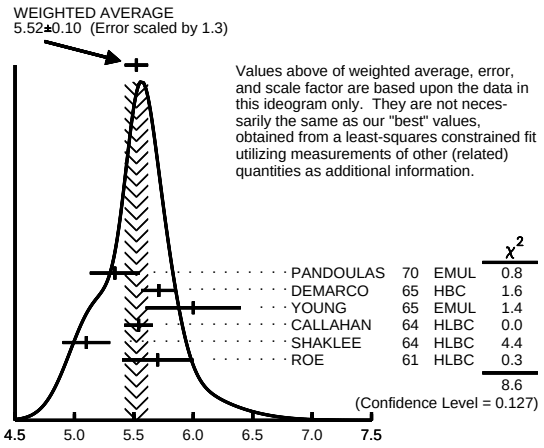
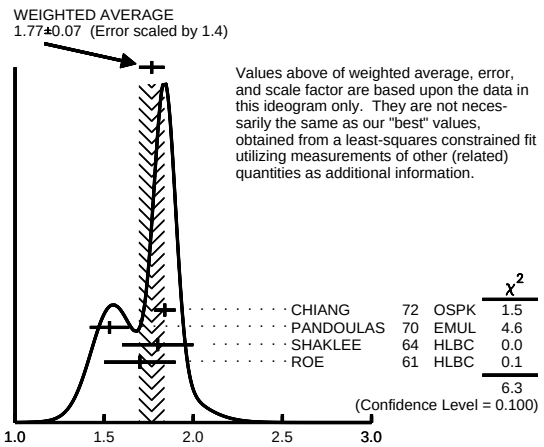


$\Gamma(\pi^+\pi^0\pi^0)/\Gamma_{total}$ Γ_5/Γ

VALUE (units 10^{-2})	EVTS	DOCUMENT ID		TECN	CHG	COMMENT
1.73±0.04 OUR FIT	Error includes scale factor of 1.2.					
1.77±0.07 OUR AVERAGE	Error includes scale factor of 1.4. See the ideogram below.					
1.84±0.06	1307	CHIANG	72	OSPK	+	1.84 GeV/c K^+
1.53±0.11	198	[17] PANDOULAS	70	EMUL	+	
1.8 ±0.2	108	SHAKLEE	64	HLBC	+	
1.7 ±0.2		ROE	61	HLBC	+	
• • • We do not use the following data for averages, fits, limits, etc. • • •						
1.5 ±0.2		[18] TAYLOR	59	EMUL	+	
2.2 ±0.4		[18] ALEXANDER	57	EMUL	+	
2.1 ±0.5		[18] BIRGE	56	EMUL	+	

[17] Includes events of TAYLOR 59.
[18] Earlier experiments not averaged.



$\Gamma(\pi^+\pi^0\pi^0)/\Gamma(\pi^+\pi^0)$ Γ_5/Γ_3

VALUE	EVTS	DOCUMENT ID		TECN	CHG	COMMENT
0.0819±0.0020 OUR FIT	Error includes scale factor of 1.2.					
0.081 ±0.005	574	[19] LUCAS	73B	HBC	–	Dalitz pairs only

[19] LUCAS 73B gives $N(\pi 2\pi^0) = 574 \pm 5.9\%$, $N(2\pi) = 3564 \pm 3.1\%$. We quote $0.5N(\pi 2\pi^0)/N(2\pi)$ where 0.5 is because only Dalitz pair π^0's were used.

$\Gamma(\pi^+\pi^0\pi^0)/\Gamma(\pi^+\pi^+\pi^-)$ Γ_5/Γ_4

VALUE	EVTS	DOCUMENT ID		TECN	CHG	COMMENT
0.310±0.007 OUR FIT	Error includes scale factor of 1.2.					
0.304±0.009 OUR AVERAGE						
0.303±0.009	2027	BISI	65	BC	+	HBC+HLBC
0.393±0.099	17	YOUNG	65	EMUL	+	

$\Gamma(\pi^0\mu^+\nu_\mu)/\Gamma_{total}$ Γ_6/Γ

VALUE (units 10^{-2})	EVTS	DOCUMENT ID		TECN	CHG	COMMENT
3.18±0.08 OUR FIT	Error includes scale factor of 1.5.					
3.33±0.16	2345	CHIANG	72	OSPK	+	1.84 GeV/c K^+
• • • We do not use the following data for averages, fits, limits, etc. • • •						
2.8 ±0.4		[20] TAYLOR	59	EMUL	+	
5.9 ±1.3		[20] ALEXANDER	57	EMUL	+	
2.8 ±1.0		[20] BIRGE	56	EMUL	+	

[20] Earlier experiments not averaged.

$\Gamma(\pi^0\mu^+\nu_\mu)/\Gamma(\mu^+\nu_\mu)$ Γ_6/Γ_1

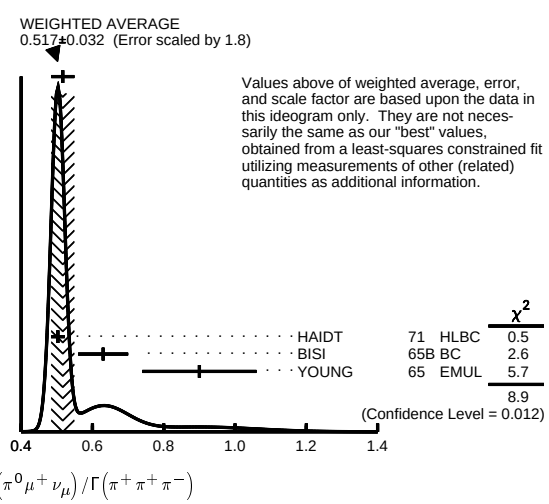
VALUE	EVTS	DOCUMENT ID		TECN	CHG
0.0501±0.0013 OUR FIT	Error includes scale factor of 1.6.				
0.0488±0.0026 OUR AVERAGE					
0.054 ±0.009	240	ZELLER	69	ASPK	+
0.0480±0.0037	424	[21] GARLAND	68	OSPK	+
0.0486±0.0040	307	[22] AUERBACH	67	OSPK	+

[21] GARLAND 68 changed from 0.055 ± 0.004 in agreement with μ-spectrum calculation of GAILLARD 70 appendix B. L.G.Pondrom, (private communication 73).
[22] AUERBACH 67 changed from 0.0602 ± 0.0046 by erratum which brings the μ-spectrum calculation into agreement with GAILLARD 70 appendix B.

$\Gamma(\pi^0\mu^+\nu_\mu)/\Gamma(\pi^+\pi^+\pi^-)$ Γ_6/Γ_4

VALUE	EVTS	DOCUMENT ID		TECN	CHG	COMMENT
0.569±0.014 OUR FIT	Error includes scale factor of 1.5.					
0.517±0.032 OUR AVERAGE	Error includes scale factor of 1.8. See the ideogram below.					
0.503±0.019	1505	[23] HAIDT	71	HLBC	+	
0.63 ±0.07	2845	[24] BISI	65B	BC	+	HBC+HLBC
0.90 ±0.16	38	YOUNG	65	EMUL	+	
• • • We do not use the following data for averages, fits, limits, etc. • • •						
0.510±0.017	1505	[23] EICHTEN	68	HLBC	+	

[23] HAIDT 71 is a reanalysis of EICHTEN 68.
[24] Error enlarged for background problems. See GAILLARD 70.



$\Gamma(\pi^0\mu^+\nu_\mu)/\Gamma(\pi^0e^+\nu_e)$ Γ_6/Γ_7

VALUE	EVTS	DOCUMENT ID		TECN	CHG	COMMENT
0.660±0.015 OUR FIT	Error includes scale factor of 1.5.					
0.680±0.013 OUR AVERAGE						
0.705±0.063	554	[25] LUCAS	73B	HBC	–	Dalitz pairs only
0.698±0.025	3480	[26] CHIANG	72	OSPK	+	1.84 GeV/c K^+
0.667±0.017	5601	BOTTERILL	68B	ASPK	+	
0.703±0.056	1509	[27] CALLAHAN	66B	HLBC		
• • • We do not use the following data for averages, fits, limits, etc. • • •						
0.670±0.014		[28] HEINTZE	77	SPEC	+	
0.67 ±0.12		WEISSENBE...	76	SPEC	+	
0.608±0.014	1585	[29] BRAUN	75	HLBC	+	
0.596±0.025		[30] HAIDT	71	HLBC	+	
0.604±0.022	1398	[30] EICHTEN	68	HLBC		

[25] LUCAS 73B gives $N(K_{\mu 3}) = 554 \pm 7.6\%$, $N(K_{e3}) = 786 \pm 3.1\%$. We divide.
[26] CHIANG 72 $\Gamma(\pi^0\mu^+\nu_\mu)/\Gamma(\pi^0e^+\nu_e)$ is statistically independent of CHIANG 72 $\Gamma(\pi^0\mu^+\nu_\mu)/\Gamma_{total}$ and $\Gamma(\pi^0e^+\nu_e)/\Gamma_{total}$.
[27] From CALLAHAN 66B we use only the $K_{\mu 3}/K_{e3}$ ratio and do not include in the fit the ratios $K_{\mu 3}/(\pi\pi^+\pi^0)$ and $K_{e3}/(\pi\pi^+\pi^0)$, since they show large disagreements with the rest of the data.
[28] HEINTZE 77 value from fit to λ_0. Assumes μ-e universality.
[29] BRAUN 75 value is from form factor fit. Assumes μ-e universality.
[30] HAIDT 71 is a reanalysis of EICHTEN 68. Only individual ratios included in fit (see $\Gamma(\pi^0\mu^+\nu_\mu)/\Gamma(\pi^+\pi^+\pi^-)$ and $\Gamma(\pi^0e^+\nu_e)/\Gamma(\pi^+\pi^+\pi^-)$).

$[\Gamma(\pi^+\pi^0) + \Gamma(\pi^0\mu^+\nu_\mu)]/\Gamma_{total}$ $(\Gamma_3+\Gamma_6)/\Gamma$

We combine these two modes for experiments measuring them in xenon bubble chamber because of difficulties of separating them there.

VALUE (units 10^{-2})	EVTS	DOCUMENT ID		TECN	CHG
24.34±0.15 OUR FIT	Error includes scale factor of 1.2.				
24.6 ±1.0 OUR AVERAGE	Error includes scale factor of 1.4.				
25.4 ±0.9	886	SHAKLEE	64	HLBC	+
23.4 ±1.1		ROE	61	HLBC	+