

MC-TESTER v1.24.4 - results for decays of particle τ^- (PDG code 15).

Nadia Davidson Piotr Golonka Tomasz Pierzchala
Tomasz Przedzinski Zbigniew Was

September 21, 2017

Results from **generator 1**.

```
2009 cleo
 $\tau^-$  decays

2017-09-11 12:20:26
```

- Total number of analyzed decays: 10000000
- Number of decay channels found: 32

Results from **generator 2**.

```
TAUOLA-FORTRAN/tauola-bbb cleo
 $\tau^-$  decays

2017-09-20 18:57:21
```

- Total number of analyzed decays: 10000000
- Number of decay channels found: 32

Found decay modes:

Decay channel	Branching Ratio \pm Rough Errors		Max. shape dif. param.
	Generator #1	Generator #2	
$\tau^- \rightarrow \pi^- \pi^0 \nu_\tau$	25.2988 \pm 0.0159%	25.3225 \pm 0.0159%	0.00000
$\tau^- \rightarrow \nu_\tau \widetilde{\nu}_\mu \mu^-$	17.0371 \pm 0.0131%	17.0275 \pm 0.0130%	0.00000
$\tau^- \rightarrow \nu_\tau \widetilde{\nu}_e e^-$	15.2588 \pm 0.0124%	15.2743 \pm 0.0124%	0.00000
$\tau^- \rightarrow \pi^- \nu_\tau$	11.1820 \pm 0.0106%	11.1811 \pm 0.0106%	0.00000
$\tau^- \rightarrow \pi^- \pi^0 \pi^0 \nu_\tau$	9.1199 \pm 0.0095%	9.0030 \pm 0.0095%	0.00000
$\tau^- \rightarrow \pi^- \pi^- \pi^+ \nu_\tau$	8.8886 \pm 0.0094%	8.9987 \pm 0.0095%	0.00000
$\tau^- \rightarrow \pi^- \pi^- \pi^+ \pi^0 \nu_\tau$	4.5346 \pm 0.0067%	4.5381 \pm 0.0067%	0.00038
$\tau^- \rightarrow \gamma \nu_\tau \widetilde{\nu}_e e^-$	2.8446 \pm 0.0053%	2.8359 \pm 0.0053%	0.00000
$\tau^- \rightarrow \pi^- \pi^0 \pi^0 \pi^0 \nu_\tau$	1.0104 \pm 0.0032%	1.0014 \pm 0.0032%	0.00000
$\tau^- \rightarrow K^- \nu_\tau$	0.7181 \pm 0.0027%	0.7157 \pm 0.0027%	0.00000
$\tau^- \rightarrow \gamma \nu_\tau \widetilde{\nu}_\mu \mu^-$	0.5753 \pm 0.0024%	0.5753 \pm 0.0024%	0.00000
$\tau^- \rightarrow K^- \pi^- \pi^+ \nu_\tau$	0.5101 \pm 0.0023%	0.5043 \pm 0.0022%	0.00000
$\tau^- \rightarrow K^- \pi^0 \nu_\tau$	0.4624 \pm 0.0022%	0.4507 \pm 0.0021%	0.00000
$\tau^- \rightarrow K_S^0 \pi^- \nu_\tau$	0.4449 \pm 0.0021%	0.4456 \pm 0.0021%	0.00000
$\tau^- \rightarrow \pi^- K_L^0 \nu_\tau$	0.4409 \pm 0.0021%	0.4545 \pm 0.0021%	0.00000
$\tau^- \rightarrow \pi^- K_L^0 \pi^0 \nu_\tau$	0.2781 \pm 0.0017%	0.2777 \pm 0.0017%	0.00000
$\tau^- \rightarrow K_S^0 \pi^- \pi^0 \nu_\tau$	0.2745 \pm 0.0017%	0.2767 \pm 0.0017%	0.00000
$\tau^- \rightarrow \eta \pi^- \pi^0 \nu_\tau$	0.1727 \pm 0.0013%	0.1704 \pm 0.0013%	0.00000
$\tau^- \rightarrow K^- K^+ \pi^- \nu_\tau$	0.1518 \pm 0.0012%	0.1505 \pm 0.0012%	0.00000
$\tau^- \rightarrow \pi^- \pi^0 \gamma \nu_\tau$	0.1307 \pm 0.0011%	0.1314 \pm 0.0011%	0.00000
$\tau^- \rightarrow \pi^- \pi^- \pi^+ \pi^0 \pi^0 \nu_\tau$	0.0904 \pm 0.0010%	0.0908 \pm 0.0010%	0.02572
$\tau^- \rightarrow K^- K_L^0 \pi^0 \nu_\tau$	0.0768 \pm 0.0009%	0.0767 \pm 0.0009%	0.01143
$\tau^- \rightarrow K_S^0 \pi^- K_L^0 \nu_\tau$	0.0759 \pm 0.0009%	0.0733 \pm 0.0009%	0.00000
$\tau^- \rightarrow K^- K_S^0 \pi^0 \nu_\tau$	0.0759 \pm 0.0009%	0.0761 \pm 0.0009%	0.00666
$\tau^- \rightarrow K^- \pi^0 \pi^0 \nu_\tau$	0.0511 \pm 0.0007%	0.0488 \pm 0.0007%	0.00000
$\tau^- \rightarrow K^- K_L^0 \nu_\tau$	0.0509 \pm 0.0007%	0.0511 \pm 0.0007%	0.00000
$\tau^- \rightarrow K^- K_S^0 \nu_\tau$	0.0501 \pm 0.0007%	0.0504 \pm 0.0007%	0.00000
$\tau^- \rightarrow \pi^- \pi^- \pi^+ \pi^0 \pi^0 \nu_\tau$	0.0498 \pm 0.0007%	0.0504 \pm 0.0007%	0.00000
$\tau^- \rightarrow \pi^- \pi^- \pi^- \pi^+ \pi^+ \nu_\tau$	0.0403 \pm 0.0006%	0.0403 \pm 0.0006%	0.00000
$\tau^- \rightarrow K_S^0 K_S^0 \pi^- \nu_\tau$	0.0374 \pm 0.0006%	0.0380 \pm 0.0006%	0.00000
$\tau^- \rightarrow \pi^- K_L^0 K_L^0 \nu_\tau$	0.0370 \pm 0.0006%	0.0386 \pm 0.0006%	0.00000
$\tau^- \rightarrow \pi^- \pi^- \pi^+ \pi^+ \pi^0 \nu_\tau$	0.0301 \pm 0.0005%	0.0302 \pm 0.0005%	0.00178

Similarity coefficients: T1=0.295711 %, T2=0.003514 %

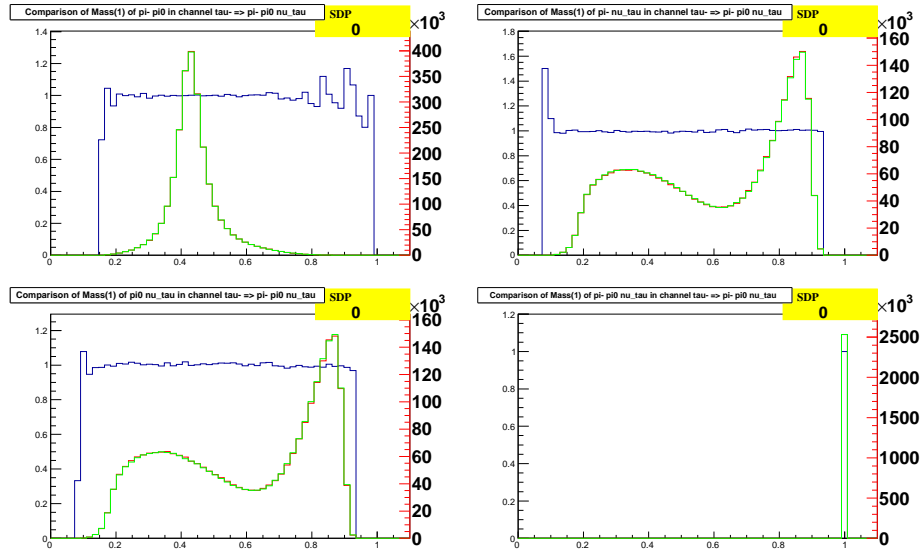
Contents

1	Decay Channel: $\tau^- \rightarrow \pi^- \pi^0 \nu_\tau$	6
2	Decay Channel: $\tau^- \rightarrow \nu_\tau \tilde{\nu}_\mu \mu^-$	6
3	Decay Channel: $\tau^- \rightarrow \nu_\tau \tilde{\nu}_e e^-$	7
4	Decay Channel: $\tau^- \rightarrow \pi^- \nu_\tau$	7
5	Decay Channel: $\tau^- \rightarrow \pi^- \pi^0 \pi^0 \nu_\tau$	8
6	Decay Channel: $\tau^- \rightarrow \pi^- \pi^- \pi^+ \nu_\tau$	9
7	Decay Channel: $\tau^- \rightarrow \pi^- \pi^- \pi^+ \pi^0 \nu_\tau$	11
8	Decay Channel: $\tau^- \rightarrow \gamma \nu_\tau \tilde{\nu}_e e^-$	13
9	Decay Channel: $\tau^- \rightarrow \pi^- \pi^0 \pi^0 \pi^0 \nu_\tau$	15
10	Decay Channel: $\tau^- \rightarrow K^- \nu_\tau$	18
11	Decay Channel: $\tau^- \rightarrow \gamma \nu_\tau \tilde{\nu}_\mu \mu^-$	18
12	Decay Channel: $\tau^- \rightarrow K^- \pi^- \pi^+ \nu_\tau$	19
13	Decay Channel: $\tau^- \rightarrow K^- \pi^0 \nu_\tau$	21
14	Decay Channel: $\tau^- \rightarrow K_S^0 \pi^- \nu_\tau$	21
15	Decay Channel: $\tau^- \rightarrow \pi^- K_L^0 \nu_\tau$	22
16	Decay Channel: $\tau^- \rightarrow \pi^- K_L^0 \pi^0 \nu_\tau$	23
17	Decay Channel: $\tau^- \rightarrow K_S^0 \pi^- \pi^0 \nu_\tau$	24
18	Decay Channel: $\tau^- \rightarrow \eta \pi^- \pi^0 \nu_\tau$	25
19	Decay Channel: $\tau^- \rightarrow K^- K^+ \pi^- \nu_\tau$	27
20	Decay Channel: $\tau^- \rightarrow \pi^- \pi^0 \gamma \nu_\tau$	28
21	Decay Channel: $\tau^- \rightarrow \pi^- \pi^- \pi^+ \pi^0 \pi^0 \nu_\tau$	30
22	Decay Channel: $\tau^- \rightarrow K^- K_L^0 \pi^0 \nu_\tau$	36
23	Decay Channel: $\tau^- \rightarrow K_S^0 \pi^- K_L^0 \nu_\tau$	37
24	Decay Channel: $\tau^- \rightarrow K^- K_S^0 \pi^0 \nu_\tau$	38

25 Decay Channel:	$\tau^- \rightarrow K^- \pi^0 \pi^0 \nu_\tau$	40
26 Decay Channel:	$\tau^- \rightarrow K^- K_L^0 \nu_\tau$	41
27 Decay Channel:	$\tau^- \rightarrow K^- K_S^0 \nu_\tau$	42
28 Decay Channel:	$\tau^- \rightarrow \pi^- \pi^- \pi^+ \pi^0 \pi^0 \nu_\tau$	42
29 Decay Channel:	$\tau^- \rightarrow \pi^- \pi^- \pi^- \pi^+ \pi^+ \nu_\tau$	55
30 Decay Channel:	$\tau^- \rightarrow K_S^0 K_S^0 \pi^- \nu_\tau$	61
31 Decay Channel:	$\tau^- \rightarrow \pi^- K_L^0 K_L^0 \nu_\tau$	62
32 Decay Channel:	$\tau^- \rightarrow \pi^- \pi^- \pi^- \pi^+ \pi^+ \pi^0 \nu_\tau$	63

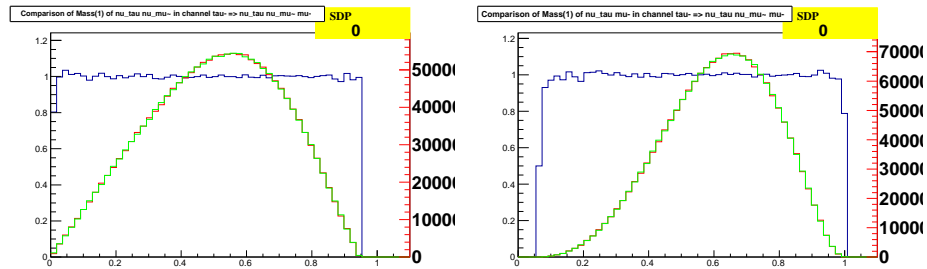
1 Decay Channel: $\tau^- \rightarrow \pi^- \pi^0 \nu_\tau$

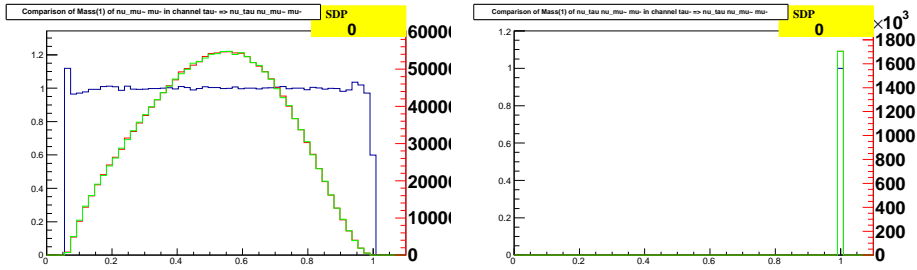
Number of events from generator 1: 2529880 (scaled to generator2)
 Number of events from generator 2: 2532250



2 Decay Channel: $\tau^- \rightarrow \nu_\tau \tilde{\nu}_\mu \mu^-$

Number of events from generator 1: 1703706
 Number of events from generator 2: 1702748 (scaled to generator1)

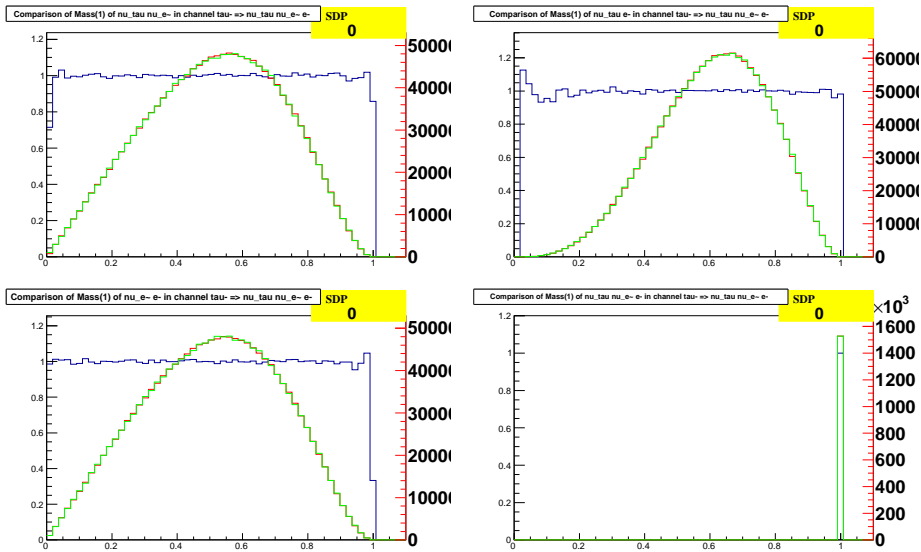




3 Decay Channel: $\tau^- \rightarrow \nu_\tau \tilde{\nu}_e e^-$

Number of events from generator 1: 1525881 (scaled to generator2)

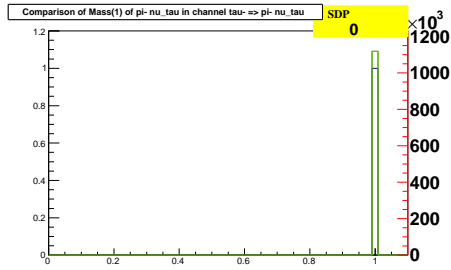
Number of events from generator 2: 1527425



4 Decay Channel: $\tau^- \rightarrow \pi^- \nu_\tau$

Number of events from generator 1: 1118198

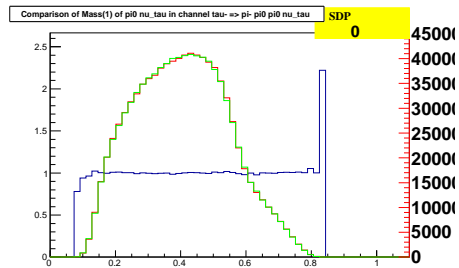
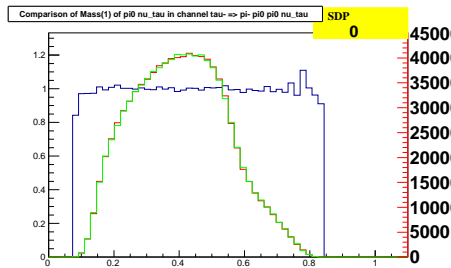
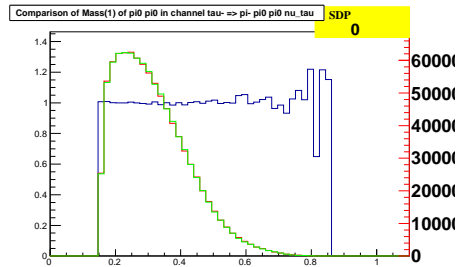
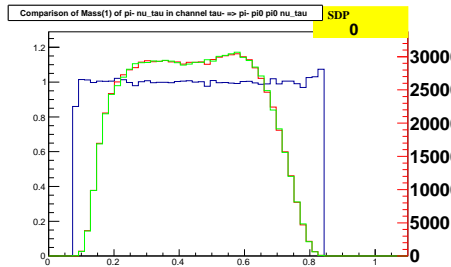
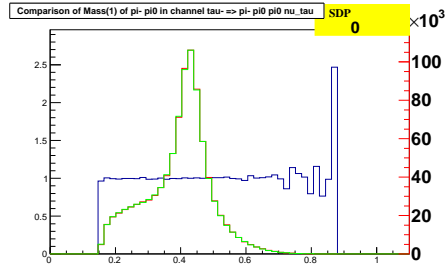
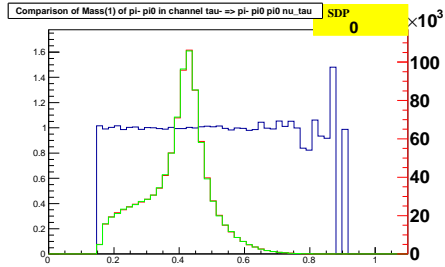
Number of events from generator 2: 1118111 (scaled to generator1)

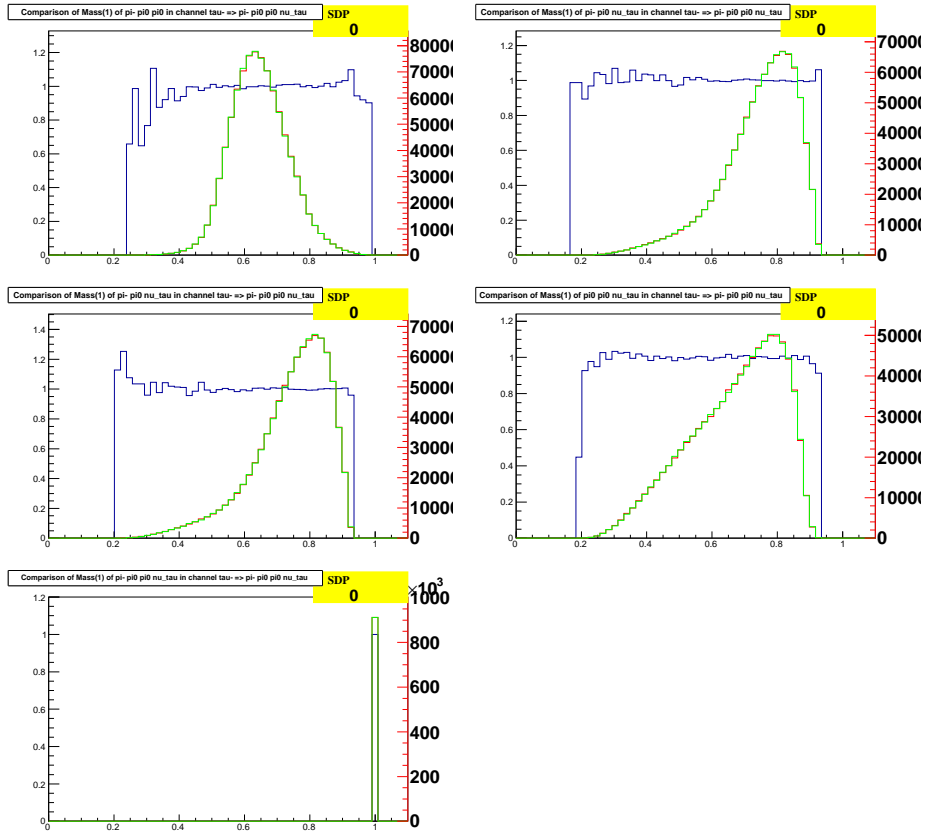


5 Decay Channel: $\tau^- \rightarrow \pi^- \pi^0 \pi^0 \nu_\tau$

Number of events from generator 1: 911994

Number of events from generator 2: 900297 (scaled to generator 1)

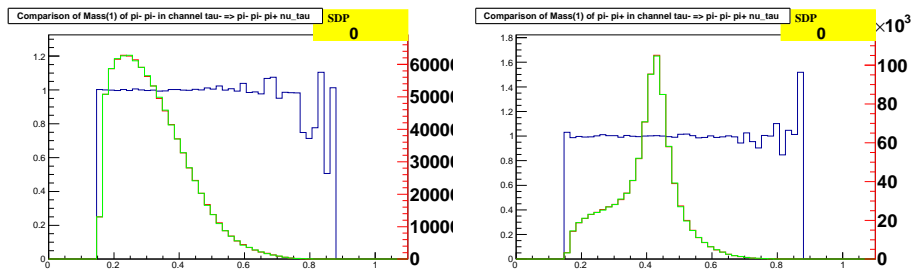


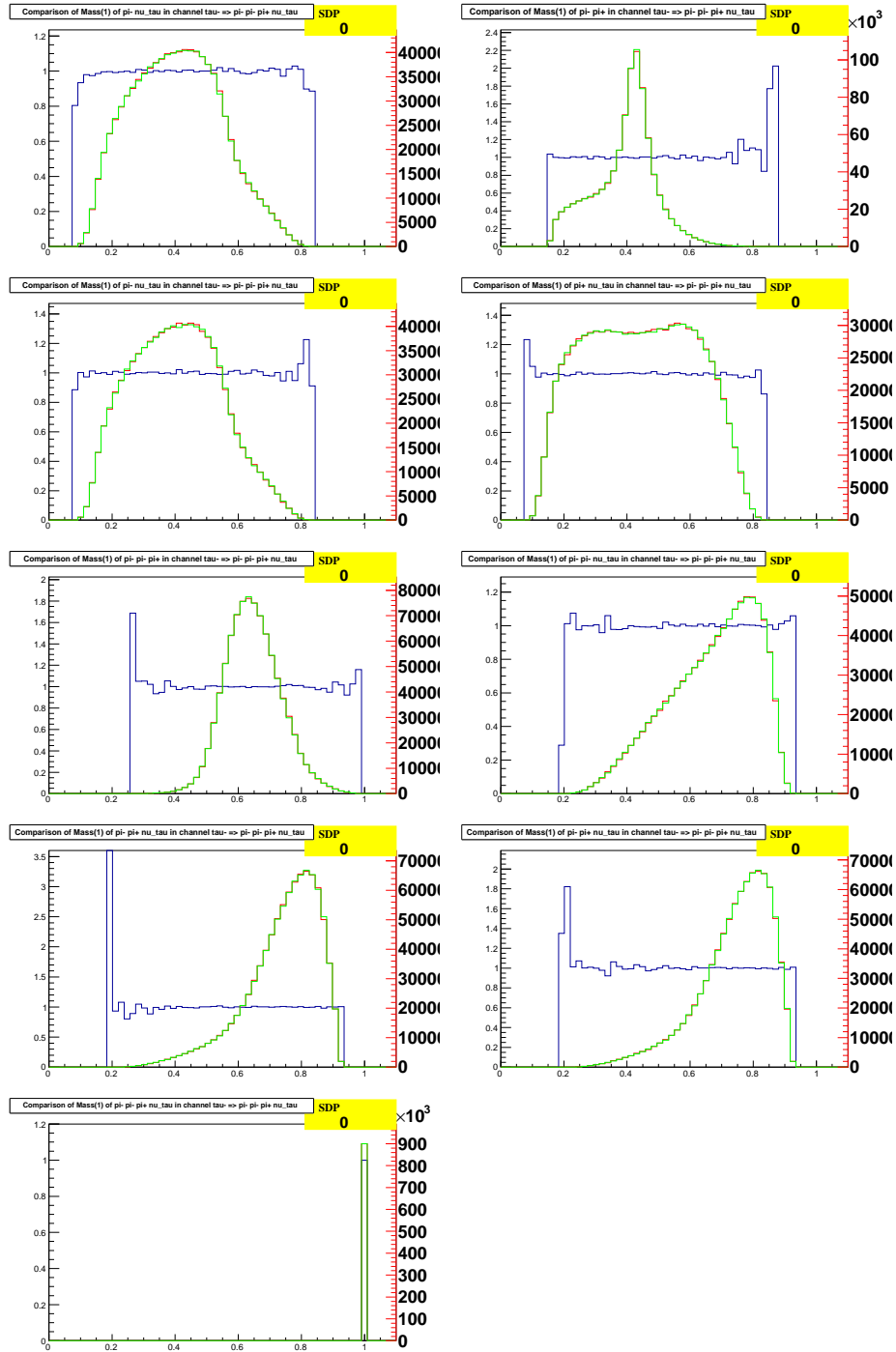


6 Decay Channel: $\tau^- \rightarrow \pi^- \pi^- \pi^+ \nu_\tau$

Number of events from generator 1: 888863 (scaled to generator2)

Number of events from generator 2: 899874

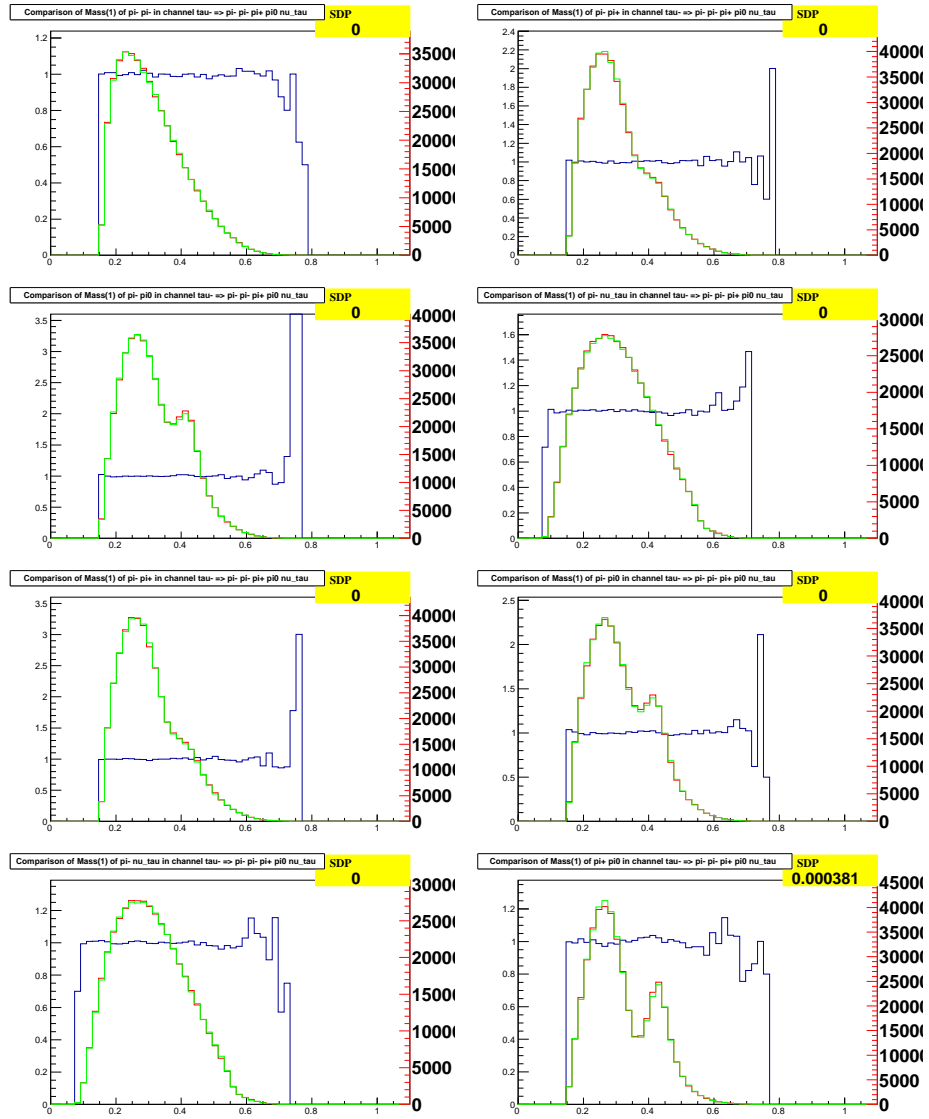


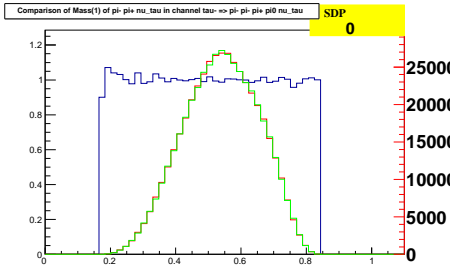
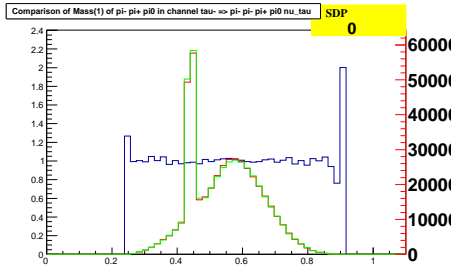
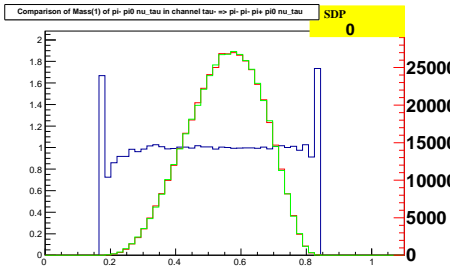
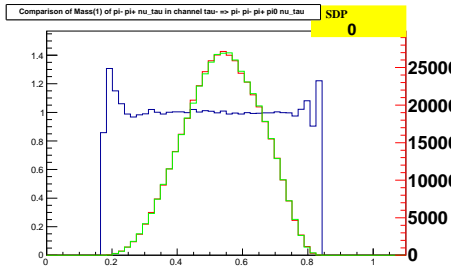
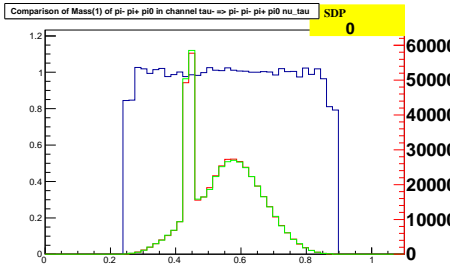
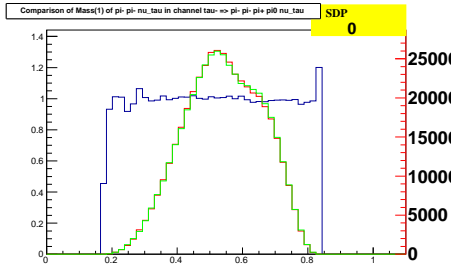
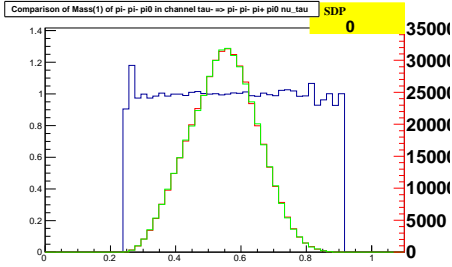
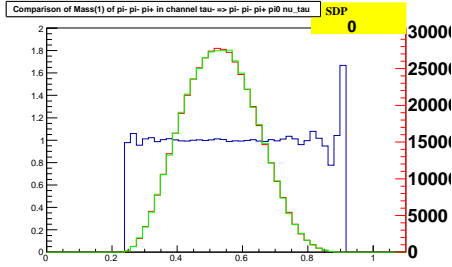
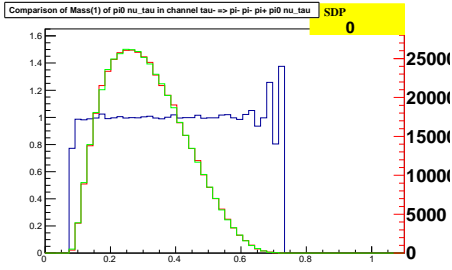
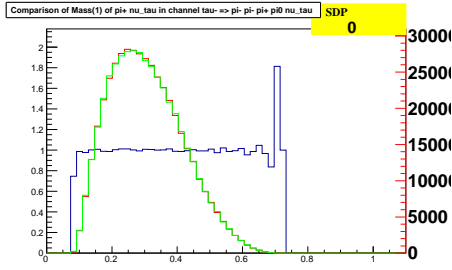


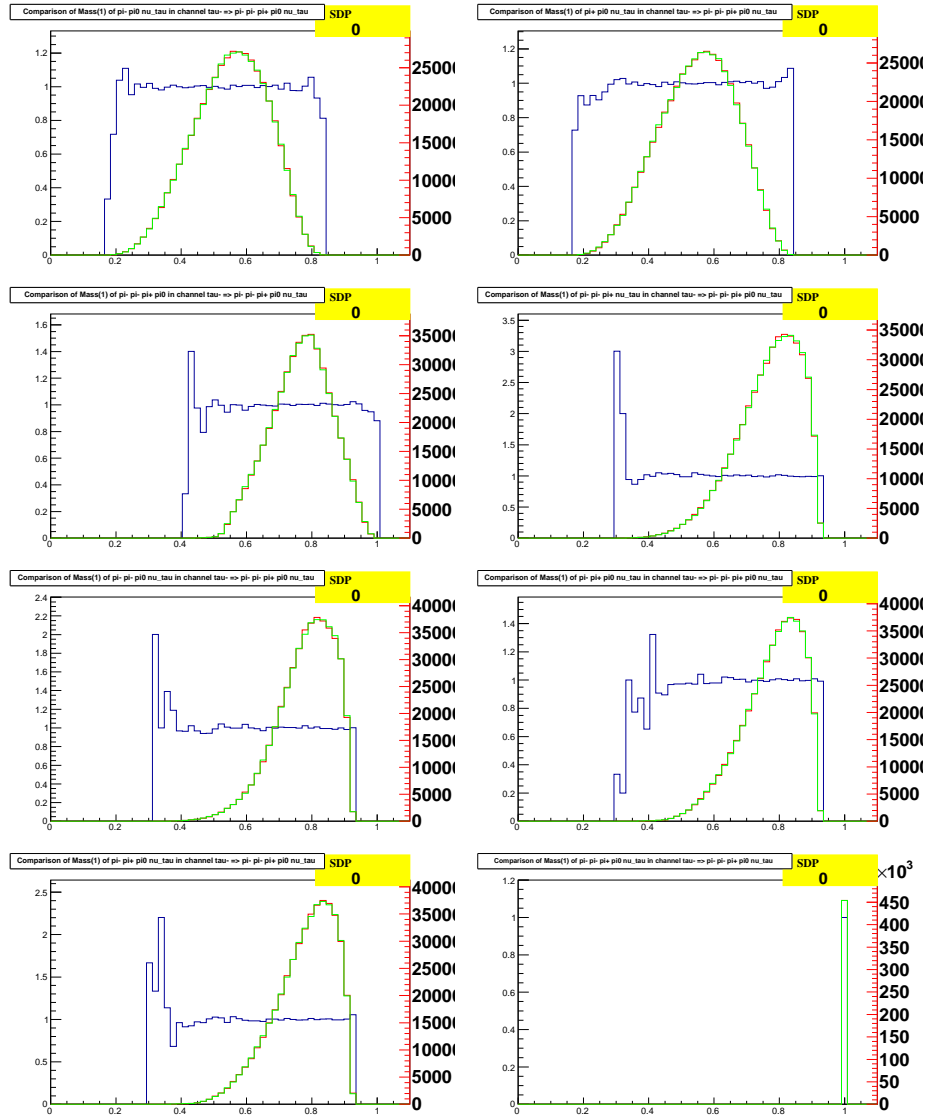
7 Decay Channel: $\tau^- \rightarrow \pi^- \pi^- \pi^+ \pi^0 \nu_\tau$

Number of events from generator 1: 453455 (scaled to generator2)

Number of events from generator 2: 453811



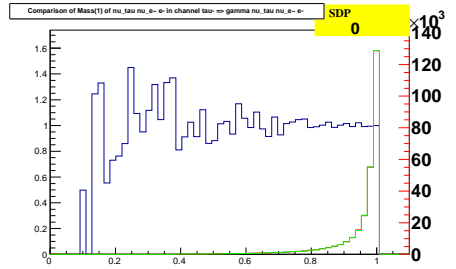
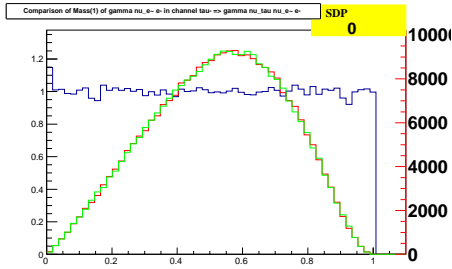
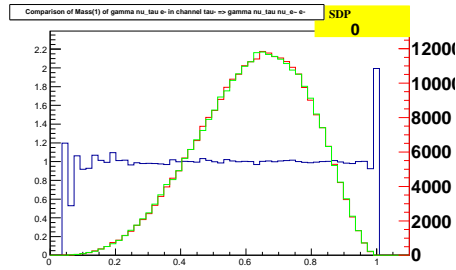
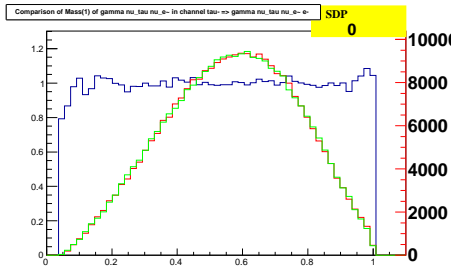
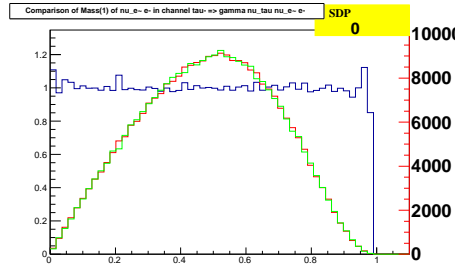
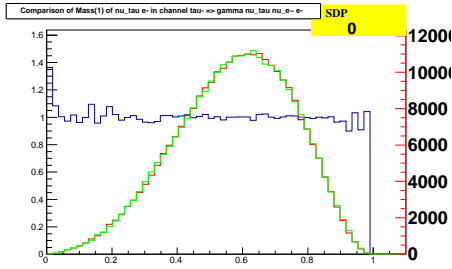
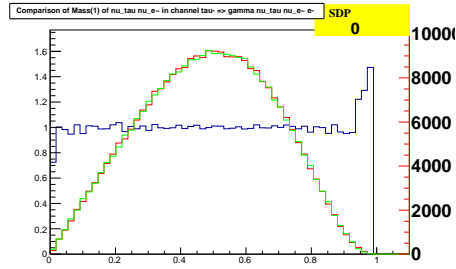
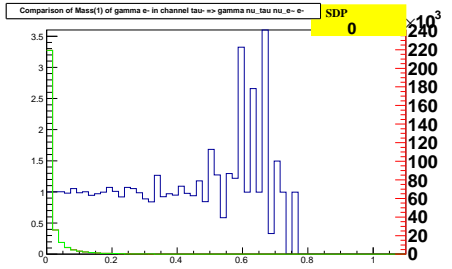
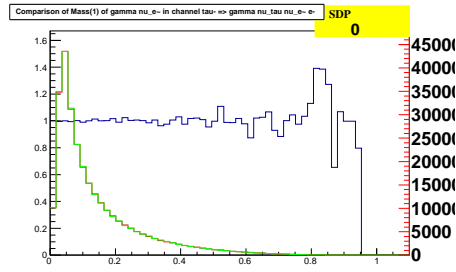
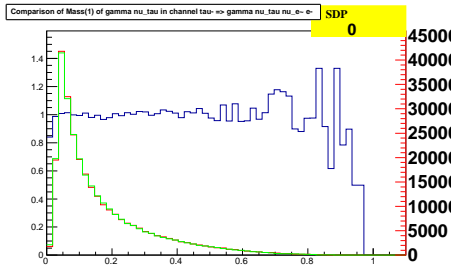


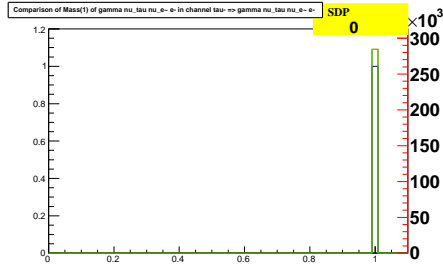


8 Decay Channel: $\tau^- \rightarrow \gamma \nu_\tau \tilde{\nu}_e e^-$

Number of events from generator 1: 284457

Number of events from generator 2: 283591 (scaled to generator1)

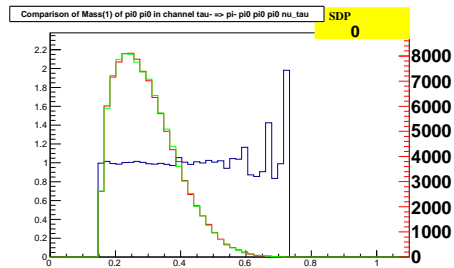
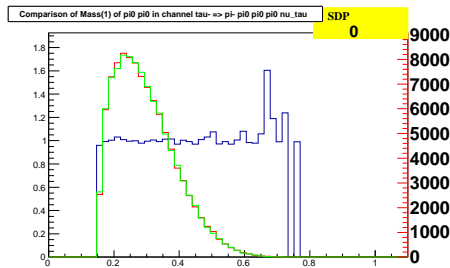
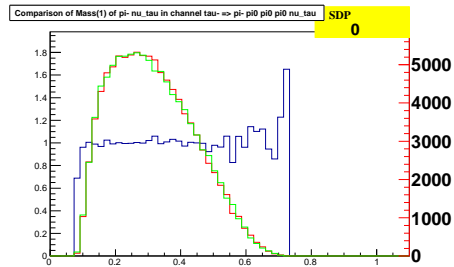
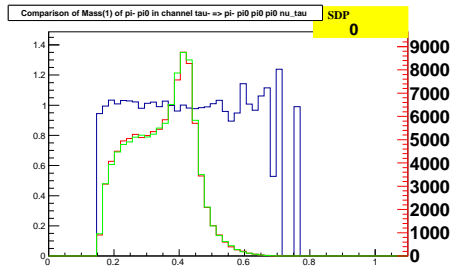
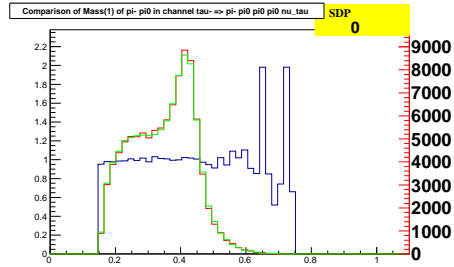
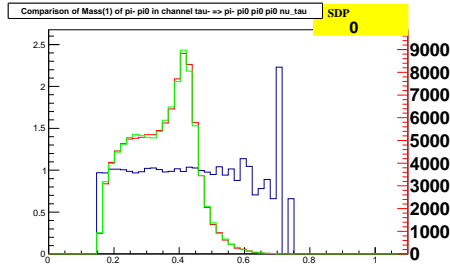


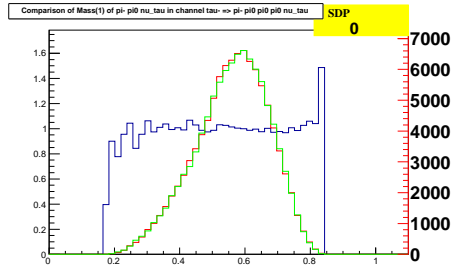
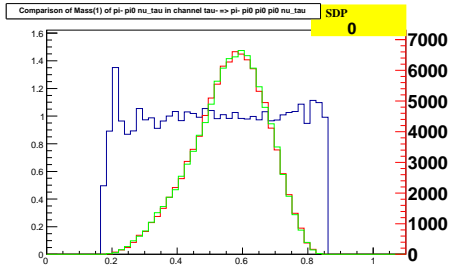
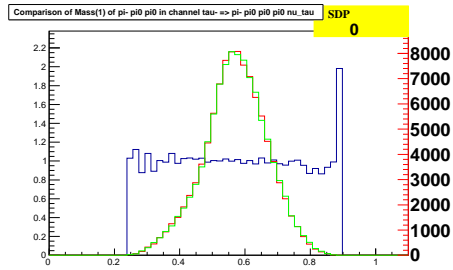
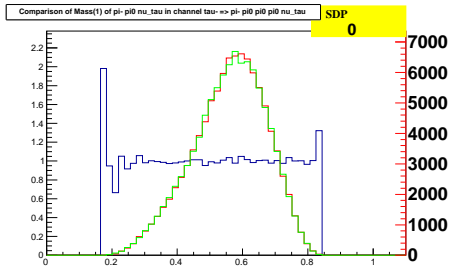
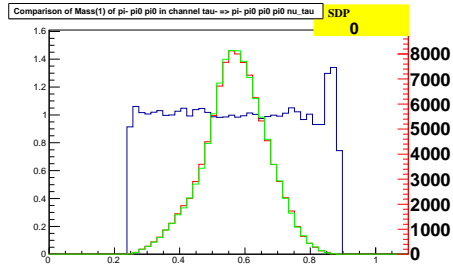
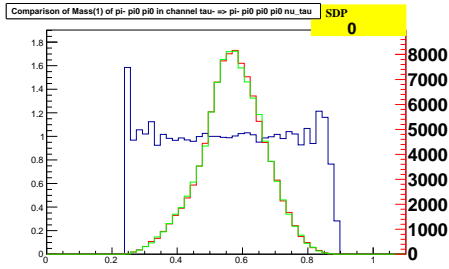
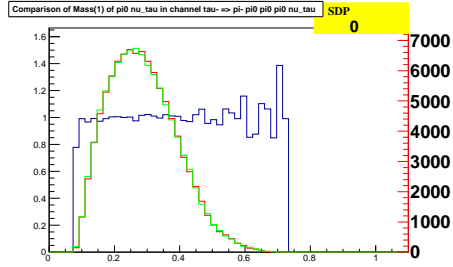
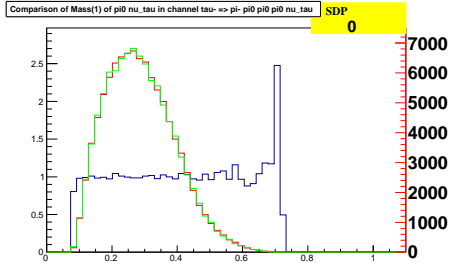
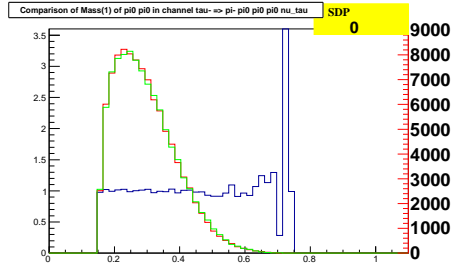
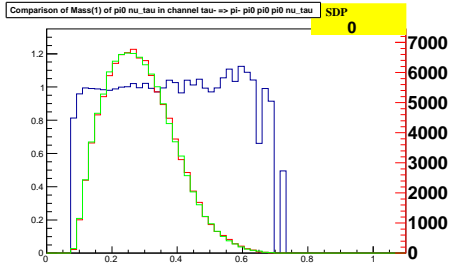


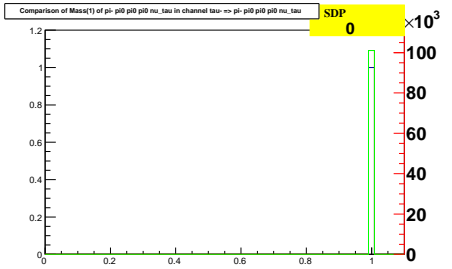
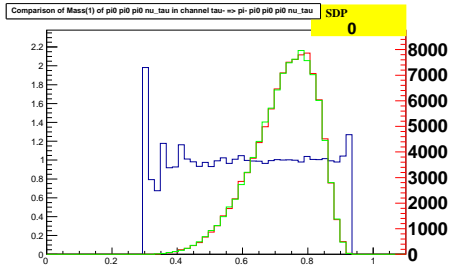
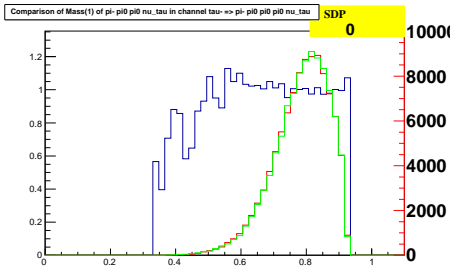
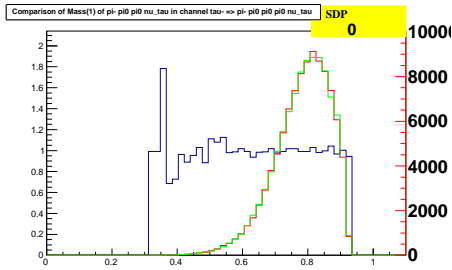
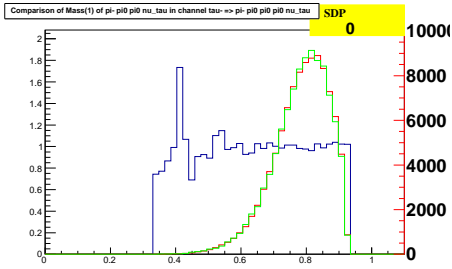
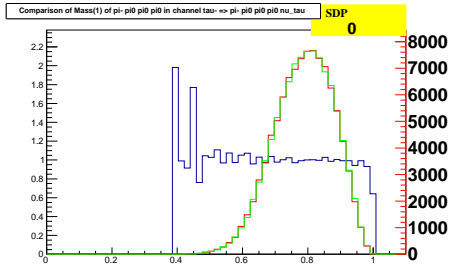
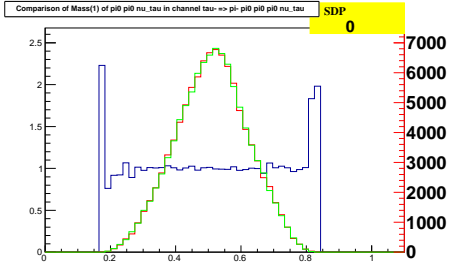
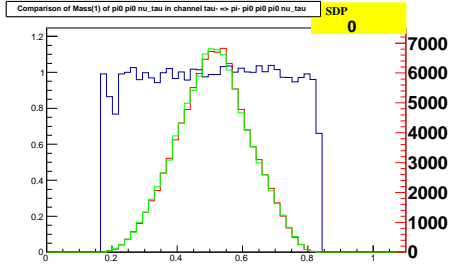
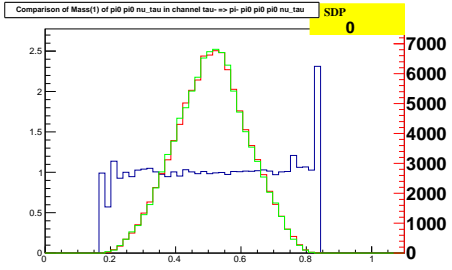
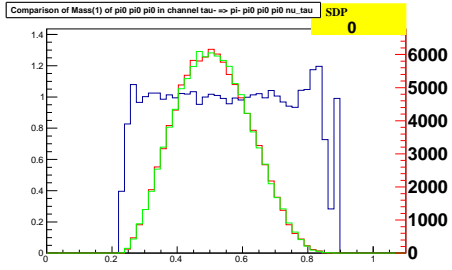
9 Decay Channel: $\tau^- \rightarrow \pi^- \pi^0 \pi^0 \pi^0 \nu_\tau$

Number of events from generator 1: 101041

Number of events from generator 2: 100142 (scaled to generator 1)



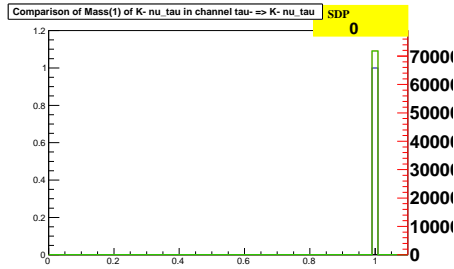




10 Decay Channel: $\tau^- \rightarrow K^- \nu_\tau$

Number of events from generator 1: 71813

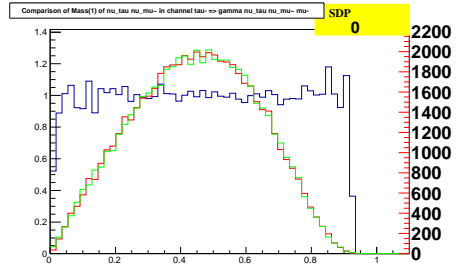
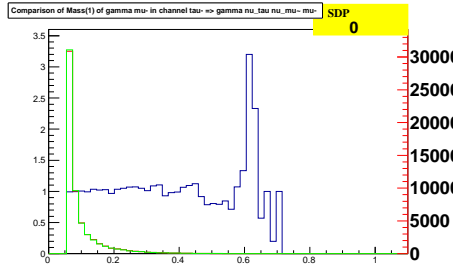
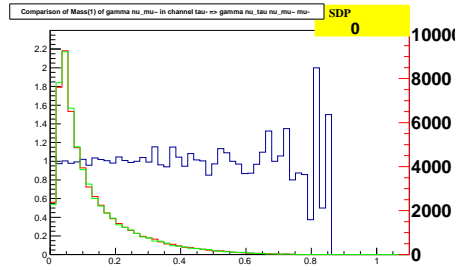
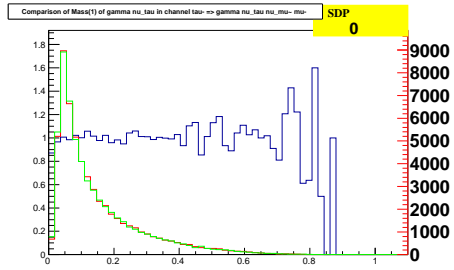
Number of events from generator 2: 71575 (scaled to generator1)

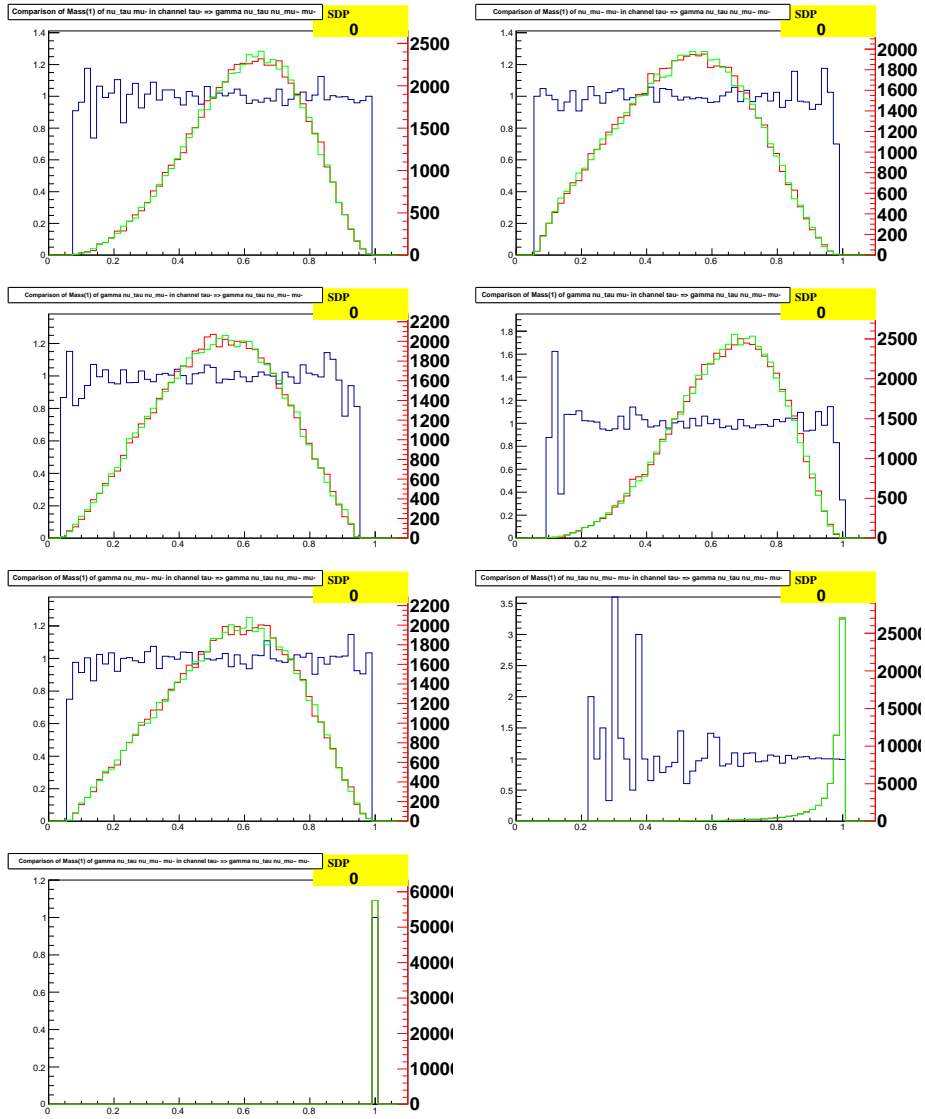


11 Decay Channel: $\tau^- \rightarrow \gamma \nu_\tau \tilde{\nu}_\mu \mu^-$

Number of events from generator 1: 57532

Number of events from generator 2: 57528 (scaled to generator1)



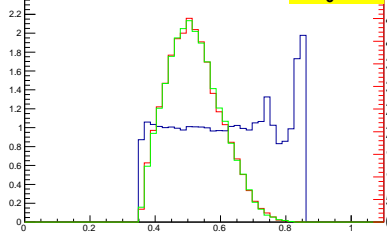


12 Decay Channel: $\tau^- \rightarrow K^- \pi^- \pi^+ \nu_\tau$

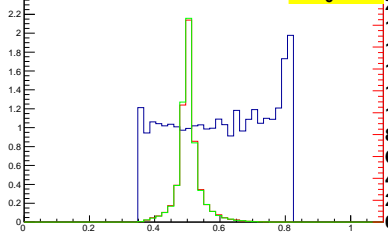
Number of events from generator 1: 51006

Number of events from generator 2: 50431 (scaled to generator 1)

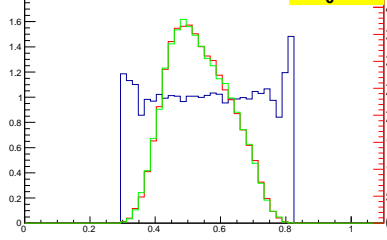
Comparison of Mass(t) of K- π^+ in channel tau- \Rightarrow K- π^+ - π^+ - ν -tau SDP 0



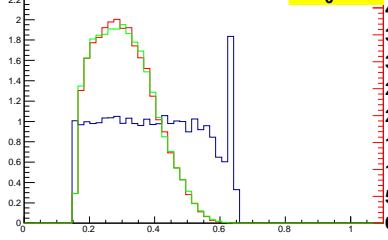
Comparison of Mass(t) of K- π^+ in channel tau- \Rightarrow K- π^+ - π^+ - ν -tau SDP 0



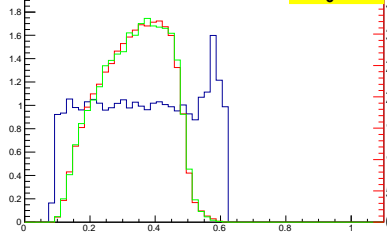
Comparison of Mass(t) of π^+ - π^+ in channel tau- \Rightarrow K- π^+ - π^+ - ν -tau SDP 0



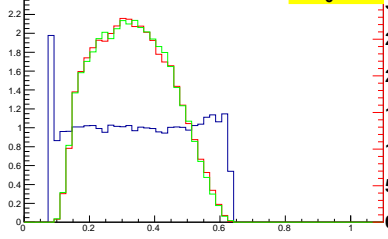
Comparison of Mass(t) of π^+ - π^+ in channel tau- \Rightarrow K- π^+ - π^+ - ν -tau SDP 0



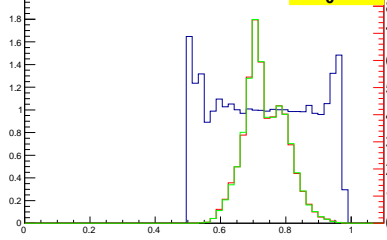
Comparison of Mass(t) of π^+ - ν -tau in channel tau- \Rightarrow K- π^+ - π^+ - ν -tau SDP 0



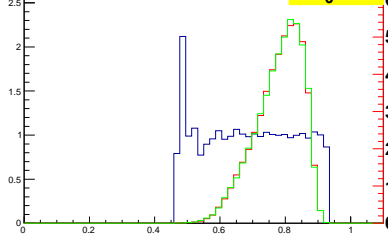
Comparison of Mass(t) of π^+ - ν -tau in channel tau- \Rightarrow K- π^+ - π^+ - ν -tau SDP 0



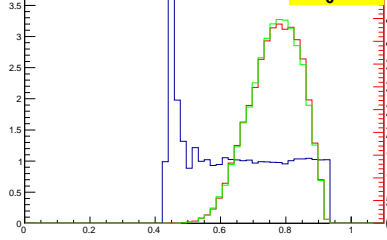
Comparison of Mass(t) of K- π^+ - π^+ in channel tau- \Rightarrow K- π^+ - π^+ - ν -tau SDP 0



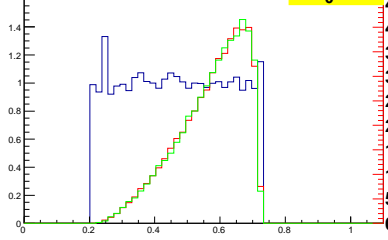
Comparison of Mass(t) of K- π^+ - π^+ in channel tau- \Rightarrow K- π^+ - π^+ - ν -tau SDP 0

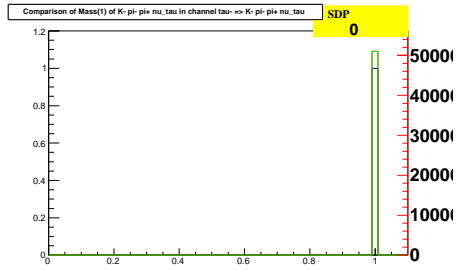


Comparison of Mass(t) of K- π^+ - ν -tau in channel tau- \Rightarrow K- π^+ - π^+ - ν -tau SDP 0



Comparison of Mass(t) of π^+ - π^+ - ν -tau in channel tau- \Rightarrow K- π^+ - π^+ - ν -tau SDP 0

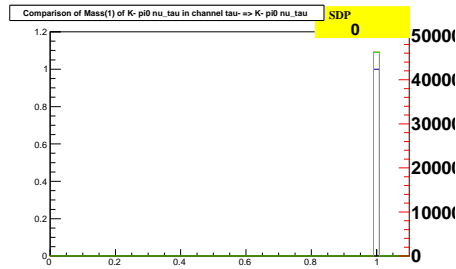
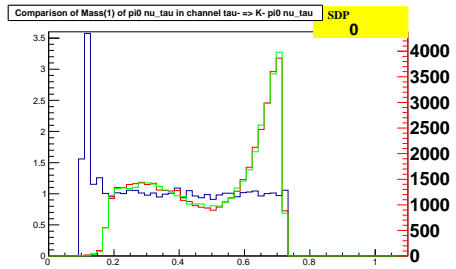
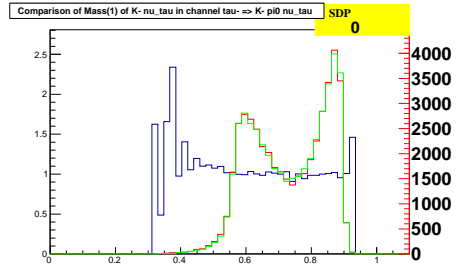
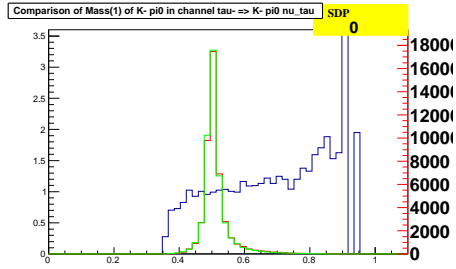




13 Decay Channel: $\tau^- \rightarrow K^- \pi^0 \nu_\tau$

Number of events from generator 1: 46241

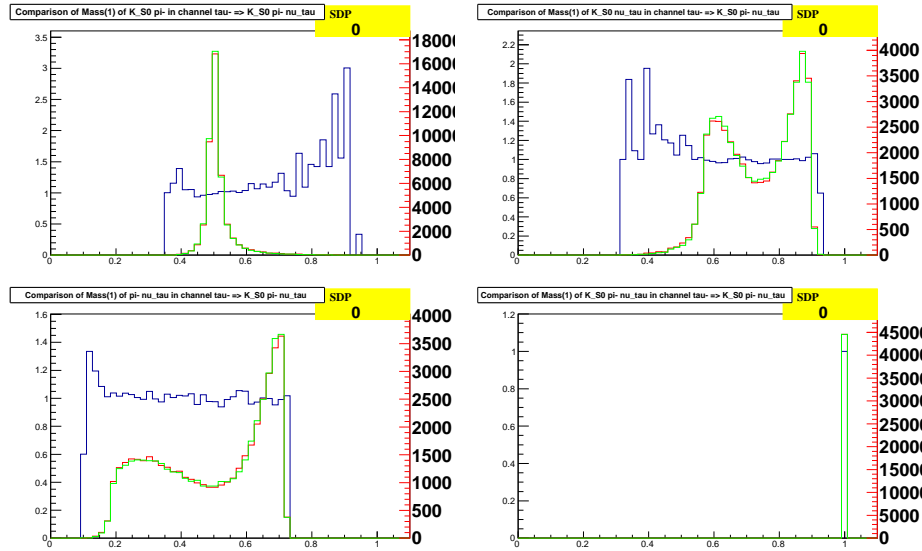
Number of events from generator 2: 45073 (scaled to generator1)



14 Decay Channel: $\tau^- \rightarrow K_S^0 \pi^- \nu_\tau$

Number of events from generator 1: 44486 (scaled to generator2)

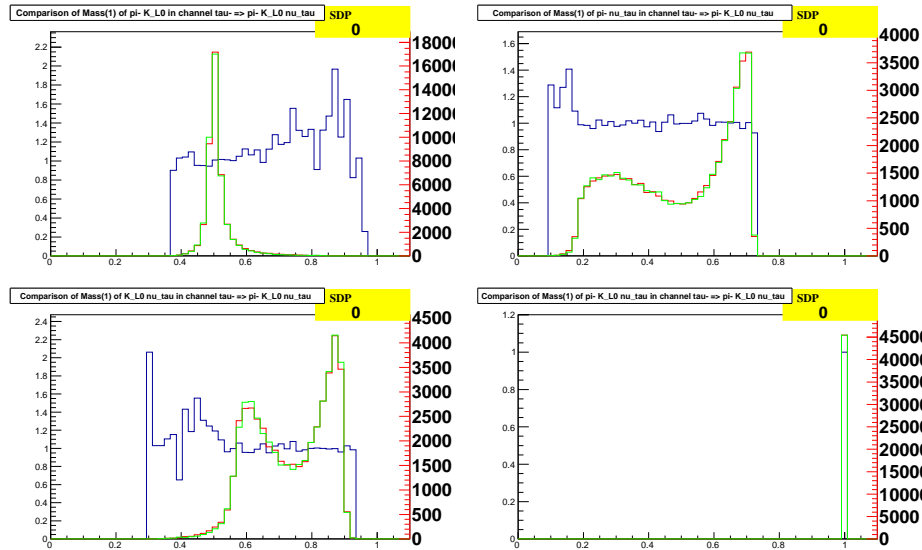
Number of events from generator 2: 44563



15 Decay Channel: $\tau^- \rightarrow \pi^- K_L^0 \nu_\tau$

Number of events from generator 1: 44087 (scaled to generator2)

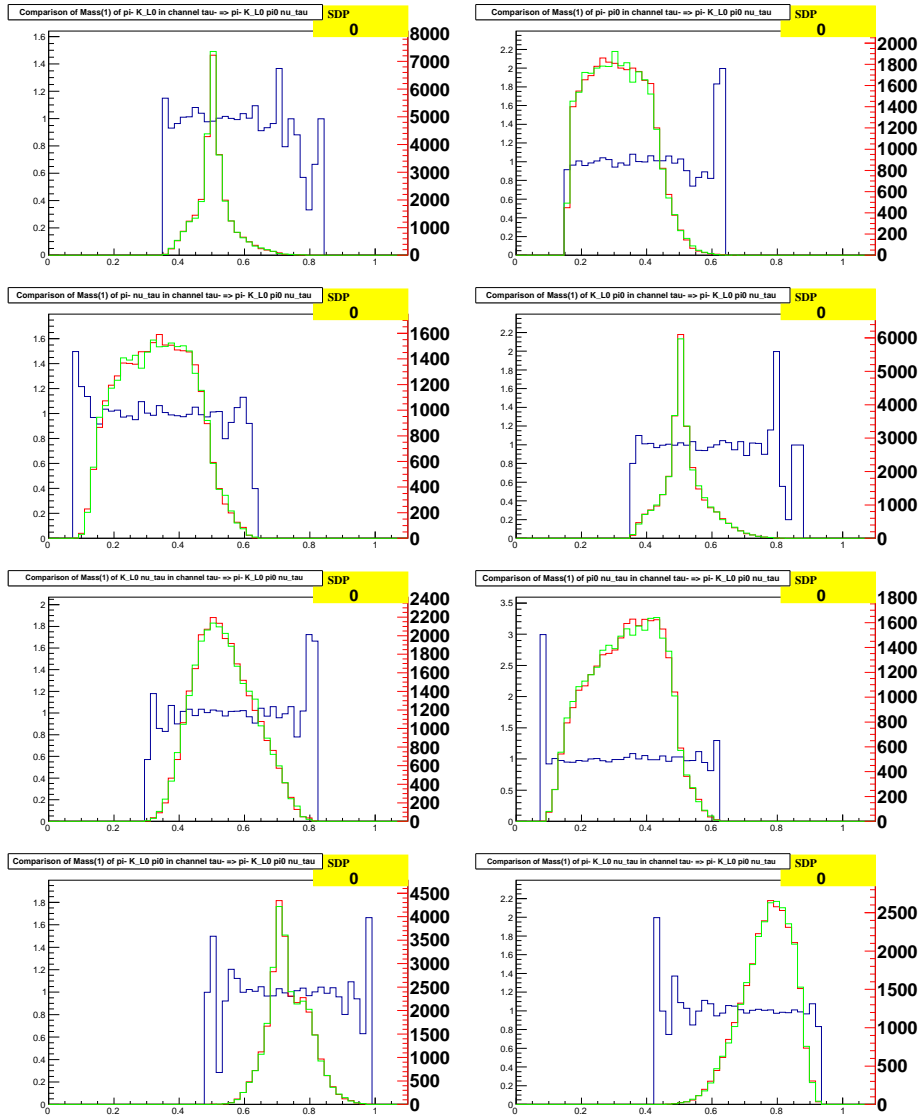
Number of events from generator 2: 45446

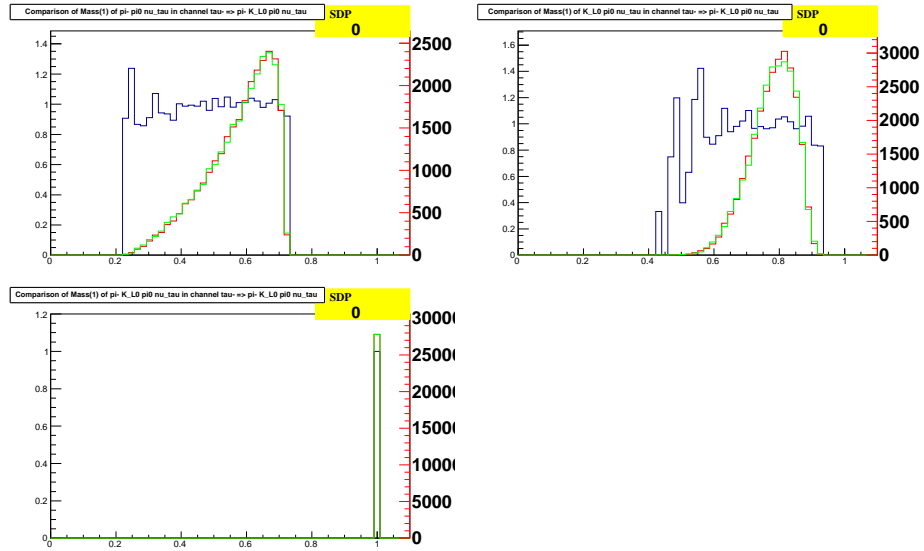


16 Decay Channel: $\tau^- \rightarrow \pi^- K_L^0 \pi^0 \nu_\tau$

Number of events from generator 1: 27814

Number of events from generator 2: 27769 (scaled to generator1)

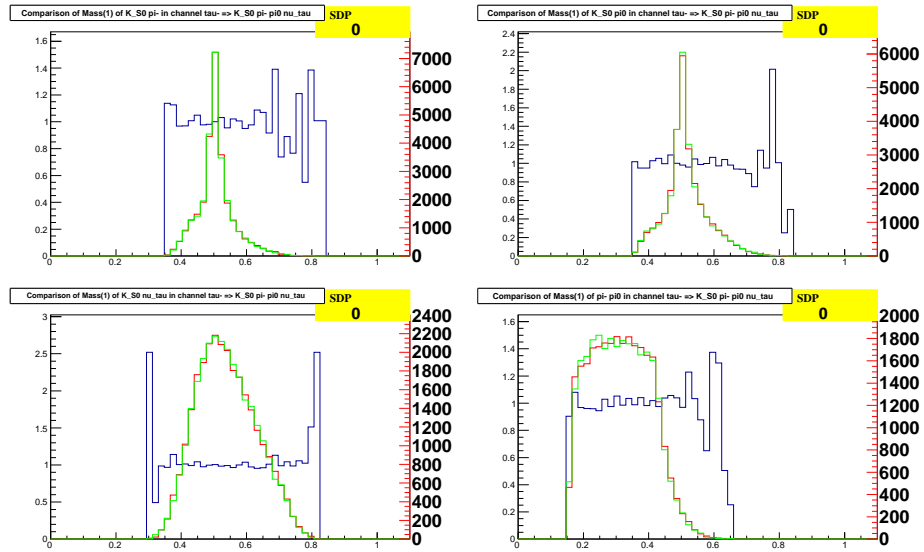


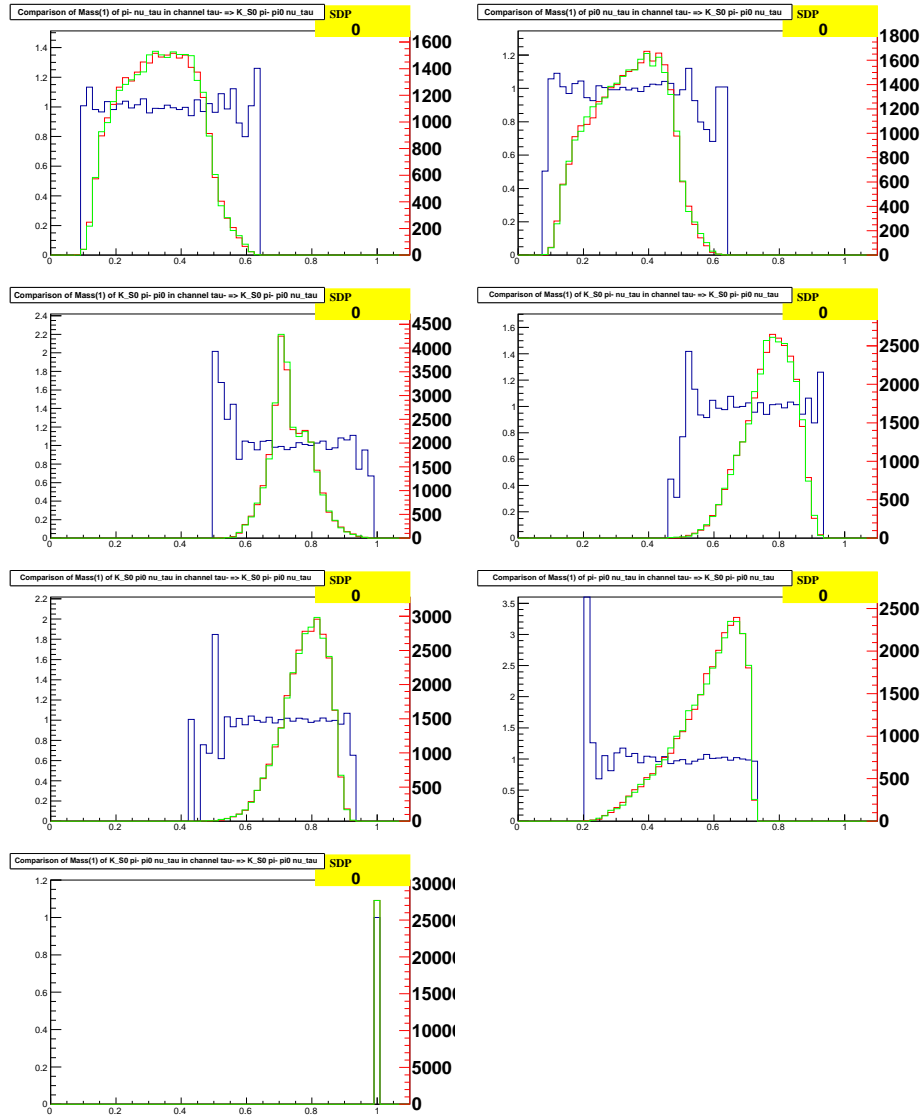


17 Decay Channel: $\tau^- \rightarrow K_S^0 \pi^- \pi^0 \nu_\tau$

Number of events from generator 1: 27449 (scaled to generator2)

Number of events from generator 2: 27671

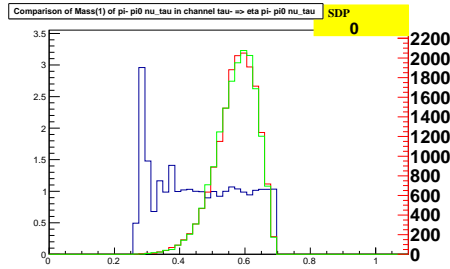
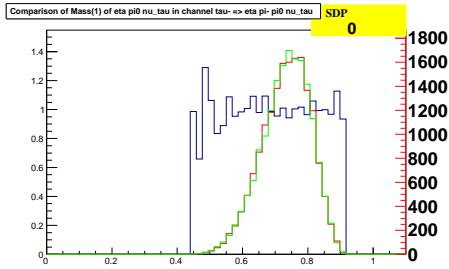
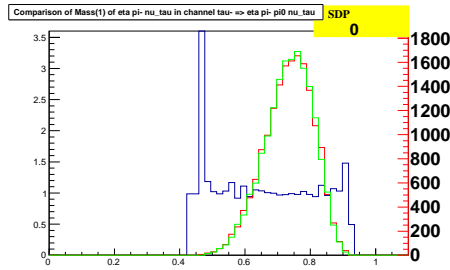
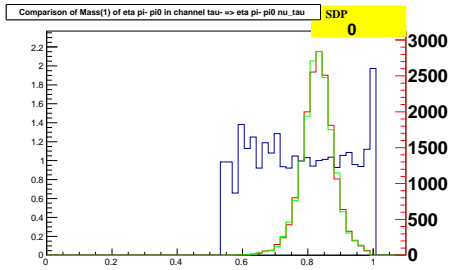
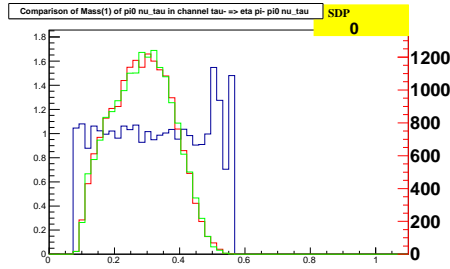
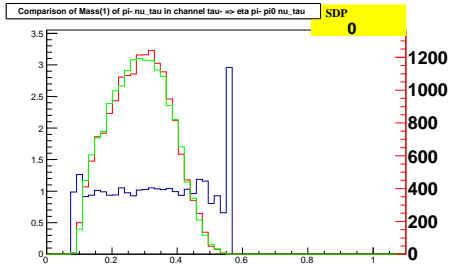
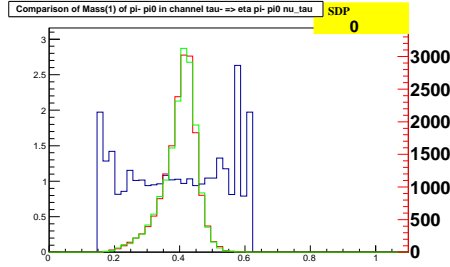
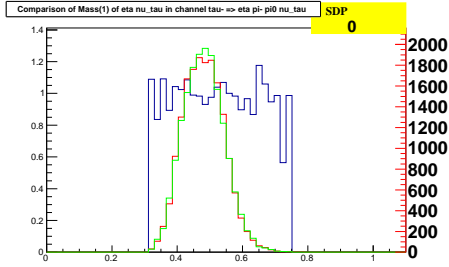
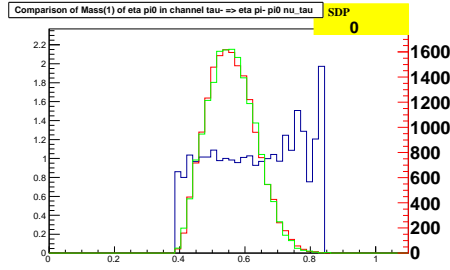
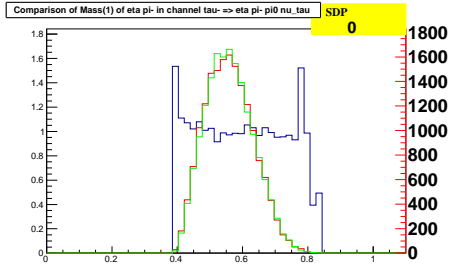


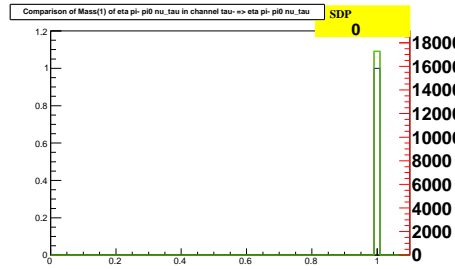


18 Decay Channel: $\tau^- \rightarrow \eta \pi^- \pi^0 \nu_\tau$

Number of events from generator 1: 17275

Number of events from generator 2: 17045 (scaled to generator1)

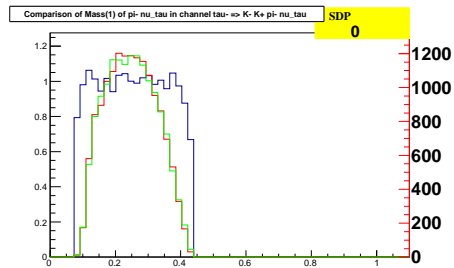
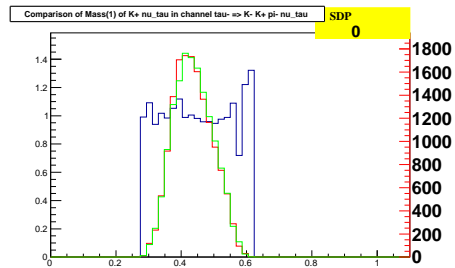
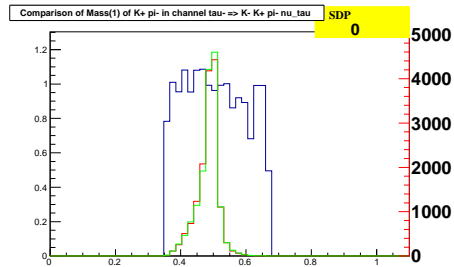
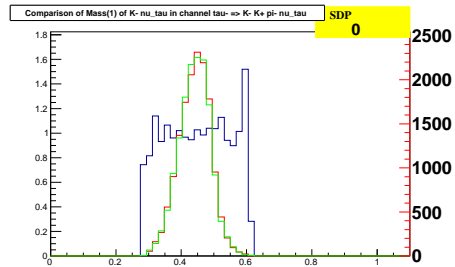
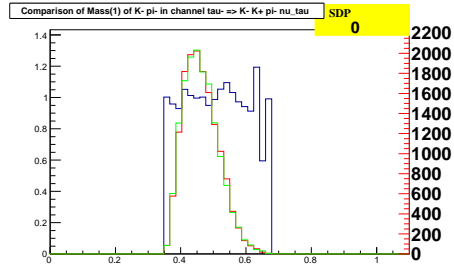
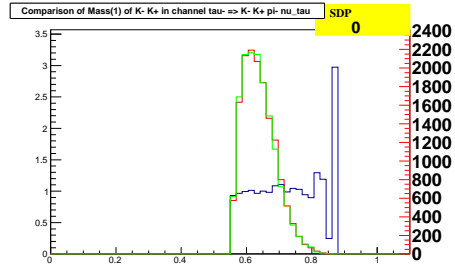


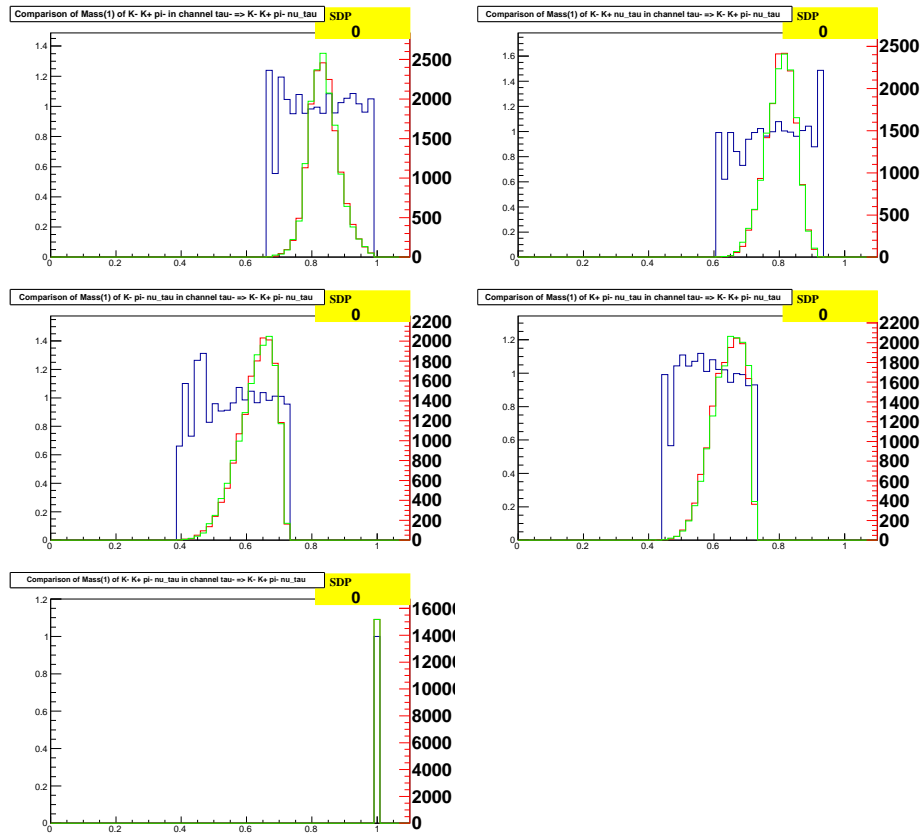


19 Decay Channel: $\tau^- \rightarrow K^- K^+ \pi^- \nu_\tau$

Number of events from generator 1: 15178

Number of events from generator 2: 15048 (scaled to generator 1)

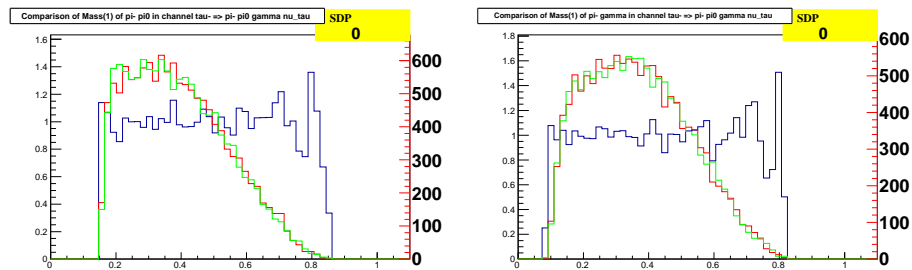


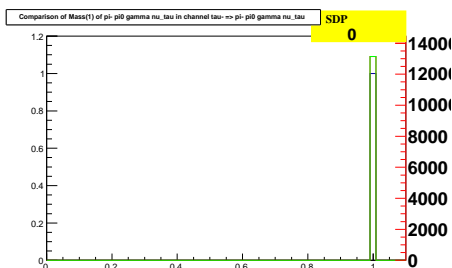
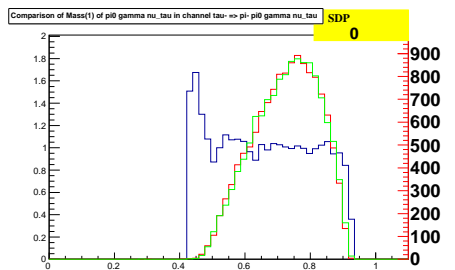
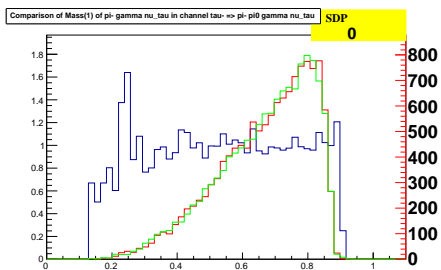
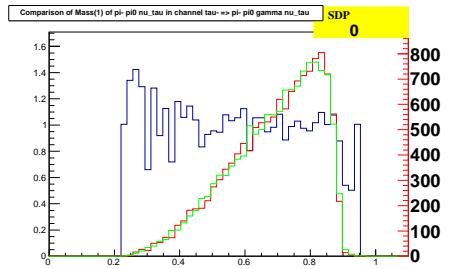
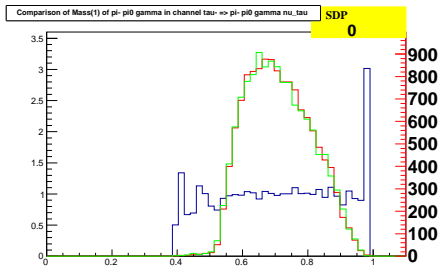
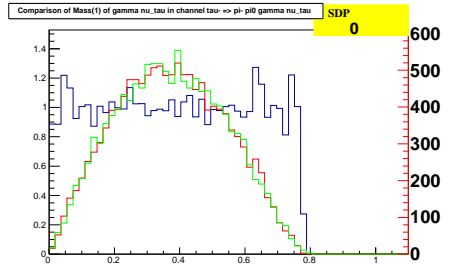
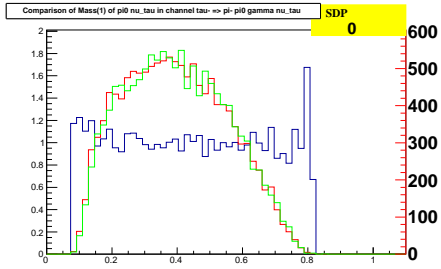
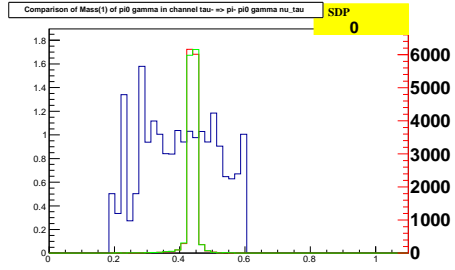
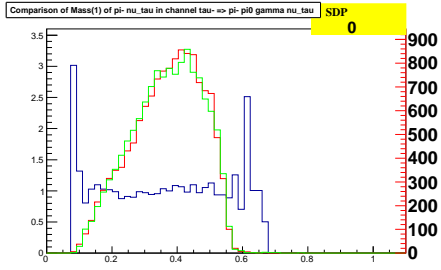


20 Decay Channel: $\tau^- \rightarrow \pi^- \pi^0 \gamma \nu_\tau$

Number of events from generator 1: 13068 (scaled to generator2)

Number of events from generator 2: 13138

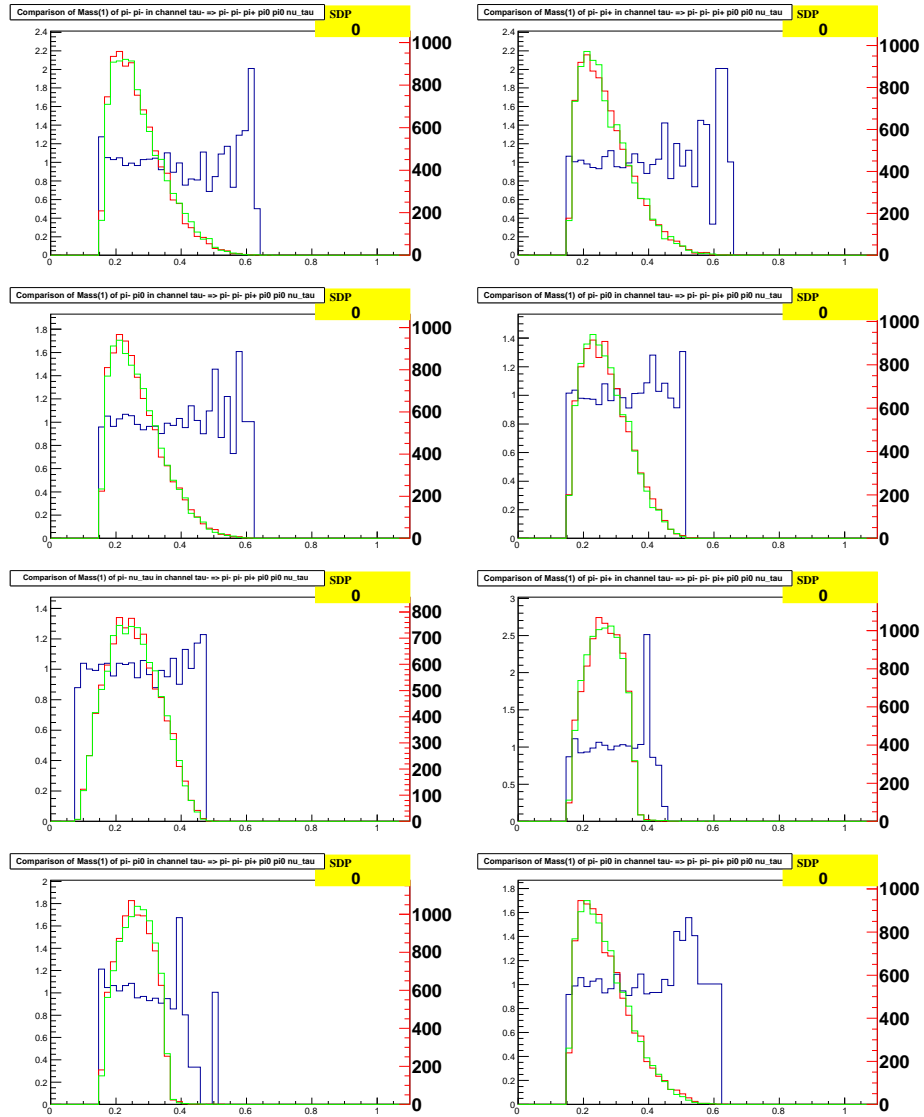


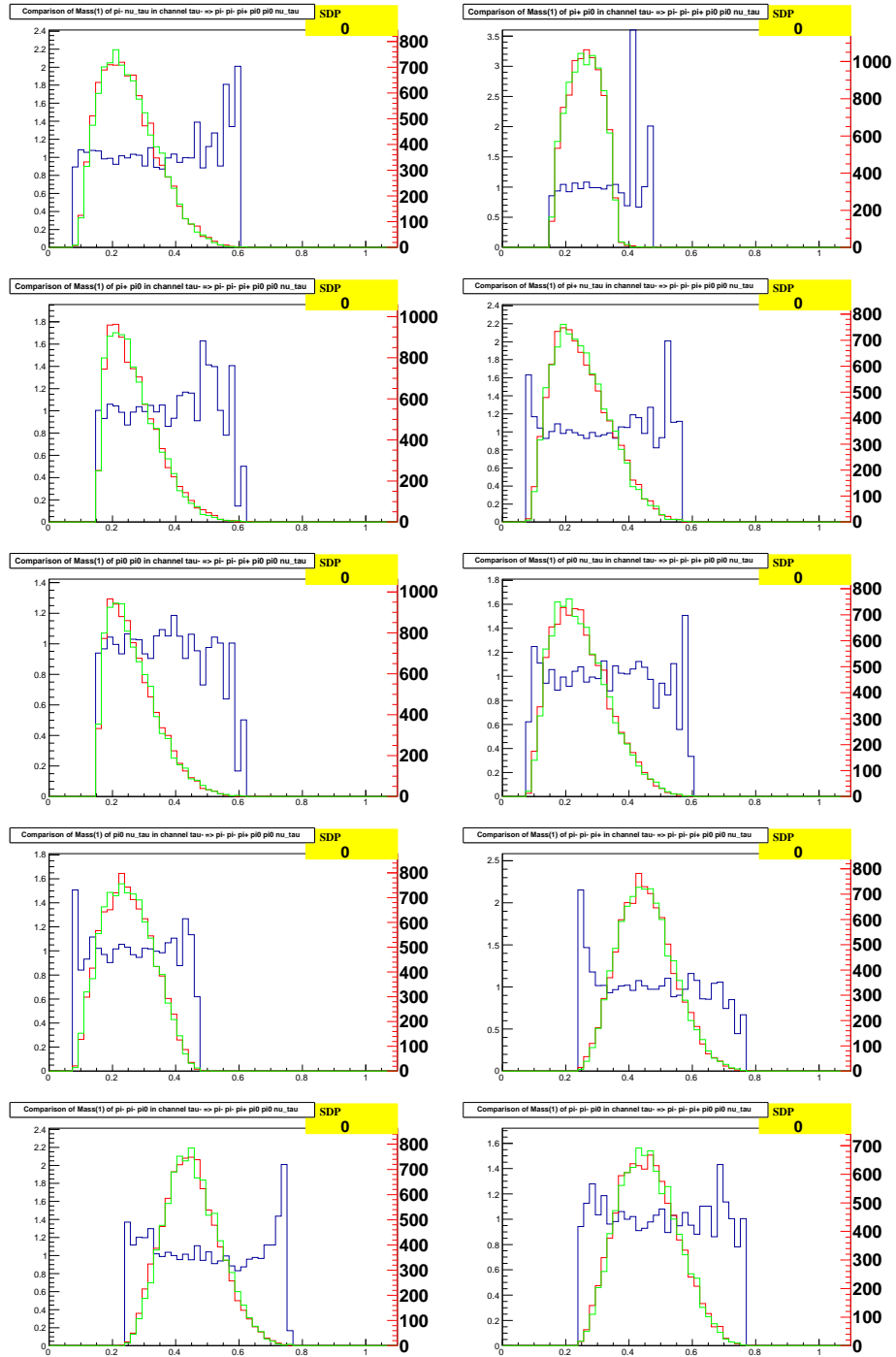


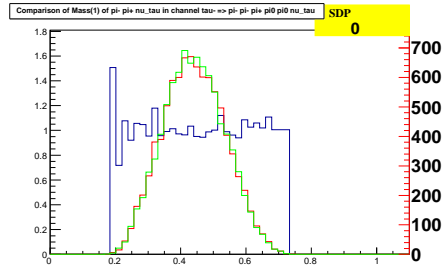
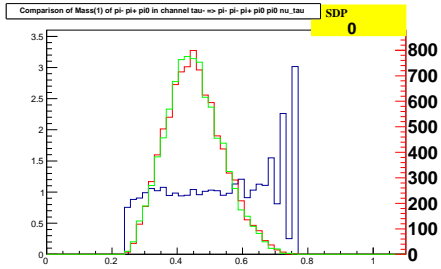
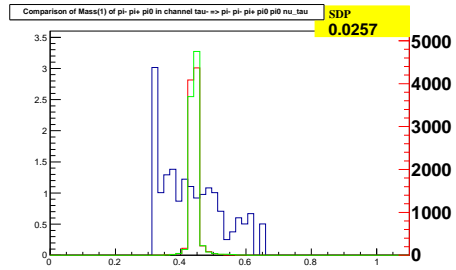
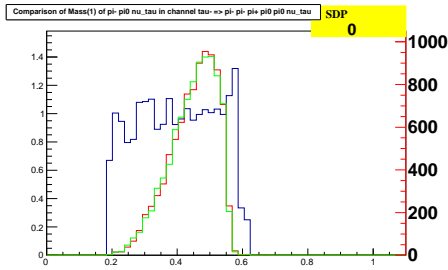
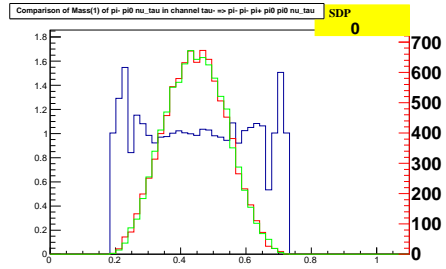
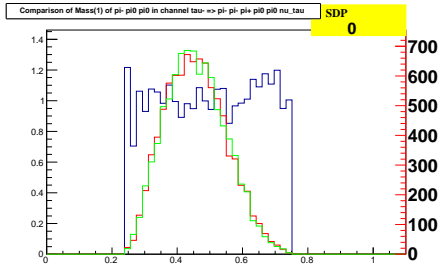
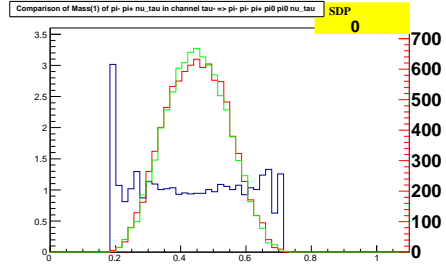
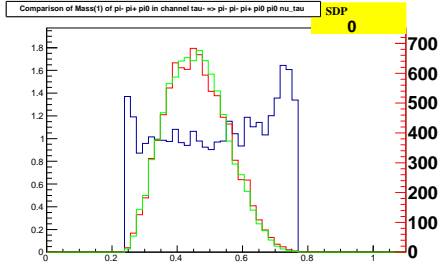
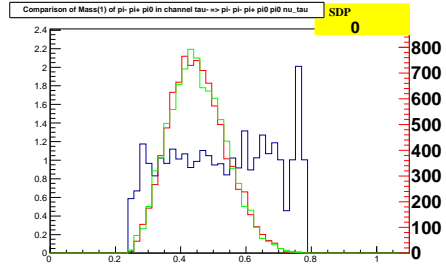
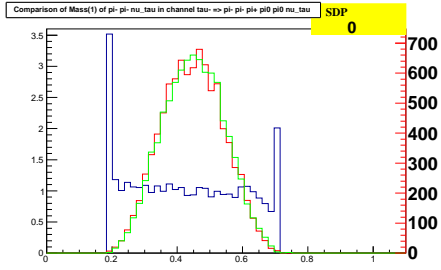
21 Decay Channel: $\tau^- \rightarrow \pi^- \pi^- \pi^+ \pi^0 \pi^0 \nu_\tau$

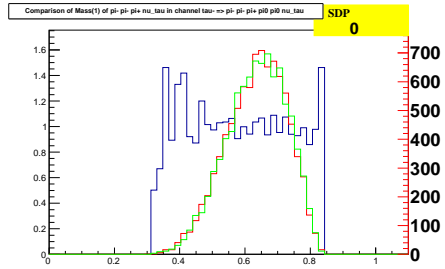
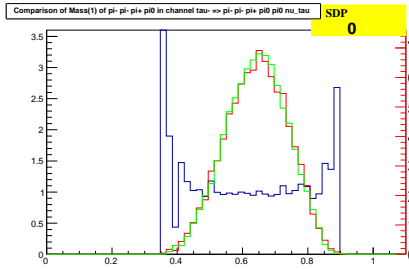
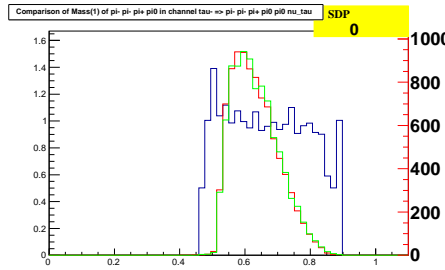
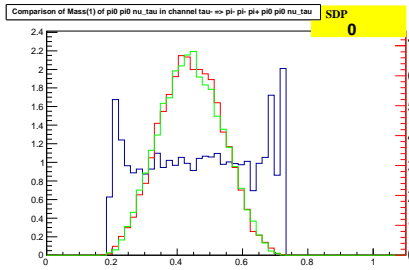
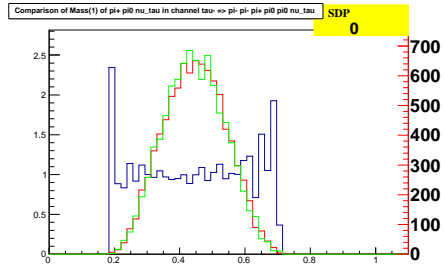
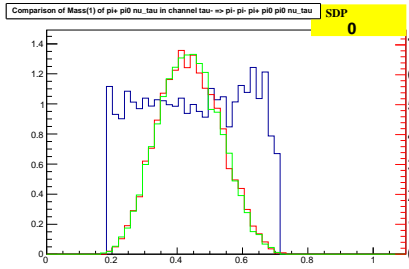
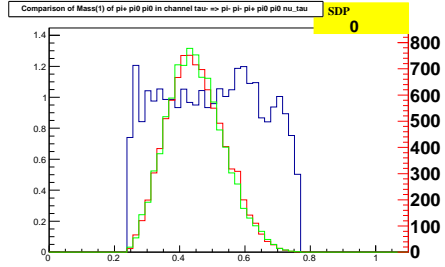
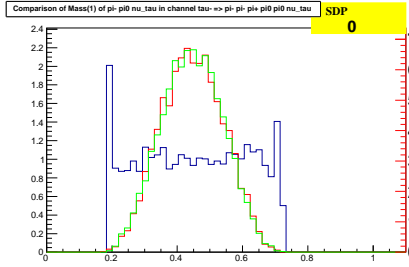
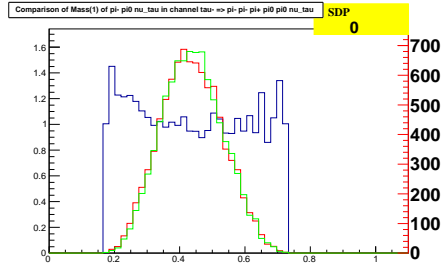
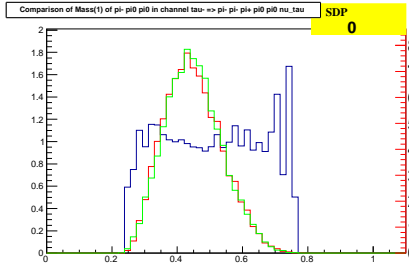
Number of events from **generator 1**: 9036 (*scaled to generator2*)

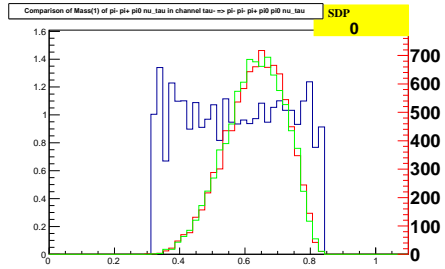
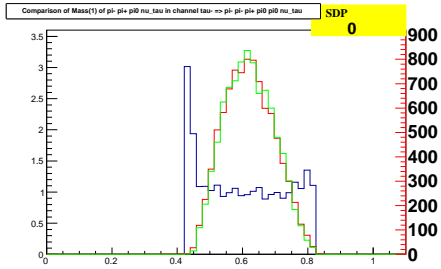
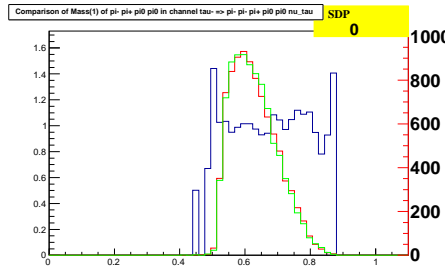
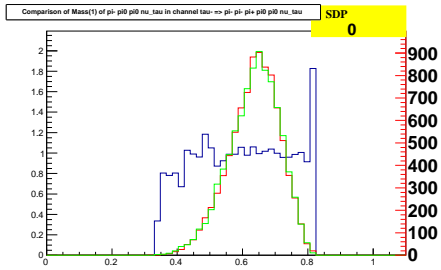
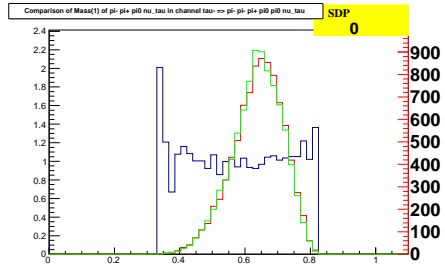
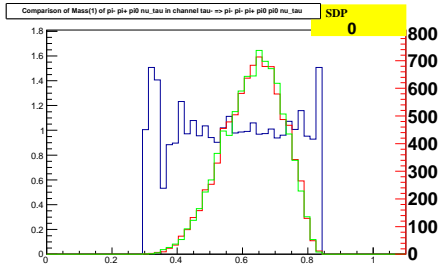
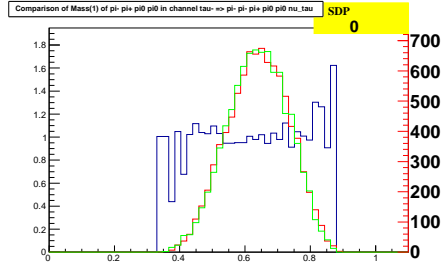
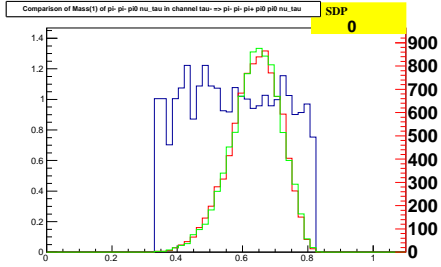
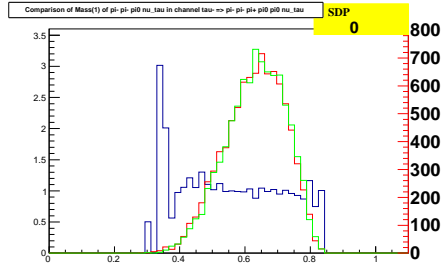
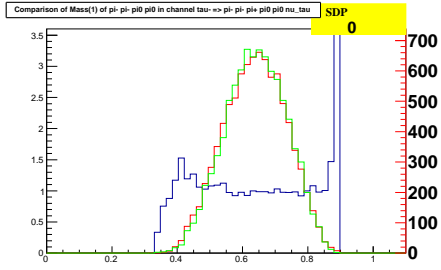
Number of events from **generator 2**: 9081

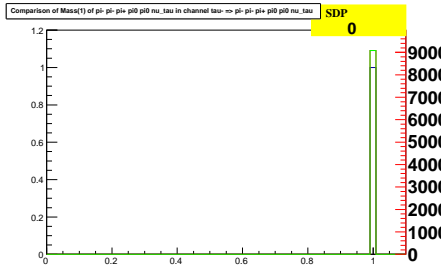
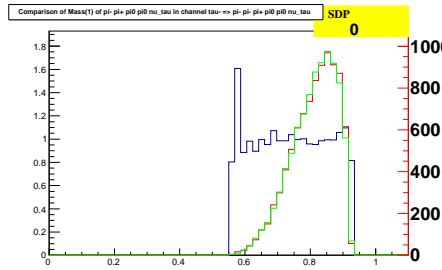
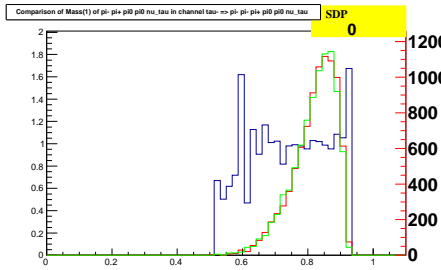
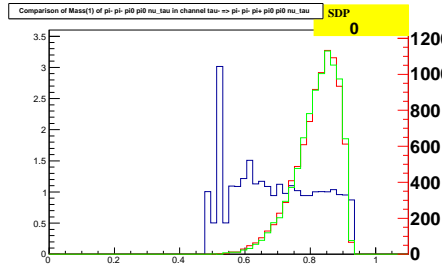
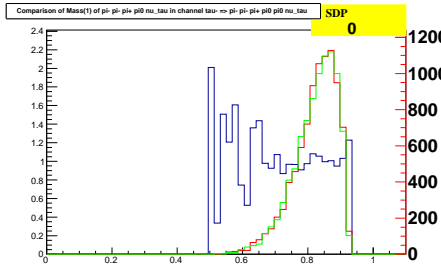
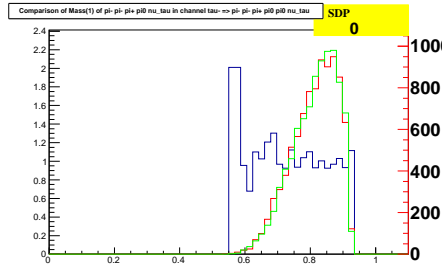
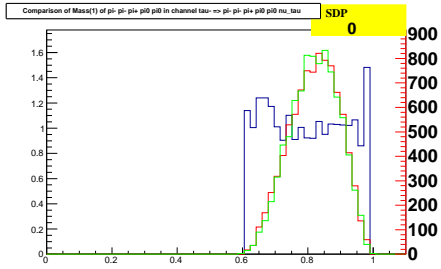
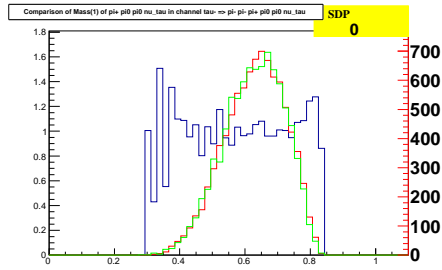
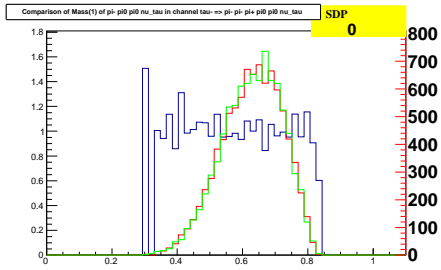








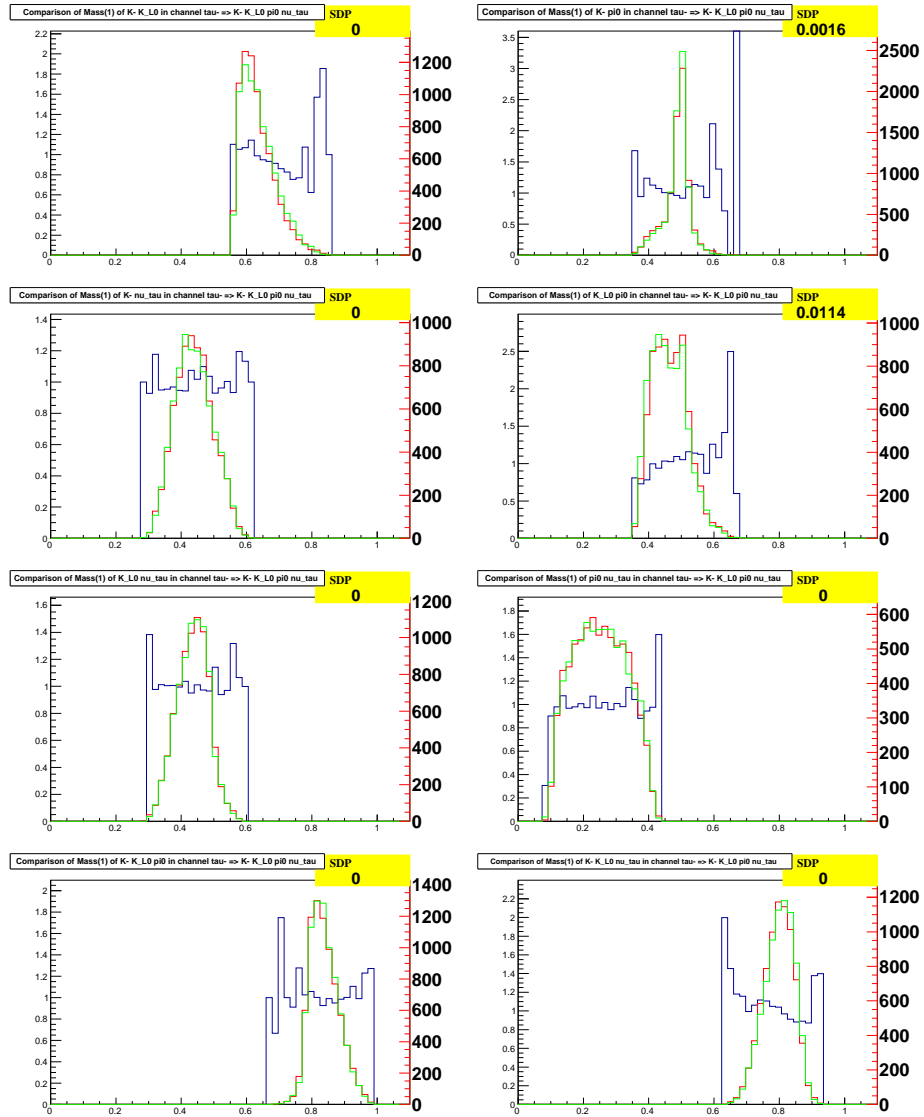


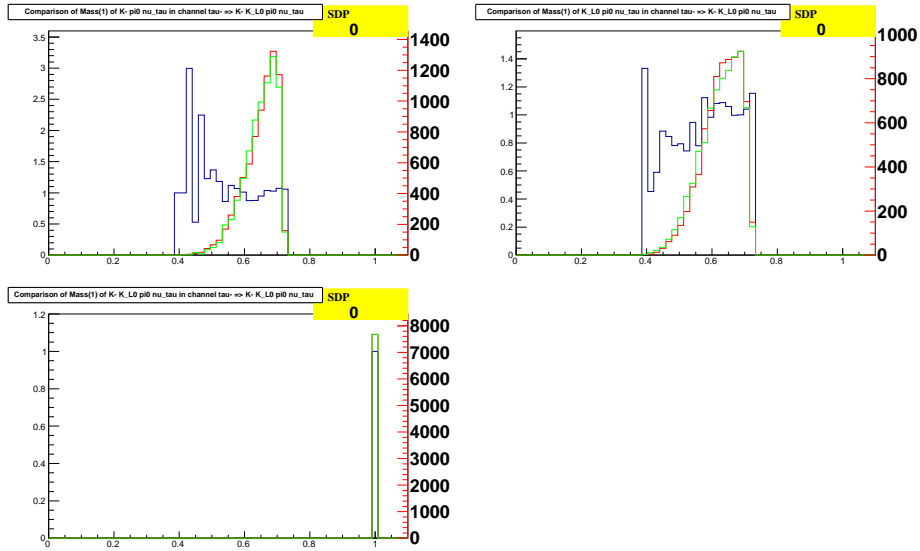


22 Decay Channel: $\tau^- \rightarrow K^- K_L^0 \pi^0 \nu_\tau$

Number of events from generator 1: 7677

Number of events from generator 2: 7671 (scaled to generator1)

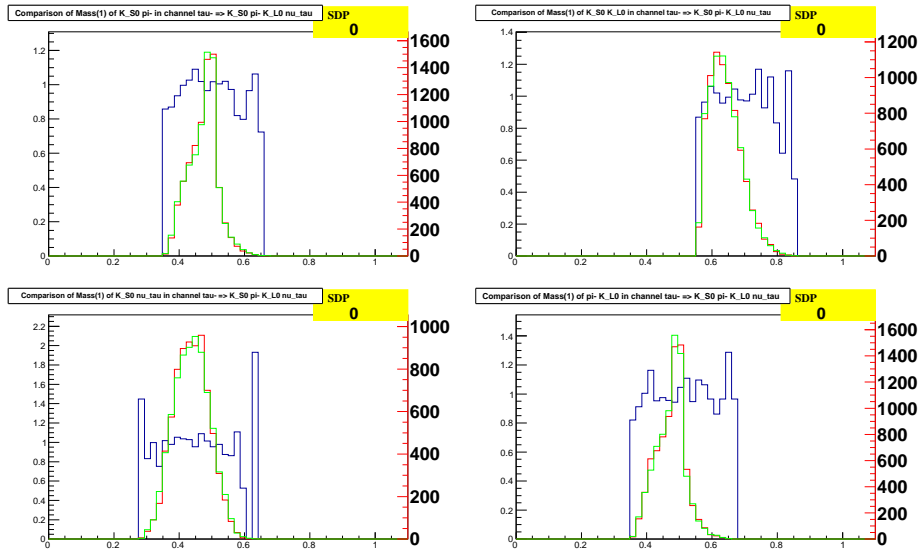


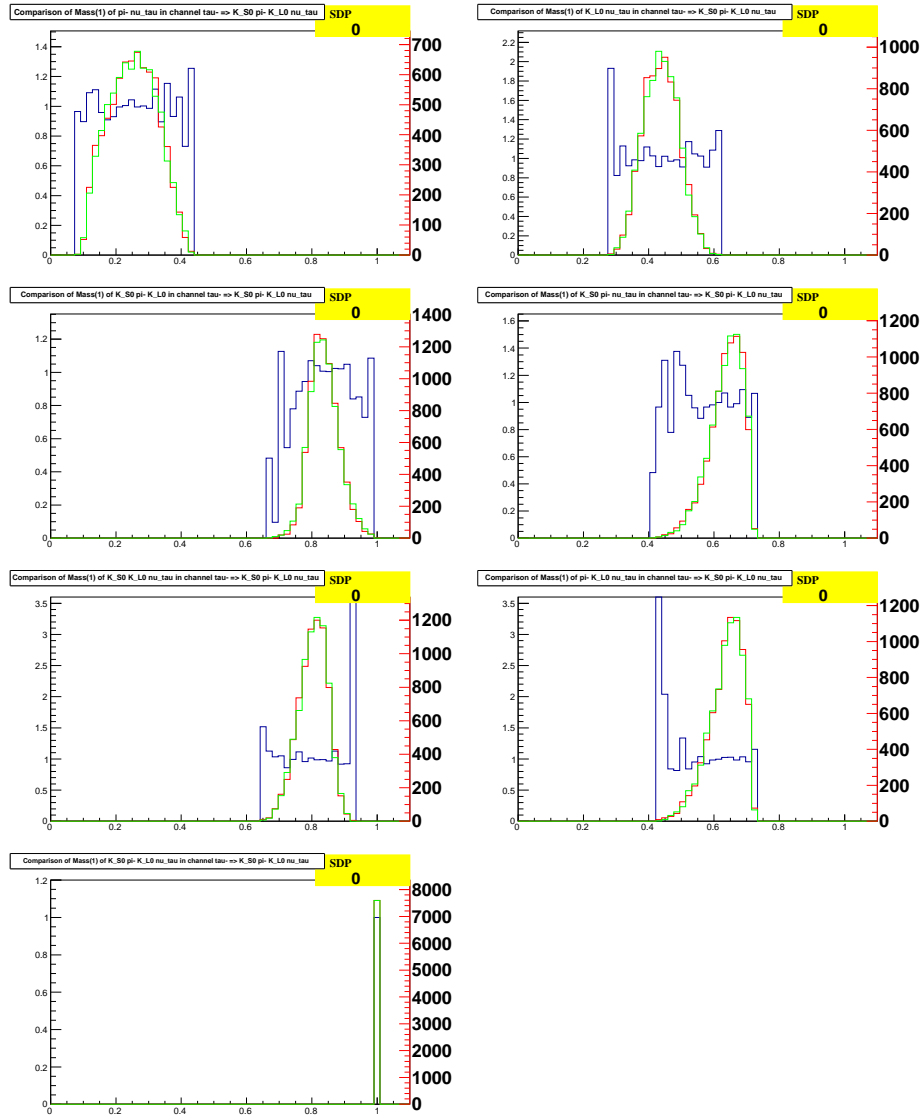


23 Decay Channel: $\tau^- \rightarrow K_S^0 \pi^- K_L^0 \nu_\tau$

Number of events from generator 1: 7594

Number of events from generator 2: 7333 (scaled to generator1)

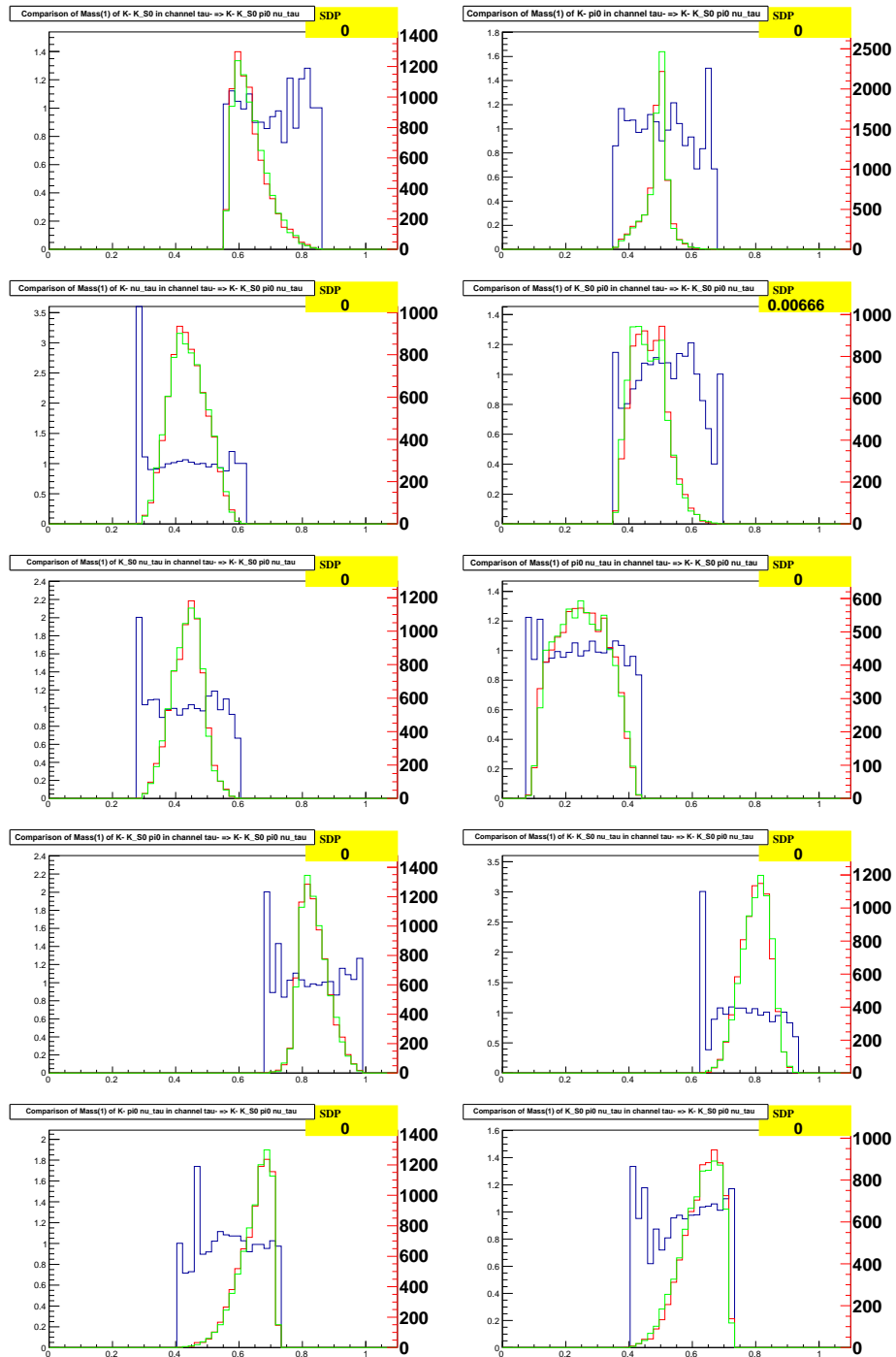


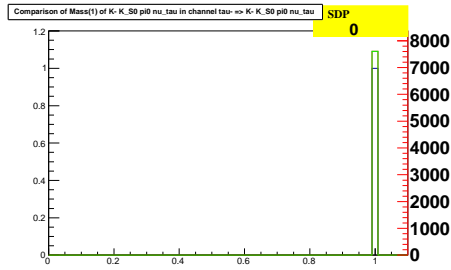


24 Decay Channel: $\tau^- \rightarrow K^- K_S^0 \pi^0 \nu_\tau$

Number of events from generator 1: 7592 (scaled to generator2)

Number of events from generator 2: 7606

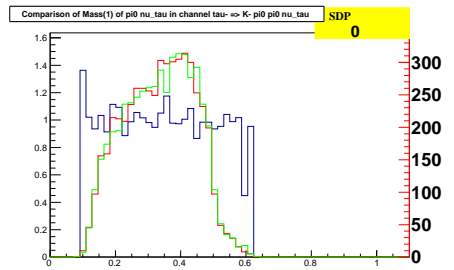
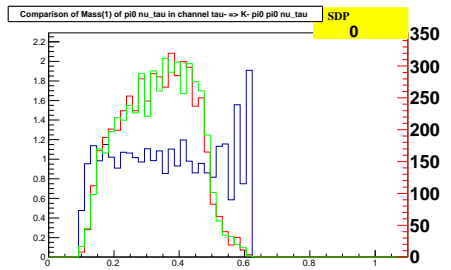
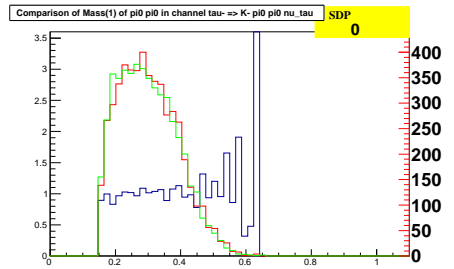
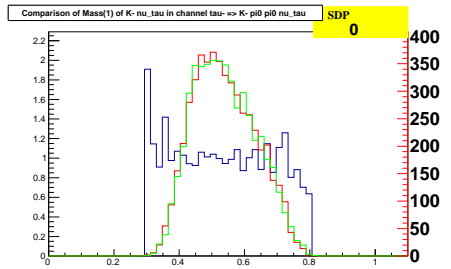
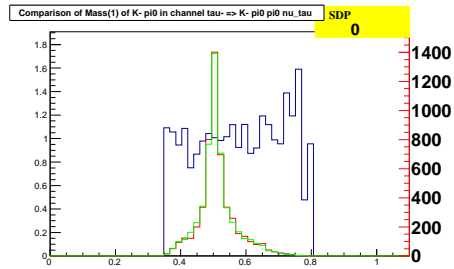
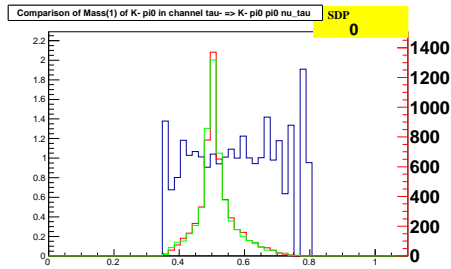


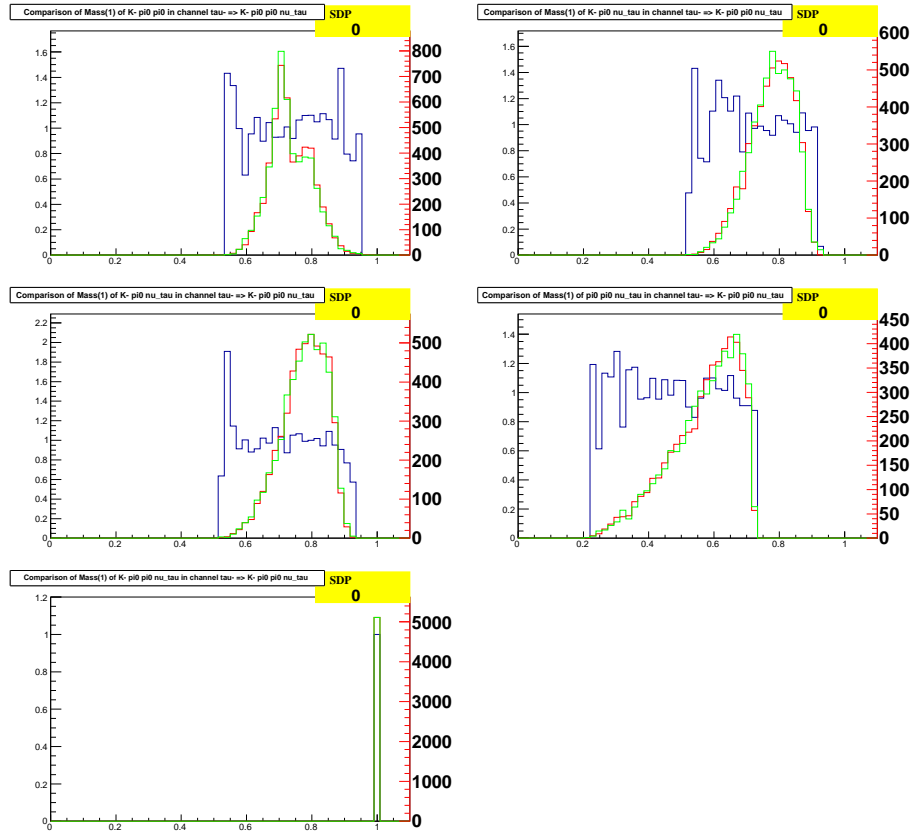


25 Decay Channel: $\tau^- \rightarrow K^- \pi^0 \pi^0 \nu_\tau$

Number of events from generator 1: 5110

Number of events from generator 2: 4877 (scaled to generator1)

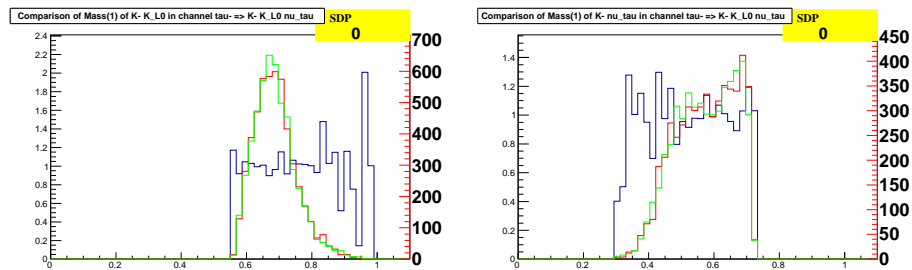


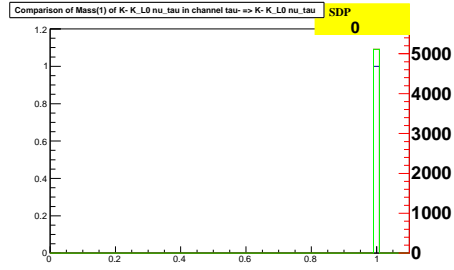
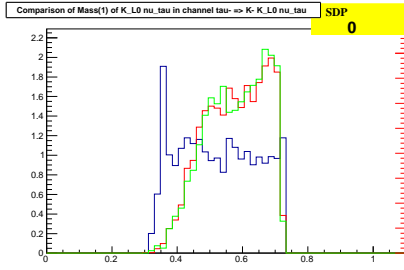


26 Decay Channel: $\tau^- \rightarrow K^- K_L^0 \nu_\tau$

Number of events from generator 1: 5088 (scaled to generator2)

Number of events from generator 2: 5111

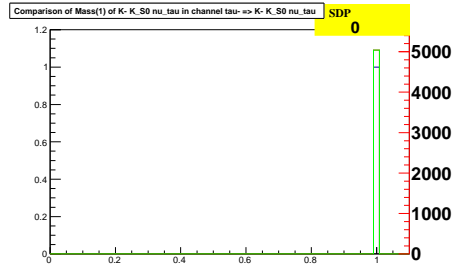
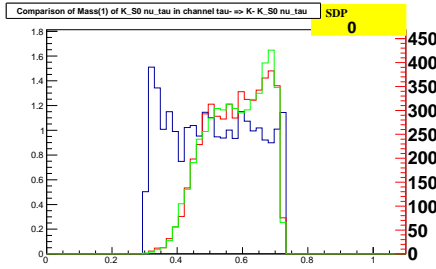
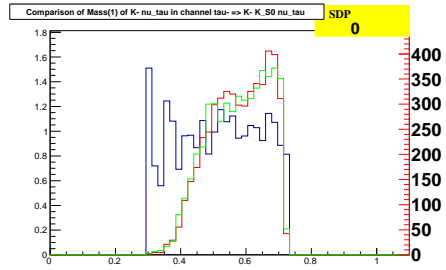
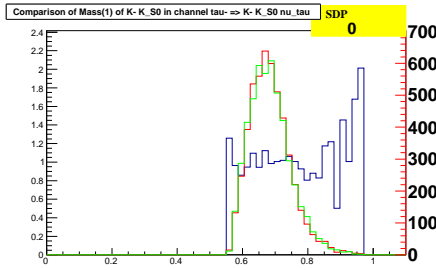




27 Decay Channel: $\tau^- \rightarrow K^- K_S^0 \nu_\tau$

Number of events from generator 1: 5006 (scaled to generator2)

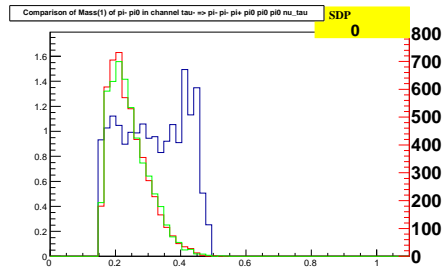
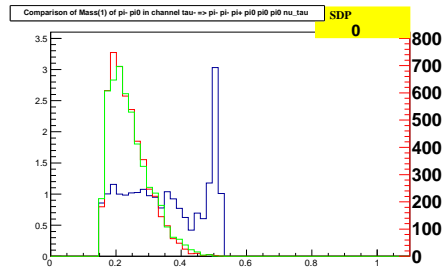
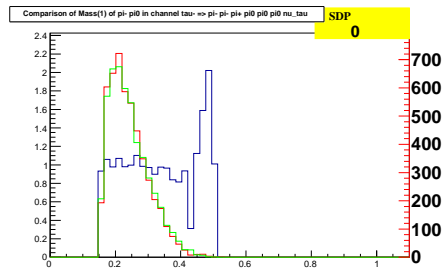
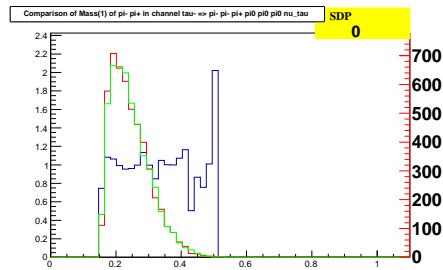
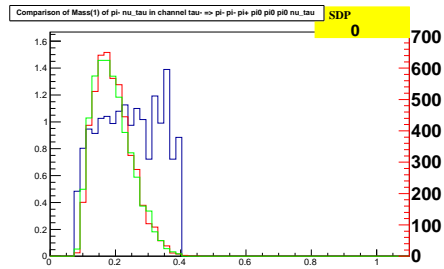
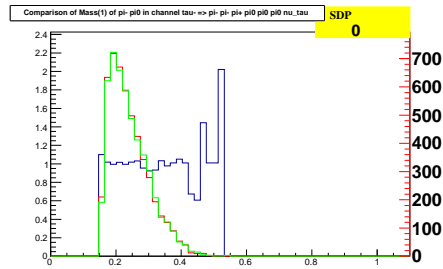
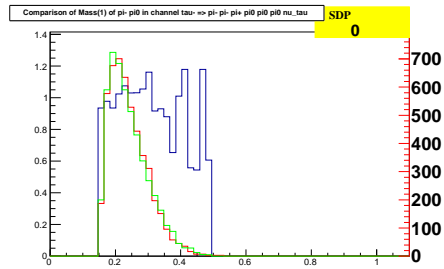
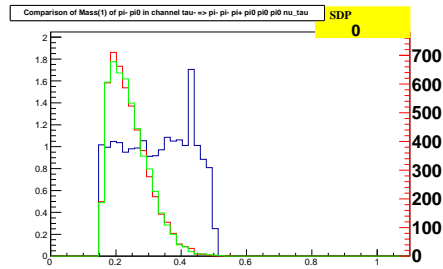
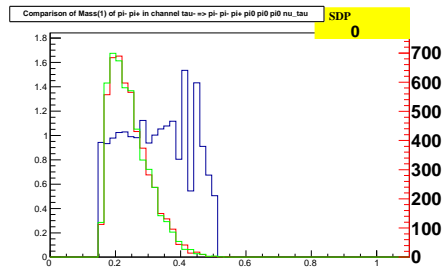
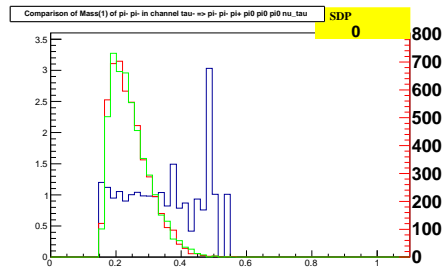
Number of events from generator 2: 5040

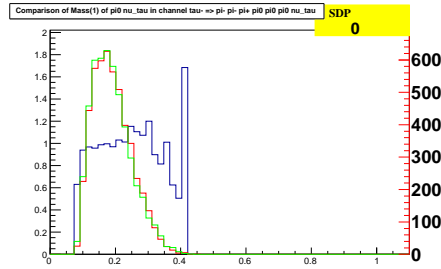
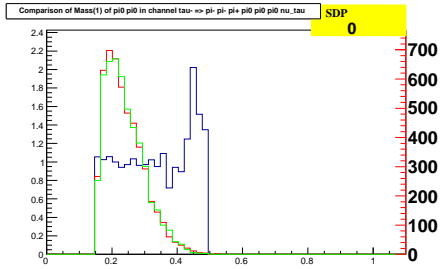
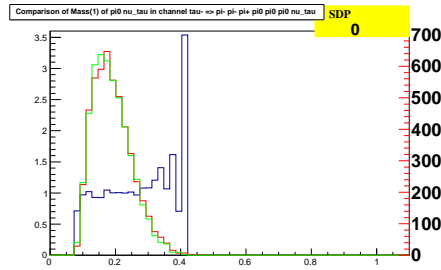
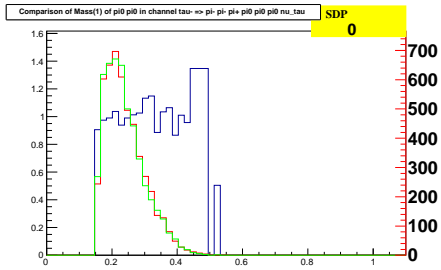
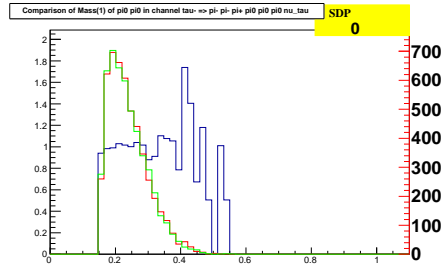
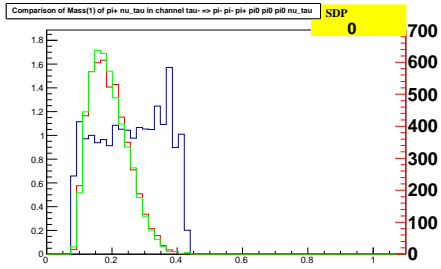
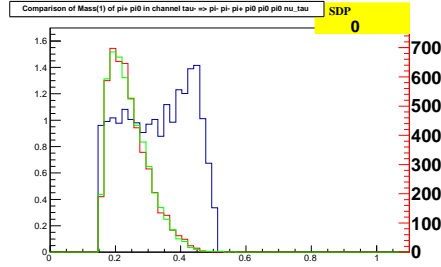
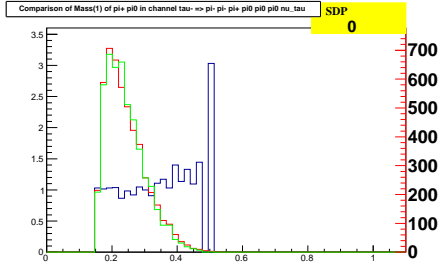
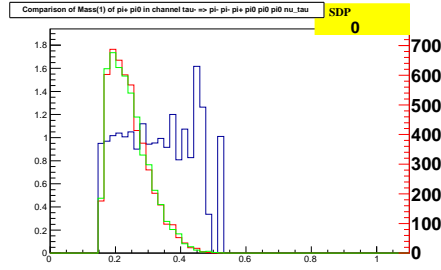
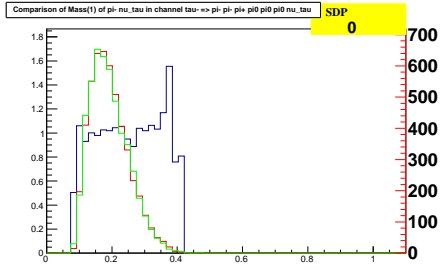


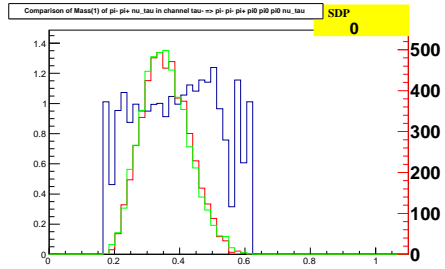
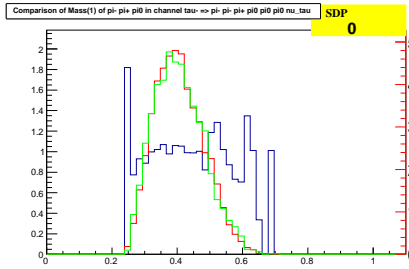
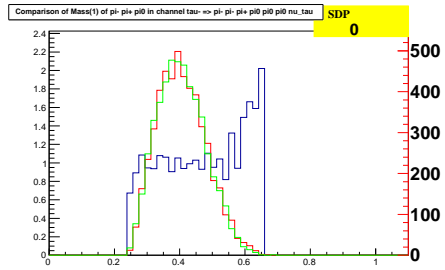
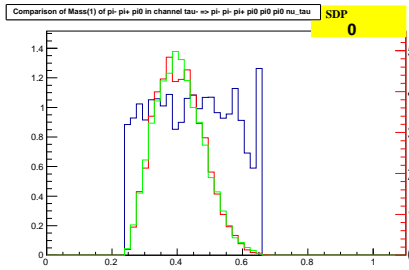
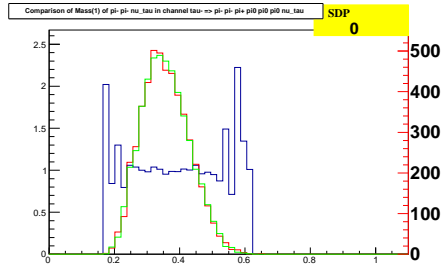
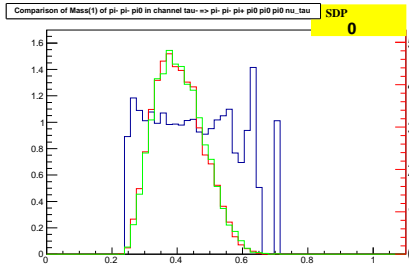
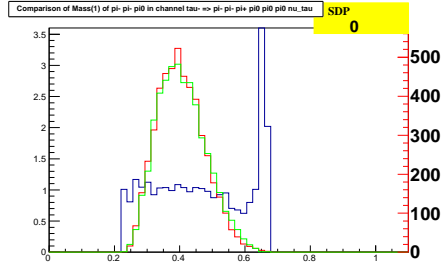
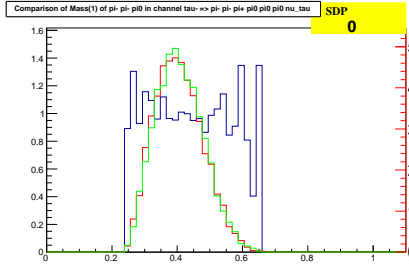
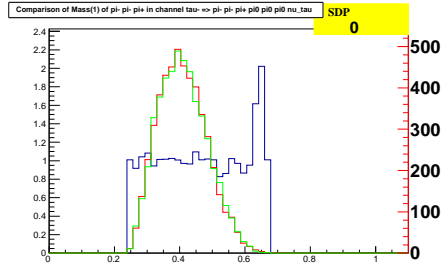
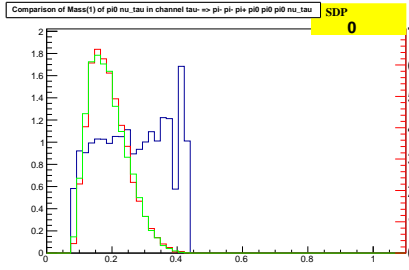
28 Decay Channel: $\tau^- \rightarrow \pi^- \pi^- \pi^+ \pi^0 \pi^0 \pi^0 \nu_\tau$

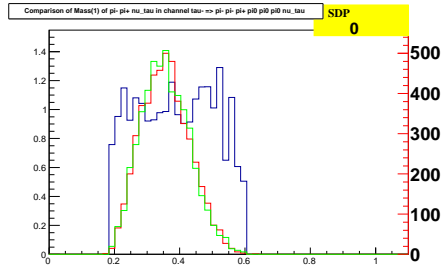
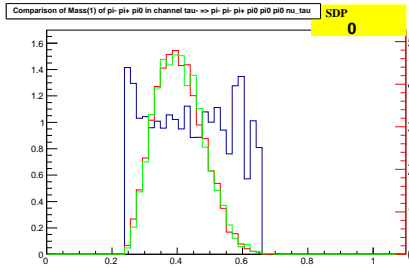
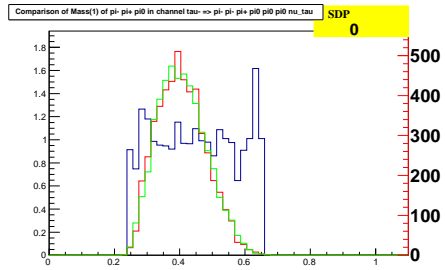
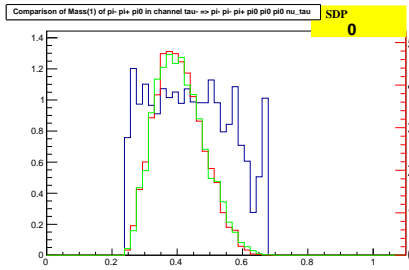
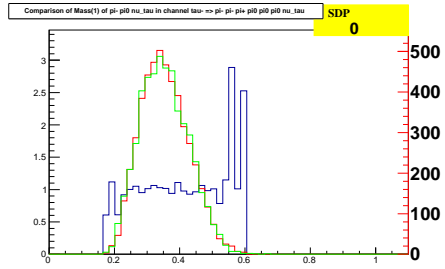
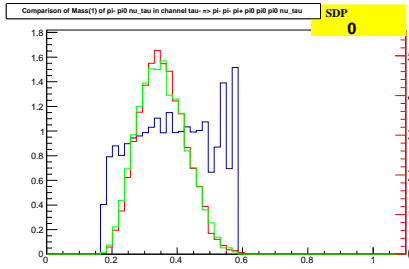
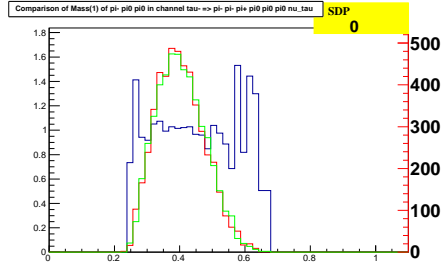
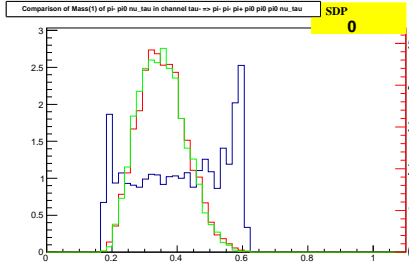
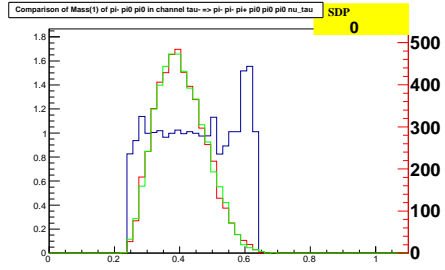
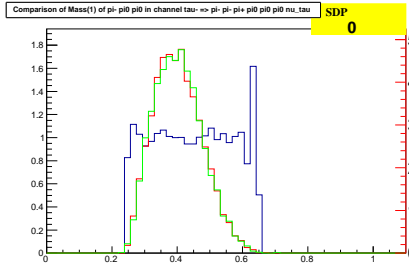
Number of events from generator 1: 4985 (scaled to generator2)

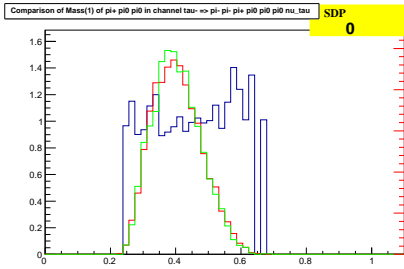
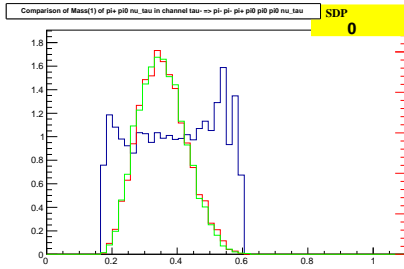
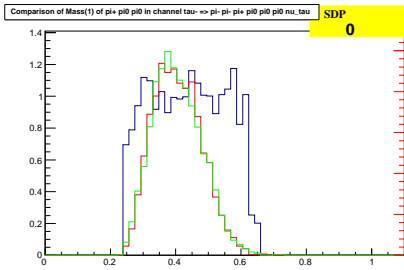
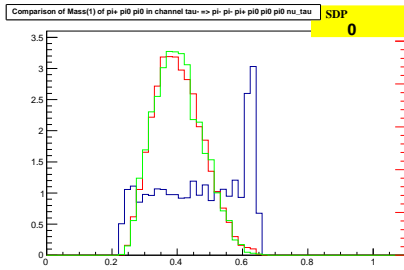
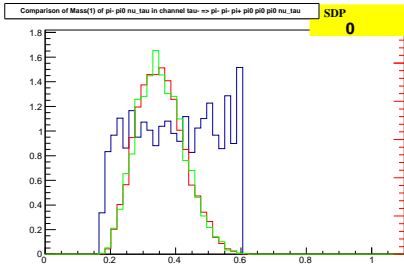
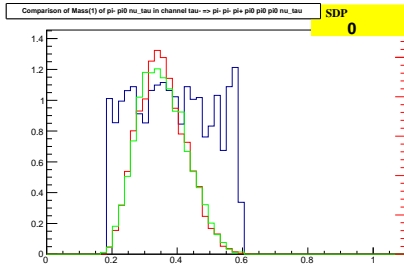
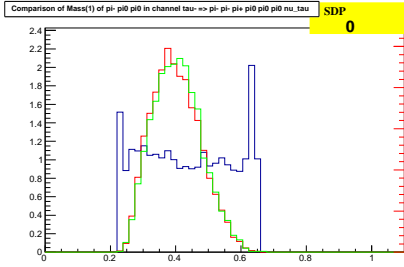
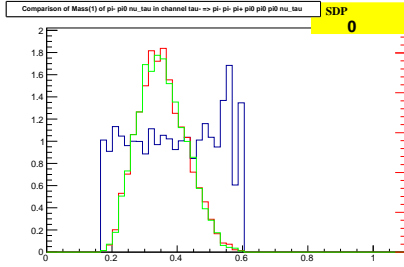
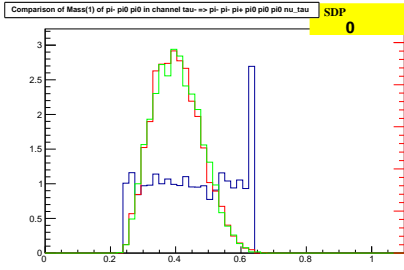
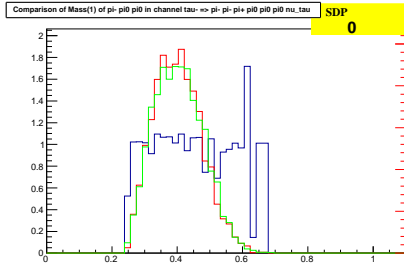
Number of events from generator 2: 5039

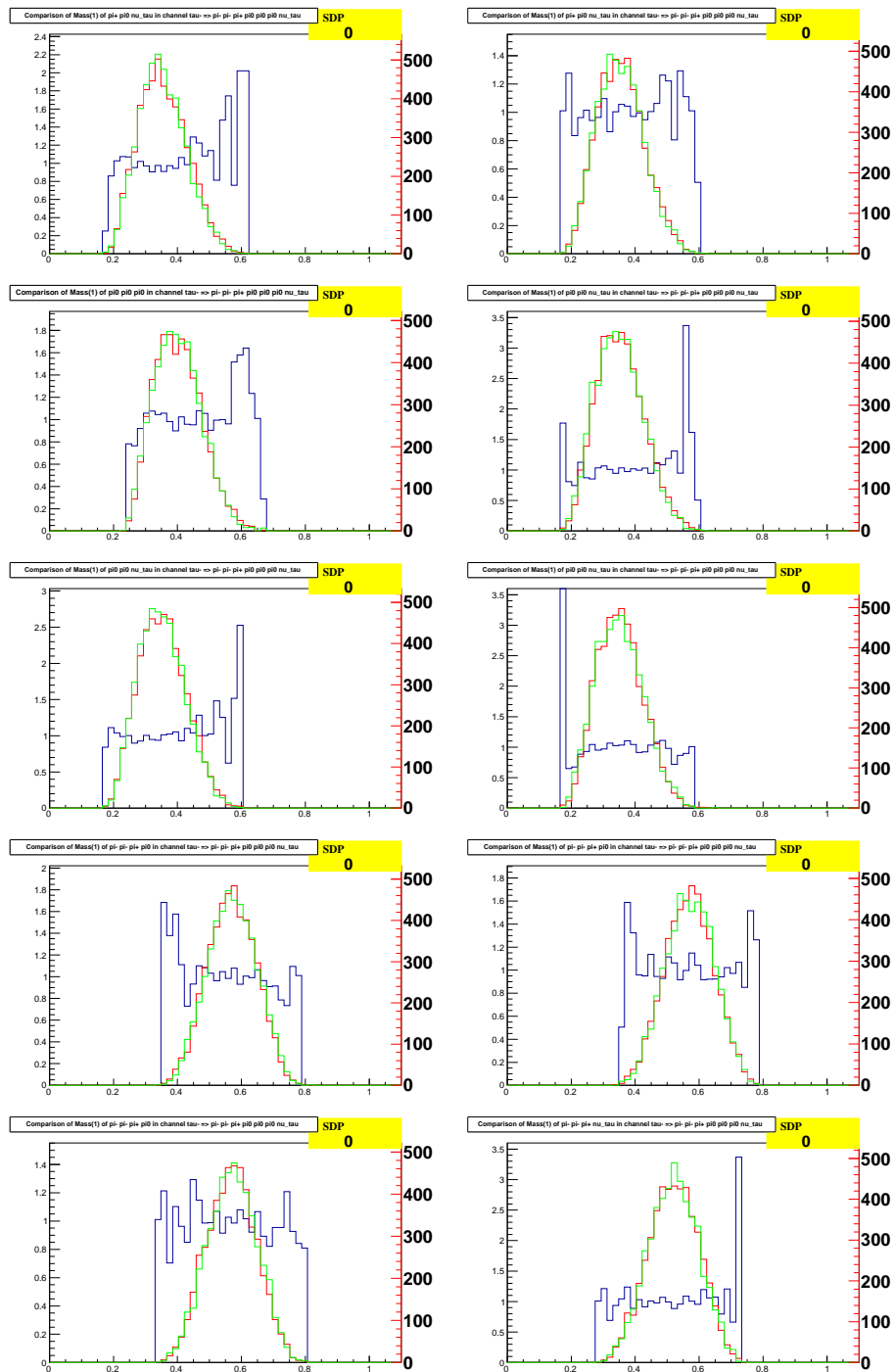


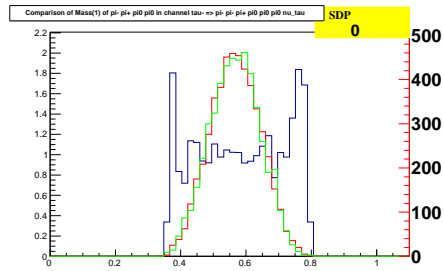
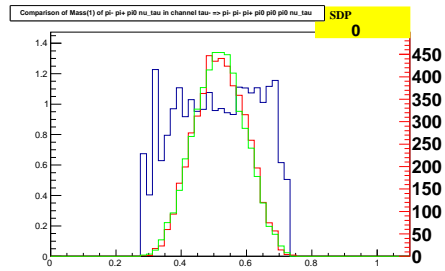
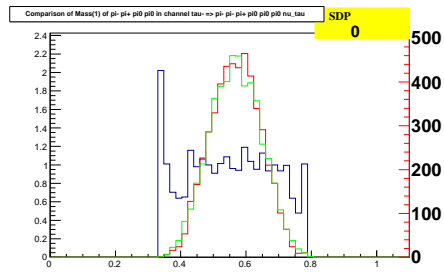
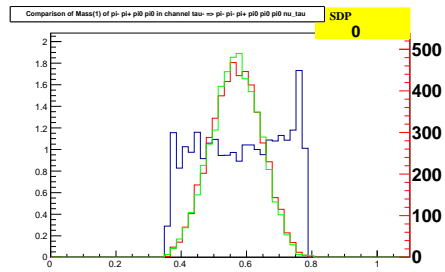
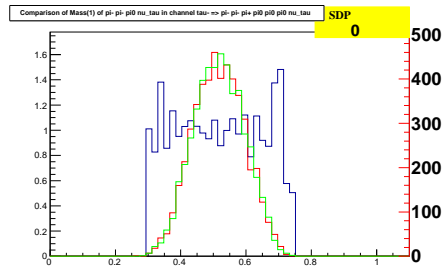
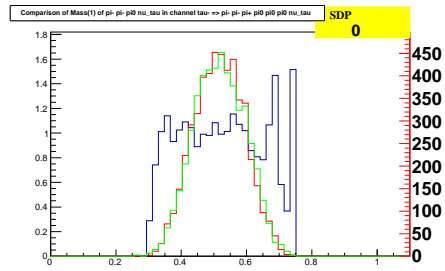
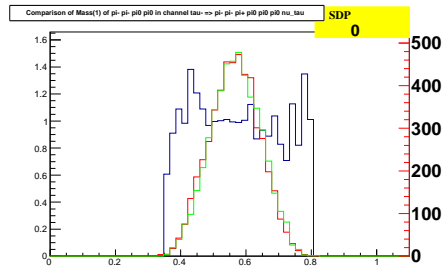
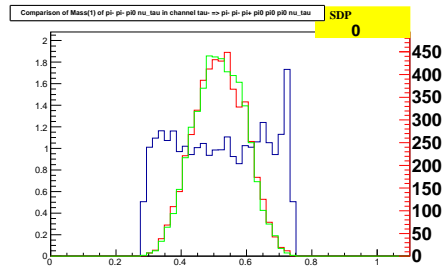
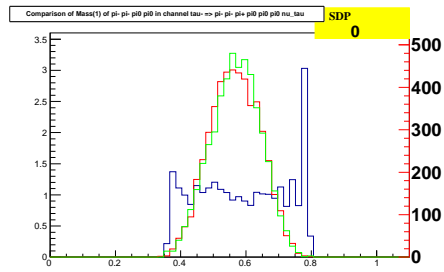
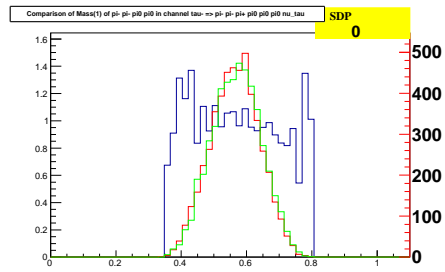


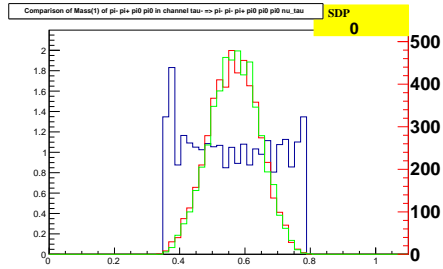
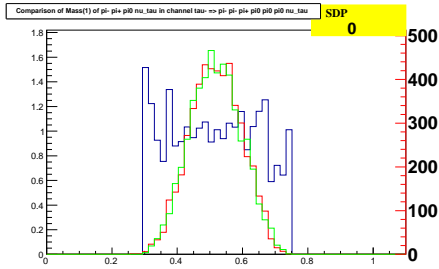
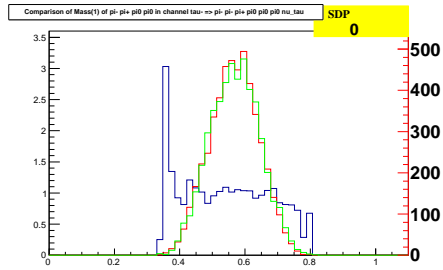
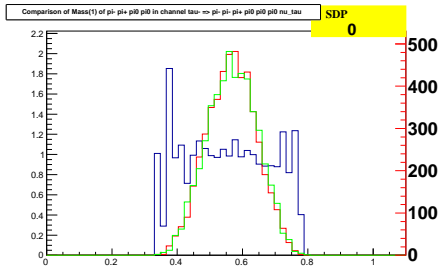
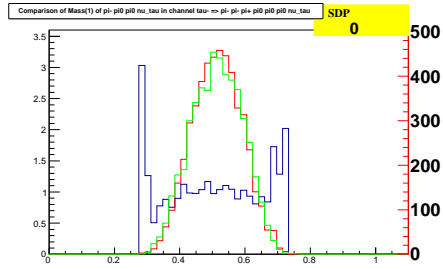
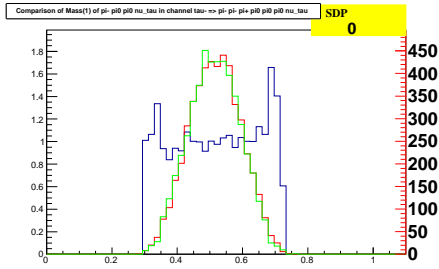
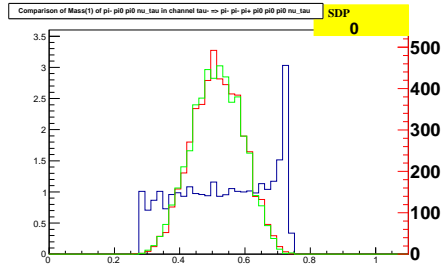
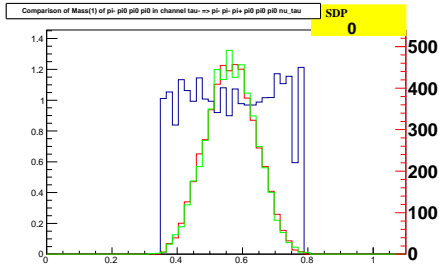
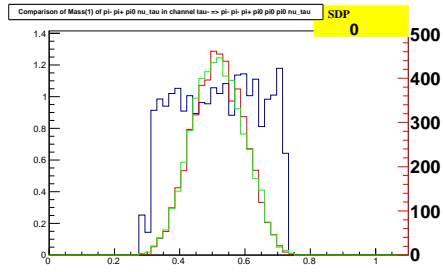
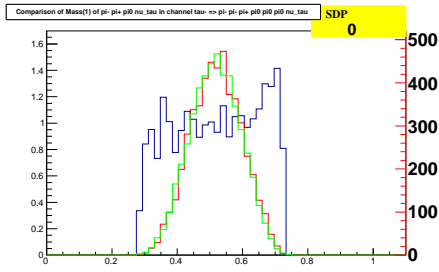


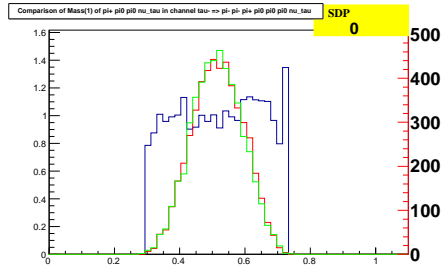
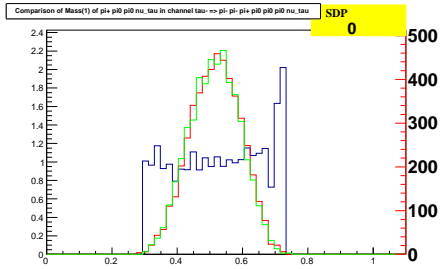
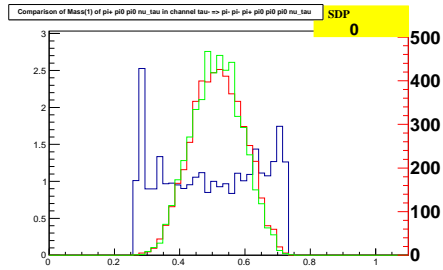
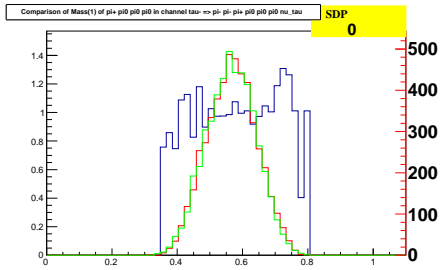
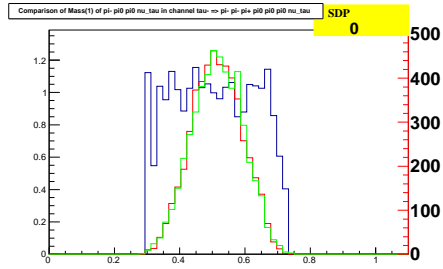
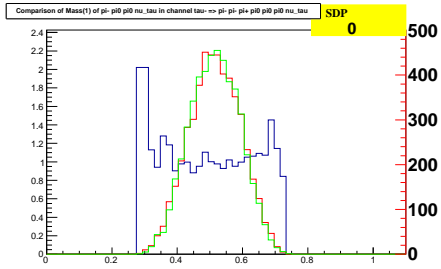
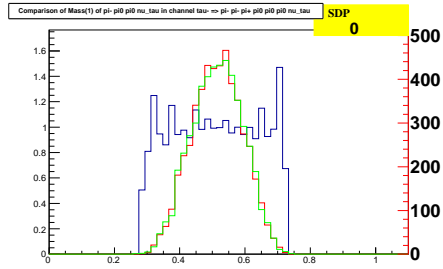
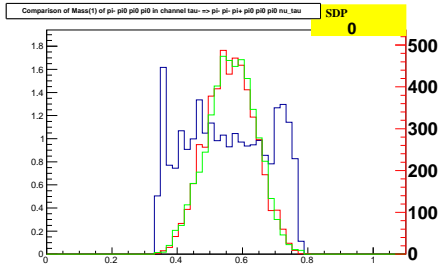
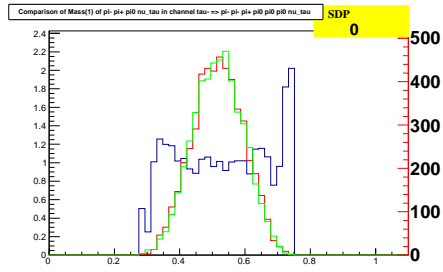
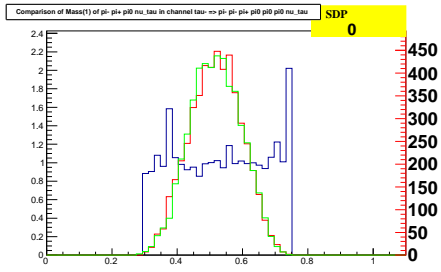


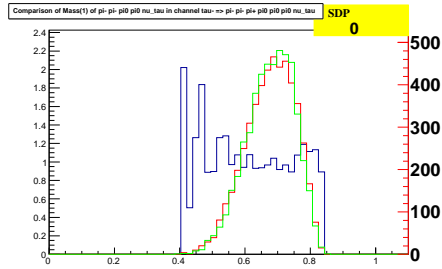
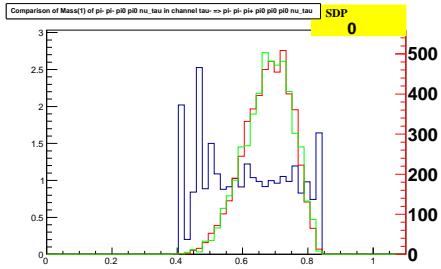
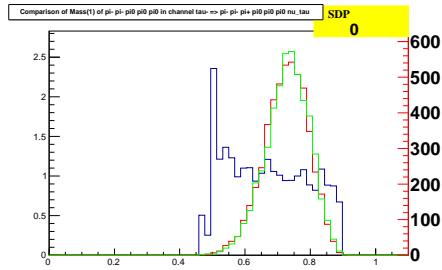
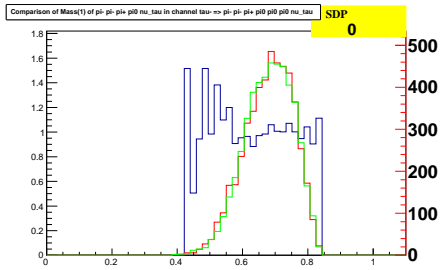
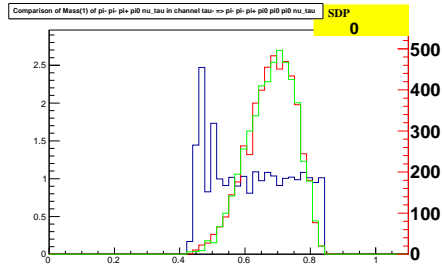
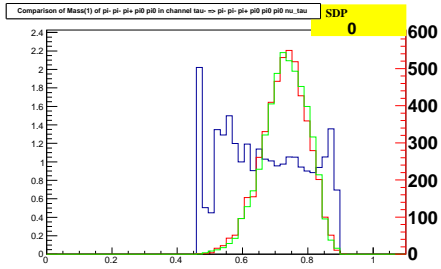
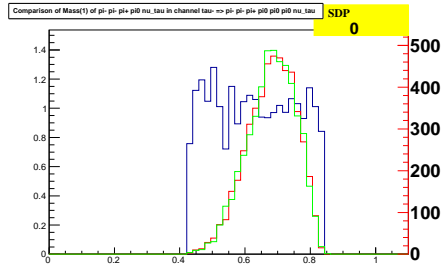
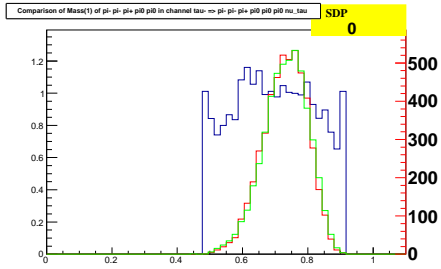
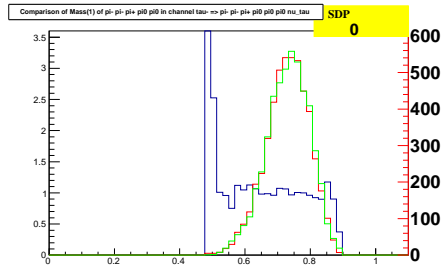
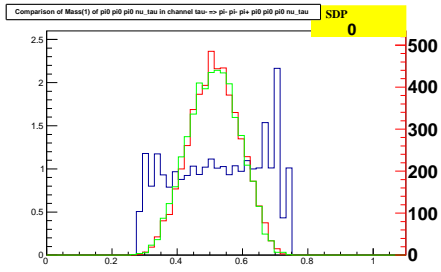


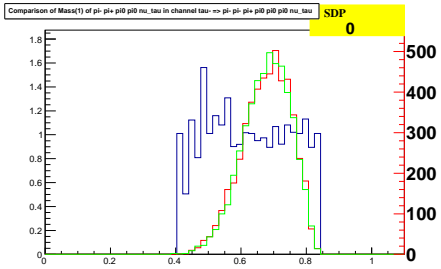
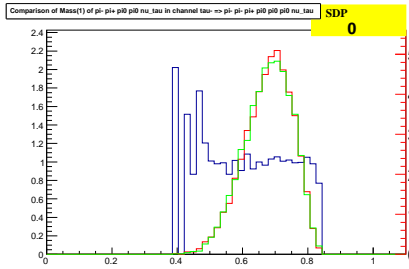
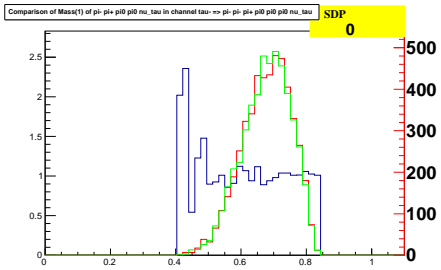
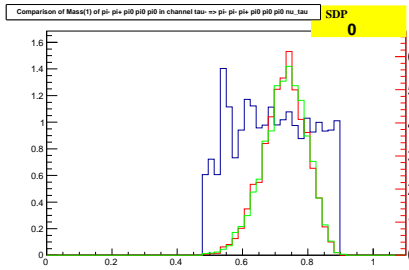
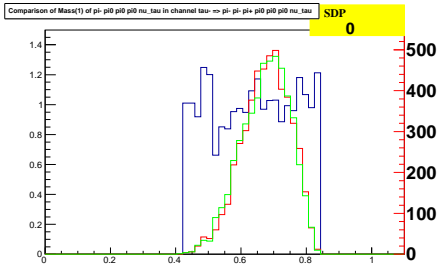
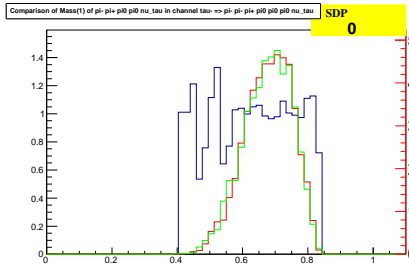
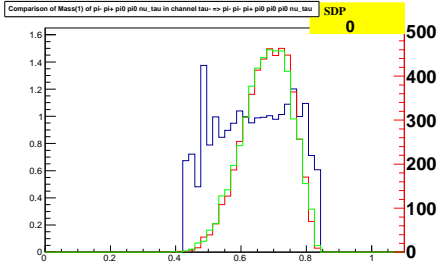
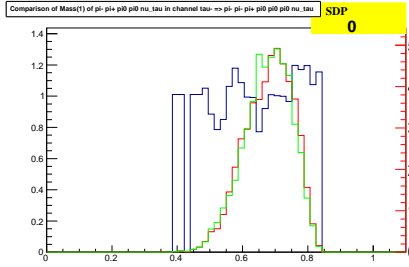
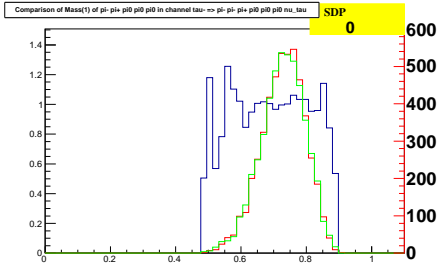
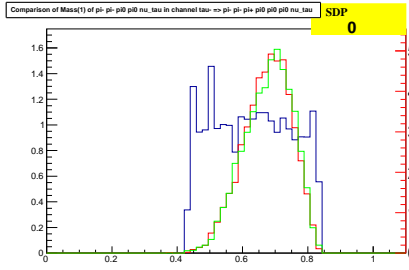


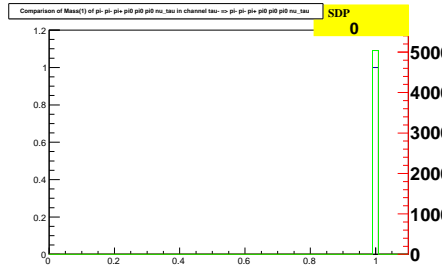
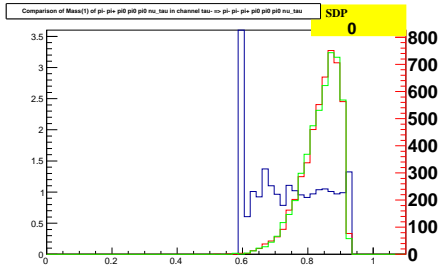
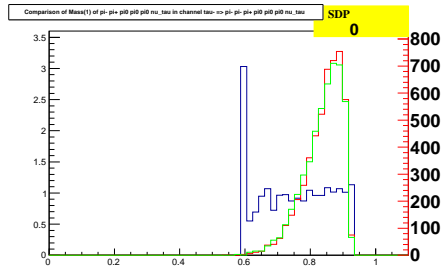
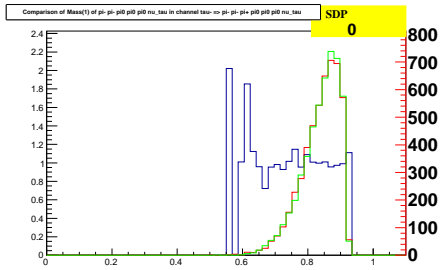
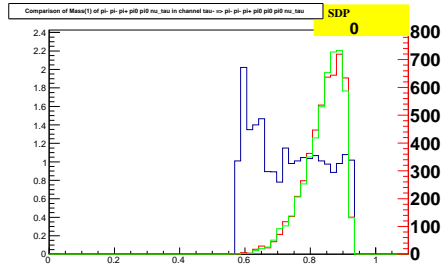
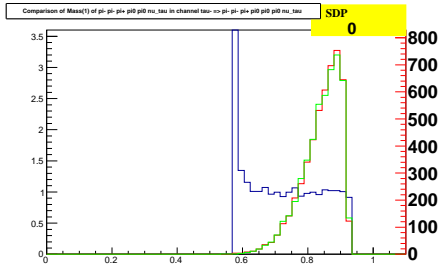
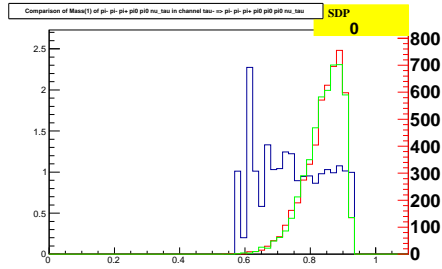
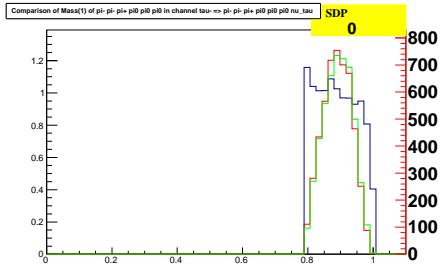
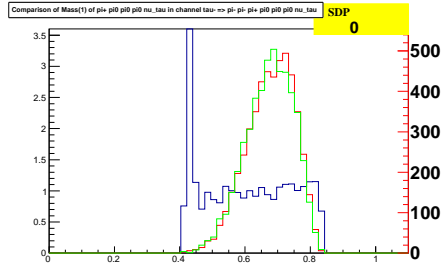
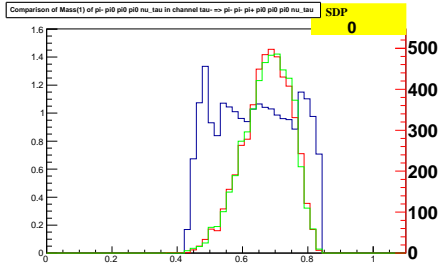








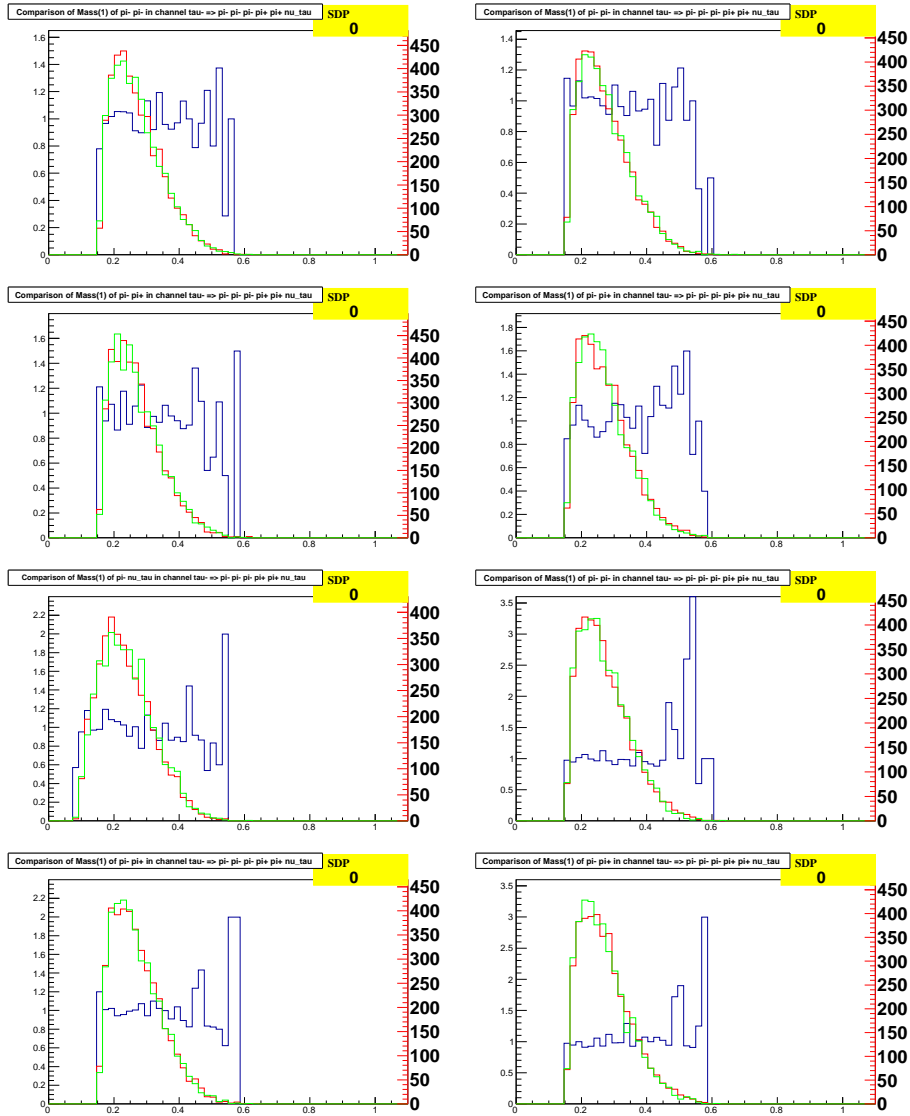


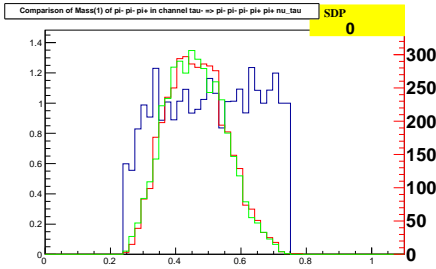
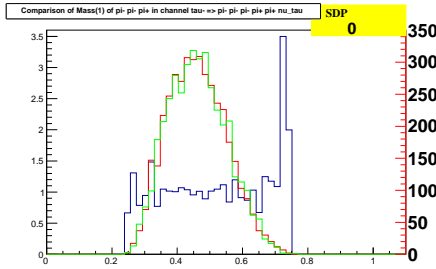
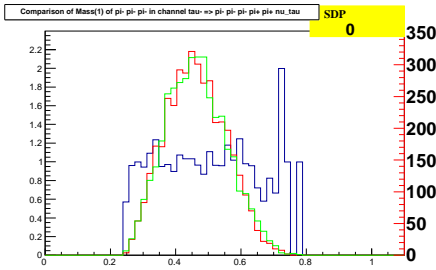
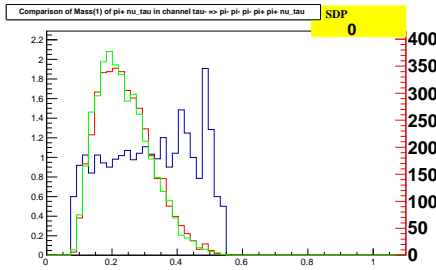
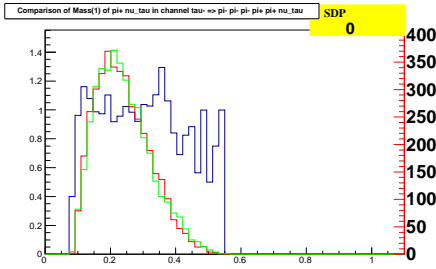
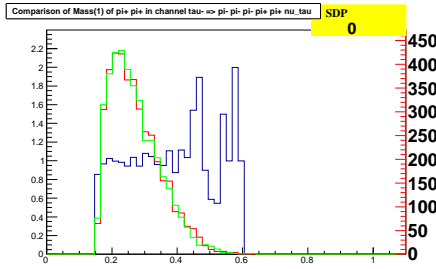
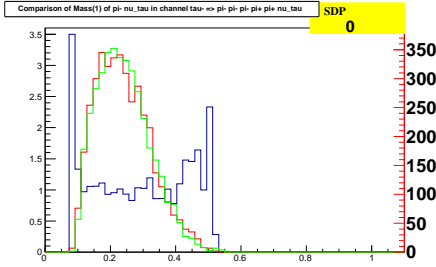
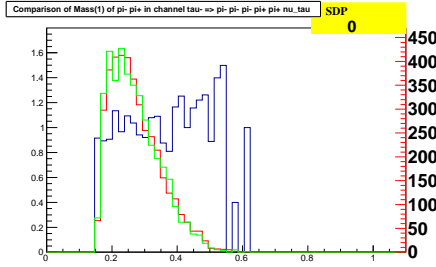
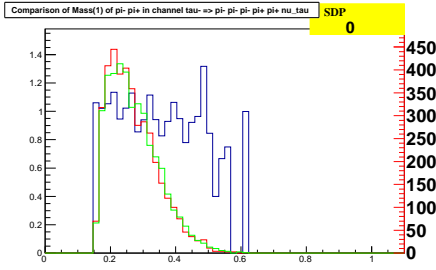
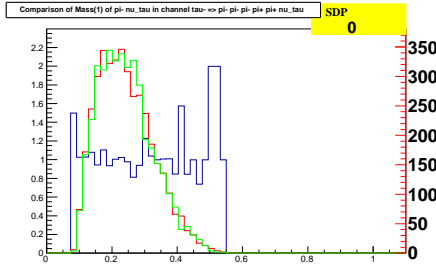


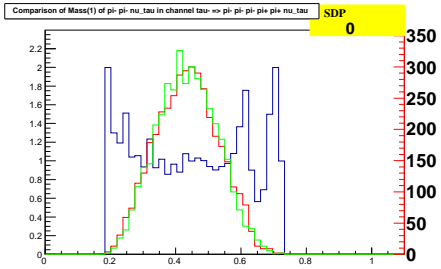
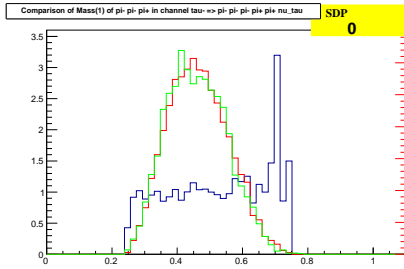
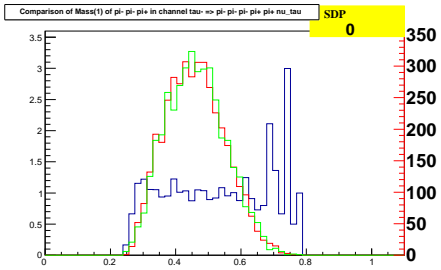
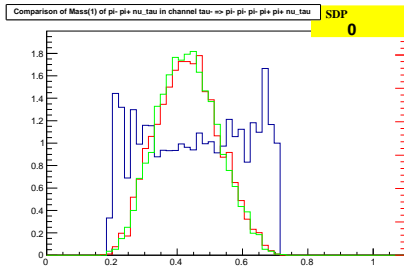
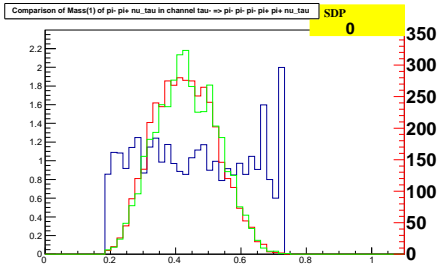
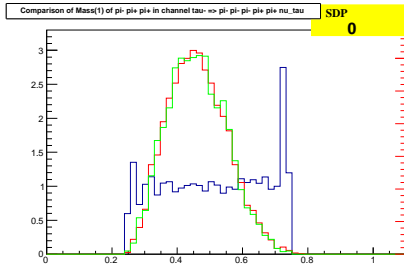
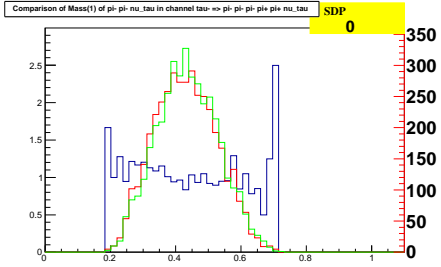
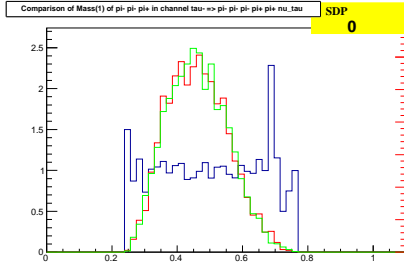
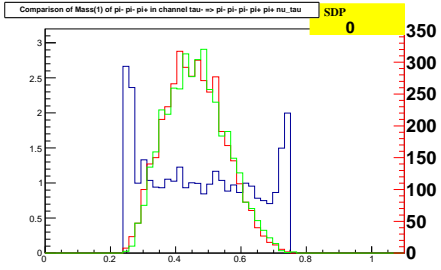
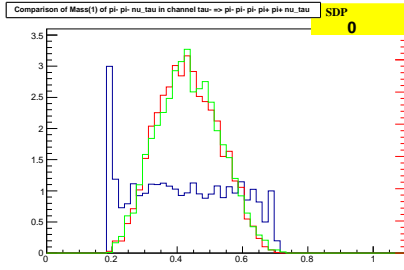
29 Decay Channel: $\tau^- \rightarrow \pi^- \pi^- \pi^- \pi^+ \pi^+ \nu_\tau$

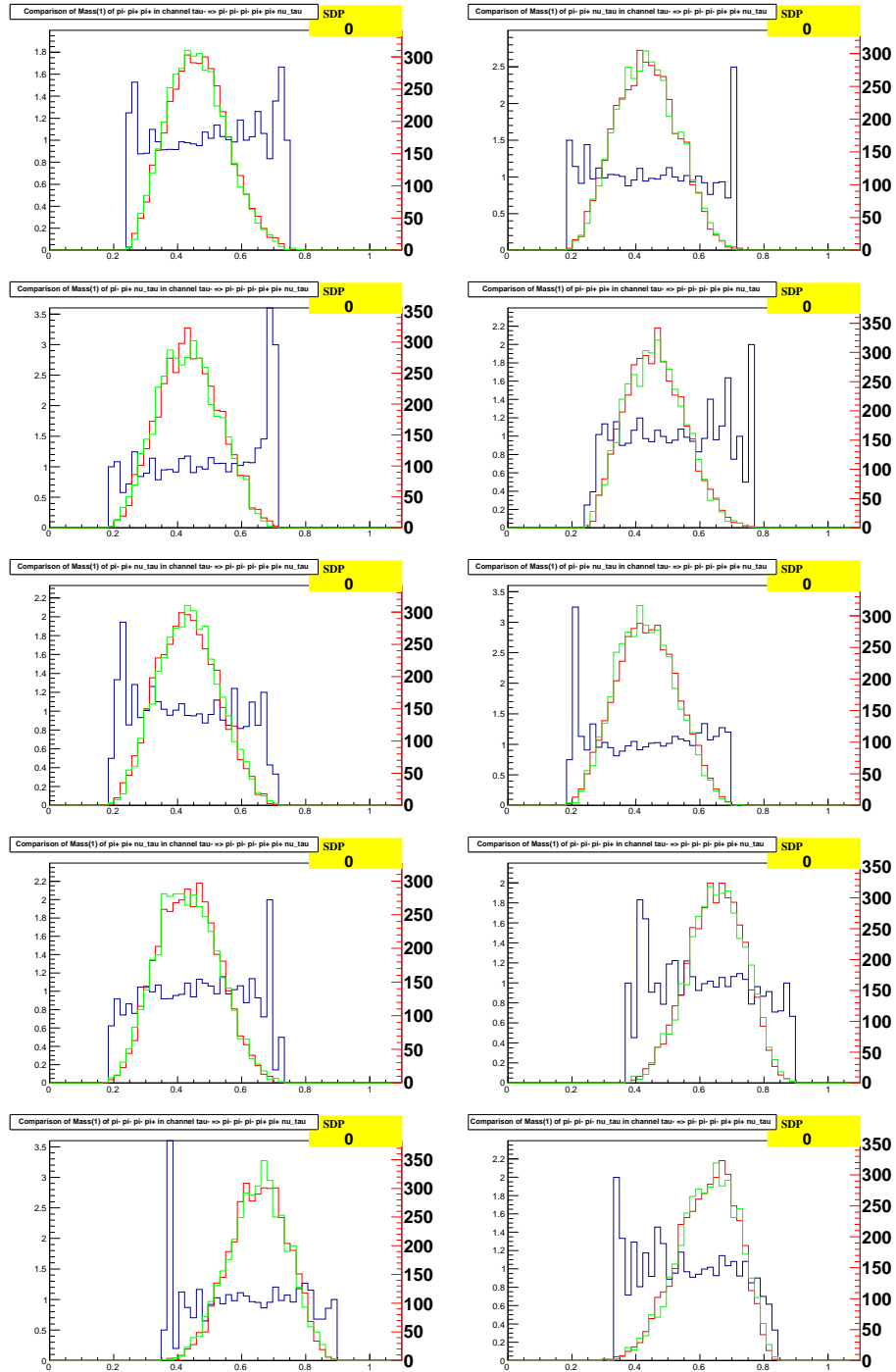
Number of events from generator 1: 4034

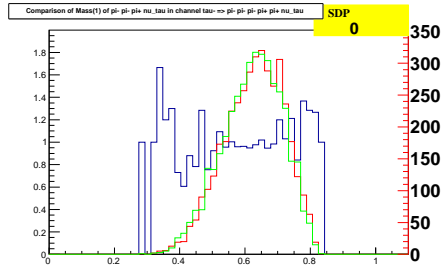
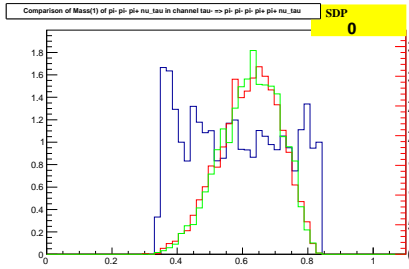
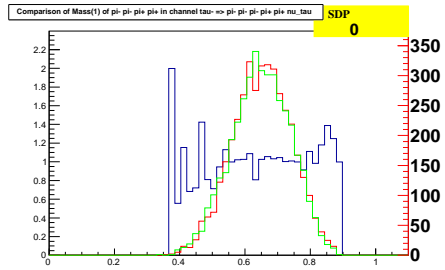
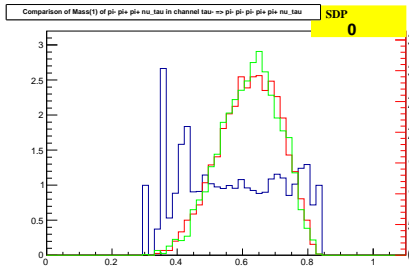
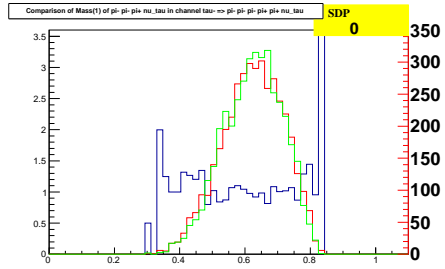
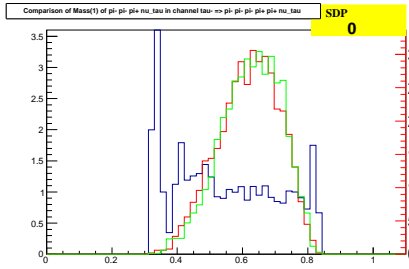
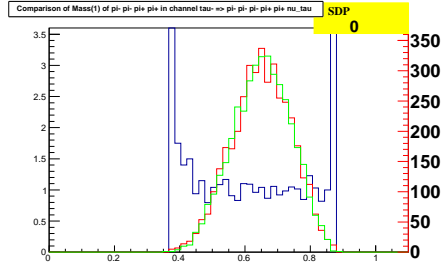
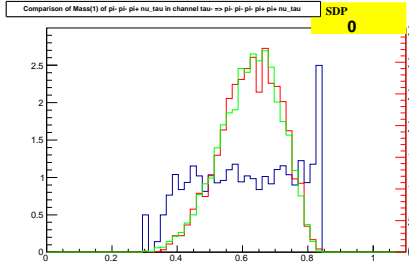
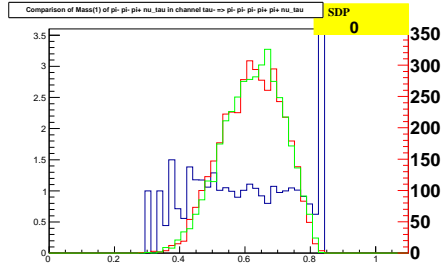
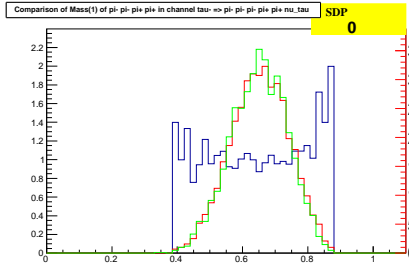
Number of events from generator 2: 4031 (scaled to generator1)







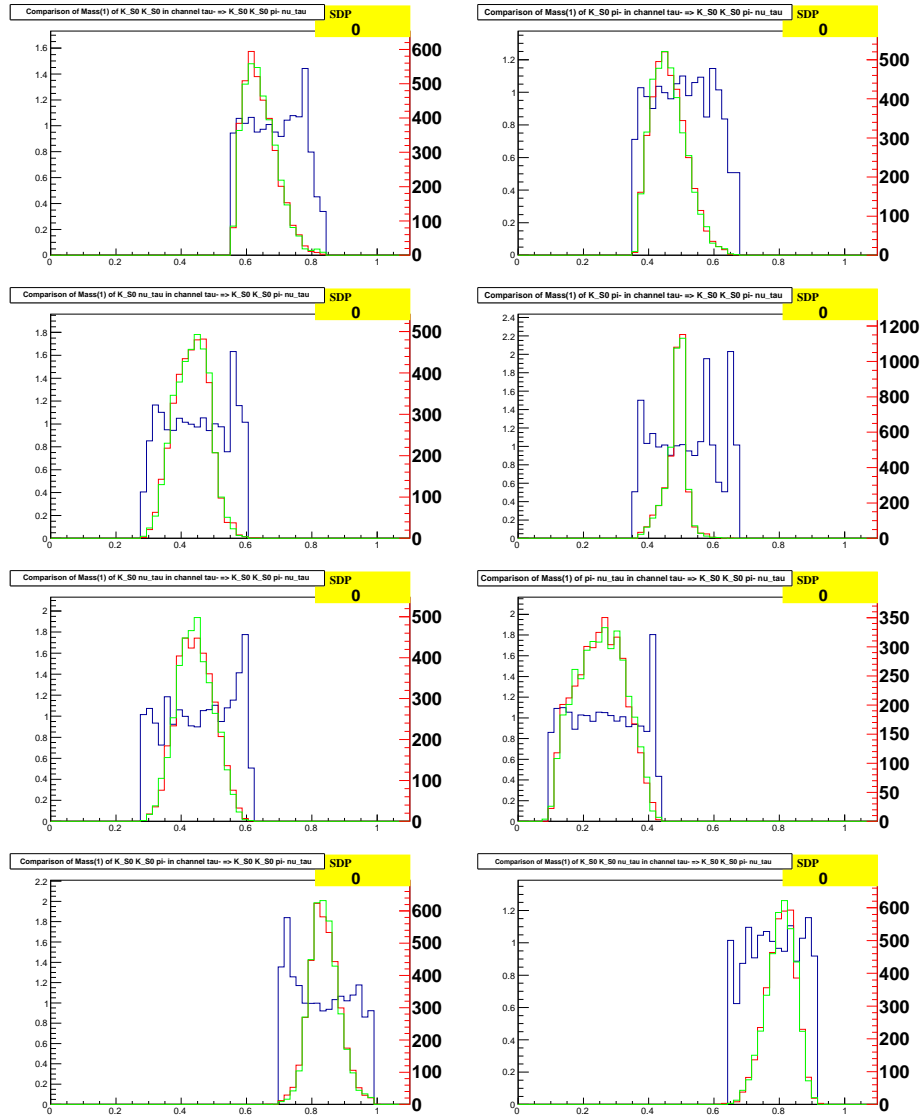


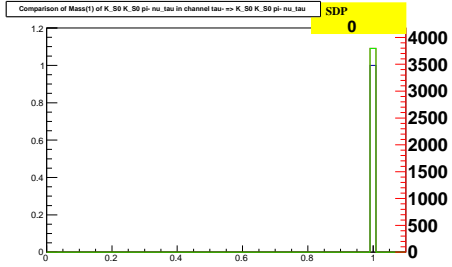
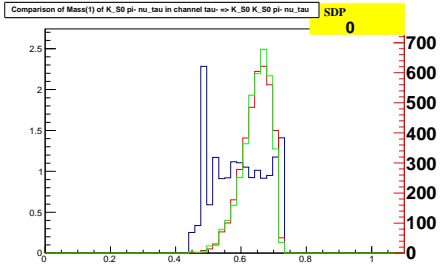
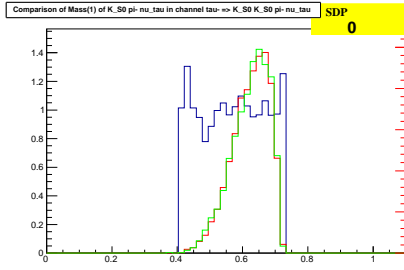


30 Decay Channel: $\tau^- \rightarrow K_S^0 K_S^0 \pi^- \nu_\tau$

Number of events from generator 1: 3739 (scaled to generator2)

Number of events from generator 2: 3796

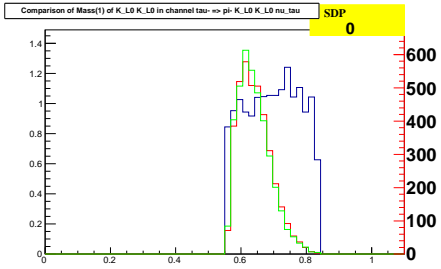
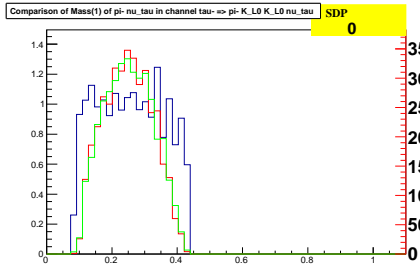
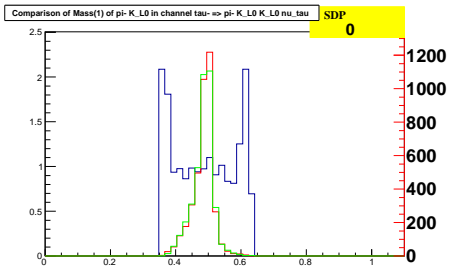
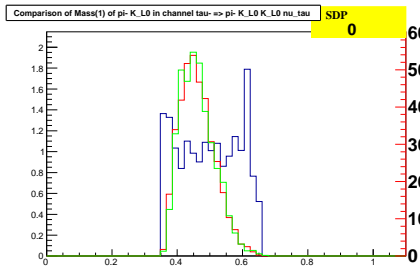


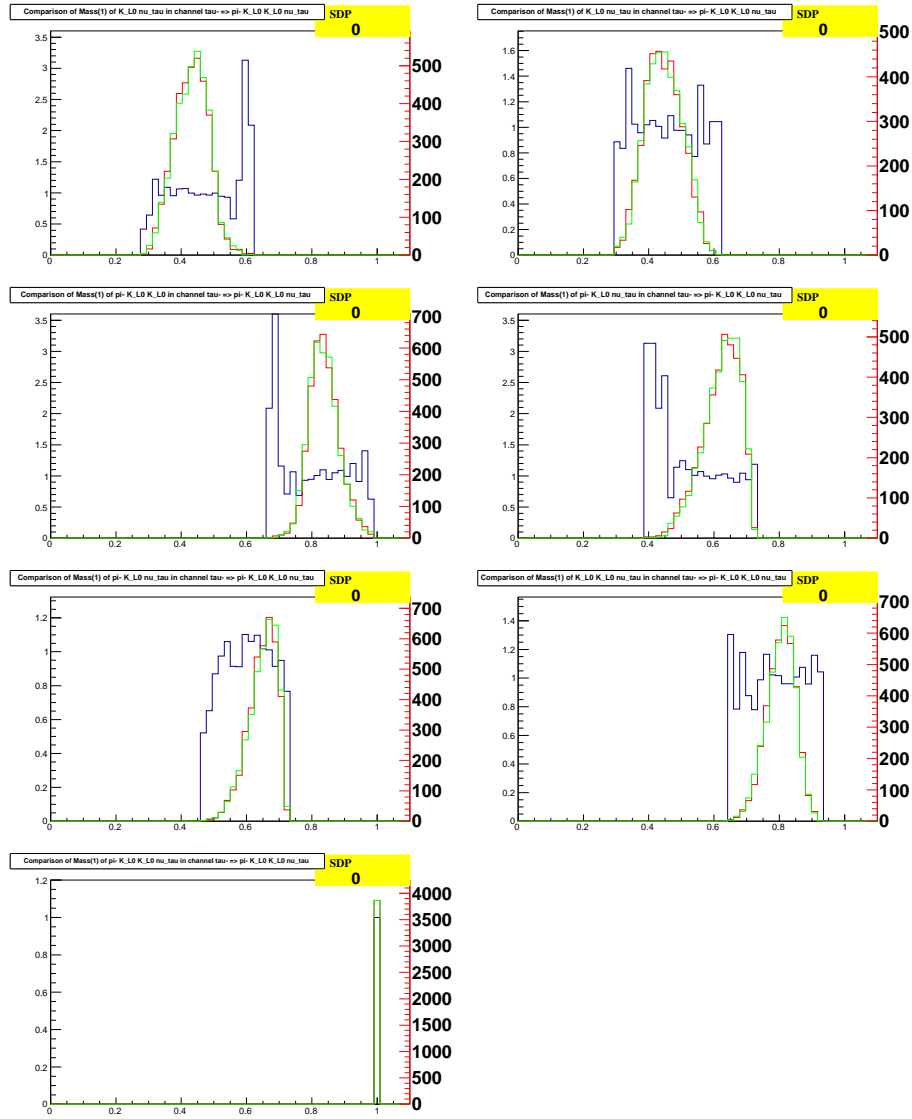


31 Decay Channel: $\tau^- \rightarrow \pi^- K_L^0 K_L^0 \nu_\tau$

Number of events from generator 1: 3701 (scaled to generator2)

Number of events from generator 2: 3863





32 Decay Channel: $\tau^- \rightarrow \pi^- \pi^- \pi^- \pi^+ \pi^+ \pi^0 \nu_\tau$

Number of events from generator 1: 3014 (scaled to generator2)

Number of events from generator 2: 3016

