

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

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Results from **generator 1**.

Dataset: mc12.005107.pythia_Wtauhad.evgen.EVNT.v12000701
Testing tau- decays in W->tau->hadrons

- From directory:
/data/data2/atlas/users/ndavidso/testarea/13.0.30/MyTauValidationPackage/share
- Total number of analyzed decays: 149120
- Number of decay channels found: 54 + 4

Results from **generator 2**.

Dataset: mc12.005189.A3_Ztautau_filterA.evgen.EVNT.v12000702
Testing tau- decays in Z->tau tau

- From directory:
/data/data2/atlas/users/ndavidso/testarea/13.0.30/MyTauValidationPackage/share
- Total number of analyzed decays: 228700
- Number of decay channels found: 54 + 31

Found decay modes:

| Decay channel | Branching Ratio \pm Rough Errors | | Max. shape dif. param. |
|---|------------------------------------|-----------------------|------------------------|
| | Generator #1 | Generator #2 | |
| $\tau^- \rightarrow \pi^- \pi^0 \gamma \nu_\tau$ | 0.6351 \pm 0.0206% | 2.0066 \pm 0.0296% | 0.33125 |
| $\tau^- \rightarrow \pi^- K_L^0 \nu_\tau$ | 0.5767 \pm 0.0197% | 0.4854 \pm 0.0146% | 0.00000 |
| $\tau^- \rightarrow K^- \pi^0 \nu_\tau$ | 0.5573 \pm 0.0193% | 0.5321 \pm 0.0153% | 0.00000 |
| $\tau^- \rightarrow K_S^0 \pi^- \nu_\tau$ | 0.5546 \pm 0.0193% | 0.4963 \pm 0.0147% | 0.00000 |
| $\tau^- \rightarrow K^- \nu_\tau$ | 0.5070 \pm 0.0184% | 0.6441 \pm 0.0168% | 0.00000 |
| $\tau^- \rightarrow \pi^- \pi^0 \nu_\tau$ | 28.2122 \pm 0.1375% | 26.2234 \pm 0.1071% | 0.01088 |
| $\tau^- \rightarrow \pi^- \pi^- \pi^+ \pi^0 \nu_\tau$ | 7.0145 \pm 0.0686% | 5.1150 \pm 0.0473% | 0.00000 |
| $\tau^- \rightarrow \pi^- \pi^0 \pi^0 \nu_\tau$ | 13.1438 \pm 0.0939% | 10.9585 \pm 0.0692% | 0.00000 |
| $\tau^- \rightarrow \pi^- \nu_\tau$ | 6.4472 \pm 0.0658% | 8.9007 \pm 0.0624% | 0.00000 |
| $\tau^- \rightarrow \pi^- \pi^- \pi^+ \nu_\tau$ | 12.9037 \pm 0.0930% | 9.1955 \pm 0.0634% | 0.00000 |
| $\tau^- \rightarrow K_S^0 \pi^- \pi^0 \nu_\tau$ | 0.4097 \pm 0.0166% | 0.3323 \pm 0.0121% | 0.00000 |
| $\tau^- \rightarrow \pi^- K_L^0 \pi^0 \nu_\tau$ | 0.4044 \pm 0.0165% | 0.3603 \pm 0.0126% | 0.00000 |
| $\tau^- \rightarrow \pi^- \gamma \nu_\tau$ | 0.7283 \pm 0.0221% | 0.9593 \pm 0.0205% | 0.00000 |
| $\tau^- \rightarrow K^- \pi^- \pi^+ \nu_\tau$ | 0.7383 \pm 0.0223% | 0.5728 \pm 0.0158% | 0.00000 |
| $\tau^- \rightarrow \pi^- \pi^0 \pi^0 \pi^0 \nu_\tau$ | 1.5853 \pm 0.0326% | 1.2274 \pm 0.0232% | 0.00000 |
| $\tau^- \rightarrow \pi^- \pi^- \pi^+ \pi^0 \pi^0 \nu_\tau$ | 0.2293 \pm 0.0124% | 0.1631 \pm 0.0084% | 0.00000 |
| $\tau^- \rightarrow K^- K^+ \pi^- \nu_\tau$ | 0.2119 \pm 0.0119% | 0.1906 \pm 0.0091% | 0.00000 |
| $\tau^- \rightarrow K^- K_L^0 \pi^0 \nu_\tau$ | 0.1348 \pm 0.0095% | 0.0984 \pm 0.0066% | 0.00000 |
| $\tau^- \rightarrow \pi^- \pi^0 \gamma \nu_\tau$ | 0.1200 \pm 0.0090% | 0.1439 \pm 0.0079% | 0.56982 |
| $\tau^- \rightarrow K^- K_S^0 \pi^0 \nu_\tau$ | 0.1113 \pm 0.0086% | 0.1093 \pm 0.0069% | 0.00000 |
| $\tau^- \rightarrow K_S^0 \pi^- K_L^0 \nu_\tau$ | 0.1106 \pm 0.0086% | 0.0953 \pm 0.0065% | 0.00000 |
| $\tau^- \rightarrow \pi^- \pi^- \pi^+ \pi^+ \nu_\tau$ | 0.0832 \pm 0.0075% | 0.0507 \pm 0.0047% | 0.00000 |
| $\tau^- \rightarrow \pi^- \pi^- \pi^+ \pi^0 \pi^0 \nu_\tau$ | 0.0811 \pm 0.0074% | 0.0525 \pm 0.0048% | 0.00000 |
| $\tau^- \rightarrow \pi^- \pi^0 \pi^0 \pi^0 \nu_\tau$ | 0.0751 \pm 0.0071% | 0.0717 \pm 0.0056% | 0.00000 |
| $\tau^- \rightarrow K^- K_L^0 \nu_\tau$ | 0.0704 \pm 0.0069% | 0.0638 \pm 0.0053% | 0.00000 |
| $\tau^- \rightarrow K^- K_S^0 \nu_\tau$ | 0.0691 \pm 0.0068% | 0.0595 \pm 0.0051% | 0.00000 |
| $\tau^- \rightarrow K^- \pi^0 \pi^0 \nu_\tau$ | 0.0664 \pm 0.0067% | 0.0717 \pm 0.0056% | 0.00000 |
| $\tau^- \rightarrow \pi^- \pi^- \pi^+ \gamma \nu_\tau$ | 0.0597 \pm 0.0063% | 1.9327 \pm 0.0291% | 0.01429 |
| $\tau^- \rightarrow K_S^0 K_S^0 \pi^- \nu_\tau$ | 0.0577 \pm 0.0062% | 0.0621 \pm 0.0052% | 0.00000 |
| $\tau^- \rightarrow \pi^- K_L^0 K_L^0 \nu_\tau$ | 0.0510 \pm 0.0058% | 0.0512 \pm 0.0047% | 0.00000 |
| $\tau^- \rightarrow \pi^- \pi^- \pi^+ \pi^+ \pi^0 \nu_\tau$ | 0.0490 \pm 0.0057% | 0.0372 \pm 0.0040% | 0.00000 |
| $\tau^- \rightarrow \pi^- \pi^0 \pi^0 \gamma \nu_\tau$ | 0.0483 \pm 0.0057% | 0.6909 \pm 0.0174% | 0.01837 |

| | | | |
|--|------------------------|------------------------|---------|
| $\tau^- \rightarrow \nu_\tau \tilde{\nu}_\mu \mu^-$ | $0.0389 \pm 0.0051\%$ | $13.9318 \pm 0.0780\%$ | 0.00000 |
| $\tau^- \rightarrow \pi^- \gamma \mathcal{N}_\tau$ | $0.0382 \pm 0.0051\%$ | $0.0503 \pm 0.0047\%$ | 0.00000 |
| $\tau^- \rightarrow \nu_\tau \tilde{\nu}_e e^-$ | $0.0295 \pm 0.0044\%$ | $6.4403 \pm 0.0531\%$ | 0.00000 |
| $\tau^- \rightarrow \pi^- \pi^+ \pi^0 \gamma \mathcal{N}_\tau$ | $0.0288 \pm 0.0044\%$ | $0.7027 \pm 0.0175\%$ | 0.25553 |
| $\tau^- \rightarrow K^- \gamma \mathcal{N}_\tau$ | $0.0161 \pm 0.0033\%$ | $0.0188 \pm 0.0029\%$ | 0.00000 |
| $\tau^- \rightarrow \gamma \mathcal{N}_\tau \tilde{\nu}_e e^-$ | $0.0141 \pm 0.0031\%$ | $3.4289 \pm 0.0387\%$ | 0.00000 |
| $\tau^- \rightarrow K^- \pi^0 \gamma \mathcal{N}_\tau$ | $0.0080 \pm 0.0023\%$ | $0.0092 \pm 0.0020\%$ | 0.00000 |
| $\tau^- \rightarrow K_S^0 \pi^- \gamma \mathcal{N}_\tau$ | $0.0067 \pm 0.0021\%$ | $0.0284 \pm 0.0035\%$ | 0.00000 |
| $\tau^- \rightarrow \gamma \mathcal{N}_\tau \tilde{\nu}_e e^-$ | $0.0054 \pm 0.0019\%$ | $0.9204 \pm 0.0201\%$ | 0.00000 |
| $\tau^- \rightarrow \gamma \mathcal{N}_\tau \tilde{\nu}_\mu \mu^-$ | $0.0047 \pm 0.0018\%$ | $1.6463 \pm 0.0268\%$ | 0.00000 |
| $\tau^- \rightarrow \pi^- \gamma \mathcal{N}_\tau$ | $0.0040 \pm 0.0016\%$ | $0.0004 \pm 0.0004\%$ | 0.00000 |
| $\tau^- \rightarrow \pi^- K_L^0 \gamma \mathcal{N}_\tau$ | $0.0027 \pm 0.0013\%$ | $0.0254 \pm 0.0033\%$ | 0.00000 |
| $\tau^- \rightarrow K^- \pi^- \pi^+ \gamma \mathcal{N}_\tau$ | $0.0027 \pm 0.0013\%$ | $0.0713 \pm 0.0056\%$ | 0.00000 |
| $\tau^- \rightarrow \pi^- \pi^0 \pi^0 \gamma \mathcal{N}_\tau$ | $0.0020 \pm 0.0012\%$ | $0.0643 \pm 0.0053\%$ | 0.00000 |
| $\tau^- \rightarrow \pi^- K_L^0 \pi^0 \gamma \mathcal{N}_\tau$ | $0.0013 \pm 0.0009\%$ | $0.0136 \pm 0.0024\%$ | 0.00000 |
| $\tau^- \rightarrow K^- K^+ \pi^- \gamma \mathcal{N}_\tau$ | $0.0007 \pm 0.0007\%$ | $0.0109 \pm 0.0022\%$ | 0.00000 |
| $\tau^- \rightarrow K_S^0 \pi^- \pi^0 \gamma \mathcal{N}_\tau$ | $0.0007 \pm 0.0007\%$ | $0.0140 \pm 0.0025\%$ | 0.00000 |
| $\tau^- \rightarrow \pi^- \pi^+ \pi^- \pi^+ \pi^0 \gamma \mathcal{N}_\tau$ | $0.0007 \pm 0.0007\%$ | $0.0074 \pm 0.0018\%$ | 0.00000 |
| $\tau^- \rightarrow \pi^- \pi^- \pi^+ \gamma \mathcal{N}_\tau$ | $0.0007 \pm 0.0007\%$ | $0.2313 \pm 0.0101\%$ | 0.00000 |
| $\tau^- \rightarrow K^- K_L^0 \gamma \mathcal{N}_\tau$ | $0.0007 \pm 0.0007\%$ | $0.0013 \pm 0.0008\%$ | 0.00000 |
| $\tau^- \rightarrow K^- K_L^0 \pi^0 \gamma \mathcal{N}_\tau$ | $0.0007 \pm 0.0007\%$ | $0.0009 \pm 0.0006\%$ | 0.00000 |
| $\tau^- \rightarrow \pi^- \pi^0 \gamma \mathcal{N}_\tau$ | $0.0007 \pm 0.0007\%$ | $0.0052 \pm 0.0015\%$ | 0.00000 |
| Channels From First Generator Only: | | | |
| $\tau^- \rightarrow \gamma \tau^-$ | $23.6548 \pm 0.1259\%$ | - | - |
| $\tau^- \rightarrow \gamma \tau^-$ | $0.0872 \pm 0.0076\%$ | - | - |
| $\tau^- \rightarrow \gamma \gamma \tau^-$ | $0.0027 \pm 0.0013\%$ | - | - |
| $\tau^- \rightarrow K^- \gamma \mathcal{N}_\tau$ | $0.0007 \pm 0.0007\%$ | - | - |
| Channels From Second Generator Only: | | | |
| $\tau^- \rightarrow \gamma \mathcal{N}_\tau \tilde{\nu}_e e^-$ | - | $0.1430 \pm 0.00791\%$ | - |
| $\tau^- \rightarrow \gamma \mathcal{N}_\tau \tilde{\nu}_\mu \mu^-$ | - | $0.1028 \pm 0.00670\%$ | - |
| $\tau^- \rightarrow \pi^- \pi^+ \pi^0 \gamma \mathcal{N}_\tau$ | - | $0.0542 \pm 0.00487\%$ | - |
| $\tau^- \rightarrow \pi^- \pi^0 \pi^0 \gamma \mathcal{N}_\tau$ | - | $0.0249 \pm 0.00330\%$ | - |
| $\tau^- \rightarrow \pi^- \pi^- \pi^+ \gamma \mathcal{N}_\tau$ | - | $0.0206 \pm 0.00300\%$ | - |
| $\tau^- \rightarrow \gamma \mathcal{N}_\tau \tilde{\nu}_e e^-$ | - | $0.0171 \pm 0.00273\%$ | - |
| $\tau^- \rightarrow \pi^- \pi^- \pi^+ \pi^0 \gamma \mathcal{N}_\tau$ | - | $0.0109 \pm 0.00219\%$ | - |
| $\tau^- \rightarrow \pi^- \pi^- \pi^+ \pi^0 \pi^0 \gamma \mathcal{N}_\tau$ | - | $0.0070 \pm 0.00175\%$ | - |
| $\tau^- \rightarrow \pi^- \pi^- \pi^+ \pi^+ \pi^0 \gamma \mathcal{N}_\tau$ | - | $0.0061 \pm 0.00164\%$ | - |
| $\tau^- \rightarrow K^- \pi^- \pi^+ \gamma \mathcal{N}_\tau$ | - | $0.0044 \pm 0.00138\%$ | - |

| | | | |
|--|---|-------------------------|---|
| $\tau^- \rightarrow K_S^0 \pi^- K_L^0 \gamma \mathcal{N}_\tau$ | - | $0.0039 \pm 0.00131 \%$ | - |
| $\tau^- \rightarrow \pi^- \pi^- \pi^+ \pi^0 \gamma \mathcal{N}_\tau$ | - | $0.0039 \pm 0.00131 \%$ | - |
| $\tau^- \rightarrow \pi^- \pi^- \pi^+ \pi^0 \pi^0 \gamma \mathcal{N}_\tau$ | - | $0.0031 \pm 0.00116 \%$ | - |
| $\tau^- \rightarrow \gamma \gamma \gamma \mathcal{N}_\tau \bar{\nu}_e e^-$ | - | $0.0026 \pm 0.00107 \%$ | - |
| $\tau^- \rightarrow \gamma \mathcal{N}_\tau \bar{\nu}_\mu \mu^-$ | - | $0.0026 \pm 0.00107 \%$ | - |
| $\tau^- \rightarrow \pi^- \pi^0 \pi^0 \pi^0 \gamma \mathcal{N}_\tau$ | - | $0.0022 \pm 0.00098 \%$ | - |
| $\tau^- \rightarrow K^- K_S^0 \pi^0 \gamma \mathcal{N}_\tau$ | - | $0.0017 \pm 0.00087 \%$ | - |
| $\tau^- \rightarrow \pi^- K_L^0 K_L^0 \gamma \mathcal{N}_\tau$ | - | $0.0017 \pm 0.00087 \%$ | - |
| $\tau^- \rightarrow K_S^0 K_S^0 \pi^- \gamma \mathcal{N}_\tau$ | - | $0.0017 \pm 0.00087 \%$ | - |
| $\tau^- \rightarrow \pi^- \pi^0 \pi^0 \gamma \mathcal{N}_\tau$ | - | $0.0017 \pm 0.00087 \%$ | - |
| $\tau^- \rightarrow \pi^- K_L^0 \gamma \mathcal{N}_\tau$ | - | $0.0013 \pm 0.00076 \%$ | - |
| $\tau^- \rightarrow \pi^- K_L^0 \pi^0 \gamma \mathcal{N}_\tau$ | - | $0.0009 \pm 0.00062 \%$ | - |
| $\tau^- \rightarrow \pi^- \pi^0 \pi^0 \gamma \mathcal{N}_\tau$ | - | $0.0009 \pm 0.00062 \%$ | - |
| $\tau^- \rightarrow K_S^0 \pi^- \gamma \mathcal{N}_\tau$ | - | $0.0004 \pm 0.00044 \%$ | - |
| $\tau^- \rightarrow \pi^- \pi^- \pi^+ \gamma \mathcal{N}_\tau$ | - | $0.0004 \pm 0.00044 \%$ | - |
| $\tau^- \rightarrow \pi^- \pi^- \pi^- \pi^+ \pi^+ \pi^0 \gamma \mathcal{N}_\tau$ | - | $0.0004 \pm 0.00044 \%$ | - |
| $\tau^- \rightarrow K_S^0 \pi^- \pi^0 \gamma \mathcal{N}_\tau$ | - | $0.0004 \pm 0.00044 \%$ | - |
| $\tau^- \rightarrow K^- K_S^0 \gamma \mathcal{N}_\tau$ | - | $0.0004 \pm 0.00044 \%$ | - |
| $\tau^- \rightarrow \pi^- \pi^- \pi^+ \gamma \mathcal{N}_\tau$ | - | $0.0004 \pm 0.00044 \%$ | - |
| $\tau^- \rightarrow K^- \pi^- \pi^+ \gamma \mathcal{N}_\tau$ | - | $0.0004 \pm 0.00044 \%$ | - |
| $\tau^- \rightarrow K^- \pi^0 \pi^0 \gamma \mathcal{N}_\tau$ | - | $0.0004 \pm 0.00044 \%$ | - |

Similarity coefficients: T1=45.719914 %, T2=0.778131 %

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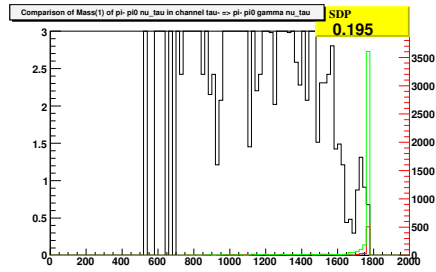
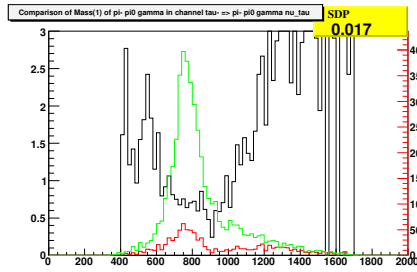
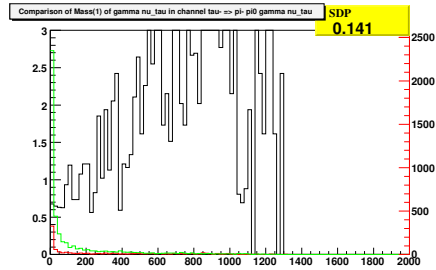
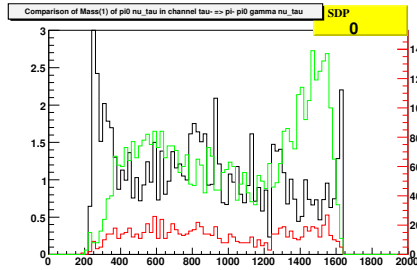
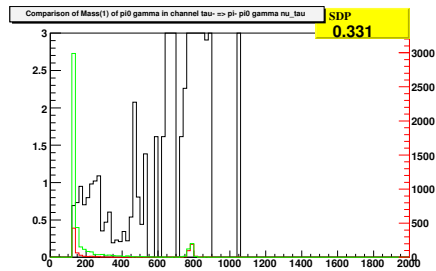
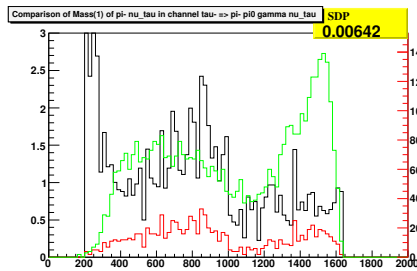
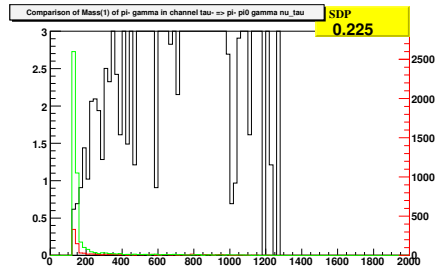
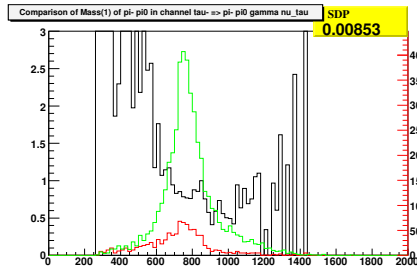
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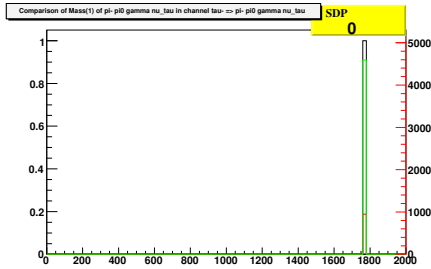
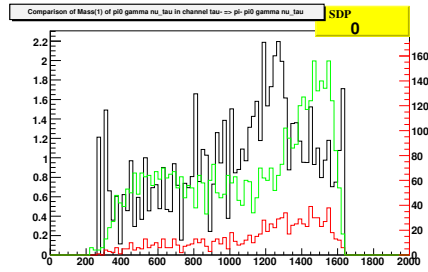
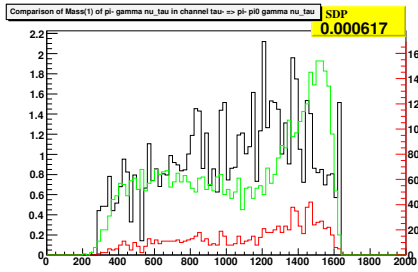
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|---|------------|
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1 Decay Channel: $\tau^- \rightarrow \pi^- \pi^0 \gamma \nu_\tau$

Number of events from generator 1: 947

Number of events from generator 2: 4589

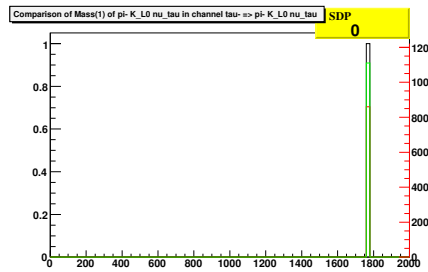
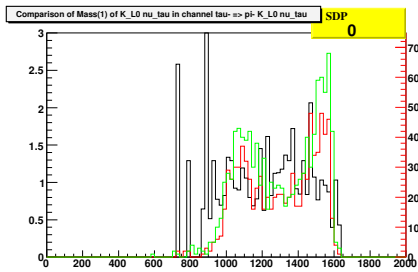
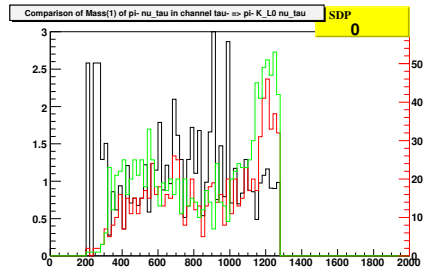
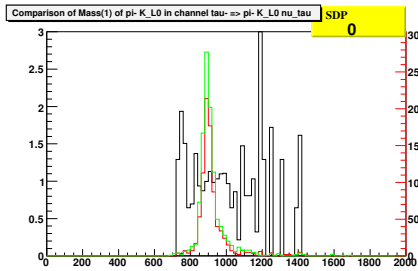




2 Decay Channel: $\tau^- \rightarrow \pi^- K_L^0 \nu_\tau$

Number of events from generator 1: 860

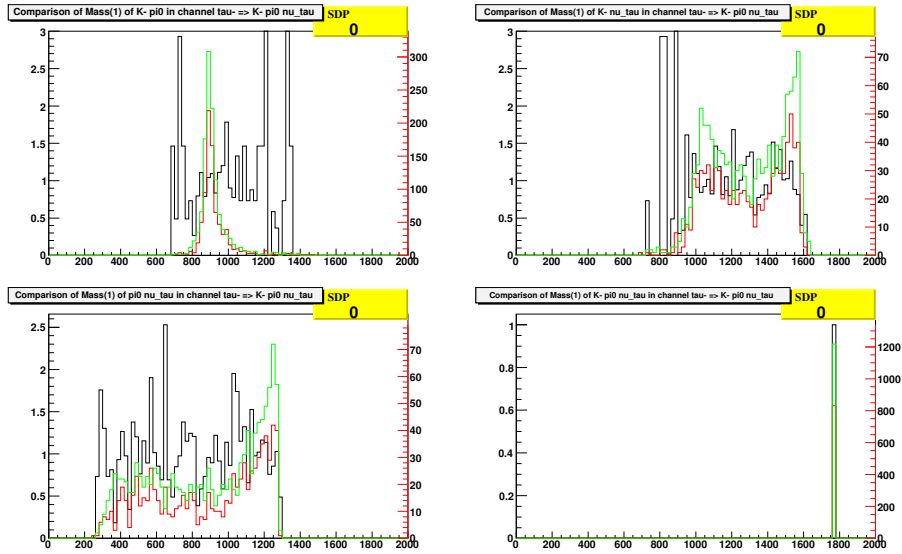
Number of events from generator 2: 1110



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

Number of events from generator 1: 831

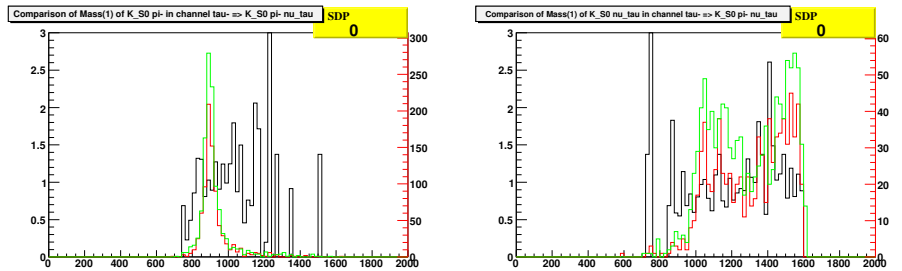
Number of events from generator 2: 1217

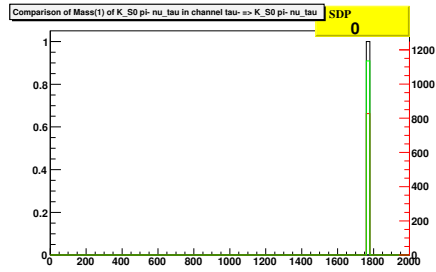
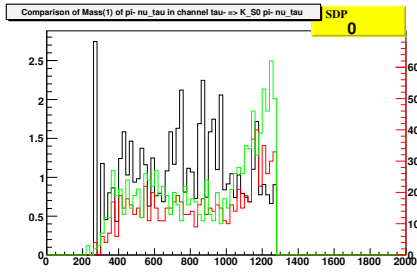


4 Decay Channel: $\tau^- \rightarrow K_S^0 \pi^- \nu_\tau$

Number of events from generator 1: 827

Number of events from generator 2: 1135

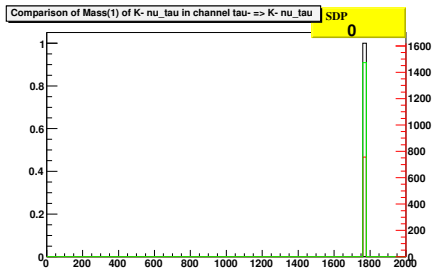




5 Decay Channel: $\tau^- \rightarrow K^- \nu_\tau$

Number of events from generator 1: 756

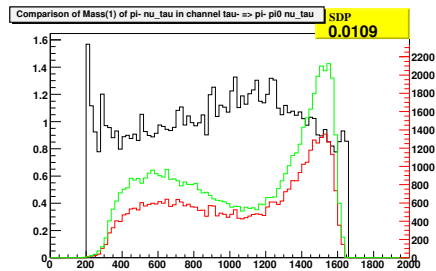
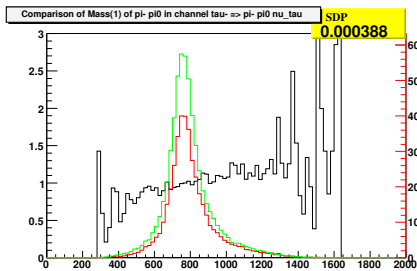
Number of events from generator 2: 1473

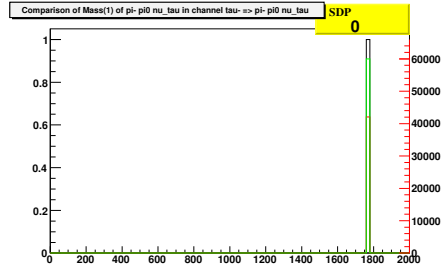
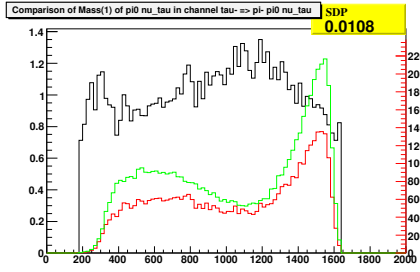


6 Decay Channel: $\tau^- \rightarrow \pi^- \pi^0 \nu_\tau$

Number of events from generator 1: 42070

Number of events from generator 2: 59973

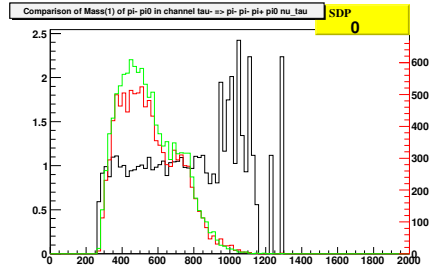
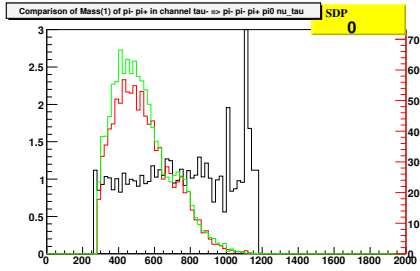
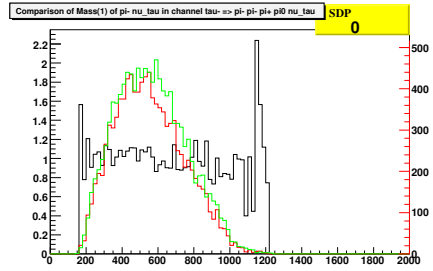
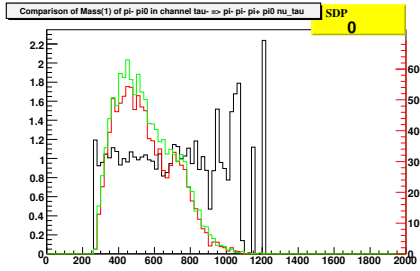
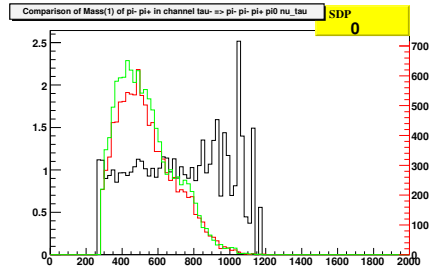
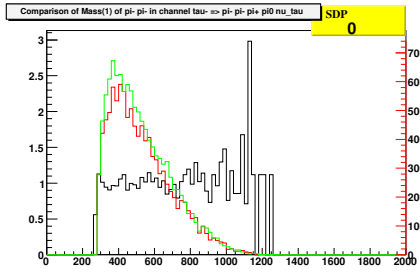


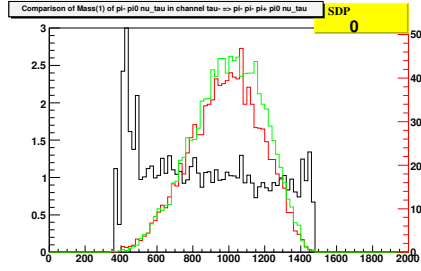
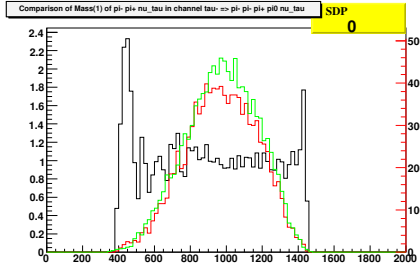
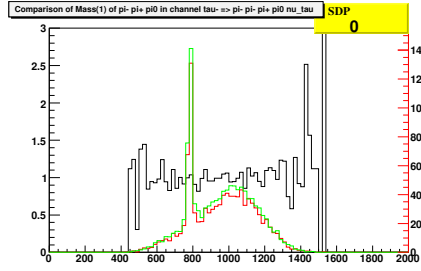
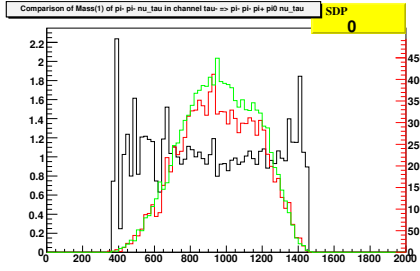
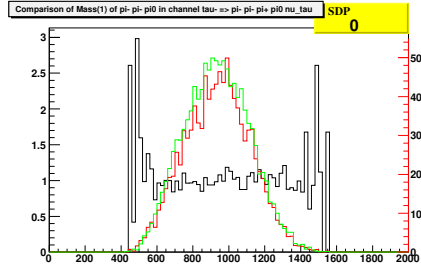
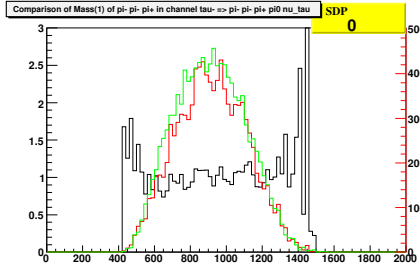
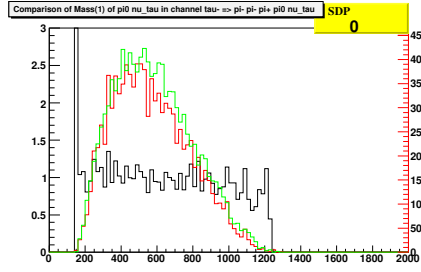
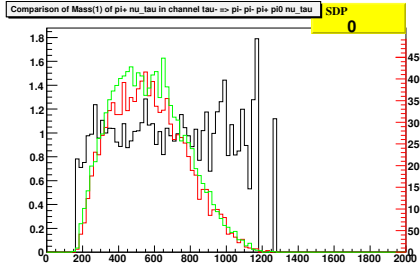
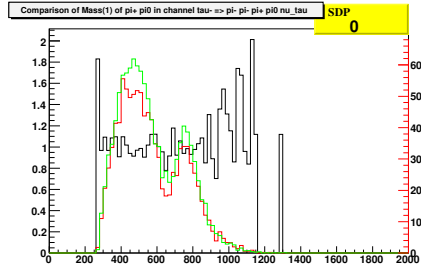
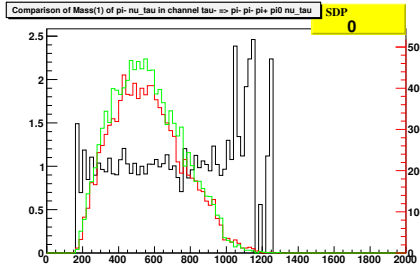


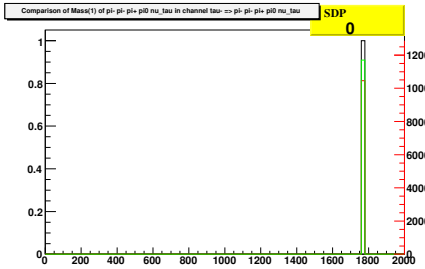
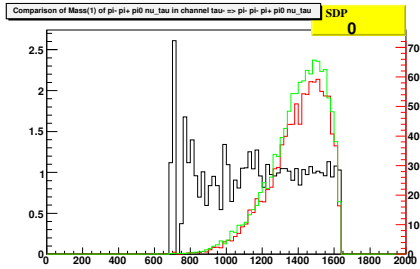
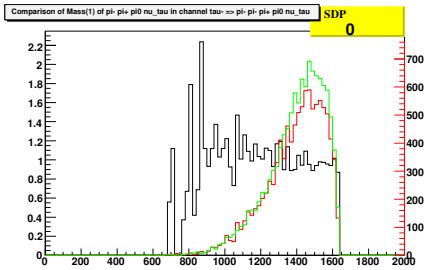
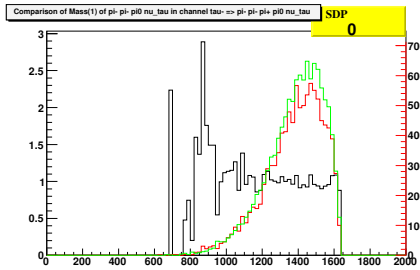
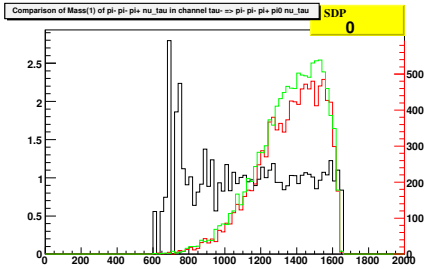
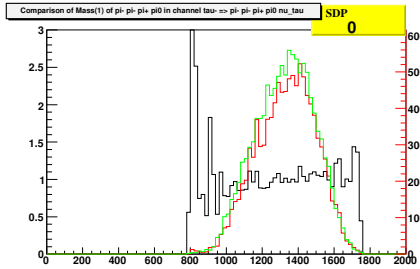
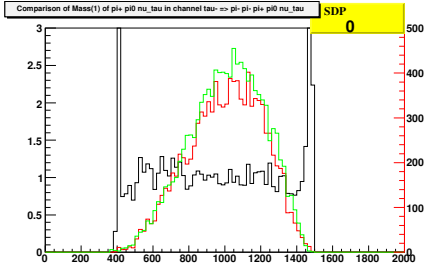
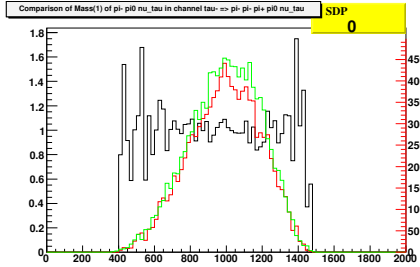
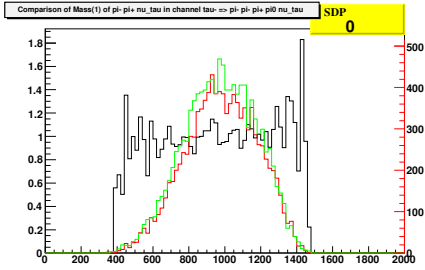
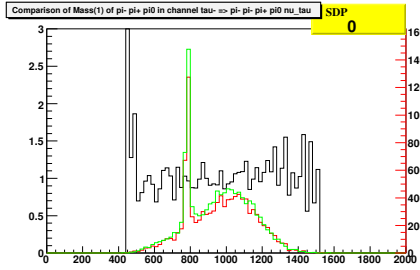
7 Decay Channel: $\tau^- \rightarrow \pi^- \pi^- \pi^+ \pi^0 \nu_\tau$

Number of events from generator 1: 10460

Number of events from generator 2: 11698



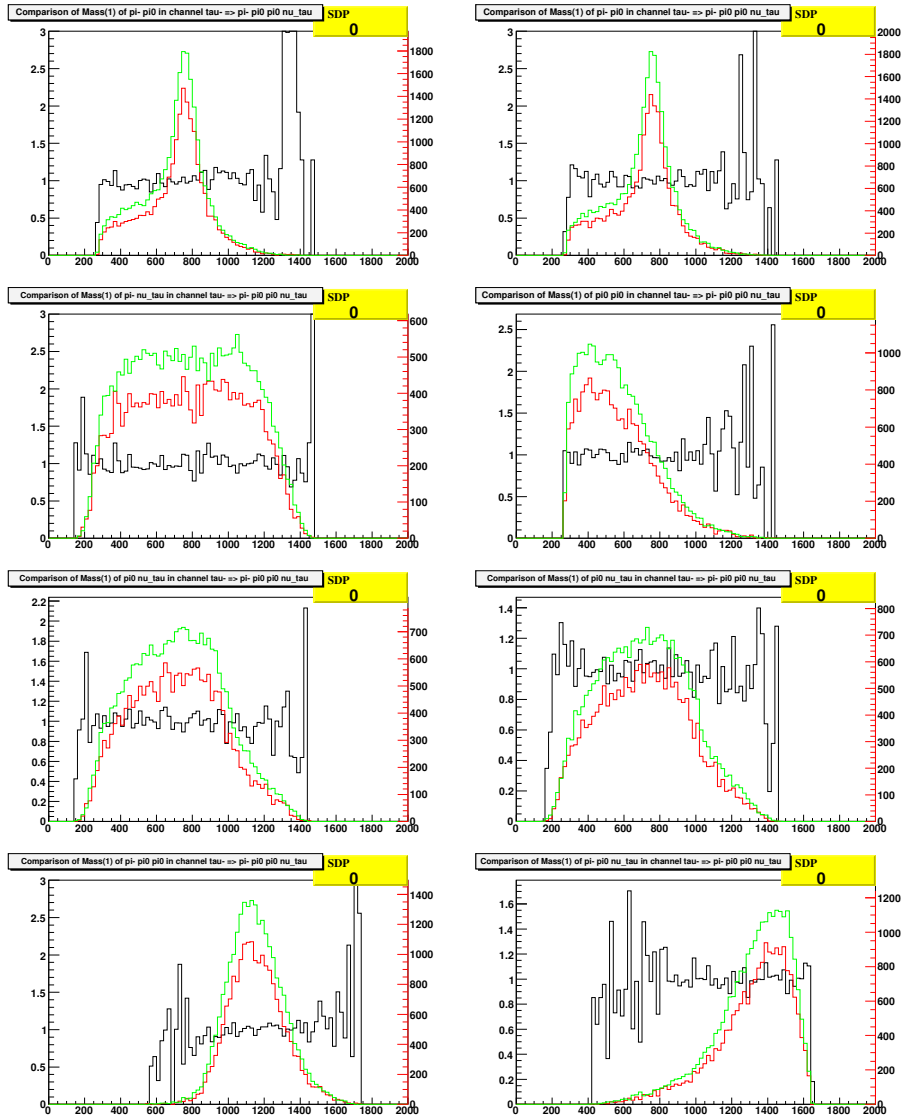


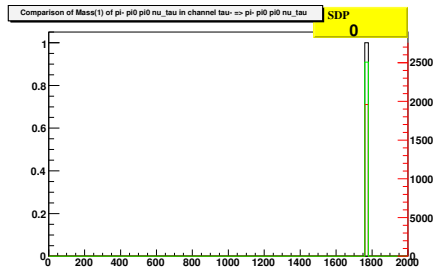
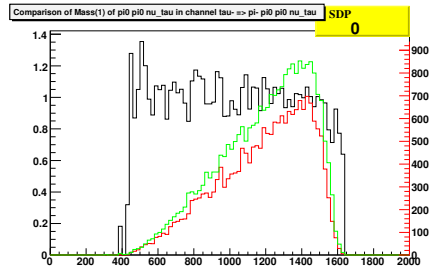
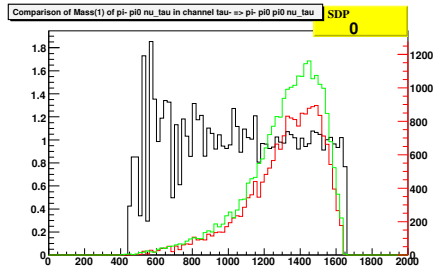


8 Decay Channel: $\tau^- \rightarrow \pi^- \pi^0 \pi^0 \nu_\tau$

Number of events from generator 1: 19600

Number of events from generator 2: 25062

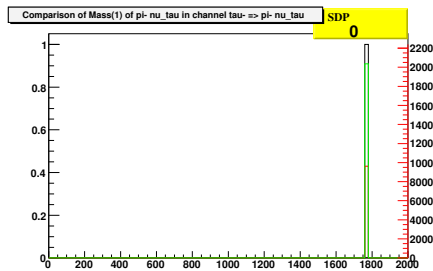




9 Decay Channel: $\tau^- \rightarrow \pi^- \nu_\tau$

Number of events from generator 1: 9614

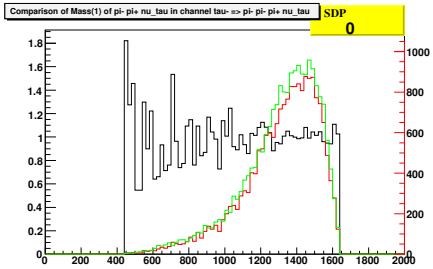
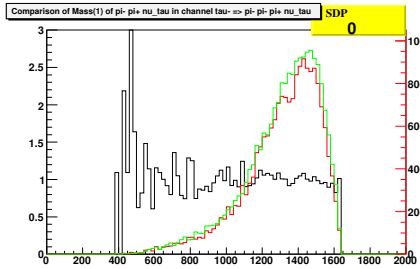
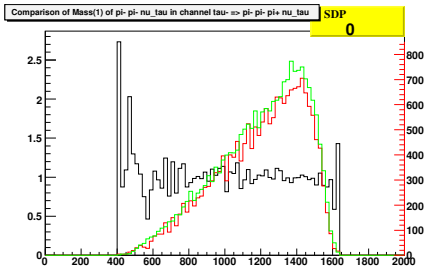
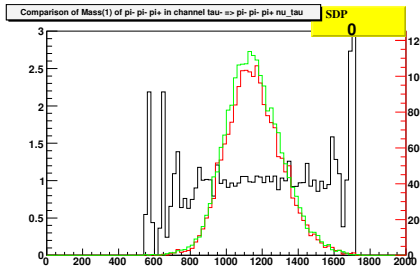
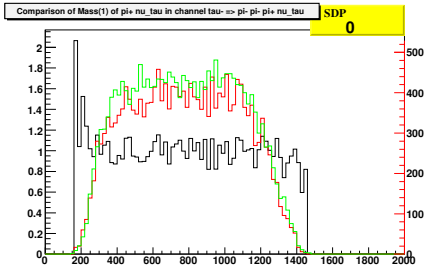
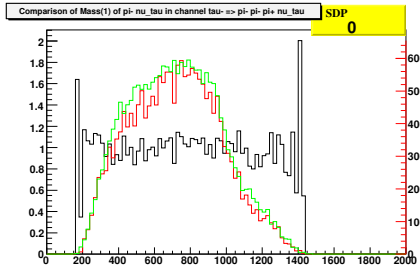
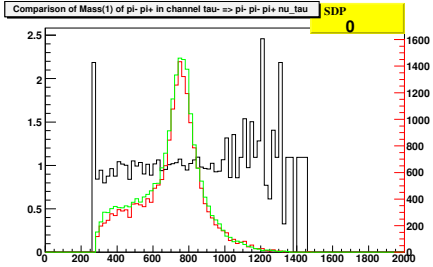
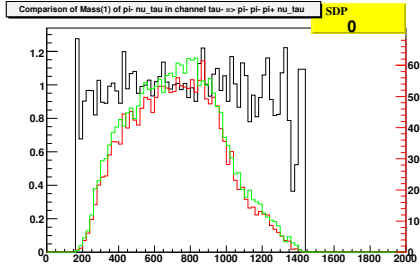
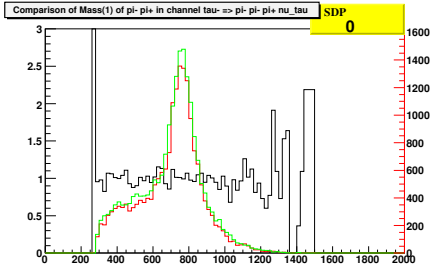
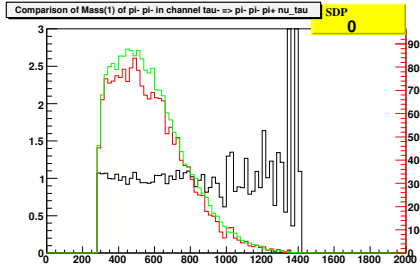
Number of events from generator 2: 20356

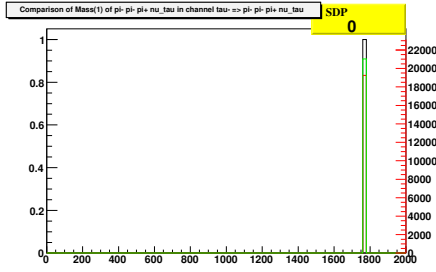


10 Decay Channel: $\tau^- \rightarrow \pi^- \pi^- \pi^+ \nu_\tau$

Number of events from generator 1: 19242

Number of events from generator 2: 21030

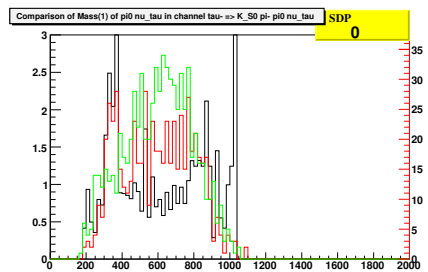
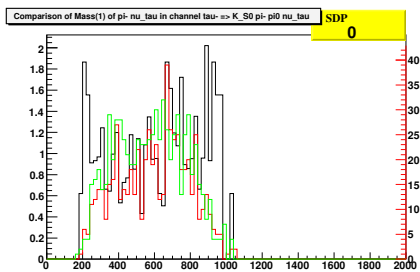
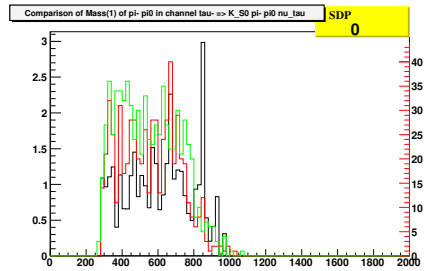
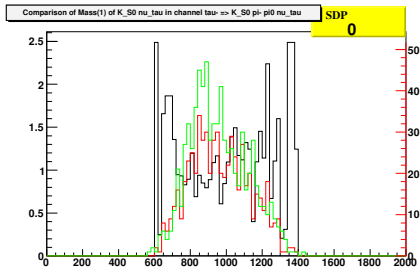
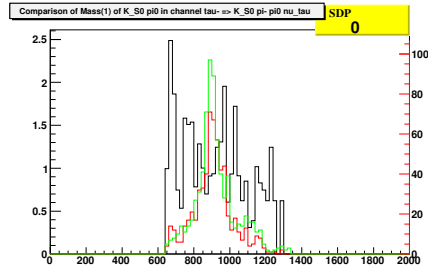
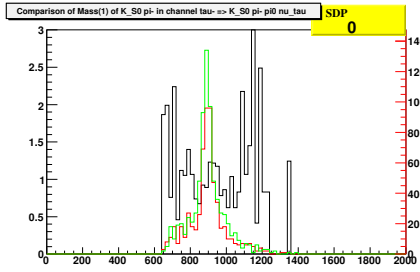


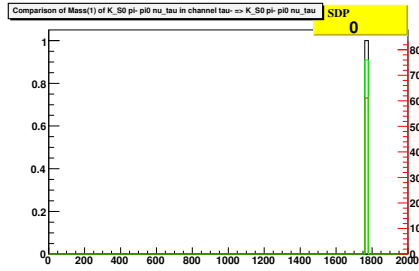
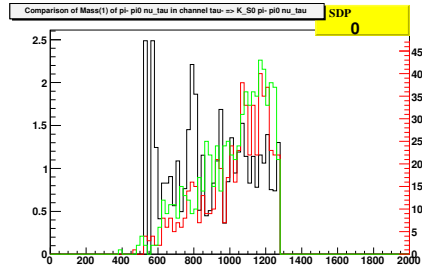
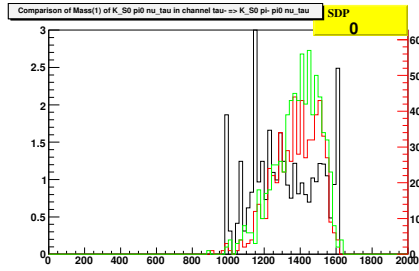
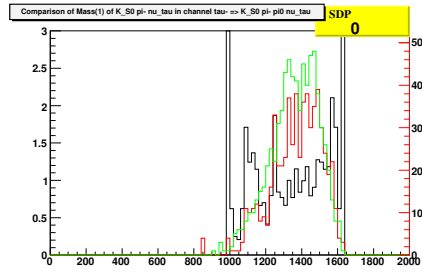
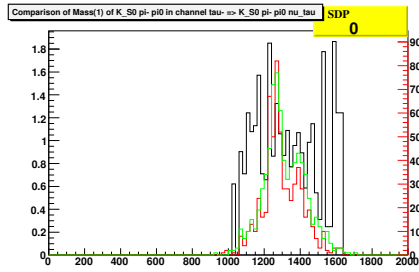


11 Decay Channel: $\tau^- \rightarrow K_S^0 \pi^- \pi^0 \nu_\tau$

Number of events from generator 1: 611

Number of events from generator 2: 760

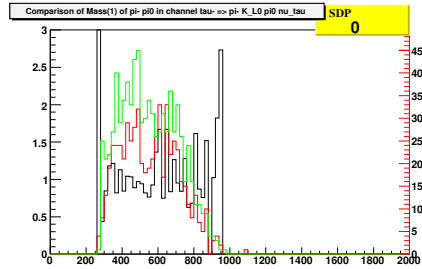
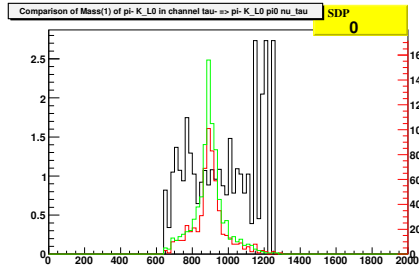


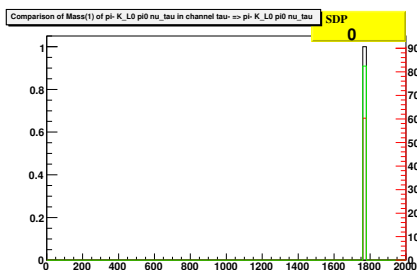
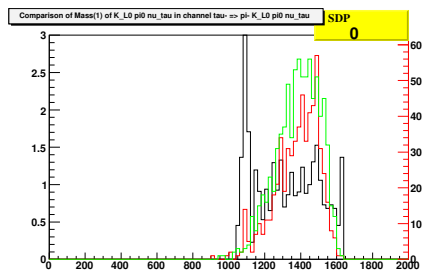
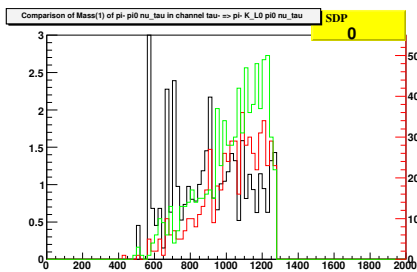
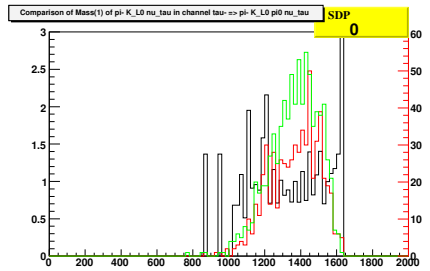
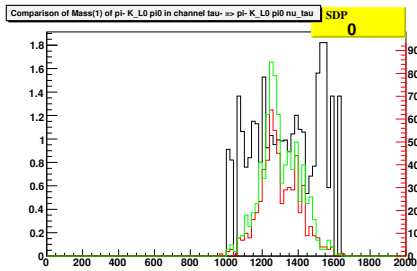
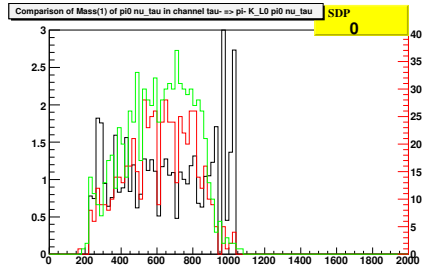
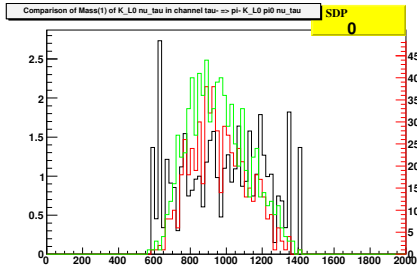
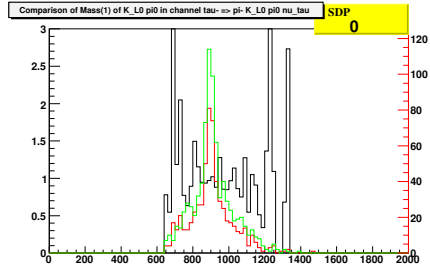
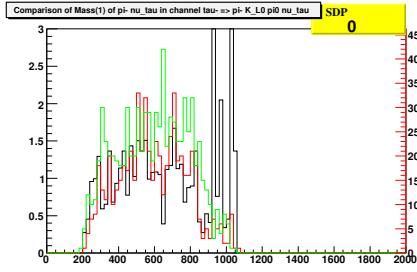


12 Decay Channel: $\tau^- \rightarrow \pi^- K_L^0 \pi^0 \nu_\tau$

Number of events from generator 1: 603

Number of events from generator 2: 824

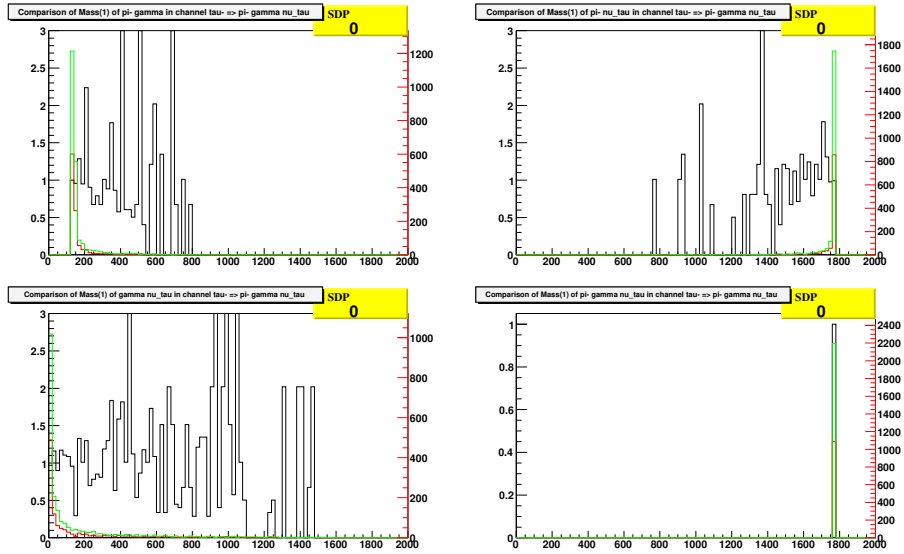




13 Decay Channel: $\tau^- \rightarrow \pi^- \gamma \nu_\tau$

Number of events from generator 1: 1086

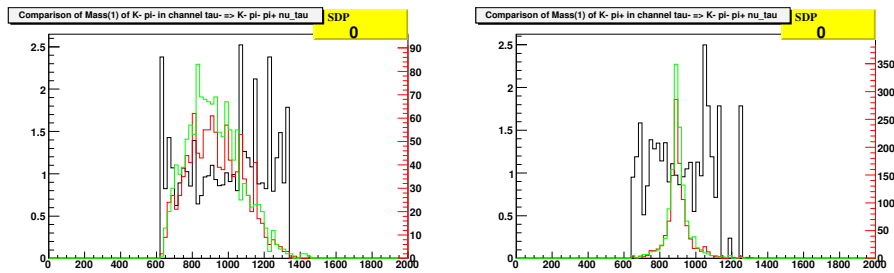
Number of events from generator 2: 2194

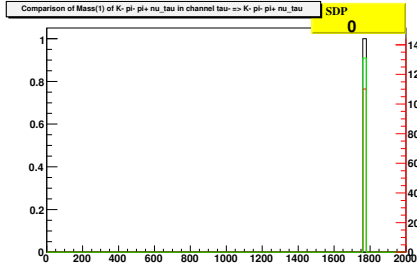
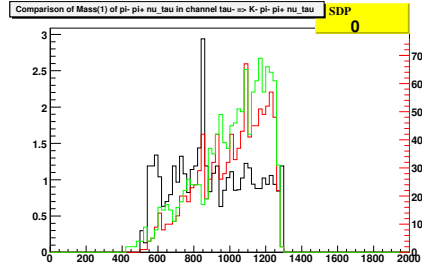
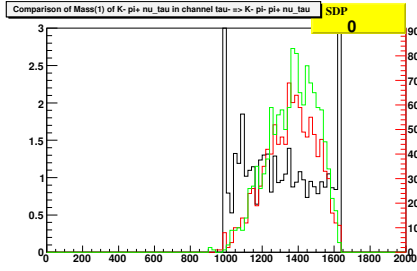
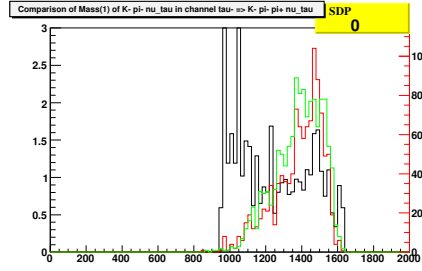
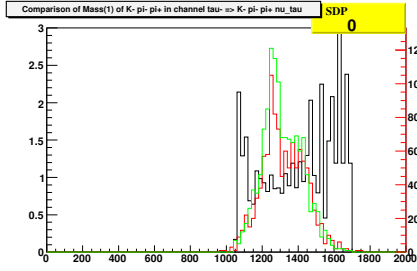
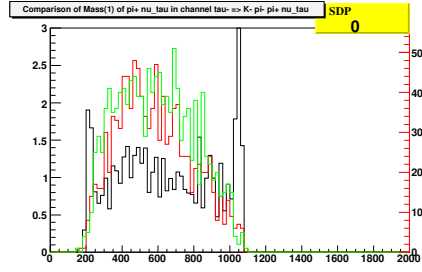
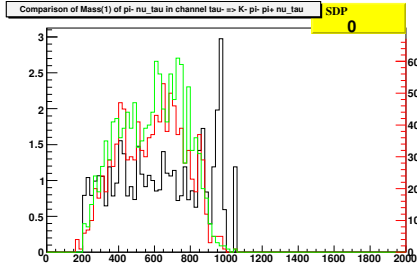
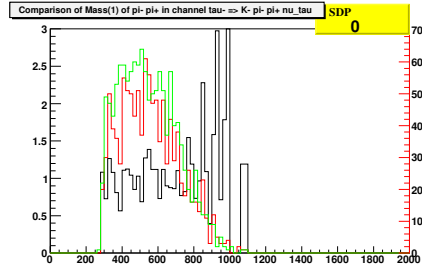
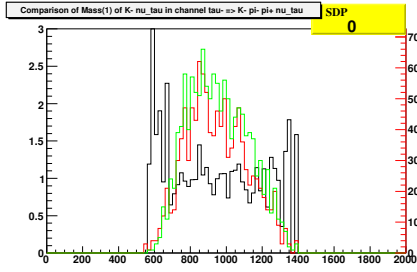


14 Decay Channel: $\tau^- \rightarrow K^- \pi^- \pi^+ \nu_\tau$

Number of events from generator 1: 1101

Number of events from generator 2: 1310

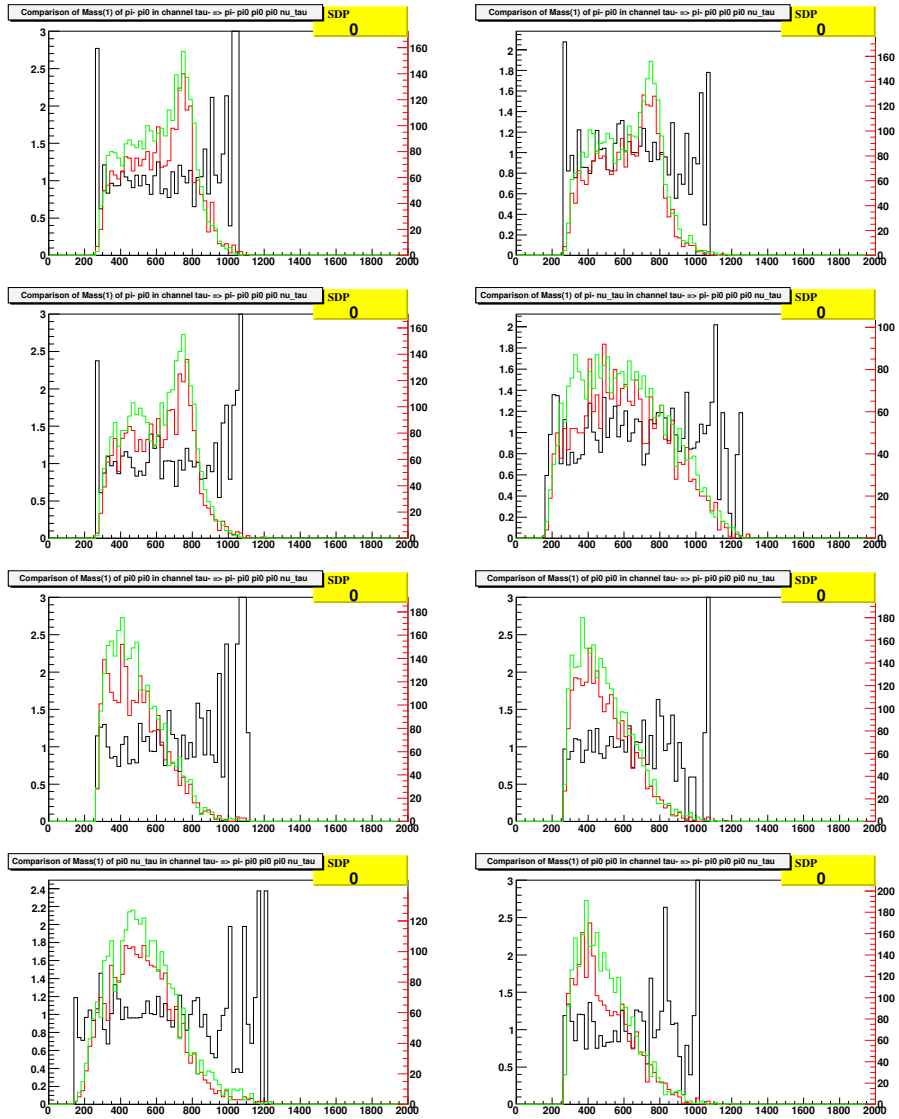


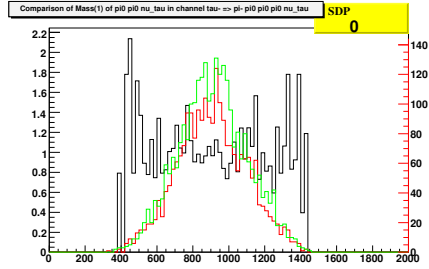
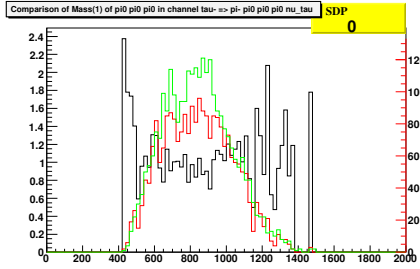
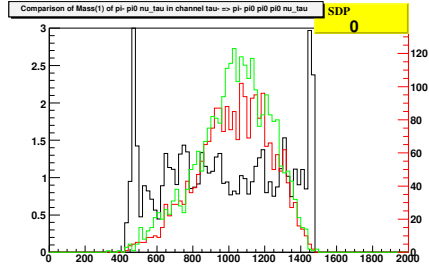
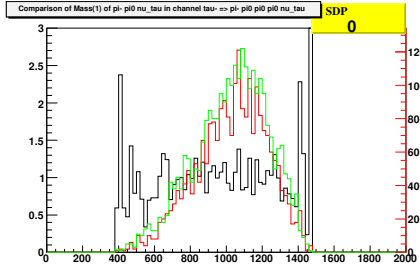
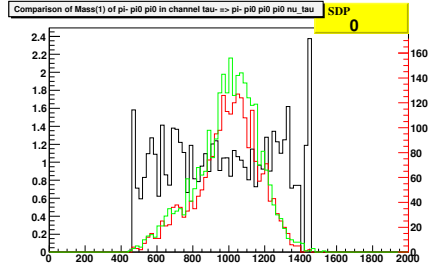
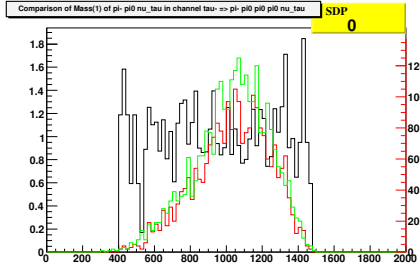
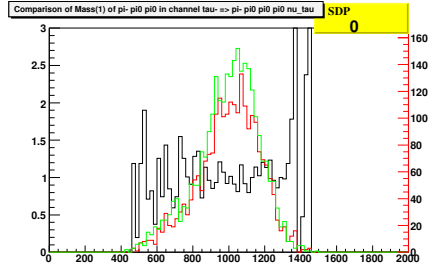
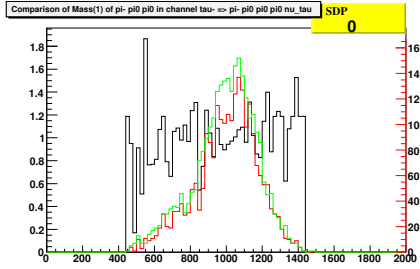
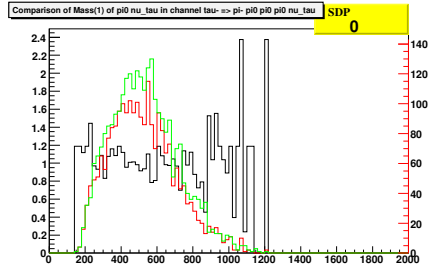
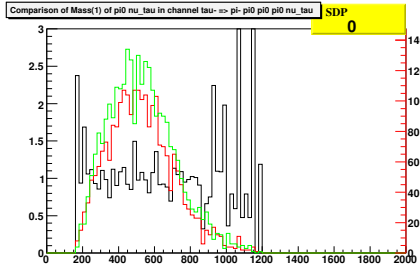


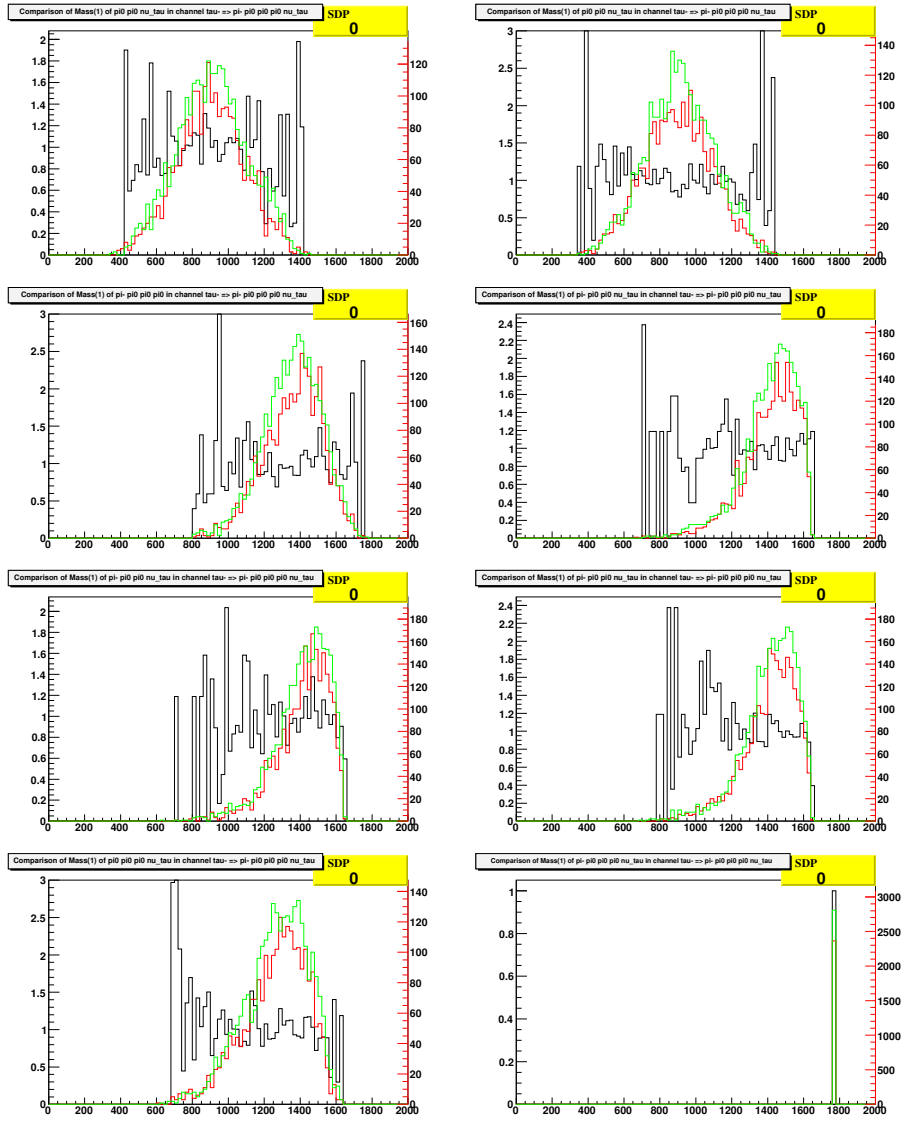
15 Decay Channel: $\tau^- \rightarrow \pi^- \pi^0 \pi^0 \pi^0 \nu_\tau$

Number of events from generator 1: 2364

Number of events from generator 2: 2807



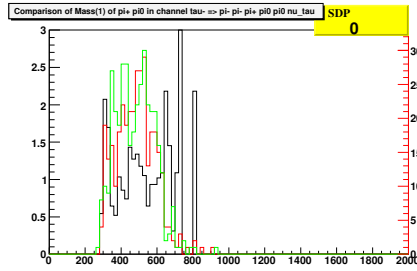
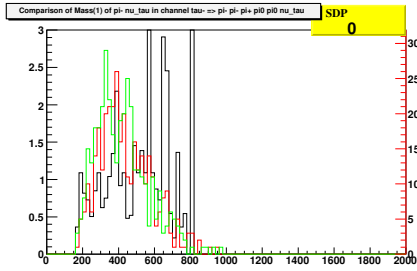
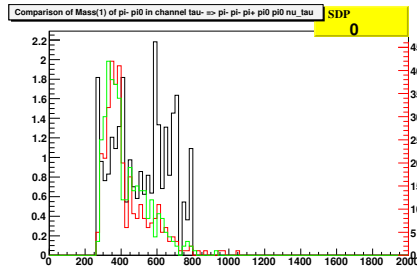
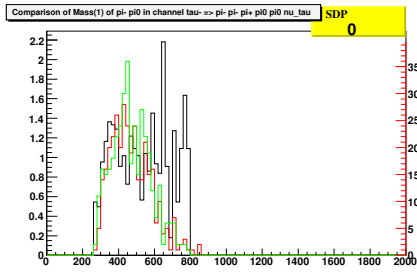
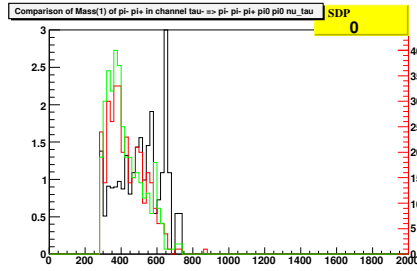
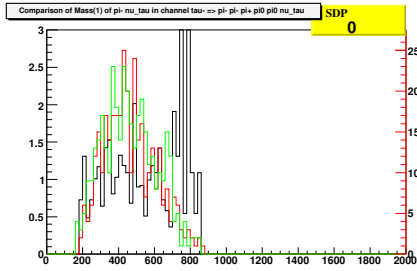
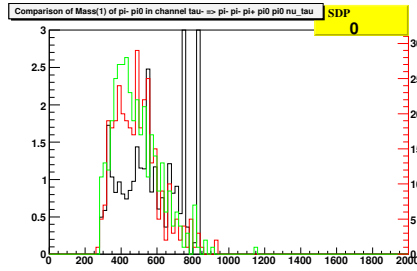
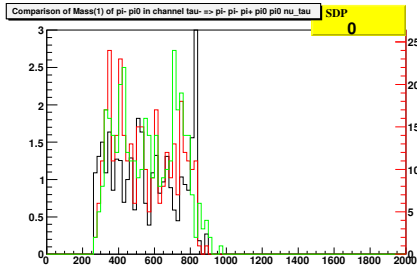
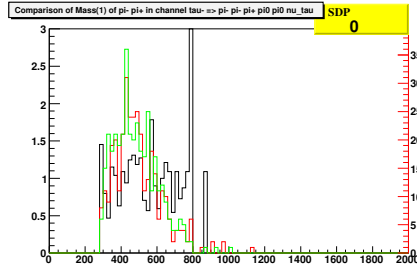
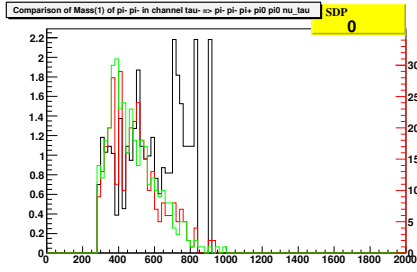


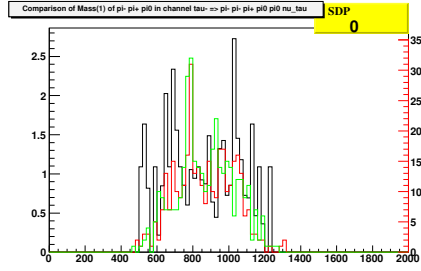
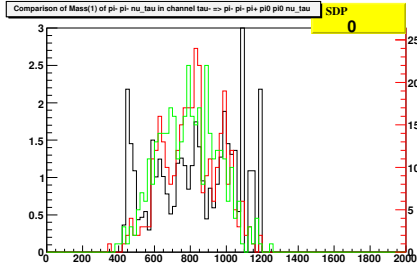
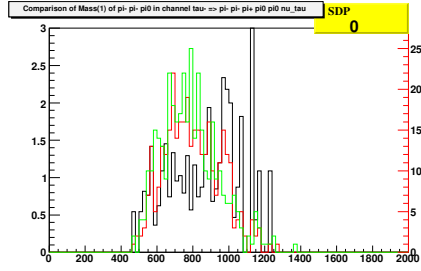
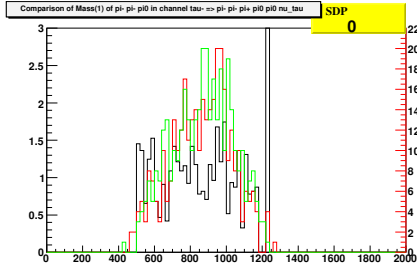
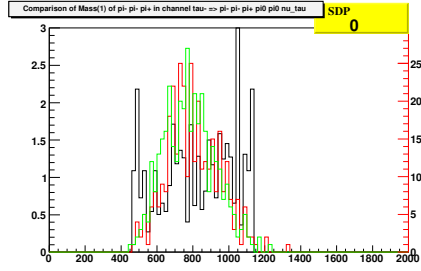
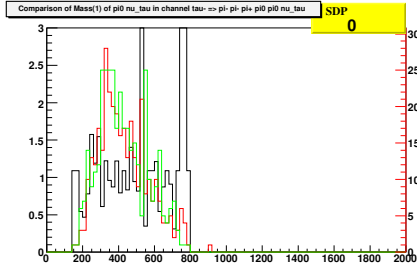
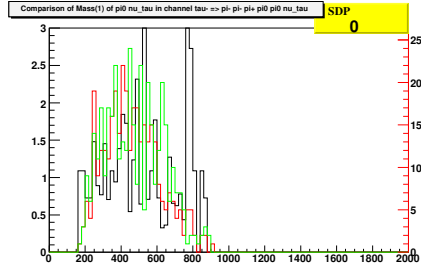
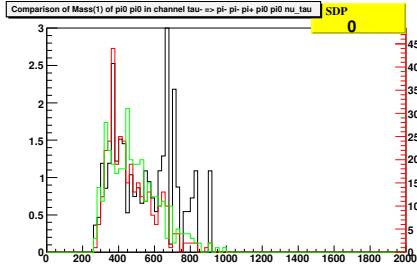
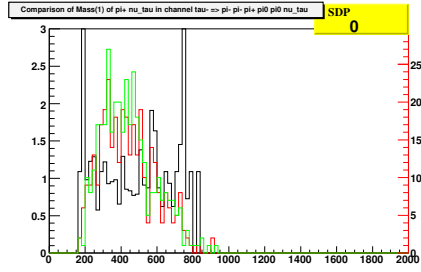
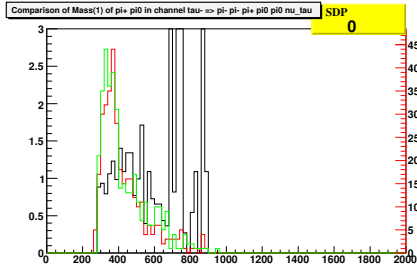


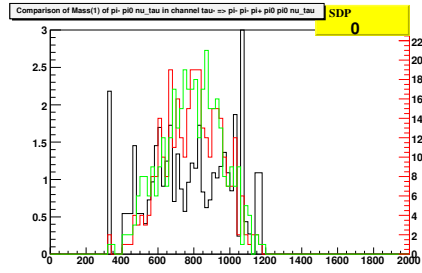
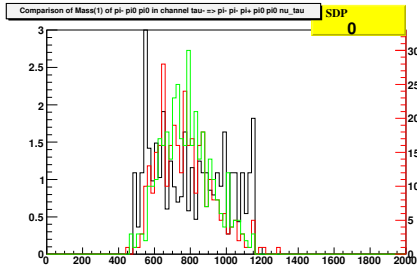
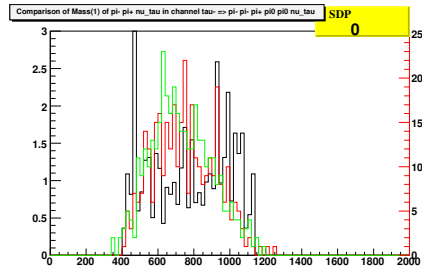
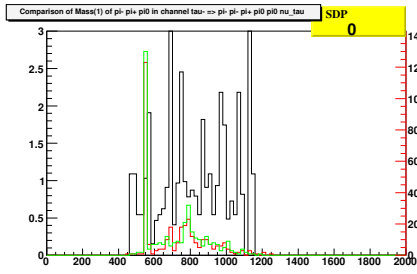
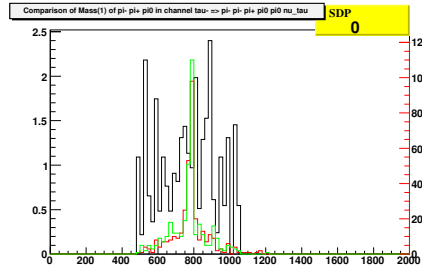
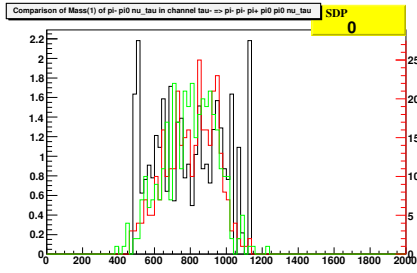
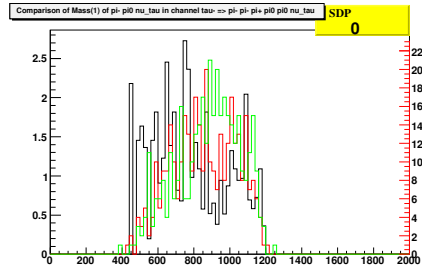
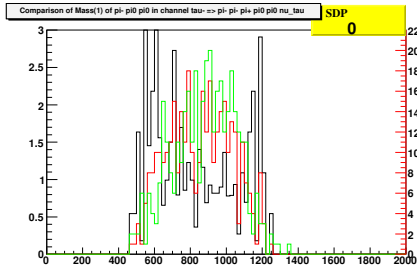
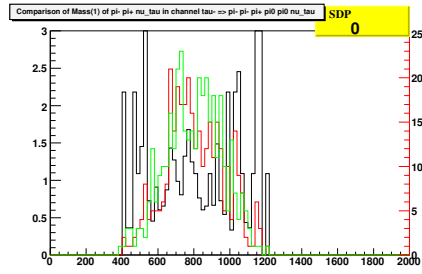
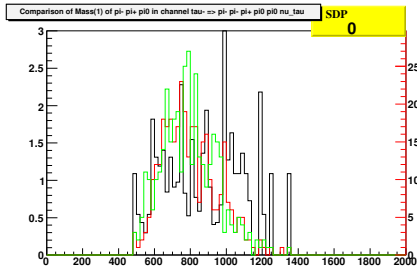
16 Decay Channel: $\tau^- \rightarrow \pi^- \pi^- \pi^+ \pi^0 \pi^0 \nu_\tau$

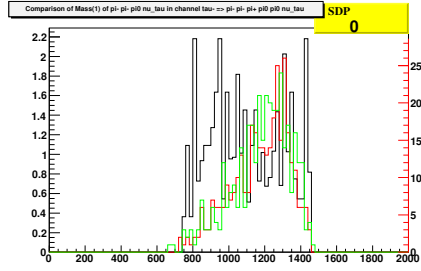
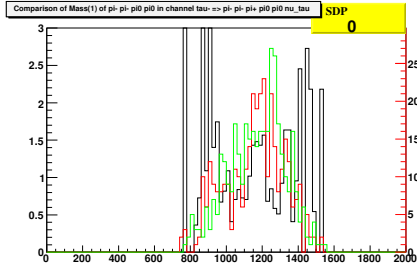
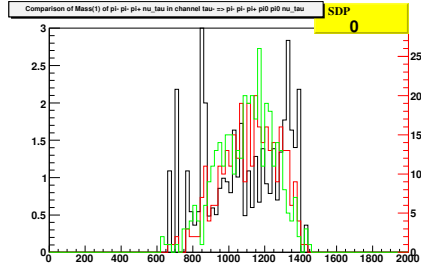
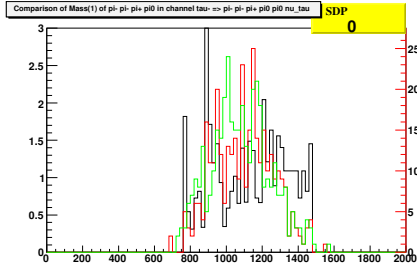
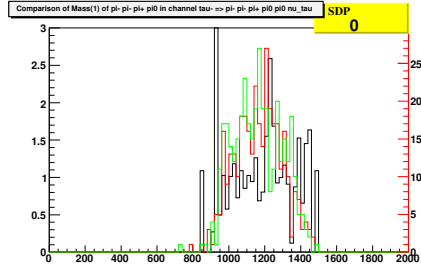
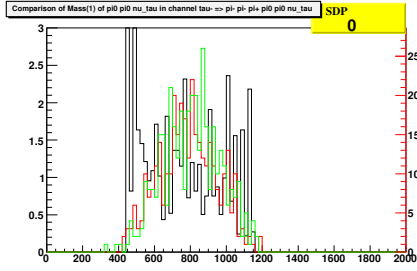
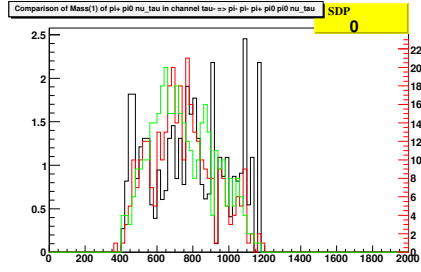
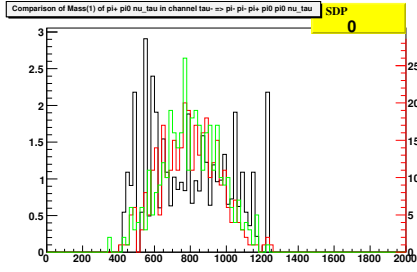
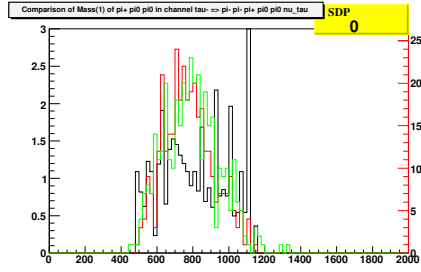
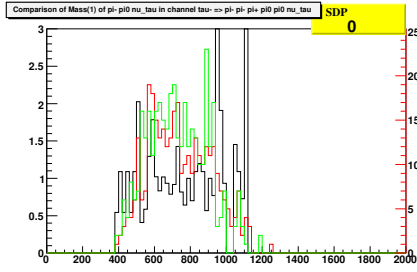
Number of events from generator 1: 342

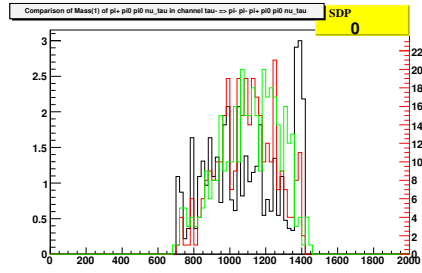
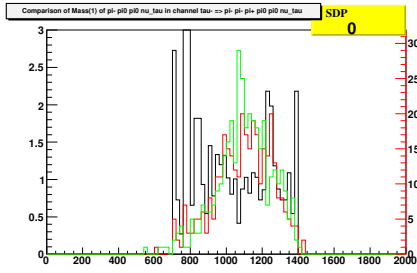
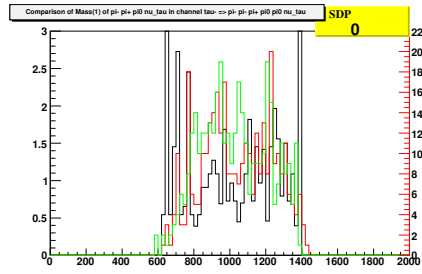
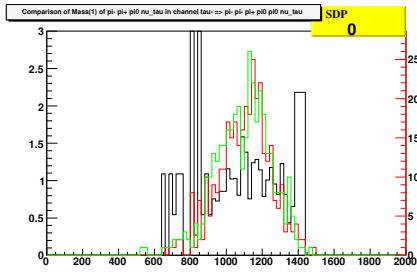
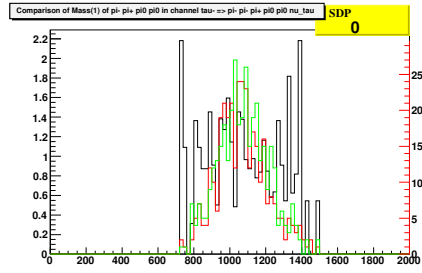
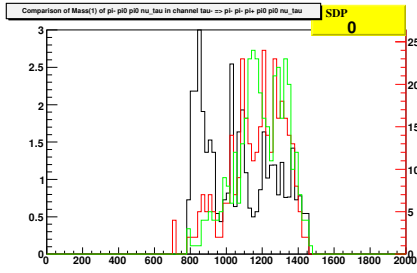
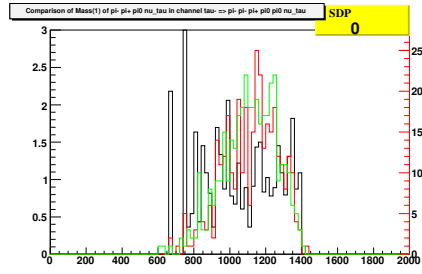
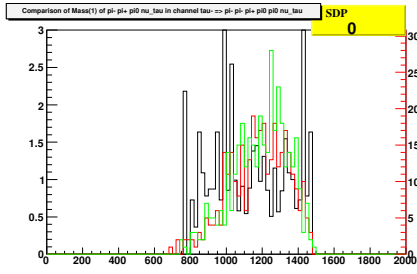
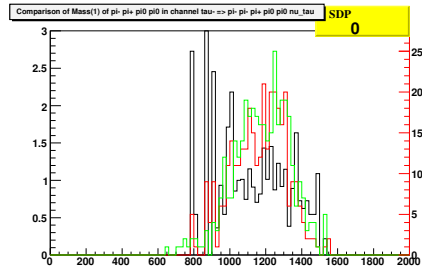
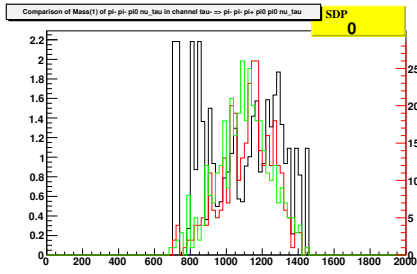
Number of events from generator 2: 373

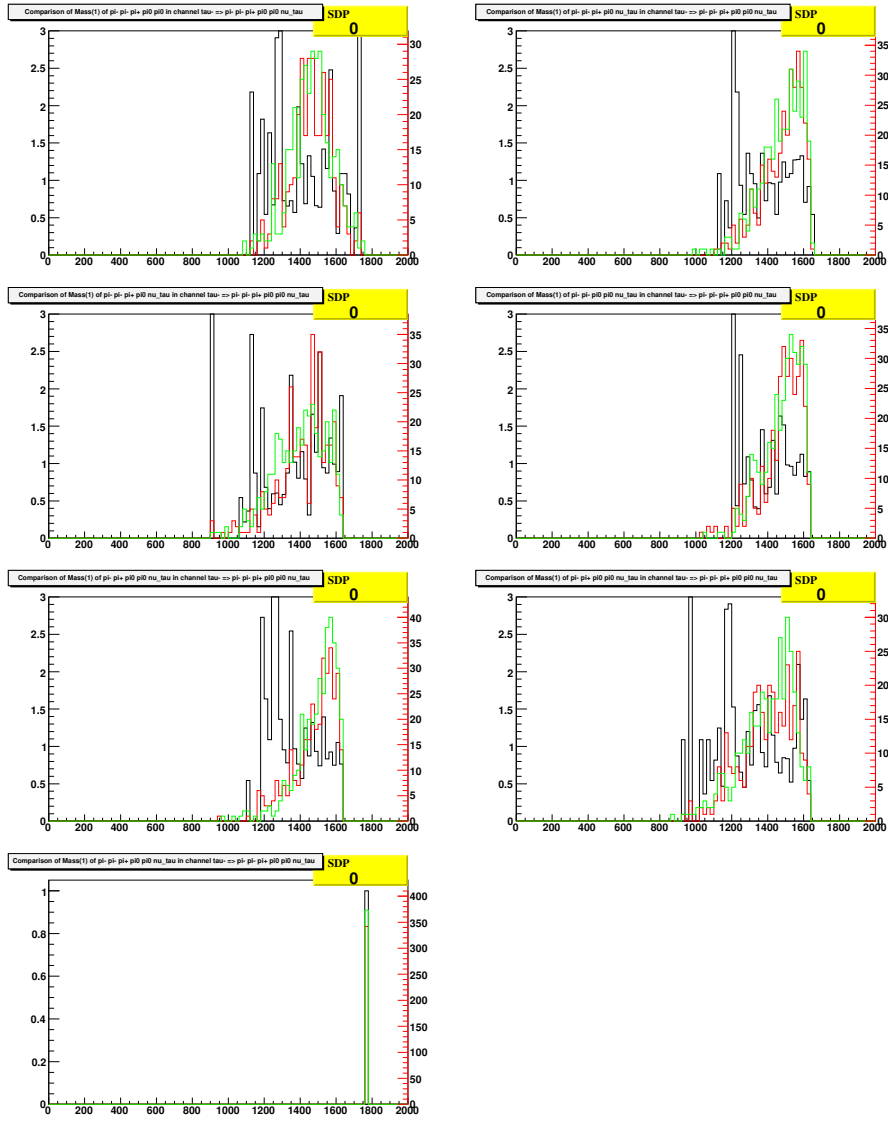








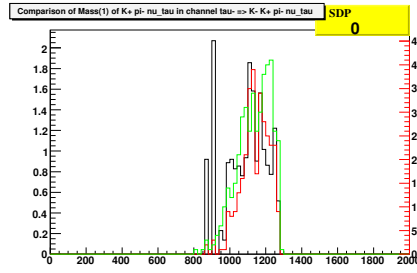
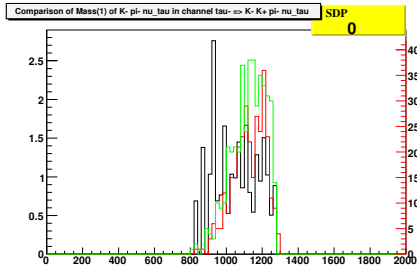
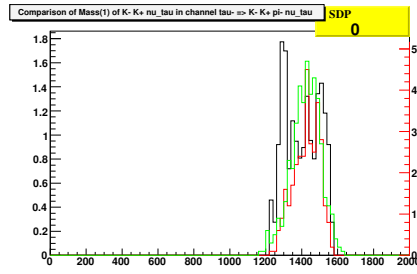
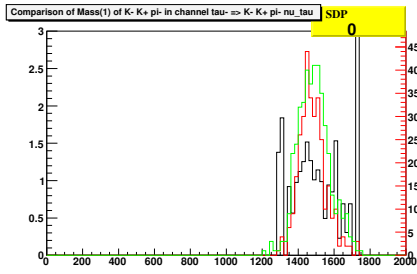
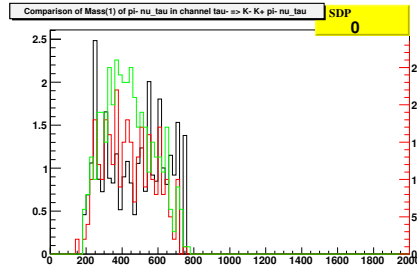
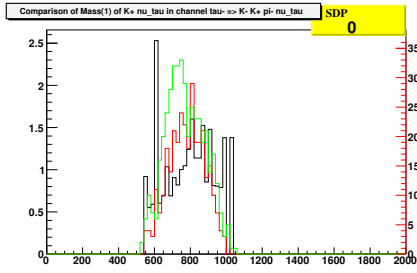
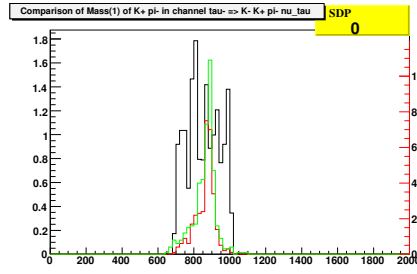
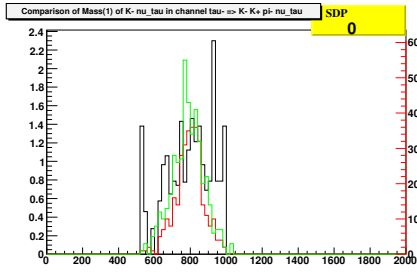
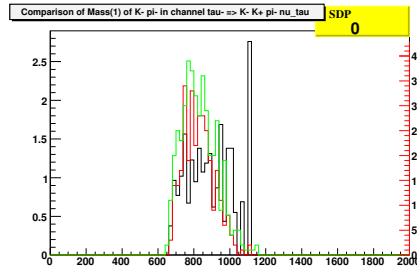
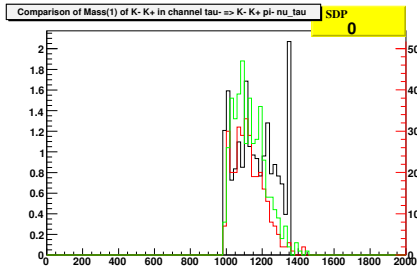


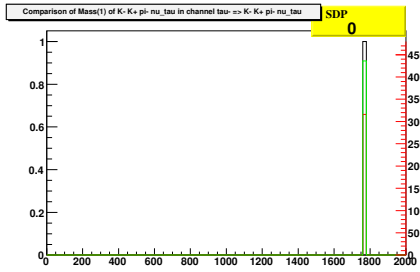


17 Decay Channel: $\tau^- \rightarrow K^- K^+ \pi^- \nu_\tau$

Number of events from generator 1: 316

Number of events from generator 2: 436

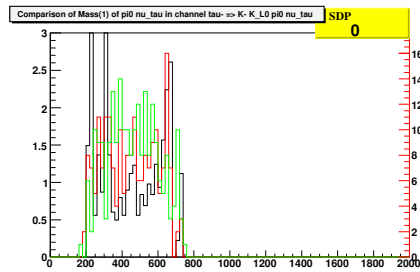
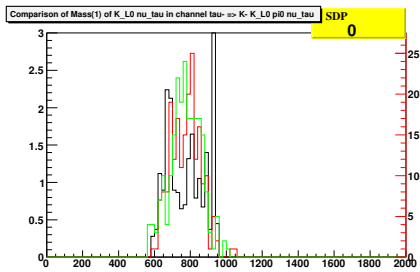
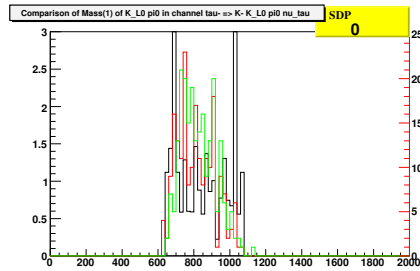
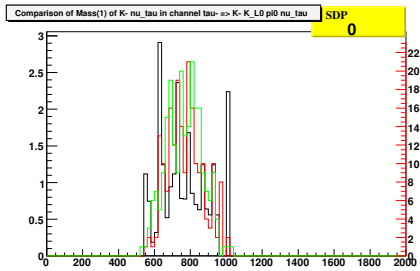
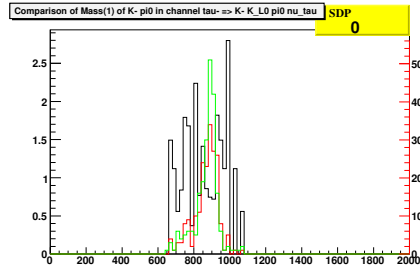
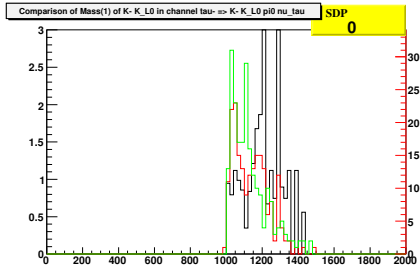


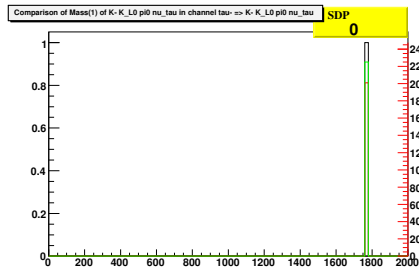
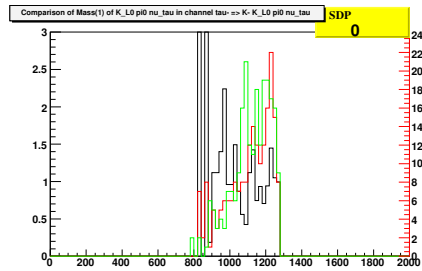
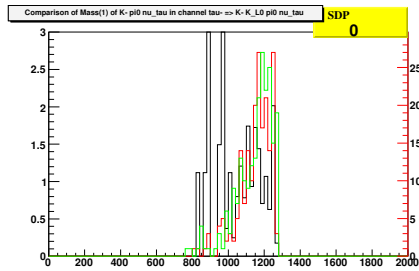
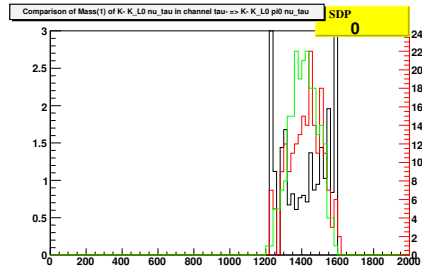
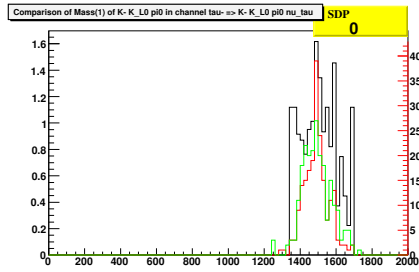


18 Decay Channel: $\tau^- \rightarrow K^- K_L^0 \pi^0 \nu_\tau$

Number of events from generator 1: 201

Number of events from generator 2: 225

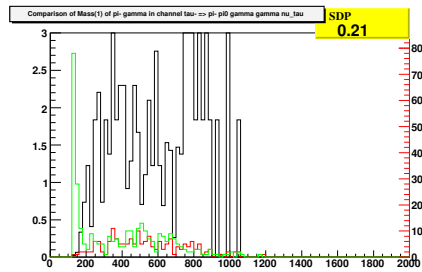
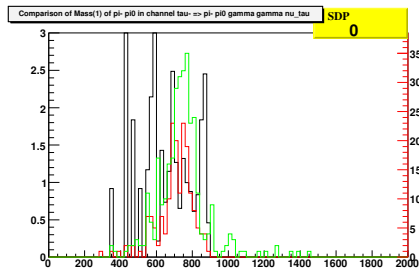


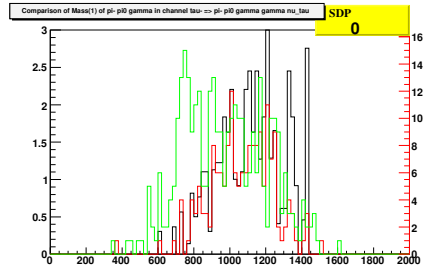
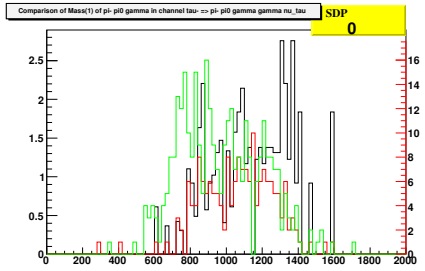
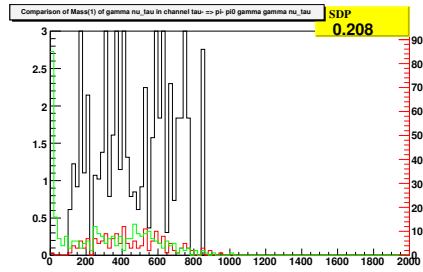
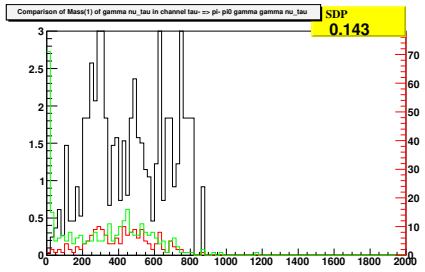
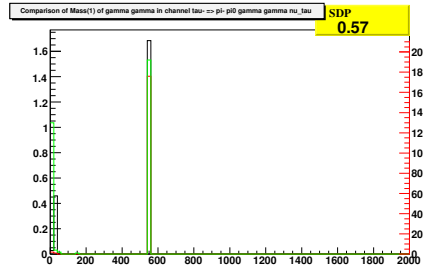
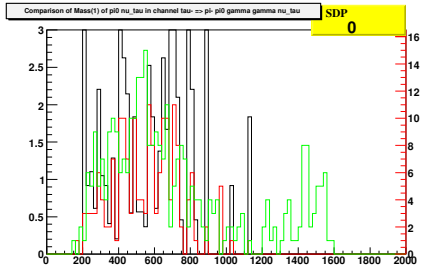
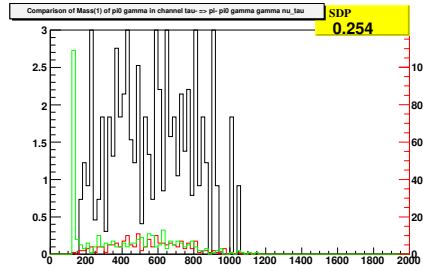
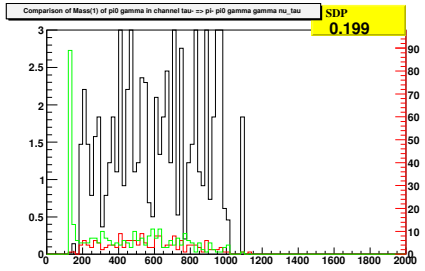
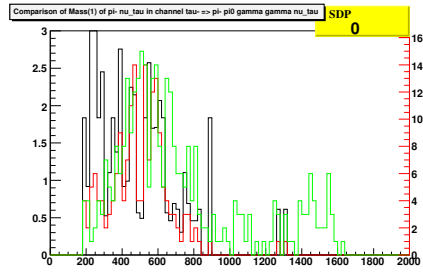
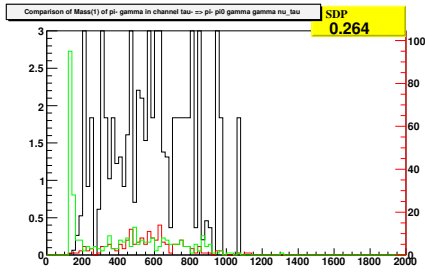


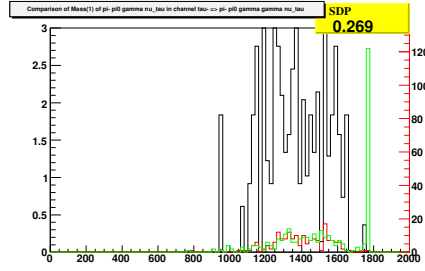
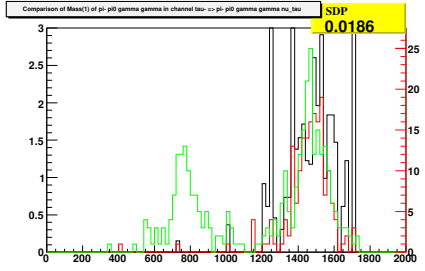
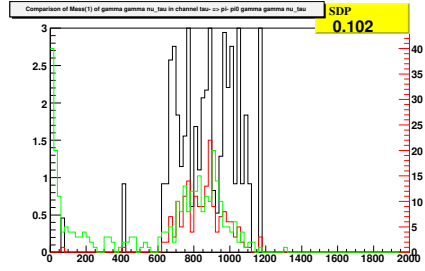
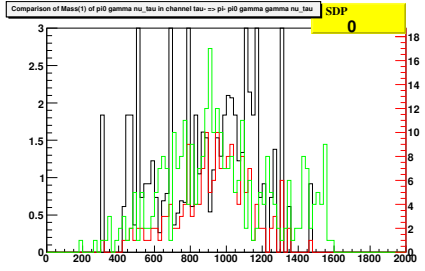
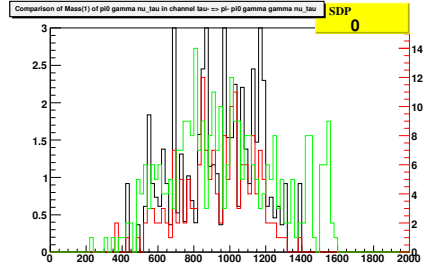
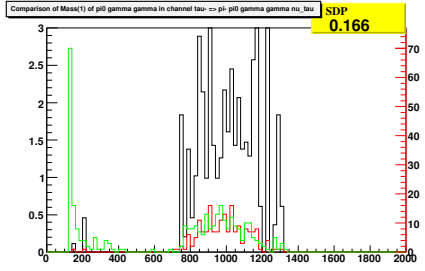
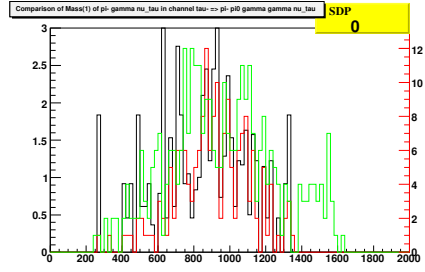
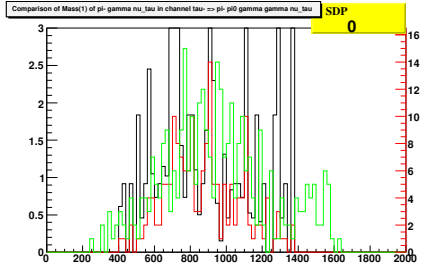
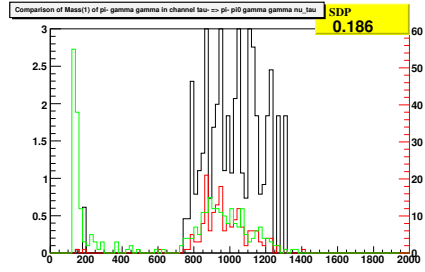
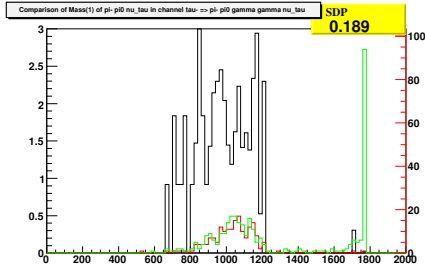
19 Decay Channel: $\tau^- \rightarrow \pi^- \pi^0 \gamma \gamma \nu_\tau$

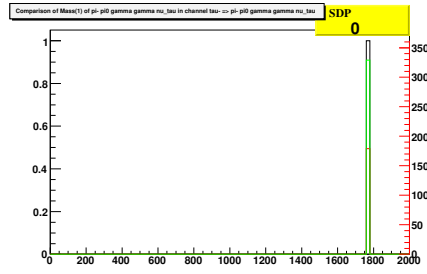
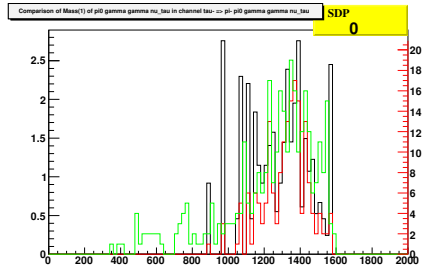
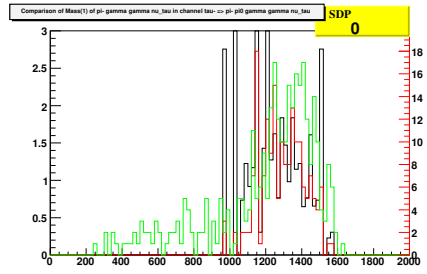
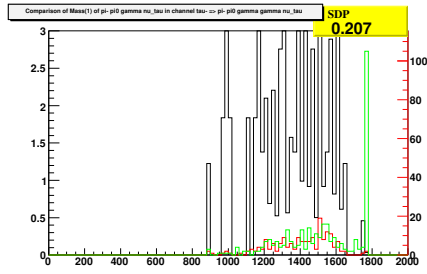
Number of events from generator 1: 179

Number of events from generator 2: 329





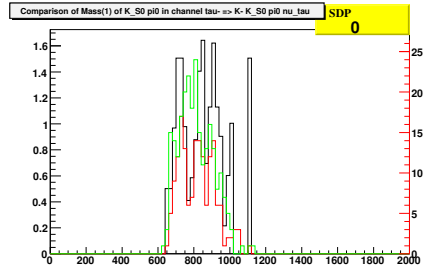
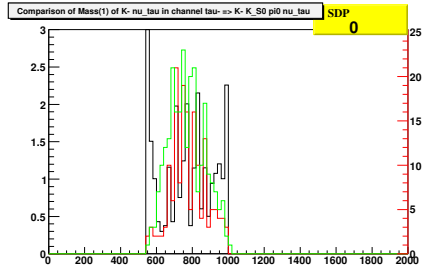
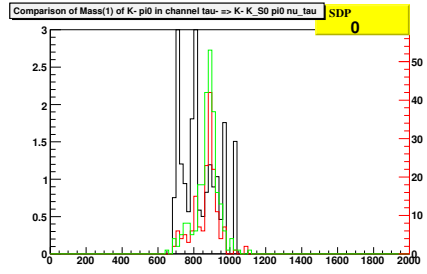
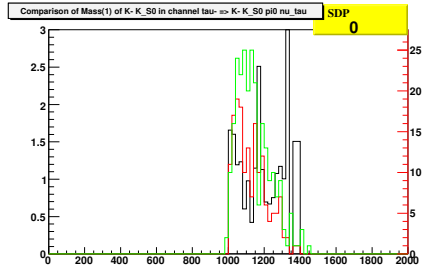


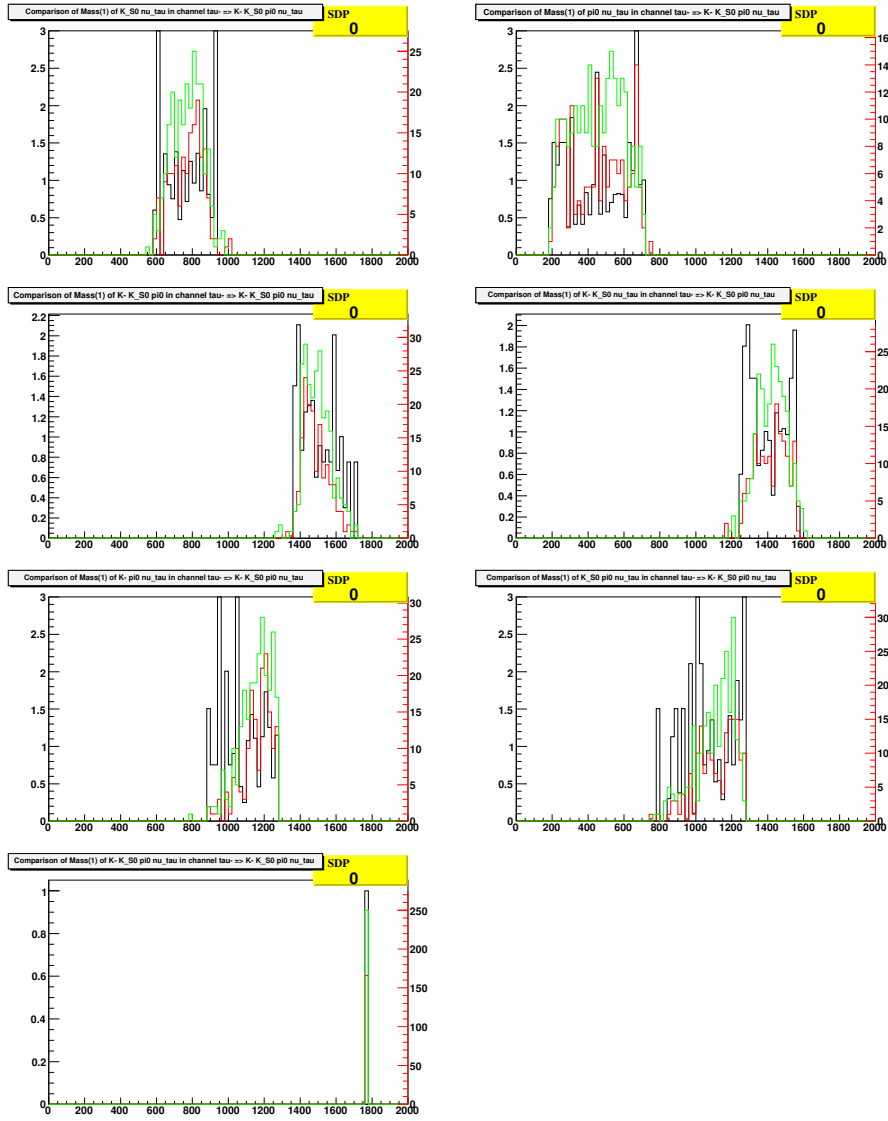


20 Decay Channel: $\tau^- \rightarrow K^- K_S^0 \pi^0 \nu_\tau$

Number of events from generator 1: 166

Number of events from generator 2: 250

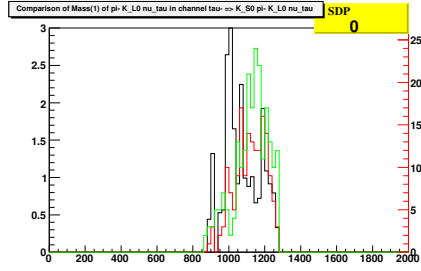
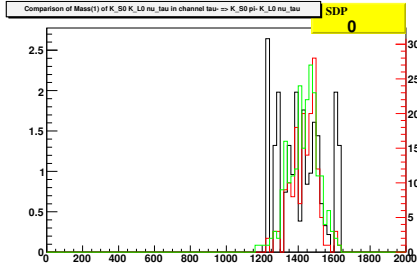
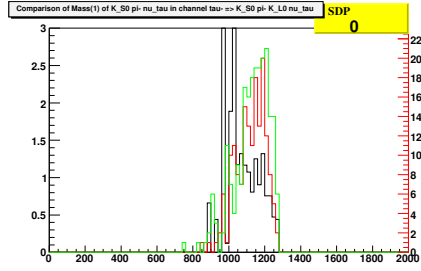
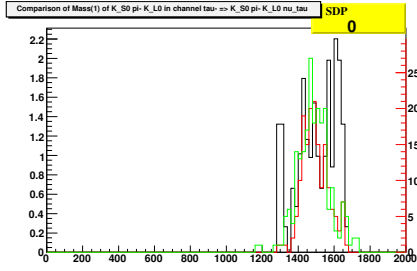
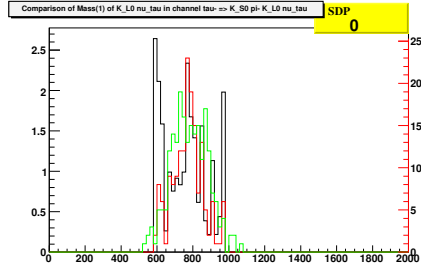
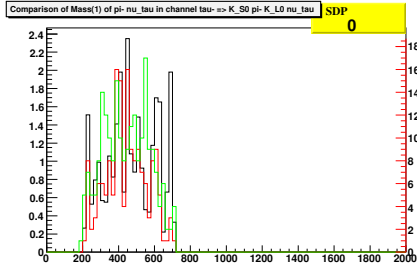
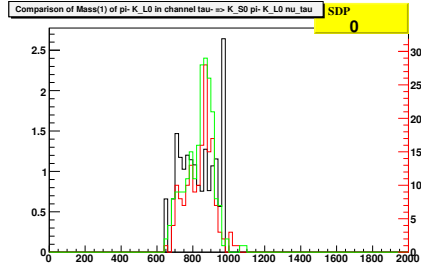
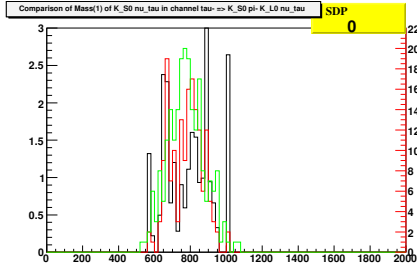
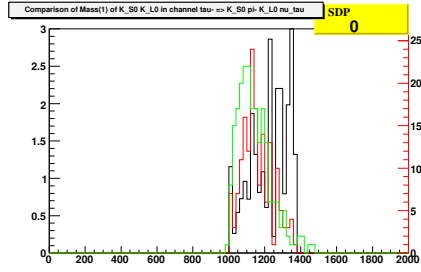
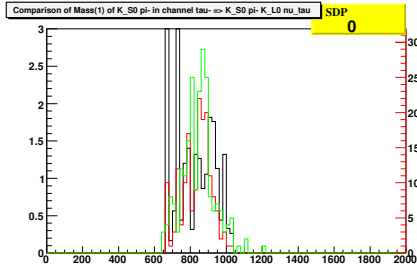


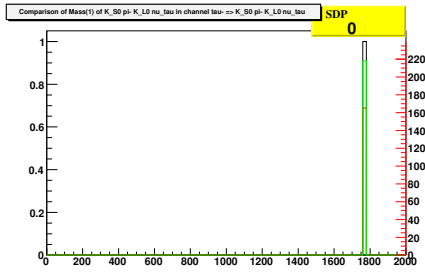


21 Decay Channel: $\tau^- \rightarrow K_S^0 \pi^- K_L^0 \nu_\tau$

Number of events from generator 1: 165

Number of events from generator 2: 218

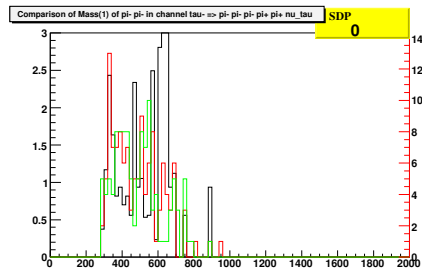
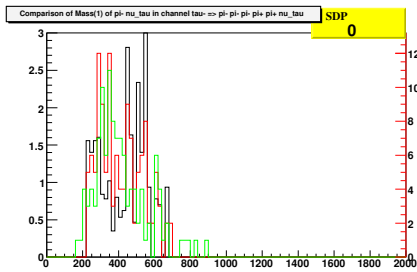
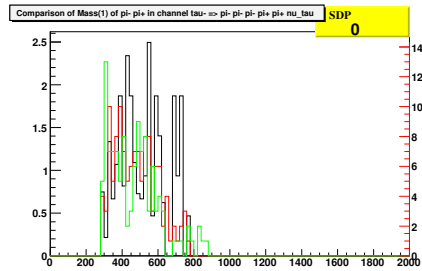
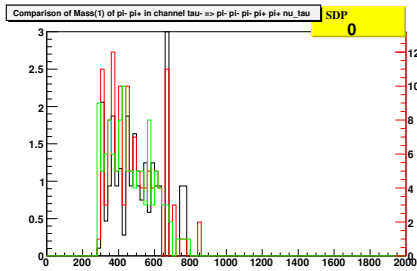
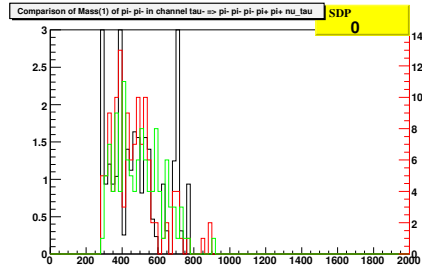
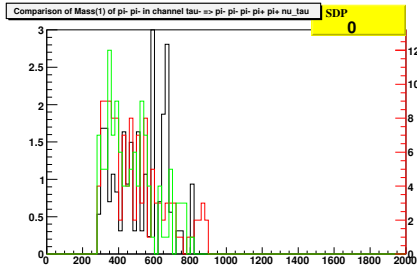


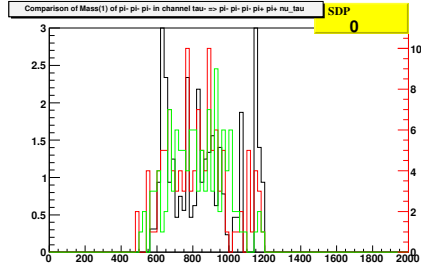
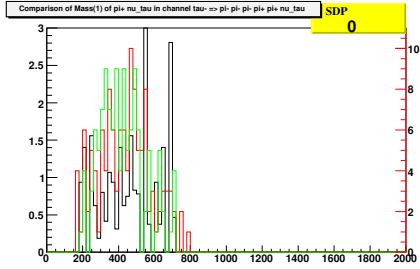
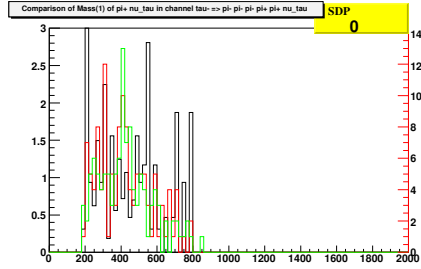
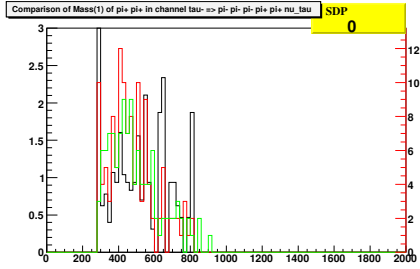
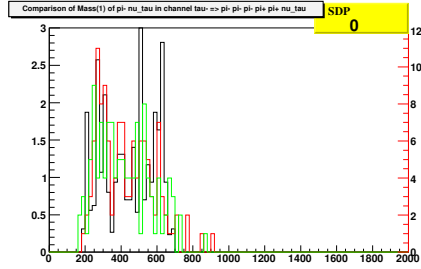
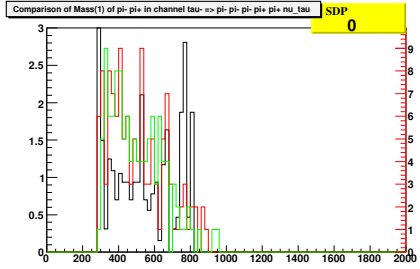
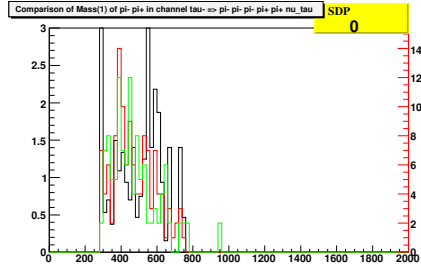
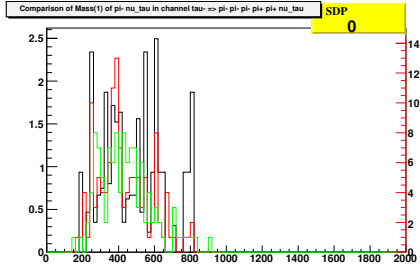
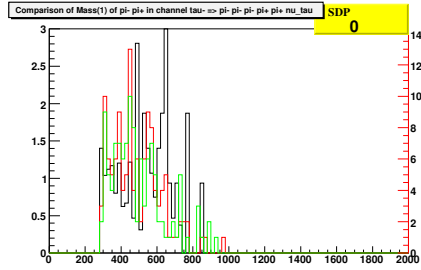
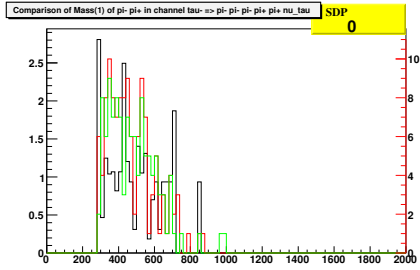


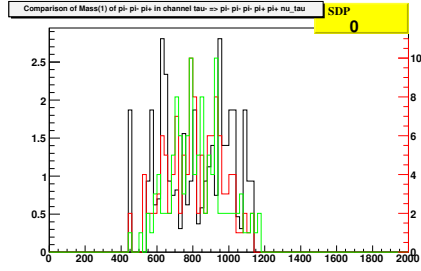
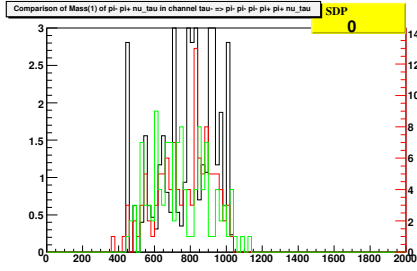
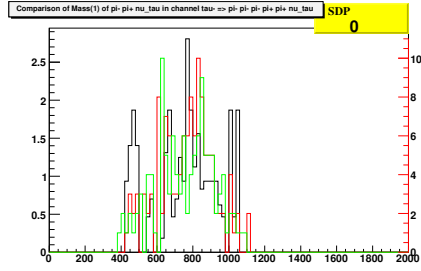
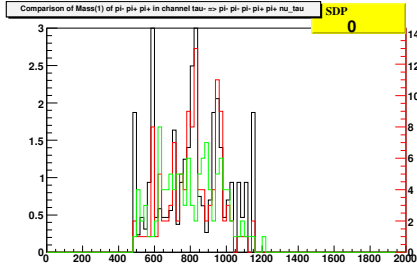
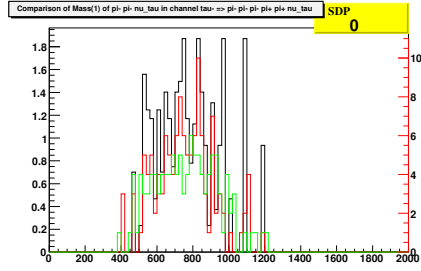
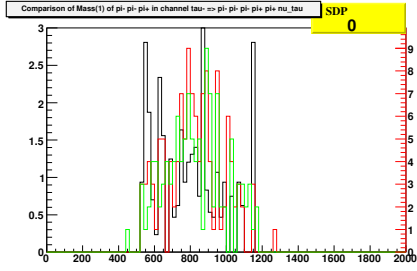
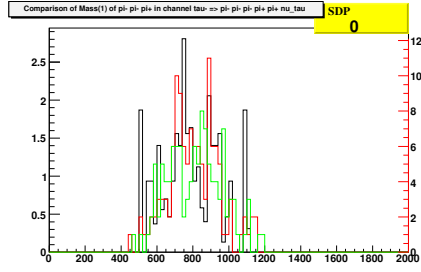
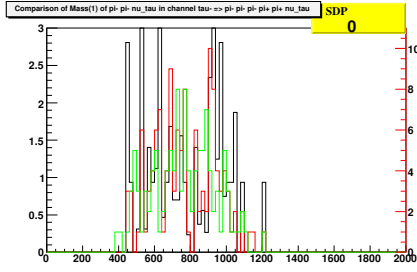
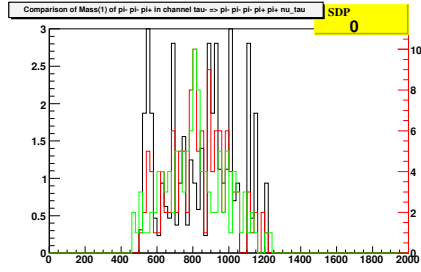
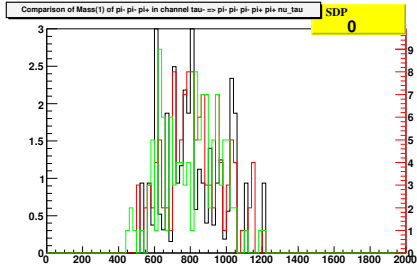
22 Decay Channel: $\tau^- \rightarrow \pi^- \pi^- \pi^- \pi^+ \pi^+ \nu_\tau$

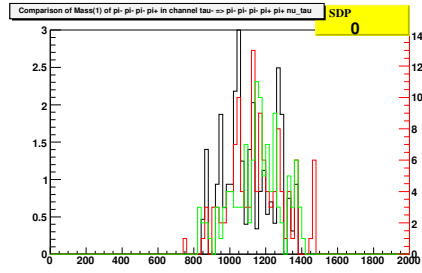
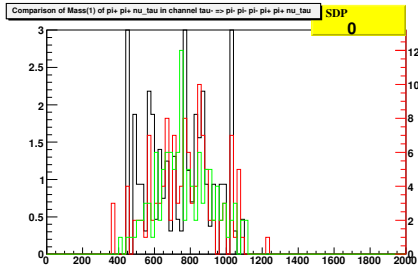
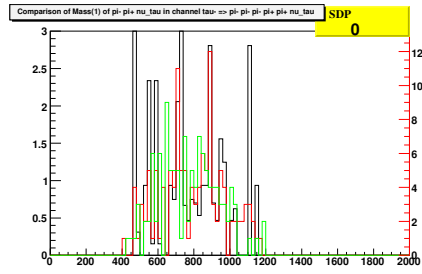
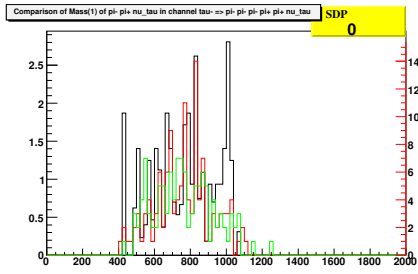
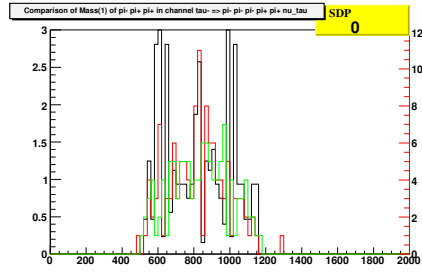
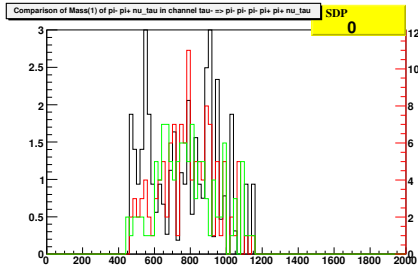
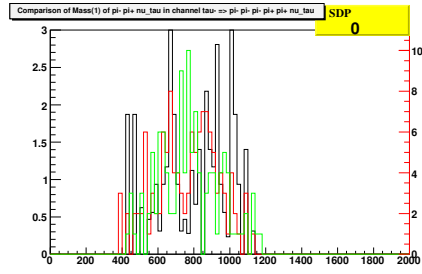
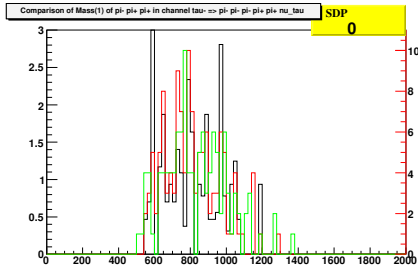
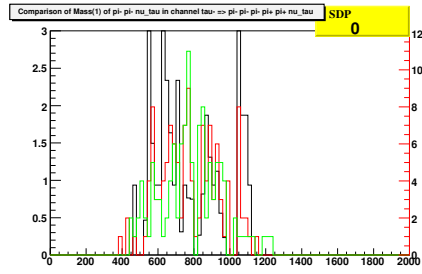
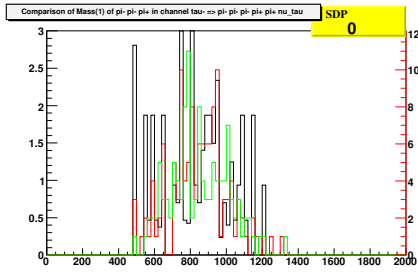
Number of events from generator 1: 124

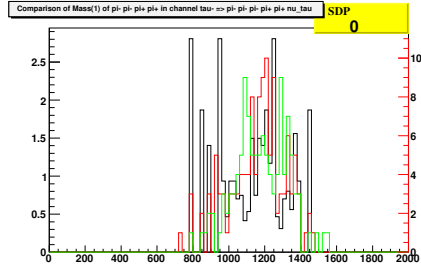
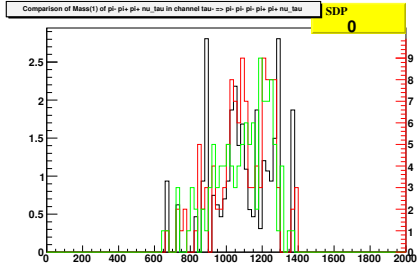
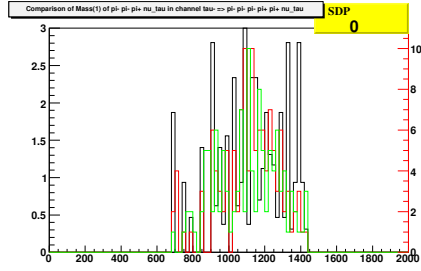
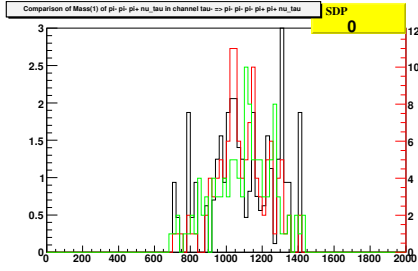
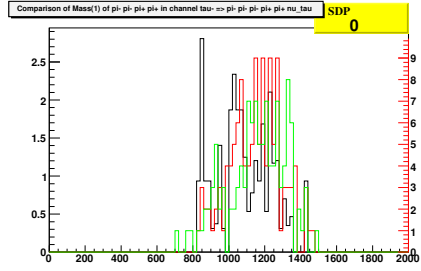
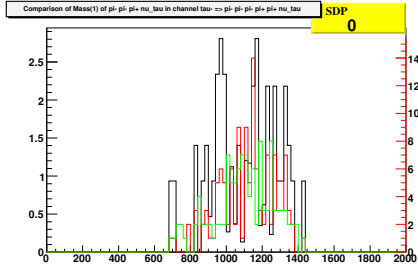
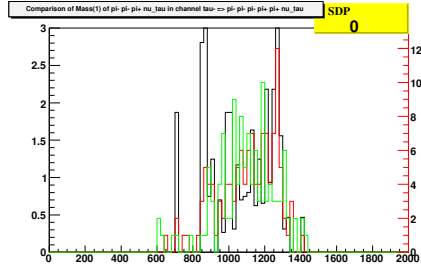
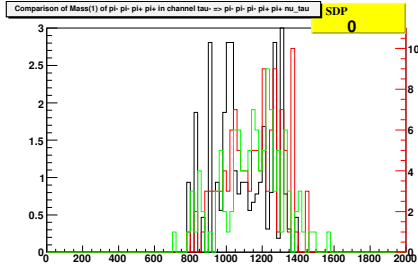
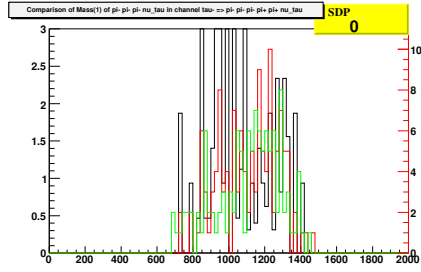
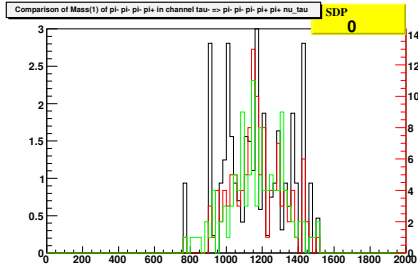
Number of events from generator 2: 116

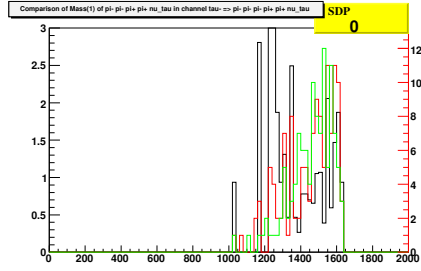
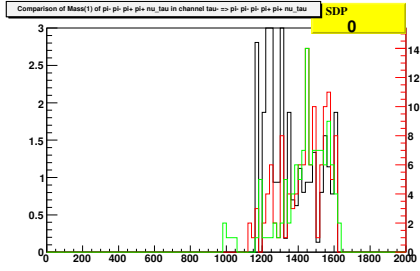
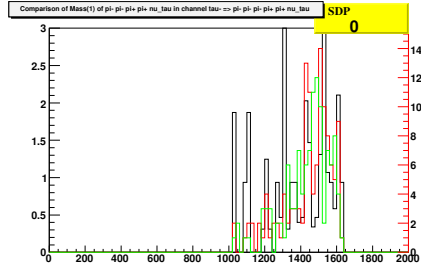
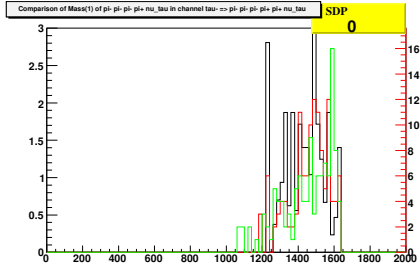
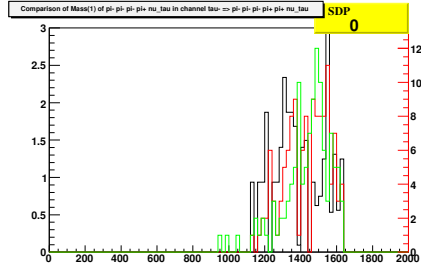
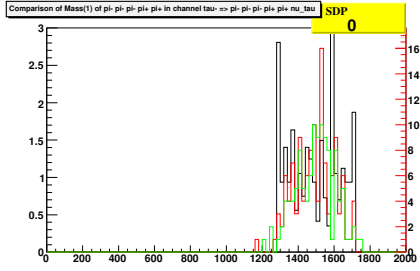
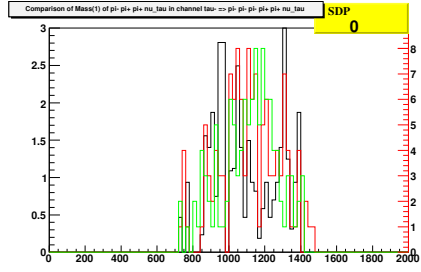
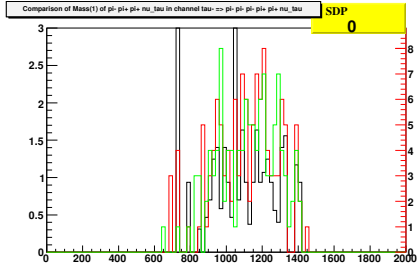
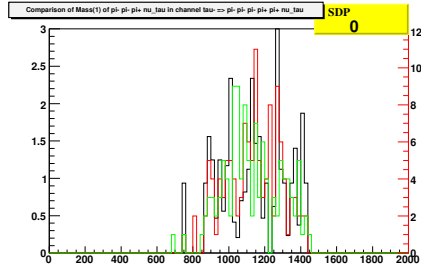
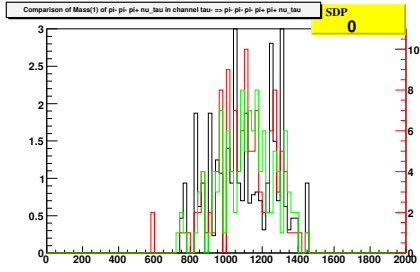


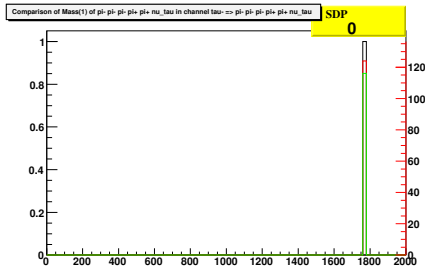








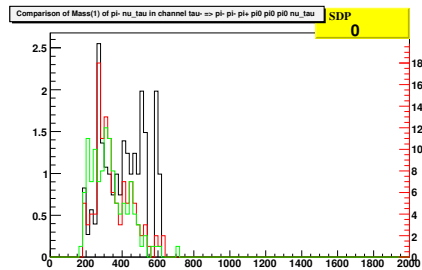
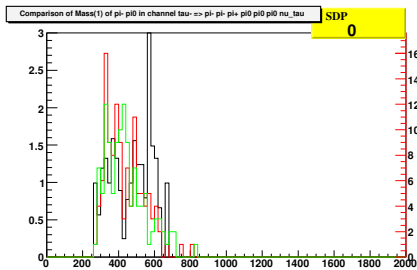
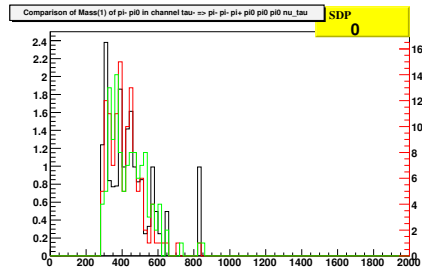
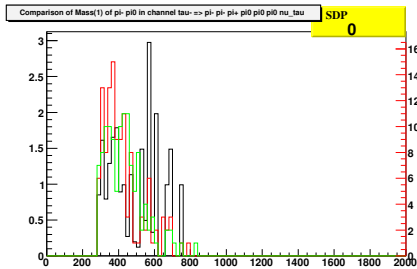
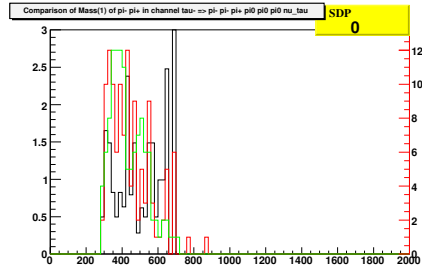
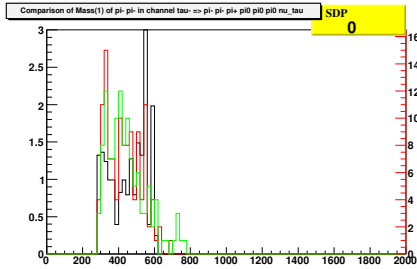


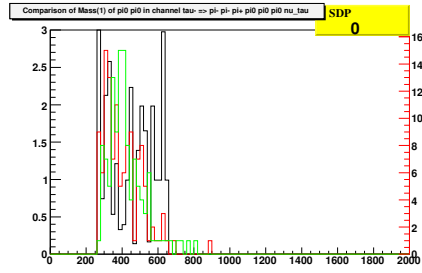
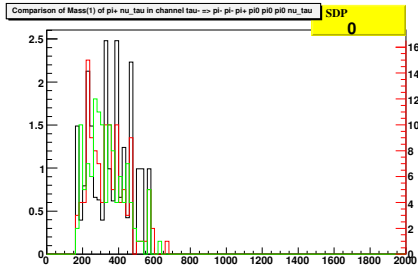
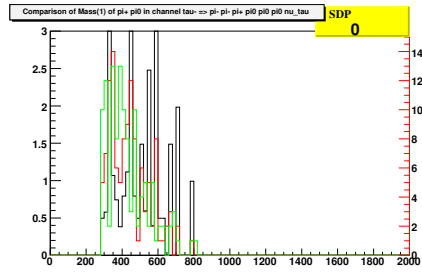
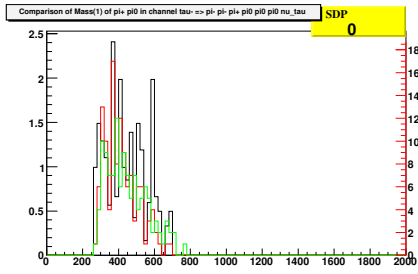
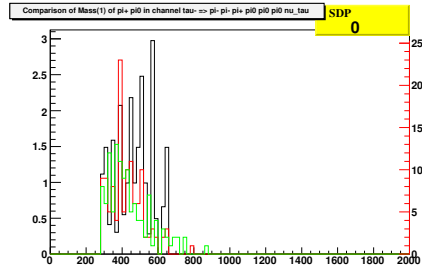
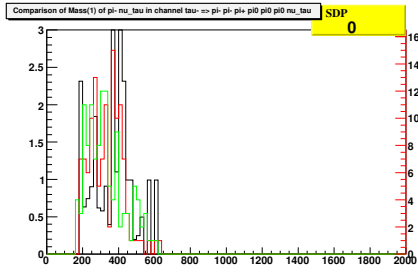
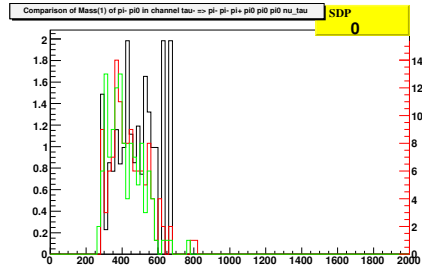
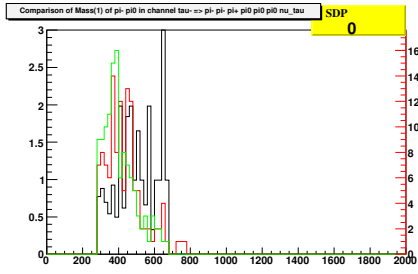
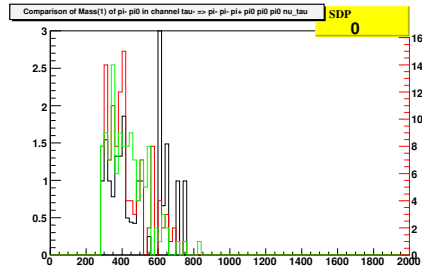
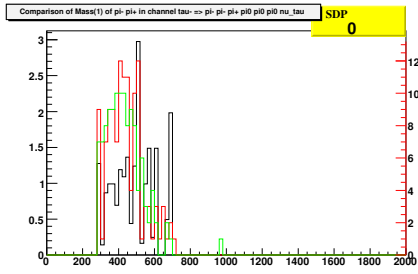


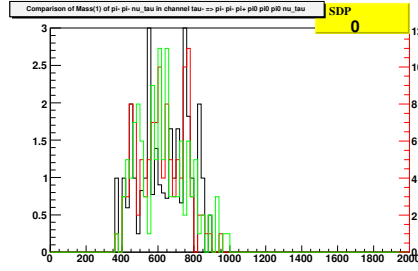
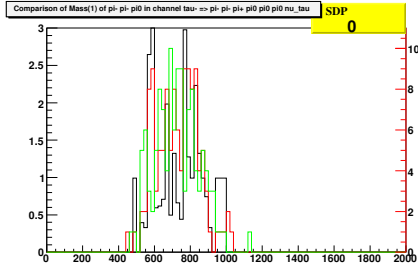
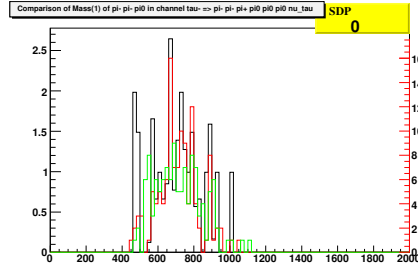
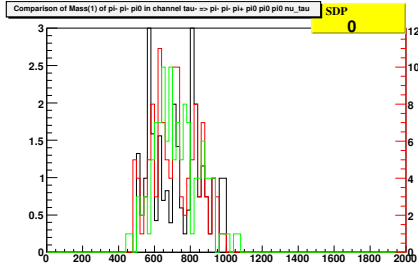
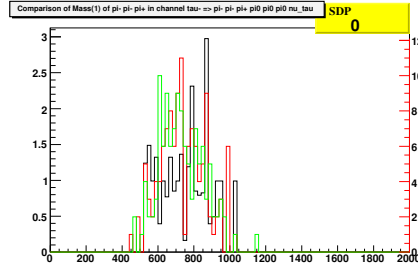
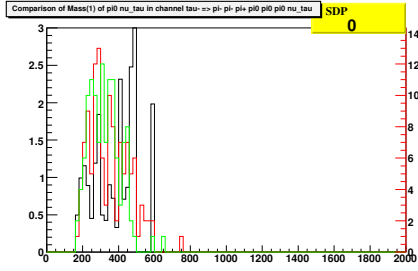
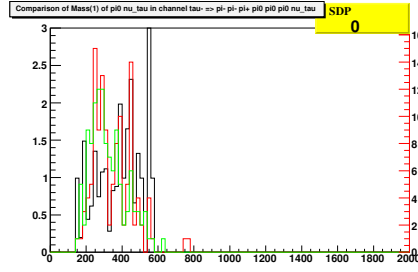
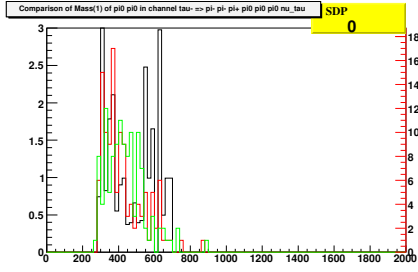
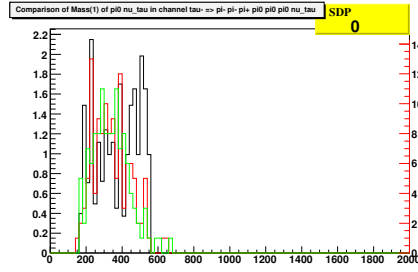
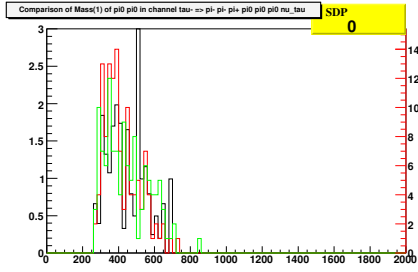
23 Decay Channel: $\tau^- \rightarrow \pi^- \pi^- \pi^+ \pi^0 \pi^0 \nu_\tau$

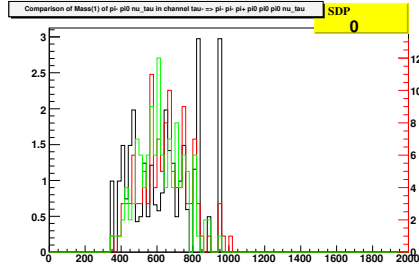
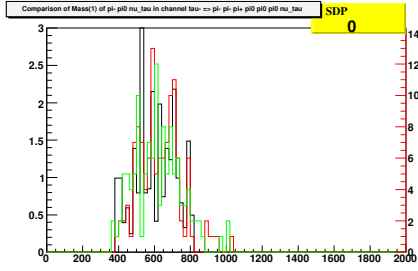
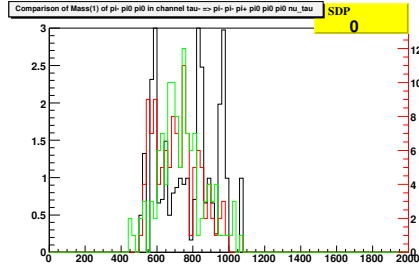
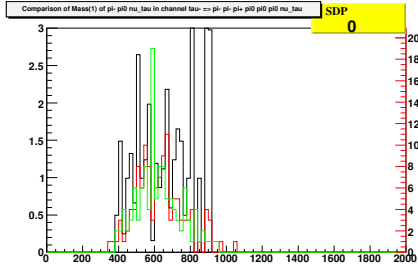
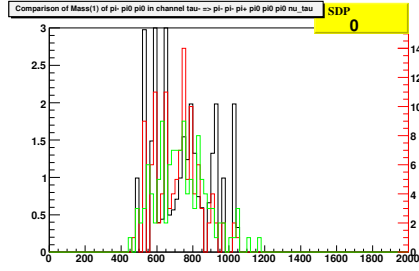
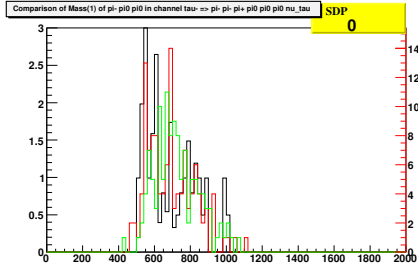
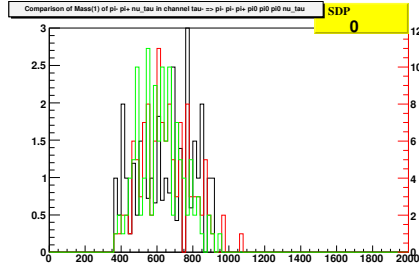
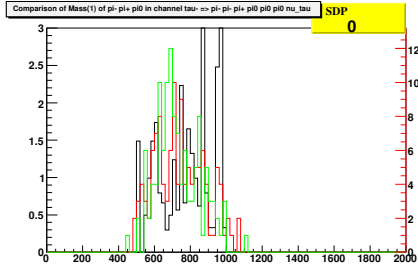
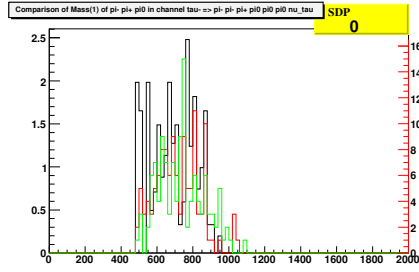
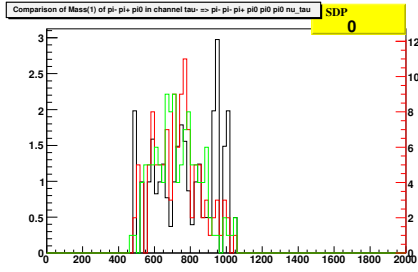
Number of events from generator 1: 121

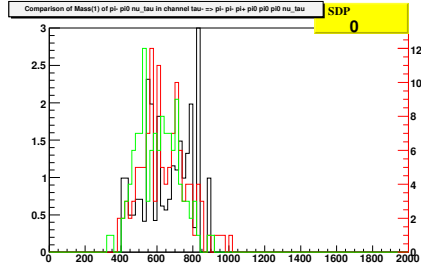
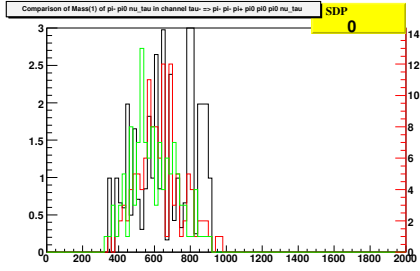
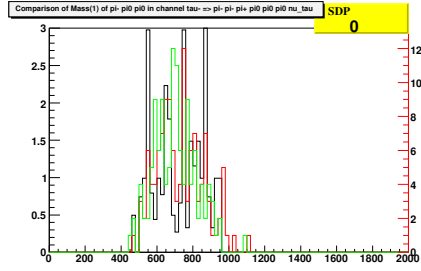
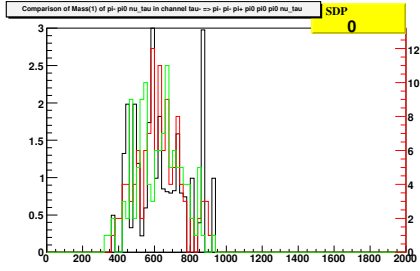
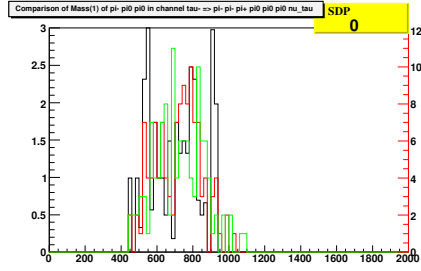
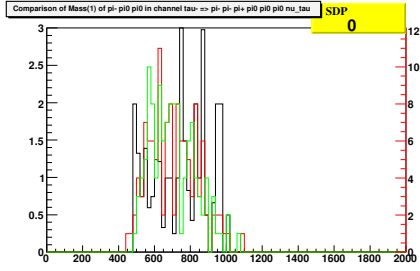
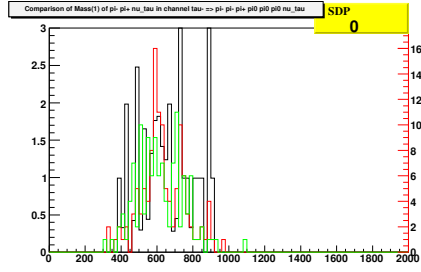
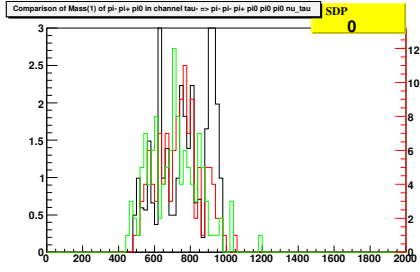
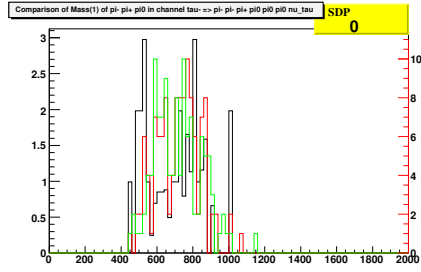
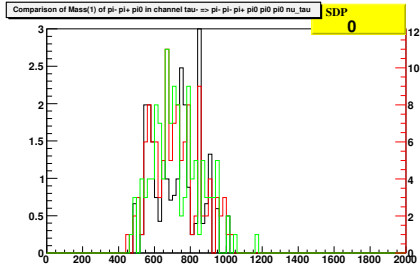
Number of events from generator 2: 120

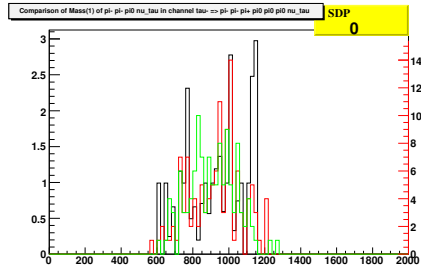
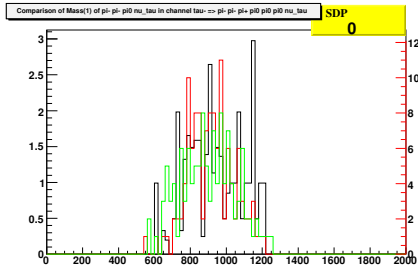
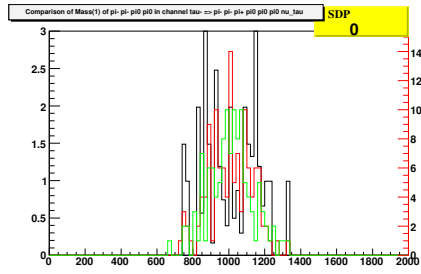
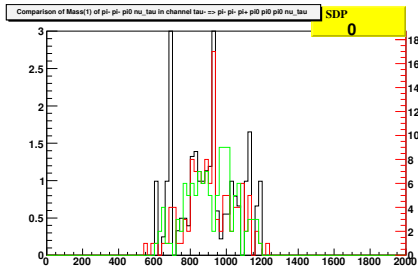
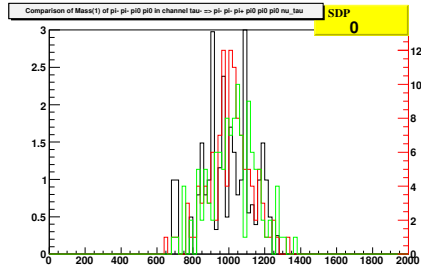
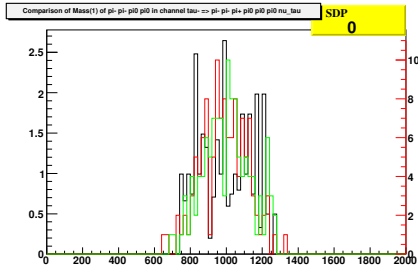
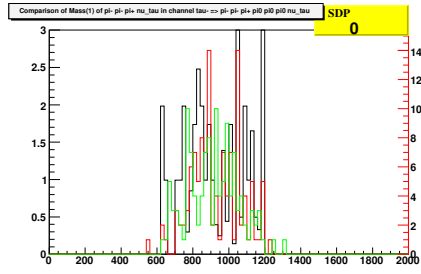
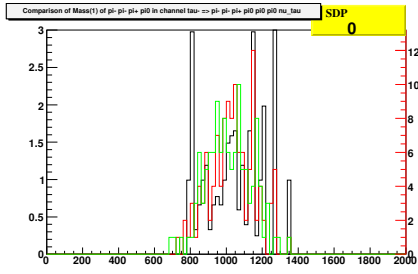
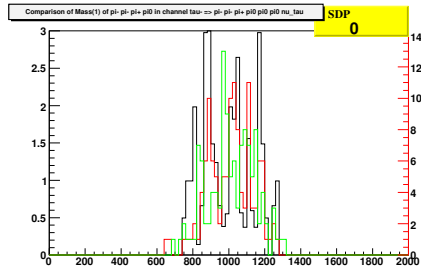
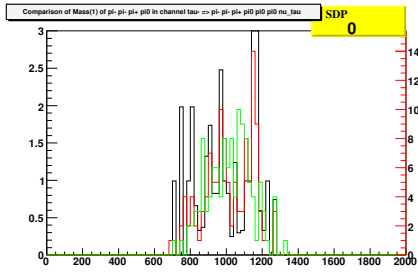


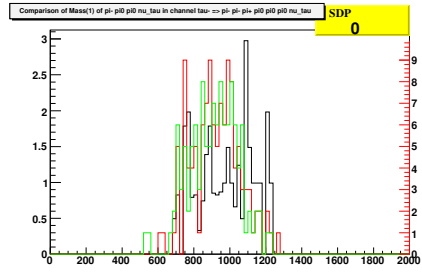
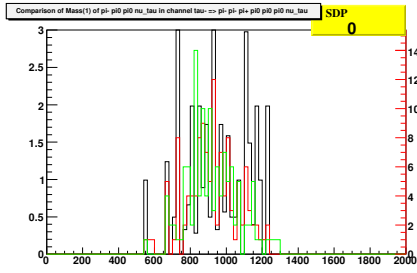
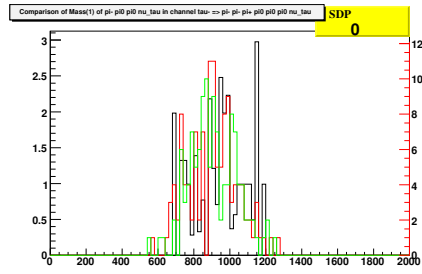
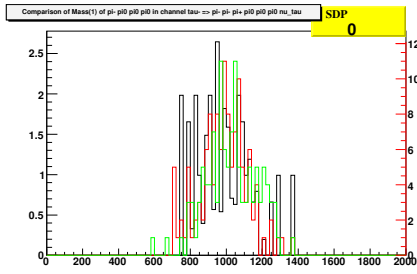
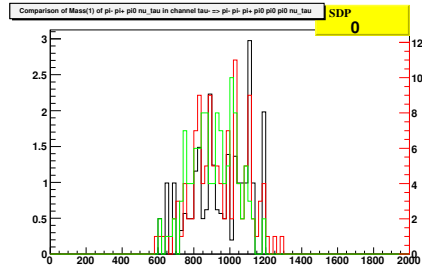
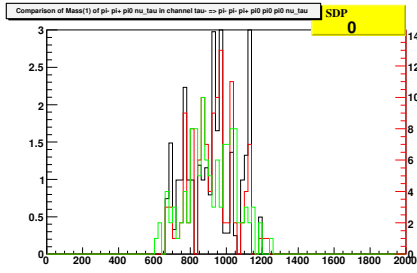
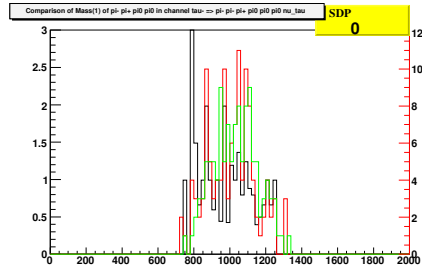
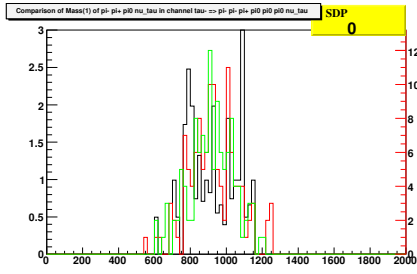
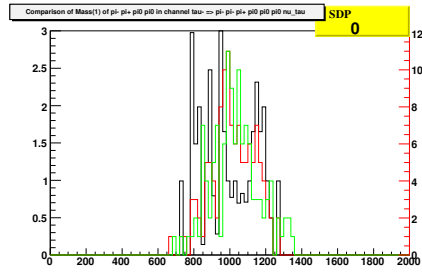
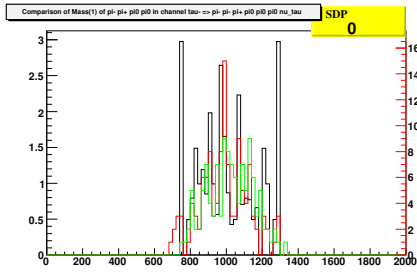


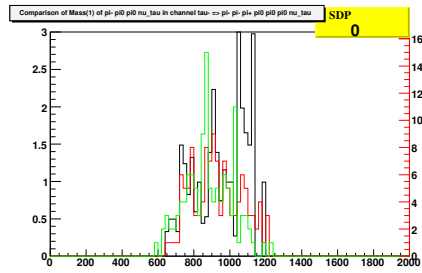
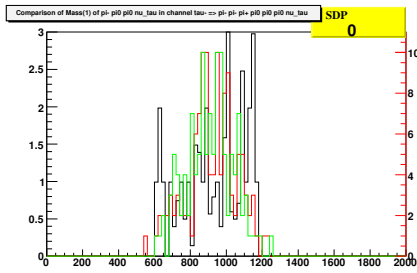
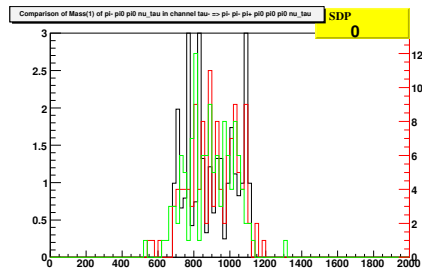
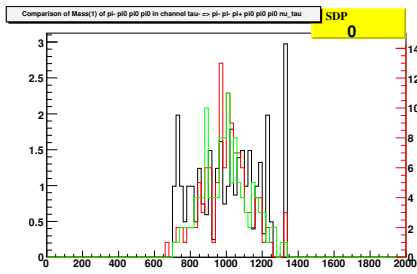
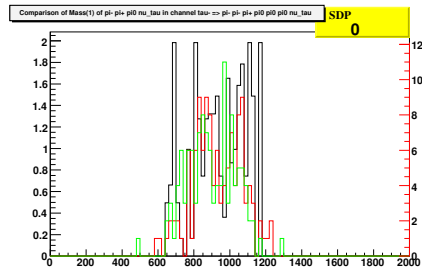
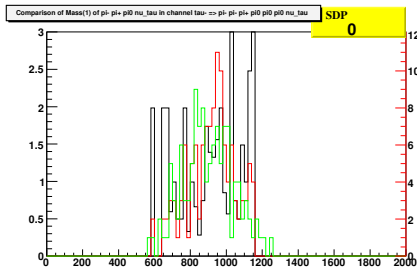
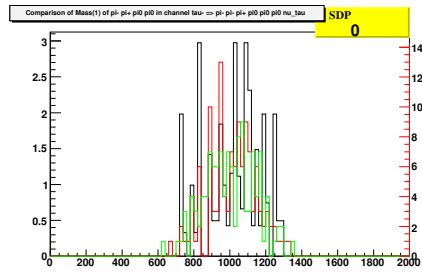
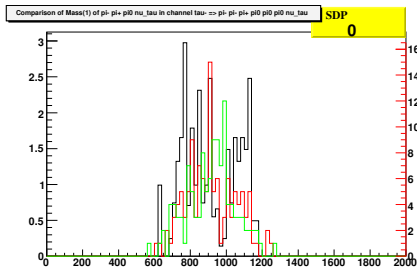
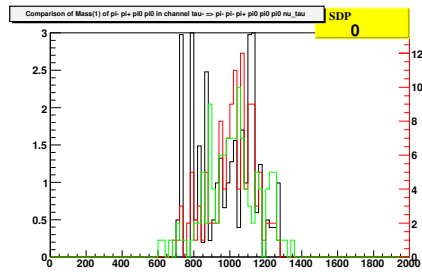
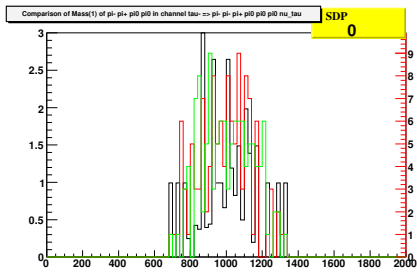


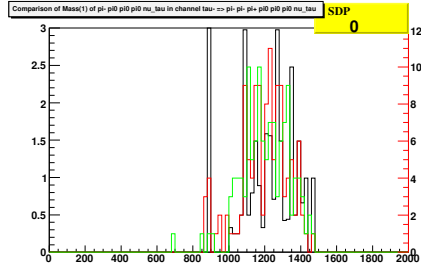
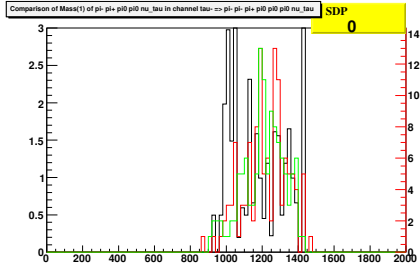
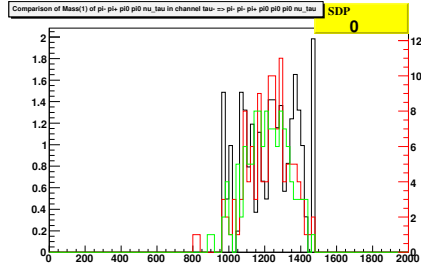
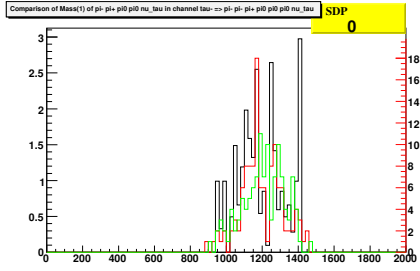
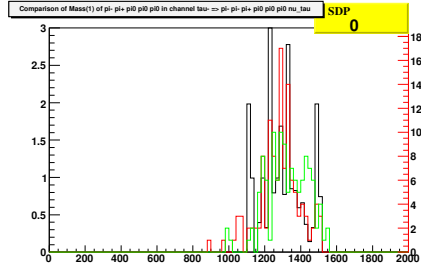
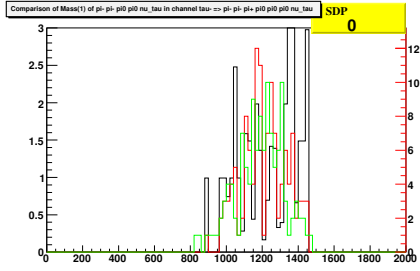
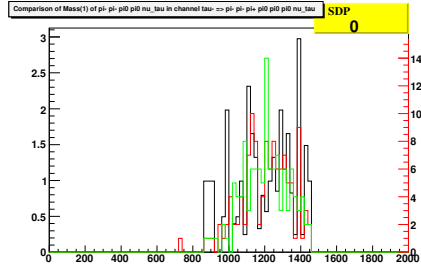
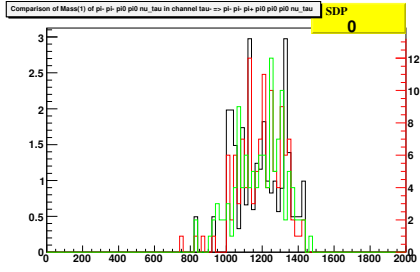
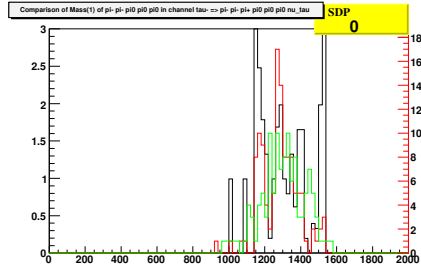
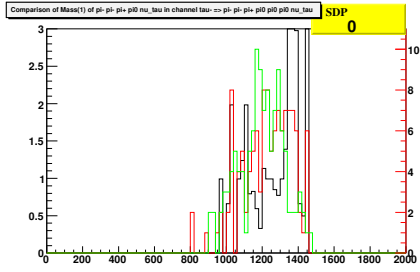


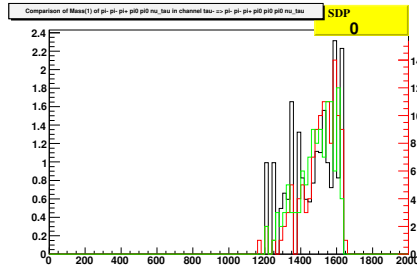
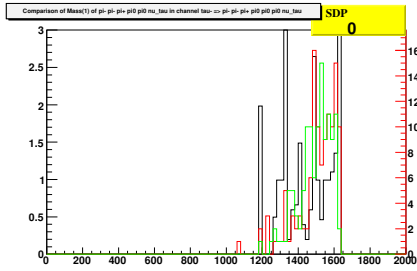
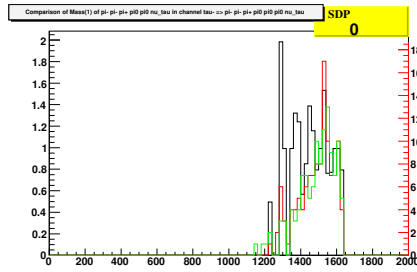
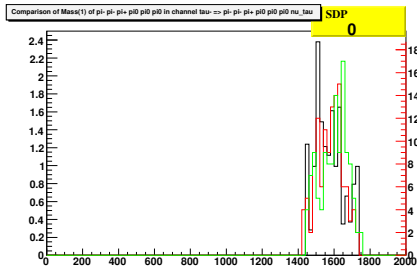
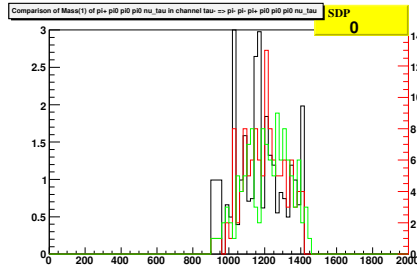
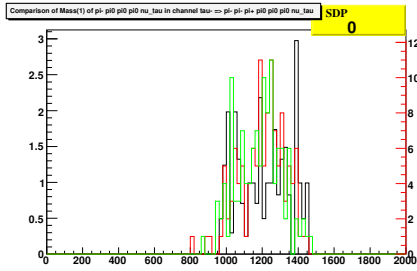
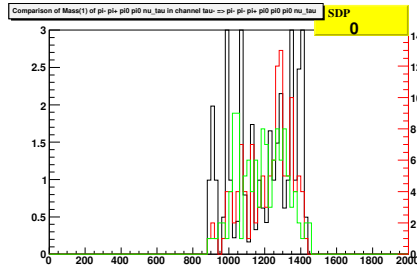
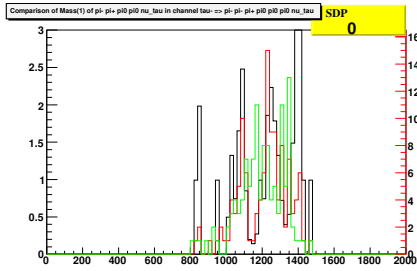
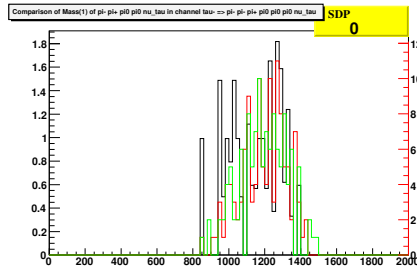
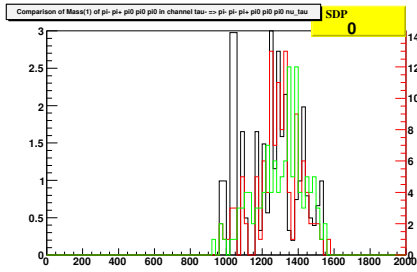


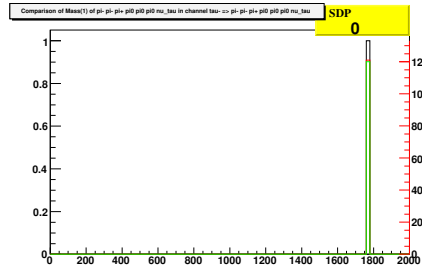
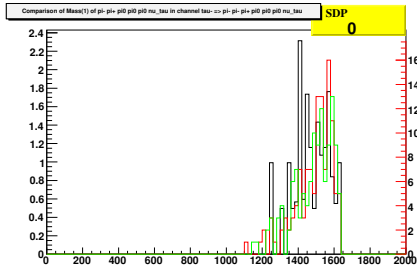
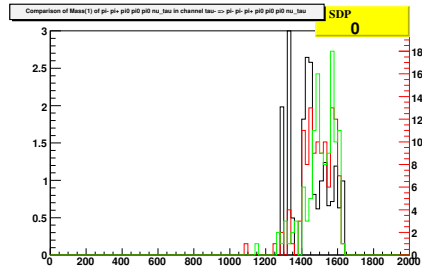
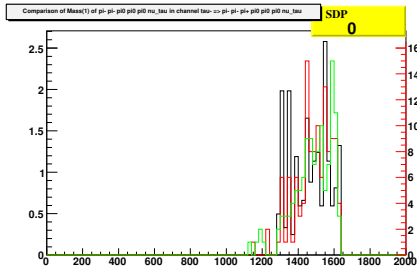








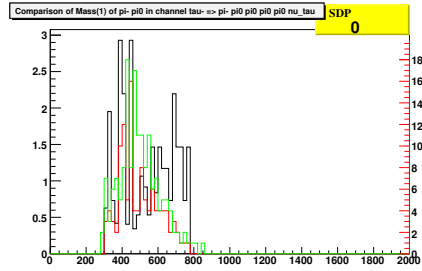
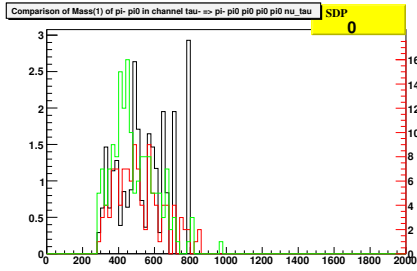
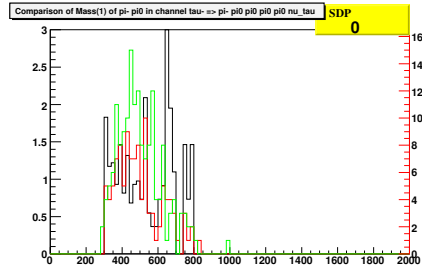
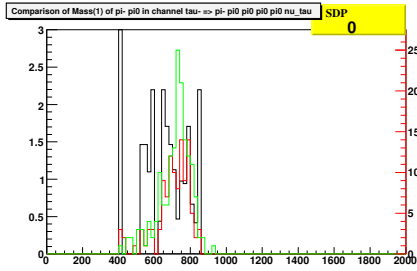


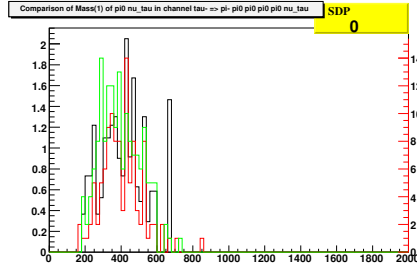
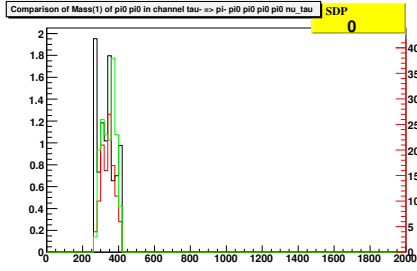
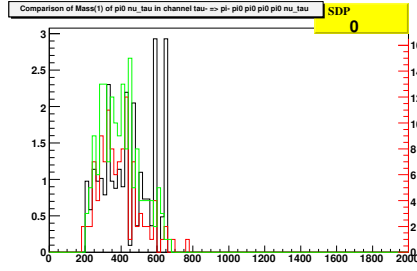
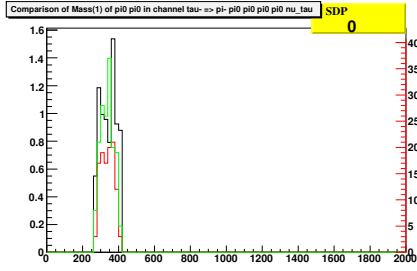
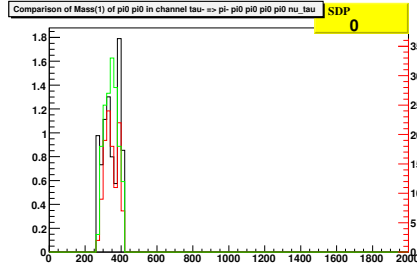
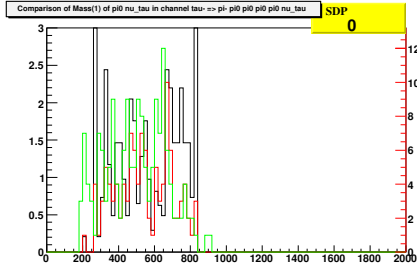
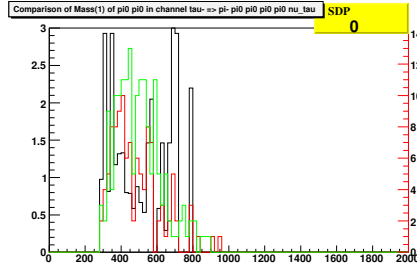
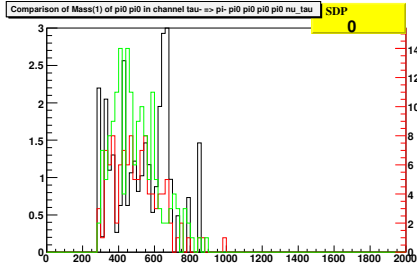
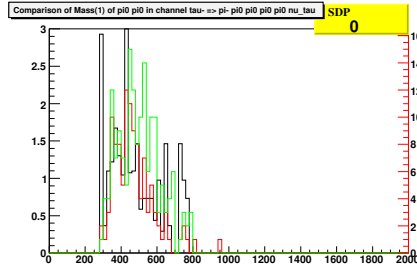
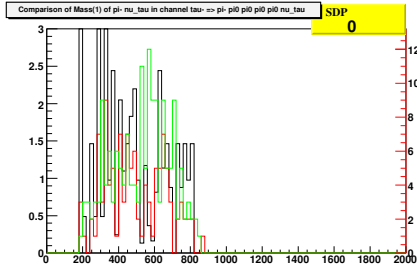


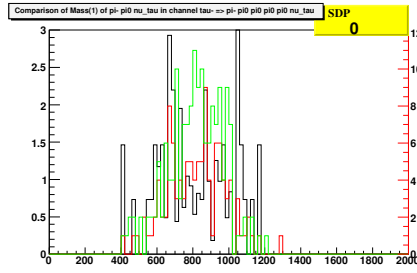
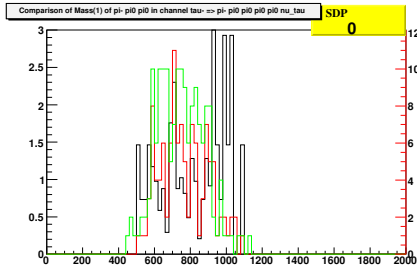
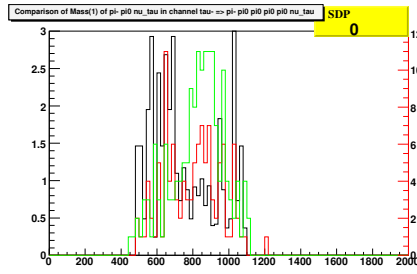
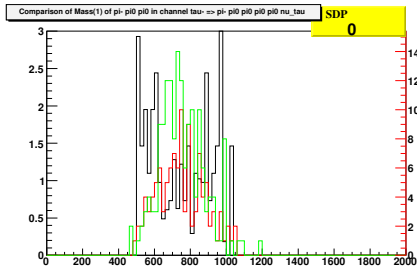
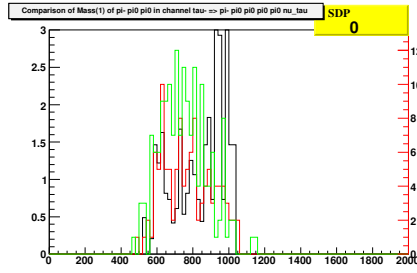
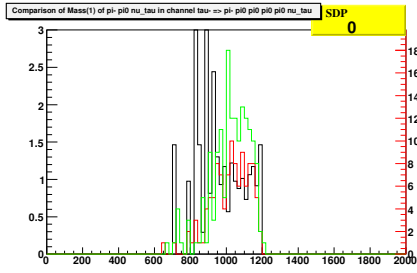
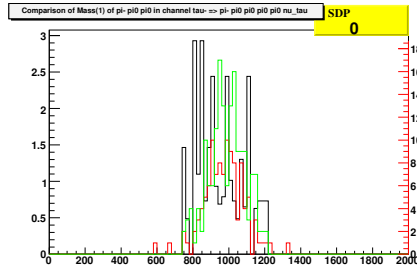
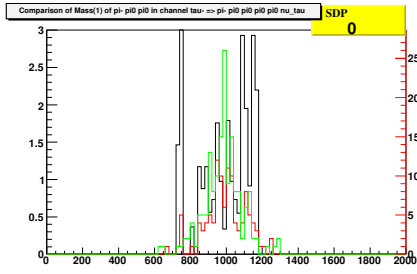
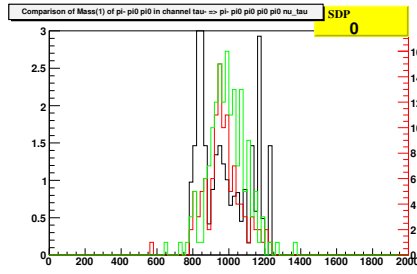
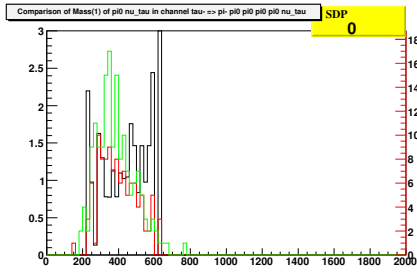
24 Decay Channel: $\tau^- \rightarrow \pi^- \pi^0 \pi^0 \pi^0 \pi^0 \nu_\tau$

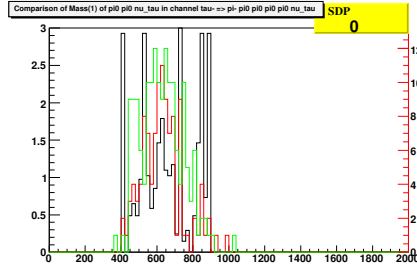
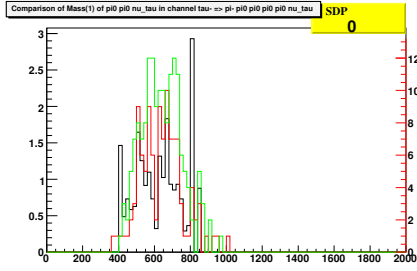
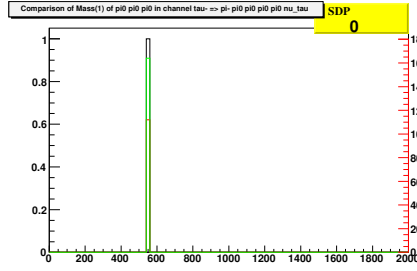
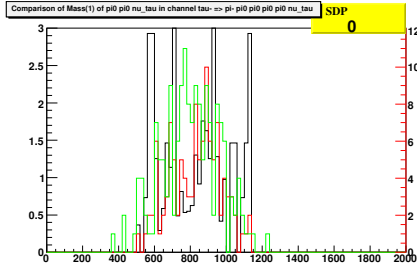
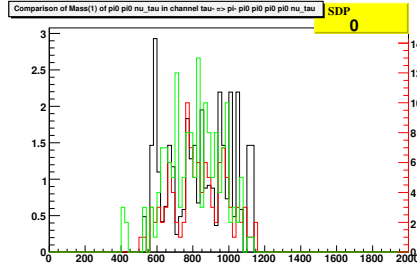
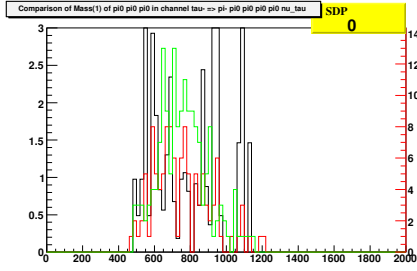
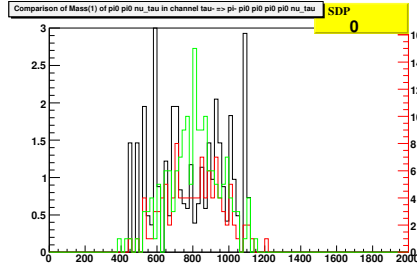
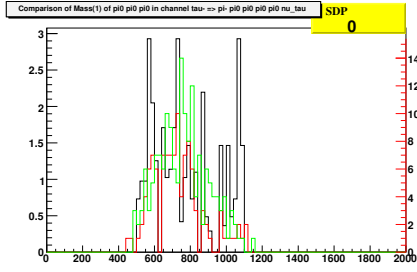
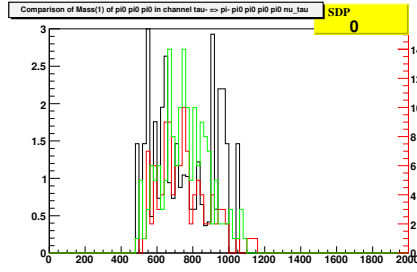
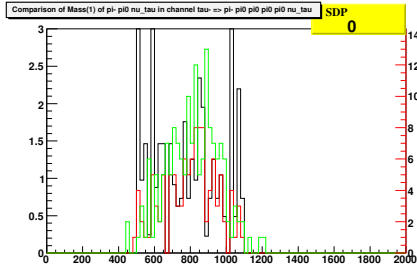
Number of events from generator 1: 112

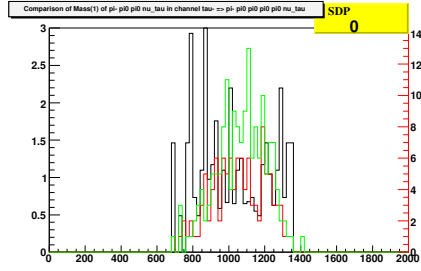
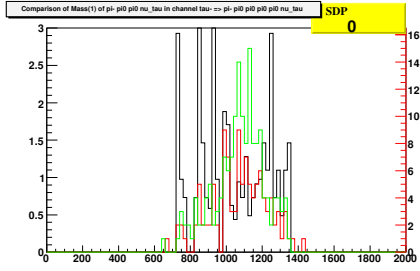
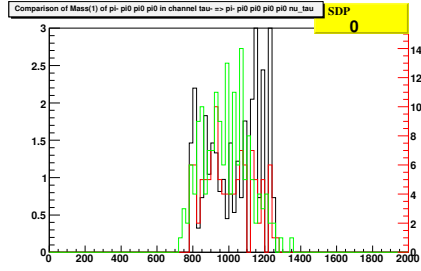
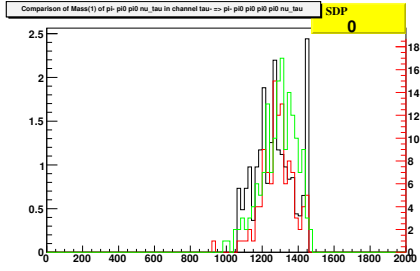
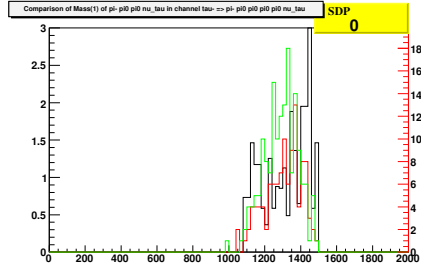
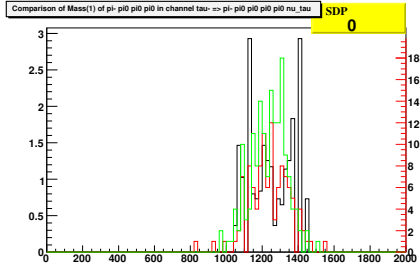
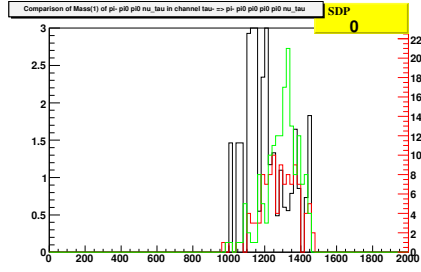
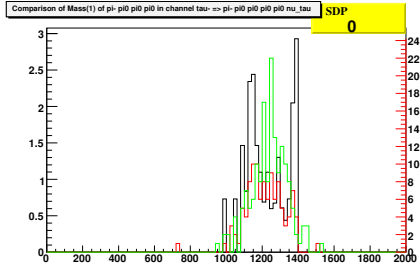
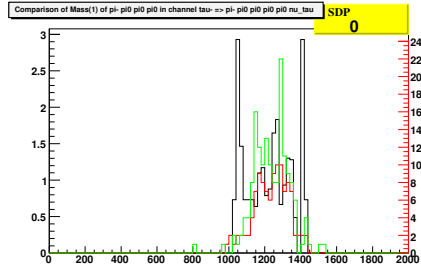
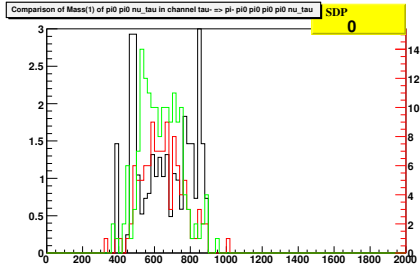
Number of events from generator 2: 164

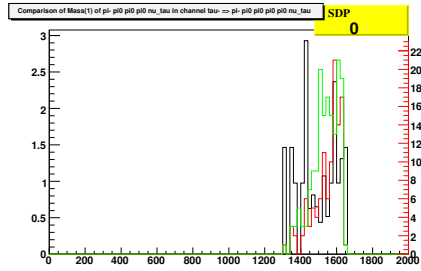
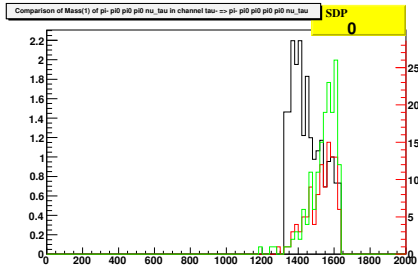
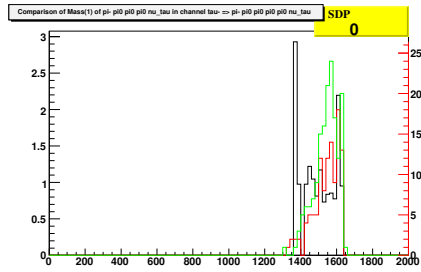
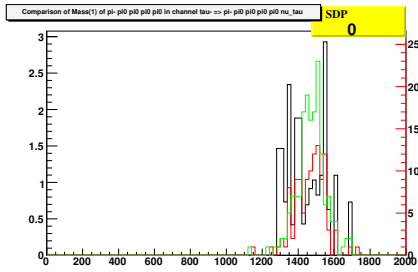
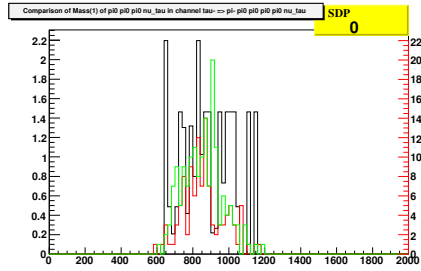
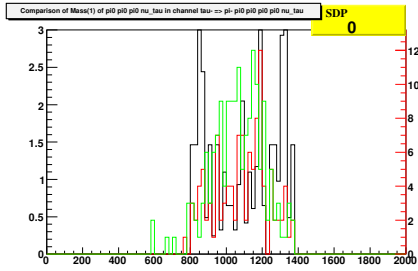
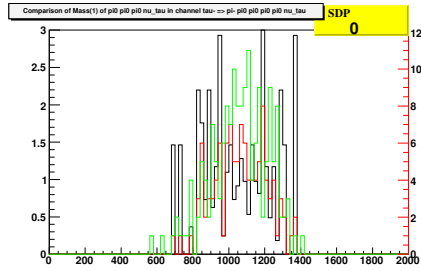
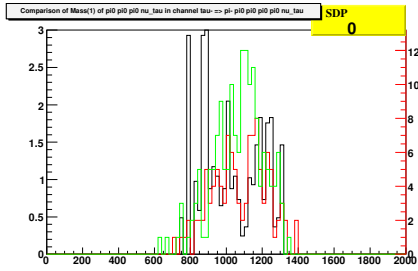
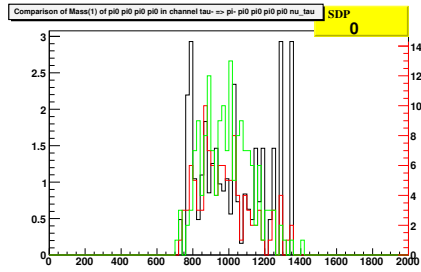
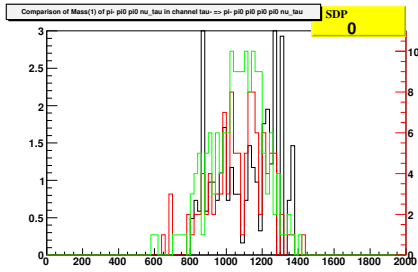


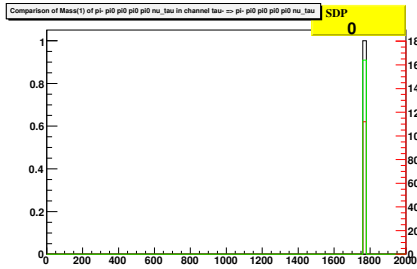
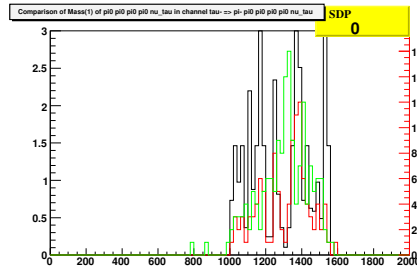
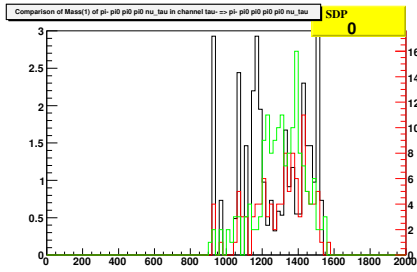








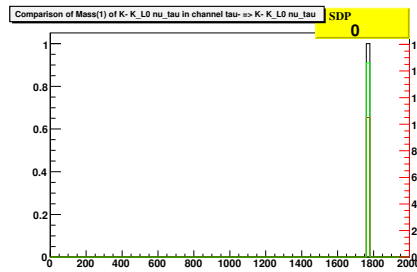
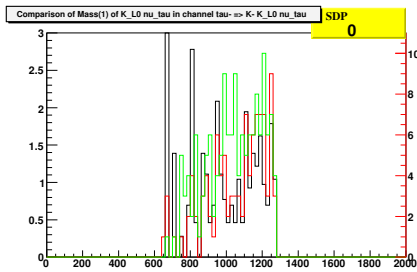
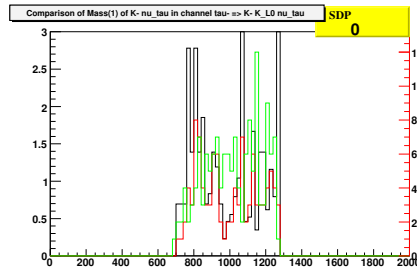
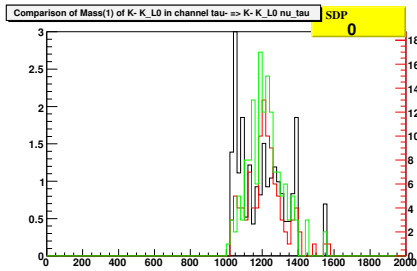




25 Decay Channel: $\tau^- \rightarrow K^- K_L^0 \nu_\tau$

Number of events from generator 1: 105

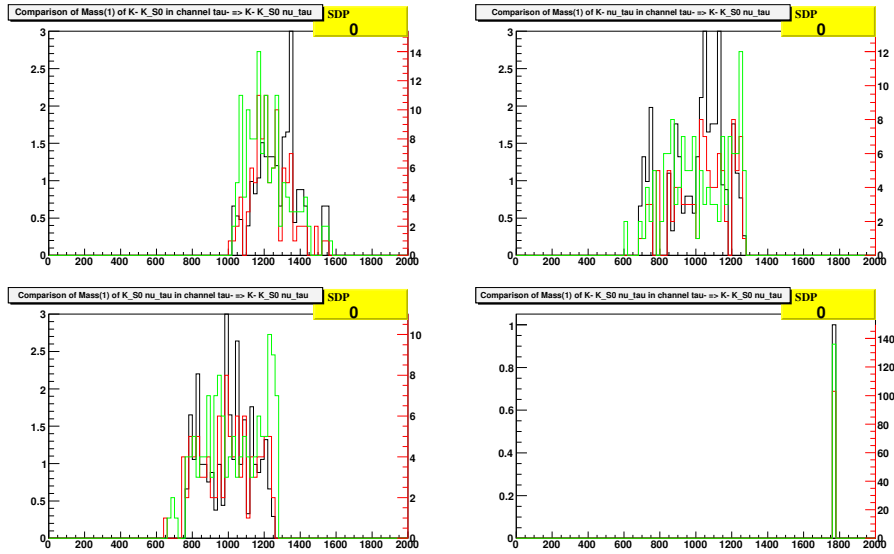
Number of events from generator 2: 146



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

Number of events from generator 1: 103

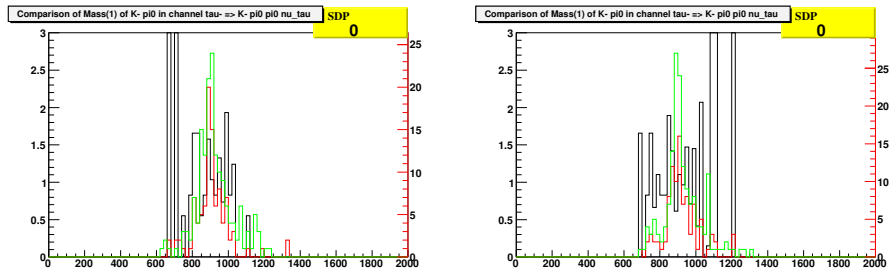
Number of events from generator 2: 136

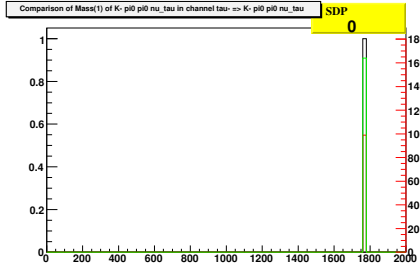
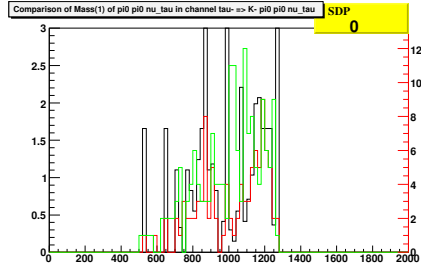
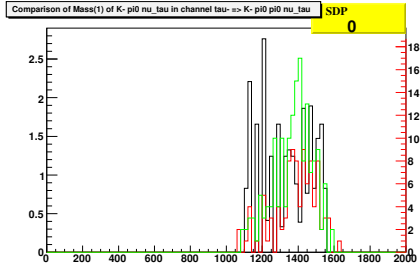
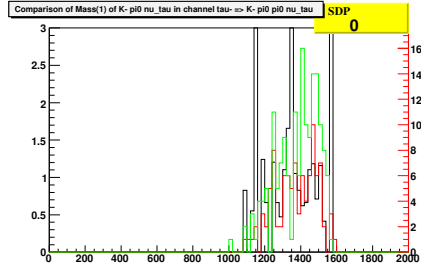
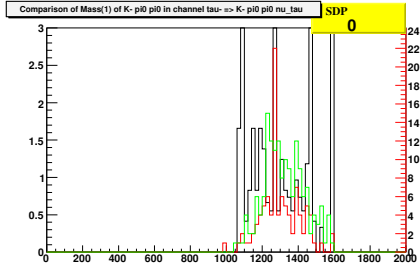
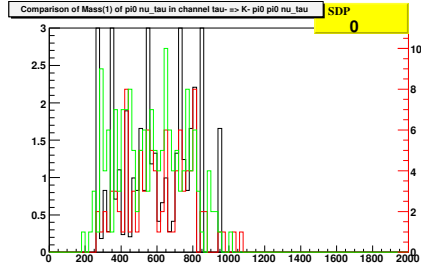
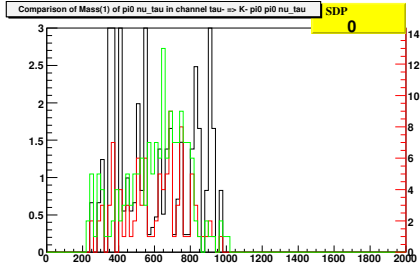
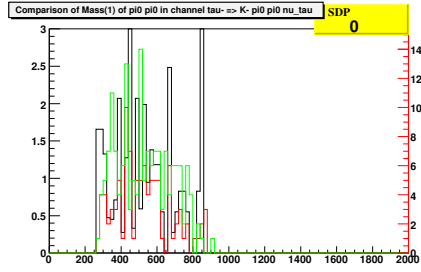
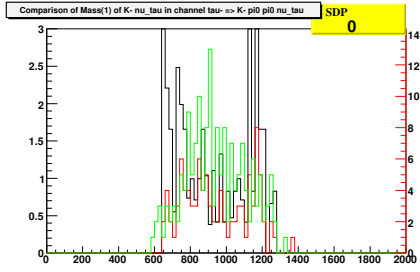


27 Decay Channel: $\tau^- \rightarrow K^- \pi^0 \pi^0 \nu_\tau$

Number of events from generator 1: 99

Number of events from generator 2: 164

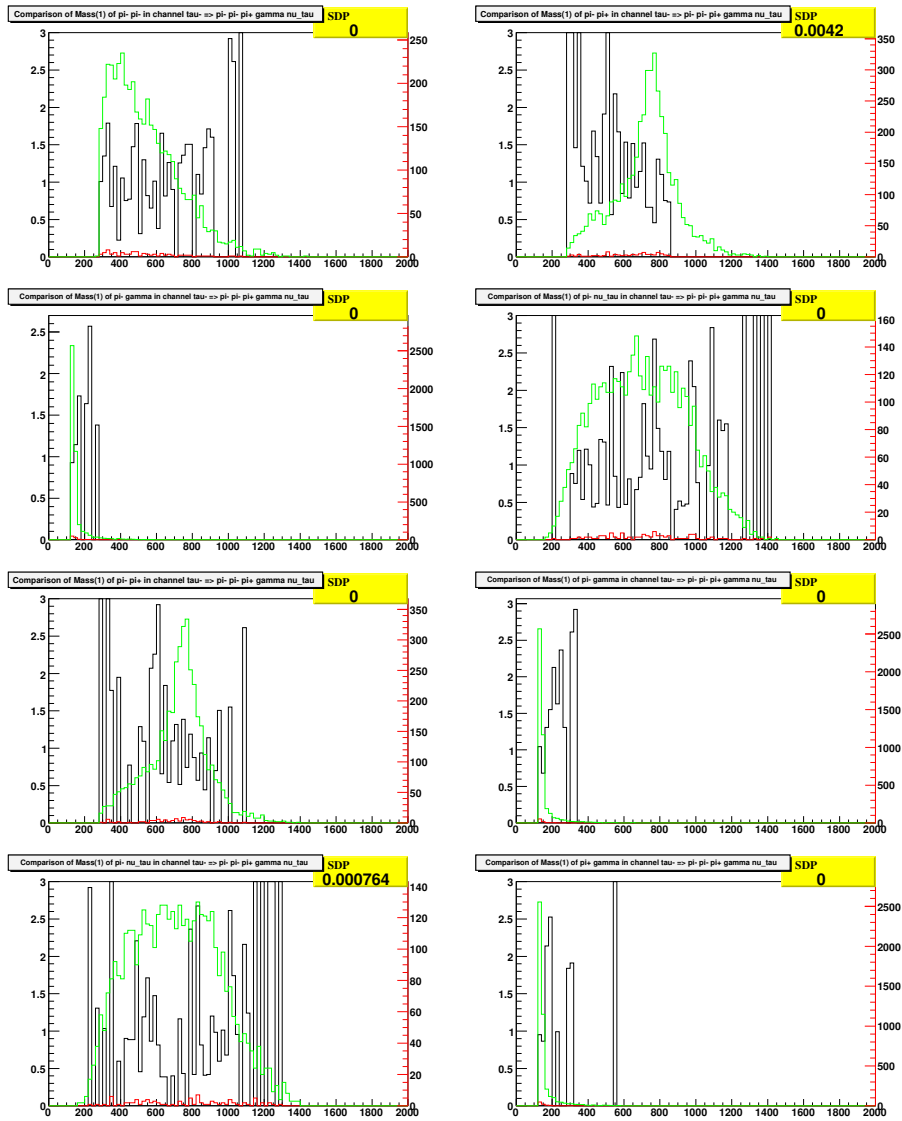


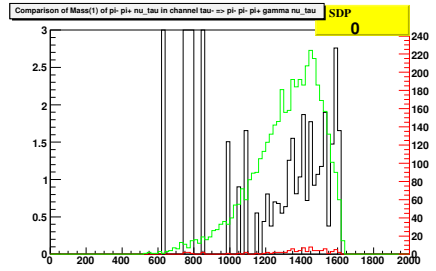
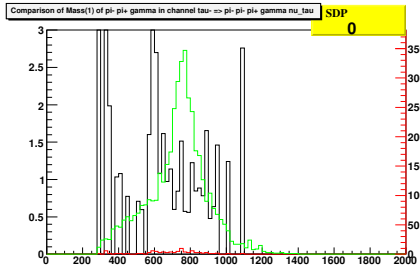
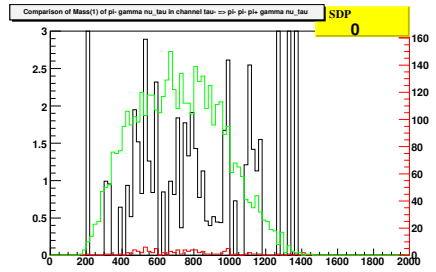
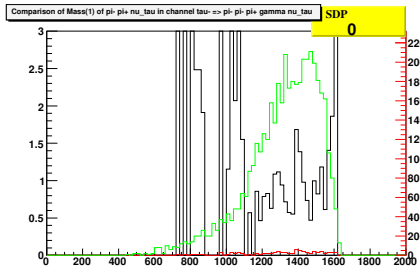
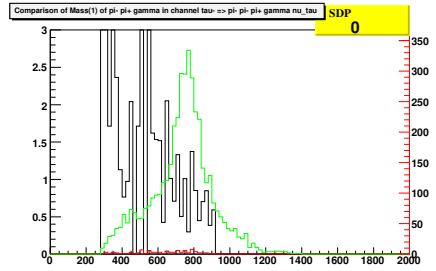
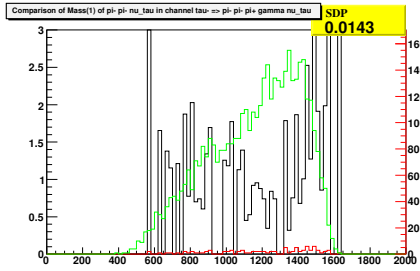
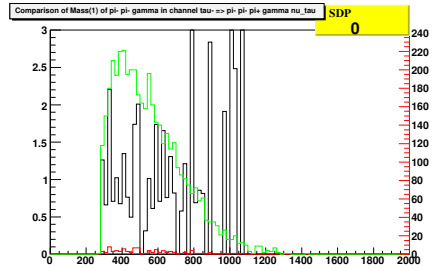
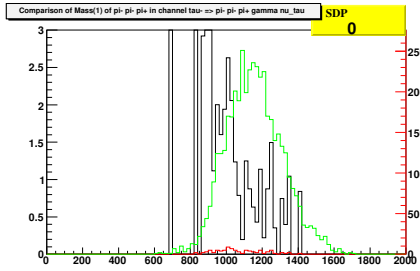
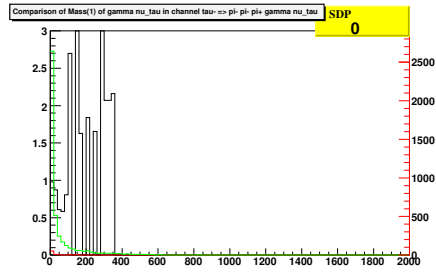
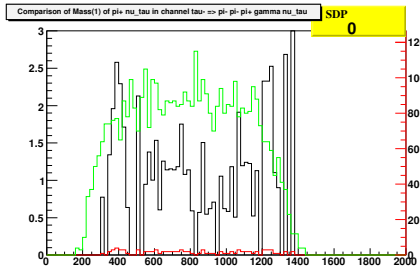


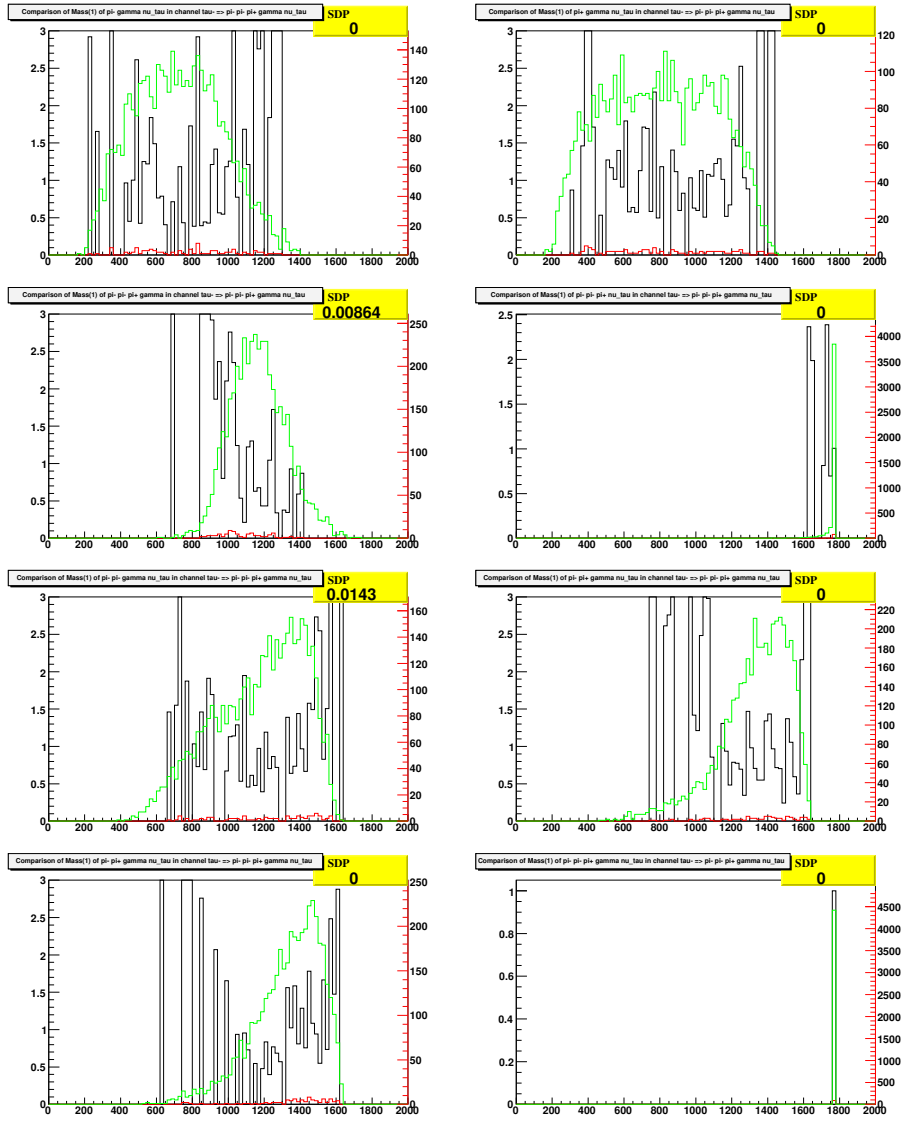
28 Decay Channel: $\tau^- \rightarrow \pi^- \pi^- \pi^+ \gamma \nu_\tau$

Number of events from **generator 1**: 89

Number of events from **generator 2**: 4420



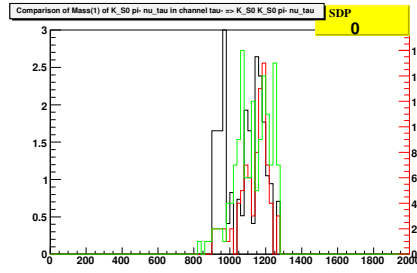
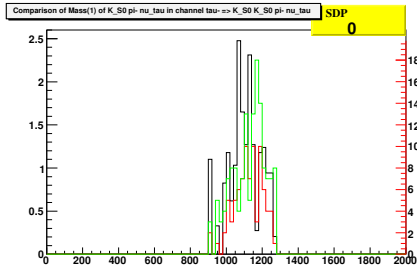
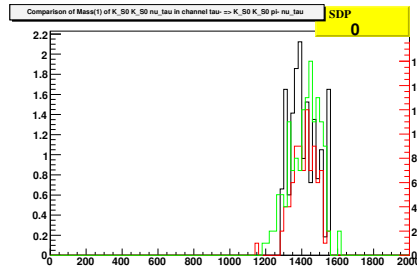
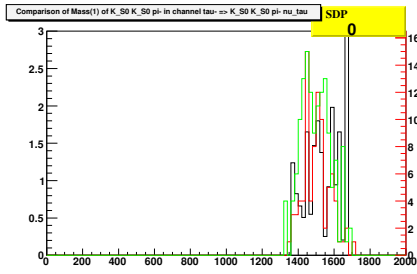
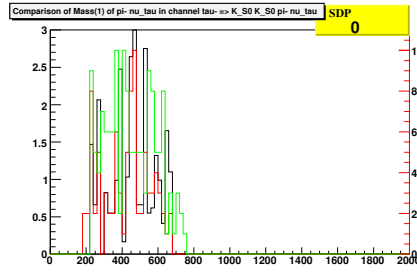
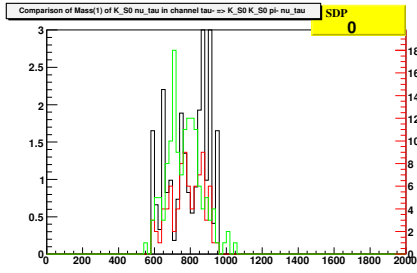
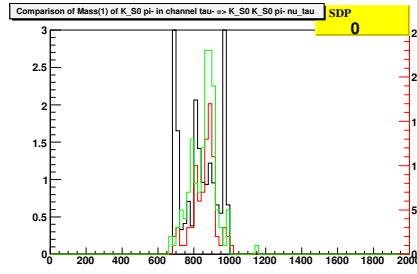
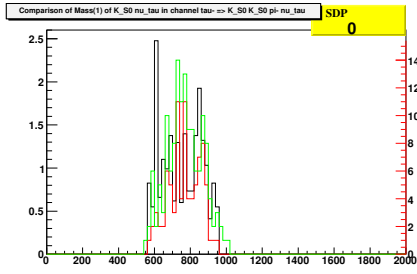
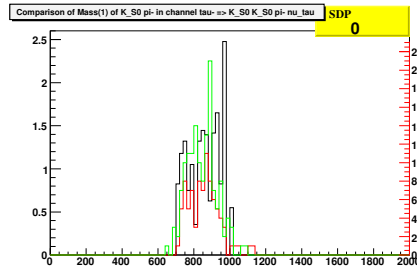
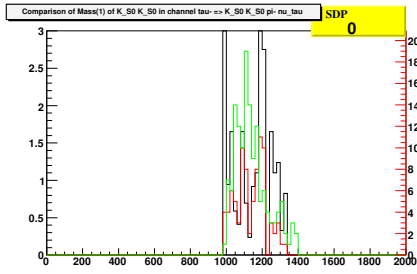


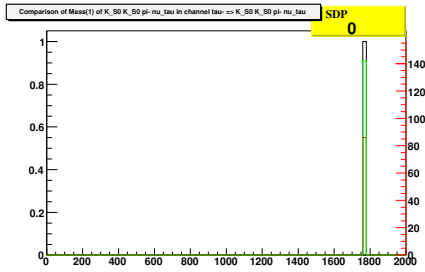


29 Decay Channel: $\tau^- \rightarrow K_S^0 K_S^0 \pi^- \nu_\tau$

Number of events from generator 1: 86

Number of events from generator 2: 142

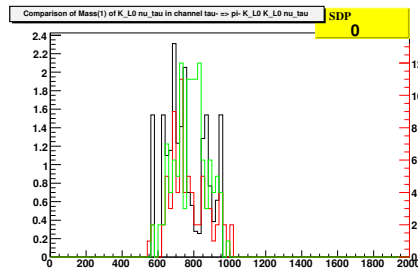
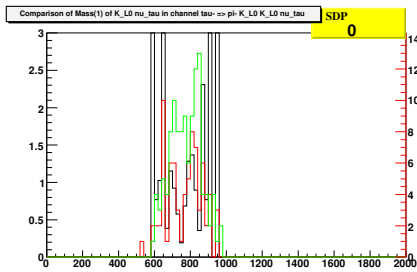
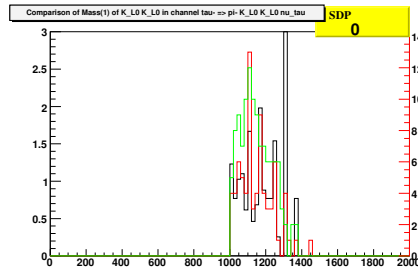
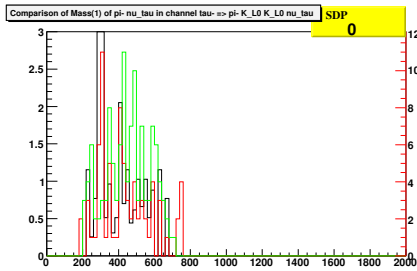
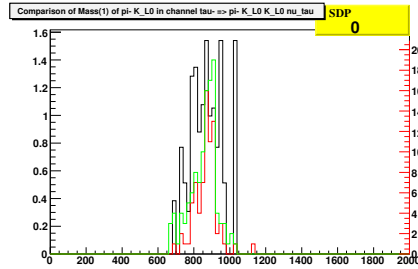
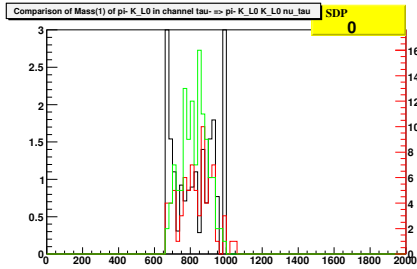


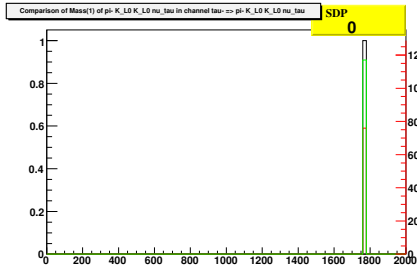
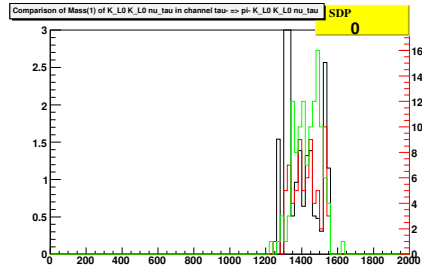
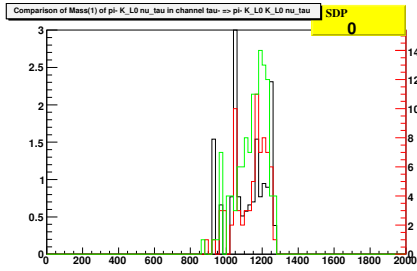
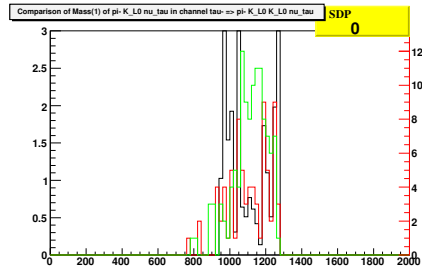
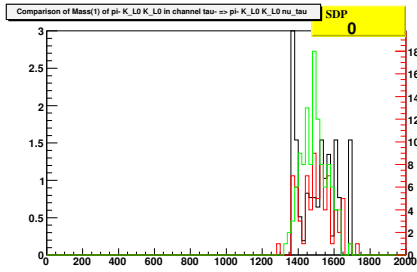


30 Decay Channel: $\tau^- \rightarrow \pi^- K_L^0 K_L^0 \nu_\tau$

Number of events from generator 1: 76

Number of events from generator 2: 117

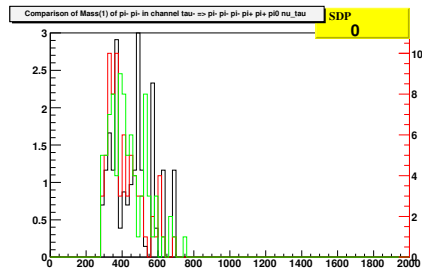
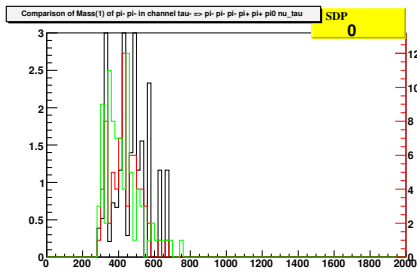


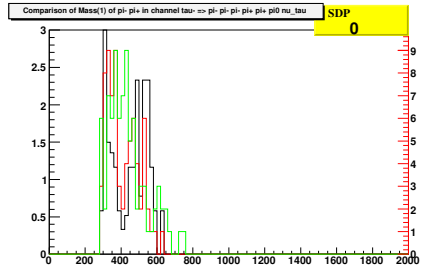
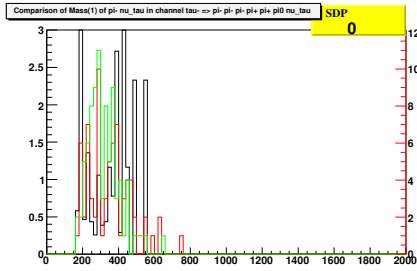
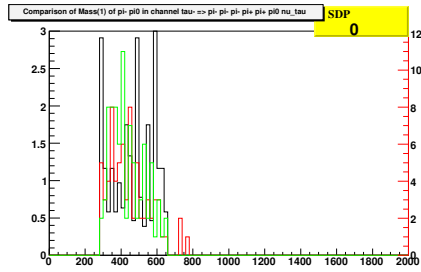
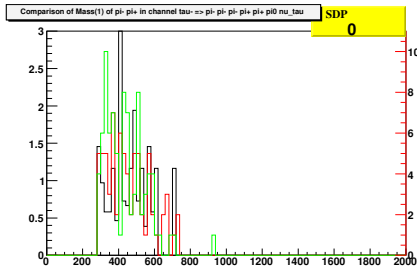
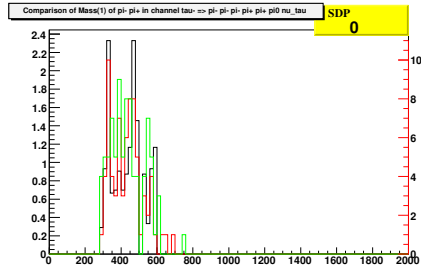
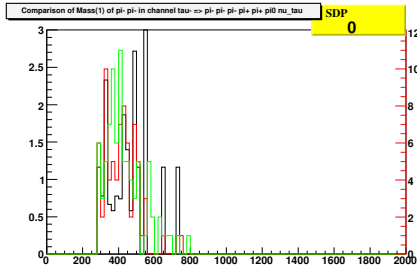
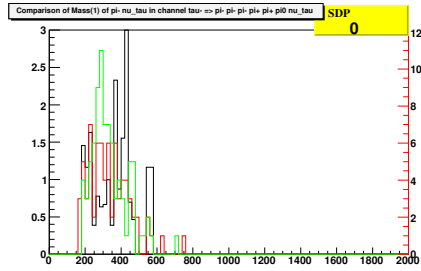
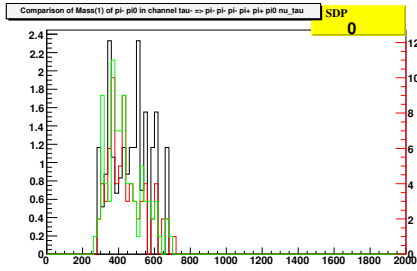
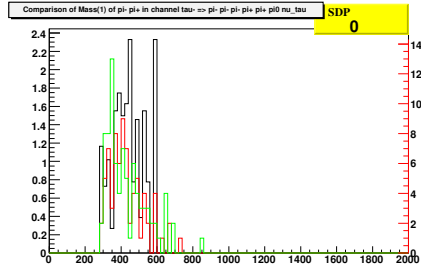
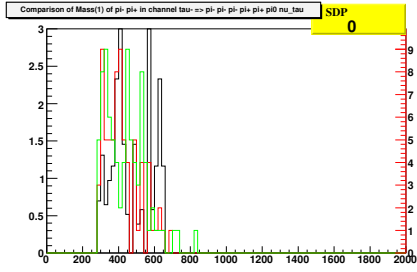


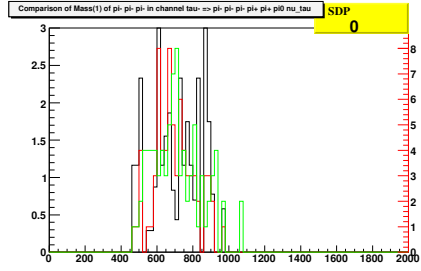
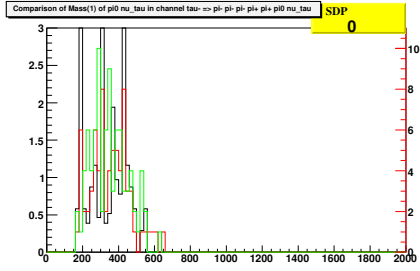
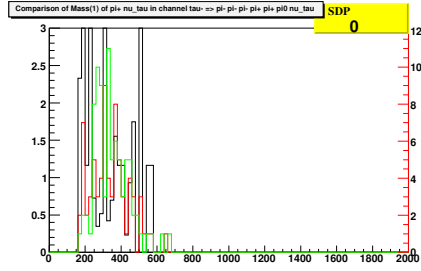
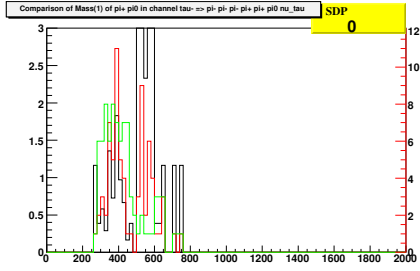
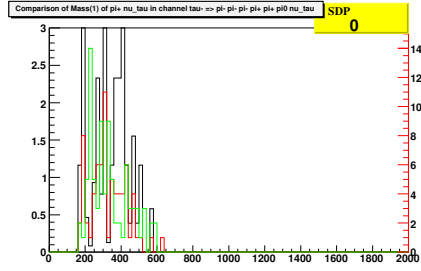
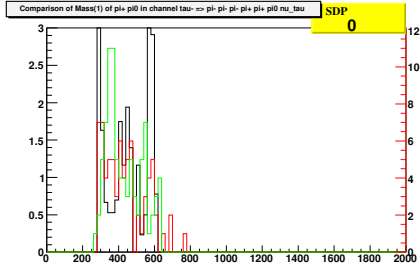
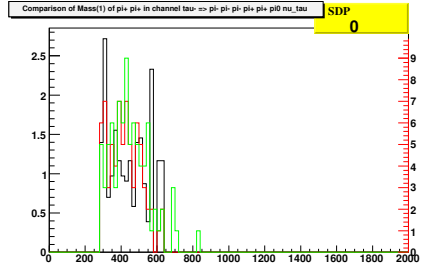
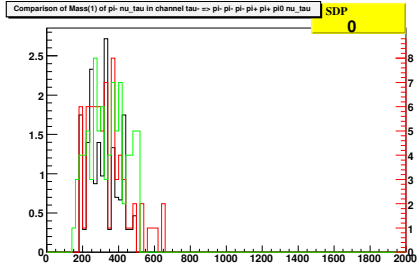
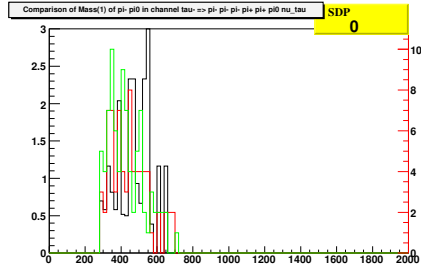
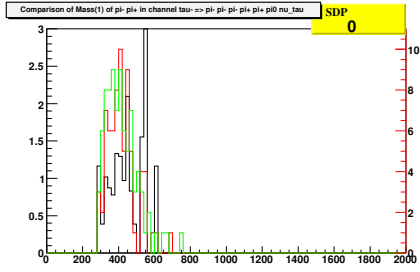
31 Decay Channel: $\tau^- \rightarrow \pi^- \pi^- \pi^- \pi^+ \pi^+ \pi^0 \nu_\tau$

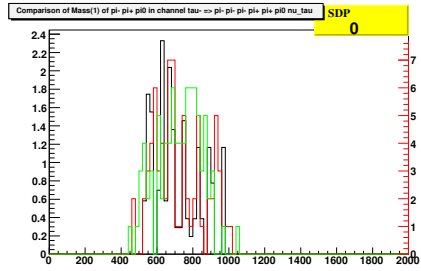
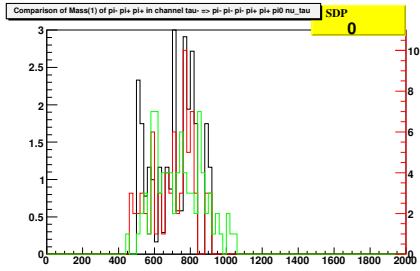
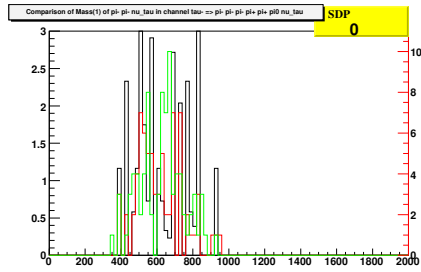
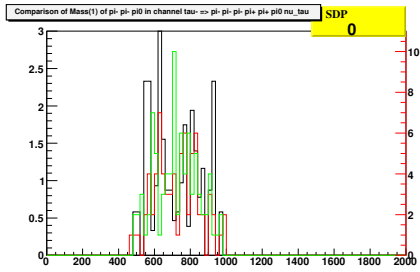
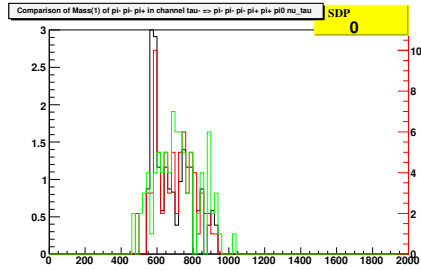
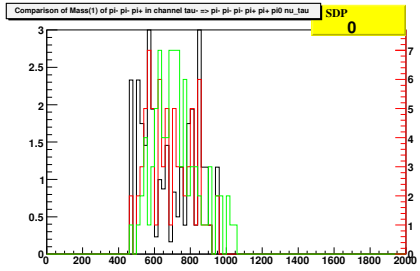
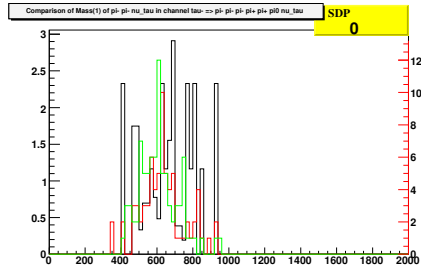
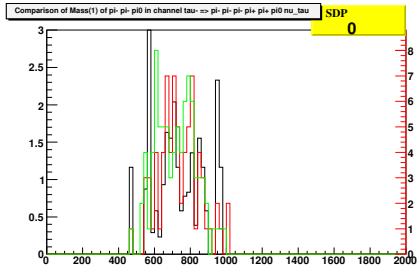
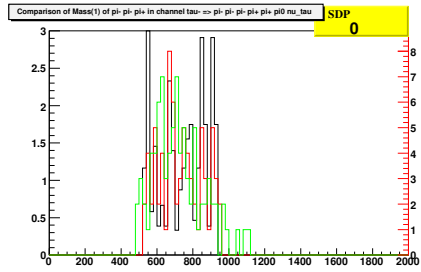
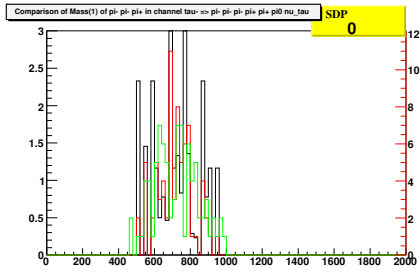
Number of events from generator 1: 73

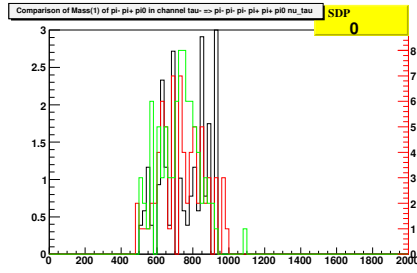
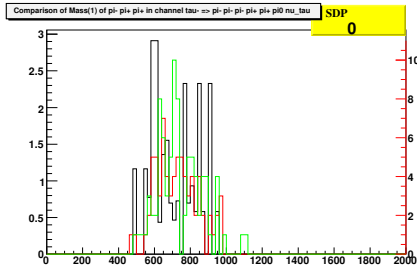
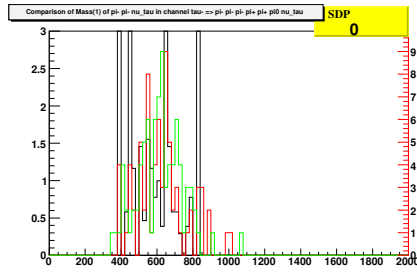
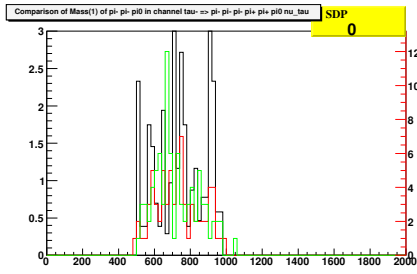
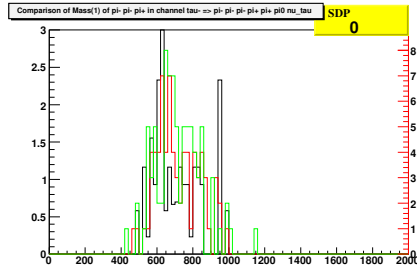
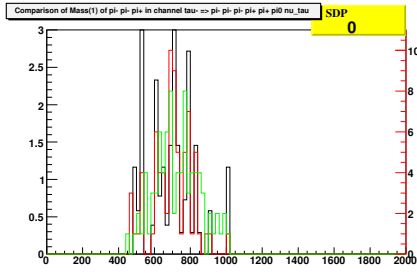
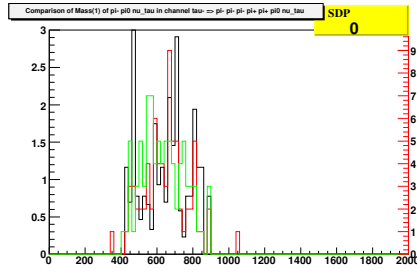
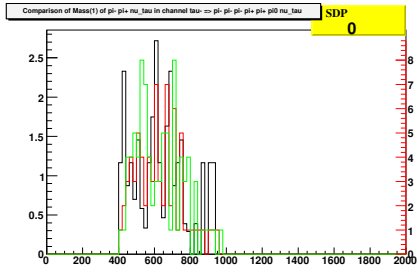
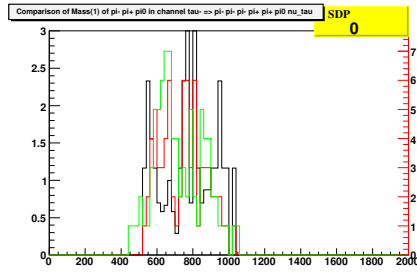
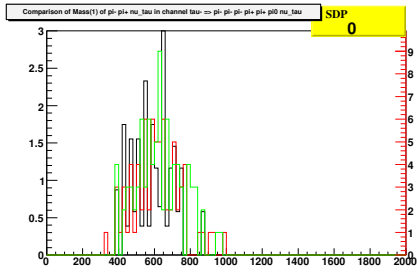
Number of events from generator 2: 85

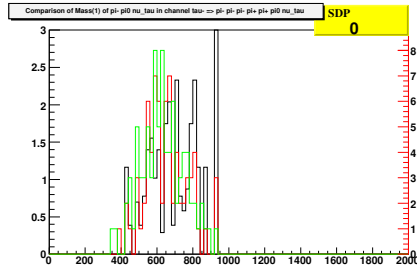
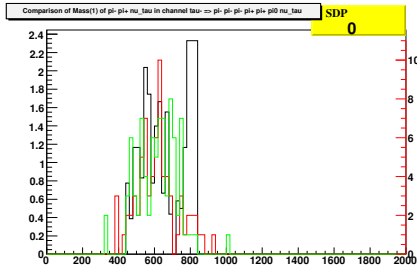
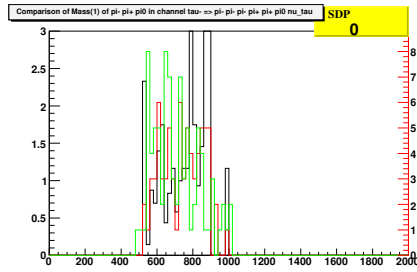
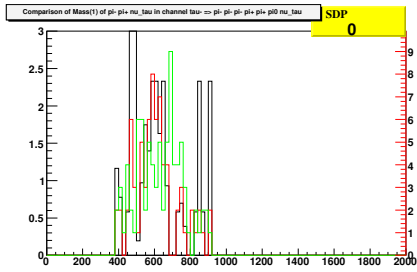
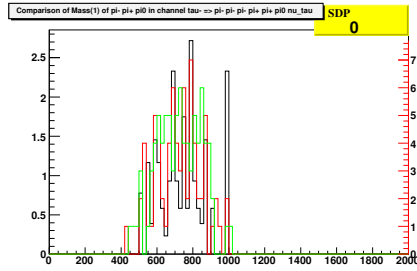
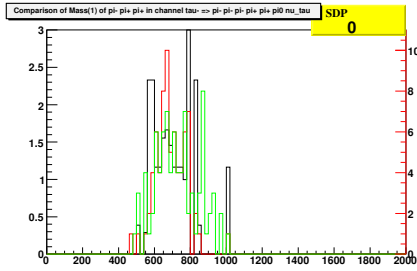
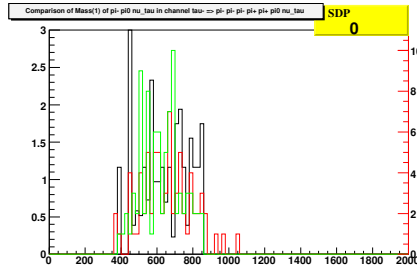
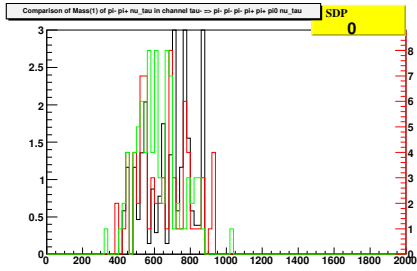
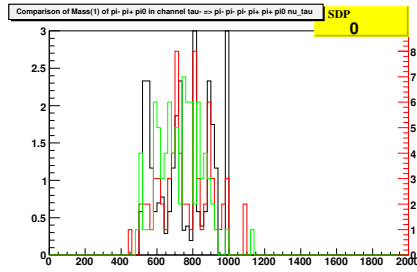
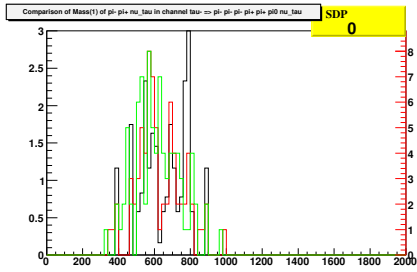


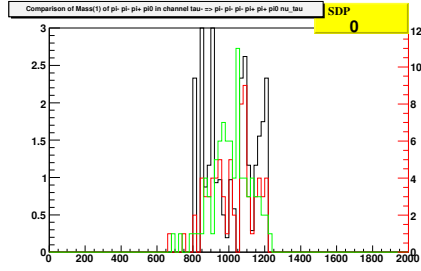
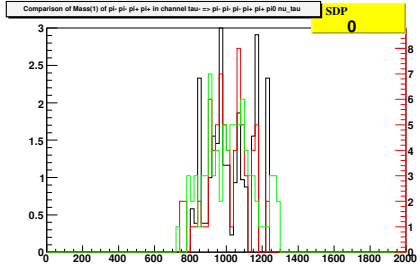
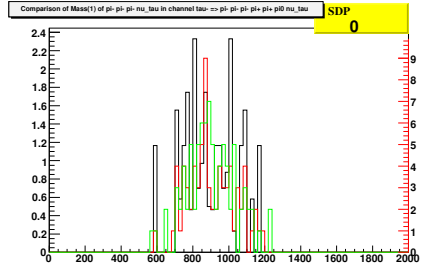
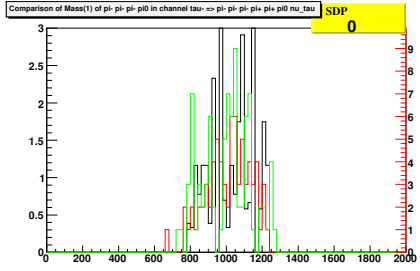
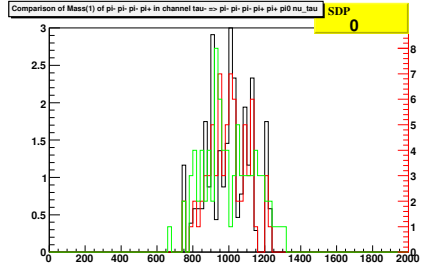
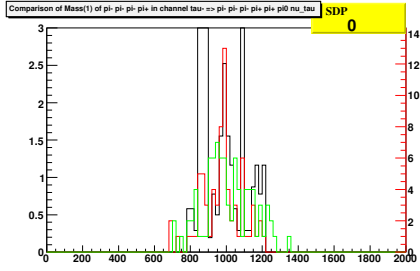
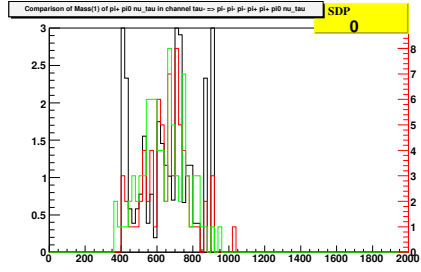
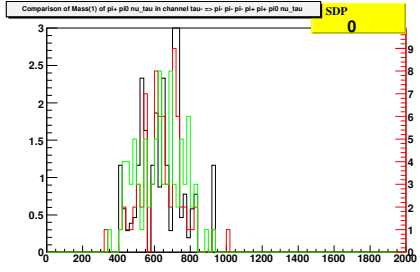
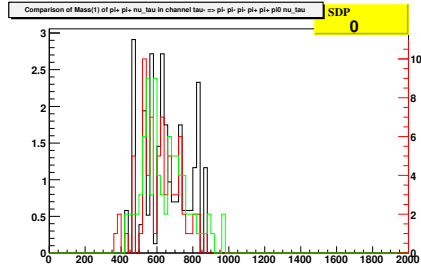
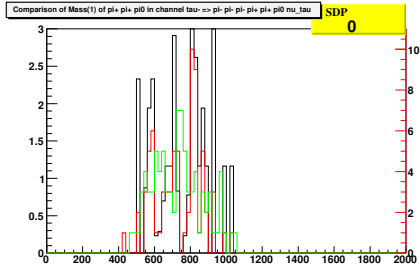


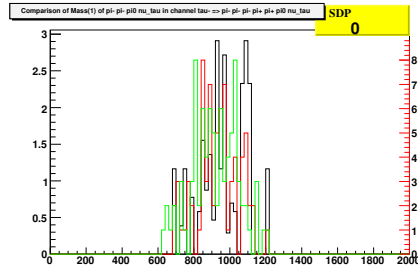
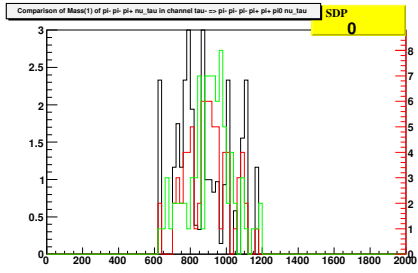
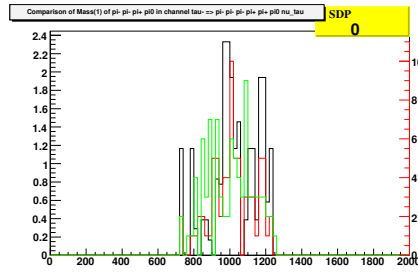
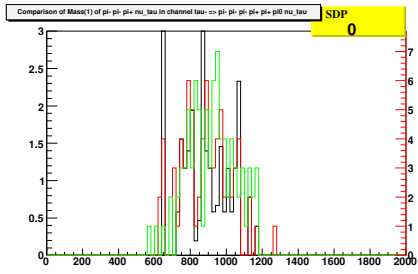
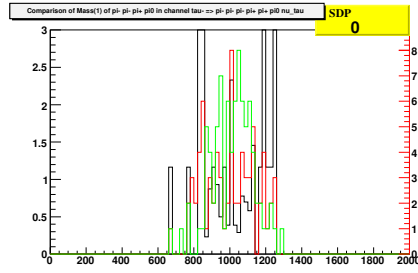
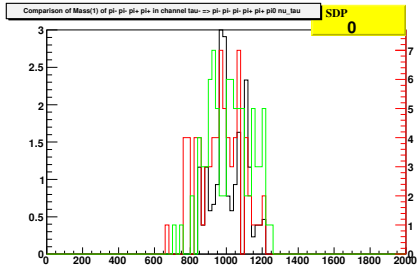
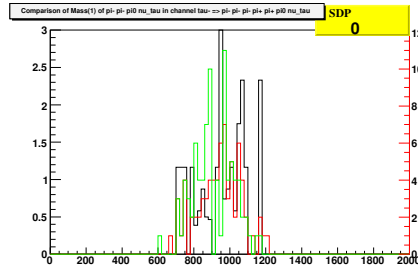
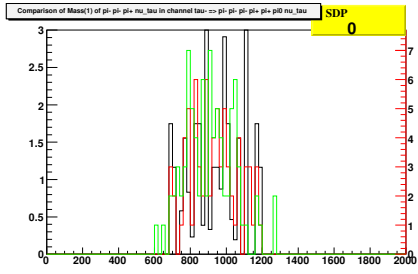
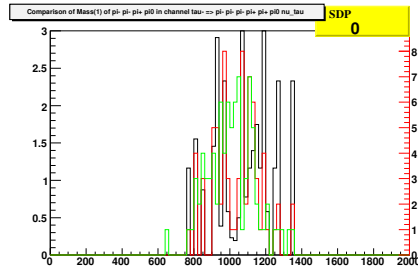
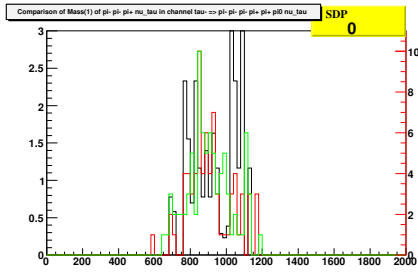


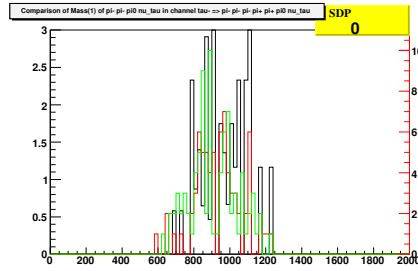
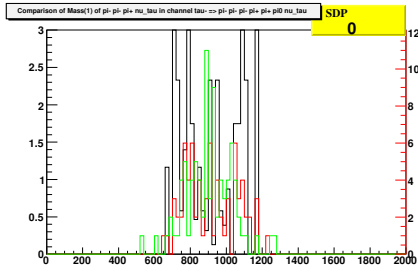
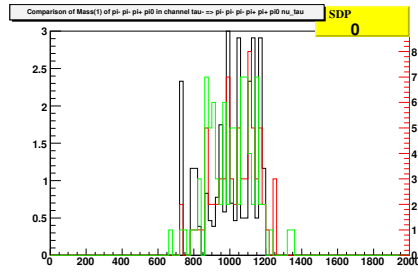
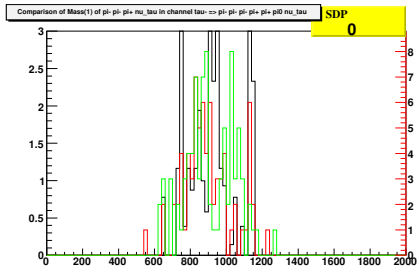
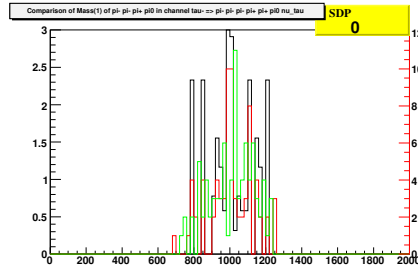
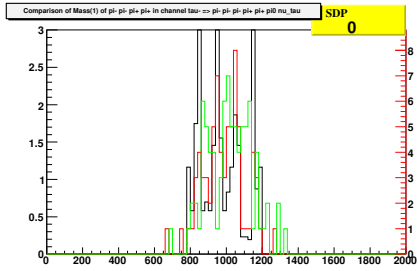
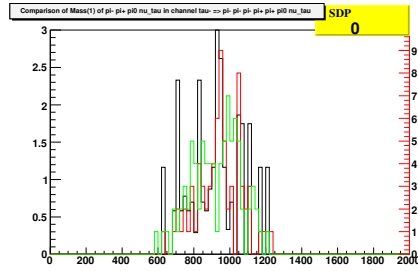
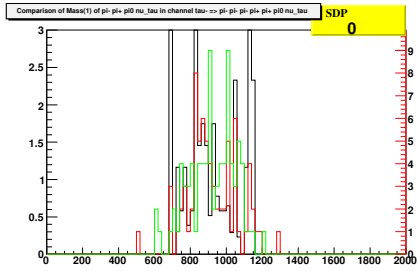
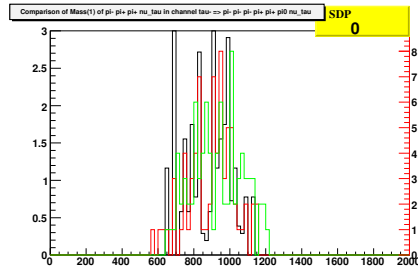
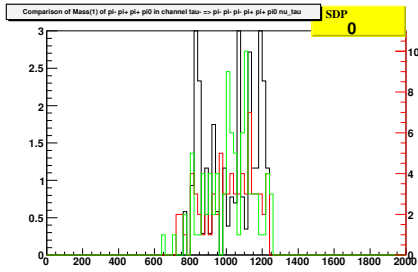


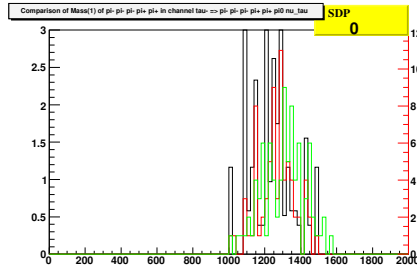
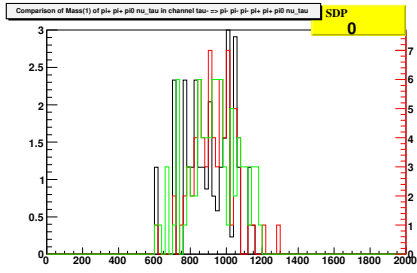
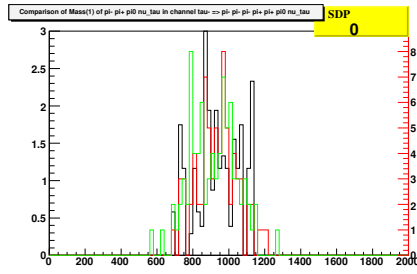
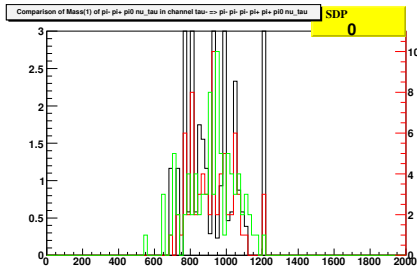
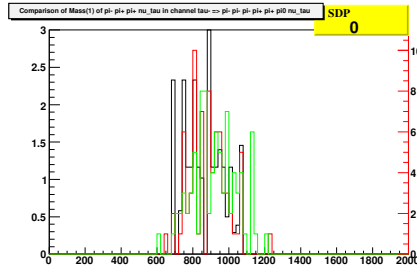
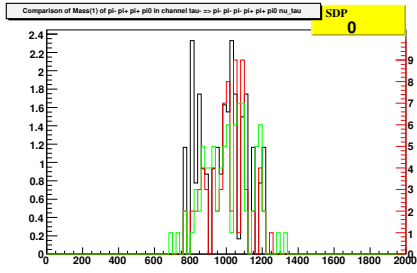
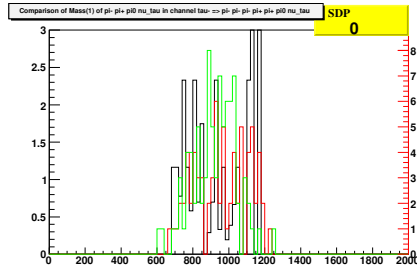
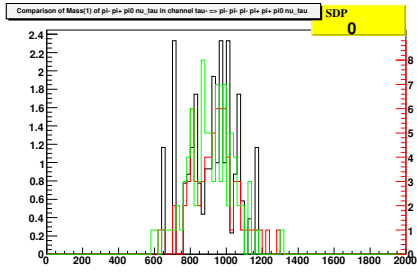
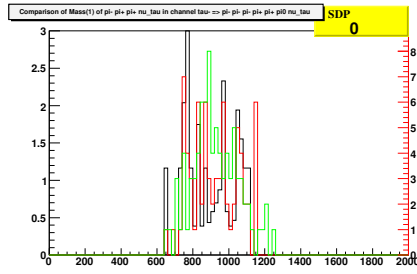
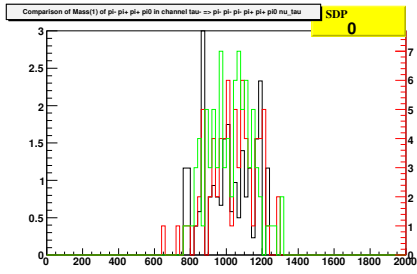


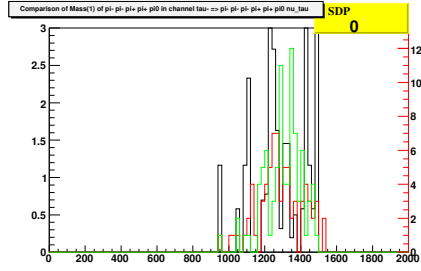
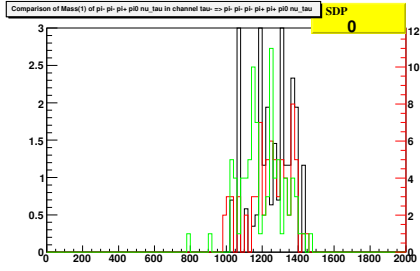
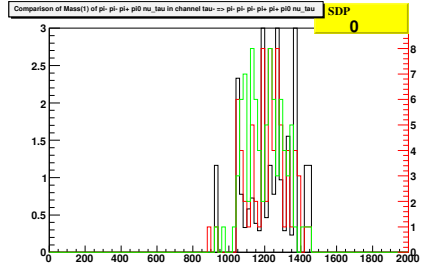
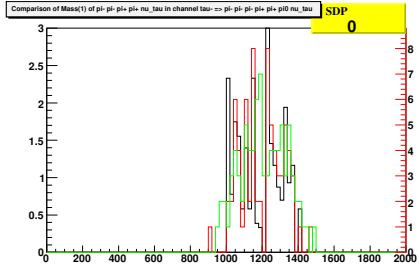
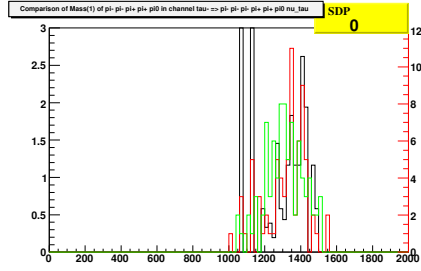
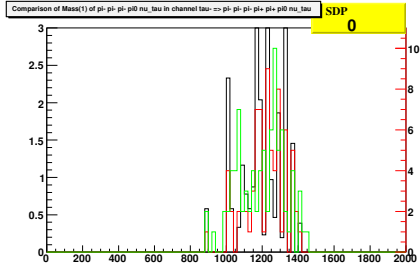
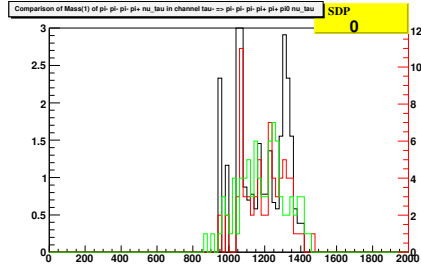
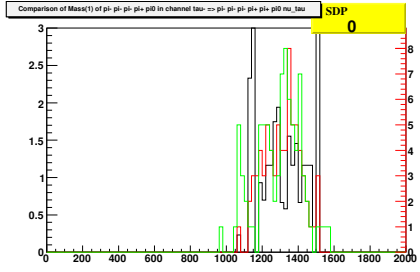
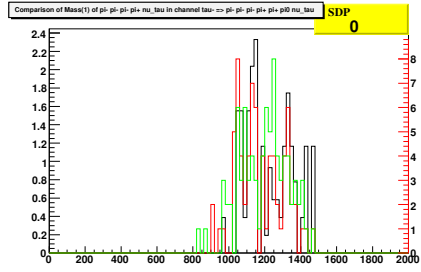
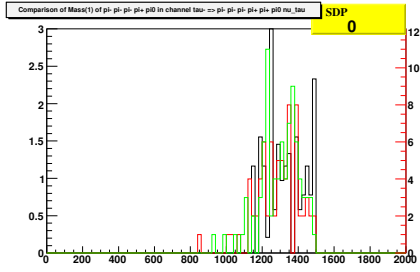


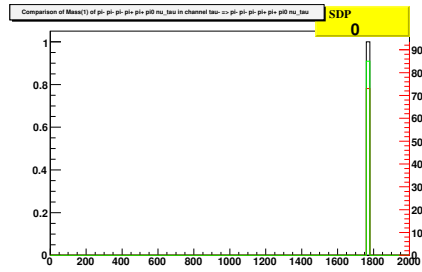
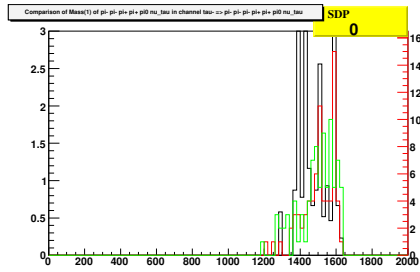
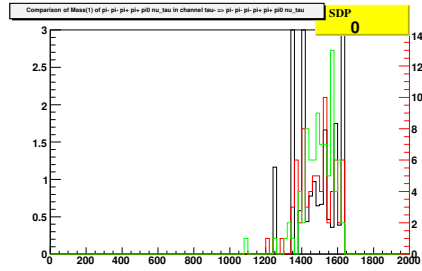
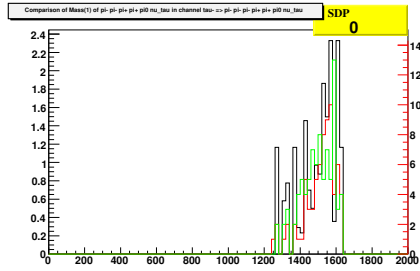
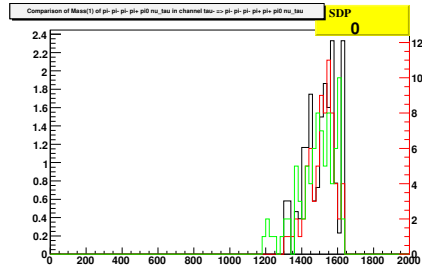
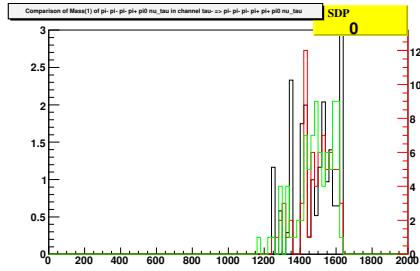
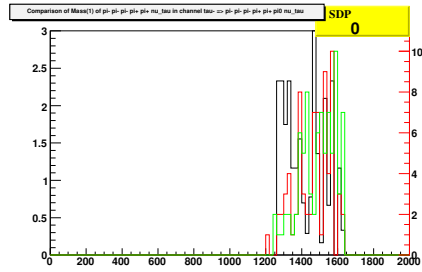
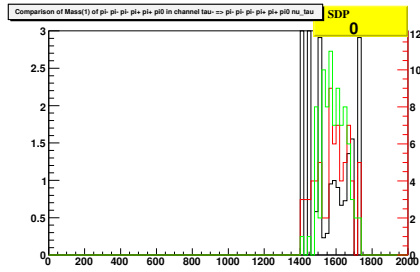








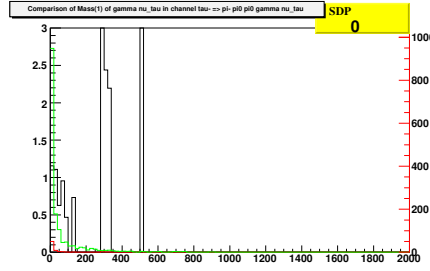
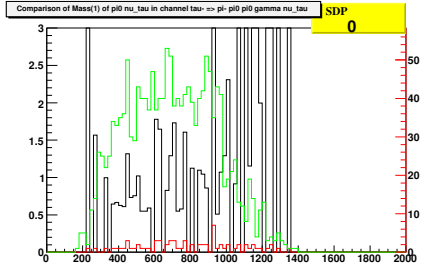
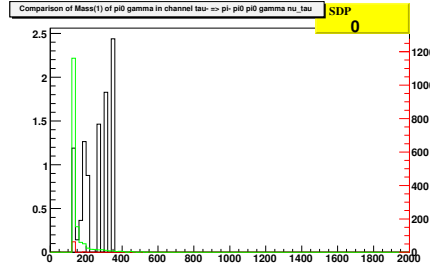
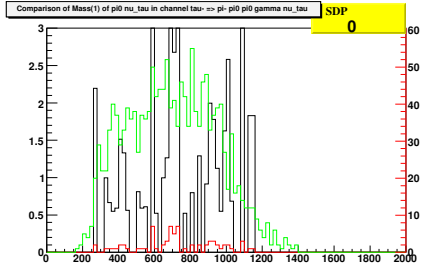
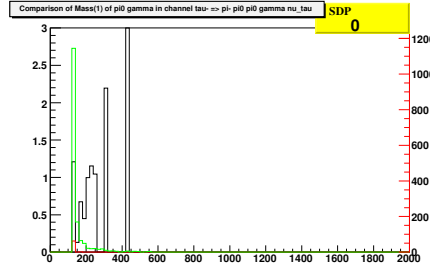
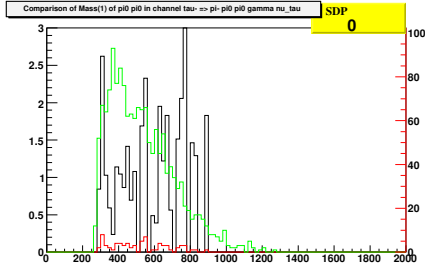
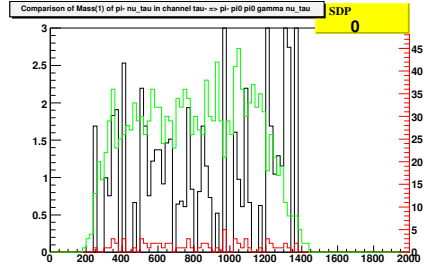
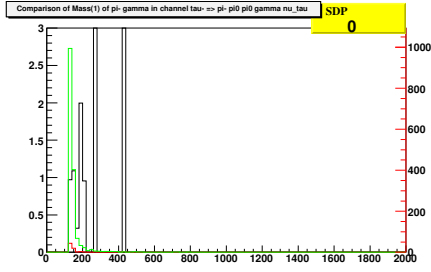
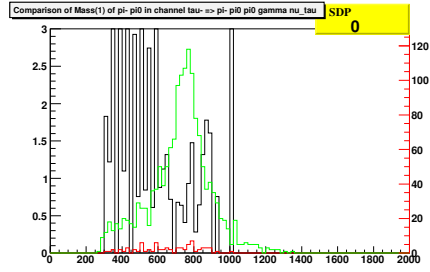
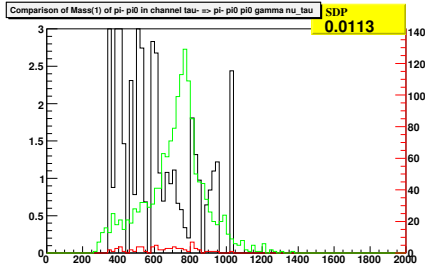


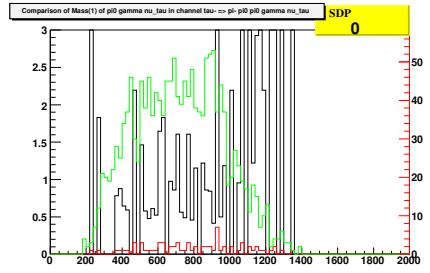
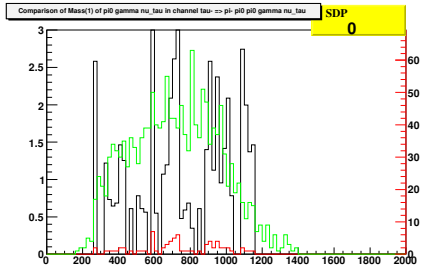
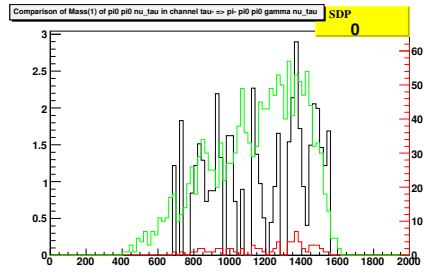
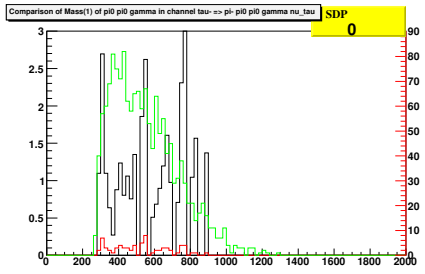
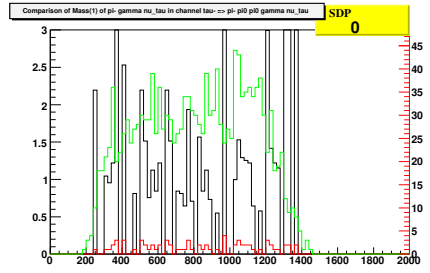
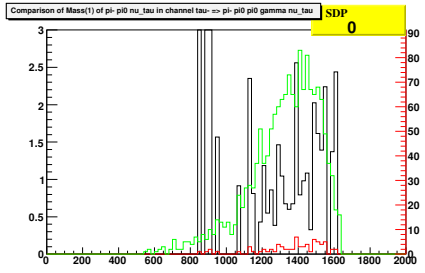
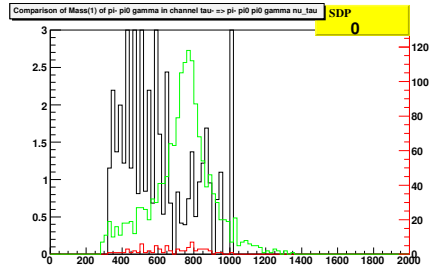
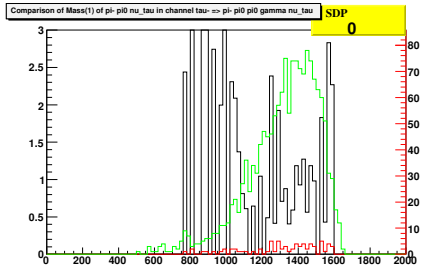
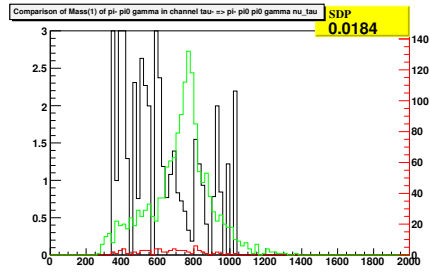
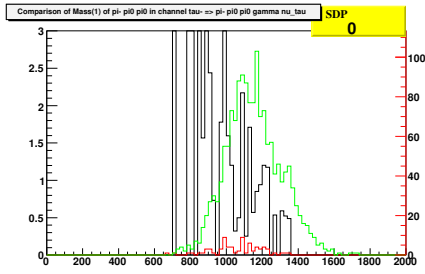


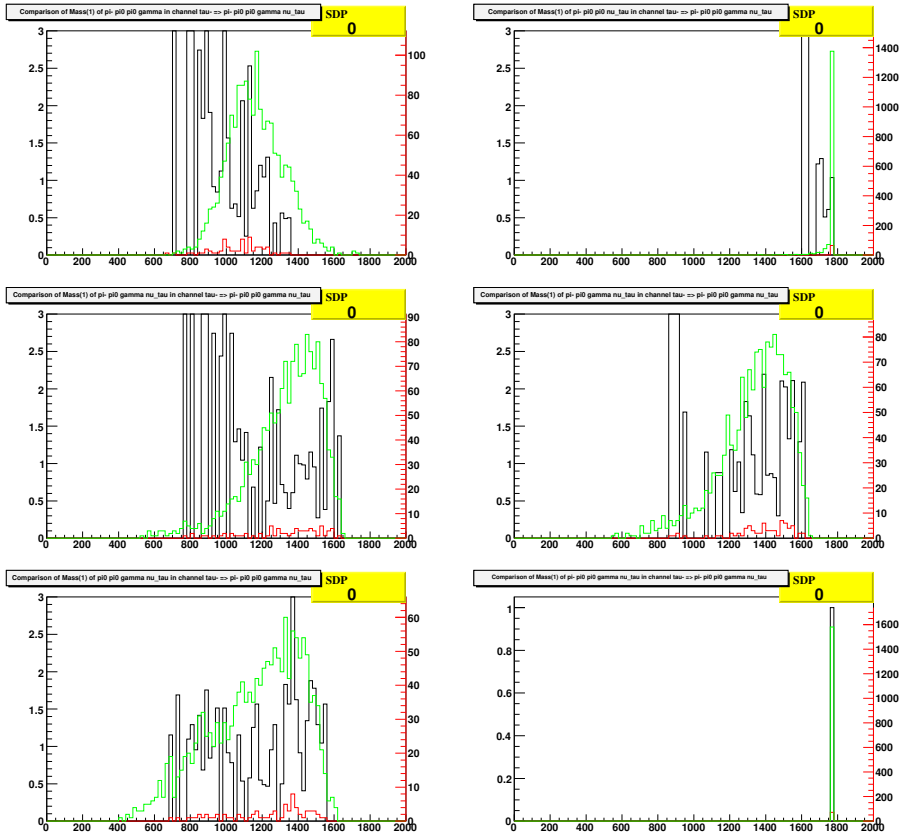
32 Decay Channel: $\tau^- \rightarrow \pi^- \pi^0 \pi^0 \gamma \nu_\tau$

Number of events from generator 1: 72

Number of events from generator 2: 1580



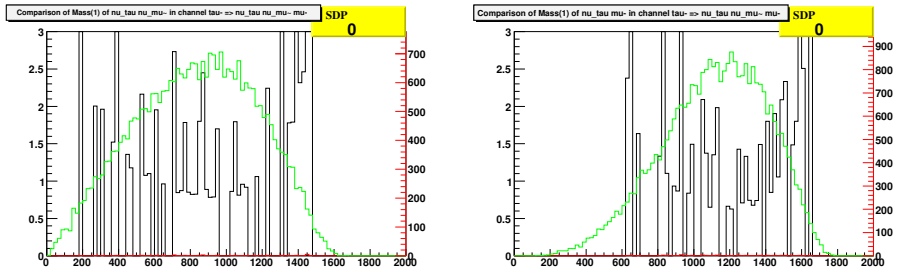


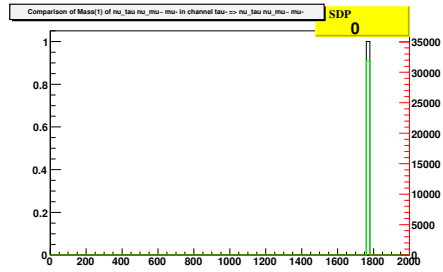
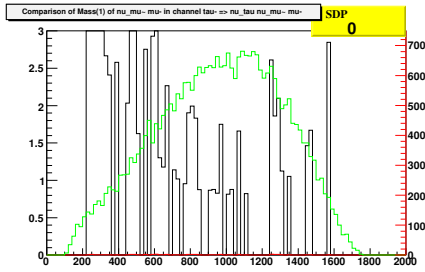


33 Decay Channel: $\tau^- \rightarrow \nu_\tau \tilde{\nu}_\mu \mu^-$

Number of events from generator 1: 58

Number of events from generator 2: 31862

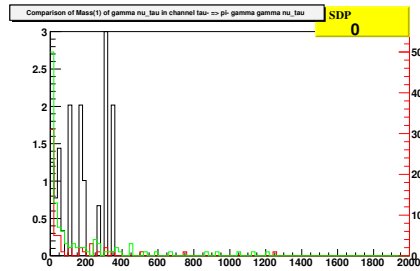
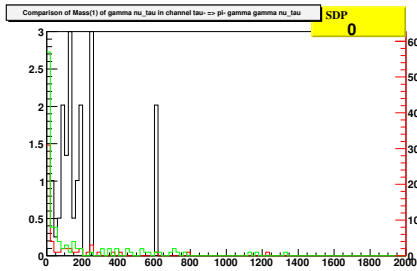
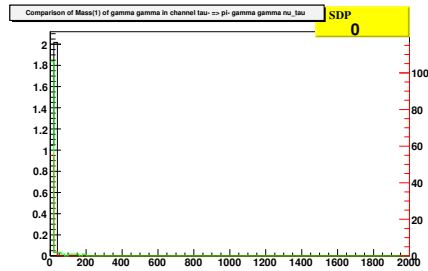
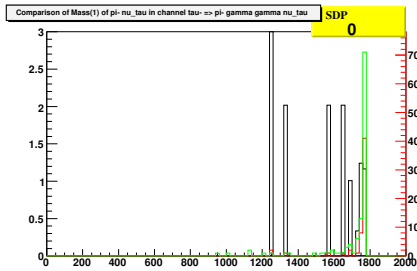
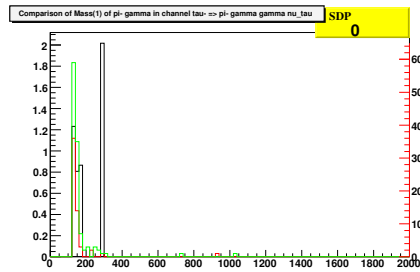
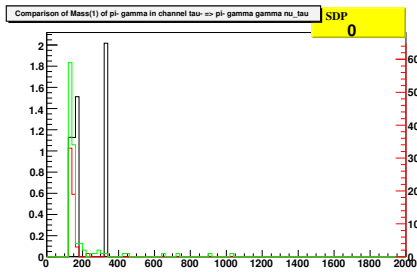


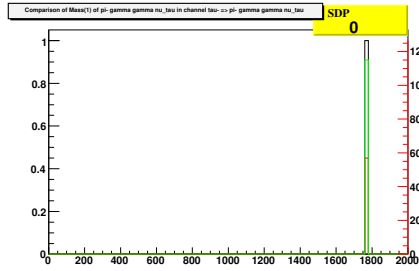
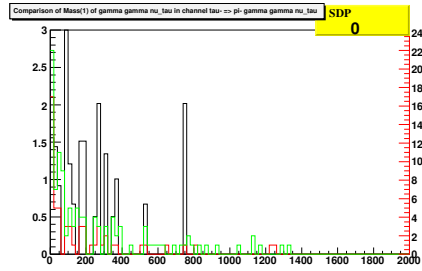
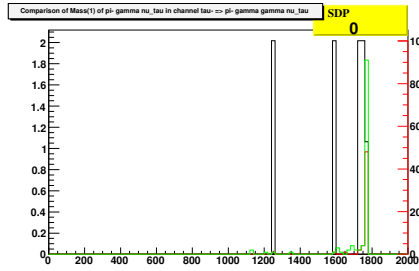
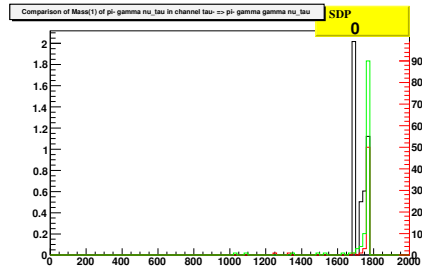
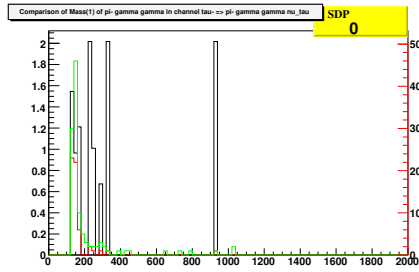


34 Decay Channel: $\tau^- \rightarrow \pi^- \gamma \nu_\tau$

Number of events from generator 1: 57

Number of events from generator 2: 115

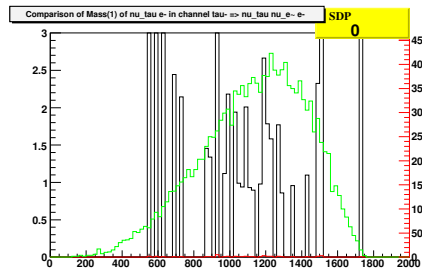
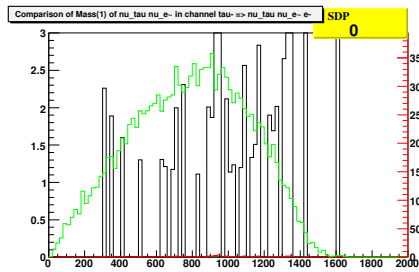


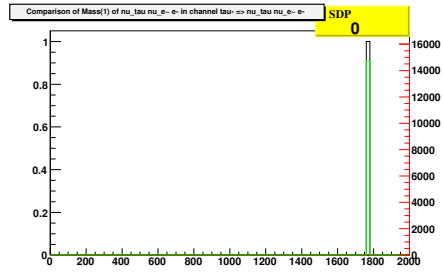
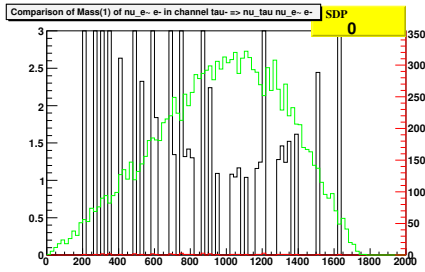


35 Decay Channel: $\tau^- \rightarrow \nu_\tau \tilde{\nu}_e e^-$

Number of events from generator 1: 44

Number of events from generator 2: 14729

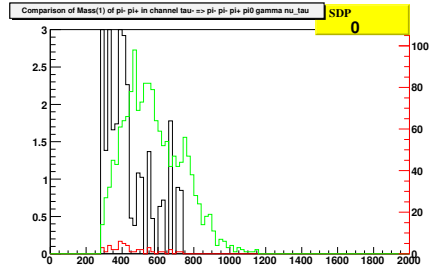
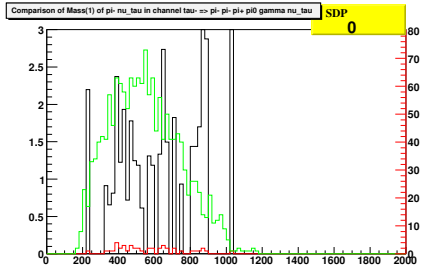
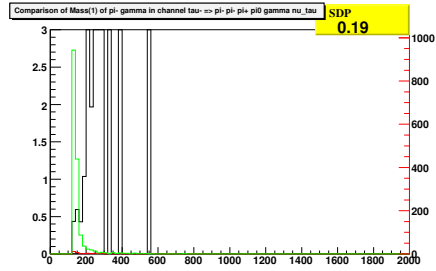
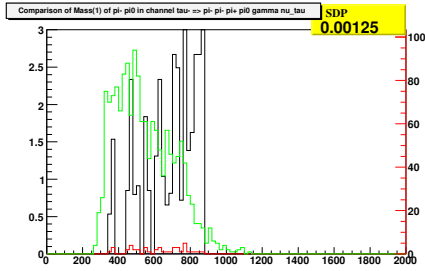
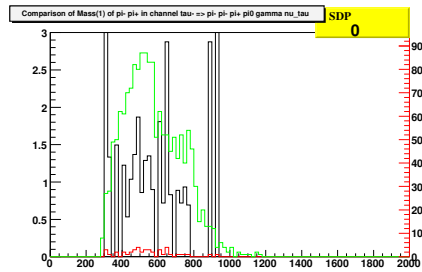
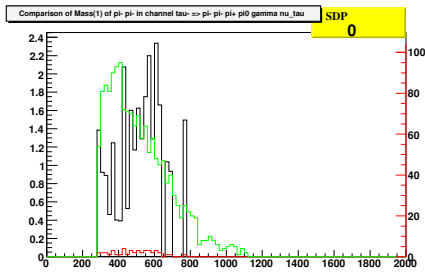


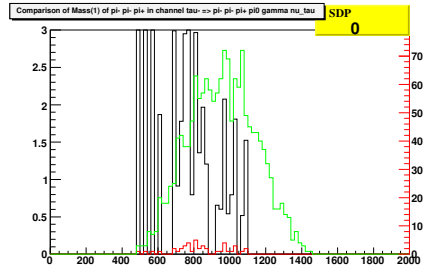
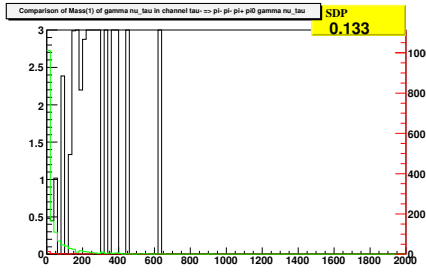
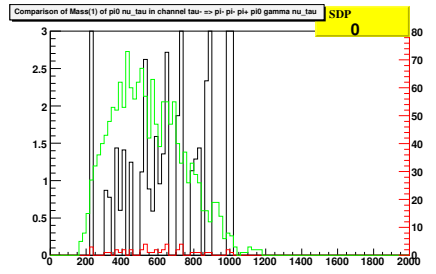
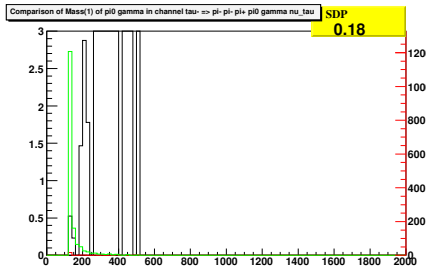
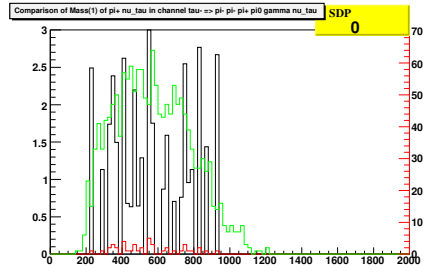
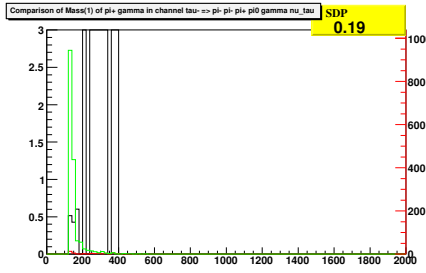
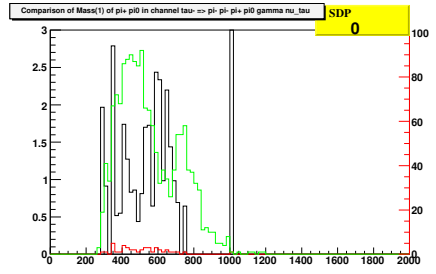
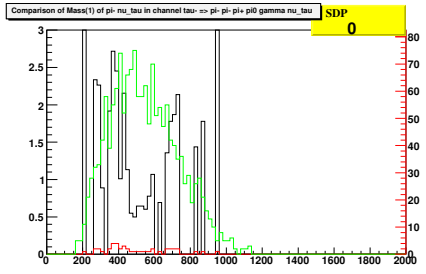
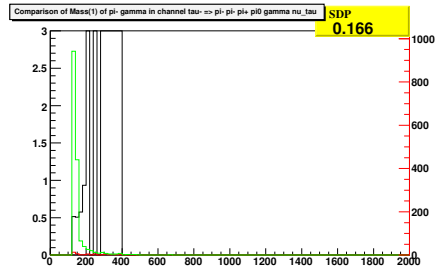
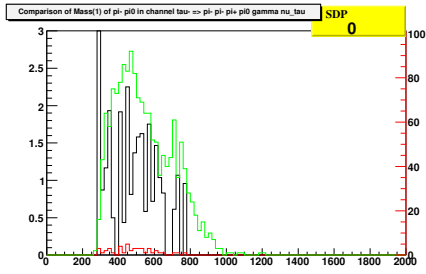


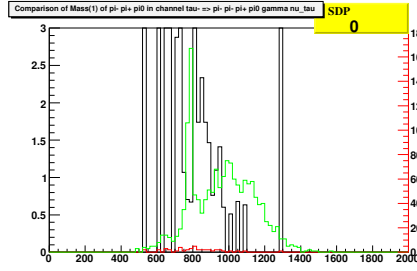
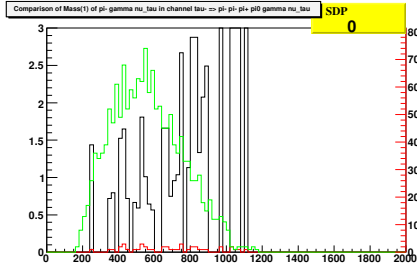
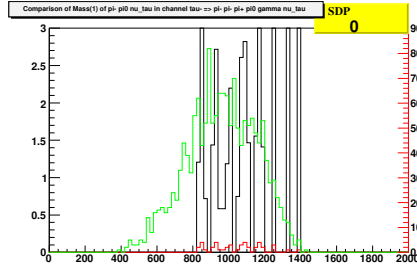
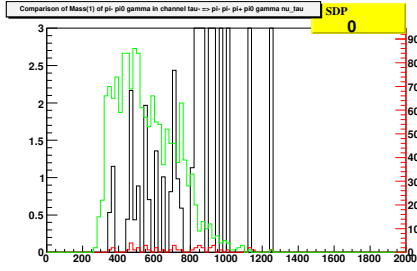
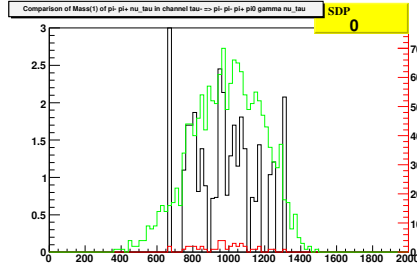
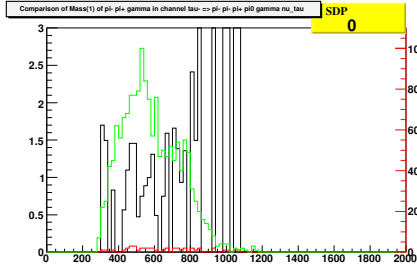
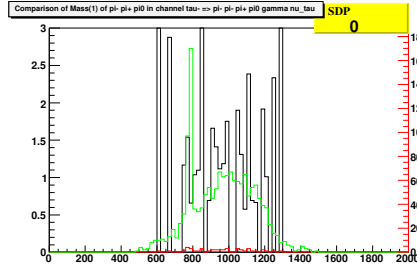
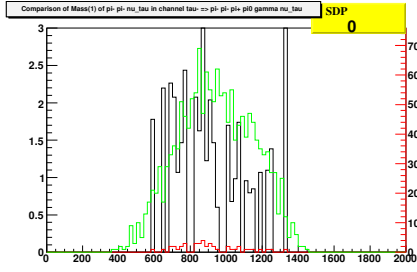
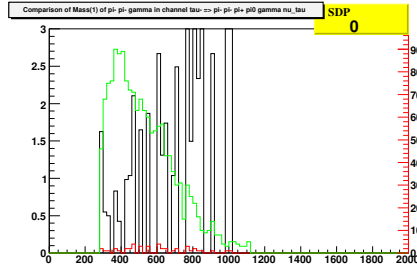
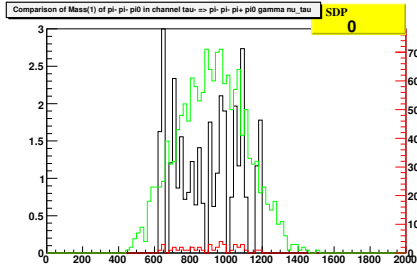
36 Decay Channel: $\tau^- \rightarrow \pi^- \pi^- \pi^+ \pi^0 \gamma \nu_\tau$

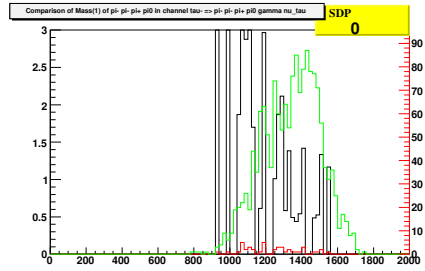
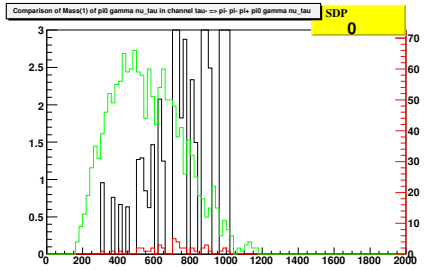
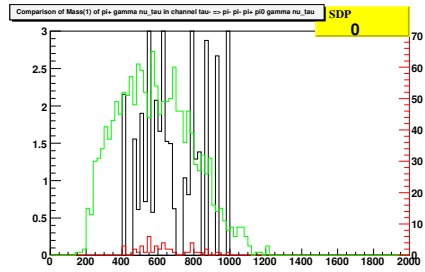
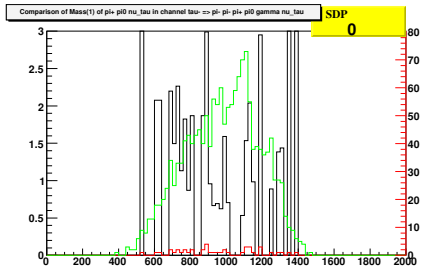
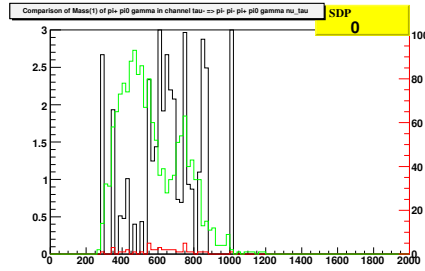
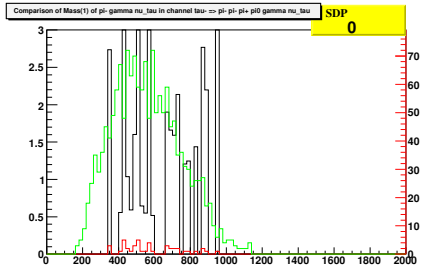
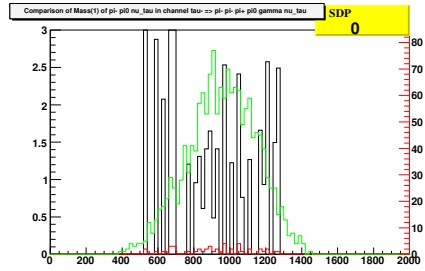
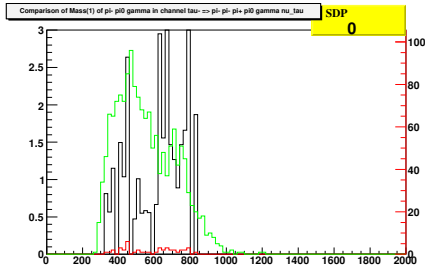
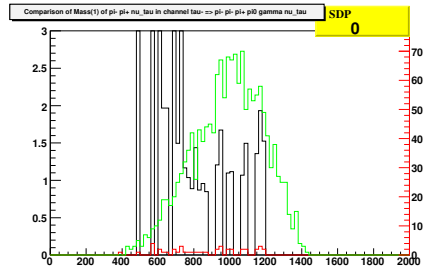
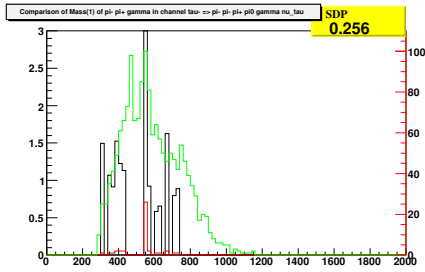
Number of events from generator 1: 43

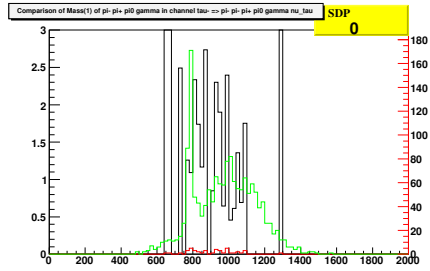
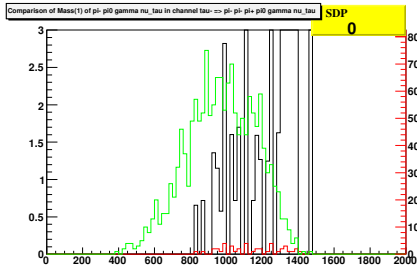
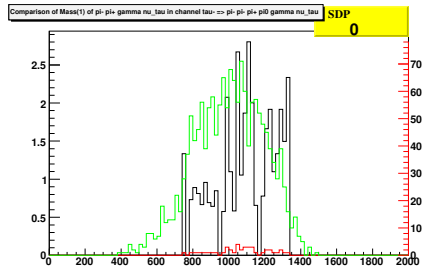
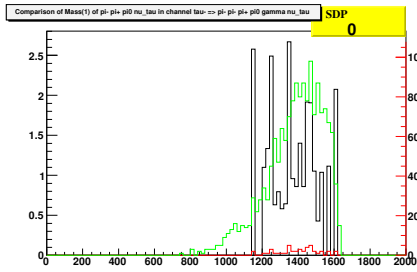
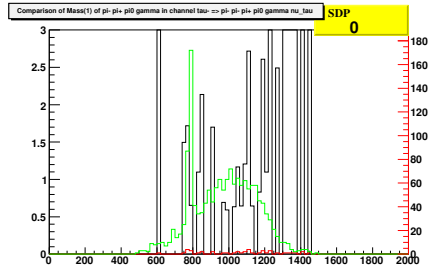
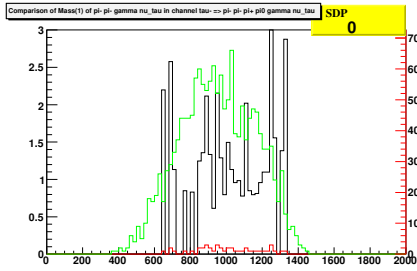
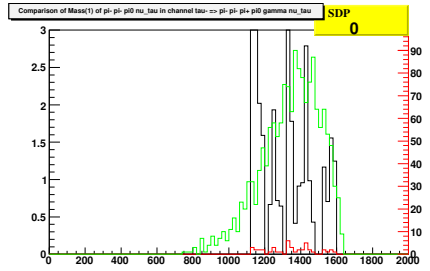
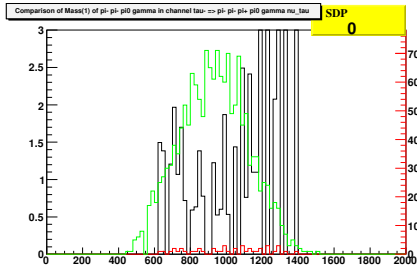
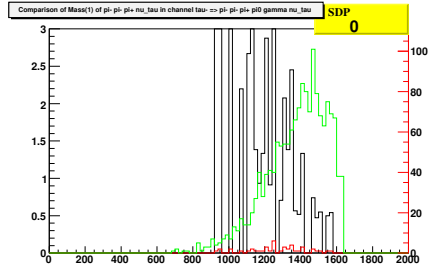
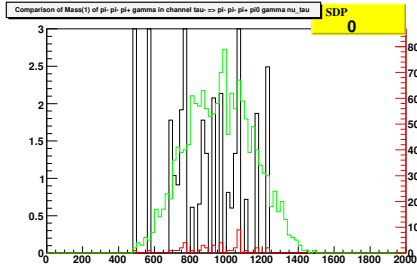
Number of events from generator 2: 1607

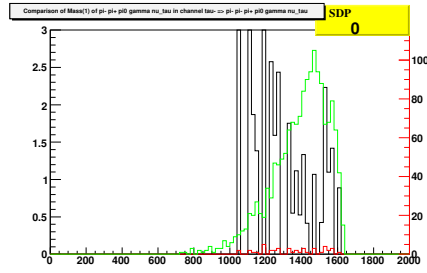
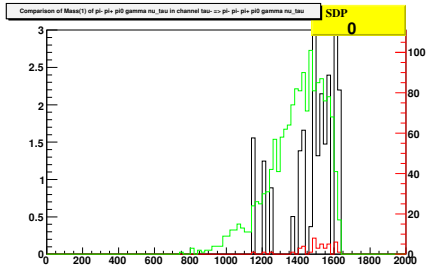
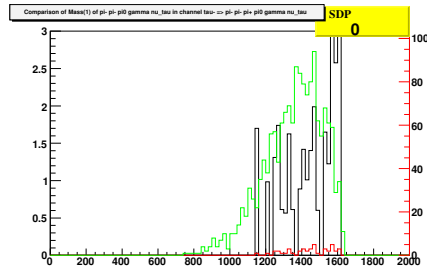
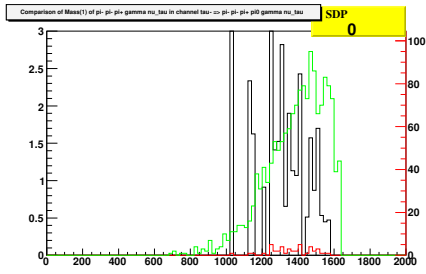
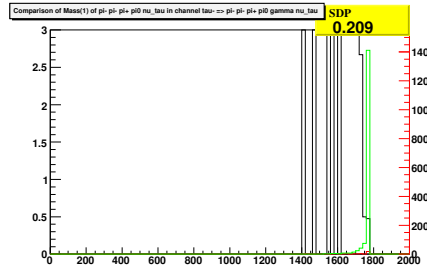
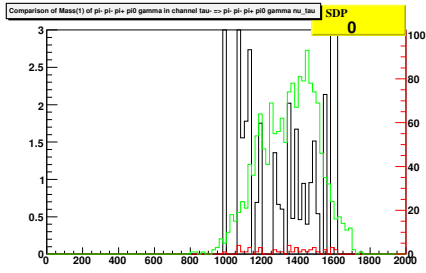
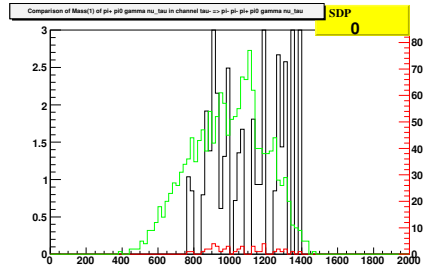
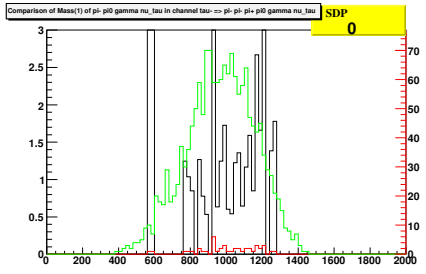
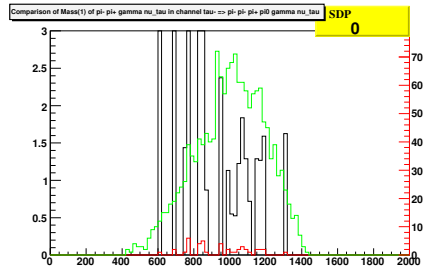
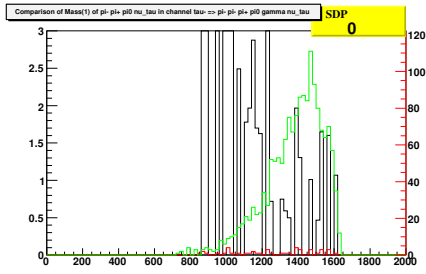


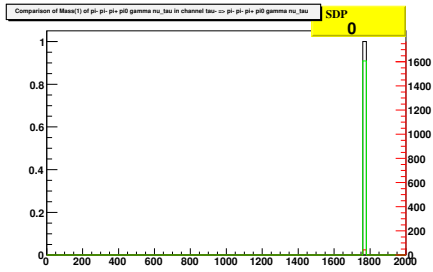








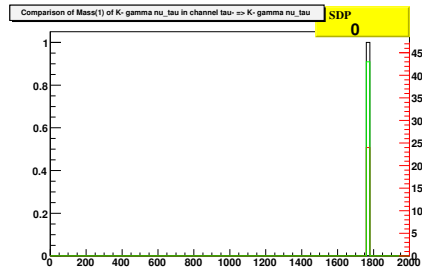
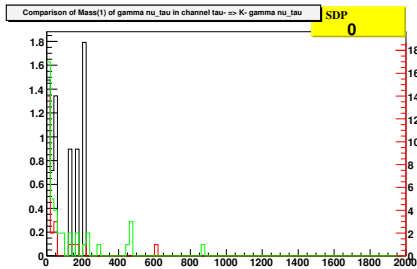
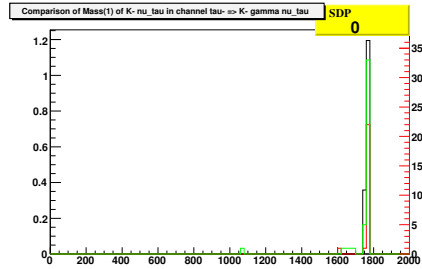
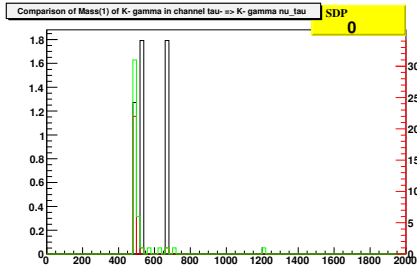




37 Decay Channel: $\tau^- \rightarrow K^- \gamma \nu_\tau$

Number of events from generator 1: 24

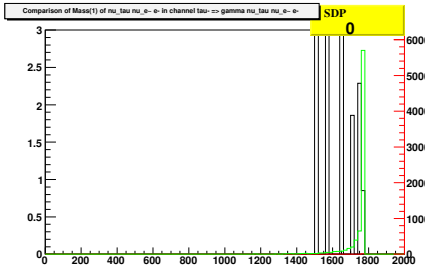
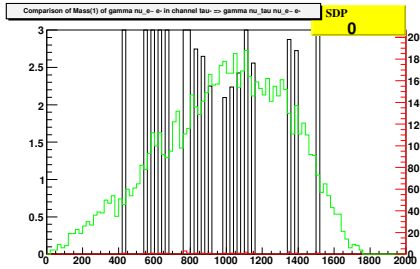
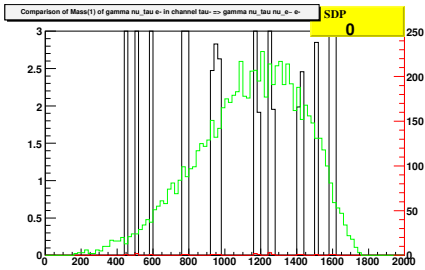
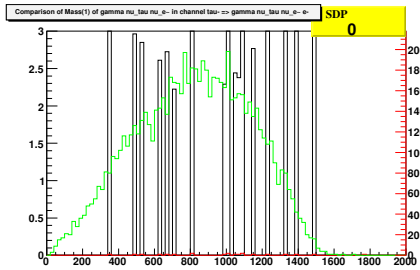
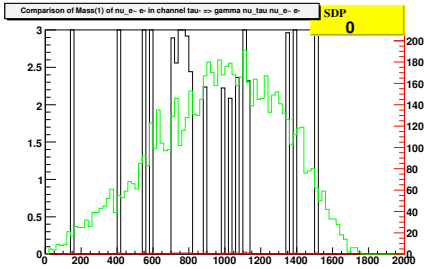
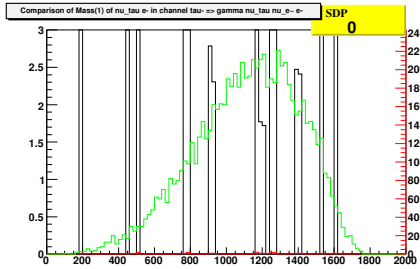
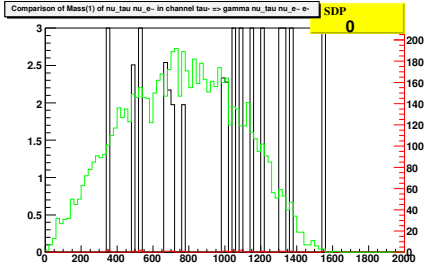
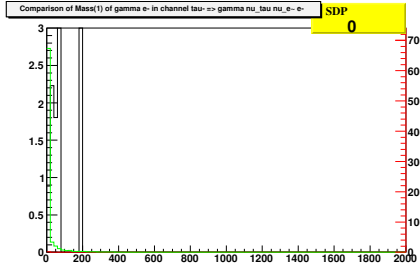
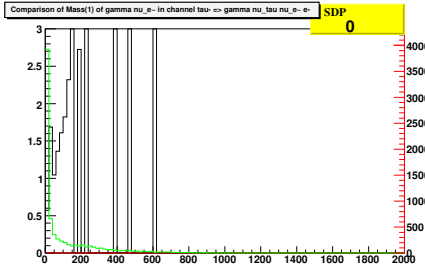
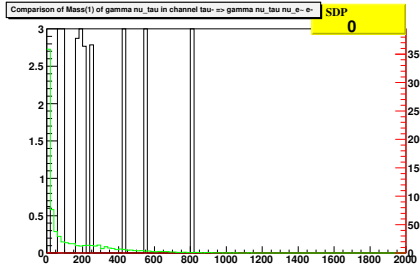
Number of events from generator 2: 43

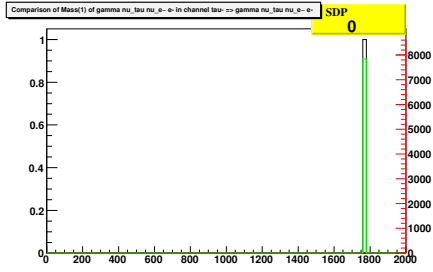


38 Decay Channel: $\tau^- \rightarrow \gamma \nu_\tau \tilde{\nu}_e e^-$

Number of events from generator 1: 21

Number of events from generator 2: 7842

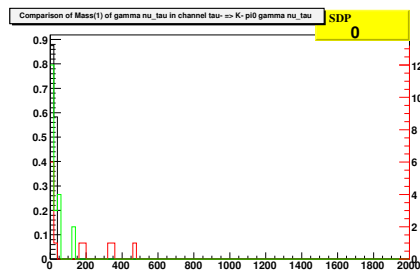
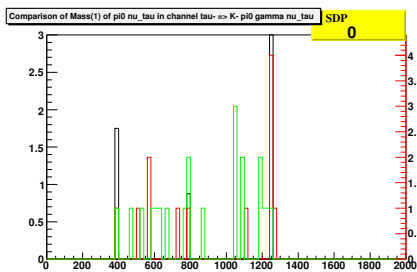
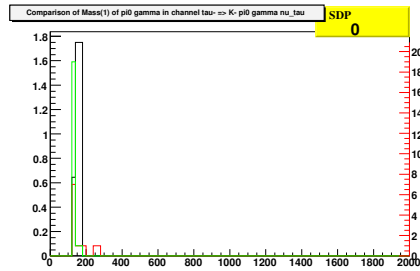
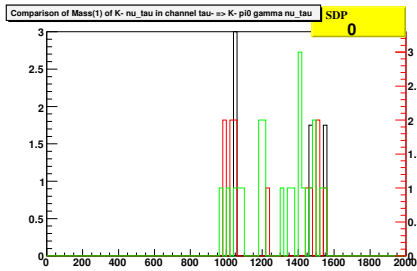
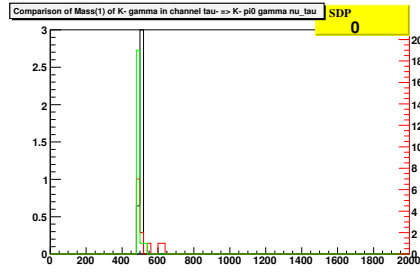
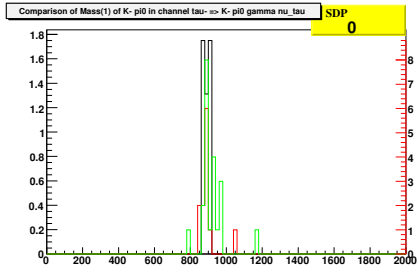


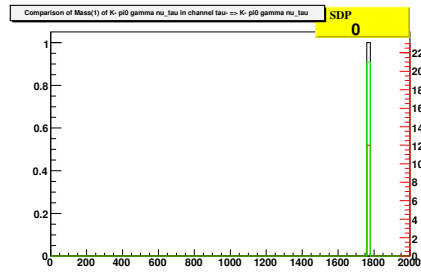
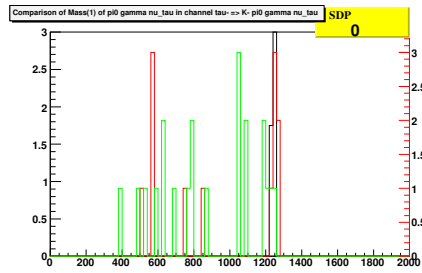
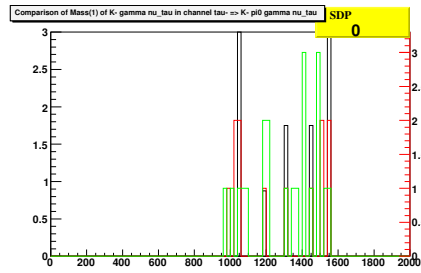
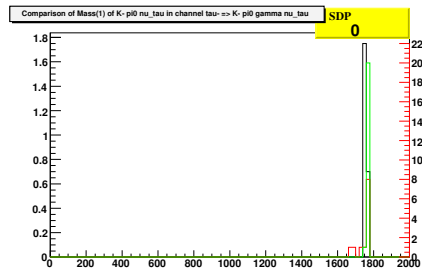
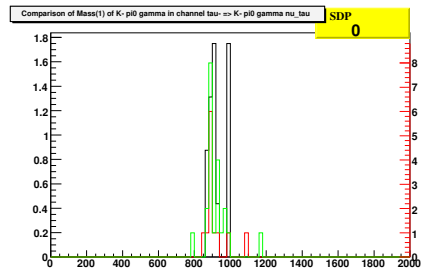


39 Decay Channel: $\tau^- \rightarrow K^- \pi^0 \gamma \nu_\tau$

Number of events from generator 1: 12

Number of events from generator 2: 21

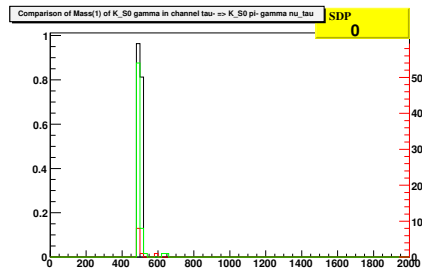
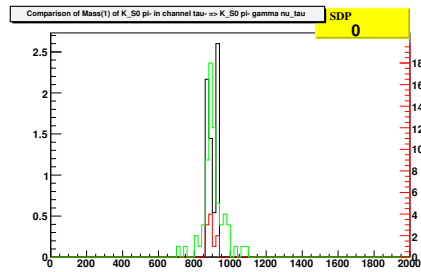


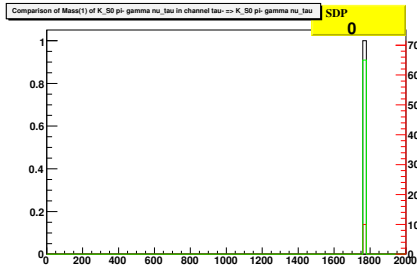
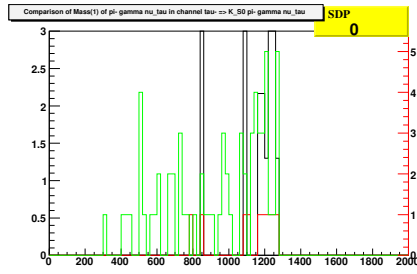
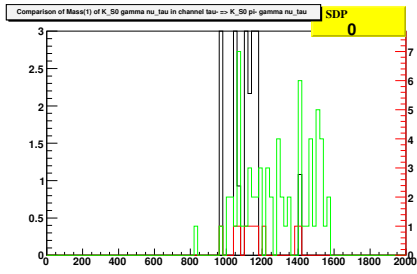
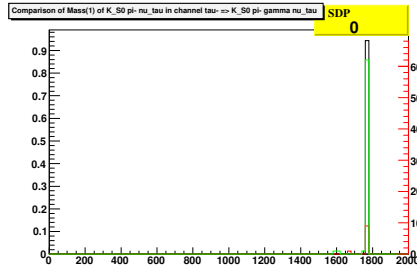
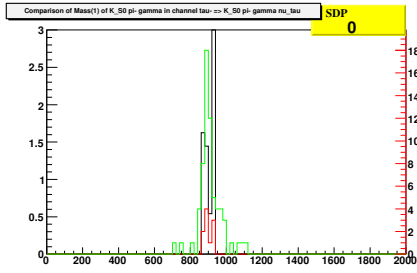
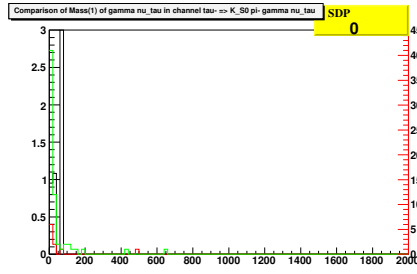
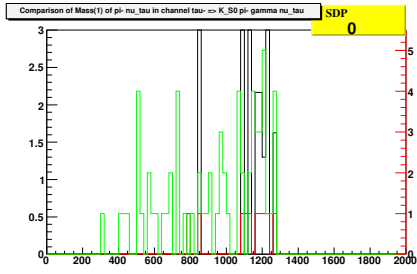
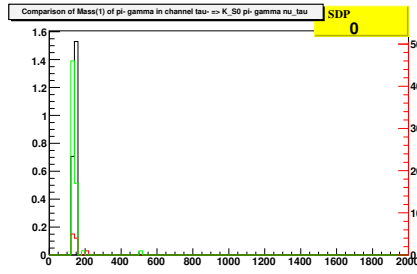
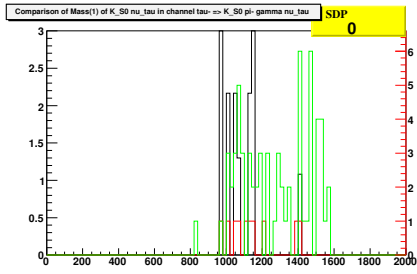


40 Decay Channel: $\tau^- \rightarrow K_S^0 \pi^- \gamma \nu_\tau$

Number of events from generator 1: 10

Number of events from generator 2: 65

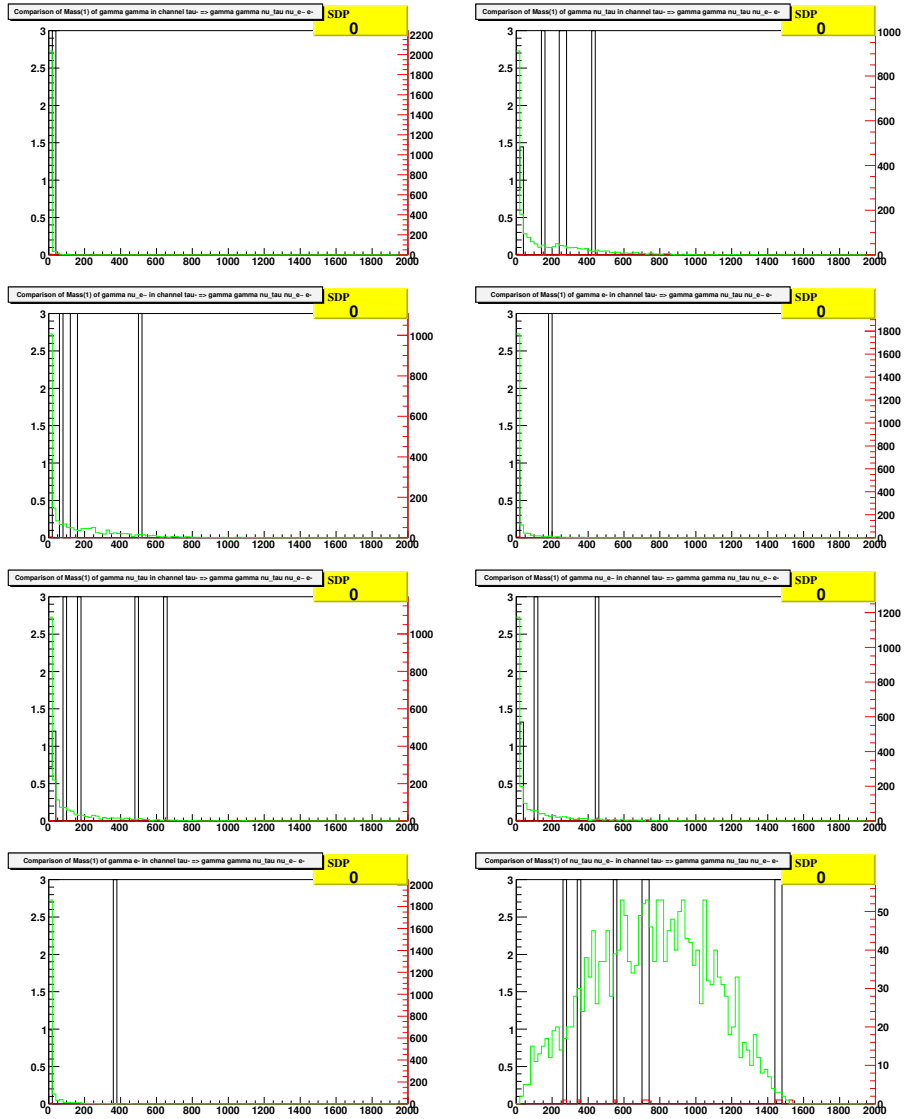


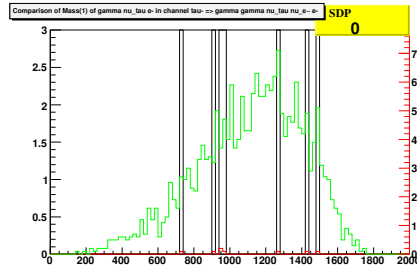
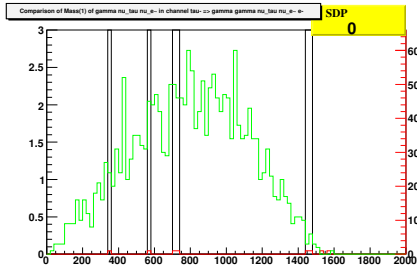
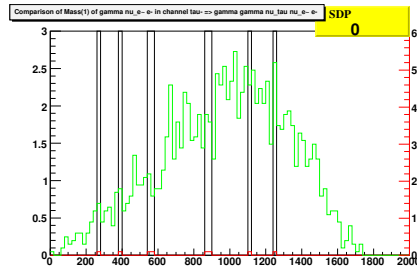
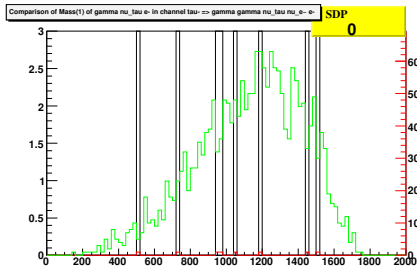
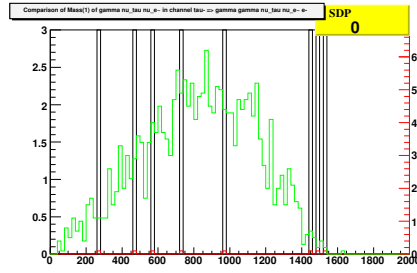
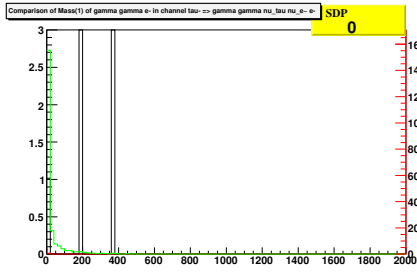
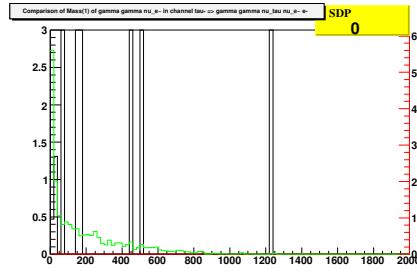
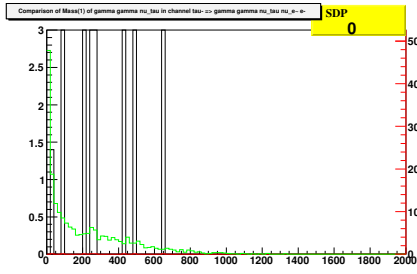
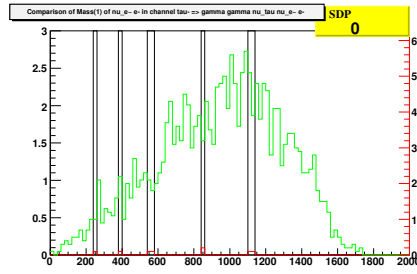
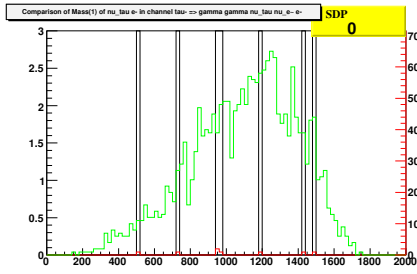


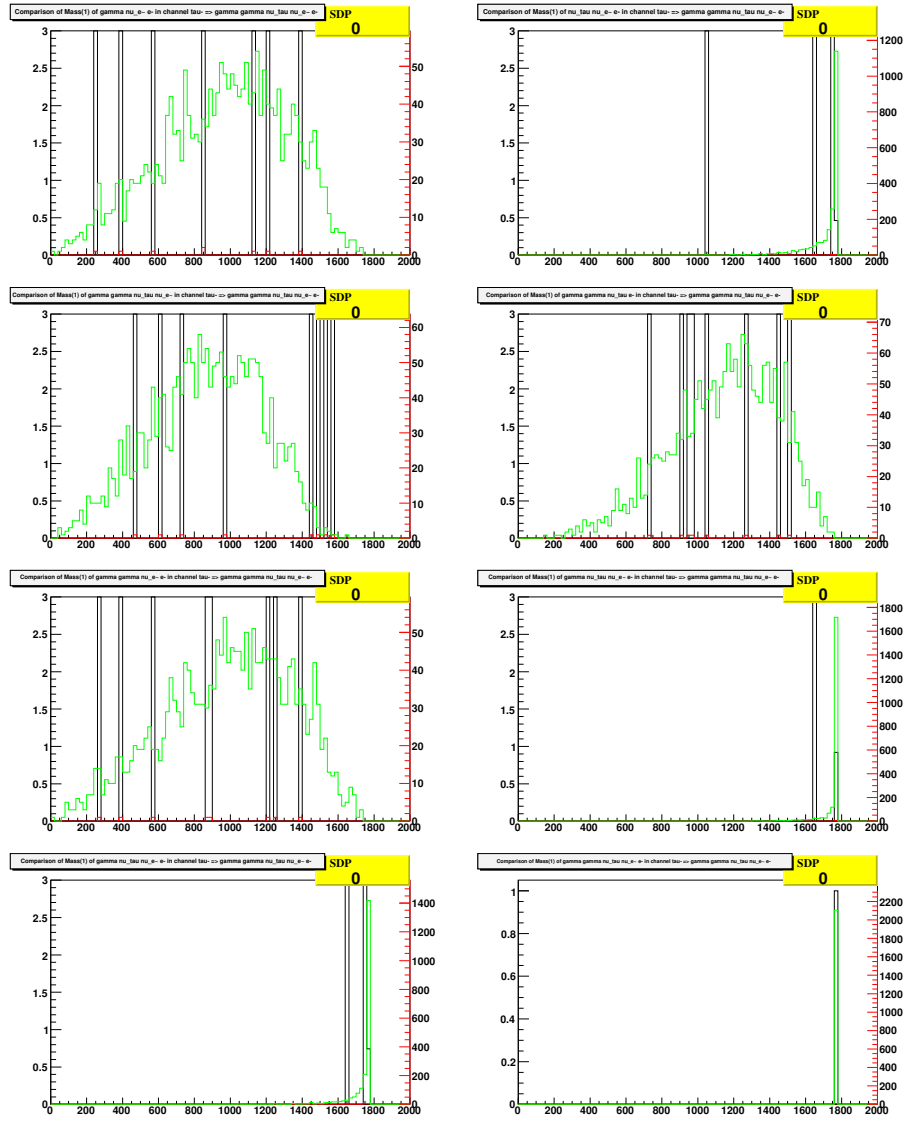
41 Decay Channel: $\tau^- \rightarrow \gamma\gamma\tau\tilde{\nu}_e e^-$

Number of events from generator 1: 8

Number of events from generator 2: 2105



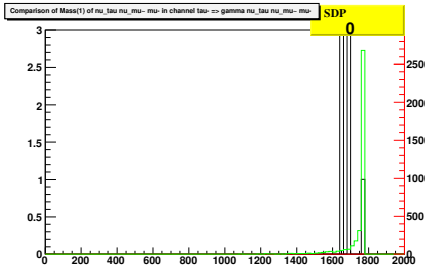
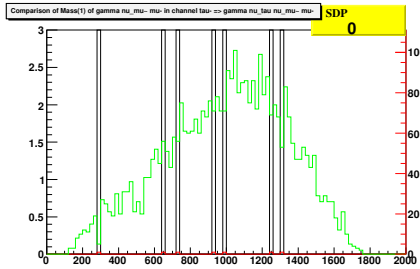
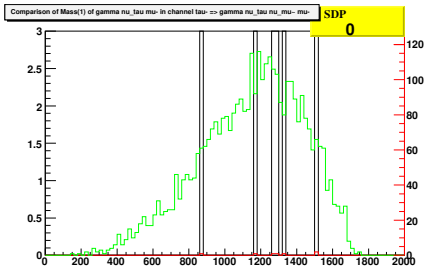
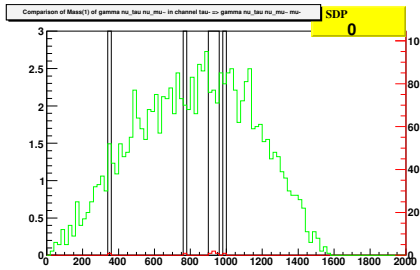
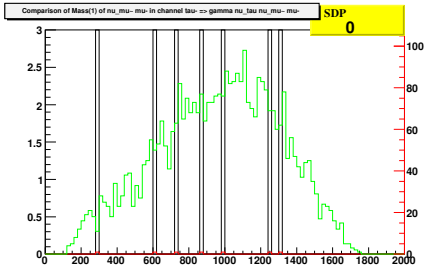
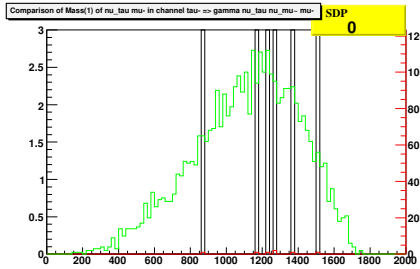
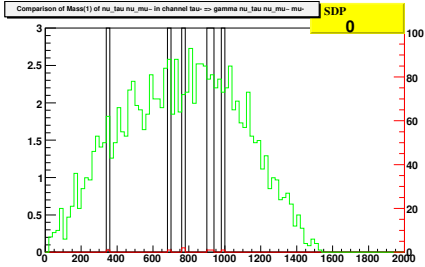
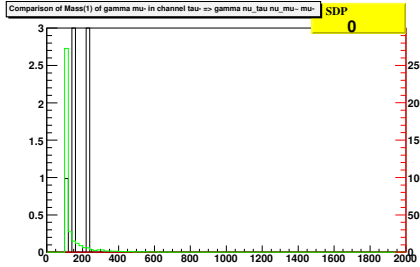
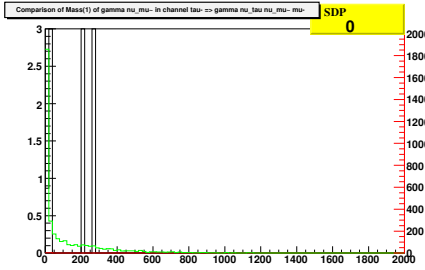
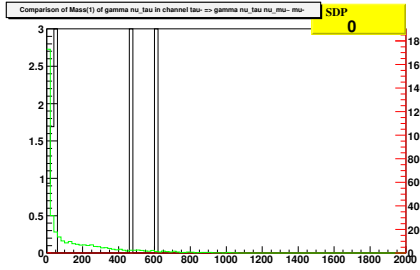


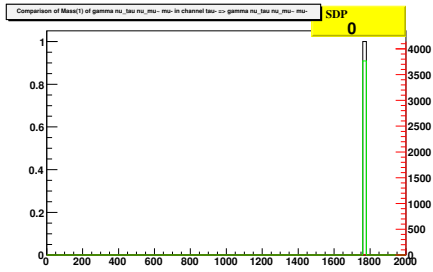


42 Decay Channel: $\tau^- \rightarrow \gamma \nu_{\tau} \tilde{\nu}_{\mu} \mu^-$

Number of events from generator 1: 7

Number of events from generator 2: 3765

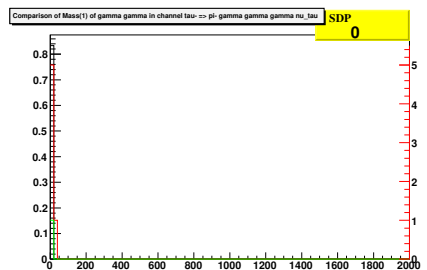
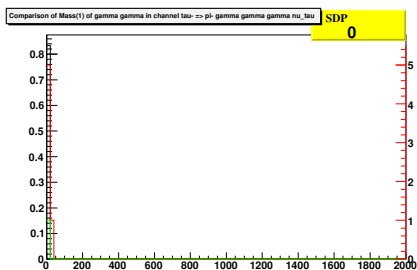
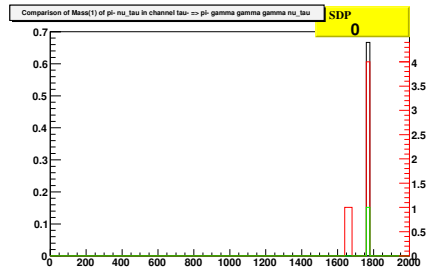
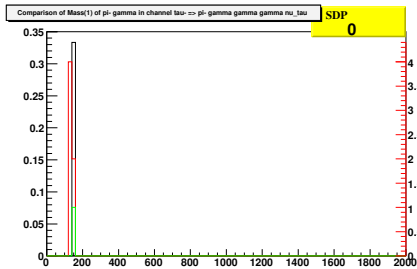
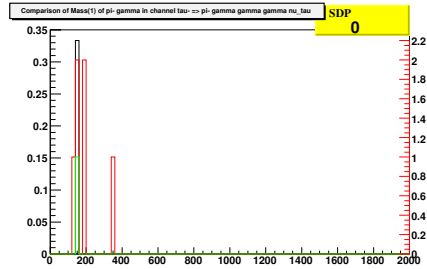
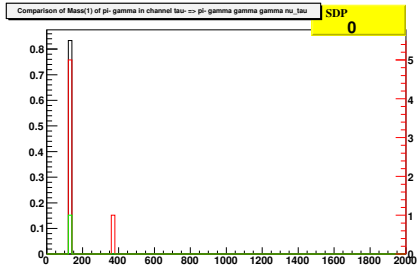


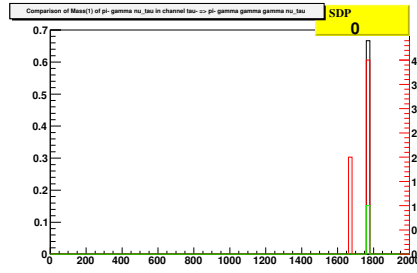
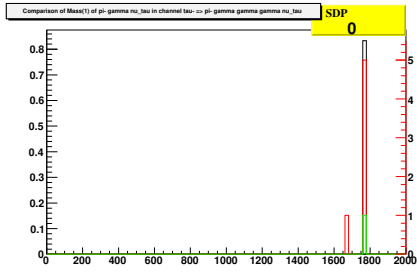
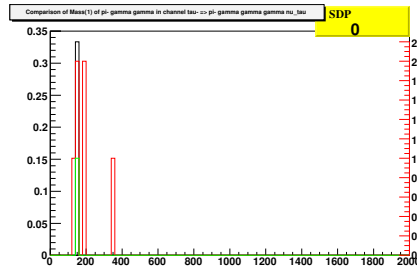
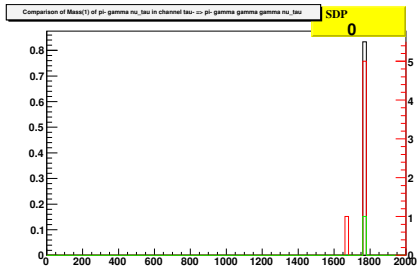
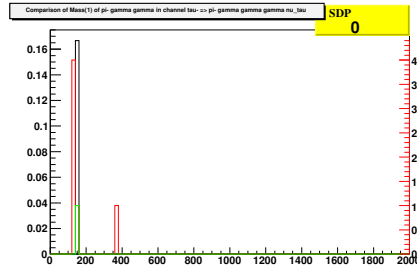
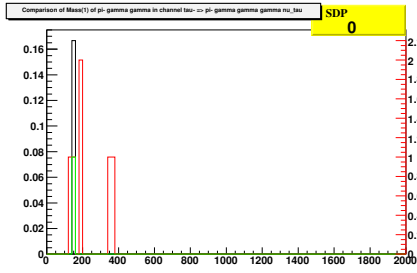
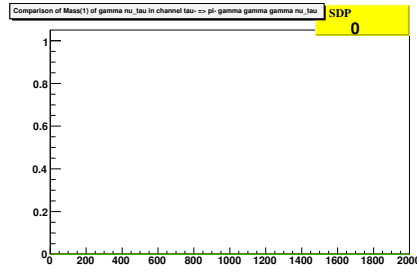
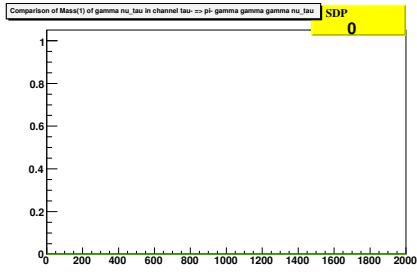
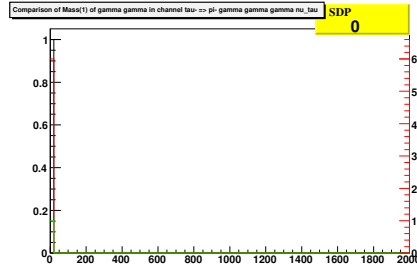
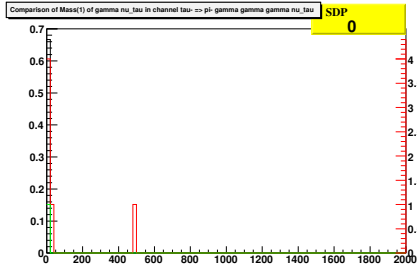


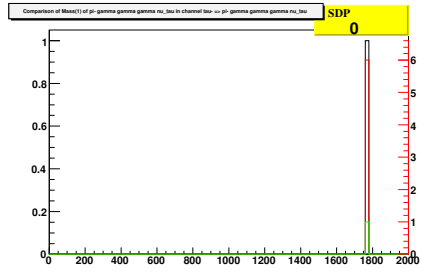
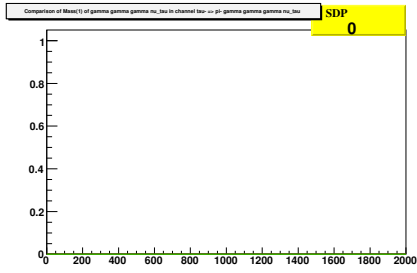
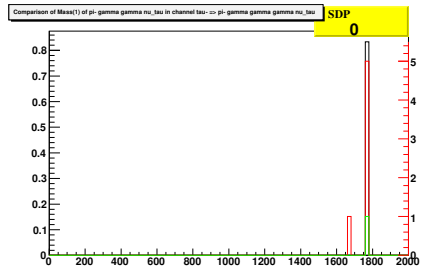
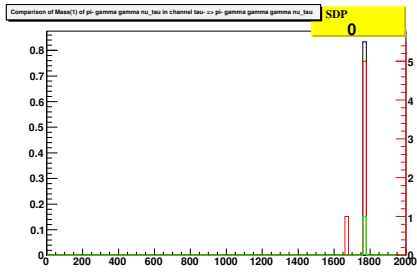
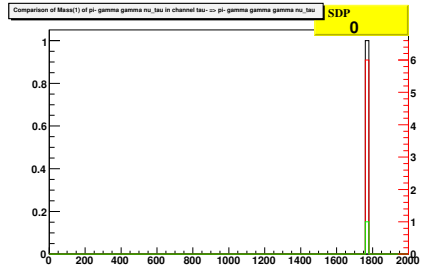
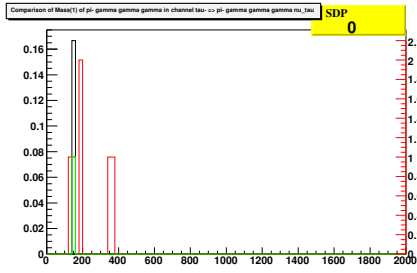
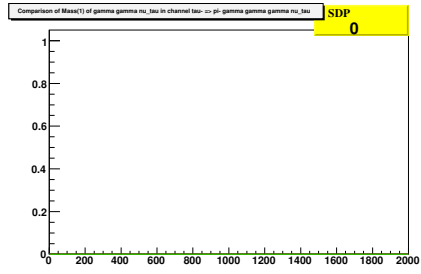
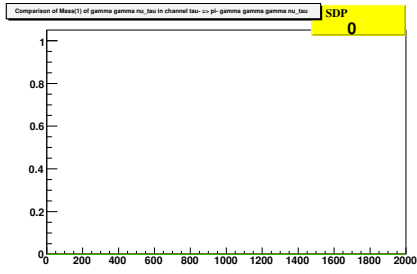
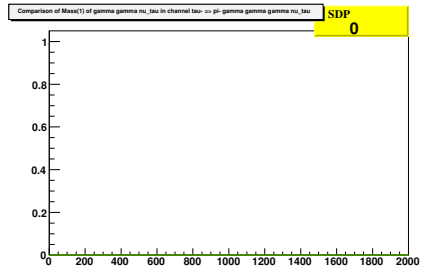
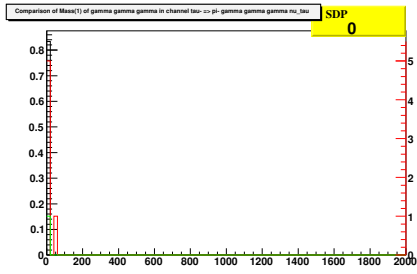
43 Decay Channel: $\tau^- \rightarrow \pi^- \gamma \gamma \nu_\tau$

Number of events from generator 1: 6

Number of events from generator 2: 1



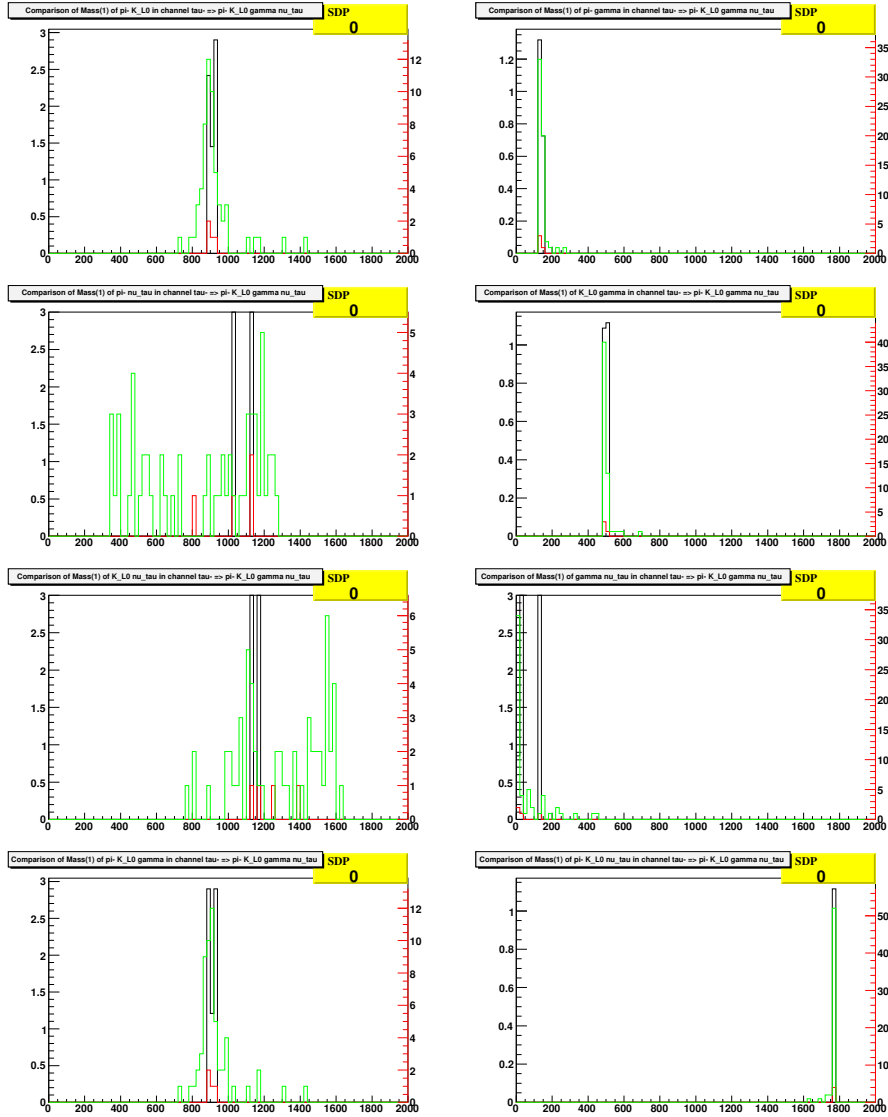


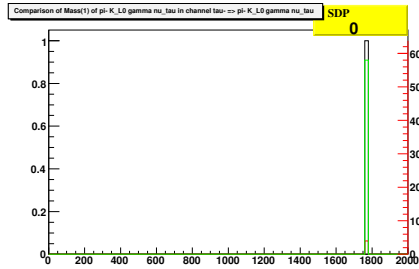
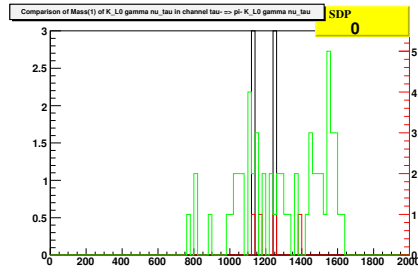
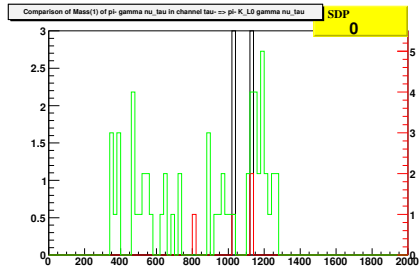


44 Decay Channel: $\tau^- \rightarrow \pi^- K_L^0 \gamma \nu_\tau$

Number of events from generator 1: 4

Number of events from generator 2: 58

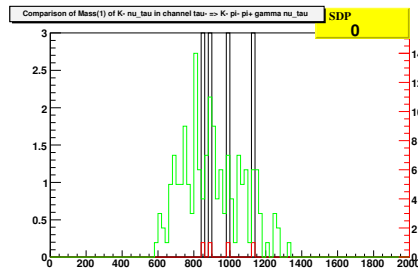
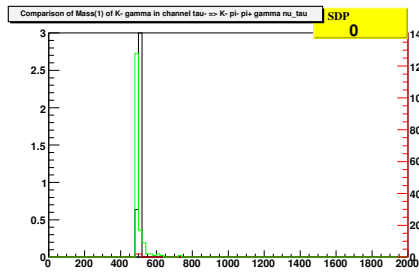
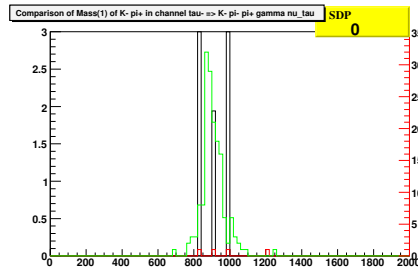
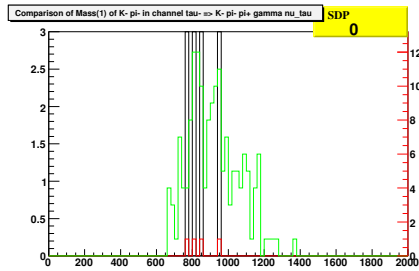


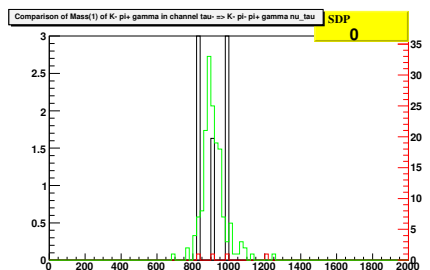
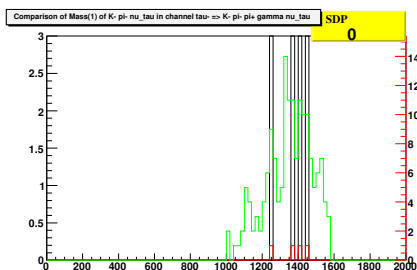
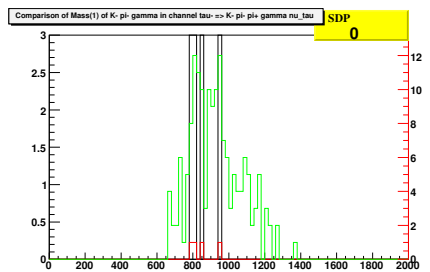
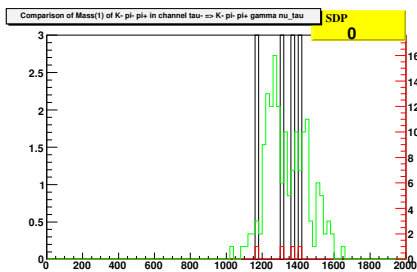
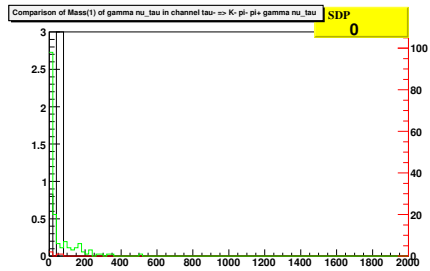
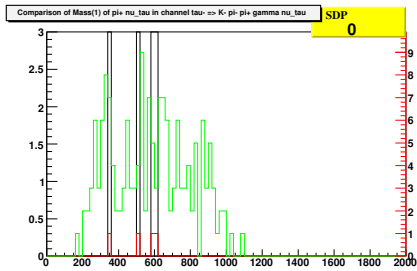
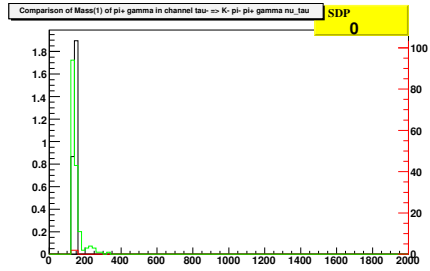
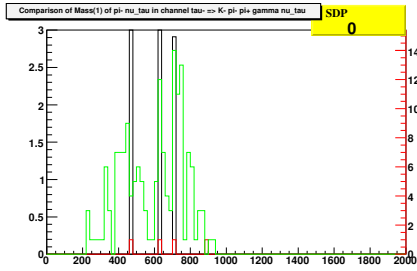
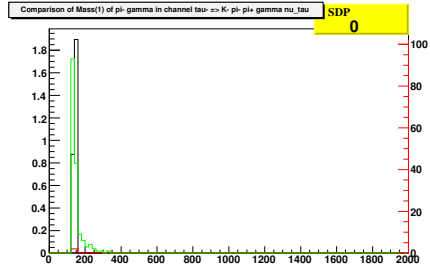
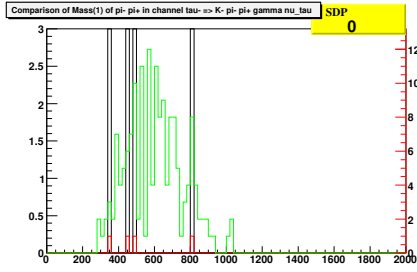


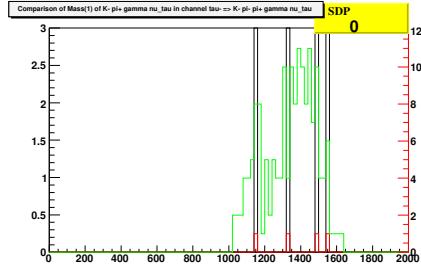
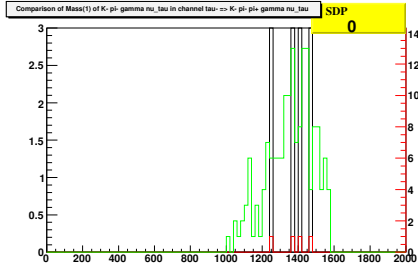
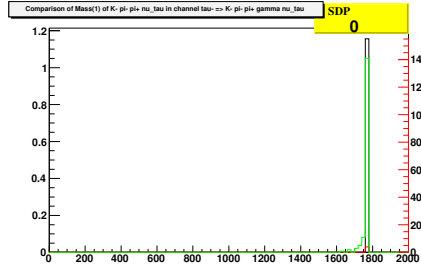
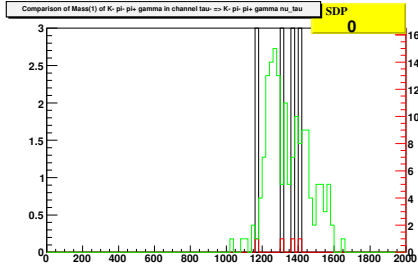
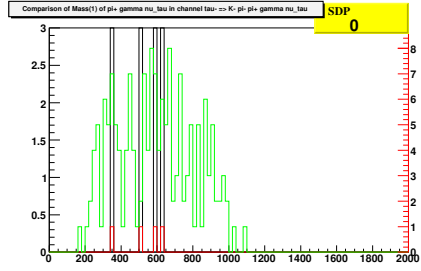
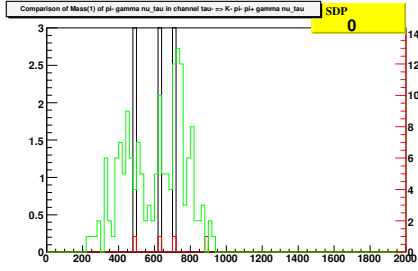
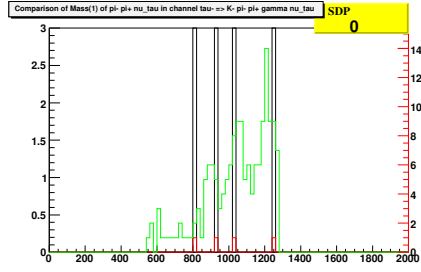
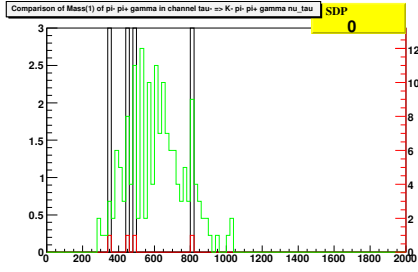
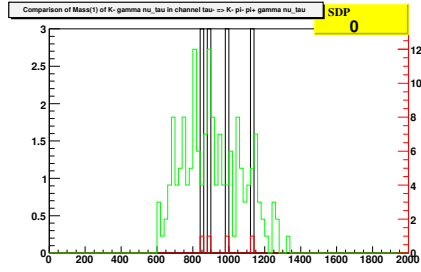
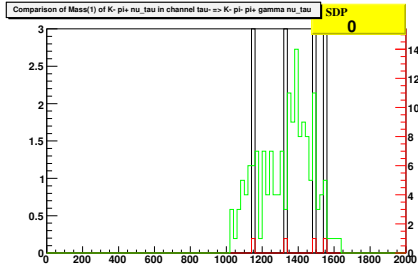
45 Decay Channel: $\tau^- \rightarrow K^- \pi^- \pi^+ \gamma \nu_\tau$

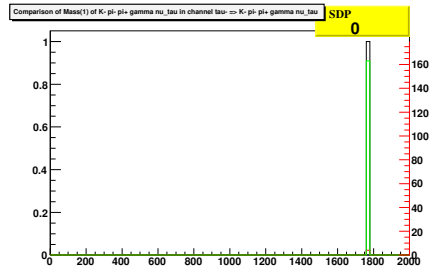
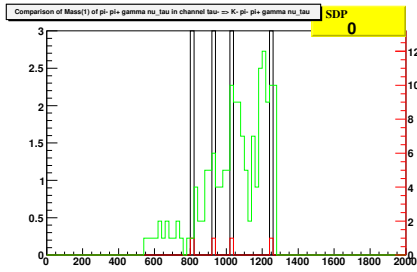
Number of events from generator 1: 4

Number of events from generator 2: 163





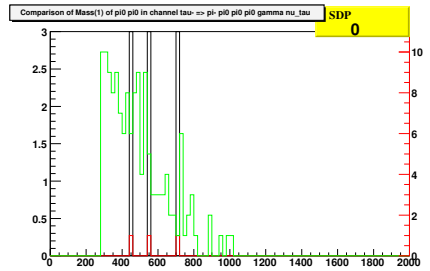
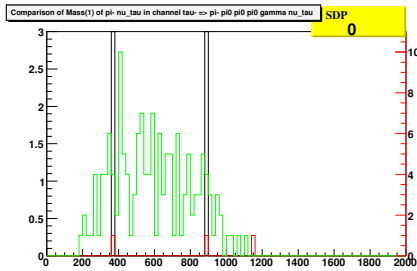
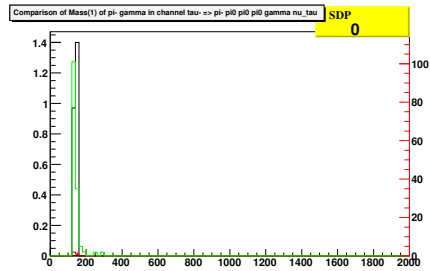
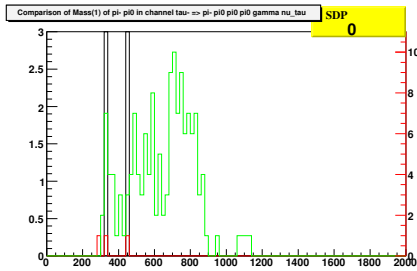
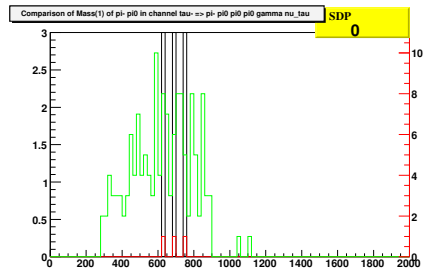
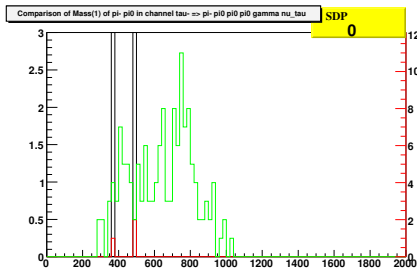


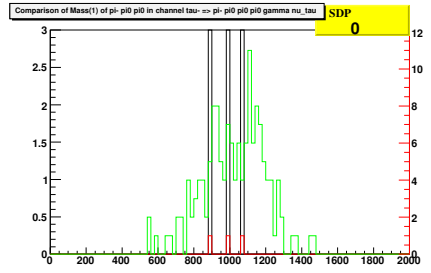
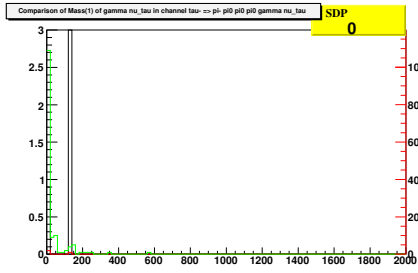
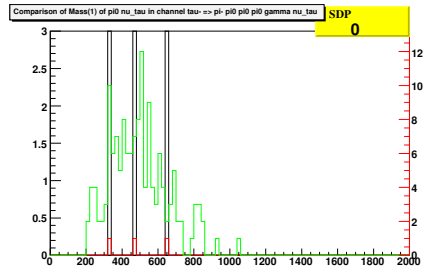
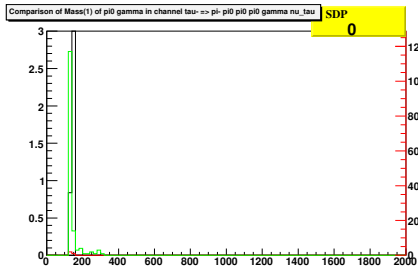
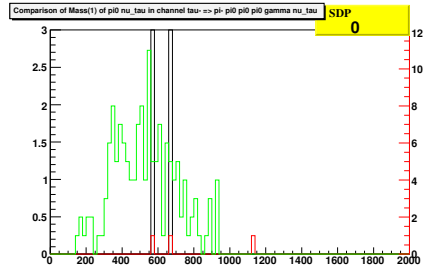
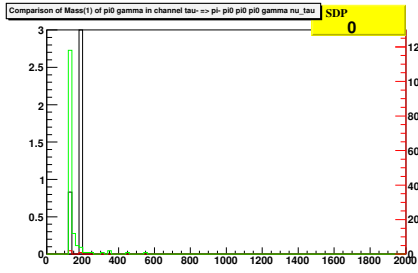
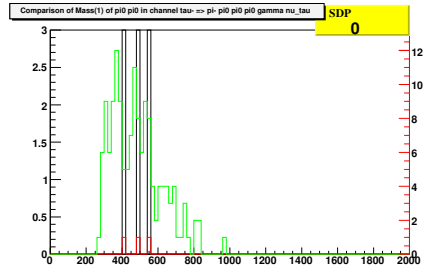
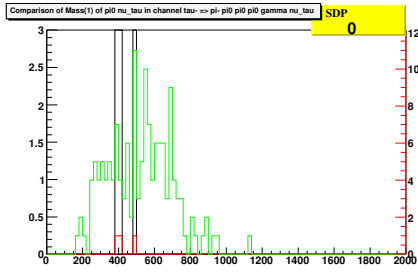
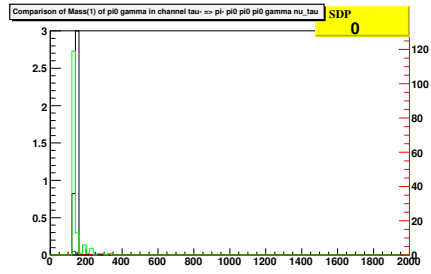
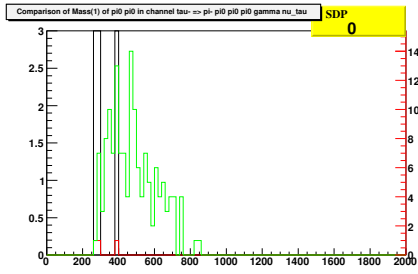


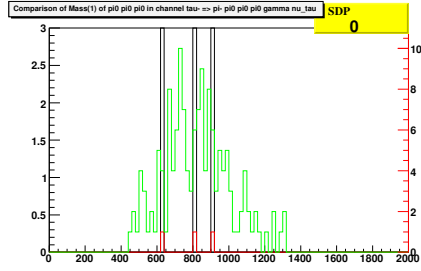
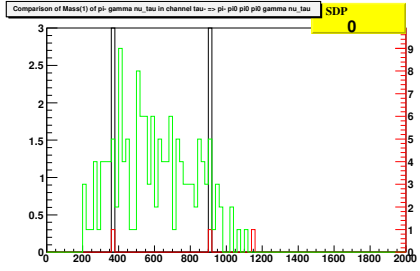
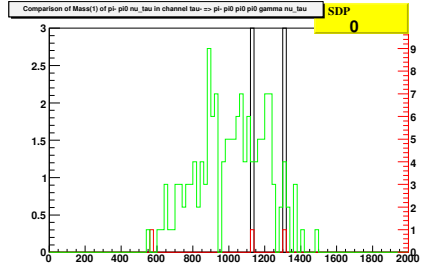
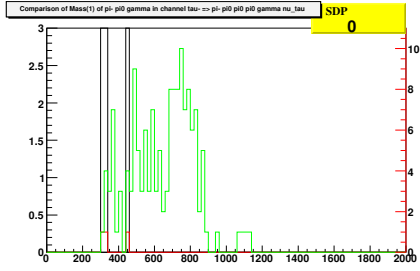
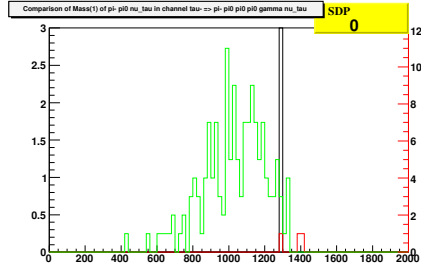
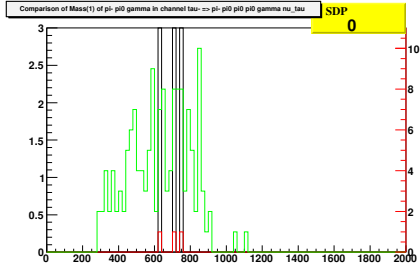
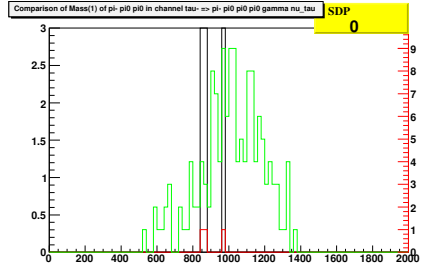
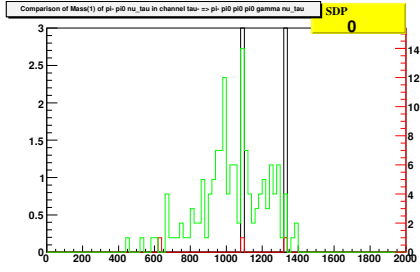
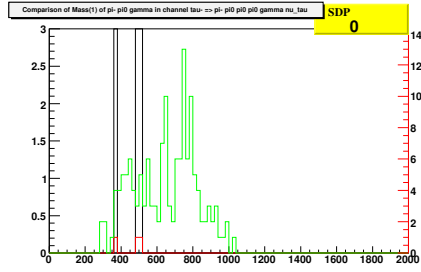
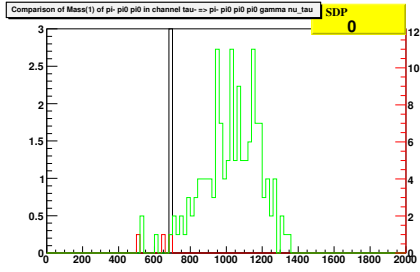
46 Decay Channel: $\tau^- \rightarrow \pi^- \pi^0 \pi^0 \pi^0 \gamma \nu_\tau$

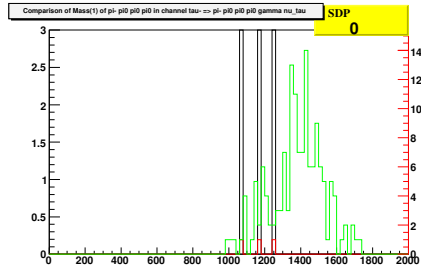
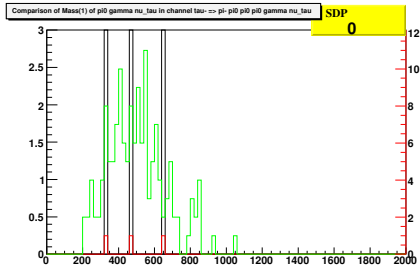
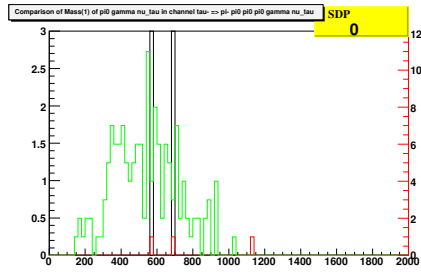
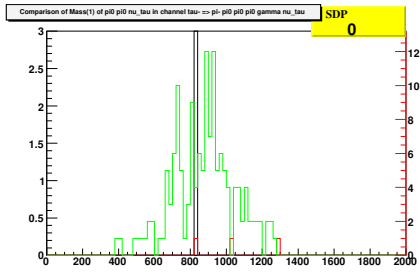
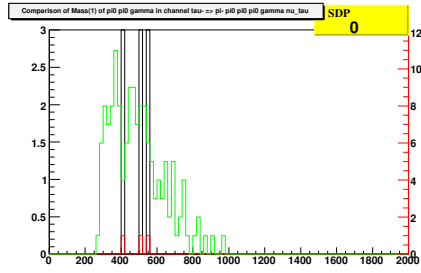
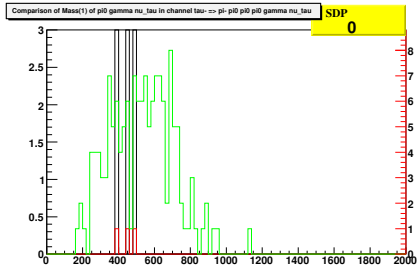
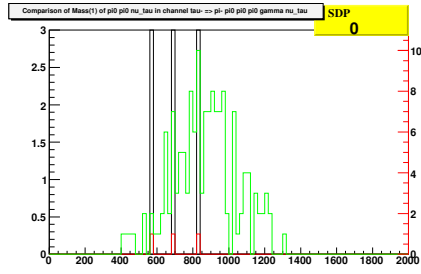
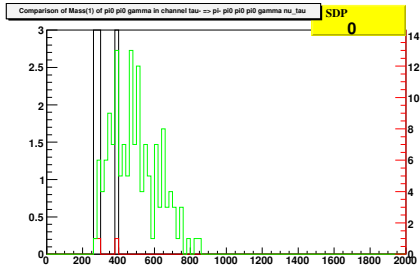
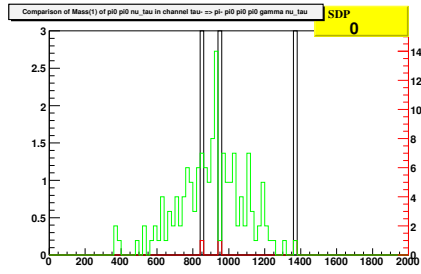
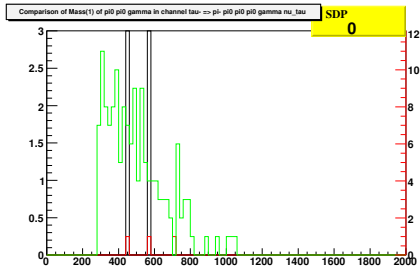
Number of events from generator 1: 3

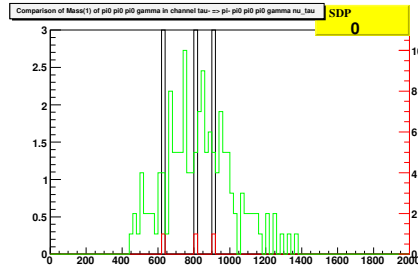
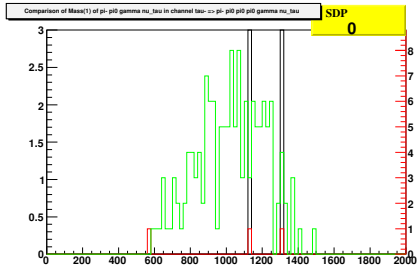
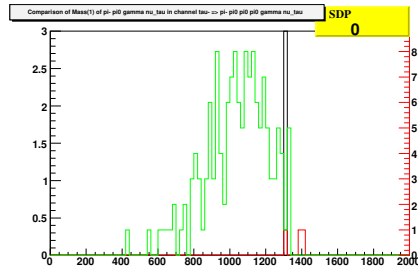
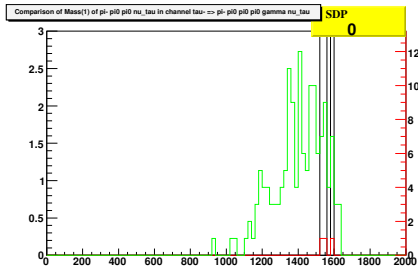
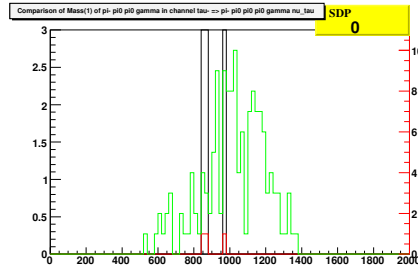
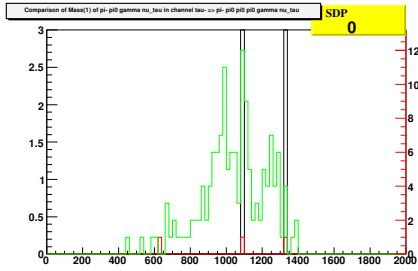
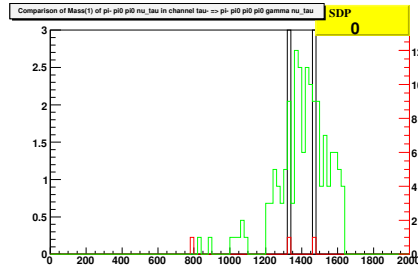
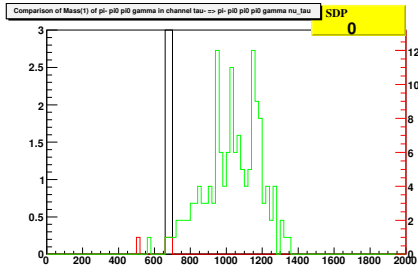
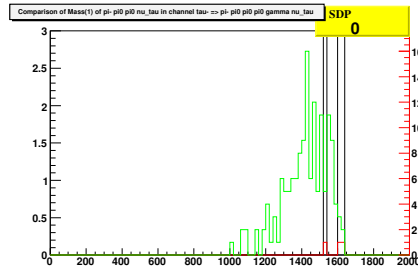
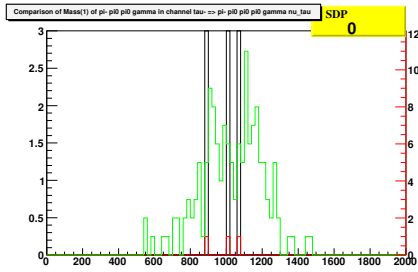
Number of events from generator 2: 147

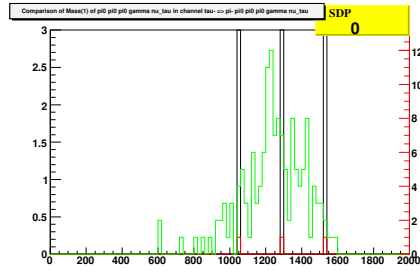
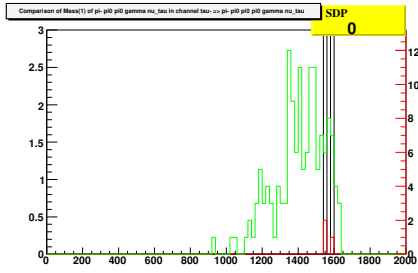
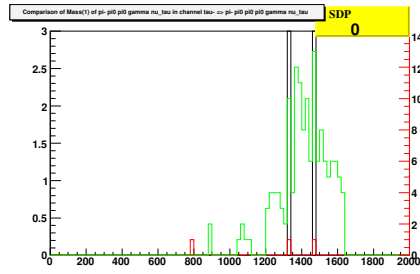
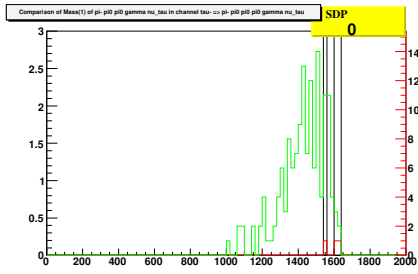
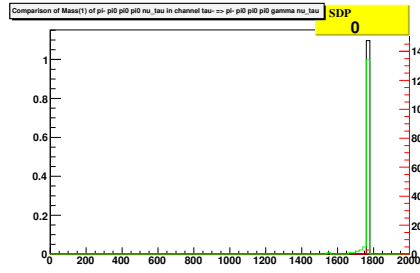
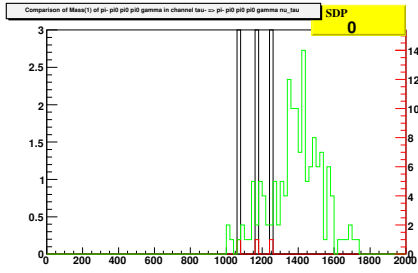
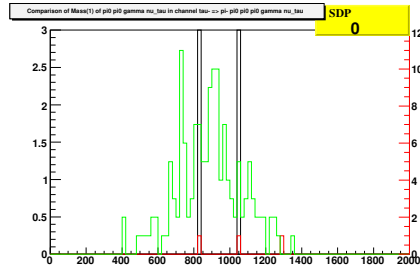
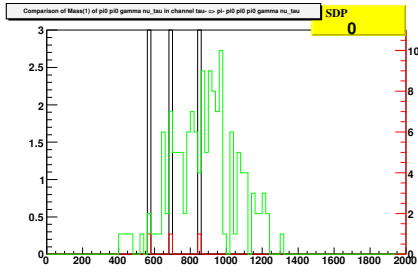
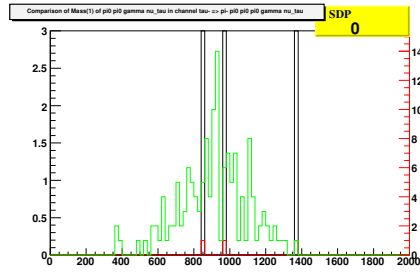
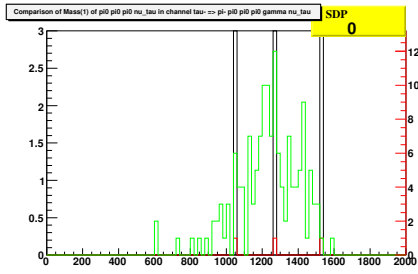


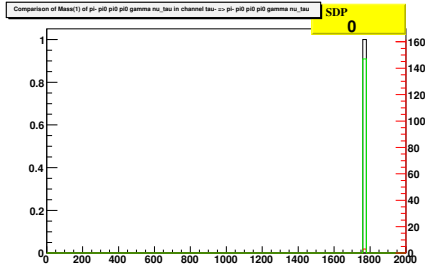








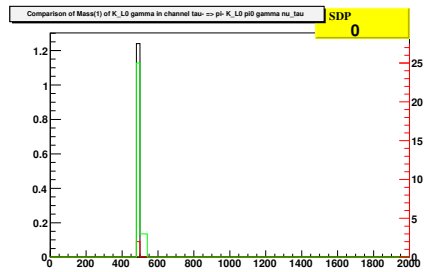
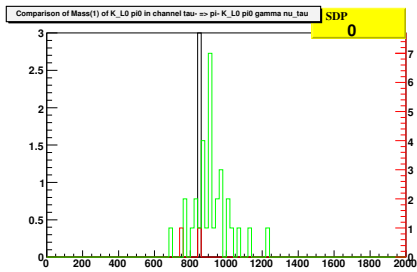
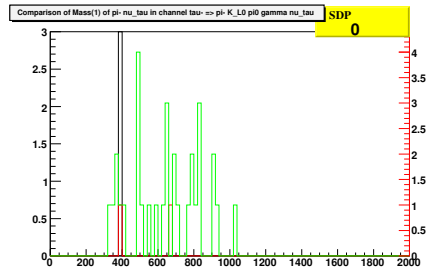
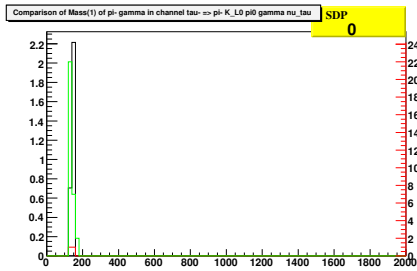
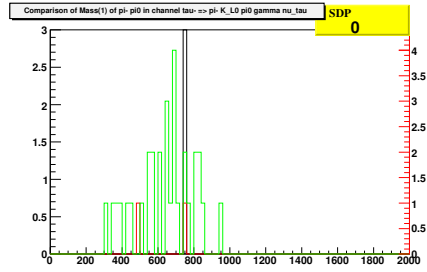
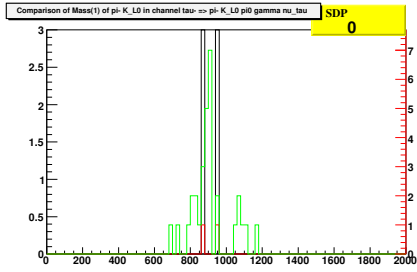


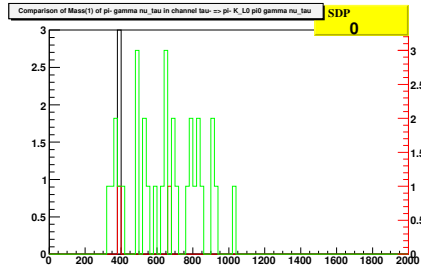
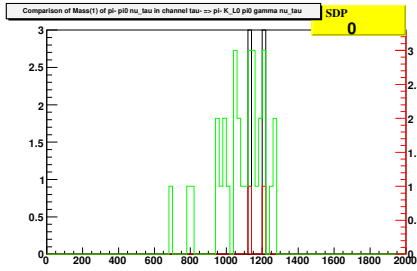
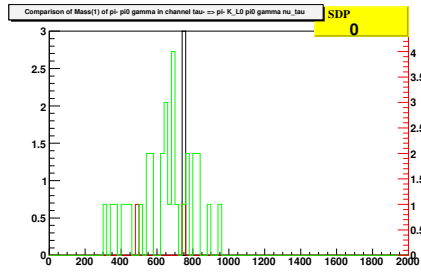
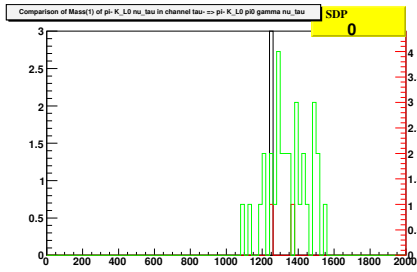
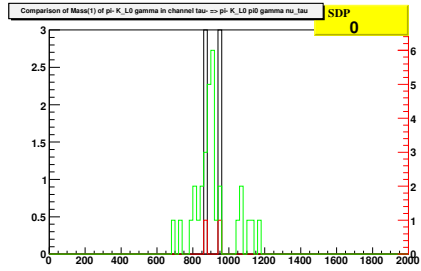
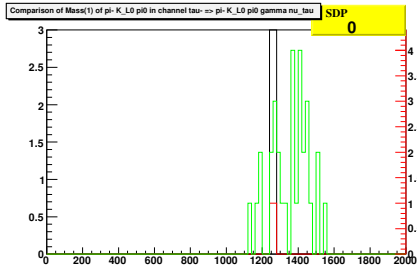
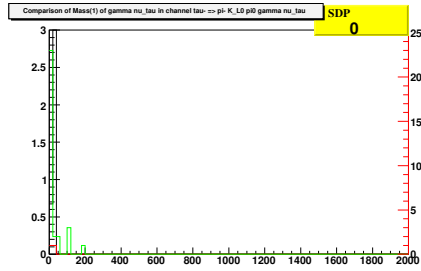
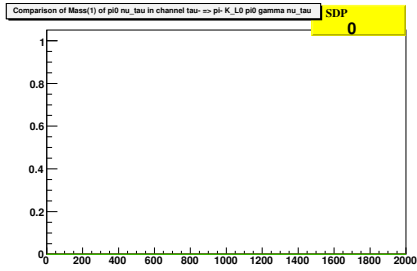
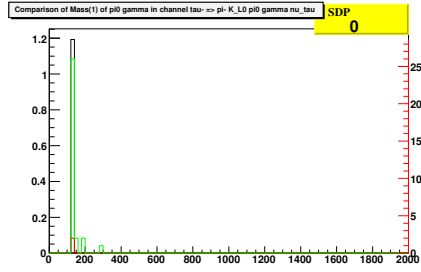
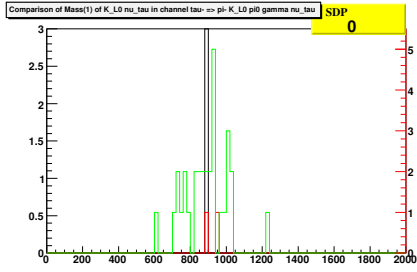


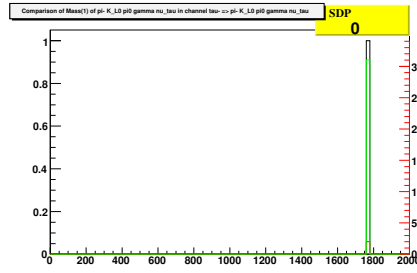
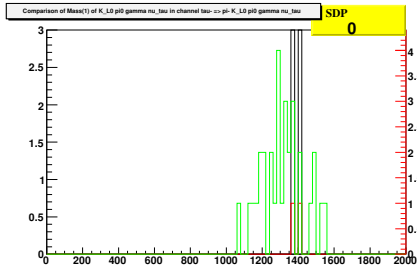
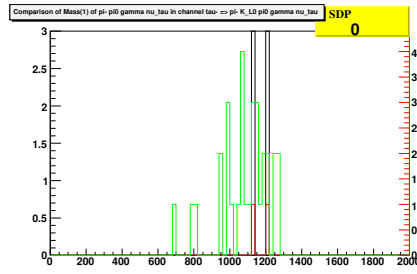
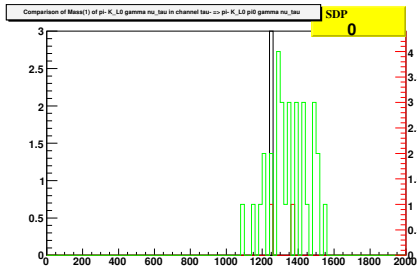
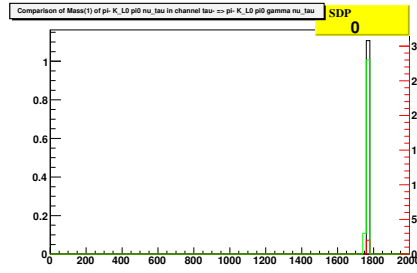
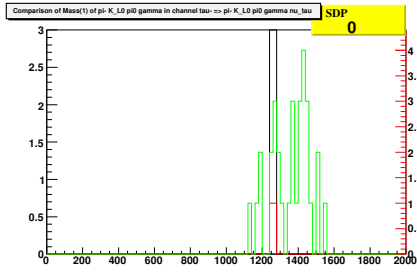
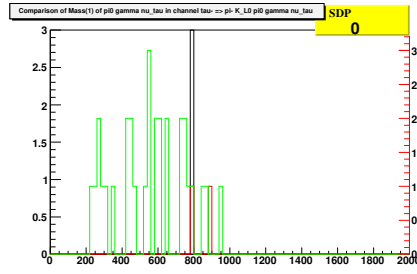
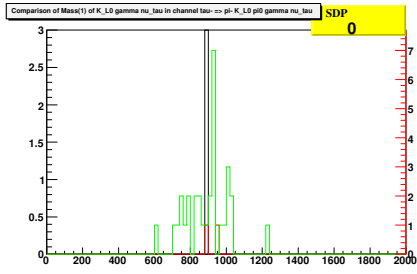
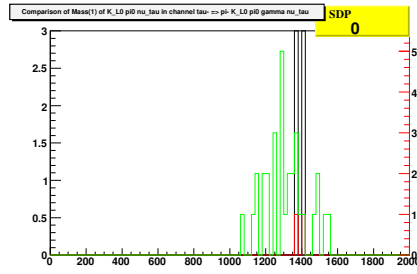
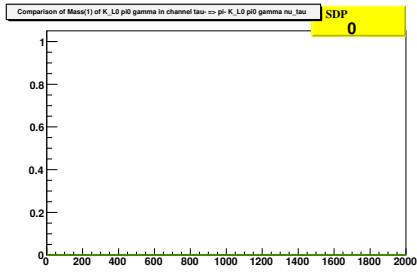
47 Decay Channel: $\tau^- \rightarrow \pi^- K_L^0 \pi^0 \gamma \nu_\tau$

Number of events from generator 1: 2

Number of events from generator 2: 31



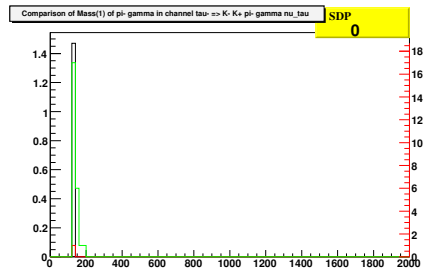
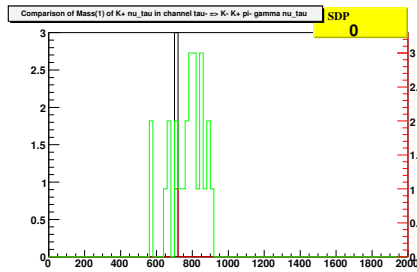
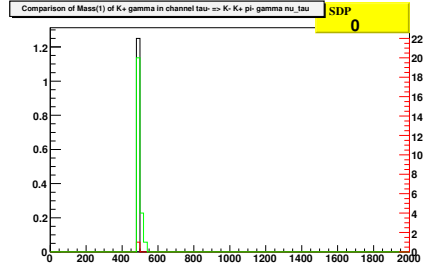
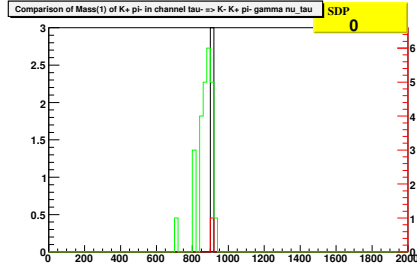
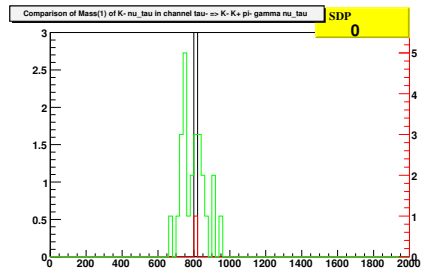
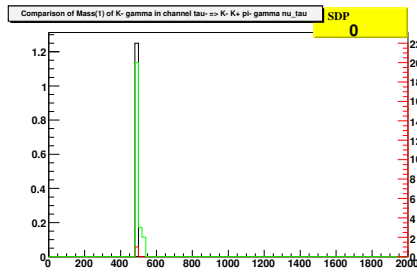
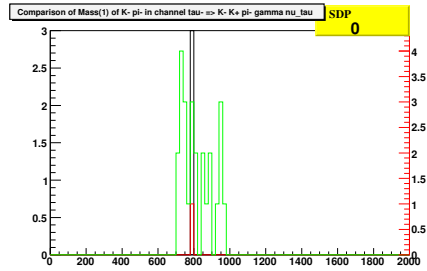
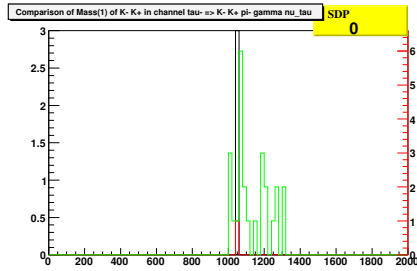


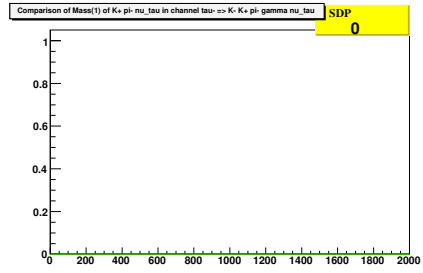
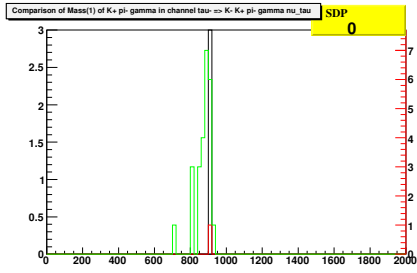
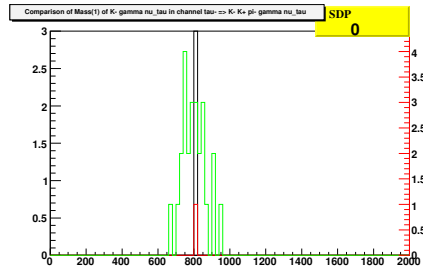
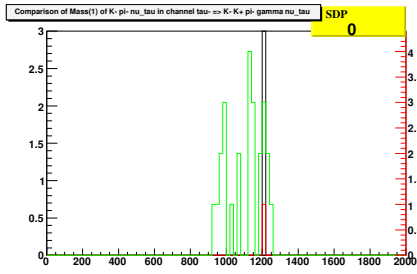
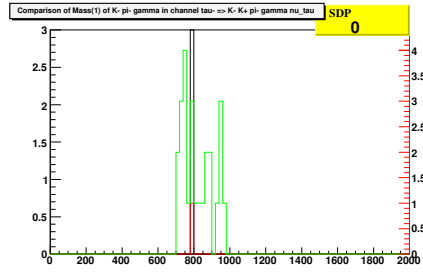
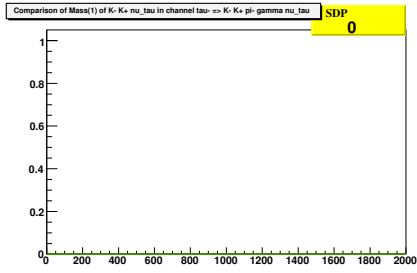
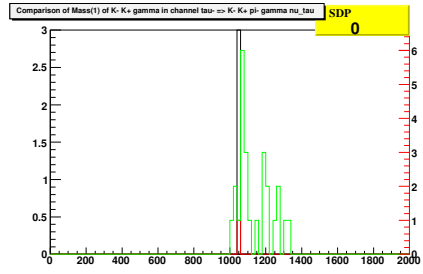
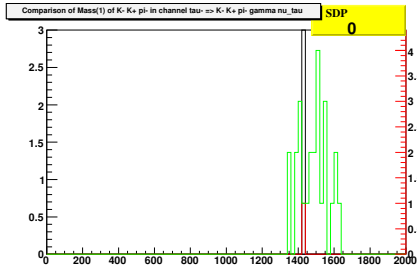
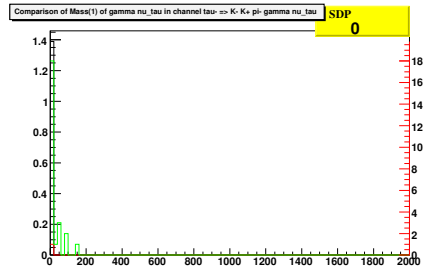
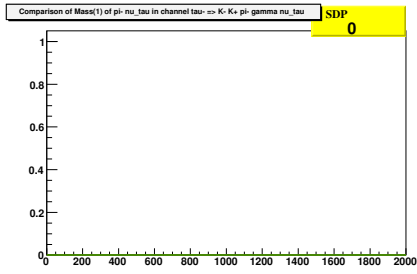


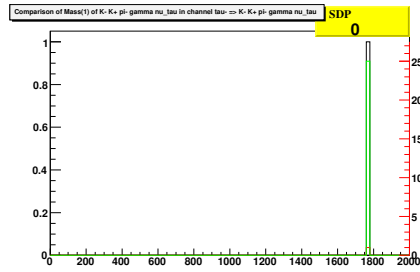
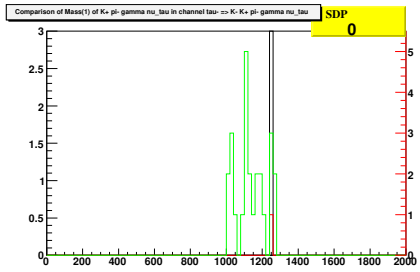
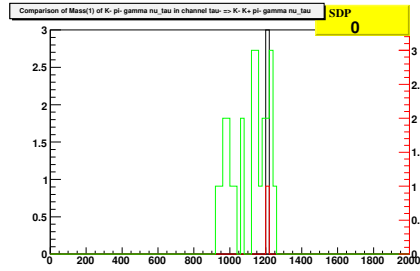
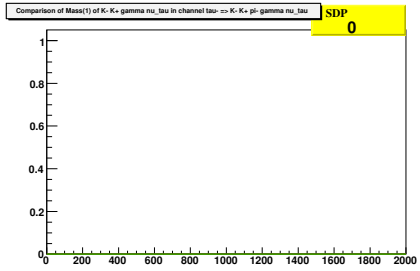
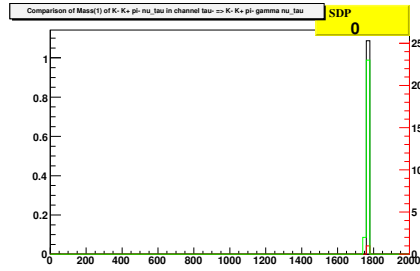
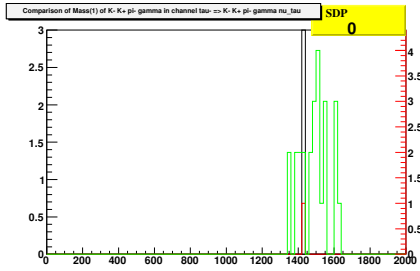
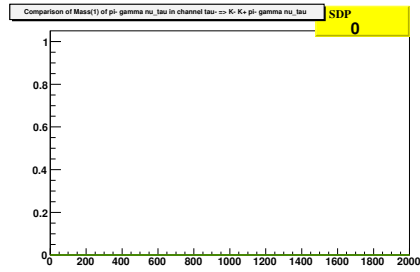
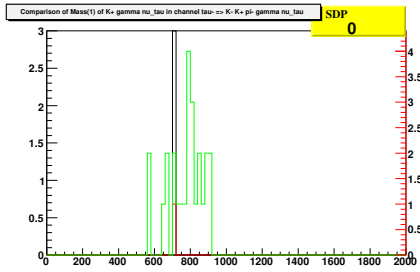
48 Decay Channel: $\tau^- \rightarrow K^- K^+ \pi^- \gamma \nu_\tau$

Number of events from generator 1: 1

Number of events from generator 2: 25



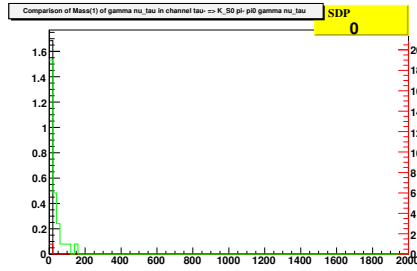
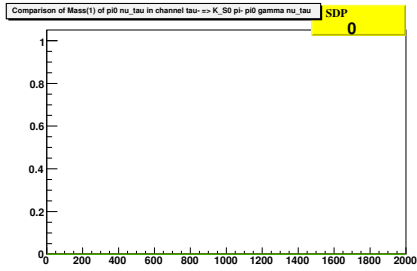
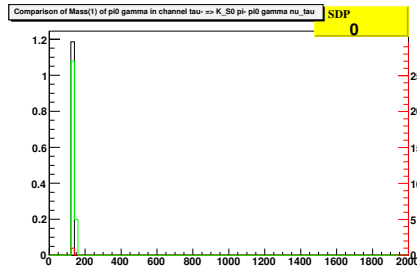
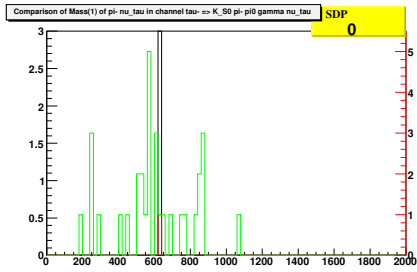
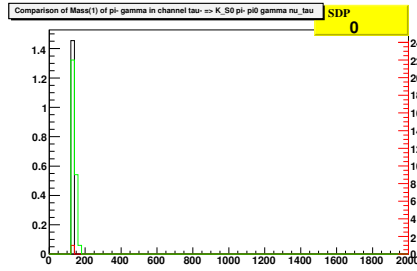
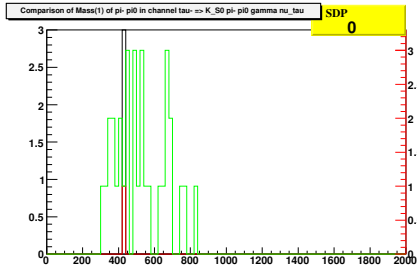
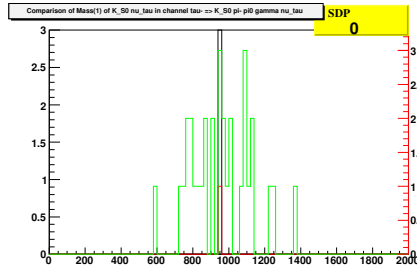
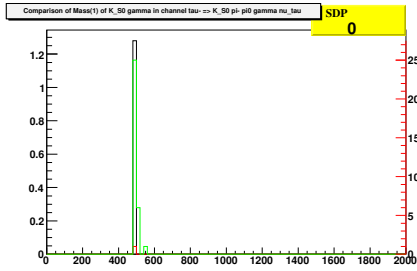
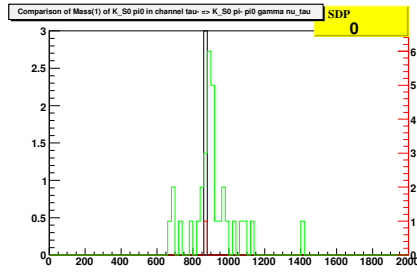
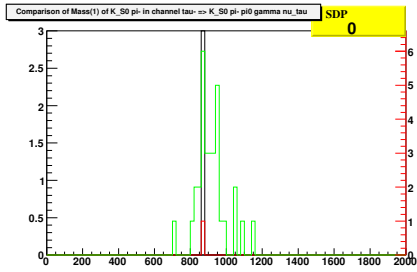


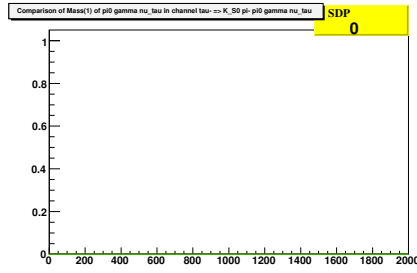
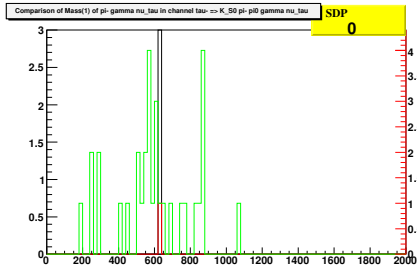
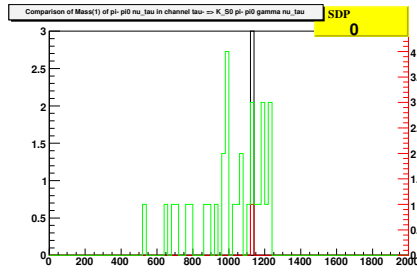
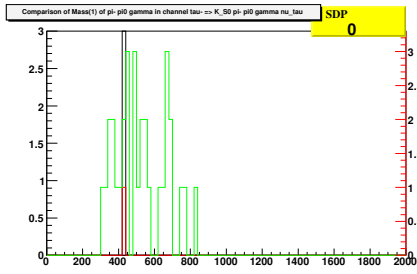
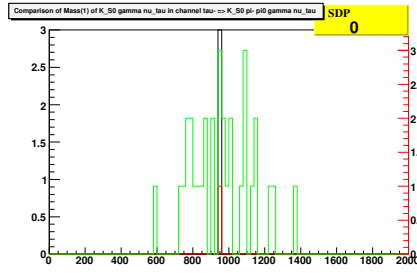
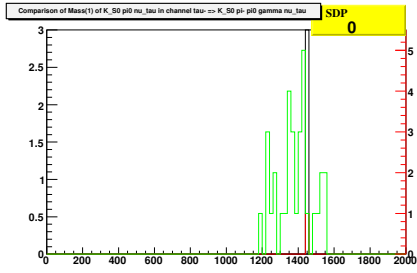
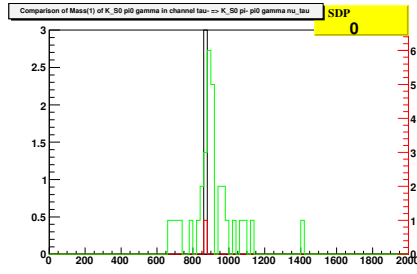
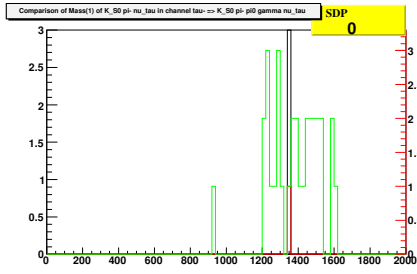
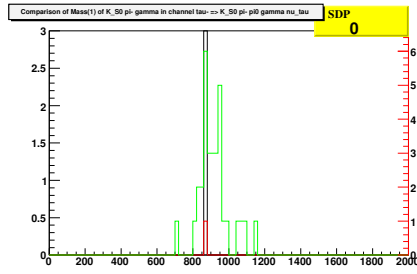
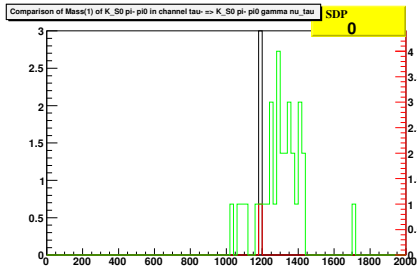


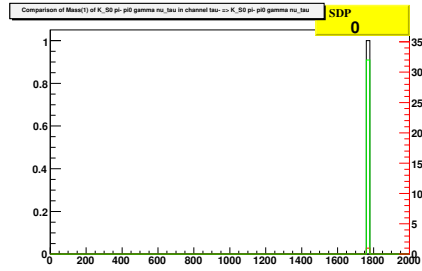
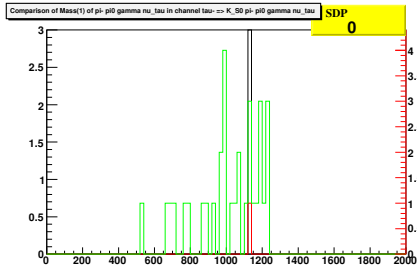
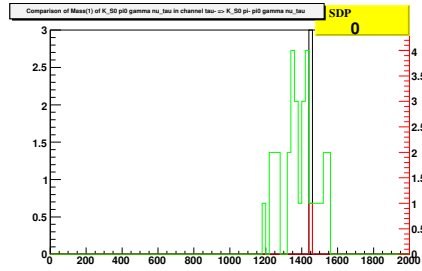
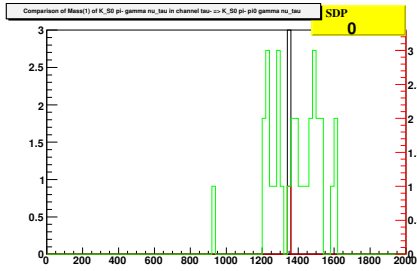
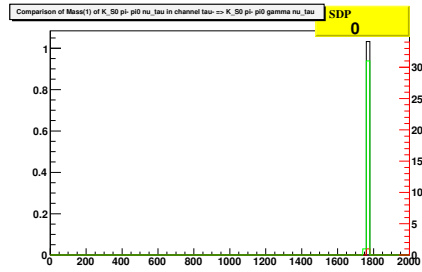
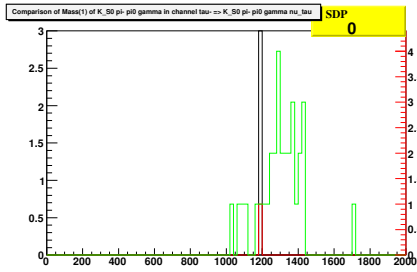
49 Decay Channel: $\tau^- \rightarrow K_S^0 \pi^- \pi^0 \gamma \nu_\tau$

Number of events from generator 1: 1

Number of events from generator 2: 32



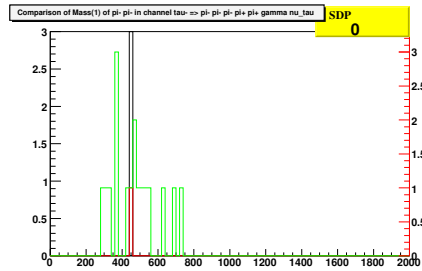
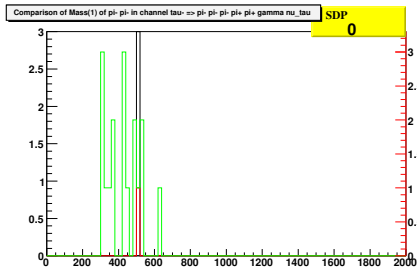


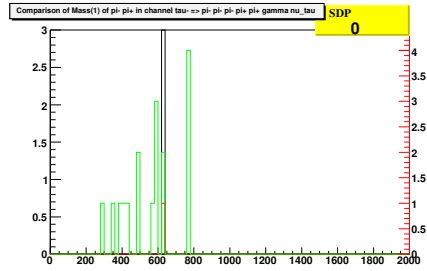
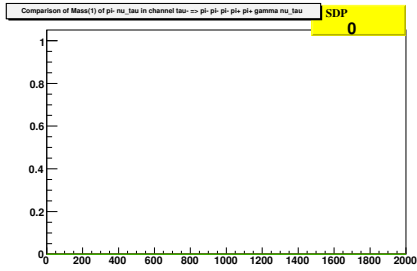
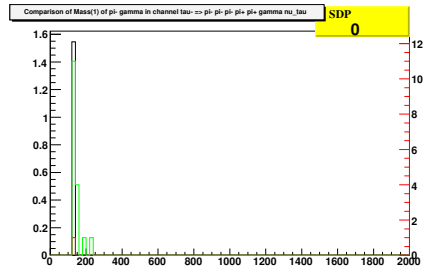
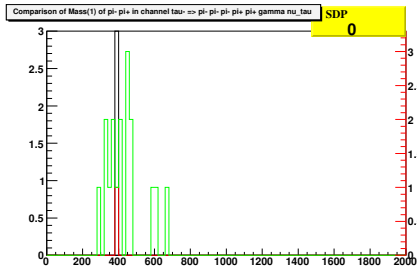
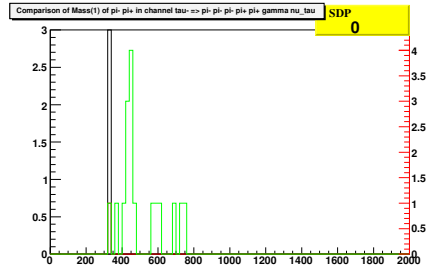
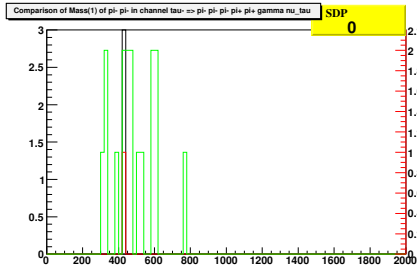
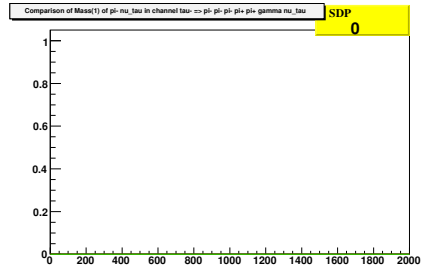
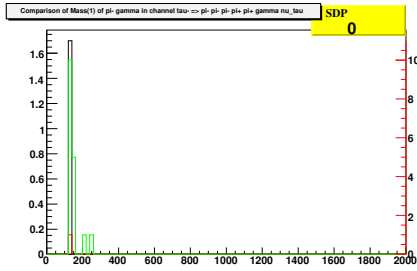
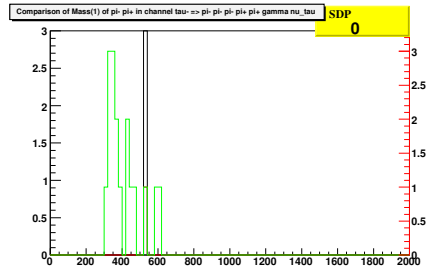
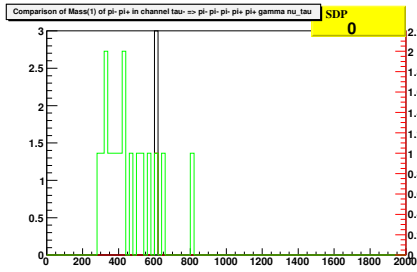


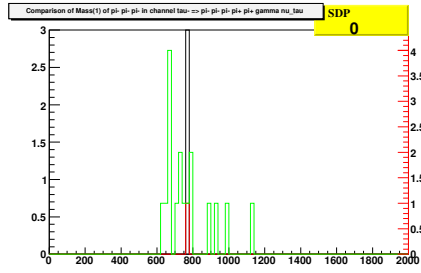
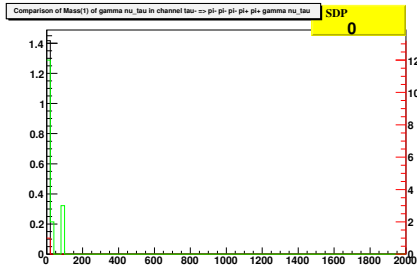
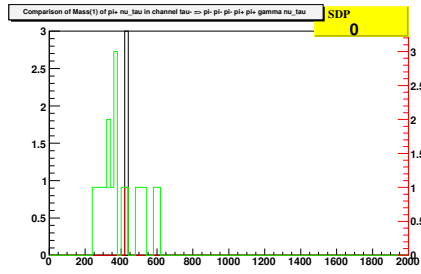
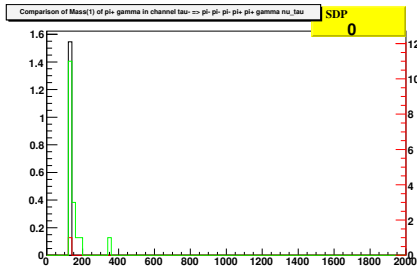
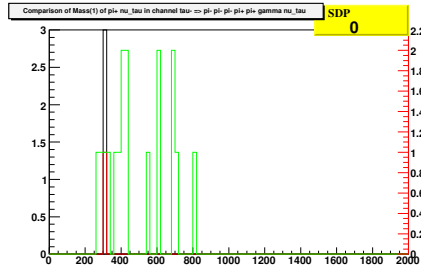
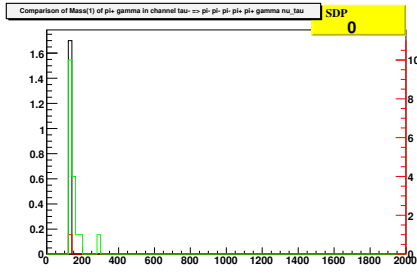
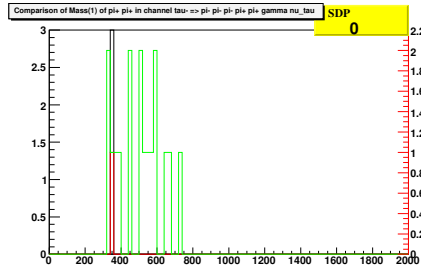
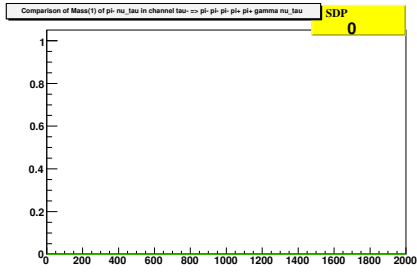
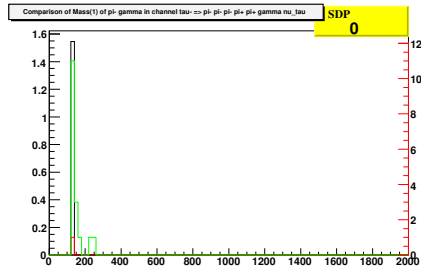
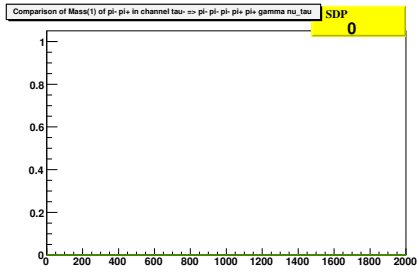
50 Decay Channel: $\tau^- \rightarrow \pi^- \pi^- \pi^- \pi^+ \pi^+ \gamma \nu_\tau$

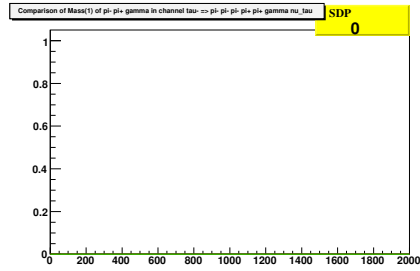
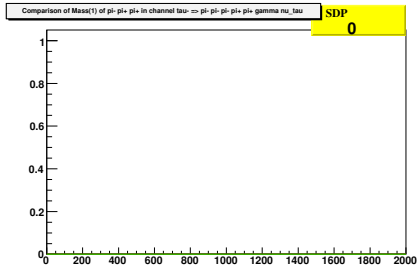
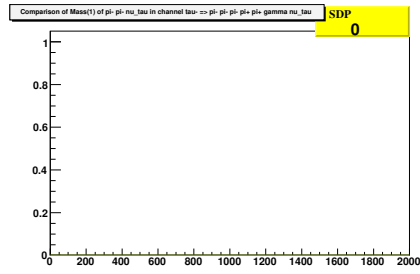
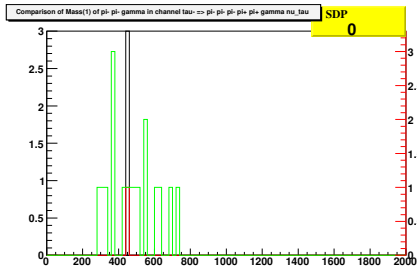
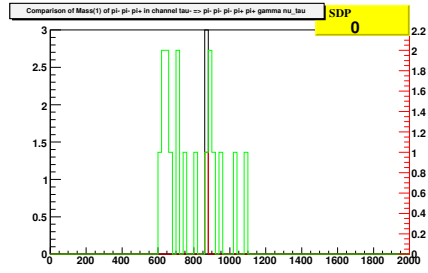
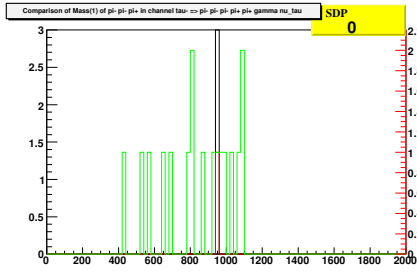
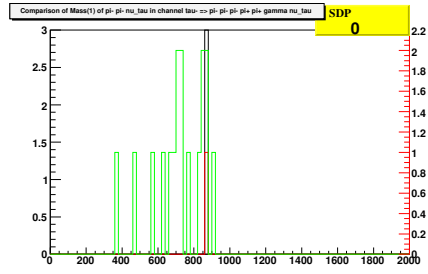
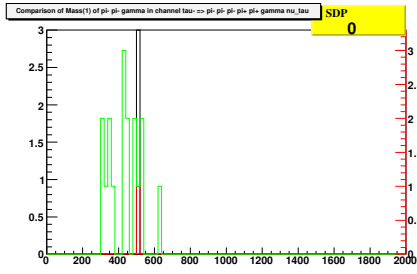
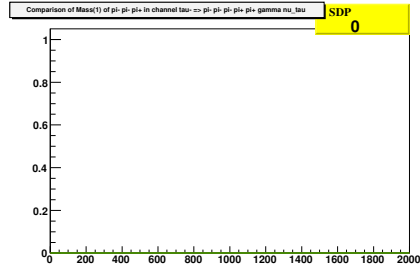
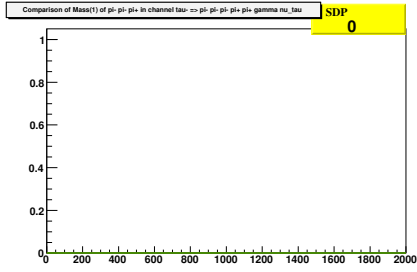
Number of events from generator 1: 1

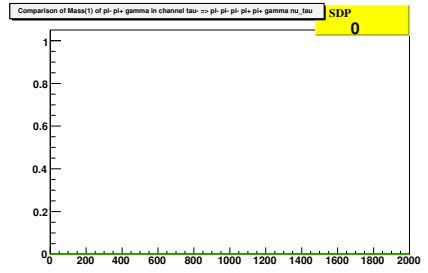
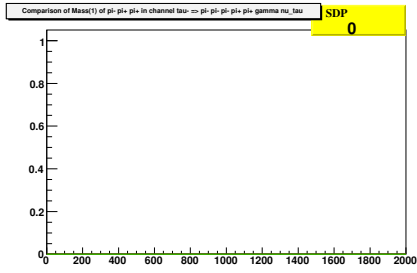
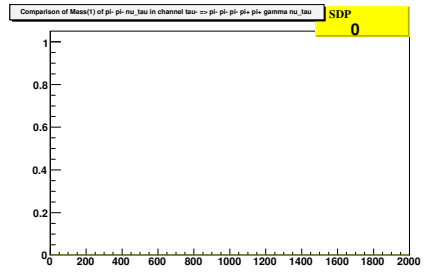
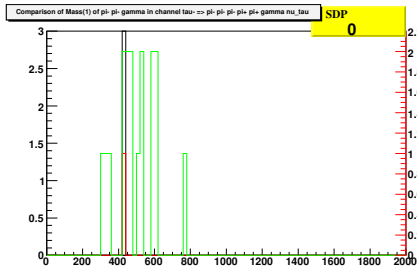
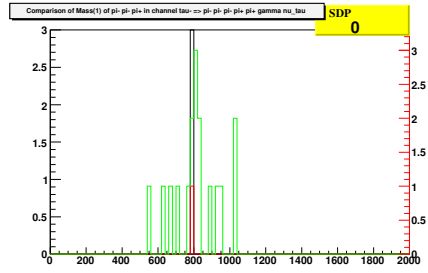
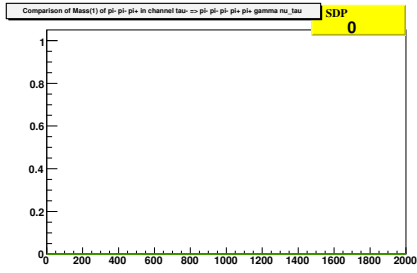
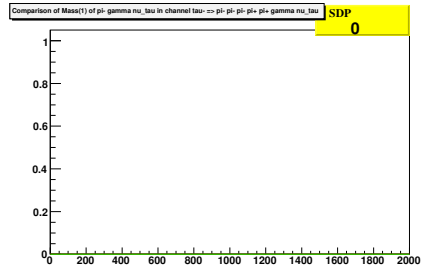
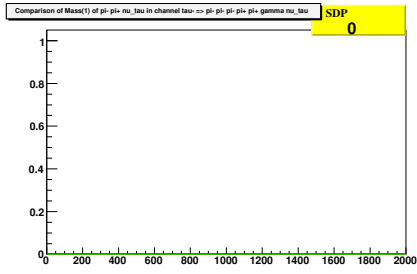
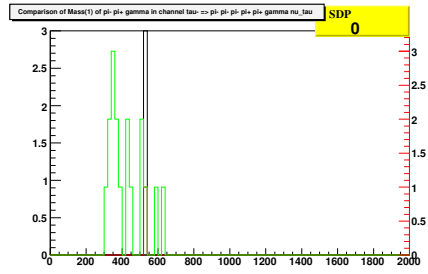
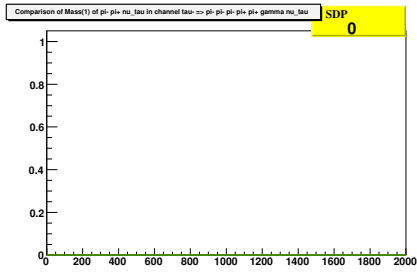
Number of events from generator 2: 17

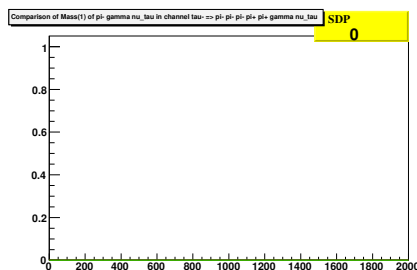
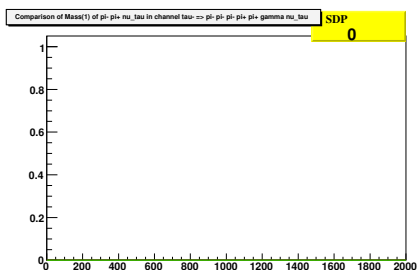
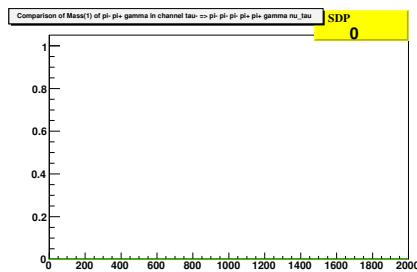
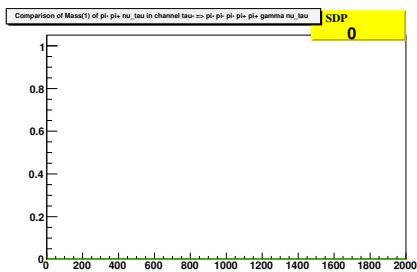
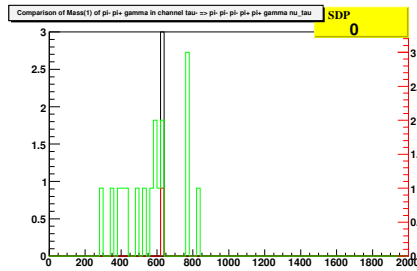
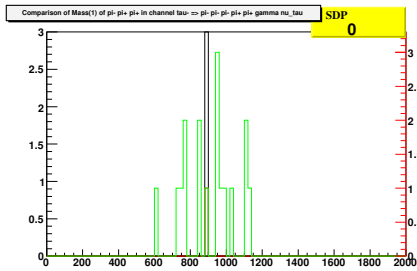
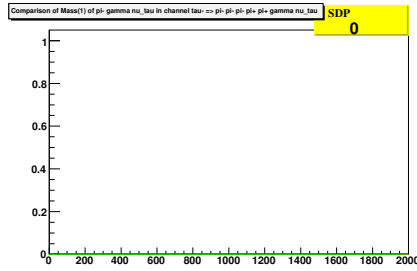
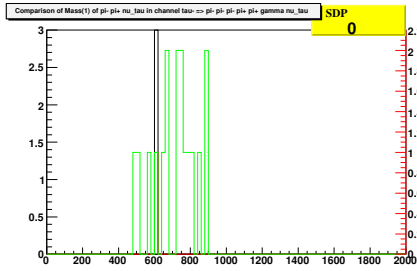
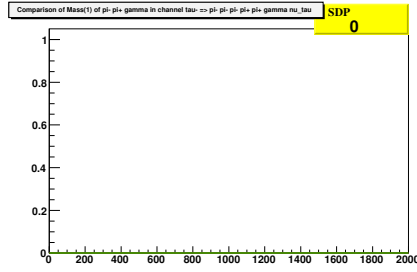
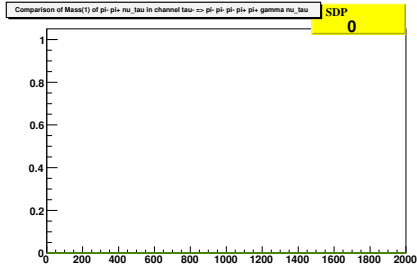


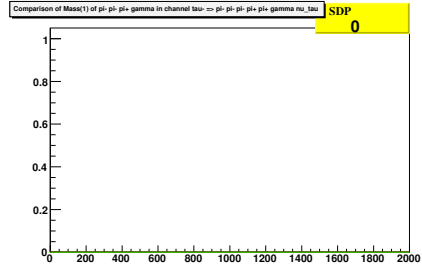
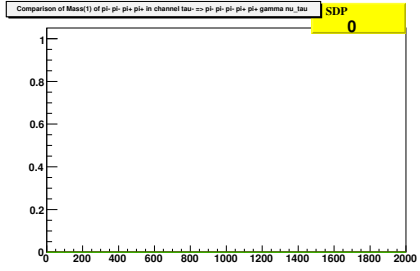
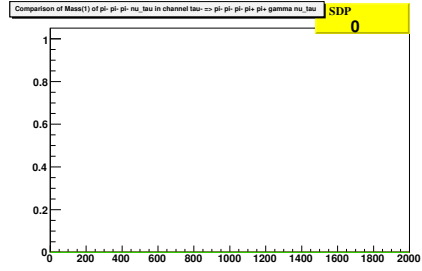
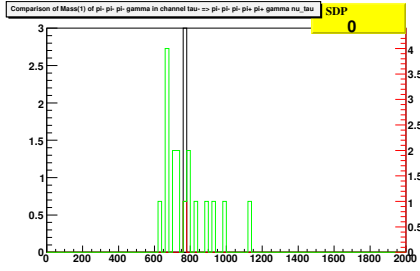
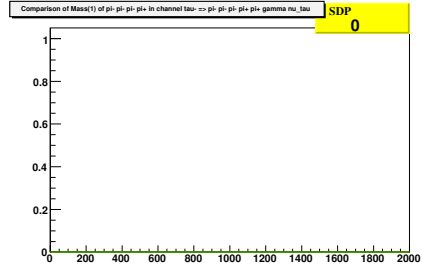
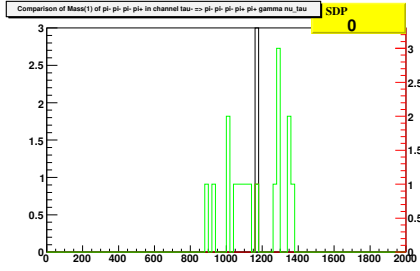
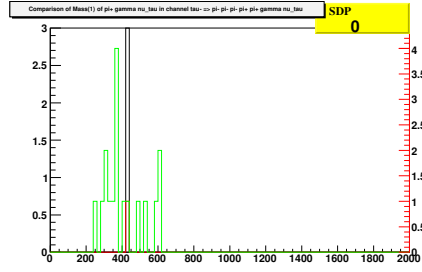
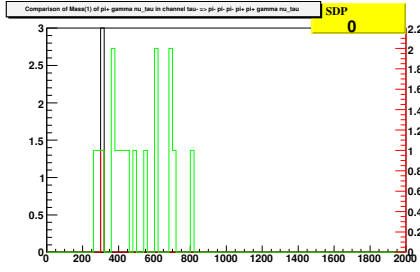
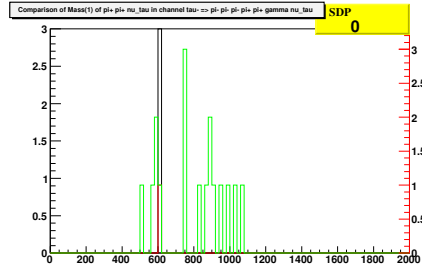
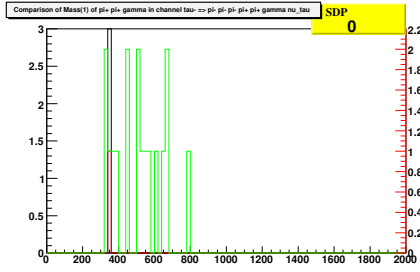


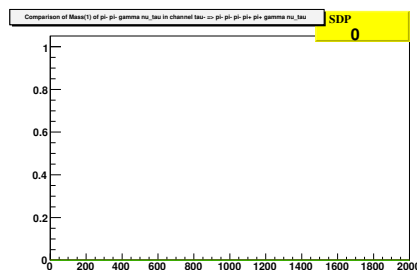
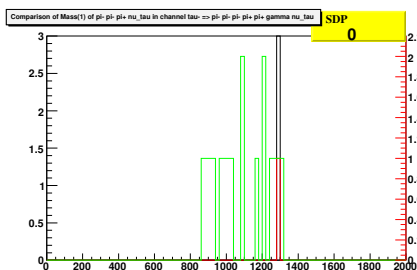
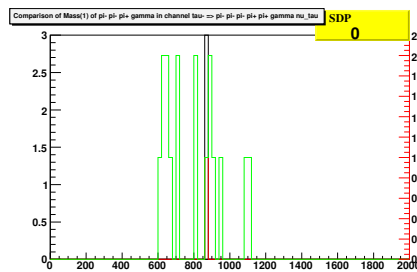
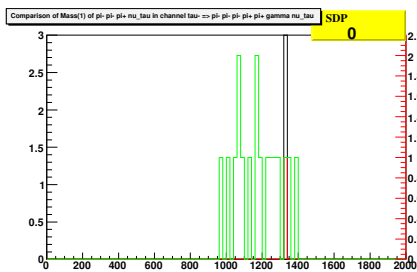
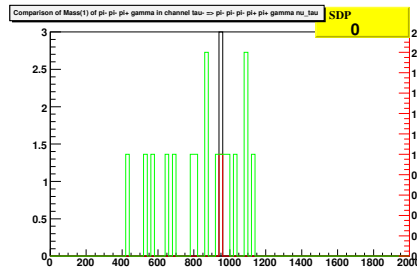
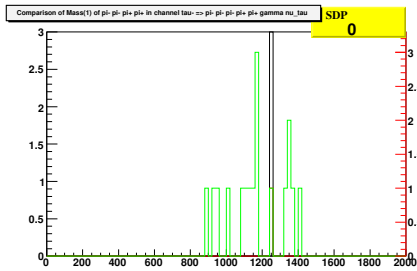
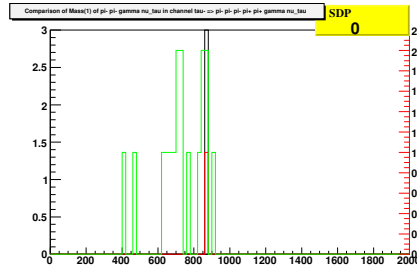
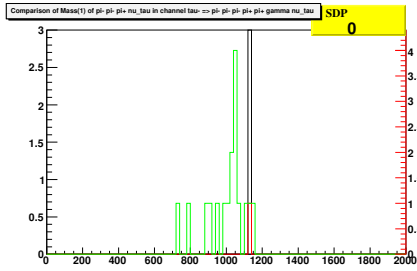
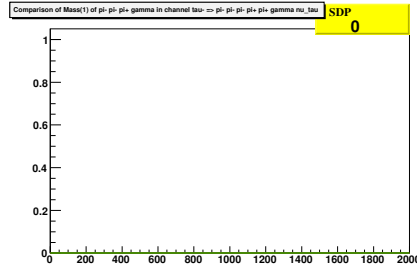
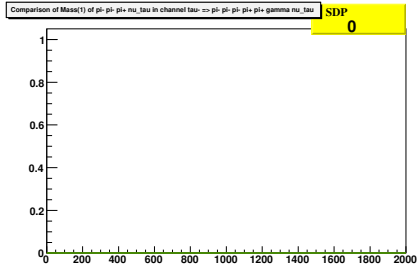


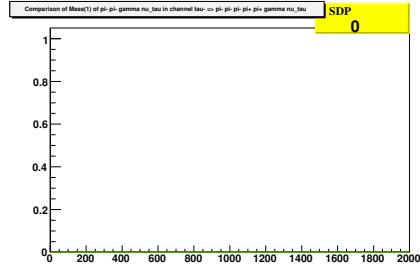
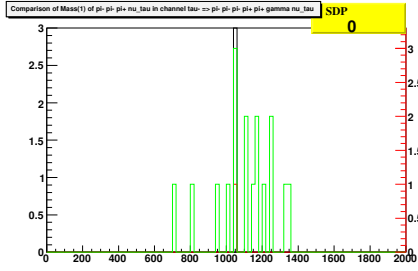
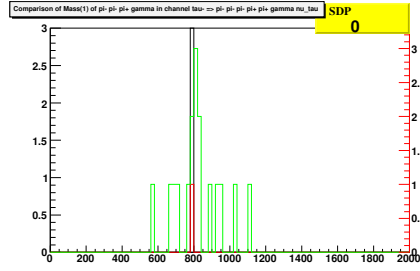
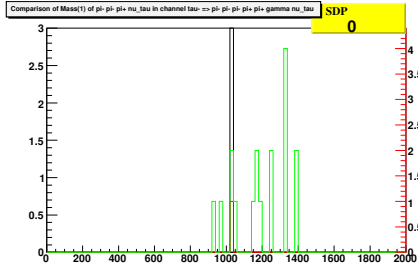
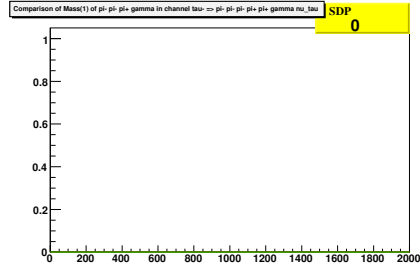
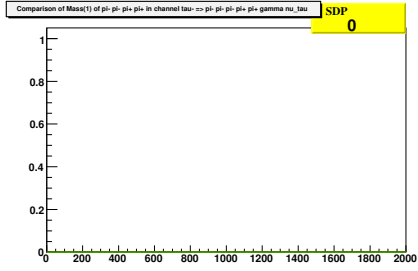
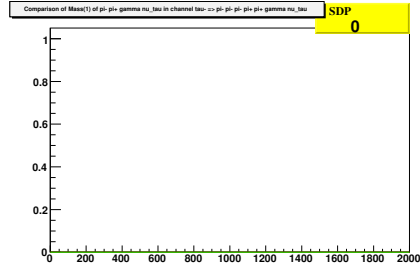
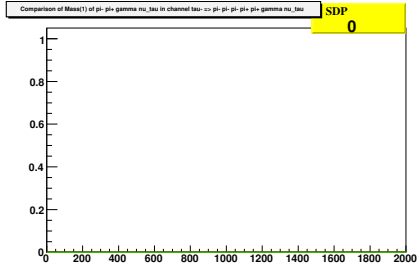
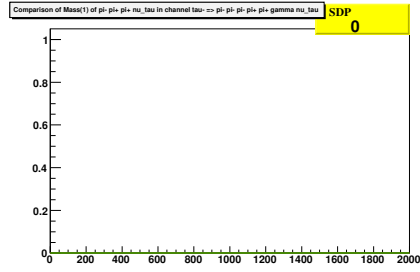
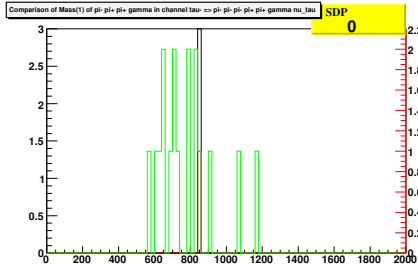


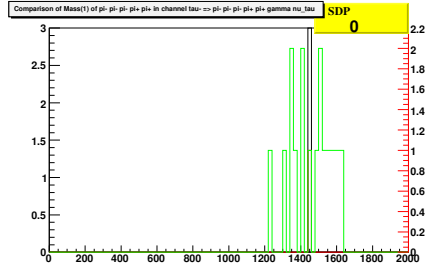
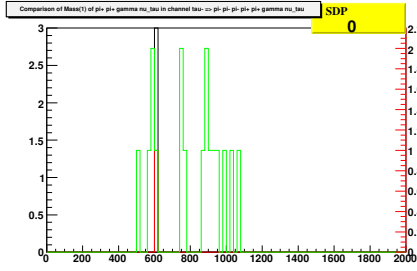
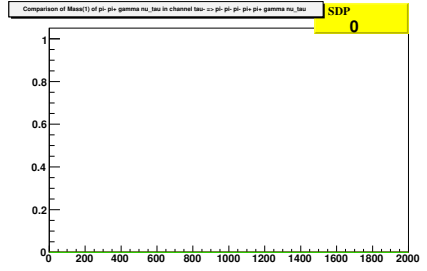
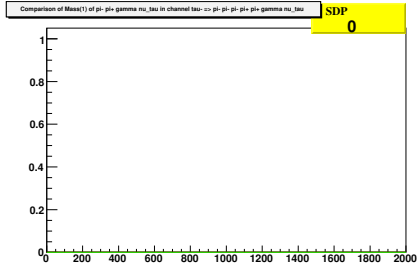
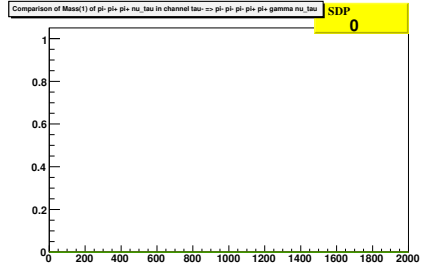
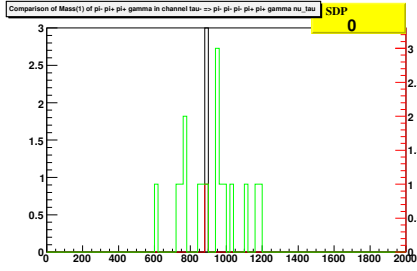
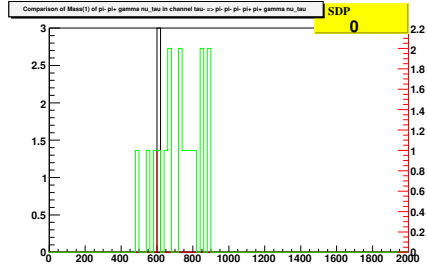
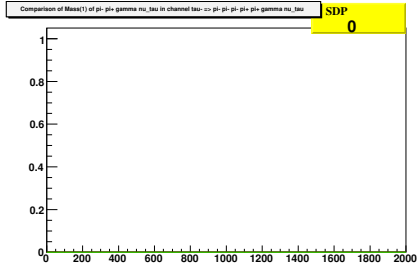
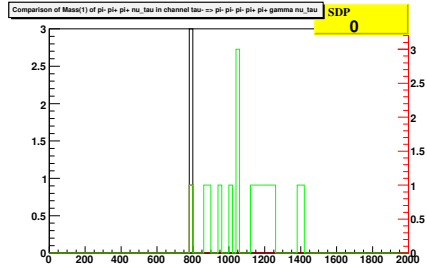
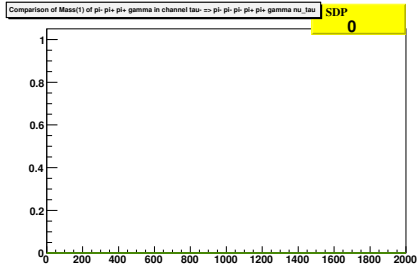


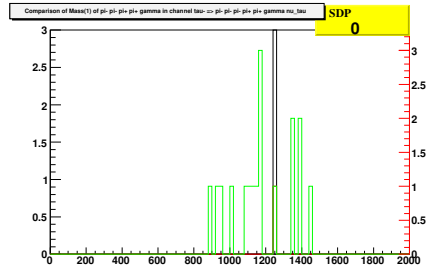
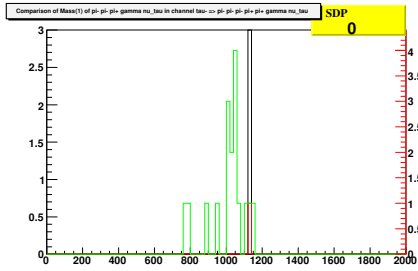
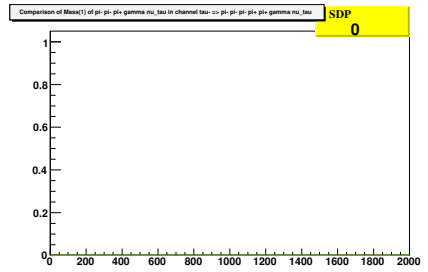
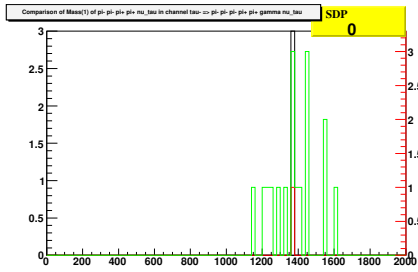
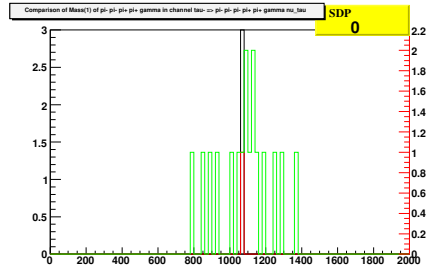
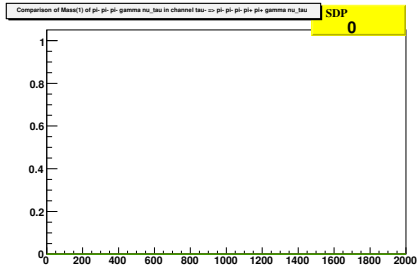
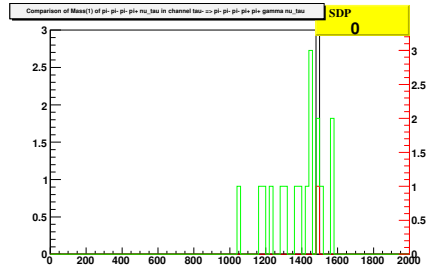
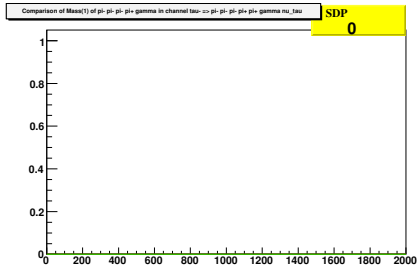
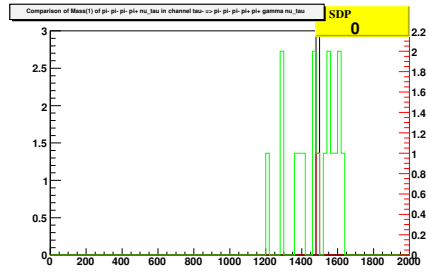
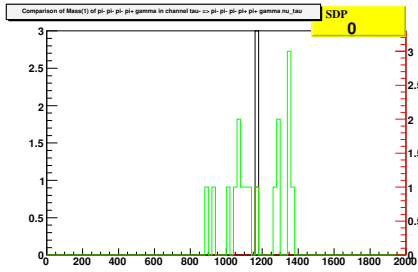


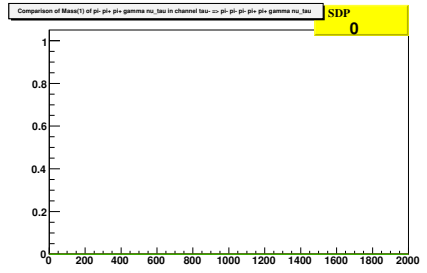
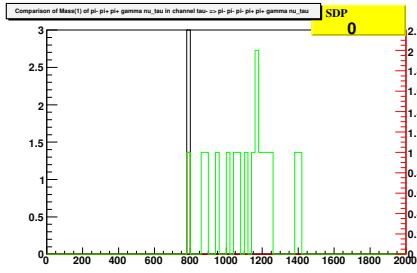
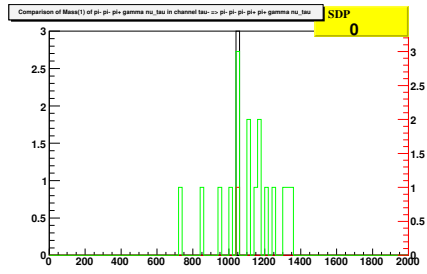
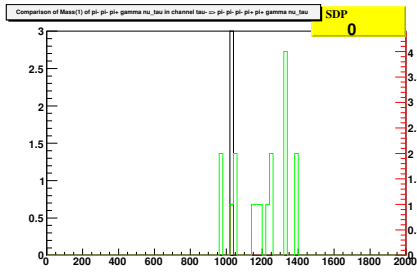
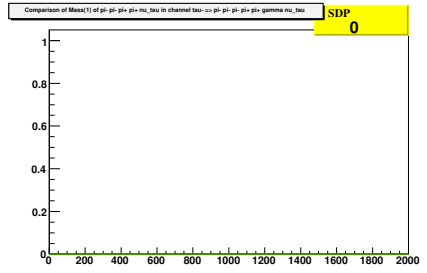
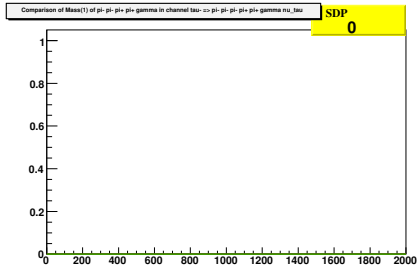
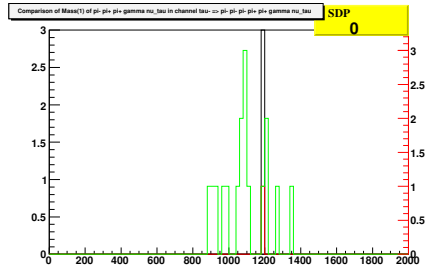
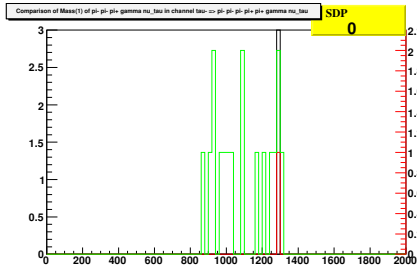
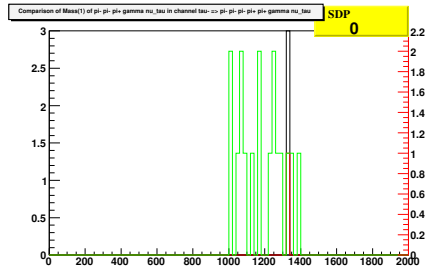
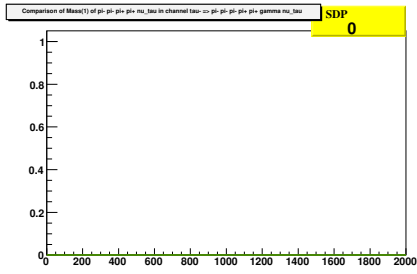


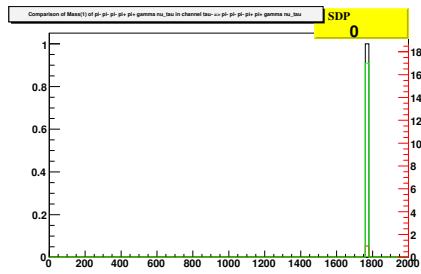
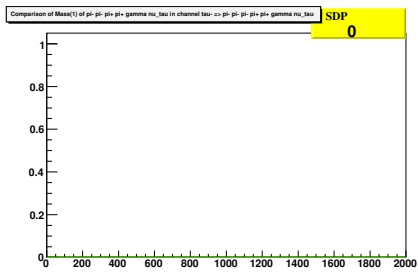
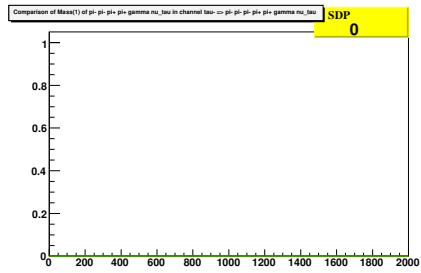
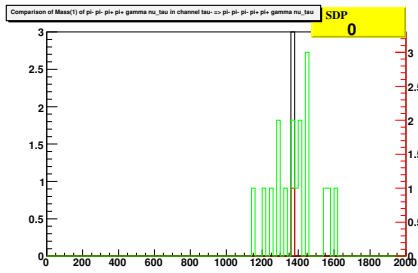
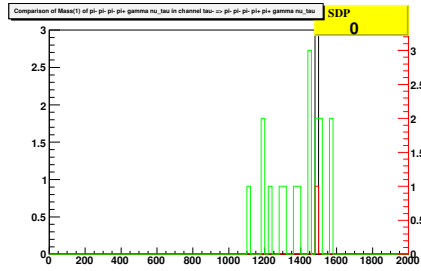
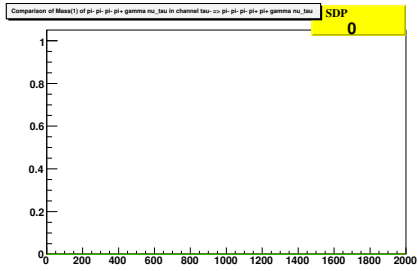
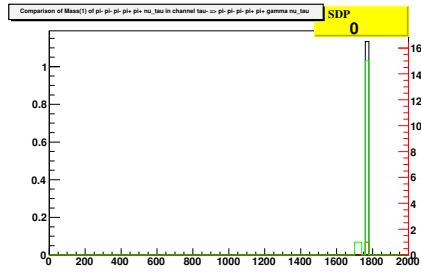
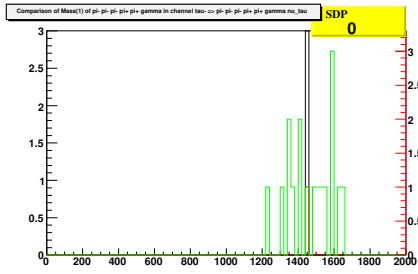








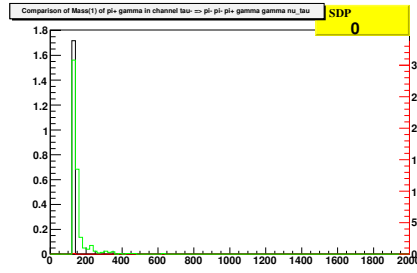
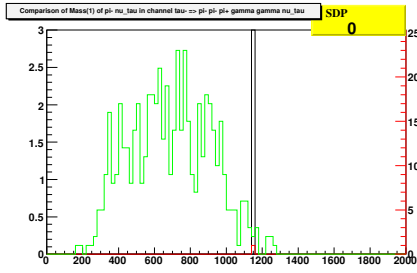
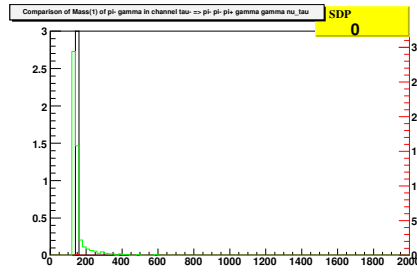
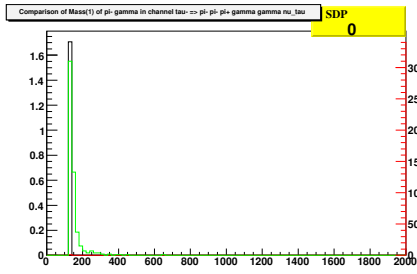
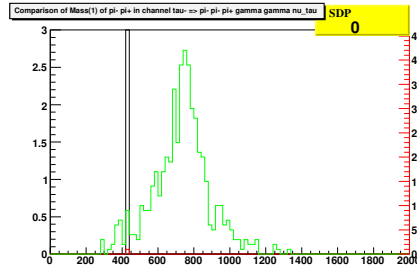
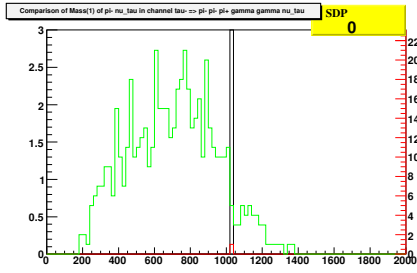
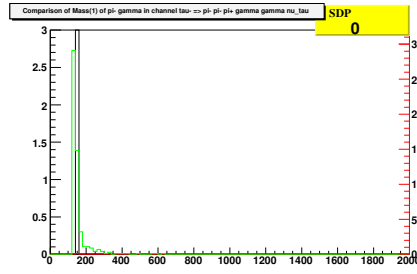
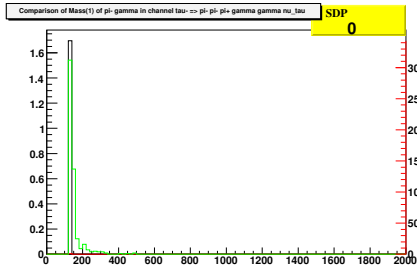
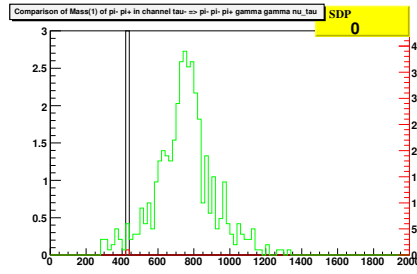
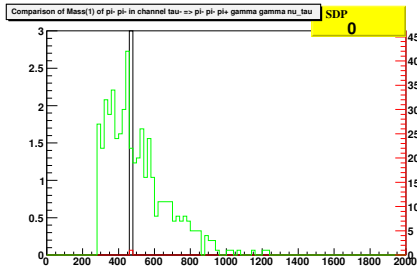


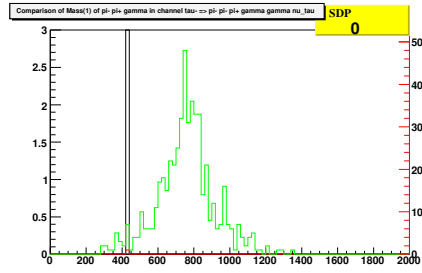
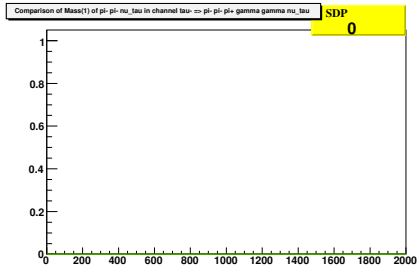
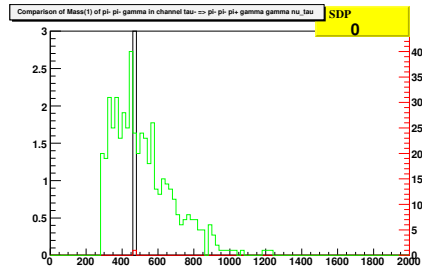
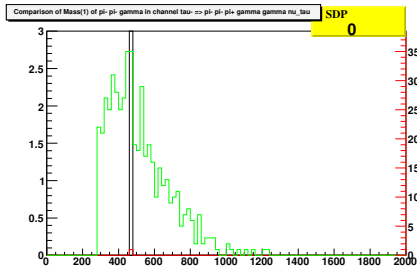
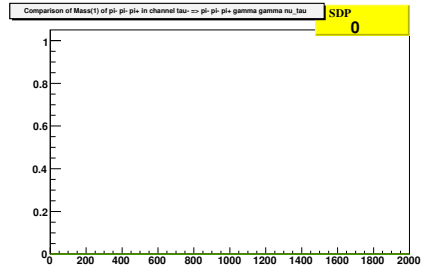
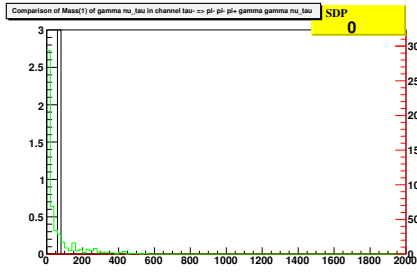
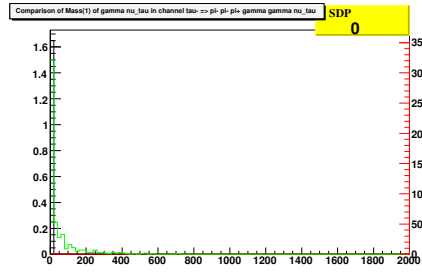
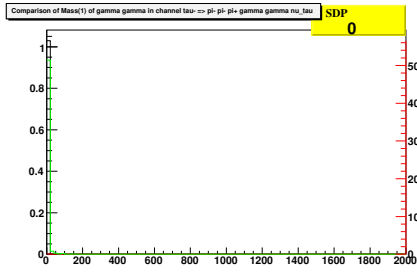
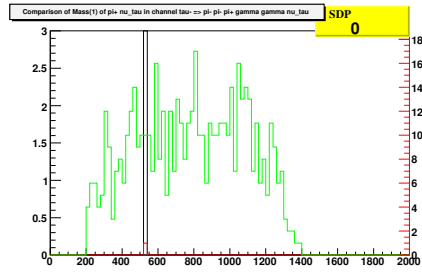
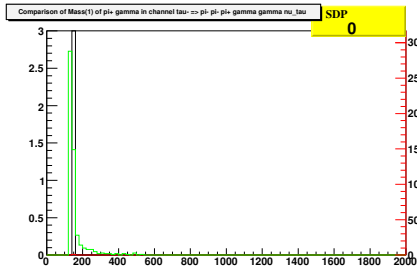


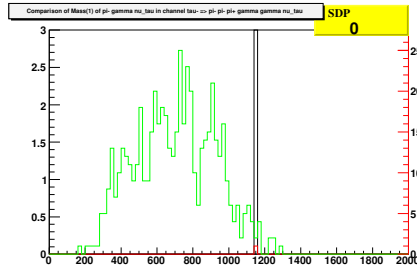
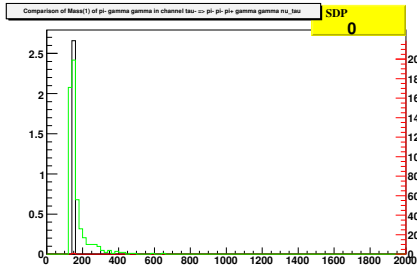
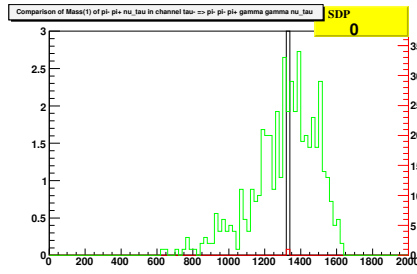
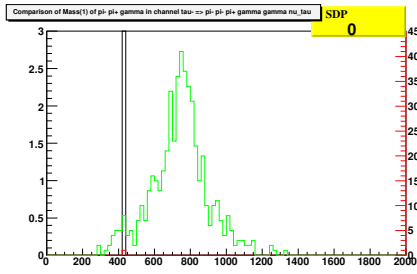
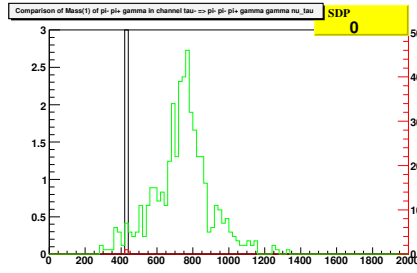
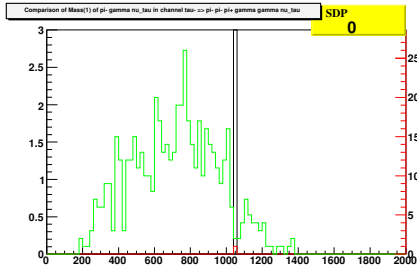
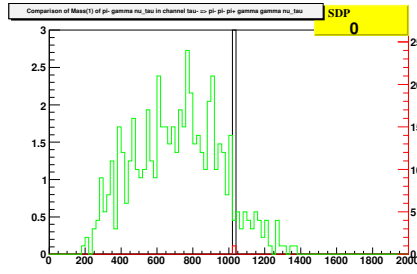
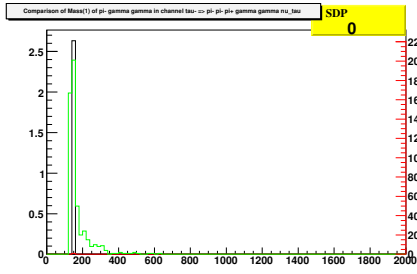
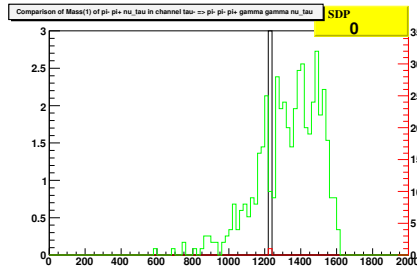
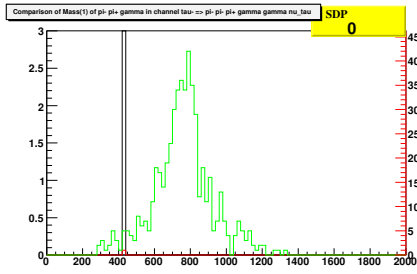
51 Decay Channel: $\tau^- \rightarrow \pi^- \pi^- \pi^+ \gamma \nu_\tau$

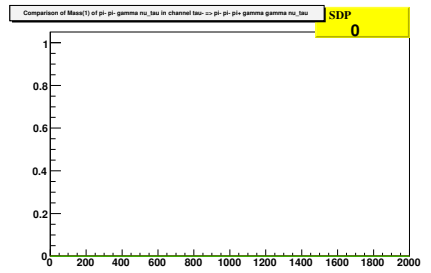
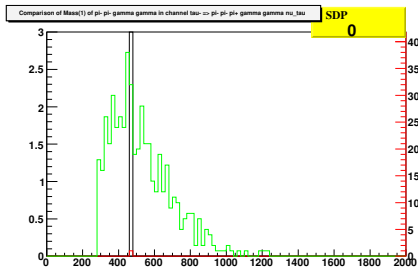
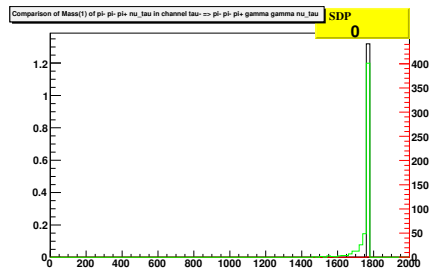
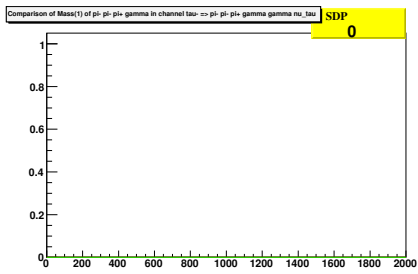
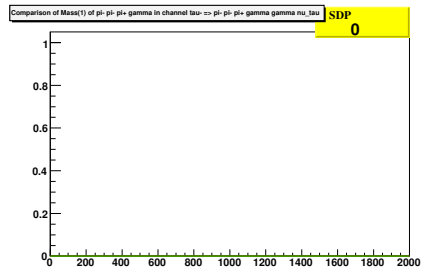
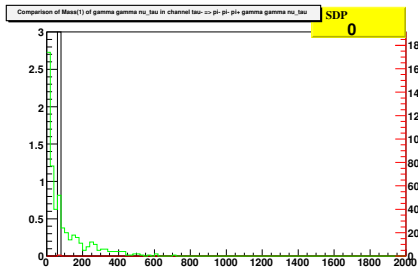
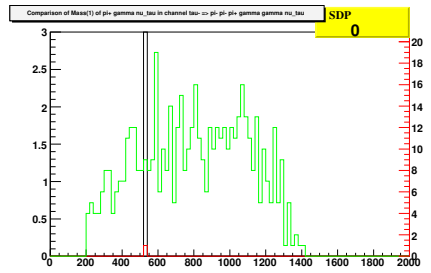
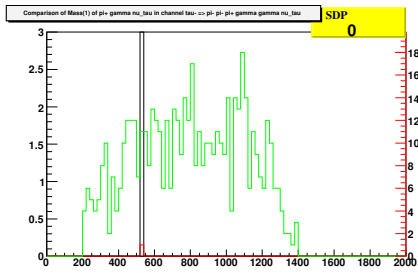
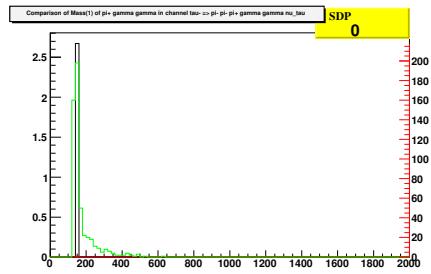
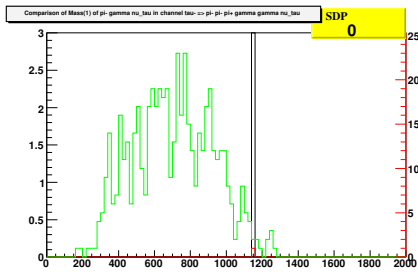
Number of events from generator 1: 1

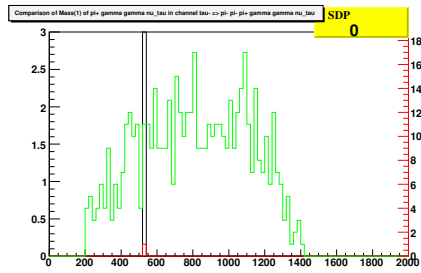
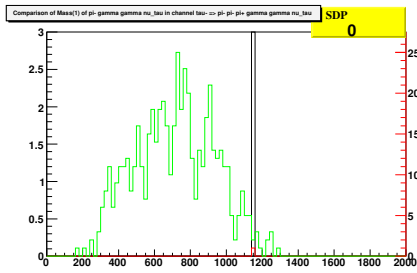
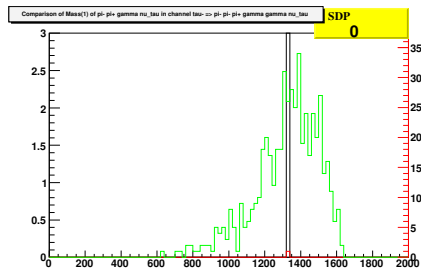
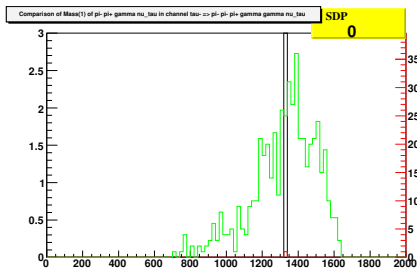
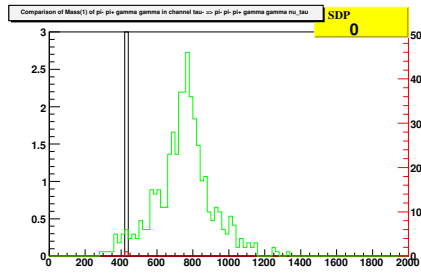
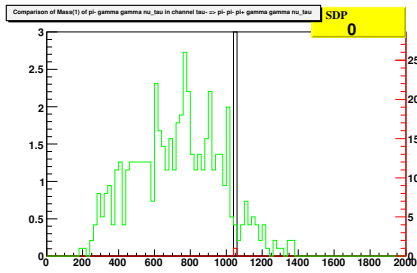
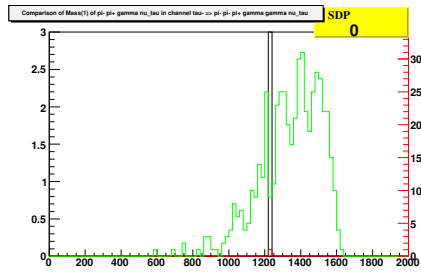
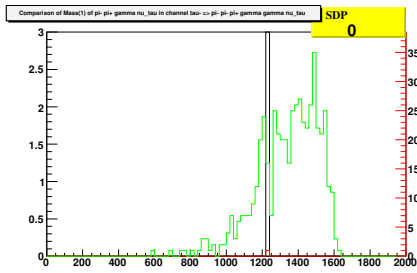
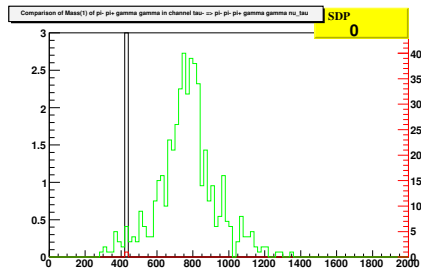
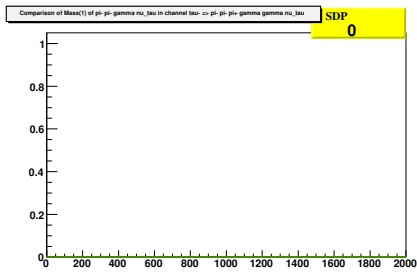
Number of events from generator 2: 529

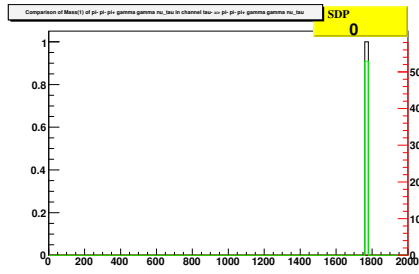
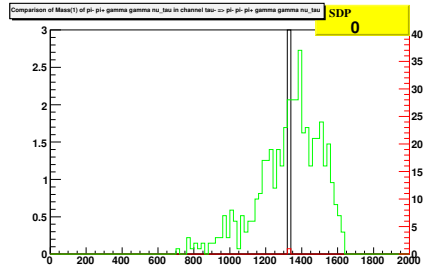
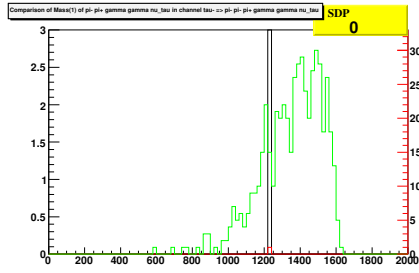
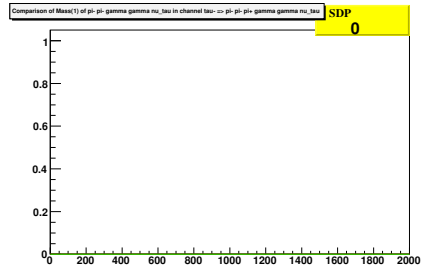
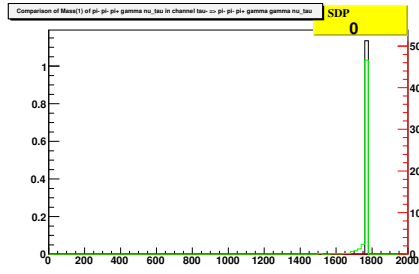
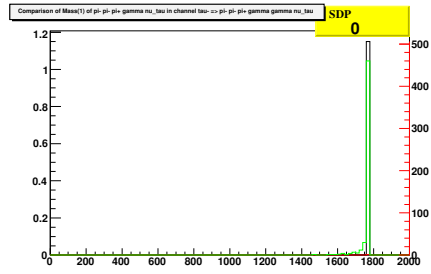
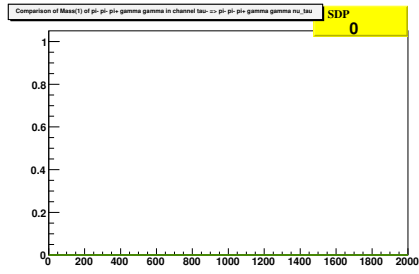








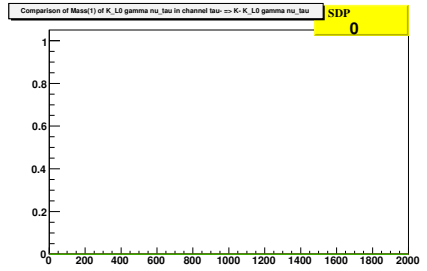
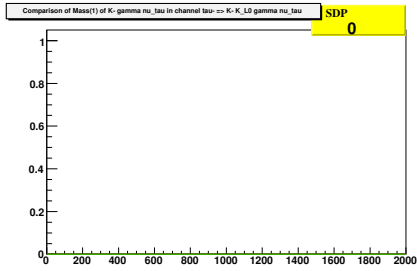
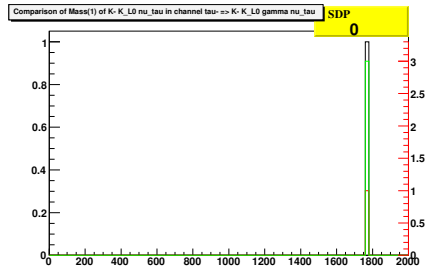
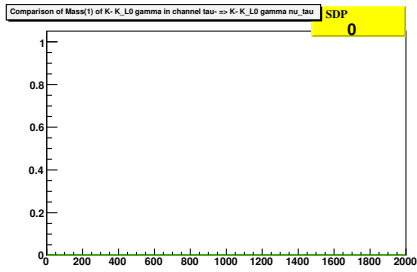
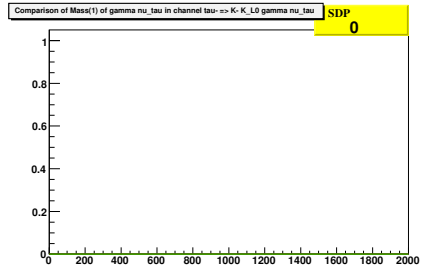
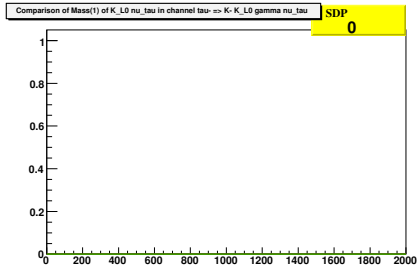
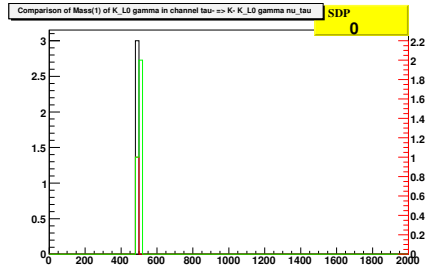
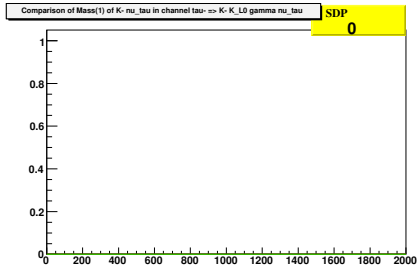
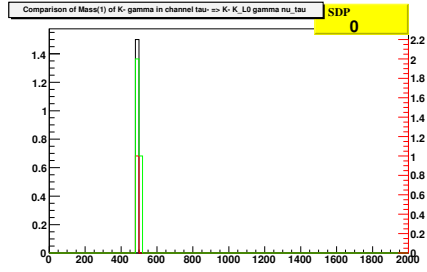
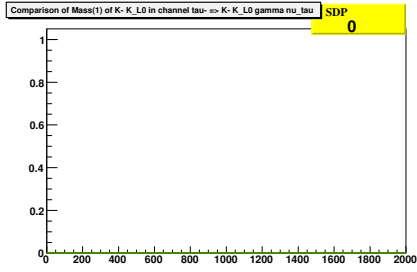


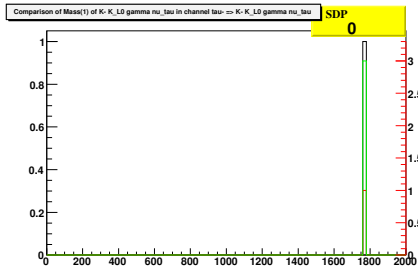


52 Decay Channel: $\tau^- \rightarrow K^- K_L^0 \gamma \nu_\tau$

Number of events from generator 1: 1

Number of events from generator 2: 3

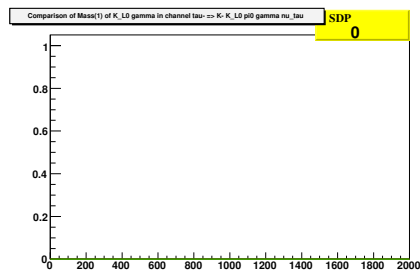
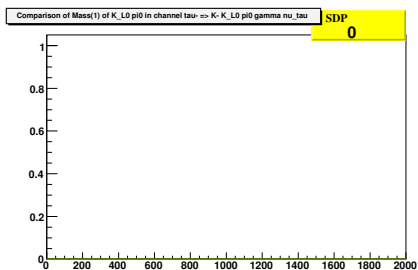
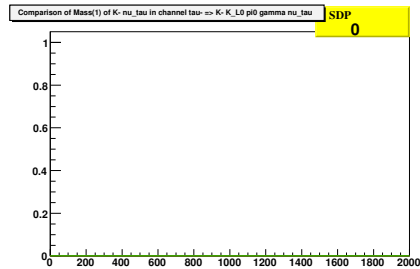
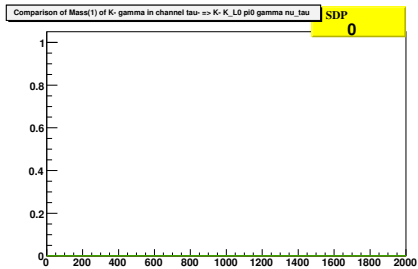
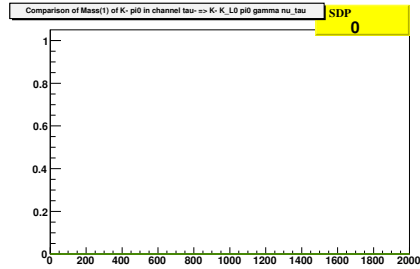
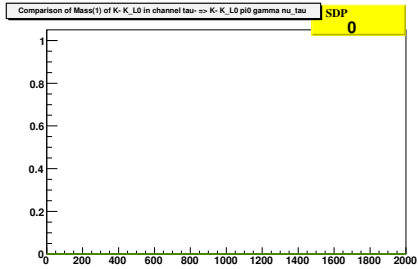


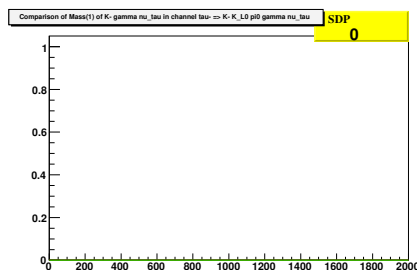
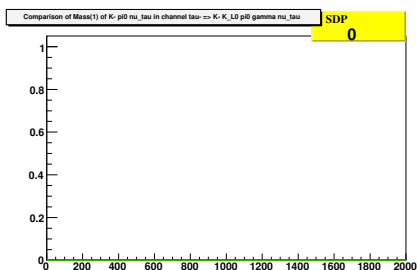
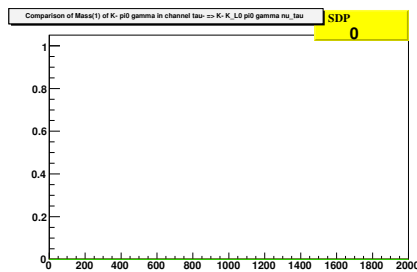
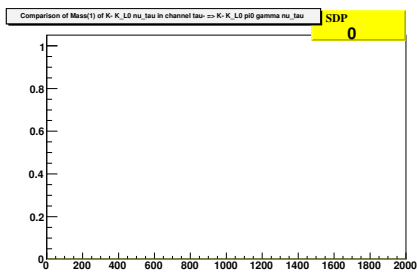
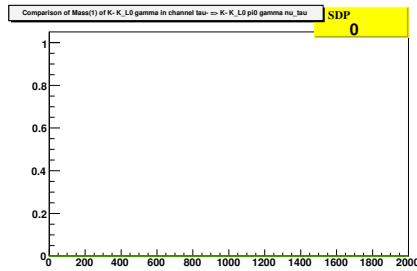
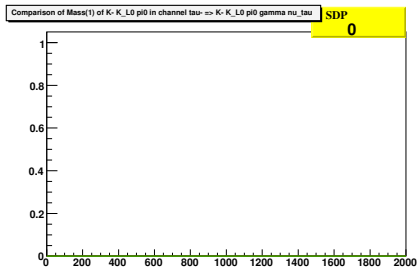
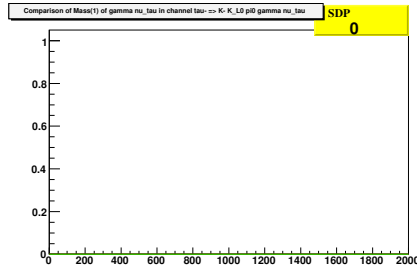
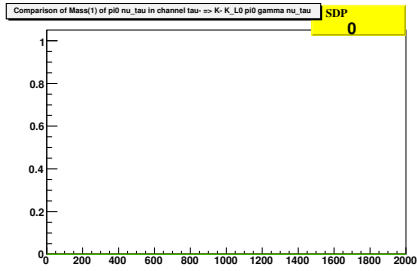
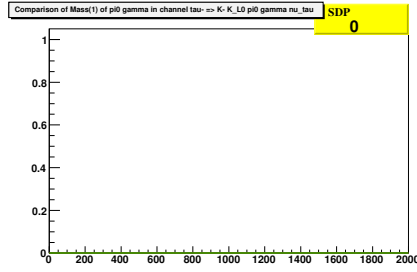
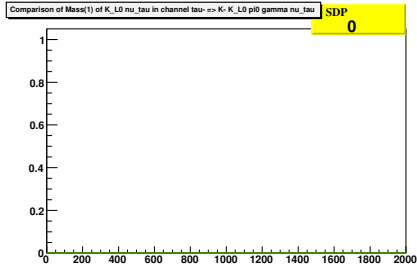


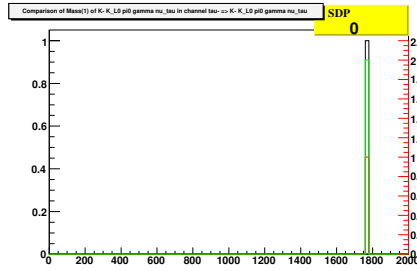
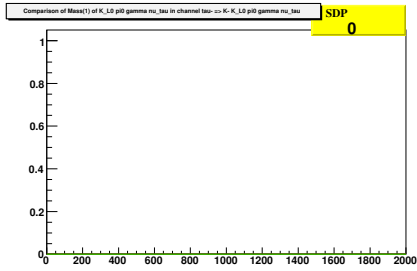
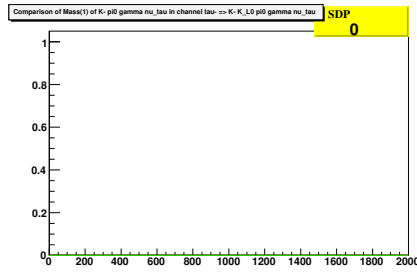
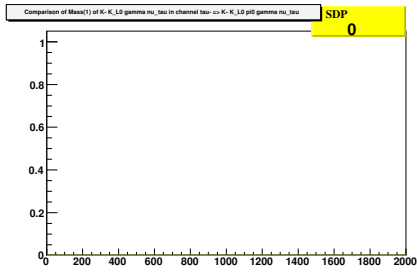
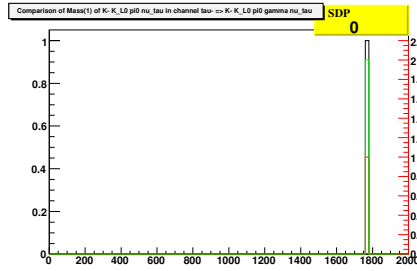
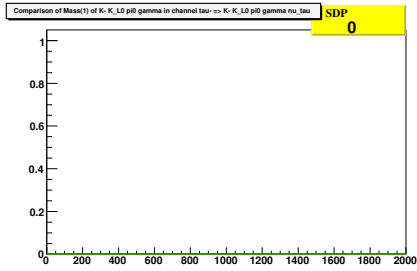
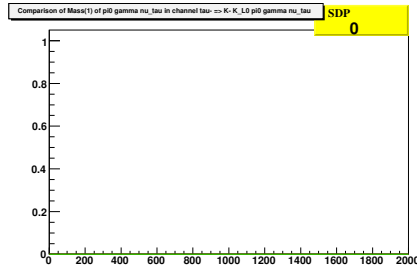
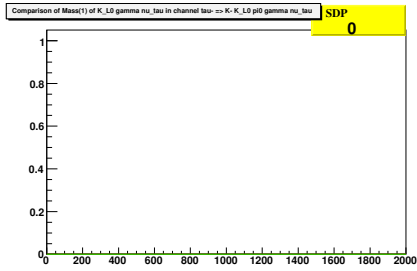
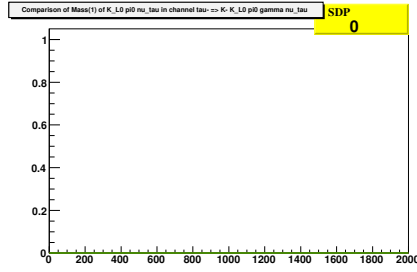
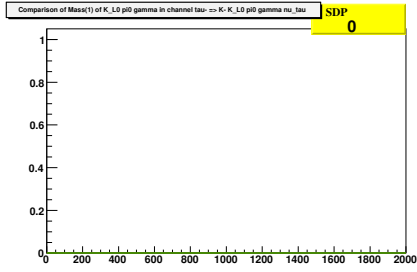
53 Decay Channel: $\tau^- \rightarrow K^- K_L^0 \pi^0 \gamma \nu_\tau$

Number of events from generator 1: 1

Number of events from generator 2: 2







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

Number of events from generator 1: 1

Number of events from generator 2: 12

