γ

$\Gamma_{29}/\Gamma = (\Gamma_{32}+\Gamma_{34}+\Gamma_{36}+\Gamma_{38}+\Gamma_{41})/\Gamma$

VALUE (%)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
1.66±0.09 OUR FIT Error includes scale factor of 1.4.					
1.94±0.13 OUR AVERAGE					
1.94±0.12±0.12	929	[85] BARATE	98E	ALEP	1991–1995 LEP runs
1.94±0.18±0.12	141	[86] AKERS	94G	OPAL	E^{ee}_{cm}= 88–94 GeV

[85] BARATE 98E measure $\Gamma(K^0_S(\text{particles})^-\nu_\tau)/\Gamma_{\text{total}}$ = (0.970 ± 0.058 ± 0.062)%. We multiply this by 2 to obtain the listed value.

[86] AKERS 94G measure $\Gamma(K^0_S(\text{particles})^-\nu_\tau)/\Gamma_{\text{total}}$ = 0.97 ± 0.09 ± 0.06.

$\Gamma(h^- \overline{K}^0 \geq 0\,\text{neutrals} \geq 0K^0_L \nu_\tau)/\Gamma_{\text{total}}$ — Γ_{30}/Γ

$\Gamma_{30}/\Gamma = (\Gamma_{32}+\Gamma_{34}+\Gamma_{36}+\Gamma_{38}+0.657\Gamma_{41})/\Gamma$

VALUE (%)	EVTS	DOCUMENT ID		TECN	COMMENT
1.62±0.09 OUR FIT	Error includes scale factor of 1.4.				
1.3 ±0.3	44	TSCHIRHART	88	HRS	E^{ee}_{cm}= 29 GeV

$\Gamma(h^- \overline{K}^0 \nu_\tau)/\Gamma_{\text{total}}$ — $\Gamma_{31}/\Gamma = (\Gamma_{32}+\Gamma_{34})/\Gamma$

Data marked "avg" are highly correlated with data appearing elsewhere in the Listings, and are therefore used for the average given below but not in the overall fits. "f&a" marks results used for the fit and the average.

VALUE (%)		EVTS	DOCUMENT ID		TECN	COMMENT
0.99 ±0.08 OUR FIT	Error includes scale factor of 1.5.					
0.90 ±0.07 OUR AVERAGE						
1.01 ±0.11 ±0.07	avg	555	[87] BARATE	98E	ALEP	1991–1995 LEP runs
0.855±0.036±0.073	f&a	1242	COAN	96	CLEO	$E^{ee}_{\text{cm}} \approx$ 10.6 GeV

[87] Not independent of BARATE 98E B($\tau^- \to \pi^- \overline{K}^0 \nu_\tau$) and B($\tau^- \to K^- K^0 \nu_\tau$) values.

$\Gamma(\pi^- \overline{K}^0 \nu_\tau)/\Gamma_{\text{total}}$ — Γ_{32}/Γ

Data marked "avg" are highly correlated with data appearing elsewhere in the Listings, and are therefore used for the average given below but not in the overall fits. "f&a" marks results used for the fit and the average.

VALUE (%)		EVTS	DOCUMENT ID		TECN	COMMENT
0.83 ±0.08 OUR FIT	Error includes scale factor of 1.4.					
0.78 ±0.06 OUR AVERAGE						
0.855±0.117±0.066	avg	509	[88] BARATE	98E	ALEP	1991–1995 LEP runs
0.79 ±0.10 ±0.09	f&a	98	[89] BUSKULIC	96	ALEP	LEP 1991–1993 data
0.704±0.041±0.072	avg		[90] COAN	96	CLEO	$E^{ee}_{\text{cm}} \approx$ 10.6 GeV
0.95 ±0.15 ±0.06	f&a		[91] ACCIARRI	95F	L3	1991–1993 LEP runs
• • • We do not use the following data for averages, fits, limits, etc. • • •						
0.88 ±0.14 ±0.09		53	BUSKULIC	94F	ALEP	Repl. by BUSKULIC 96

[88] BARATE 98E reconstruct K^0's using $K^0_S \to \pi^+\pi^-$ decays. Not independent of BARATE 98E B(K^0 particles$^-$ ν_τ) value.

[89] BUSKULIC 96 measure K^0's by detecting K^0_L's in their hadron calorimeter.

[90] Not independent of COAN 96 B($h^- K^0 \nu_\tau$) and B($K^- K^0 \nu_\tau$) measurements.

[91] ACCIARRI 95F do not identify π^-/K^- and assume B($K^- K^0 \nu_\tau$) = (0.29 ± 0.12)%.

$\Gamma(\pi^- \overline{K}^0 (\text{non-}K^*(892)^-) \nu_\tau)/\Gamma_{\text{total}}$ — Γ_{33}/Γ

VALUE (%)	CL%	DOCUMENT ID		TECN	COMMENT
<0.17	95	ACCIARRI	95F	L3	1991–1993 LEP runs

$\Gamma(K^- K^0 \nu_\tau)/\Gamma_{total}$ Γ_{34}/Γ

VALUE (%)	EVTS	DOCUMENT ID		TECN	COMMENT
0.159±0.024 OUR FIT					
0.161±0.024 OUR AVERAGE					
0.158±0.042±0.017	46	[92] BARATE	98E	ALEP	1991–1995 LEP runs
0.26 ±0.09 ±0.02	13	[93] BUSKULIC	96	ALEP	LEP 1991–1993 data
0.151±0.021±0.022	111	COAN	96	CLEO	$E^{ee}_{cm} \approx$ 10.6 GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
0.29 ±0.12 ±0.03	8	BUSKULIC	94F	ALEP	Repl. by BUSKULIC 96

[92] BARATE 98E reconstruct K^0's using $K^0_S \to \pi^+\pi^-$ decays.

[93] BUSKULIC 96 measure K^0's by detecting K^0_L's in their hadron calorimeter.

$\Gamma(h^- \overline{K}^0 \pi^0 \nu_\tau)/\Gamma_{total}$ $\Gamma_{35}/\Gamma = (\Gamma_{36}+\Gamma_{38})/\Gamma$

Data marked "avg" are highly correlated with data appearing elsewhere in the Listings, and are therefore used for the average given below but not in the overall fits. "f&a" marks results used for the fit and the average.

VALUE (%)		EVTS	DOCUMENT ID		TECN	COMMENT
0.55 ±0.05 OUR FIT						
0.50 ±0.06 OUR AVERAGE Error includes scale factor of 1.2.						
0.446±0.052±0.046	avg	157	[94] BARATE	98E	ALEP	1991–1995 LEP runs
0.562±0.050±0.048	f&a	264	COAN	96	CLEO	$E^{ee}_{cm} \approx$ 10.6 GeV

[94] Not independent of BARATE 98E B($\tau^- \to \pi^- \overline{K}^0 \pi^0 \tau$) and B($\tau^- \to K^- K^0 \pi^0 \nu_\tau$) values.

$\Gamma(\pi^- \overline{K}^0 \pi^0 \nu_\tau)/\Gamma_{total}$ Γ_{36}/Γ

Data marked "avg" are highly correlated with data appearing elsewhere in the Listings, and are therefore used for the average given below but not in the overall fits. "f&a" marks results used for the fit and the average.

VALUE (%)		EVTS	DOCUMENT ID		TECN	COMMENT
0.39 ±0.05 OUR FIT						
0.36 ±0.05 OUR AVERAGE						
0.294±0.073±0.037	f&a	142	[95] BARATE	98E	ALEP	1991–1995 LEP runs
0.32 ±0.11 ±0.05	f&a	23	[96] BUSKULIC	96	ALEP	LEP 1991–1993 data
0.417±0.058±0.044	avg		[97] COAN	96	CLEO	$E^{ee}_{cm} \approx$ 10.6 GeV
0.41 ±0.12 ±0.03	f&a		[98] ACCIARRI	95F	L3	1991–1993 LEP runs
• • • We do not use the following data for averages, fits, limits, etc. • • •						
0.33 ±0.14 ±0.07		9	BUSKULIC	94F	ALEP	Repl. by BUSKULIC 96

[95] BARATE 98E reconstruct K^0's using $K^0_S \to \pi^+\pi^-$ decays.

[96] BUSKULIC 96 measure K^0's by detecting K^0_L's in their hadron calorimeter.

[97] Not independent of COAN 96 B($h^- K^0 \pi^0 \nu_\tau$) and B($K^- K^0 \pi^0 \nu_\tau$) measurements.

[98] ACCIARRI 95F do not identify π^-/K^- and assume B($K^- K^0 \pi^0 \nu_\tau$) = (0.05 ± 0.05)%.

$\Gamma(\overline{K}^0 \rho^- \nu_\tau)/\Gamma_{total}$ Γ_{37}/Γ

VALUE (%)	DOCUMENT ID		TECN	COMMENT
0.188±0.054±0.038	[99] BARATE	98E	ALEP	1991–1995 LEP runs

[99] BARATE 98E determine the $\overline{K}^0 \rho^-$ fraction in $\tau^- \to \pi^- \overline{K}^0 \pi^0 \nu_\tau$ decays to be (0.64 ± 0.09 ± 0.10) and multiply their B($\pi^- \overline{K}^0 \pi^0 \nu_\tau$) measurement by this fraction to obtain the quoted result.

$\Gamma(K^- K^0 \pi^0 \nu_\tau)/\Gamma_{total}$ Γ_{38}/Γ

VALUE (%)	EVTS	DOCUMENT ID		TECN	COMMENT
0.151±0.029 OUR FIT					
0.133±0.031 OUR AVERAGE					
0.152±0.076±0.021	15	[100] BARATE	98E	ALEP	1991–1995 LEP runs
0.10 ±0.05 ±0.03	5	[101] BUSKULIC	96	ALEP	LEP 1991–1993 data
0.145±0.036±0.020	32	COAN	96	CLEO	$E^{ee}_{cm} \approx$ 10.6 GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
0.05 ±0.05 ±0.01	1	BUSKULIC	94F	ALEP	Repl. by BUSKULIC 96

[100] BARATE 98E reconstruct K^0's using $K^0_S \to \pi^+ \pi^-$ decays.

[101] BUSKULIC 96 measure K^0's by detecting K^0_L's in their hadron calorimeter.

$\Gamma(\pi^- \overline{K}^0 \pi^0 \pi^0 \nu_\tau)/\Gamma_{total}$ Γ_{39}/Γ

VALUE (units 10^{-3})	EVTS	DOCUMENT ID		TECN	COMMENT
0.58±0.33±0.14	5	[102] BARATE	98E	ALEP	1991–1995 LEP runs

[102] BARATE 98E reconstruct K^0's using $K^0_S \to \pi^+ \pi^-$ decays.

$\Gamma(K^- K^0 \pi^0 \pi^0 \nu_\tau)/\Gamma_{total}$ Γ_{40}/Γ

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<0.39 × 10^{-3}	95	BARATE	98E	ALEP	1991–1995 LEP runs

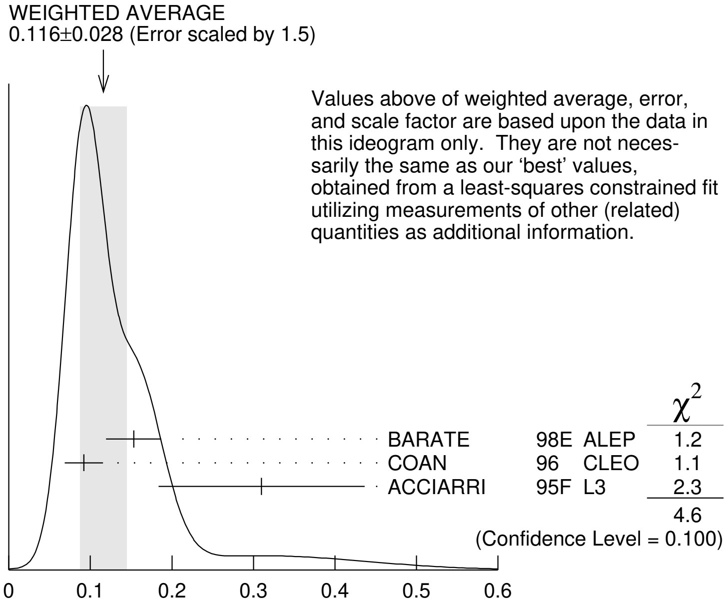
$\Gamma(\pi^- K^0 \overline{K}^0 \nu_\tau)/\Gamma_{total}$ Γ_{41}/Γ

Data marked "avg" are highly correlated with data appearing elsewhere in the Listings, and are therefore used for the average given below but not in the overall fits. "f&a" marks results used for the fit and the average.

VALUE (%)		EVTS	DOCUMENT ID		TECN	COMMENT
0.121±0.021 OUR FIT Error includes scale factor of 1.2.						
0.116±0.028 OUR AVERAGE Error includes scale factor of 1.5. See the ideogram below.						
0.153±0.030±0.016	f&a	74	[103] BARATE	98E	ALEP	1991–1995 LEP runs
0.092±0.020±0.012	avg	42	[104] COAN	96	CLEO	$E^{ee}_{cm} \approx$ 10.6 GeV
0.31 ±0.12 ±0.04	f&a		ACCIARRI	95F	L3	1991–1993 LEP runs

[103] BARATE 98E obtain this value by adding twice their B($\pi^- K^0_S K^0_S \nu_\tau$) value to their B($\pi^- K^0_S K^0_L \nu_\tau$) value.

[104] We multiply the COAN 96 measurement B($h^- K^0_S K^0_S \nu_\tau$) = (0.023 ± 0.005 ± 0.003)% by 4 to obtain the listed value. This factor of 1/4 is uncertain, and might be as large as 1/2, due to Bose-Einstein correlations and the resonant parentage of this state.



$\Gamma(\pi^- K^0 \overline{K}^0 \nu_\tau)/\Gamma_{total}$ (%)

$\Gamma(\pi^- K^0_S K^0_S \nu_\tau)/\Gamma_{total}$ — $\Gamma_{42}/\Gamma = \frac{1}{4}\Gamma_{41}/\Gamma$

Bose-Einstein correlations might make the mixing fraction different than 1/4.

VALUE (%)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
0.030±0.005 OUR FIT	Error includes scale factor of 1.2.				
0.024±0.005 OUR AVERAGE					
0.026±0.010±0.005	6	BARATE	98E	ALEP	1991–1995 LEP runs
0.023±0.005±0.003	42	COAN	96	CLEO	$E^{ee}_{cm} \approx$ 10.6 GeV

$\Gamma(\pi^- K^0_S K^0_L \nu_\tau)/\Gamma_{total}$ — $\Gamma_{43}/\Gamma = \frac{1}{2}\Gamma_{41}/\Gamma$

Data marked "avg" are highly correlated with data appearing elsewhere in the Listings, and are therefore used for the average given below but not in the overall fits. "f&a" marks results used for the fit and the average.

VALUE (%)		*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
0.060±0.010 OUR FIT	Error includes scale factor of 1.2.					
0.101±0.023±0.013	**avg**	68	BARATE	98E	ALEP	1991–1995 LEP runs

$\Gamma(\pi^- K^0_S K^0_S \pi^0 \nu_\tau)/\Gamma_{total}$ — Γ_{44}/Γ

VALUE (%)	*CL%*	*DOCUMENT ID*		*TECN*	*COMMENT*
<0.020	95	BARATE	98E	ALEP	1991–1995 LEP runs

$\Gamma(\pi^- K^0_S K^0_L \pi^0 \nu_\tau)/\Gamma_{total}$ — Γ_{45}/Γ

VALUE (%)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
0.031±0.011±0.005	11	BARATE	98E	ALEP	1991–1995 LEP runs

$\Gamma(K^- K^0 \geq 0 \text{ neutrals } \nu_\tau)/\Gamma_{\text{total}}$ — $\Gamma_{46}/\Gamma = (\Gamma_{34}+\Gamma_{38})/\Gamma$

VALUE (%)	*DOCUMENT ID*
0.31±0.04 OUR FIT	

$\Gamma(K^0 h^+ h^- h^- \geq 0 \text{ neutrals } \nu_\tau)/\Gamma_{\text{total}}$ — Γ_{47}/Γ

VALUE (%)	*CL%*	*DOCUMENT ID*	*TECN*	*COMMENT*
<0.17	95	TSCHIRHART 88	HRS	E^{ee}_{cm}= 29 GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
<0.27	90	BELTRAMI 85	HRS	E^{ee}_{cm}= 29 GeV

$\Gamma(K^0 h^+ h^- h^- \nu_\tau)/\Gamma_{\text{total}}$ — Γ_{48}/Γ

VALUE (%)	*EVTS*	*DOCUMENT ID*	*TECN*	*COMMENT*
0.023±0.019±0.007	6	[105] BARATE 98E	ALEP	1991–1995 LEP runs

[105] BARATE 98E reconstruct K^0's using $K^0_S \to \pi^+\pi^-$ decays.

$\Gamma(h^- h^- h^+ \geq 0\text{neut. } \nu_\tau (\text{“3-prong”}))/\Gamma_{\text{total}}$ — Γ_{49}/Γ

$\Gamma_{49}/\Gamma = (0.3431\Gamma_{32}+0.3431\Gamma_{34}+0.3431\Gamma_{36}+0.3431\Gamma_{38}+0.4508\Gamma_{41}+\Gamma_{57}+\Gamma_{65}+\Gamma_{73}+\Gamma_{74}+\Gamma_{79}+\Gamma_{81}+\Gamma_{84}+\Gamma_{85}+0.285\Gamma_{110}+0.9101\Gamma_{125}+0.9101\Gamma_{126})/\Gamma$

Data marked “avg” are highly correlated with data appearing elsewhere in the Listings, and are therefore used for the average given below but not in the overall fits. “f&a” marks results used for the fit and the average.

VALUE (%)		*EVTS*	*DOCUMENT ID*	*TECN*	*COMMENT*
15.18± 0.13 OUR FIT Error includes scale factor of 1.2.					
14.8 ± 0.4 OUR AVERAGE					
14.4 ± 0.6 ±0.3	f&a		ADEVA 91F	L3	E^{ee}_{cm}= 88.3–94.3 GeV
15.0 ± 0.4 ±0.3	f&a		BEHREND 89B	CELL	E^{ee}_{cm}= 14–47 GeV
15.1 ± 0.8 ±0.6	f&a		AIHARA 87B	TPC	E^{ee}_{cm}= 29 GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
13.5 ± 0.3 ±0.3			ABACHI 89B	HRS	E^{ee}_{cm}= 29 GeV
12.8 ± 1.0 ±0.7			[106] BURCHAT 87	MRK2	E^{ee}_{cm}= 29 GeV
12.1 ± 0.5 ±1.2			RUCKSTUHL 86	DLCO	E^{ee}_{cm}= 29 GeV
12.8 ± 0.5 ±0.8		1420	SCHMIDKE 86	MRK2	E^{ee}_{cm}= 29 GeV
15.3 ± 1.1 $^{+1.3}_{-1.6}$		367	ALTHOFF 85	TASS	E^{ee}_{cm}= 34.5 GeV
13.6 ± 0.5 ±0.8			BARTEL 85F	JADE	E^{ee}_{cm}= 34.6 GeV
12.2 ± 1.3 ±3.9			[107] BERGER 85	PLUT	E^{ee}_{cm}= 34.6 GeV
13.3 ± 0.3 ±0.6			FERNANDEZ 85	MAC	E^{ee}_{cm}= 29 GeV
24 ± 6		35	BRANDELIK 80	TASS	E^{ee}_{cm}= 30 GeV
32 ± 5		692	[108] BACINO 78B	DLCO	E^{ee}_{cm}= 3.1–7.4 GeV
35 ±11			[108] BRANDELIK 78	DASP	Assumes $V-A$ decay
18 ± 6.5		33	[108] JAROS 78	MRK1	$E^{ee}_{\text{cm}} > 6$ GeV

[106] BURCHAT 87 value is not independent of SCHMIDKE 86 value.
[107] Not independent of BERGER 85 $\Gamma(\mu^-\overline{\nu}_\mu\nu_\tau)/\Gamma_{\text{total}}$, $\Gamma(e^-\overline{\nu}_e\nu_\tau)/\Gamma_{\text{total}}$, $\Gamma(h^- \geq 1 \text{ neutrals}\nu_\tau)/\Gamma_{\text{total}}$, and $\Gamma(h^- \geq 0K^0_L\ \nu_\tau)/\Gamma_{\text{total}}$, and therefore not used in the fit.
[108] Low energy experiments are not in average or fit because the systematic errors in background subtraction are judged to be large.

$\Gamma(h^- h^- h^+ \geq 0\ \text{neutrals}\ \nu_\tau (\text{ex.}\ K^0_S \to \pi^+\pi^-))/\Gamma_{\text{total}}$ Γ_{50}/Γ

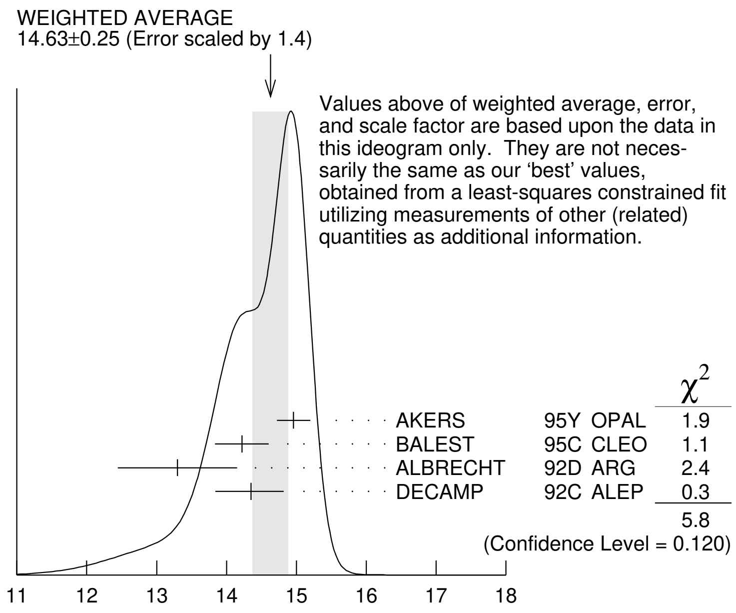
$\Gamma_{50}/\Gamma = (\Gamma_{57}+\Gamma_{65}+\Gamma_{73}+\Gamma_{74}+\Gamma_{79}+\Gamma_{81}+\Gamma_{84}+\Gamma_{85}+0.285\Gamma_{110}+0.9101\Gamma_{125}+0.9101\Gamma_{126})/\Gamma$

Data marked "avg" are highly correlated with data appearing elsewhere in the Listings, and are therefore used for the average given below but not in the overall fits. "f&a" marks results used for the fit and the average.

VALUE (%)		EVTS	DOCUMENT ID	TECN	COMMENT
14.60±0.13 OUR FIT Error includes scale factor of 1.2.					
14.63±0.25 OUR AVERAGE Error includes scale factor of 1.4. See the ideogram below.					
$14.96 \pm 0.09 \pm 0.22$	f&a	10.4k	AKERS 95Y	OPAL	1991–1994 LEP runs
$14.22 \pm 0.10 \pm 0.37$	avg		[109] BALEST 95C	CLEO	$E^{ee}_{\text{cm}} \approx$ 10.6 GeV
$13.3 \pm 0.3 \pm 0.8$	f&a		[110] ALBRECHT 92D	ARG	E^{ee}_{cm}= 9.4–10.6 GeV
$14.35^{+0.40}_{-0.45} \pm 0.24$	f&a		DECAMP 92C	ALEP	1989–1990 LEP runs
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$15.26 \pm 0.26 \pm 0.22$			ACTON 92H	OPAL	Repl. by AKERS 95Y

[109] Not independent of BALEST 95C B($h^- h^- h^+ \nu_\tau$) and B($h^- h^- h^+ \pi^0 \nu_\tau$) values, and BORTOLETTO 93 B($h^- h^- h^+ 2\pi^0 \nu_\tau$)/B($h^- h^- h^+ \geq 0$ neutrals ν_τ) value.

[110] This ALBRECHT 92D value is not independent of their $\Gamma(\mu^- \overline{\nu}_\mu \nu_\tau)\Gamma(e^- \overline{\nu}_e \nu_\tau)/\Gamma^2_{\text{total}}$ value.



$\Gamma\left(h^- h^- h^+ \geq 0\ \text{neutrals}\ \nu_\tau (\text{ex.}\ K^0_S \to \pi^+\pi^-)\right)/\Gamma_{\text{total}}$ (%)

$\Gamma(\pi^-\pi^+\pi^- \geq 0\text{ neutrals } \nu_\tau)/\Gamma(h^-h^-h^+ \geq 0\text{neut. } \nu_\tau(\text{"3-prong"}))$ Γ_{51}/Γ_{49}

$\Gamma_{51}/\Gamma_{49} = (0.3431\Gamma_{32}+0.3431\Gamma_{36}+0.1078\Gamma_{41}+\Gamma_{57}+\Gamma_{65}+\Gamma_{73}+\Gamma_{74}+0.285\Gamma_{110}+0.9101\Gamma_{125}+0.9101\Gamma_{126})/(0.3431\Gamma_{32}+0.3431\Gamma_{34}+0.3431\Gamma_{36}+0.3431\Gamma_{38}+0.4508\Gamma_{41}+\Gamma_{57}+\Gamma_{65}+\Gamma_{73}+\Gamma_{74}+\Gamma_{79}+\Gamma_{81}+\Gamma_{84}+\Gamma_{85}+0.285\Gamma_{110}+0.9101\Gamma_{125}+0.9101\Gamma_{126})$

VALUE	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
0.962±0.005 OUR FIT	Error includes scale factor of 1.1.				
0.945±0.019	490	[111] BAUER	94	TPC	E^{ee}_{cm}= 29 GeV

[111] BAUER 94 quote B($\pi^-\pi^+\pi^- \geq$ 0 neutrals ν_τ) = 0.1329 ± 0.0027. We divide by 0.1406, their assumed value for B("3prong").

$\Gamma(h^-h^-h^+\nu_\tau)/\Gamma_{\text{total}}$ Γ_{52}/Γ

$\Gamma_{52}/\Gamma = (0.3431\Gamma_{32}+0.3431\Gamma_{34}+\Gamma_{57}+\Gamma_{79}+\Gamma_{84}+0.0221\Gamma_{125})/\Gamma$

Data marked "avg" are highly correlated with data appearing elsewhere in the Listings, and are therefore used for the average given below but not in the overall fits. "f&a" marks results used for the fit and the average.

VALUE (%)		*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
9.96±0.10 OUR FIT	Error includes scale factor of 1.1.					
9.7 ±0.4 OUR AVERAGE	Error includes scale factor of 3.1. See the ideogram below.					
7.6 ±0.1 ±0.5	avg	7.5k	[112] ALBRECHT	96E	ARG	E^{ee}_{cm}= 9.4–10.6 GeV
9.92±0.10±0.09	f&a	11.2k	[113] BUSKULIC	96	ALEP	LEP 1991–1993 data
9.49±0.36±0.63	f&a		DECAMP	92C	ALEP	1989–1990 LEP runs
8.7 ±0.7 ±0.3	f&a	694	[114] BEHREND	90	CELL	E^{ee}_{cm}= 35 GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •						
7.0 ±0.3 ±0.7		1566	[115] BAND	87	MAC	E^{ee}_{cm}= 29 GeV
6.7 ±0.8 ±0.9			[116] BURCHAT	87	MRK2	E^{ee}_{cm}= 29 GeV
6.4 ±0.4 ±0.9			[117] RUCKSTUHL	86	DLCO	E^{ee}_{cm}= 29 GeV
7.8 ±0.5 ±0.8		890	SCHMIDKE	86	MRK2	E^{ee}_{cm}= 29 GeV
8.4 ±0.4 ±0.7		1255	[117] FERNANDEZ	85	MAC	E^{ee}_{cm}= 29 GeV
9.7 ±2.0 ±1.3			BEHREND	84	CELL	E^{ee}_{cm}= 14,22 GeV

[112] ALBRECHT 96E not independent of ALBRECHT 93C $\Gamma(h^-h^-h^+\nu_\tau(\text{ex. } K^0)\times\Gamma(\text{particle}^- \geq 0\text{ neutrals } \geq 0K^0_L\nu_\tau)/\Gamma^2_{\text{total}}$ value.

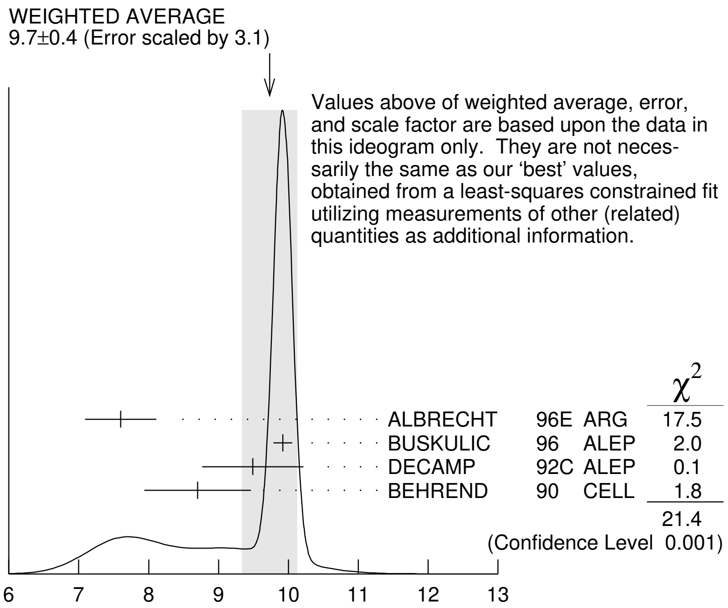
[113] BUSKULIC 96 quote B($h^-h^-h^+\nu_\tau$(ex. K^0)) = 9.50 ± 0.10 ± 0.11. We add 0.42 to remove their K^0 correction and reduce the systematic error accordingly.

[114] BEHREND 90 subtract 0.3% to account for the $\tau^- \to K^*(892)^-\nu_\tau$ contribution to measured events.

[115] BAND 87 subtract for charged kaon modes; not independent of FERNANDEZ 85 value.

[116] BURCHAT 87 value is not independent of SCHMIDKE 86 value.

[117] Value obtained by multiplying paper's R = B($h^-h^-h^+\nu_\tau$)/B(3-prong) by B(3-prong) = 0.143 and subtracting 0.3% for $K^*(892)$ background.



$\Gamma\big(h^- h^- h^+ \nu_\tau\big)/\Gamma_{\text{total}}$ (%)

$\Gamma\big(h^- h^- h^+ \nu_\tau\big)/\Gamma\big(h^- h^- h^+ \geq 0\text{neut.}\ \nu_\tau(\text{“3-prong”})\big)$ Γ_{52}/Γ_{49}

$\Gamma_{52}/\Gamma_{49} = (0.3431\Gamma_{32}+0.3431\Gamma_{34}+\Gamma_{57}+\Gamma_{79}+\Gamma_{84}+0.0221\Gamma_{125})/(0.3431\Gamma_{32}+0.3431\Gamma_{34}+0.3431\Gamma_{36}+0.3431\Gamma_{38}+0.4508\Gamma_{41}+\Gamma_{57}+\Gamma_{65}+\Gamma_{73}+\Gamma_{74}+\Gamma_{79}+\Gamma_{81}+\Gamma_{84}+\Gamma_{85}+0.285\Gamma_{110}+0.9101\Gamma_{125}+0.9101\Gamma_{126})$

This branching fractions is not independent of values for $\Gamma(h^- h^- h^+ \nu_\tau)/\Gamma_{\text{total}}$ and $\Gamma(h^- h^- h^+ \geq 0\text{neut.}\ \nu_\tau(\text{“3-prong”}))/\Gamma_{\text{total}}$.

VALUE	*DOCUMENT ID*		*TECN*	*COMMENT*
0.656±0.006 OUR FIT	Error includes scale factor of 1.1.			
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.47 ±0.03 ±0.06	RUCKSTUHL	86	DLCO	E^{ee}_{cm}= 29 GeV
0.61 ±0.03 ±0.05	FERNANDEZ	85	MAC	E^{ee}_{cm}= 29 GeV

$\Gamma\big(h^- h^- h^+ \nu_\tau(\text{ex.}K^0)\big)/\Gamma_{\text{total}}$ Γ_{53}/Γ

$\Gamma_{53}/\Gamma = (\Gamma_{57}+\Gamma_{79}+\Gamma_{84}+0.0221\Gamma_{125})/\Gamma$

Data marked “avg” are highly correlated with data appearing elsewhere in the Listings, and are therefore used for the average given below but not in the overall fits. “f&a” marks results used for the fit and the average.

VALUE (%)		*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
9.62±0.10 OUR FIT	Error includes scale factor of 1.1.					
9.57±0.11 OUR AVERAGE						
9.50±0.10±0.11	avg	11.2k	[118] BUSKULIC	96	ALEP	LEP 1991–1993 data
9.87±0.10±0.24	avg		[119] AKERS	95Y	OPAL	1991–1994 LEP runs
9.51±0.07±0.20	f&a	37.7k	BALEST	95C	CLEO	$E^{ee}_{\text{cm}}\approx$ 10.6 GeV

[118] Not independent of BUSKULIC 96 B($h^- h^- h^+ \nu_\tau$) value.

[119] Not independent of AKERS 95Y B($h^- h^- h^+ \geq 0$ neutralsν_τ(ex. $K^0_S \rightarrow \pi^+\pi^-$)) and B($h^- h^- h^+ \nu_\tau$(ex. K^0))/B($h^- h^- h^+ \geq 0$ neutralsν_τ(ex. $K^0_S \rightarrow \pi^+\pi^-$)) values.

$\Gamma(h^- h^- h^+ \nu_\tau (\text{ex.}K^0))/\Gamma(h^- h^- h^+ \geq 0\,\text{neutrals}\ \nu_\tau (\text{ex.}\ K^0_S \to \pi^+\pi^-))$ Γ_{53}/Γ_{50}

$\Gamma_{53}/\Gamma_{50} = (\Gamma_{57}+\Gamma_{79}+\Gamma_{84}+0.0221\Gamma_{125})/(\Gamma_{57}+\Gamma_{65}+\Gamma_{73}+\Gamma_{74}+\Gamma_{79}+\Gamma_{81}+\Gamma_{84}+\Gamma_{85}+0.285\Gamma_{110}+0.9101\Gamma_{125}+0.9101\Gamma_{126})$

VALUE	*DOCUMENT ID*		*TECN*	*COMMENT*
0.659±0.006 OUR FIT Error includes scale factor of 1.1.				
0.660±0.004±0.014	AKERS	95Y	OPAL	1991–1994 LEP runs

$\Gamma(h^- h^- h^+ \nu_\tau (\text{ex.}K^0,\omega))/\Gamma_{\text{total}}$ $\Gamma_{54}/\Gamma = (\Gamma_{57}+\Gamma_{79}+\Gamma_{84})/\Gamma$

VALUE (%)	*DOCUMENT ID*
9.57±0.10 OUR FIT Error includes scale factor of 1.1.	

$\Gamma(\pi^-\pi^+\pi^-\nu_\tau)/\Gamma_{\text{total}}$ $\Gamma_{55}/\Gamma = (0.3431\Gamma_{32}+\Gamma_{57}+0.0221\Gamma_{125})/\Gamma$

VALUE (%)	*DOCUMENT ID*
9.56±0.11 OUR FIT Error includes scale factor of 1.1.	

$\Gamma(\pi^-\pi^+\pi^-\nu_\tau (\text{ex.}K^0))/\Gamma_{\text{total}}$ $\Gamma_{56}/\Gamma = (0.3431\Gamma_{32}+\Gamma_{57})/\Gamma$

VALUE (%)	*DOCUMENT ID*
9.52±0.11 OUR FIT Error includes scale factor of 1.1.	

$\Gamma(\pi^-\pi^+\pi^-\nu_\tau (\text{ex.}K^0,\omega))/\Gamma_{\text{total}}$ Γ_{57}/Γ

VALUE (%)	*DOCUMENT ID*
9.23±0.11 OUR FIT Error includes scale factor of 1.1.	

$\Gamma(h^- h^- h^+ \geq 1\,\text{neutrals}\ \nu_\tau)/\Gamma_{\text{total}}$ Γ_{58}/Γ

$\Gamma_{58}/\Gamma = (0.3431\Gamma_{36}+0.3431\Gamma_{38}+0.1077\Gamma_{41}+\Gamma_{65}+\Gamma_{73}+\Gamma_{74}+\Gamma_{81}+\Gamma_{85}+0.285\Gamma_{110}+0.888\Gamma_{125}+0.9101\Gamma_{126})/\Gamma$

Data marked "avg" are highly correlated with data appearing elsewhere in the Listings, and are therefore used for the average given below but not in the overall fits. "f&a" marks results used for the fit and the average.

VALUE (%)		*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
5.18±0.11 OUR FIT Error includes scale factor of 1.2.						
5.2 ±0.6 OUR AVERAGE						
5.6 ±0.7 ±0.3	avg	352	[120] BEHREND	90	CELL	E^{ee}_{cm}= 35 GeV
4.2 ±0.5 ±0.9	f&a	203	[121] ALBRECHT	87L	ARG	E^{ee}_{cm}= 10 GeV
6.2 ±2.3 ±1.7	f&a		BEHREND	84	CELL	E^{ee}_{cm}= 14,22 GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •						
6.1 ±0.8 ±0.9			[122] BURCHAT	87	MRK2	E^{ee}_{cm}= 29 GeV
7.6 ±0.4 ±0.9			[123,124] RUCKSTUHL	86	DLCO	E^{ee}_{cm}= 29 GeV
4.7 ±0.5 ±0.8		530	[125] SCHMIDKE	86	MRK2	E^{ee}_{cm}= 29 GeV
5.6 ±0.4 ±0.7			[124] FERNANDEZ	85	MAC	E^{ee}_{cm}= 29 GeV

[120] BEHREND 90 value is not independent of BEHREND 90 B($3h\nu_\tau \geq$ 1 neutrals) + B(5-prong).

[121] ALBRECHT 87L measure the product of branching ratios B($3\pi^\pm\pi^0\nu_\tau$) B(($e\overline{\nu}$ or $\mu\overline{\nu}$ or π or K or ρ)ν_τ) = 0.029 and use the PDG 86 values for the second branching ratio which sum to 0.69 ± 0.03 to get the quoted value.

[122] BURCHAT 87 value is not independent of SCHMIDKE 86 value.

[123] Contributions from kaons and from $>1\pi^0$ are subtracted. Not independent of (3-prong + $0\pi^0$) and (3-prong + $\geq 0\pi^0$) values.
[124] Value obtained using paper's R = B($h^- h^- h^+ \nu_\tau$)/B(3-prong) and current B(3-prong) = 0.143.
[125] Not independent of SCHMIDKE 86 $h^- h^- h^+ \nu_\tau$ and $h^- h^- h^+ (\geq 0\pi^0)\nu_\tau$ values.

$\Gamma(h^- h^- h^+ \geq 1 \text{ neutrals } \nu_\tau (\text{ex. } K^0_S \to \pi^+\pi^-))/\Gamma_{\text{total}}$ Γ_{59}/Γ

$\Gamma_{59}/\Gamma = (\Gamma_{65}+\Gamma_{73}+\Gamma_{74}+\Gamma_{81}+\Gamma_{85}+0.285\Gamma_{110}+0.888\Gamma_{125}+0.9101\Gamma_{126})/\Gamma$

Data marked "avg" are highly correlated with data appearing elsewhere in the Listings, and are therefore used for the average given below but not in the overall fits. "f&a" marks results used for the fit and the average.

VALUE (%)		*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
4.98±0.11 OUR FIT	Error includes scale factor of 1.2.					
5.07±0.24 OUR AVERAGE						
5.09±0.10±0.23	avg		[126] AKERS	95Y	OPAL	1991–1994 LEP runs
4.95±0.29±0.65	f&a	570	DECAMP	92C	ALEP	1989–1990 LEP runs

[126] Not independent of AKERS 95Y B($h^- h^- h^+ \geq 0$ neutrals ν_τ (ex. $K^0_S \to \pi^+\pi^-$)) and B($h^- h^- h^+ \geq 0$ neutrals ν_τ (ex. K^0))/B($h^- h^- h^+ \geq 0$ neutrals ν_τ (ex. $K^0_S \to \pi^+\pi^-$)) values.

$\Gamma(h^- h^- h^+ \pi^0 \nu_\tau)/\Gamma_{\text{total}}$ Γ_{60}/Γ

$\Gamma_{60}/\Gamma = (0.3431\Gamma_{36}+0.3431\Gamma_{38}+\Gamma_{65}+\Gamma_{81}+\Gamma_{85}+0.888\Gamma_{125}+0.0221\Gamma_{126})/\Gamma$

VALUE (%)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
4.50±0.09 OUR FIT	Error includes scale factor of 1.1.				
4.45±0.09±0.07	6.1k	[127] BUSKULIC	96	ALEP	LEP 1991–1993 data

[127] BUSKULIC 96 quote B($h^- h^- h^+ \pi^0 \nu_\tau$ (ex. K^0)) = 4.30 ± 0.09 ± 0.09. We add 0.15 to remove their K^0 correction and reduce the systematic error accordingly.

$\Gamma(h^- h^- h^+ \pi^0 \nu_\tau (\text{ex.} K^0))/\Gamma_{\text{total}}$ Γ_{61}/Γ

$\Gamma_{61}/\Gamma = (\Gamma_{65}+\Gamma_{81}+\Gamma_{85}+0.888\Gamma_{125}+0.0221\Gamma_{126})/\Gamma$

VALUE (%)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
4.31±0.09 OUR FIT	Error includes scale factor of 1.1.				
4.23±0.06±0.22	7.2k	BALEST	95C	CLEO	$E^{ee}_{\text{cm}} \approx$ 10.6 GeV

$\Gamma(h^- h^- h^+ \pi^0 \nu_\tau (\text{ex. } K^0, \omega))/\Gamma_{\text{total}}$ $\Gamma_{62}/\Gamma = (\Gamma_{65}+\Gamma_{81}+\Gamma_{85})/\Gamma$

VALUE (%)	*DOCUMENT ID*
2.59±0.09 OUR FIT	

$\Gamma(\pi^- \pi^+ \pi^- \pi^0 \nu_\tau)/\Gamma_{\text{total}}$ $\Gamma_{63}/\Gamma = (0.3431\Gamma_{36}+\Gamma_{65}+0.888\Gamma_{125}+0.0221\Gamma_{126})/\Gamma$

VALUE (%)	*DOCUMENT ID*
4.35±0.10 OUR FIT	

$\Gamma(\pi^- \pi^+ \pi^- \pi^0 \nu_\tau (\text{ex.} K^0))/\Gamma_{\text{total}}$ $\Gamma_{64}/\Gamma = (\Gamma_{65}+0.888\Gamma_{125}+0.0221\Gamma_{126})/\Gamma$

VALUE (%)	*DOCUMENT ID*
4.22±0.10 OUR FIT	

$\Gamma(\pi^- \pi^+ \pi^- \pi^0 \nu_\tau (\text{ex.}K^0,\omega))/\Gamma_{\text{total}}$ — Γ_{65}/Γ

VALUE (%)	DOCUMENT ID
2.49±0.10 OUR FIT	

$\Gamma(h^- (\rho\pi)^0 \nu_\tau)/\Gamma(h^- h^- h^+ \pi^0 \nu_\tau)$ — Γ_{66}/Γ_{60}

$\Gamma_{66}/\Gamma_{60} = (\Gamma_{68}+\Gamma_{69}+\Gamma_{70})/\Gamma_{60}$

VALUE	DOCUMENT ID		TECN	COMMENT
0.64±0.07±0.03	[128] ALBRECHT	91D	ARG	E^{ee}_{cm}= 9.4–10.6 GeV

[128] ALBRECHT 91D not independent of their $\Gamma(h^- \rho^+ h^- \nu_\tau)/\Gamma(h^- h^- h^+ \pi^0 \nu_\tau)$, $\Gamma(h^- \rho^- h^+ \nu_\tau)/\Gamma(h^- h^- h^+ \pi^0 \nu_\tau)$, and $\Gamma(h^- \rho \pi^0 \nu_\tau)/\Gamma(h^- h^- h^+ \pi^0 \nu_\tau)$ values.

$\Gamma((a_1(1260)h)^- \nu_\tau)/\Gamma(h^- h^- h^+ \pi^0 \nu_\tau)$ — Γ_{67}/Γ_{60}

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<0.44	95	[129] ALBRECHT	91D	ARG	E^{ee}_{cm}= 9.4–10.6 GeV

[129] ALBRECHT 91D not independent of their $\Gamma(h^- \omega \nu_\tau)/\Gamma(h^- h^- h^+ \pi^0 \nu_\tau (\text{ex.}K^0))$, $\Gamma(h^- \rho \pi^0 \nu_\tau)/\Gamma(h^- h^- h^+ \pi^0 \nu_\tau)$, $\Gamma(h^- \rho^+ h^- \nu_\tau)/\Gamma(h^- h^- h^+ \pi^0 \nu_\tau)$, and $\Gamma(h^- \rho^- h^+ \nu_\tau)/\Gamma(h^- h^- h^+ \pi^0 \nu_\tau)$ values.

$\Gamma(h^- \rho \pi^0 \nu_\tau)/\Gamma(h^- h^- h^+ \pi^0 \nu_\tau)$ — Γ_{68}/Γ_{60}

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.30±0.04±0.02	393	ALBRECHT	91D	ARG	E^{ee}_{cm}= 9.4–10.6 GeV

$\Gamma(h^- \rho^+ h^- \nu_\tau)/\Gamma(h^- h^- h^+ \pi^0 \nu_\tau)$ — Γ_{69}/Γ_{60}

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.10±0.03±0.04	142	ALBRECHT	91D	ARG	E^{ee}_{cm}= 9.4–10.6 GeV

$\Gamma(h^- \rho^- h^+ \nu_\tau)/\Gamma(h^- h^- h^+ \pi^0 \nu_\tau)$ — Γ_{70}/Γ_{60}

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.26±0.05±0.01	370	ALBRECHT	91D	ARG	E^{ee}_{cm}= 9.4–10.6 GeV

$\left[\Gamma(h^- \rho^+ h^- \nu_\tau) + \Gamma(h^- \rho^- h^+ \nu_\tau)\right]/\Gamma(h^- h^- h^+ \pi^0 \nu_\tau)$ — $(\Gamma_{69}+\Gamma_{70})/\Gamma_{60}$

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.33±0.06±0.01	475	[130] ALBRECHT	91D	ARG	E^{ee}_{cm}= 9.4–10.6 GeV

[130] ALBRECHT 91D not independent of their $\Gamma(h^- \rho^+ h^- \nu_\tau)/\Gamma(h^- h^- h^+ \pi^0 \nu_\tau)$ and $\Gamma(h^- \rho^- h^+ \nu_\tau)/\Gamma(h^- h^- h^+ \pi^0 \nu_\tau)$ values.

$\Gamma(h^- h^- h^+ 2\pi^0 \nu_\tau)/\Gamma_{\text{total}}$ — Γ_{71}/Γ

$\Gamma_{71}/\Gamma = (0.1077\Gamma_{41}+\Gamma_{73}+0.236\Gamma_{110}+0.888\Gamma_{126})/\Gamma$

VALUE (%)	DOCUMENT ID
0.54±0.04 OUR FIT	

$\Gamma(h^- h^- h^+ 2\pi^0 \nu_\tau (\text{ex.}K^0))/\Gamma_{\text{total}}$ — Γ_{72}/Γ

$\Gamma_{72}/\Gamma = (\Gamma_{73}+0.236\Gamma_{110}+0.888\Gamma_{126})/\Gamma$

VALUE (%)	EVTS	DOCUMENT ID		TECN	COMMENT
0.53±0.04 OUR FIT					
0.50±0.07±0.07	1.8k	BUSKULIC	96	ALEP	LEP 1991–1993 data

$\Gamma(h^- h^- h^+ 2\pi^0 \nu_\tau (\text{ex.}K^0))/\Gamma(h^- h^- h^+ \geq 0\text{neut.}\ \nu_\tau(\text{"3-prong"}))$ Γ_{72}/Γ_{49}

$\Gamma_{72}/\Gamma_{49} = (\Gamma_{73}+0.236\Gamma_{110}+0.888\Gamma_{126})/(0.3431\Gamma_{32}+0.3431\Gamma_{34}+0.3431\Gamma_{36}+0.3431\Gamma_{38}+0.4508\Gamma_{41}+\Gamma_{57}+\Gamma_{65}+\Gamma_{73}+\Gamma_{74}+\Gamma_{79}+\Gamma_{81}+\Gamma_{84}+\Gamma_{85}+0.285\Gamma_{110}+0.9101\Gamma_{125}+0.9101\Gamma_{126})$

VALUE	*EVTS*	*DOCUMENT ID*	*TECN*	*COMMENT*
0.0348±0.0028 OUR FIT				
0.034 ±0.002 ±0.003	668	BORTOLETTO93	CLEO	$E^{ee}_{cm} \approx 10.6$ GeV

$\Gamma(h^- h^- h^+ 2\pi^0 \nu_\tau (\text{ex.}K^0,\omega,\eta))/\Gamma_{\text{total}}$ Γ_{73}/Γ

VALUE (%)	*DOCUMENT ID*
0.11±0.04 OUR FIT	

$\Gamma(h^- h^- h^+ \geq 3\pi^0 \nu_\tau)/\Gamma_{\text{total}}$ Γ_{74}/Γ

VALUE (%)	*EVTS*	*DOCUMENT ID*	*TECN*	*COMMENT*
$0.14^{+0.09}_{-0.07}$ OUR FIT Error includes scale factor of 1.5.				
0.11±0.04±0.05	440	BUSKULIC 96	ALEP	LEP 1991–1993 data

$\Gamma(h^- h^- h^+ 3\pi^0 \nu_\tau)/\Gamma_{\text{total}}$ Γ_{75}/Γ

VALUE (units 10^{-4})	*EVTS*	*DOCUMENT ID*	*TECN*	*COMMENT*
2.85±0.56±0.51	57	ANDERSON 97	CLEO	$E^{ee}_{cm} = 10.6$ GeV

$\Gamma(K^- h^+ h^- \geq 0\text{ neutrals}\ \nu_\tau)/\Gamma_{\text{total}}$

$$\Gamma_{76}/\Gamma = (0.3431\Gamma_{34}+0.3431\Gamma_{38}+\Gamma_{79}+\Gamma_{81}+\Gamma_{84}+\Gamma_{85})/\Gamma$$

VALUE (%)	*CL%*	*DOCUMENT ID*	*TECN*	*COMMENT*
0.54±0.07 OUR FIT Error includes scale factor of 1.1.				
<0.6	90	AIHARA 84C	TPC	$E^{ee}_{cm} = 29$ GeV

$\Gamma(K^- \pi^+ \pi^- \geq 0\text{ neutrals}\ \nu_\tau)/\Gamma_{\text{total}}$

$$\Gamma_{77}/\Gamma = (0.3431\Gamma_{34}+0.3431\Gamma_{38}+\Gamma_{79}+\Gamma_{81})/\Gamma$$

Data marked "avg" are highly correlated with data appearing elsewhere in the Listings, and are therefore used for the average given below but not in the overall fits. "f&a" marks results used for the fit and the average.

VALUE (%)		*EVTS*	*DOCUMENT ID*	*TECN*	*COMMENT*
0.31 ±0.06 OUR FIT Error includes scale factor of 1.1.					
0.30 ±0.07 OUR AVERAGE Error includes scale factor of 1.2.					
0.275±0.064	avg		[131] BARATE 98	ALEP	1991–1995 LEP runs
$0.58\ ^{+0.15}_{-0.13}\ \pm0.12$	f&a	20	[132] BAUER 94	TPC	$E^{ee}_{cm} = 29$ GeV
$0.22\ ^{+0.16}_{-0.13}\ \pm0.05$	f&a	9	[133] MILLS 85	DLCO	$E^{ee}_{cm} = 29$ GeV

[131] Not independent of BARATE 98 $\Gamma(\tau^- \to K^- \pi^+ \pi^- \nu_\tau)/\Gamma_{\text{total}}$ and $\Gamma(\tau^- \to K^- \pi^+ \pi^- \pi^0 \nu_\tau)/\Gamma_{\text{total}}$ values.

[132] We multiply 0.58% by 0.20, the relative systematic error quoted by BAUER 94, to obtain the systematic error.

[133] Error correlated with MILLS 85 ($K K \pi \nu$) value. We multiply 0.22% by 0.23, the relative systematic error quoted by MILLS 85, to obtain obtain the systematic error.

$\Gamma(K^- \pi^+ \pi^- \nu_\tau)/\Gamma_{\text{total}}$ — $\Gamma_{78}/\Gamma = (0.3431\Gamma_{34}+\Gamma_{79})/\Gamma$

VALUE (%)	DOCUMENT ID		TECN	COMMENT
0.23 ±0.04 OUR FIT				
0.214±0.037±0.029	BARATE	98	ALEP	1991–1995 LEP runs

$\Gamma(K^- \pi^+ \pi^- \nu_\tau (\text{ex.}K^0))/\Gamma_{\text{total}}$ — Γ_{79}/Γ

VALUE (%)	DOCUMENT ID
0.18±0.05 OUR FIT	

$\Gamma(K^- \pi^+ \pi^- \pi^0 \nu_\tau)/\Gamma_{\text{total}}$ — $\Gamma_{80}/\Gamma = (0.3431\Gamma_{38}+\Gamma_{81})/\Gamma$

VALUE (%)	DOCUMENT ID		TECN	COMMENT
0.08 ±0.04 OUR FIT				
0.061±0.039±0.018	BARATE	98	ALEP	1991–1995 LEP runs

$\Gamma(K^- \pi^+ \pi^- \pi^0 \nu_\tau (\text{ex.}K^0))/\Gamma_{\text{total}}$ — Γ_{81}/Γ

VALUE	DOCUMENT ID
$(2.4^{+4.3}_{-1.6}) \times 10^{-4}$ OUR FIT	

$\Gamma(K^- \pi^+ K^- \geq 0\ \text{neut.}\ \nu_\tau)/\Gamma_{\text{total}}$ — Γ_{82}/Γ

VALUE (%)	CL%	DOCUMENT ID		TECN	COMMENT
<0.09	95	BAUER	94	TPC	$E^{ee}_{\text{cm}} = 29$ GeV

$\Gamma(K^- K^+ \pi^- \geq 0\ \text{neut.}\ \nu_\tau)/\Gamma_{\text{total}}$ — $\Gamma_{83}/\Gamma = (\Gamma_{84}+\Gamma_{85})/\Gamma$

Data marked "avg" are highly correlated with data appearing elsewhere in the Listings, and are therefore used for the average given below but not in the overall fits. "f&a" marks results used for the fit and the average.

VALUE (%)		EVTS	DOCUMENT ID		TECN	COMMENT
0.23 ±0.04 OUR FIT						
0.22 ±0.04 OUR AVERAGE						
0.238±0.042	avg		[134] BARATE	98	ALEP	1991–1995 LEP runs
$0.15\ ^{+0.09}_{-0.07}\ \pm 0.03$	f&a	4	[135] BAUER	94	TPC	$E^{ee}_{\text{cm}} = 29$ GeV

[134] Not independent of BARATE 98 $\Gamma(\tau^- \to K^- K^+ \pi^- \nu_\tau)/\Gamma_{\text{total}}$ and $\Gamma(\tau^- \to K^- K^+ \pi^- \pi^0 \nu_\tau)/\Gamma_{\text{total}}$ values.

[135] We multiply 0.15% by 0.20, the relative systematic error quoted by BAUER 94, to obtain the systematic error.

$\Gamma(K^- K^+ \pi^- \nu_\tau)/\Gamma_{\text{total}}$ — Γ_{84}/Γ

VALUE (%)	EVTS	DOCUMENT ID		TECN	COMMENT
0.161±0.026 OUR FIT					
0.165±0.027 OUR AVERAGE					
0.163±0.021±0.017		BARATE	98	ALEP	1991–1995 LEP runs
$0.22\ ^{+0.17}_{-0.11}\ \pm 0.05$	9	[136] MILLS	85	DLCO	$E^{ee}_{\text{cm}} = 29$ GeV

[136] Error correlated with MILLS 85 ($K\pi\pi\pi^0\nu$) value. We multiply 0.22% by 0.23, the relative systematic error quoted by MILLS 85, to obtain obtain the systematic error.

$\Gamma(K^- K^+ \pi^- \pi^0 \nu_\tau)/\Gamma_{total}$ — Γ_{85}/Γ

VALUE (%)	DOCUMENT ID		TECN	COMMENT
0.069±0.030 OUR FIT				
0.075±0.029±0.015	BARATE	98	ALEP	1991–1995 LEP runs

$\Gamma(K^- K^+ K^- \geq 0\,\text{neut.}\ \nu_\tau)/\Gamma_{total}$ — Γ_{86}/Γ

VALUE (%)	CL%	DOCUMENT ID		TECN	COMMENT
<0.21	95	BAUER	94	TPC	E^{ee}_{cm}= 29 GeV

$\Gamma(K^- K^+ K^- \nu_\tau)/\Gamma_{total}$ — Γ_{87}/Γ

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<1.9 \times 10^{-4}$	90	BARATE	98	ALEP	1991–1995 LEP runs

$\Gamma(\pi^- K^+ \pi^- \geq 0\,\text{neut.}\ \nu_\tau)/\Gamma_{total}$ — Γ_{88}/Γ

VALUE (%)	CL%	DOCUMENT ID		TECN	COMMENT
<0.25	95	BAUER	94	TPC	E^{ee}_{cm}= 29 GeV

$\Gamma(e^- e^- e^+ \overline{\nu}_e \nu_\tau)/\Gamma_{total}$ — Γ_{89}/Γ

VALUE (units 10^{-5})	EVTS	DOCUMENT ID		TECN	COMMENT
2.8±1.4±0.4	5	ALAM	96	CLEO	E^{ee}_{cm}= 10.6 GeV

$\Gamma(\mu^- e^- e^+ \overline{\nu}_\mu \nu_\tau)/\Gamma_{total}$ — Γ_{90}/Γ

VALUE (units 10^{-5})	CL%	DOCUMENT ID		TECN	COMMENT
<3.6	90	ALAM	96	CLEO	E^{ee}_{cm}= 10.6 GeV

$\Gamma(3h^- 2h^+ \geq 0\,\text{neutrals}\ \nu_\tau (\text{ex. } K^0_S \rightarrow \pi^- \pi^+)(\text{“5-prong”}))/\Gamma_{total}$ — Γ_{91}/Γ

$\Gamma_{91}/\Gamma = (\Gamma_{92}+\Gamma_{93})/\Gamma$

VALUE (%)	EVTS	DOCUMENT ID		TECN	COMMENT
0.097±0.007 OUR FIT					
0.102±0.011 OUR AVERAGE					
0.097±0.005±0.011	419	GIBAUT	94B	CLEO	E^{ee}_{cm}= 10.6 GeV
0.26 ±0.06 ±0.05		ACTON	92H	OPAL	E^{ee}_{cm}= 88.2–94.2 GeV
0.10 $^{+0.05}_{-0.04}$ ±0.03		DECAMP	92C	ALEP	1989–1990 LEP runs
0.102±0.029	13	BYLSMA	87	HRS	E^{ee}_{cm}= 29 GeV
0.16 ±0.08 ±0.04	4	BURCHAT	85	MRK2	E^{ee}_{cm}= 29 GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
0.16 ±0.13 ±0.04		BEHREND	89B	CELL	E^{ee}_{cm}= 14–47 GeV
0.3 ±0.1 ±0.2		BARTEL	85F	JADE	E^{ee}_{cm}= 34.6 GeV
0.13 ±0.04	10	BELTRAMI	85	HRS	Repl. by BYLSMA 87
1.0 ±0.4	10	BEHREND	82	CELL	Repl. by BEHREND 89B

$\big[\Gamma(h^- h^- h^+ \geq 1\,\text{neutrals}\,\nu_\tau) + \Gamma(3h^- 2h^+ \geq 0\,\text{neutrals}\,\nu_\tau$ (ex. $K^0_S \to \pi^- \pi^+$)("5-prong"))$\big]/\Gamma_{\text{total}}$ — $(\Gamma_{58}+\Gamma_{91})/\Gamma$

$(\Gamma_{58}+\Gamma_{91})/\Gamma = (0.3431\Gamma_{36}+0.3431\Gamma_{38}+0.1077\Gamma_{41}+\Gamma_{65}+\Gamma_{73}+\Gamma_{74}+\Gamma_{81}+\Gamma_{85}+\Gamma_{92}+\Gamma_{93}+0.285\Gamma_{110}+0.888\Gamma_{125}+0.9101\Gamma_{126})/\Gamma$

VALUE (%)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
5.28±0.11 OUR FIT	Error includes scale factor of 1.2.				
5.4 ±0.5 OUR AVERAGE					
5.05±0.29±0.65	570	DECAMP	92C	ALEP	1989–1990 LEP runs
5.8 ±0.7 ±0.2	352	[137] BEHREND	90	CELL	E^{ee}_{cm}= 35 GeV

[137] BEHREND 90 not independent of their $\Gamma(h^- h^- h^+ \geq 1\,\text{neutrals}\,\nu_\tau)/\Gamma_{\text{total}}$ measurement.

$\Gamma(3h^- 2h^+ \nu_\tau (\text{ex.}K^0))/\Gamma_{\text{total}}$ — Γ_{92}/Γ

VALUE (%)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
0.075±0.007 OUR FIT					
0.073±0.008 OUR AVERAGE					
0.080±0.011±0.013	58	BUSKULIC	96	ALEP	LEP 1991–1993 data
0.077±0.005±0.009	295	GIBAUT	94B	CLEO	E^{ee}_{cm}= 10.6 GeV
0.064±0.023±0.01	12	ALBRECHT	88B	ARG	E^{ee}_{cm}= 10 GeV
0.051±0.020	7	BYLSMA	87	HRS	E^{ee}_{cm}= 29 GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
0.067±0.030	5	[138] BELTRAMI	85	HRS	Repl. by BYLSMA 87

[138] The error quoted is statistical only.

$\Gamma(3h^- 2h^+ \pi^0 \nu_\tau (\text{ex.}K^0))/\Gamma_{\text{total}}$ — Γ_{93}/Γ

VALUE (%)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
0.022±0.005 OUR FIT					
0.021±0.005 OUR AVERAGE					
0.018±0.007±0.012	18	BUSKULIC	96	ALEP	LEP 1991–1993 data
0.019±0.004±0.004	31	GIBAUT	94B	CLEO	E^{ee}_{cm}= 10.6 GeV
0.051±0.022	6	BYLSMA	87	HRS	E^{ee}_{cm}= 29 GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
0.067±0.030	5	[139] BELTRAMI	85	HRS	Repl. by BYLSMA 87

[139] The error quoted is statistical only.

$\Gamma(3h^- 2h^+ 2\pi^0 \nu_\tau)/\Gamma_{\text{total}}$ — Γ_{94}/Γ

VALUE (%)	*CL%*	*DOCUMENT ID*		*TECN*	*COMMENT*
<0.011	90	GIBAUT	94B	CLEO	E^{ee}_{cm}= 10.6 GeV

$\Gamma((5\pi)^- \nu_\tau)/\Gamma_{\text{total}}$ — Γ_{95}/Γ

$\Gamma_{95}/\Gamma = (\Gamma_{26}+\frac{1}{4}\Gamma_{41}+\Gamma_{73}+\Gamma_{92}+0.236\Gamma_{110}+0.888\Gamma_{126})/\Gamma$

Data marked "avg" are highly correlated with data appearing elsewhere in the Listings, and are therefore used for the average given below but not in the overall fits. "f&a" marks results used for the fit and the average.

VALUE (%)		*DOCUMENT ID*		*TECN*	*COMMENT*
0.74±0.07 OUR FIT					
0.61±0.06±0.08	**avg**	[140] GIBAUT	94B	CLEO	E^{ee}_{cm}= 10.6 GeV

[140] Not independent of GIBAUT 94B B$(3h^- 2h^+ \nu_\tau)$, PROCARIO 93 B$(h^- 4\pi^0 \nu_\tau)$, and BORTOLETTO 93 B$(2h^- h^+ 2\pi^0 \nu_\tau)$/B("3prong") measurements. Result is corrected for η contributions.

$\Gamma(4h^- 3h^+ \geq 0 \text{ neutrals } \nu_\tau (\text{"7-prong"}))/\Gamma_{total}$ — Γ_{96}/Γ

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<2.4 \times 10^{-6}$	90	EDWARDS	97B	CLEO	E^{ee}_{cm}= 10.6 GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$<1.8 \times 10^{-5}$	95	ACKERSTAFF	97J	OPAL	1990–1995 LEP runs
$<2.9 \times 10^{-4}$	90	BYLSMA	87	HRS	E^{ee}_{cm}= 29 GeV

$\Gamma(K^*(892)^- \geq 0(h^0 \neq K^0_S)\nu_\tau)/\Gamma_{total}$ — Γ_{97}/Γ

VALUE (%)	EVTS	DOCUMENT ID		TECN	COMMENT
1.94±0.27±0.15	74	AKERS	94G	OPAL	E^{ee}_{cm}= 88–94 GeV

$\Gamma(K^*(892)^- \geq 0 \text{ neutrals } \nu_\tau)/\Gamma_{total}$ — Γ_{98}/Γ

VALUE (%)	EVTS	DOCUMENT ID		TECN	COMMENT
1.33±0.13 OUR AVERAGE					
$1.19\pm0.15^{+0.13}_{-0.18}$	104	ALBRECHT	95H	ARG	E^{ee}_{cm}= 9.4–10.6 GeV
1.43±0.11±0.13	475	[141] GOLDBERG	90	CLEO	E^{ee}_{cm}= 9.4–10.9 GeV

[141] GOLDBERG 90 estimates that 10% of observed $K^*(892)$ are accompanied by a π^0.

$\Gamma(K^*(892)^- \nu_\tau)/\Gamma_{total}$ — Γ_{99}/Γ

VALUE (%)	EVTS	DOCUMENT ID		TECN	COMMENT
1.28±0.08 OUR AVERAGE					
1.39±0.09±0.10		[142] BUSKULIC	96	ALEP	LEP 1991–1993 data
1.11±0.12		[143] COAN	96	CLEO	$E^{ee}_{cm} \approx$ 10.6 GeV
1.42±0.22±0.09		[144] ACCIARRI	95F	L3	1991–1993 LEP runs
$1.23\pm0.21^{+0.11}_{-0.21}$	54	[145] ALBRECHT	88L	ARG	E^{ee}_{cm}= 10 GeV
1.9 ±0.3 ±0.4	44	[146] TSCHIRHART	88	HRS	E^{ee}_{cm}= 29 GeV
1.5 ±0.4 ±0.4	15	[147] AIHARA	87C	TPC	E^{ee}_{cm}= 29 GeV
1.3 ±0.3 ±0.3	31	YELTON	86	MRK2	E^{ee}_{cm}= 29 GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
1.45±0.13±0.11	273	[148] BUSKULIC	94F	ALEP	Repl. by BUSKULIC 96
1.7 ±0.7	11	DORFAN	81	MRK2	E^{ee}_{cm}= 4.2–6.7 GeV

[142] Not independent of BUSKULIC 96 B($\pi^- \overline{K}^0 \nu_\tau$) and B($K^- \pi^0 \nu_\tau$) measurements.

[143] Not independent of COAN 96 B($\pi^- \overline{K}^0 \nu_\tau$) and BATTLE 94 B($K^- \pi^0 \nu_\tau$) measurements. $K\pi$ final states are consistent with and assumed to originate from $K^*(892)^-$ production.

[144] This result is obtained from their B($\pi^- \overline{K}^0 \nu_\tau$) assuming all those decays originate in $K^*(892)^-$ decays.

[145] The authors divide by Γ_1/Γ = 0.865 to obtain this result.

[146] Not independent of TSCHIRHART 88 $\Gamma(\tau^- \to h^- \overline{K}^0 \geq 0 \text{ neutrals } \geq 0 K^0_L \nu_\tau)/\Gamma(\text{total})$.

[147] Decay π^- identified in this experiment, is assumed in the others.

[148] BUSKULIC 94F obtain this result from BUSKULIC 94F B($\overline{K}^0 \pi^- \nu_\tau$) and BUSKULIC 94E B($K^- \pi^0 \nu_\tau$) assuming all of those decays originate in $K^*(892)^-$ decays.

$\Gamma(K^*(892)^- \nu_\tau)/\Gamma(\pi^- \pi^0 \nu_\tau)$ — Γ_{99}/Γ_{13}

VALUE	DOCUMENT ID		TECN	COMMENT
0.075±0.027	[149] ABREU	94K	DLPH	LEP 1992 Z data

[149] ABREU 94K quote $B(\tau^- \to K^*(892)^- \nu_\tau)B(K^*(892)^- \to K^- \pi^0)/B(\tau^- \to \rho^- \nu_\tau) = 0.025 \pm 0.009$. We divide by $B(K^*(892)^- \to K^- \pi^0) = 0.333$ to obtain this result.

$\Gamma(K^*(892)^0 K^- \geq 0 \text{ neutrals } \nu_\tau)/\Gamma_{\text{total}}$ — Γ_{100}/Γ

VALUE (%)	EVTS	DOCUMENT ID		TECN	COMMENT
0.32±0.08±0.12	119	GOLDBERG	90	CLEO	E^{ee}_{cm}= 9.4–10.9 GeV

$\Gamma(K^*(892)^0 K^- \nu_\tau)/\Gamma_{\text{total}}$ — Γ_{101}/Γ

VALUE (%)	EVTS	DOCUMENT ID		TECN	COMMENT
0.21 ±0.04 OUR AVERAGE					
0.213±0.048		[150] BARATE	98	ALEP	1991–1995 LEP runs
0.20 ±0.05 ±0.04	47	ALBRECHT	95H	ARG	E^{ee}_{cm}= 9.4–10.6 GeV

[150] BARATE 98 measure the K^- ($\rho^0 \to \pi^+ \pi^-$) fraction in $\tau^- \to K^- \pi^+ \pi^- \nu_\tau$ decays to be (35 ± 11)% and derive this result from their measurement of $\Gamma(\tau^- \to K^- \pi^+ \pi^- \nu_\tau)/\Gamma_{\text{total}}$ assuming the intermediate states are all $K^- \rho$ and $K^- K^*(892)^0$.

$\Gamma(\overline{K}^*(892)^0 \pi^- \geq 0 \text{ neutrals } \nu_\tau)/\Gamma_{\text{total}}$ — Γ_{102}/Γ

VALUE (%)	EVTS	DOCUMENT ID		TECN	COMMENT
0.38±0.11±0.13	105	GOLDBERG	90	CLEO	E^{ee}_{cm}= 9.4–10.9 GeV

$\Gamma(\overline{K}^*(892)^0 \pi^- \nu_\tau)/\Gamma_{\text{total}}$ — Γ_{103}/Γ

VALUE (%)	EVTS	DOCUMENT ID		TECN	COMMENT
0.22 ±0.05 OUR AVERAGE					
0.209±0.058		[151] BARATE	98	ALEP	1991–1995 LEP runs
0.25 ±0.10 ±0.05	27	ALBRECHT	95H	ARG	E^{ee}_{cm}= 9.4–10.6 GeV

[151] BARATE 98 measure the $K^- K^*(892)^0$ fraction in $\tau^- \to K^- K^+ \pi^- \nu_\tau$ decays to be (87 ± 13)% and derive this result from their measurement of $\Gamma(\tau^- \to K^- K^+ \pi^- \nu_\tau)/\Gamma_{\text{total}}$.

$\Gamma((\overline{K}^*(892)\pi)^- \nu_\tau \to \pi^- \overline{K}^0 \pi^0 \nu_\tau)/\Gamma_{\text{total}}$ — Γ_{104}/Γ

VALUE (%)	DOCUMENT ID		TECN	COMMENT
0.106±0.037±0.032	[152] BARATE	98E	ALEP	1991–1995 LEP runs

[152] BARATE 98E determine the $\overline{K}^0 \rho^-$ fraction in $\tau^- \to \pi^- \overline{K}^0 \pi^0 \nu_\tau$ decays to be (0.64 ± 0.09 ± 0.10) and multiply their $B(\pi^- \overline{K}^0 \pi^0 \nu_\tau)$ measurement by one minus this fraction to obtain the quoted result.

$\Gamma(K_1(1270)^- \nu_\tau)/\Gamma_{\text{total}}$ — Γ_{105}/Γ

VALUE (%)	EVTS	DOCUMENT ID		TECN	COMMENT
$0.41^{+0.41}_{-0.35}$±0.10	5	[153] BAUER	94	TPC	E^{ee}_{cm}= 29 GeV

[153] We multiply 0.41% by 0.25, the relative systematic error quoted by BAUER 94, to obtain the systematic error.

$\Gamma(K_1(1400)^- \nu_\tau)/\Gamma_{total}$ — Γ_{106}/Γ

VALUE (%)	EVTS	DOCUMENT ID		TECN	COMMENT
$\mathbf{0.76^{+0.40}_{-0.33}\pm0.20}$	11	[154] BAUER	94	TPC	E^{ee}_{cm}= 29 GeV

[154] We multiply 0.76% by 0.25, the relative systematic error quoted by BAUER 94, to obtain the systematic error.

$[\Gamma(K_1(1270)^- \nu_\tau) + \Gamma(K_1(1400)^- \nu_\tau)]/\Gamma_{total}$ — $(\Gamma_{105}+\Gamma_{106})/\Gamma$

VALUE (%)	EVTS	DOCUMENT ID		TECN	COMMENT
$\mathbf{1.17^{+0.41}_{-0.37}\pm0.29}$	16	[155] BAUER	94	TPC	E^{ee}_{cm}= 29 GeV

[155] We multiply 1.17% by 0.25, the relative systematic error quoted by BAUER 94, to obtain the systematic error. Not independent of BAUER 94 B($K_1(1270)^- \nu_\tau$) and BAUER 94 B($K_1(1400)^- \nu_\tau$) measurements.

$\Gamma(K_2^*(1430)^- \nu_\tau)/\Gamma_{total}$ — Γ_{107}/Γ

VALUE (%)	CL%	EVTS	DOCUMENT ID		TECN	COMMENT
<0.3	95		TSCHIRHART	88	HRS	E^{ee}_{cm}= 29 GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •						
<0.33	95		[156] ACCIARRI	95F	L3	1991–1993 LEP runs
<0.9	95	0	DORFAN	81	MRK2	E^{ee}_{cm}= 4.2–6.7 GeV

[156] ACCIARRI 95F quote B($\tau^- \rightarrow K^*(1430)^- \rightarrow \pi^- \overline{K}^0 \nu_\tau$) < 0.11%. We divide by B($K^*(1430)^- \rightarrow \pi^- \overline{K}^0$) = 0.33 to obtain the limit shown.

$\Gamma(a_0(980)^- \geq 0\text{ neutrals } \nu_\tau)/\Gamma_{total} \times B(a_0(980) \rightarrow K^0 K^-)$ — $\Gamma_{108}/\Gamma \times B$

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$\mathbf{<2.8 \times 10^{-4}}$	90	GOLDBERG	90	CLEO	E^{ee}_{cm}= 9.4–10.9 GeV

$\Gamma(\eta \pi^- \nu_\tau)/\Gamma_{total}$ — Γ_{109}/Γ

VALUE (units 10^{-4})	CL%	EVTS	DOCUMENT ID		TECN	COMMENT
< 1.4	95	0	BARTELT	96	CLEO	$E^{ee}_{cm} \approx$ 10.6 GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •						
< 6.2	95		BUSKULIC	97C	ALEP	1991–1994 LEP runs
< 3.4	95		ARTUSO	92	CLEO	$E^{ee}_{cm} \approx$ 10.6 GeV
< 90	95		ALBRECHT	88M	ARG	$E^{ee}_{cm} \approx$ 10 GeV
<140	90		BEHREND	88	CELL	E^{ee}_{cm}= 14–46.8 GeV
<180	95		BARINGER	87	CLEO	E^{ee}_{cm}= 10.5 GeV
<250	90	0	COFFMAN	87	MRK3	E^{ee}_{cm}= 3.77 GeV
510 $\pm$100$\pm$120		65	DERRICK	87	HRS	E^{ee}_{cm}= 29 GeV
<100	95		GAN	87B	MRK2	E^{ee}_{cm}= 29 GeV

$\Gamma(\eta\pi^-\pi^0\nu_\tau)/\Gamma_{total}$ — Γ_{110}/Γ

VALUE (%)	CL%	EVTS	DOCUMENT ID		TECN	COMMENT
0.174±0.024 OUR FIT						
0.173±0.024 OUR AVERAGE						
0.18 ±0.04 ±0.02			BUSKULIC	97C	ALEP	1991–1994 LEP runs
0.17 ±0.02 ±0.02		125	ARTUSO	92	CLEO	$E^{ee}_{cm} \approx$ 10.6 GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •						
<1.10	95		ALBRECHT	88M	ARG	$E^{ee}_{cm} \approx$ 10 GeV
<2.10	95		BARINGER	87	CLEO	E^{ee}_{cm}= 10.5 GeV
4.20 $^{+0.70}_{-1.20}$ ±1.60			[157] GAN	87	MRK2	E^{ee}_{cm}= 29 GeV

[157] Highly correlated with GAN 87 $\Gamma(\pi^- 3\pi^0 \nu_\tau)/\Gamma$(total) value.

$\Gamma(\eta\pi^-\pi^0\pi^0\nu_\tau)/\Gamma_{total}$ — Γ_{111}/Γ

VALUE (units 10^{-4})	CL%	EVTS	DOCUMENT ID		TECN	COMMENT
1.4±0.6±0.3		15	BERGFELD	97	CLEO	E^{ee}_{cm}= 10.6 GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •						
< 4.3	95		ARTUSO	92	CLEO	$E^{ee}_{cm} \approx$ 10.6 GeV
<120	95		ALBRECHT	88M	ARG	$E^{ee}_{cm} \approx$ 10 GeV

$\Gamma(\eta K^-\nu_\tau)/\Gamma_{total}$ — Γ_{112}/Γ

VALUE (units 10^{-4})	CL%	EVTS	DOCUMENT ID		TECN	COMMENT
2.7±0.6 OUR AVERAGE						
2.9$^{+1.3}_{-1.2}$±0.7			BUSKULIC	97C	ALEP	1991–1994 LEP runs
2.6±0.5±0.5		85	BARTELT	96	CLEO	$E^{ee}_{cm} \approx$ 10.6 GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •						
<4.7	95		ARTUSO	92	CLEO	$E^{ee}_{cm} \approx$ 10.6 GeV

$\Gamma(\eta\pi^+\pi^-\pi^- \geq 0\ \text{neutrals}\ \nu_\tau)/\Gamma_{total}$ — Γ_{113}/Γ

VALUE (%)	CL%	DOCUMENT ID		TECN	COMMENT
<0.3	90	ABACHI	87B	HRS	E^{ee}_{cm}= 29 GeV

$\Gamma(\eta\pi^-\pi^+\pi^-\nu_\tau)/\Gamma_{total}$ — Γ_{114}/Γ

VALUE (units 10^{-4})	EVTS	DOCUMENT ID		TECN	COMMENT
3.4$^{+0.6}_{-0.5}$±0.6	89	BERGFELD	97	CLEO	E^{ee}_{cm}= 10.6 GeV

$\Gamma(\eta a_1(1260)^-\nu_\tau \to \eta\pi^-\rho^0\nu_\tau)/\Gamma_{total}$ — Γ_{115}/Γ

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<3.9 × 10^{-4}	90	BERGFELD	97	CLEO	E^{ee}_{cm}= 10.6 GeV

$\Gamma(\eta\eta\pi^-\nu_\tau)/\Gamma_{total}$ — Γ_{116}/Γ

VALUE (units 10^{-4})	*CL%*	*DOCUMENT ID*		*TECN*	*COMMENT*
< 1.1	95	ARTUSO	92	CLEO	$E^{ee}_{cm} \approx$ 10.6 GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<83	95	ALBRECHT	88M	ARG	$E^{ee}_{cm} \approx$ 10 GeV

$\Gamma(\eta\eta\pi^-\pi^0\nu_\tau)/\Gamma_{total}$ — Γ_{117}/Γ

VALUE (units 10^{-4})	*CL%*	*DOCUMENT ID*		*TECN*	*COMMENT*
< 2.0	95	ARTUSO	92	CLEO	$E^{ee}_{cm} \approx$ 10.6 GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<90	95	ALBRECHT	88M	ARG	$E^{ee}_{cm} \approx$ 10 GeV

$\Gamma(\eta'(958)\pi^-\nu_\tau)/\Gamma_{total}$ — Γ_{118}/Γ

VALUE	*CL%*	*DOCUMENT ID*		*TECN*	*COMMENT*
$<7.4 \times 10^{-5}$	90	BERGFELD	97	CLEO	E^{ee}_{cm}= 10.6 GeV

$\Gamma(\eta'(958)\pi^-\pi^0\nu_\tau)/\Gamma_{total}$ — Γ_{119}/Γ

VALUE	*CL%*	*DOCUMENT ID*		*TECN*	*COMMENT*
$<8.0 \times 10^{-5}$	90	BERGFELD	97	CLEO	E^{ee}_{cm}= 10.6 GeV

$\Gamma(\phi\pi^-\nu_\tau)/\Gamma_{total}$ — Γ_{120}/Γ

VALUE	*CL%*	*DOCUMENT ID*		*TECN*	*COMMENT*
$<2.0 \times 10^{-4}$	90	[158] AVERY	97	CLEO	E^{ee}_{cm}= 10.6 GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$<3.5 \times 10^{-4}$	90	ALBRECHT	95H	ARG	E^{ee}_{cm}= 9.4–10.6 GeV

[158] AVERY 97 limit varies from (1.2–2.0) $\times 10^{-4}$ depending on decay model assumptions.

$\Gamma(\phi K^-\nu_\tau)/\Gamma_{total}$ — Γ_{121}/Γ

VALUE	*CL%*	*DOCUMENT ID*		*TECN*	*COMMENT*
$<6.7 \times 10^{-5}$	90	[159] AVERY	97	CLEO	E^{ee}_{cm}= 10.6 GeV

[159] AVERY 97 limit varies from (5.4–6.7) $\times 10^{-5}$ depending on decay model assumptions.

$\Gamma(f_1(1285)\pi^-\nu_\tau)/\Gamma_{total}$ — Γ_{122}/Γ

VALUE (units 10^{-4})	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
$5.8^{+1.4}_{-1.3}\pm1.8$	54	BERGFELD	97	CLEO	E^{ee}_{cm}= 10.6 GeV

$\Gamma(f_1(1285)\pi^-\nu_\tau \to \eta\pi^-\pi^+\pi^-\nu_\tau)/\Gamma(\eta\pi^-\pi^+\pi^-\nu_\tau)$ — $\Gamma_{123}/\Gamma_{114}$

VALUE	*DOCUMENT ID*		*TECN*	*COMMENT*
0.55±0.14	BERGFELD	97	CLEO	E^{ee}_{cm}= 10.6 GeV

$\Gamma(h^- \omega \geq 0 \text{ neutrals } \nu_\tau)/\Gamma_{\text{total}}$ Γ_{124}/Γ

$\Gamma_{124}/\Gamma = (\Gamma_{125}+\Gamma_{126})/\Gamma$

Data marked "avg" are highly correlated with data appearing elsewhere in the Listings, and are therefore used for the average given below but not in the overall fits. "f&a" marks results used for the fit and the average.

VALUE (%)		*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
2.36±0.08 OUR FIT						
1.65±0.3 ±0.2	**avg**	1513	ALBRECHT	88M	ARG	$E^{ee}_{\text{cm}} \approx$ 10 GeV

$\Gamma(h^- \omega \nu_\tau)/\Gamma_{\text{total}}$ Γ_{125}/Γ

Data marked "avg" are highly correlated with data appearing elsewhere in the Listings, and are therefore used for the average given below but not in the overall fits. "f&a" marks results used for the fit and the average.

VALUE (%)		*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
1.93±0.06 OUR FIT						
1.92±0.07 OUR AVERAGE						
1.91±0.07±0.06	f&a	5803	BUSKULIC	97C	ALEP	1991–1994 LEP runs
1.95±0.07±0.11	avg	2223	[160] BALEST	95C	CLEO	$E^{ee}_{\text{cm}} \approx$ 10.6 GeV
1.60±0.27±0.41	f&a	139	BARINGER	87	CLEO	E^{ee}_{cm} = 10.5 GeV

[160] Not independent of BALEST 95C B($\tau^- \rightarrow h^- \omega \nu_\tau$)/B($\tau^- \rightarrow h^- h^- h^+ \pi^0 \nu_\tau$) value.

$[\Gamma(h^- \rho \pi^0 \nu_\tau) + \Gamma(h^- \rho^+ h^- \nu_\tau) + \Gamma(h^- \rho^- h^+ \nu_\tau) + \Gamma(h^- \omega \nu_\tau)]/\Gamma(h^- h^- h^+ \pi^0 \nu_\tau)$ $(\Gamma_{68}+\Gamma_{69}+\Gamma_{70}+\Gamma_{125})/\Gamma_{60}$

VALUE	*CL%*	*DOCUMENT ID*		*TECN*	*COMMENT*
>0.81	95	[161] ALBRECHT	91D	ARG	E^{ee}_{cm}= 9.4–10.6 GeV

[161] ALBRECHT 91D not independent of their $\Gamma(h^- \omega \nu_\tau)/\Gamma(h^- h^- h^+ \pi^0 \nu_\tau (\text{ex.}K^0))$, $\Gamma(h^- \rho \pi^0 \nu_\tau)/\Gamma(h^- h^- h^+ \pi^0 \nu_\tau)$, $\Gamma(h^- \rho^+ h^- \nu_\tau)/\Gamma(h^- h^- h^+ \pi^0 \nu_\tau)$, and $\Gamma(h^- \rho^- h^+ \nu_\tau)/\Gamma(h^- h^- h^+ \pi^0 \nu_\tau)$ values.