

| sample   | nEventsIn | weightIn |
|--|-----------|----------|
| HT.Run2012A-22Jan2013.jsonWeight                     | 6489409   | 5.44e+06 |
| HTMHTParked.Run2012B-22Jan2013.jsonWeight            | 38426320  | 3.48e+07 |
| HTMHTParked.Run2012C-22Jan2013.jsonWeight            | 61486487  | 5.92e+07 |
| HTMHTParked.Run2012D-22Jan2013.jsonWeight            | 65833371  | 6.26e+07 |
| T_s_powheg.puWeight.bTagWeight                       | 243961    | 2.51e+05 |
| T_tW_powheg.puWeight.bTagWeight                      | 497658    | 5.11e+05 |
| T_t_powheg.puWeight.bTagWeight                       | 3694226   | 3.80e+06 |
| Tbar_s_powheg.puWeight.bTagWeight                    | 139973    | 1.44e+05 |
| Tbar_tW_powheg.puWeight.bTagWeight                   | 493459    | 5.07e+05 |
| Tbar_t_powheg.puWeight.bTagWeight                    | 1935072   | 1.99e+06 |
| WW_py6.puWeight.bTagWeight                           | 9840430   | 1.01e+07 |
| WZ_py6.puWeight.bTagWeight                           | 9872282   | 1.02e+07 |
| ZZ_py6.puWeight.bTagWeight                           | 9783908   | 1.01e+07 |
| dyll_HT_400ToInf_M-50.puWeight.bTagWeight            | 2695789   | 2.78e+06 |
| dyll_HT_200To400_M-50.puWeight.bTagWeight            | 6892777   | 7.10e+06 |
| dyll_HT_10To200_M-50.puWeight.bTagWeight             | 8111524   | 8.36e+06 |
| ttbar_CT10_powheg.puWeight.bTagWeight.topPtWeight    | 26406722  | 2.71e+07 |
| wj_lv_mg_ht_400ToInf_LO.puWeight.bTagWeight.xsWeight | 4875847   | 5.71e+06 |
| wj_lv_mg_ht_250To300_LO.puWeight.bTagWeight.xsWeight | 4924989   | 6.01e+06 |
| wj_lv_mg_ht_300To400_LO.puWeight.bTagWeight.xsWeight | 5125023   | 6.48e+06 |
| wj_lv_mg_ht_200To250_LO.puWeight.bTagWeight.xsWeight | 9799771   | 1.30e+07 |
| wj_lv_mg_ht_10To150_LO.puWeight.bTagWeight           | 13992012  | 1.44e+07 |
| wj_lv_mg_ht_150To200_LO.puWeight.bTagWeight.xsWeight | 21126208  | 2.41e+07 |
| zinv_mg_ht_200_400.puWeight.bTagWeight               | 5079710   | 5.23e+06 |
| zinv_mg_ht_200_400.puWeight.bTagWeight               | 9649618   | 9.93e+06 |
| zinv_mg_ht_100_200.puWeight.bTagWeight               | 9860059   | 1.01e+07 |
| zinv_mg_ht_50_100.puWeight.bTagWeight                | 23727997  | 2.44e+07 |

file created at Tue Sep 16 01:44:04 2014

# Calculables

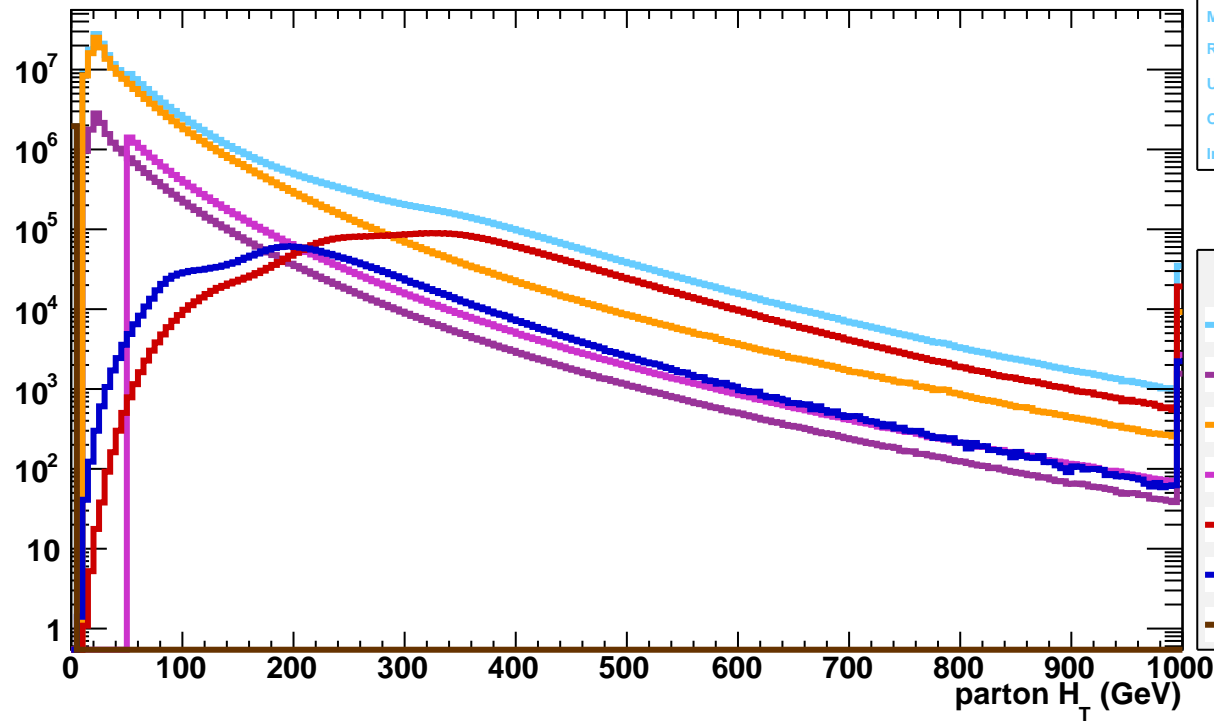
|                               |   |
|-------------------------------|---|
| ecalLaserCalibEvent2012       | pass Ecal laser calibration 2012 event filter   |
| electronIndicesNonIsoPF       | pass ptMin & id; fail iso   |
| electronIndicesOtherPF        | pass ptMin; fail id   |
| electronIndicesPF             | pt>10.0; (2012 Veto)  |
| electronIndicesUnmatchedPF    | electronIndicesOtherPF; no dR<0.5 match in ak5JetPFCorrectedP4Pat   |
| genIndicesStatus3t            | pdgId in [-6, 6]; status in [3]   |
| hcalLaserEvent2012            | pass HCAL laser 2012 event filter   |
| jsonWeight                    | run:ls in cert/Cert_190456-208686_8TeV_22Jan2013ReReco_Collisions12_JSON.txt  |
| muonIdPog2012LoosePF          | <a href="https://twiki.cern.ch/twiki/bin/view/CMSPublic/SWGuideMuonId#Loose_Muon">https://twiki.cern.ch/twiki/bin/view/CMSPublic/SWGuideMuonId#Loose_Muon</a> |
| muonIdPog2012TightPF          | <a href="https://twiki.cern.ch/twiki/bin/view/CMSPublic/SWGuideMuonId#Tight_Muon">https://twiki.cern.ch/twiki/bin/view/CMSPublic/SWGuideMuonId#Tight_Muon</a> |
| muonIndicesNonIsoPF           | pass ptMin & id; fail iso   |
| muonIndicesOtherPF            | pass ptMin; fail id   |
| muonIndicesPF                 | IdPog2012Tight; pt>10.0 GeV; PFIsoIolationR04DeltaBCorrected<0.12   |
| photonIndicesOtherPat         | pass ptMin; fail id/iso   |
| photonIndicesPat              | pT>=25.0 GeV; photonSimpleCutBased2012TightPat  |
| photonIndicesUnmatchedPat     | photonIndicesOtherPat; no dR<0.5 match in ak5JetPFCorrectedP4Pat  |
| vertexID                      | !fake; nd>=5.0;  z <=24.0 cm; d0<=2.0 cm  |
| vertexIndices                 | ; pass ID   |
| vertexIndicesOther            | pass sumPtMin; fail ID  |
| weight                        | 1.bTagWeight.puWeight   |
| weight                        | 1.bTagWeight.puWeight.topPtWeight   |
| weight                        | 1.bTagWeight.puWeight.xsWeight  |
| weight                        | 1.jsonWeight  |
| xcak5JetCorrectedP4Pat        | muonPFDR<0.50; electronPFDR<0.50; photonPatDR<0.50  |
| xcak5JetIndicesOtherPat       | pass ptMin; fail jetID or etaMax  |
| xcak5JetIndicesPat            | pT>=50.0 GeV;  eta <3.0; JetIDtight   |
| xcak5JetPFCorrectedP4Pat      | muonPFDR<0.50; electronPFDR<0.50; photonPatDR<0.50  |
| xcak5JetPFFDeadEcalDRlowPtPat | xcak5JetPFPat; nXtal>=10; cracks checked  |
| xcak5JetPFFIndicesBtagged2Pat | (>0.679)  |
| xcak5JetPFFIndicesOtherPat    | pass ptMin; fail jetID or etaMax  |
| xcak5JetPFFIndicesPat         | pT>=50.0 GeV;  eta <3.0; JetIDloose   |
| xcak5JetPFFIndiceshighPtPat   | pT>=50.0 GeV;  eta <3.0; JetIDloose   |
| xcak5JetPFFIndiceslowPtPat    | pT>=30.0 GeV;  eta <3.0; JetIDloose   |

Calculables (imperfect) absent calc leaf sltr

NONE

|    | 2012 Data | Standard Mod | Drell-Yan W->lv + jets Z->vv + jets |              |              |             | tt           | SingleTop    | VV | data/s.m. |
|----|-----------|--------------|-------------------------------------|--------------|--------------|-------------|--------------|--------------|----|-----------|
| a: | 161925770 | 2.0927(5)e+8 | 1.9454(7)e+7                        | 1.6796(5)e+8 | 1.2574(2)e+7 | 5.025(1)e+6 | 2.2973(9)e+6 | 1.9582(4)e+6 |    | 0.7738(2) |

events / bin / 19 fb<sup>-1</sup>



| genPartonHT |              |
|-------------|--------------|
| Entries     | 1.828541e+08 |
| Mean        | 66.12        |
| RMS         | 77.91        |
| Underflow   | 0            |
| Overflow    | 0            |
| Integral    | 2.093e+08    |

|                |
|----------------|
| Standard Model |
| Drell-Yan      |
| W->lv + jets   |
| Z->vv + jets   |
| tt             |
| SingleTop      |
| VV             |

```

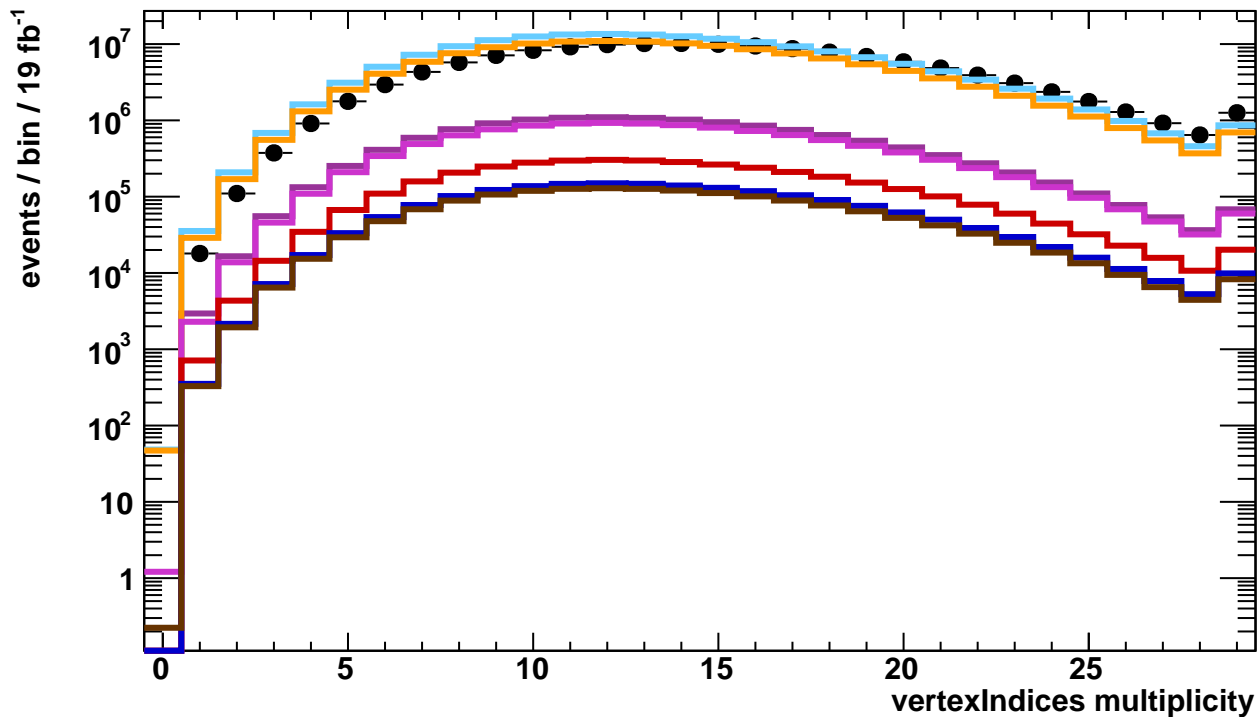
a: master          master
b: monster        <=10 tracks or >0.25 good fraction
c: hbheNoise      hbheNoise
d: value          beamHaloCSCTightHaloId<=0.00
e: value          1.00<=trackingFailureFilterFlag

f: value          1.00<=hcalLaserEventFilterFlag
g: value          1.00<=ecalDeadCellTPFilterFlag
h: value          1.00<=eeBadScFilterFlag
i: value          1.00<=inconsistentMuonPFCandidateFilterFlag
j: value          1.00<=greedyMuonPFCandidateFilterFlag

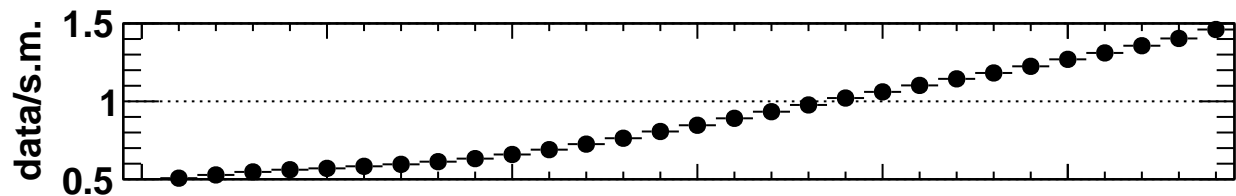
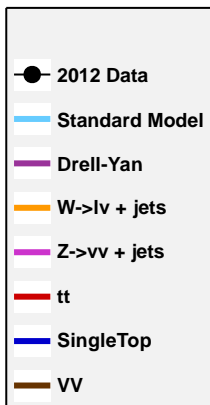
k: multiplicity   0 <= singleIsolatedTrack <= 0

```

|    | 2012 Data | Standard Mod | Drell-Yan W->lv + jets | Z->vv + jets | tt           | SingleTop    | VV           | data/s.m.    |           |
|----|-----------|--------------|------------------------|--------------|--------------|--------------|--------------|--------------|-----------|
| a: | 161925770 | 2.0927(5)e+8 | 1.9454(7)e+7           | 1.6796(5)e+8 | 1.2574(2)e+7 | 5.025(1)e+6  | 2.2973(9)e+6 | 1.9582(4)e+6 | 0.7738(2) |
| b: | 161924972 | 2.0927(5)e+8 | 1.9454(7)e+7           | 1.6796(5)e+8 | 1.2574(2)e+7 | 5.025(1)e+6  | 2.2973(9)e+6 | 1.9582(4)e+6 | 0.7738(2) |
| c: | 160439157 | -            | -                      | -            | -            | -            | -            | -            | -         |
| d: | 159670356 | 2.0924(5)e+8 | 1.9451(7)e+7           | 1.6794(5)e+8 | 1.2573(2)e+7 | 5.024(1)e+6  | 2.2969(9)e+6 | 1.9580(4)e+6 | 0.7631(2) |
| e: | 159667829 | 2.0924(5)e+8 | 1.9451(7)e+7           | 1.6793(5)e+8 | 1.2573(2)e+7 | 5.024(1)e+6  | 2.2969(9)e+6 | 1.9580(4)e+6 | 0.7631(2) |
| f: | 159667108 | -            | -                      | -            | -            | -            | -            | -            | -         |
| g: | 159142618 | 2.0922(5)e+8 | 1.9448(7)e+7           | 1.6792(5)e+8 | 1.2572(2)e+7 | 5.022(1)e+6  | 2.2964(9)e+6 | 1.9577(4)e+6 | 0.7607(2) |
| h: | 159142615 | 2.0922(5)e+8 | 1.9448(7)e+7           | 1.6792(5)e+8 | 1.2572(2)e+7 | 5.022(1)e+6  | 2.2964(9)e+6 | 1.9577(4)e+6 | 0.7607(2) |
| i: | 159111052 | 2.0917(5)e+8 | 1.9434(7)e+7           | 1.6789(5)e+8 | 1.2572(2)e+7 | 5.018(1)e+6  | 2.2958(9)e+6 | 1.9569(4)e+6 | 0.7607(2) |
| j: | 159107069 | 2.0914(5)e+8 | 1.9430(7)e+7           | 1.6787(5)e+8 | 1.2572(2)e+7 | 5.018(1)e+6  | 2.2957(9)e+6 | 1.9567(4)e+6 | 0.7608(2) |
| k: | 139728253 | 1.7269(4)e+8 | 1.3957(6)e+7           | 1.3952(4)e+8 | 1.1794(2)e+7 | 3.8662(9)e+6 | 1.9095(9)e+6 | 1.6417(4)e+6 | 0.8092(2) |



| vertexIndicesMultiplicity |              |
|---------------------------|--------------|
| Entries                   | 1.397283e+08 |
| Mean                      | 14.73        |
| RMS                       | 5.246        |
| Underflow                 | 0            |
| Overflow                  | 0            |
| Integral                  | 1.397e+08    |



```

l: multiplicity          1 <= vertexIndices
m: llFilter              LlTech_BPTX_plus_AND_minus.v0
n: physicsDeclaredFilter physicsDeclaredFilter
o: HTxTriggerMap         HTxTriggerMap

p: jetEtaSelector        xcak5JetPFPat; |eta[index[0]]|<=2.5
q: jetPtSelector         xcak5JetPFPat; pT[index[0]]>=100.0 GeV
r: jetPtSelector         xcak5JetPFPat; pT[index[1]]>=100.0 GeV
s: value                 375.00<=xcak5JetPFSSumEtPat
t: uniquelyMatchedNonisoMuons xcak5JetPFPat

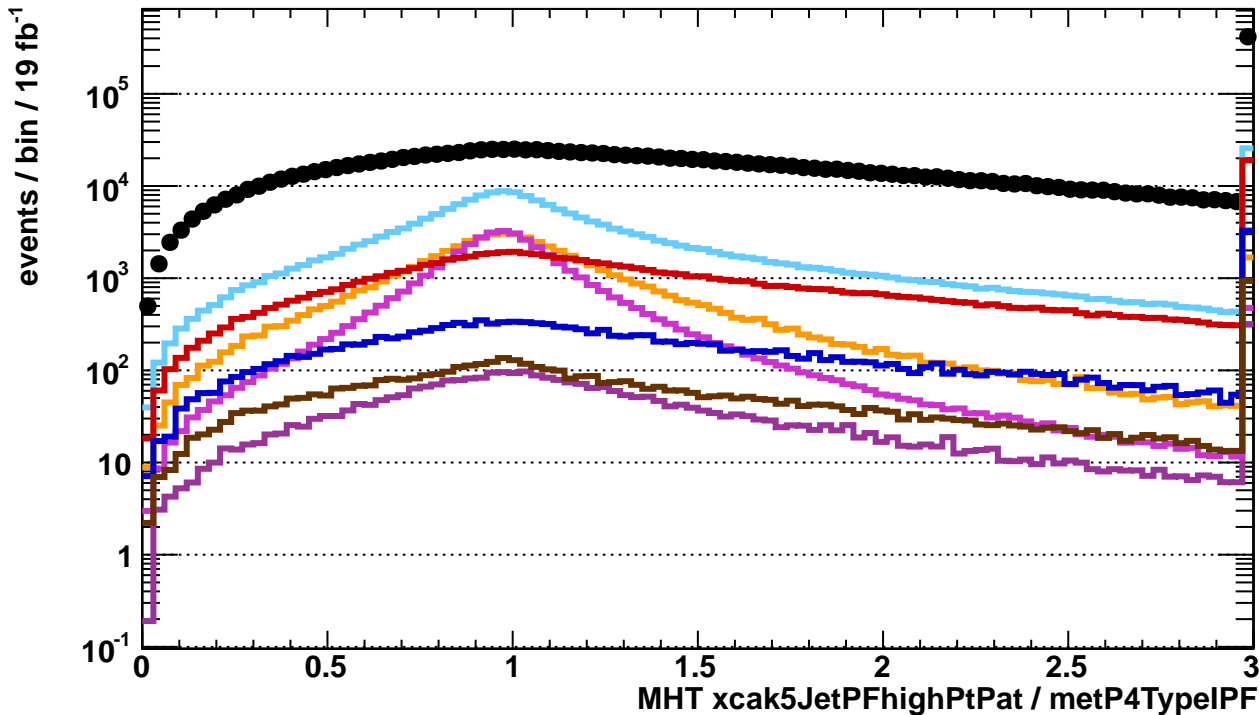
u: multiplicity          0 <= xcak5JetPFIndicesWithOddMuonPat <= 0
v: multiplicity          2 <= xcak5JetPFIndicesPat
w: multiplicity          0 <= xcak5JetPFIndicesOtherPat <= 0
x: multiplicity          0 <= electronIndicesPF <= 0
y: multiplicity          0 <= photonIndicesPat <= 0

z: multiplicity          0 <= muonIndicesPF <= 0
A: multiplicity          0 <= electronIndicesUnmatchedPF <= 0
B: multiplicity          0 <= photonIndicesUnmatchedPat <= 0
C: deadEcalFilter        xcak5JetPFPat; dR>0.300 when deltaPhiStar<0.500

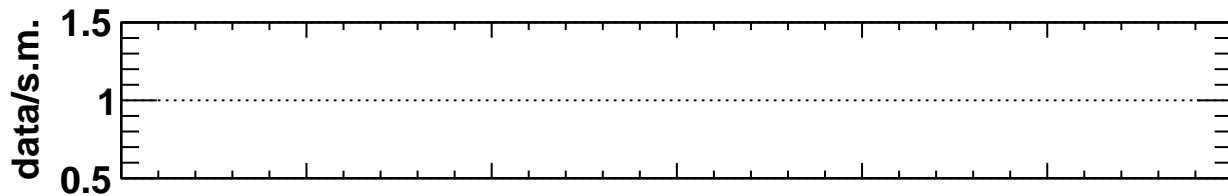
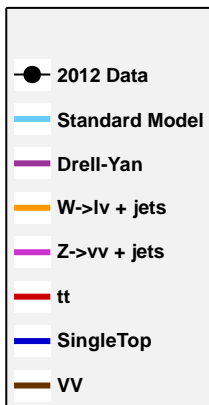
```

|    | 2012 Data | Standard Mod | Drell-Yan W->lv + jets Z->vv + jets |              |              |              | tt           | SingleTop    | VV | data/s.m. |
|----|-----------|--------------|-------------------------------------|--------------|--------------|--------------|--------------|--------------|----|-----------|
| l: | 139728253 | 1.7269(4)e+8 | 1.3957(6)e+7                        | 1.3952(4)e+8 | 1.1794(2)e+7 | 3.8662(9)e+6 | 1.9095(9)e+6 | 1.6417(4)e+6 |    | 0.8092(2) |
| m: | 139728065 | -            | -                                   | -            | -            | -            | -            | -            | -  |           |
| n: | 139600741 | -            | -                                   | -            | -            | -            | -            | -            | -  |           |
| o: | 13870537  | -            | -                                   | -            | -            | -            | -            | -            | -  |           |
| p: | 13456243  | 4.664(2)e+7  | 3.443(3)e+6                         | 3.100(2)e+7  | 6.113(1)e+6  | 3.6695(9)e+6 | 1.5261(8)e+6 | 8.844(3)e+5  |    | 0.2885(1) |
| q: | 13299744  | 1.0522(5)e+7 | 6.501(10)e+5                        | 5.802(5)e+6  | 1.4714(6)e+6 | 1.9470(6)e+6 | 4.665(4)e+5  | 1.846(1)e+5  |    | 1.2640(7) |
| r: | 11661811  | 2.3977(9)e+6 | 1.139(2)e+5                         | 9.628(7)e+5  | 2.281(1)e+5  | 8.545(4)e+5  | 1.807(3)e+5  | 5.775(8)e+4  |    | 4.864(2)  |
| s: | 10367684  | 1.1536(5)e+6 | 4.254(5)e+4                         | 3.506(3)e+5  | 8.863(6)e+4  | 5.579(3)e+5  | 8.82(2)e+4   | 2.574(5)e+4  |    | 8.987(5)  |
| t: | 10363080  | 1.1516(5)e+6 | 4.246(5)e+4                         | 3.503(3)e+5  | 8.862(6)e+4  | 5.564(3)e+5  | 8.81(2)e+4   | 2.572(5)e+4  |    | 8.999(5)  |
| u: | 10348024  | 1.1426(5)e+6 | 4.184(5)e+4                         | 3.477(3)e+5  | 8.859(6)e+4  | 5.513(3)e+5  | 8.75(2)e+4   | 2.567(5)e+4  |    | 9.056(5)  |
| v: | 10348024  | 1.1426(5)e+6 | 4.184(5)e+4                         | 3.477(3)e+5  | 8.859(6)e+4  | 5.513(3)e+5  | 8.75(2)e+4   | 2.567(5)e+4  |    | 9.056(5)  |
| w: | 9836240   | 1.1139(5)e+6 | 4.069(5)e+4                         | 3.413(3)e+5  | 8.741(5)e+4  | 5.345(3)e+5  | 8.48(2)e+4   | 2.517(5)e+4  |    | 8.831(5)  |
| x: | 9811777   | 9.505(4)e+5  | 2.563(4)e+4                         | 2.522(2)e+5  | 8.739(5)e+4  | 4.816(3)e+5  | 7.96(2)e+4   | 2.410(5)e+4  |    | 10.323(6) |
| y: | 9779118   | 9.427(4)e+5  | 2.497(4)e+4                         | 2.473(2)e+5  | 8.736(5)e+4  | 4.797(3)e+5  | 7.93(2)e+4   | 2.397(5)e+4  |    | 10.374(6) |
| z: | 9755783   | 7.843(4)e+5  | 1.138(3)e+4                         | 1.572(2)e+5  | 8.735(5)e+4  | 4.312(3)e+5  | 7.42(2)e+4   | 2.295(5)e+4  |    | 12.439(7) |
| A: | 9754104   | 7.838(4)e+5  | 1.136(3)e+4                         | 1.571(2)e+5  | 8.734(5)e+4  | 4.309(3)e+5  | 7.42(2)e+4   | 2.294(5)e+4  |    | 12.445(7) |
| B: | 9753474   | 7.837(4)e+5  | 1.136(3)e+4                         | 1.570(2)e+5  | 8.733(5)e+4  | 4.309(3)e+5  | 7.42(2)e+4   | 2.294(5)e+4  |    | 12.445(7) |
| C: | 1858922   | 2.351(2)e+5  | 3.48(2)e+3                          | 6.33(1)e+4   | 4.425(4)e+4  | 9.98(1)e+4   | 1.853(9)e+4  | 5.81(2)e+3   |    | 7.905(9)  |





|                                       |           |
|---------------------------------------|-----------|
| xcak5JetPFMthhighPtPatOvermetP4TypePF |           |
| Entries                               | 1858922   |
| Mean                                  | 1.753     |
| RMS                                   | 0.9049    |
| Underflow                             | 0         |
| Overflow                              | 0         |
| Integral                              | 1.859e+06 |



```

m: l1Filter                               L1Tech_BPTX_plus_AND_minus.v0
n: physicsDeclaredFilter                  physicsDeclaredFilter
o: HTxTriggerMap                          HTxTriggerMap

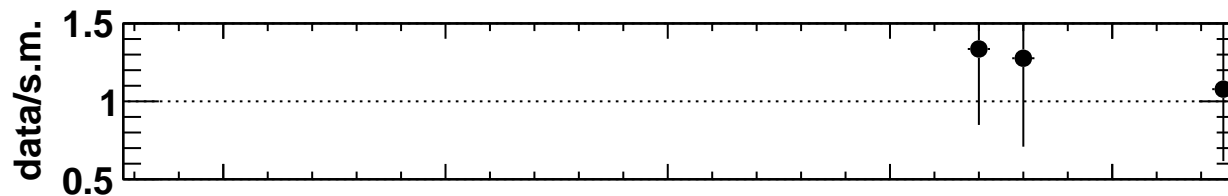
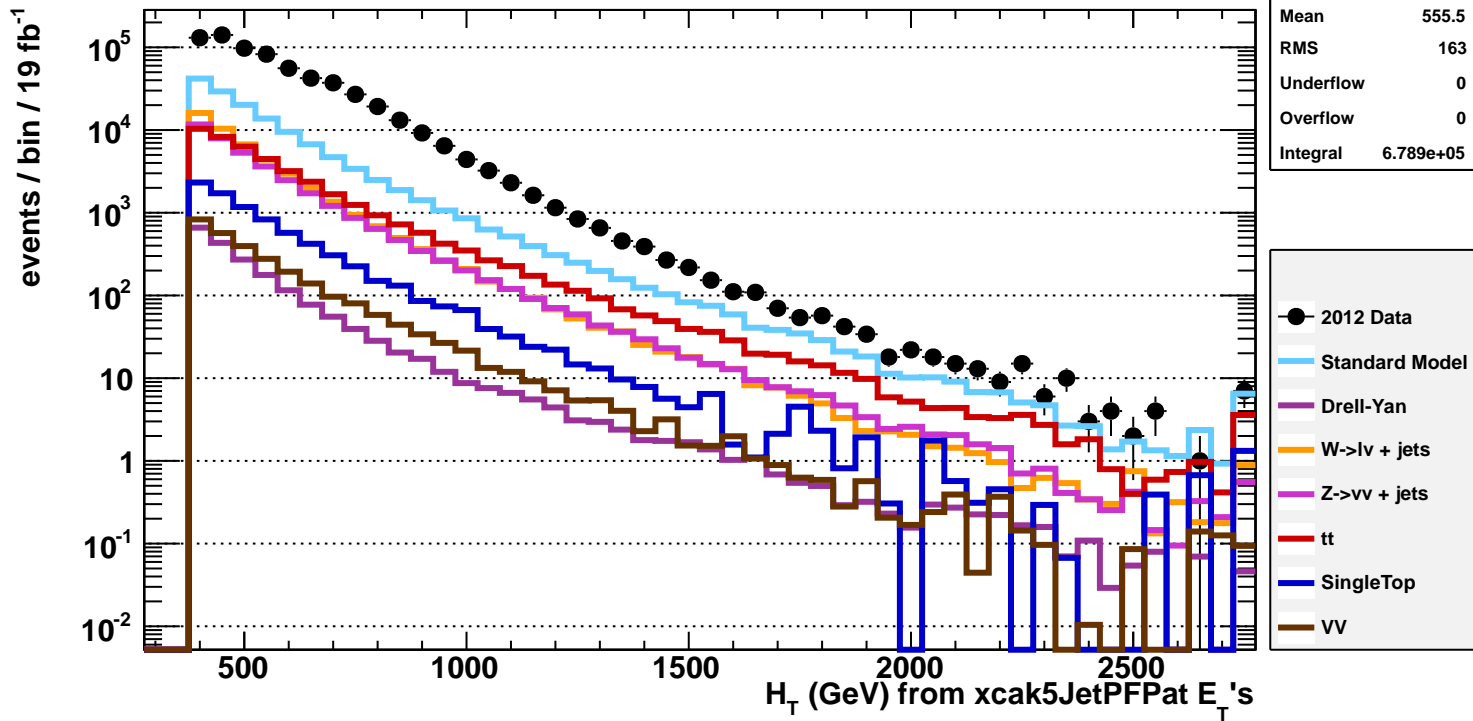
p: jetEtaSelector                         xcak5JetPFPat; |eta[index[0]]|<=2.5
q: jetPtSelector                         xcak5JetPFPat; pT[index[0]]>=100.0 GeV
r: jetPtSelector                         xcak5JetPFPat; pT[index[1]]>=100.0 GeV
s: value                                 375.00<=xcak5JetPFSumEtPat
t: uniquelyMatchedNonisoMuons           xcak5JetPFPat

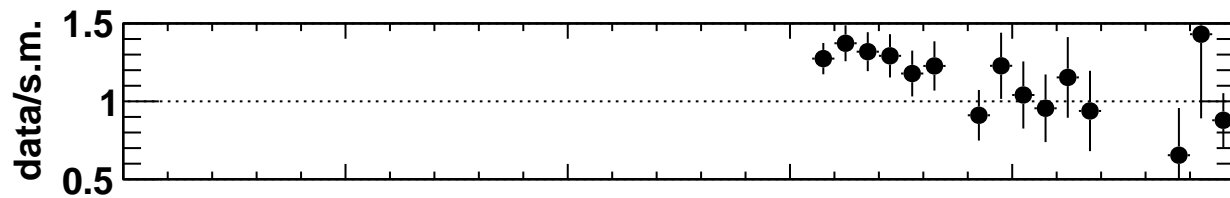
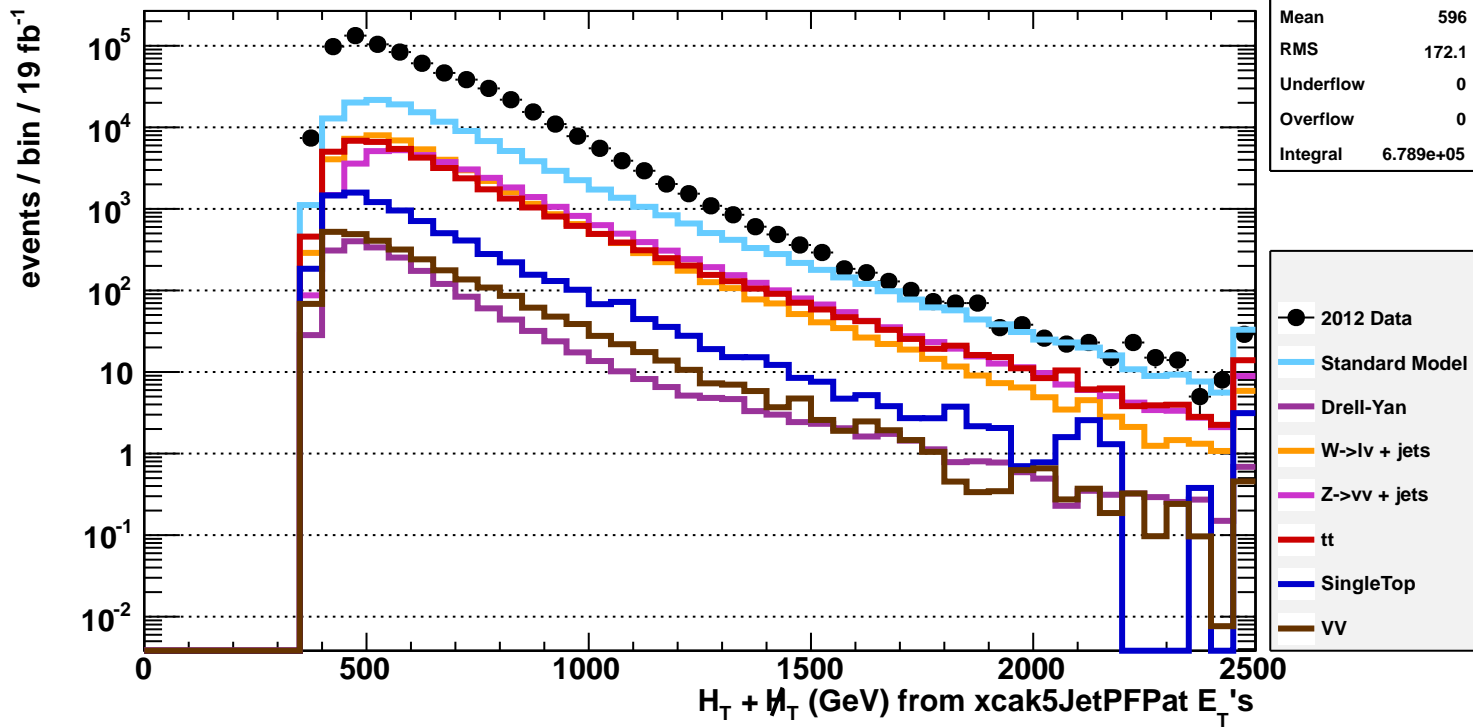
u: multiplicity                          0 <= xcak5JetPFIndicesWithOddMuonPat <= 0
v: multiplicity                          2 <= xcak5JetPFIndicesPat
w: multiplicity                          0 <= xcak5JetPFIndicesOtherPat <= 0
x: multiplicity                          0 <= electronIndicesPF <= 0
y: multiplicity                          0 <= photonIndicesPat <= 0

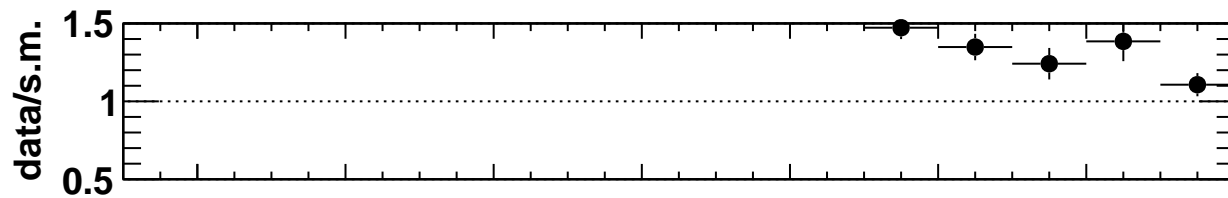
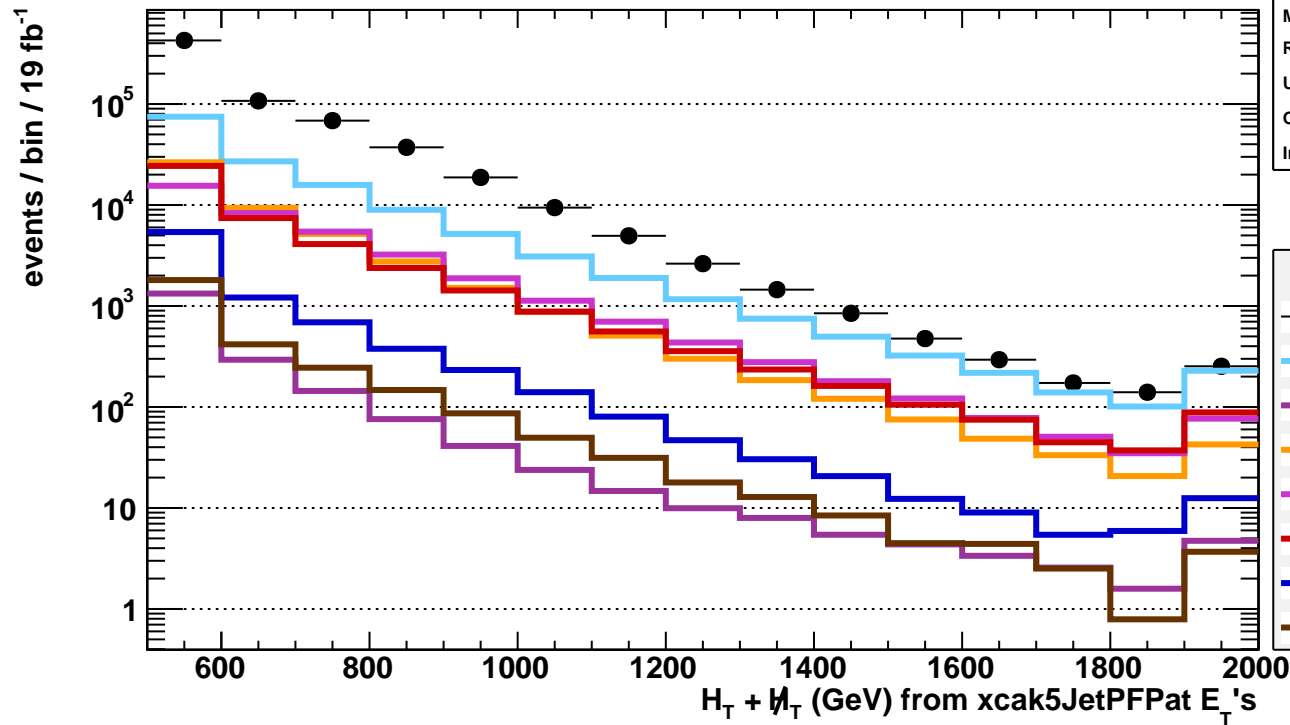
z: multiplicity                          0 <= muonIndicesPF <= 0
A: multiplicity                          0 <= electronIndicesUnmatchedPF <= 0
B: multiplicity                          0 <= photonIndicesUnmatchedPat <= 0
C: deadEcalFilter                       xcak5JetPFPat; dR>0.300 when deltaPhiStar<0.500
D: value                                 xcak5JetPFMhthighPtPatOvermetP4TypeIPF<=1.25

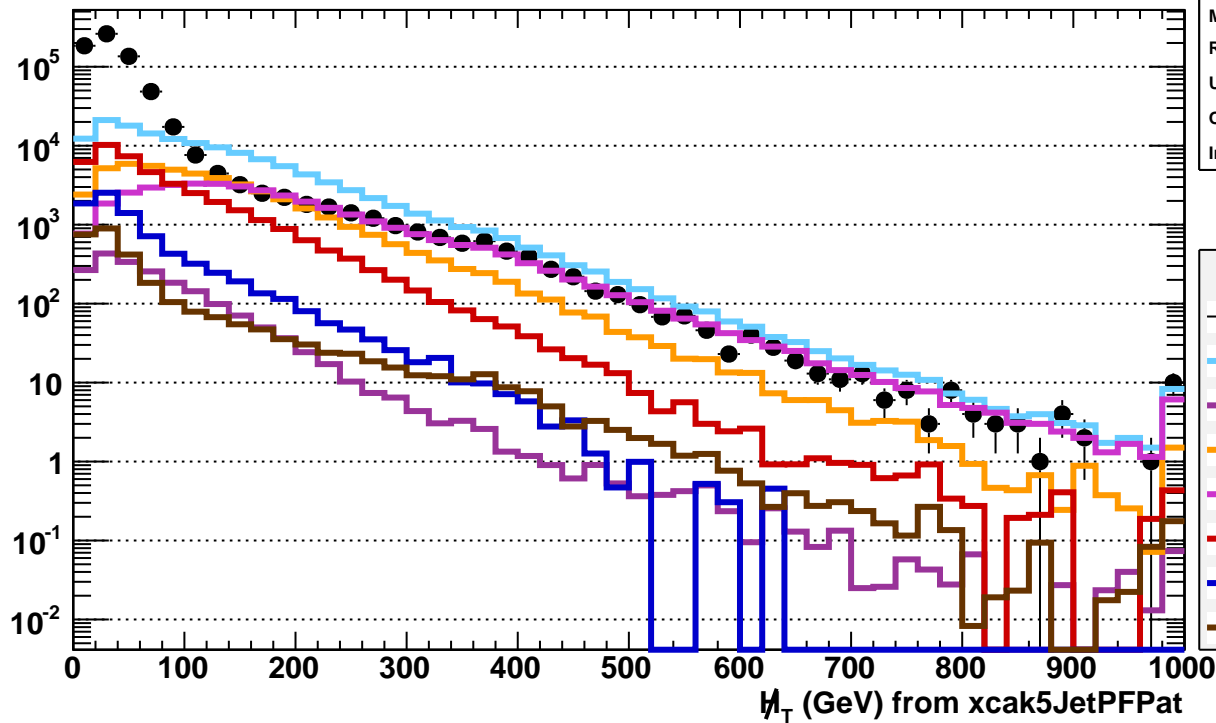
```

|    | 2012 Data | Standard Mod | Drell-Yan W->lv + jets Z->vv + jets |             |              |              | tt           | SingleTop   | VV | data/s.m. |
|----|-----------|--------------|-------------------------------------|-------------|--------------|--------------|--------------|-------------|----|-----------|
| m: | 139728065 | -            | -                                   | -           | -            | -            | -            | -           | -  |           |
| n: | 139600741 | -            | -                                   | -           | -            | -            | -            | -           | -  |           |
| o: | 13870537  | -            | -                                   | -           | -            | -            | -            | -           | -  |           |
| p: | 13456243  | 4.664(2)e+7  | 3.443(3)e+6                         | 3.100(2)e+7 | 6.113(1)e+6  | 3.6695(9)e+6 | 1.5261(8)e+6 | 8.844(3)e+5 |    | 0.2885(1) |
| q: | 13299744  | 1.0522(5)e+7 | 6.501(10)e+5                        | 5.802(5)e+6 | 1.4714(6)e+6 | 1.9470(6)e+6 | 4.665(4)e+5  | 1.846(1)e+5 |    | 1.2640(7) |
| r: | 11661811  | 2.3977(9)e+6 | 1.139(2)e+5                         | 9.628(7)e+5 | 2.281(1)e+5  | 8.545(4)e+5  | 1.807(3)e+5  | 5.775(8)e+4 |    | 4.864(2)  |
| s: | 10367684  | 1.1536(5)e+6 | 4.254(5)e+4                         | 3.506(3)e+5 | 8.863(6)e+4  | 5.579(3)e+5  | 8.82(2)e+4   | 2.574(5)e+4 |    | 8.987(5)  |
| t: | 10363080  | 1.1516(5)e+6 | 4.246(5)e+4                         | 3.503(3)e+5 | 8.862(6)e+4  | 5.564(3)e+5  | 8.81(2)e+4   | 2.572(5)e+4 |    | 8.999(5)  |
| u: | 10348024  | 1.1426(5)e+6 | 4.184(5)e+4                         | 3.477(3)e+5 | 8.859(6)e+4  | 5.513(3)e+5  | 8.75(2)e+4   | 2.567(5)e+4 |    | 9.056(5)  |
| v: | 10348024  | 1.1426(5)e+6 | 4.184(5)e+4                         | 3.477(3)e+5 | 8.859(6)e+4  | 5.513(3)e+5  | 8.75(2)e+4   | 2.567(5)e+4 |    | 9.056(5)  |
| w: | 9836240   | 1.1139(5)e+6 | 4.069(5)e+4                         | 3.413(3)e+5 | 8.741(5)e+4  | 5.345(3)e+5  | 8.48(2)e+4   | 2.517(5)e+4 |    | 8.831(5)  |
| x: | 9811777   | 9.505(4)e+5  | 2.563(4)e+4                         | 2.522(2)e+5 | 8.739(5)e+4  | 4.816(3)e+5  | 7.96(2)e+4   | 2.410(5)e+4 |    | 10.323(6) |
| y: | 9779118   | 9.427(4)e+5  | 2.497(4)e+4                         | 2.473(2)e+5 | 8.736(5)e+4  | 4.797(3)e+5  | 7.93(2)e+4   | 2.397(5)e+4 |    | 10.374(6) |
| z: | 9755783   | 7.843(4)e+5  | 1.138(3)e+4                         | 1.572(2)e+5 | 8.735(5)e+4  | 4.312(3)e+5  | 7.42(2)e+4   | 2.295(5)e+4 |    | 12.439(7) |
| A: | 9754104   | 7.838(4)e+5  | 1.136(3)e+4                         | 1.571(2)e+5 | 8.734(5)e+4  | 4.309(3)e+5  | 7.42(2)e+4   | 2.294(5)e+4 |    | 12.445(7) |
| B: | 9753474   | 7.837(4)e+5  | 1.136(3)e+4                         | 1.570(2)e+5 | 8.733(5)e+4  | 4.309(3)e+5  | 7.42(2)e+4   | 2.294(5)e+4 |    | 12.445(7) |
| C: | 1858922   | 2.351(2)e+5  | 3.48(2)e+3                          | 6.33(1)e+4  | 4.425(4)e+4  | 9.98(1)e+4   | 1.853(9)e+4  | 5.81(2)e+3  |    | 7.905(9)  |
| D: | 678926    | 1.404(1)e+5  | 1.96(1)e+3                          | 4.752(9)e+4 | 3.748(4)e+4  | 4.228(9)e+4  | 8.28(6)e+3   | 2.84(2)e+3  |    | 4.837(8)  |

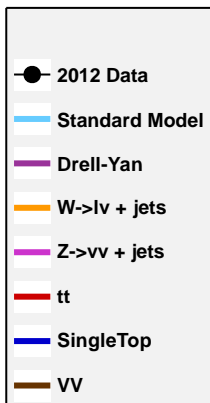




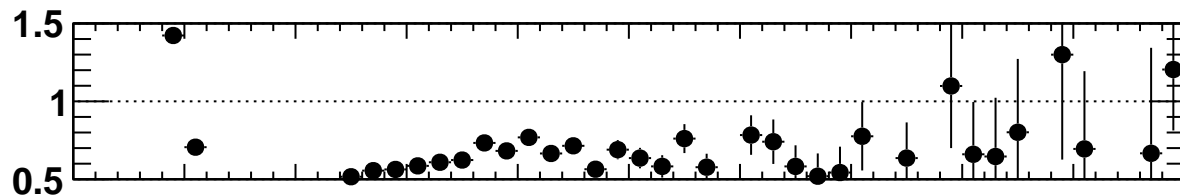


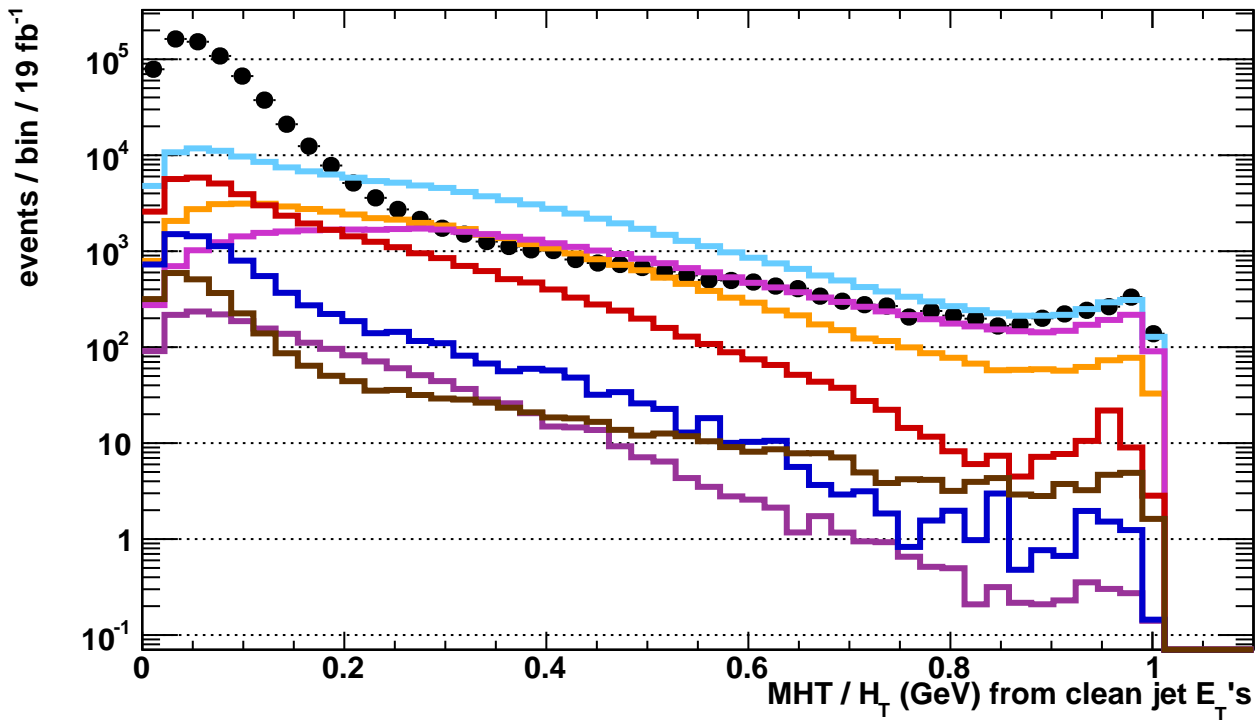
events / bin / 19 fb<sup>-1</sup>

| xcak5JetPFPat |           |
|---------------|-----------|
| Entries       | 678926    |
| Mean          | 40.9      |
| RMS           | 45.94     |
| Underflow     | 0         |
| Overflow      | 0         |
| Integral      | 6.789e+05 |

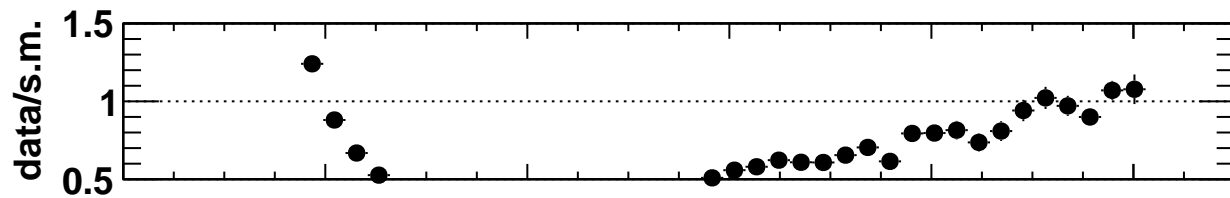
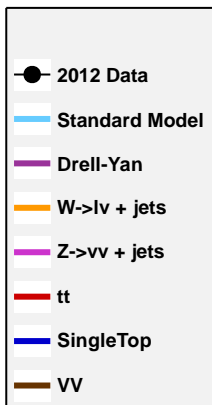


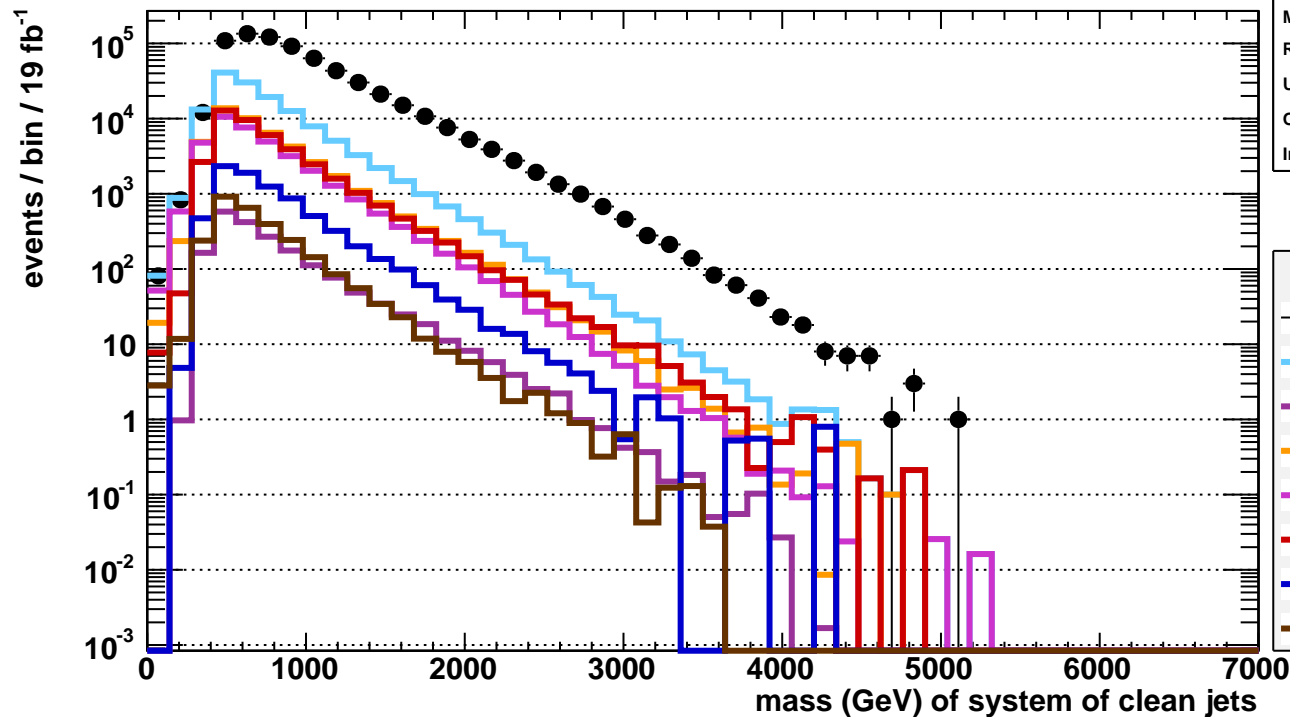
data/s.m.



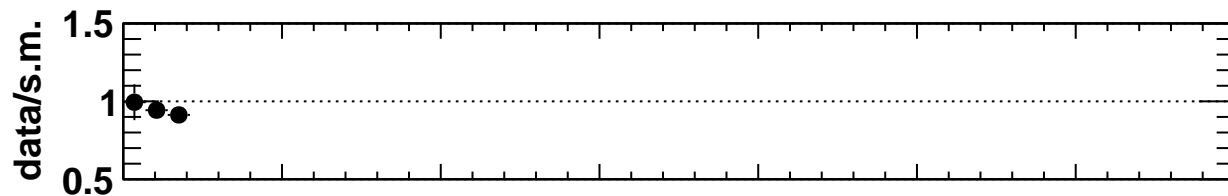
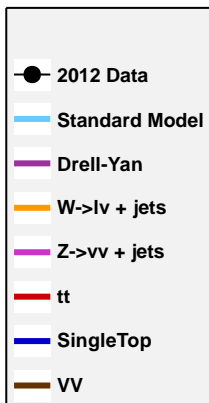


|                        |           |
|------------------------|-----------|
| xcak5JetPFmHtOverHtPat |           |
| Entries                | 678926    |
| Mean                   | 0.07797   |
| RMS                    | 0.08981   |
| Underflow              | 0         |
| Overflow               | 0         |
| Integral               | 6.789e+05 |

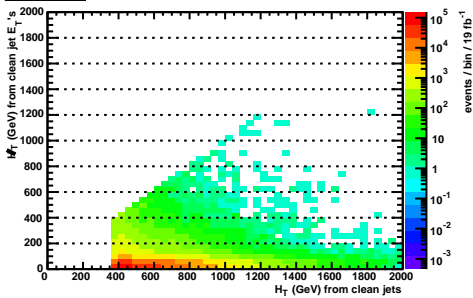
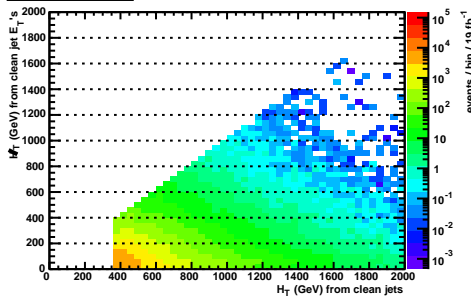
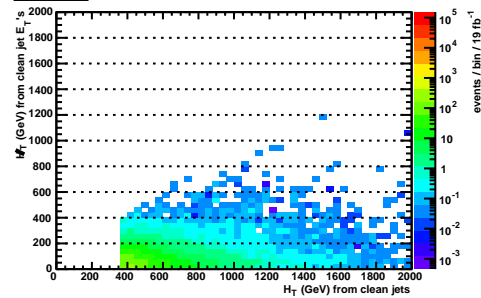
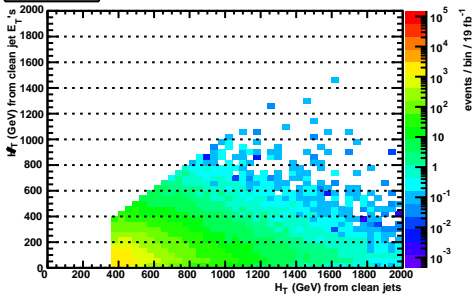
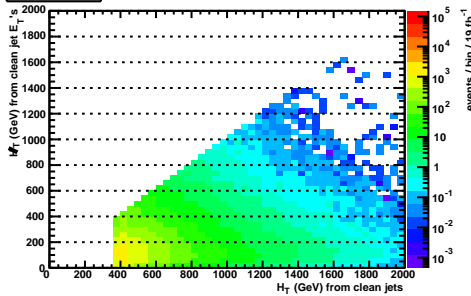
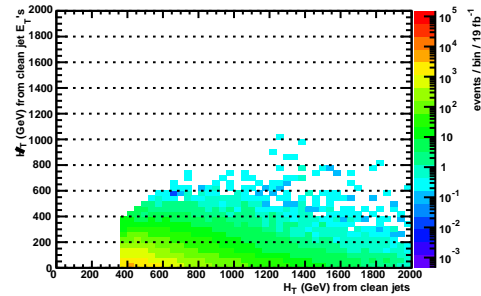
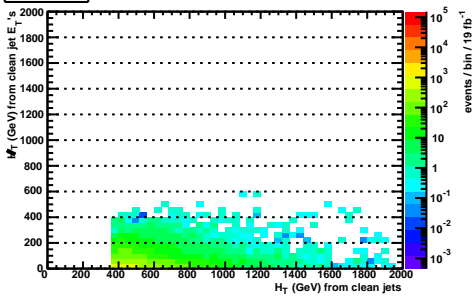
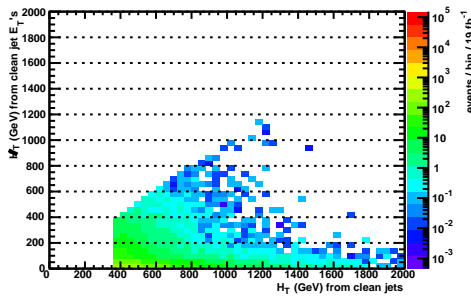


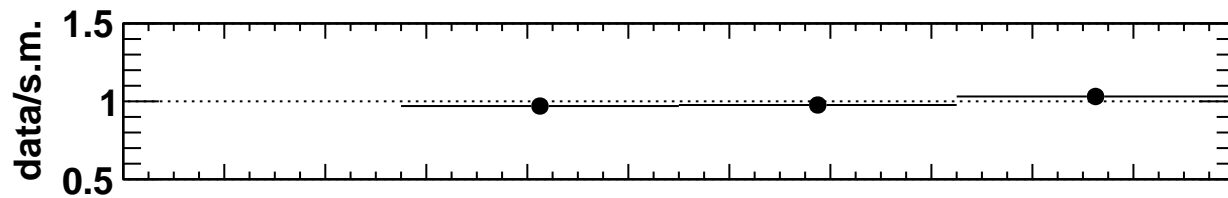
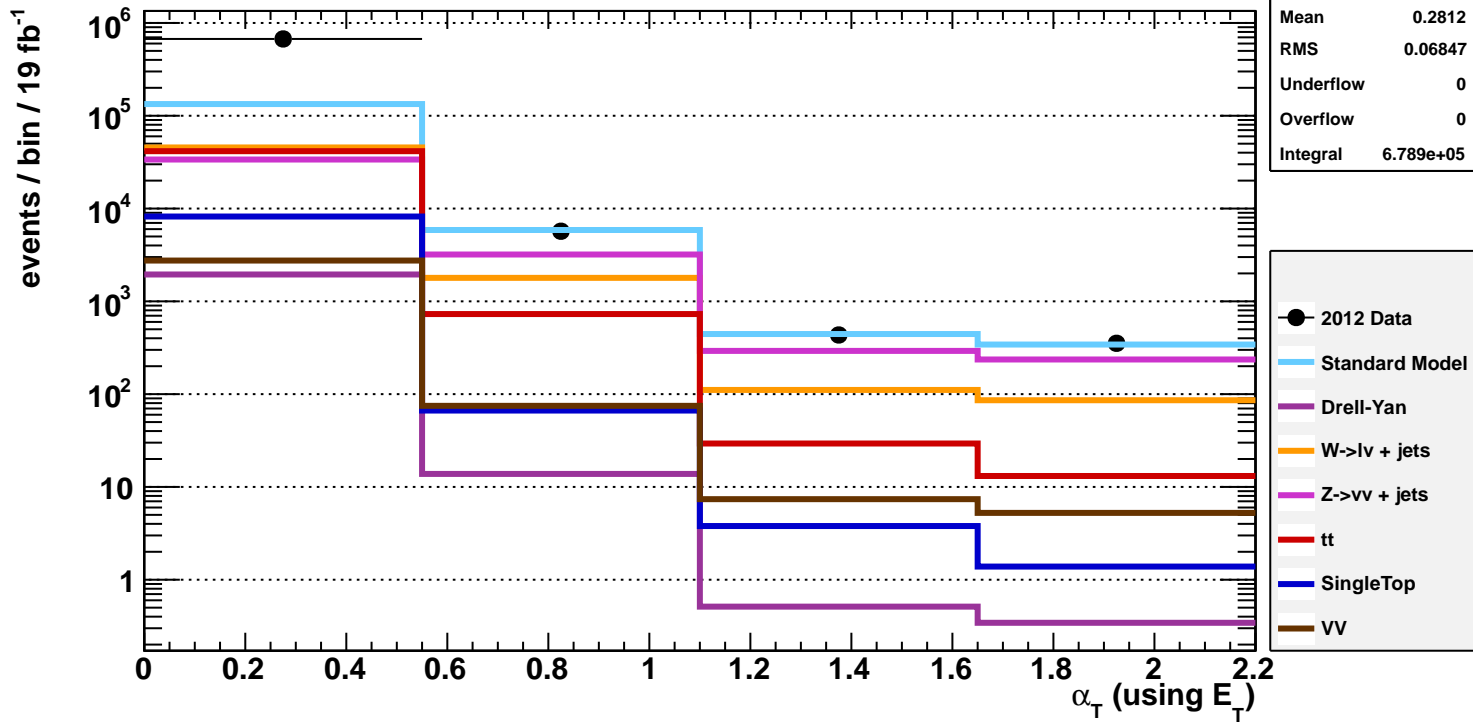


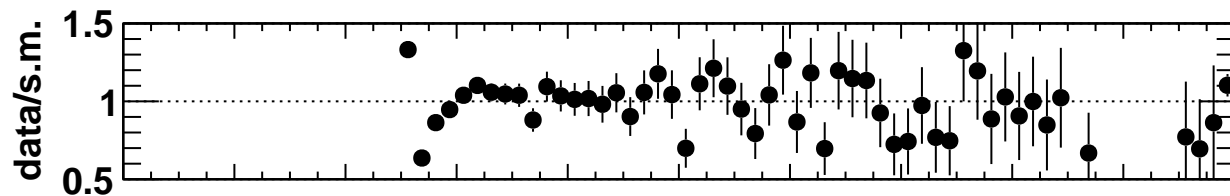
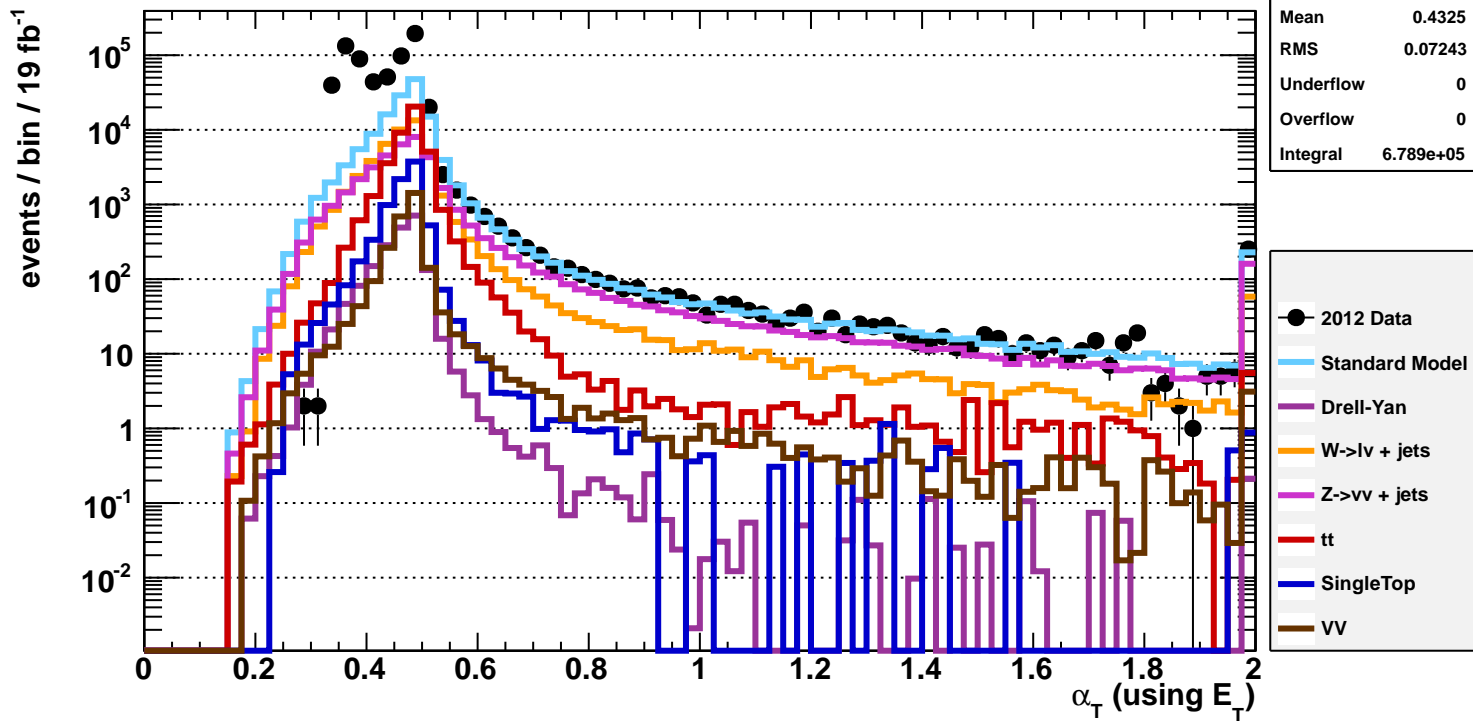
| xcak5JetPFmPat |           |
|----------------|-----------|
| Entries        | 678926    |
| Mean           | 896.6     |
| RMS            | 410.2     |
| Underflow      | 0         |
| Overflow       | 0         |
| Integral       | 6.789e+05 |

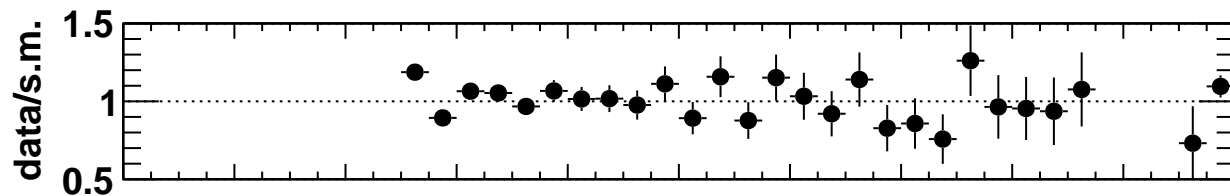
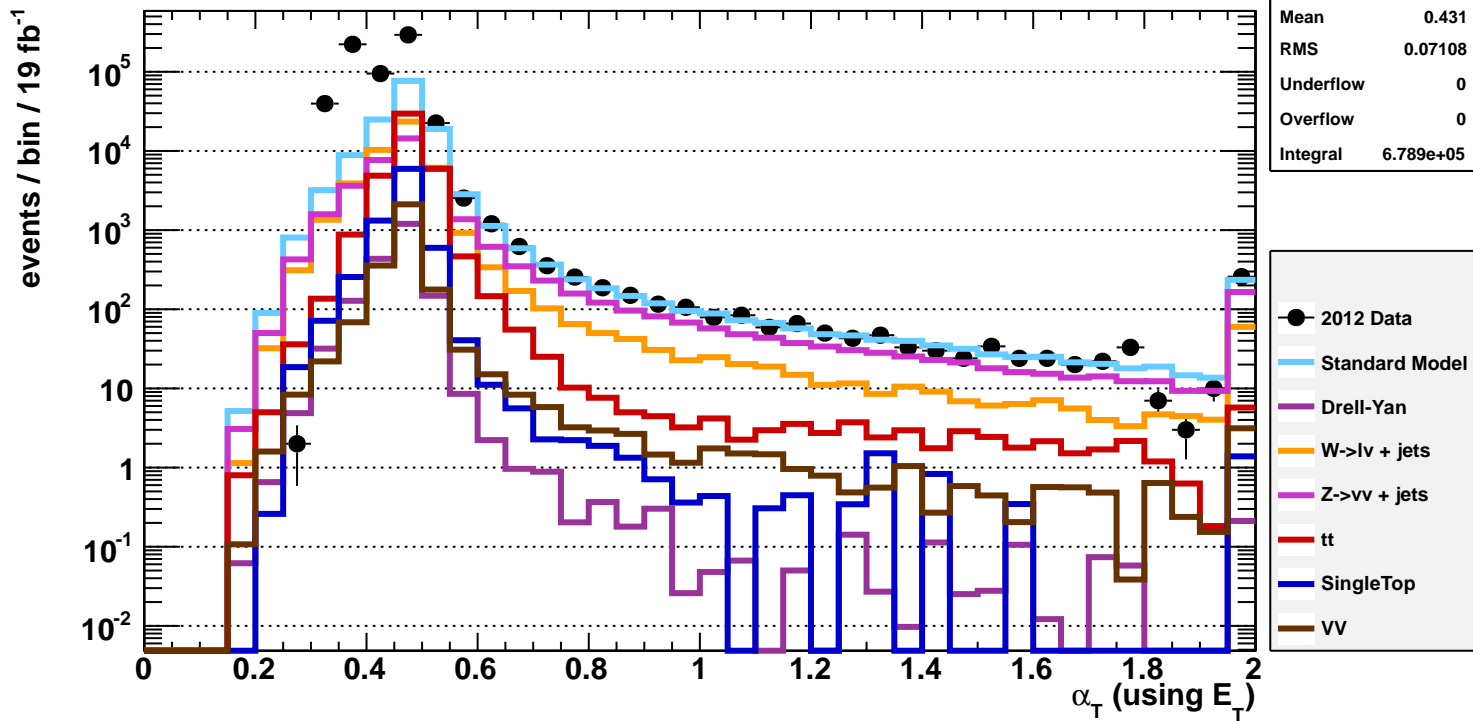


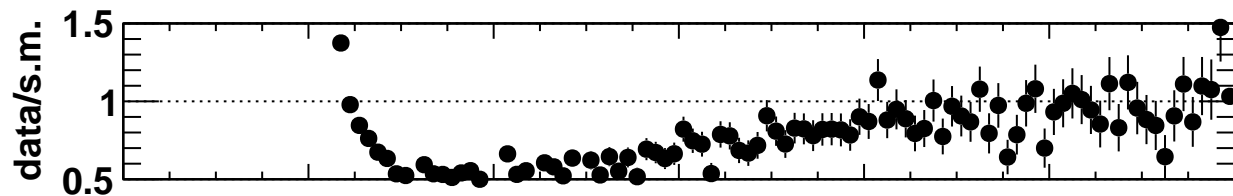
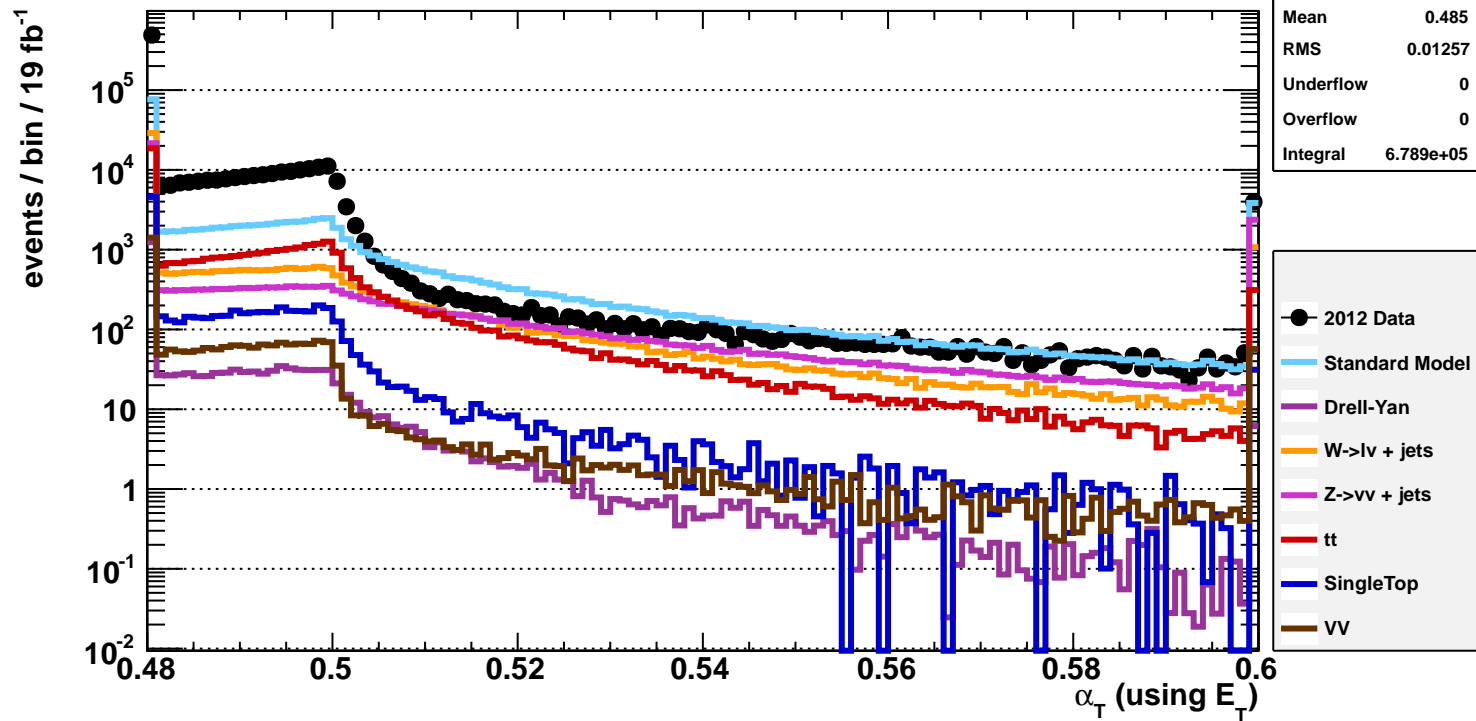


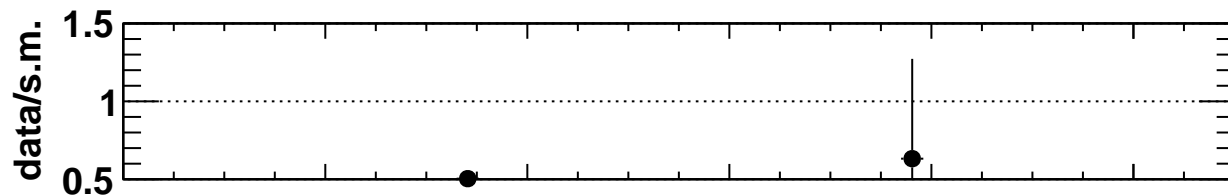
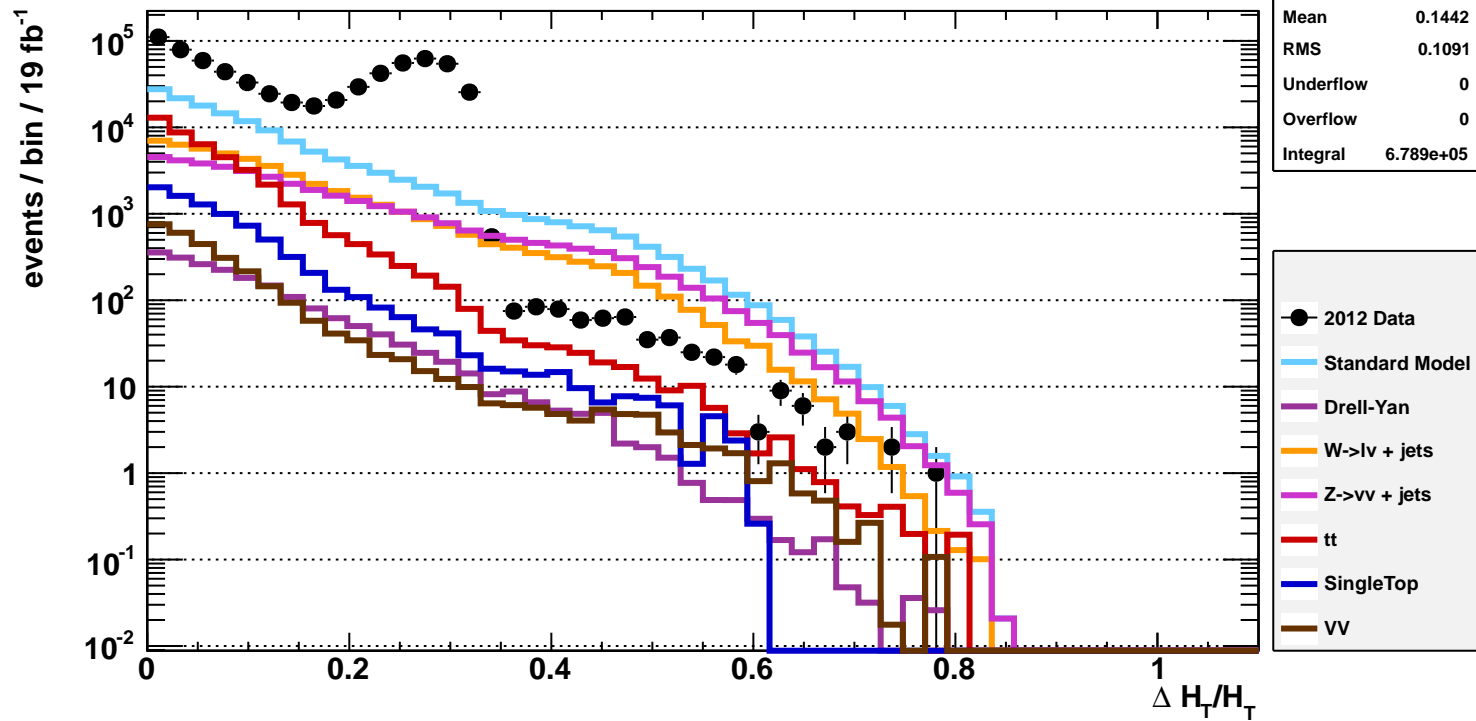
**2012 Data****Standard Model****Drell-Yan****W->lv + jets****Z->vv + jets****tt****SingleTop****VV**

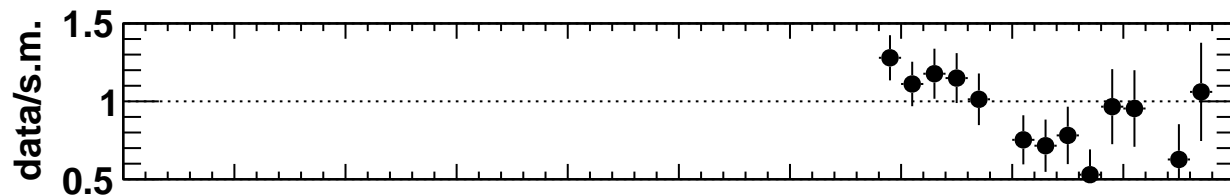
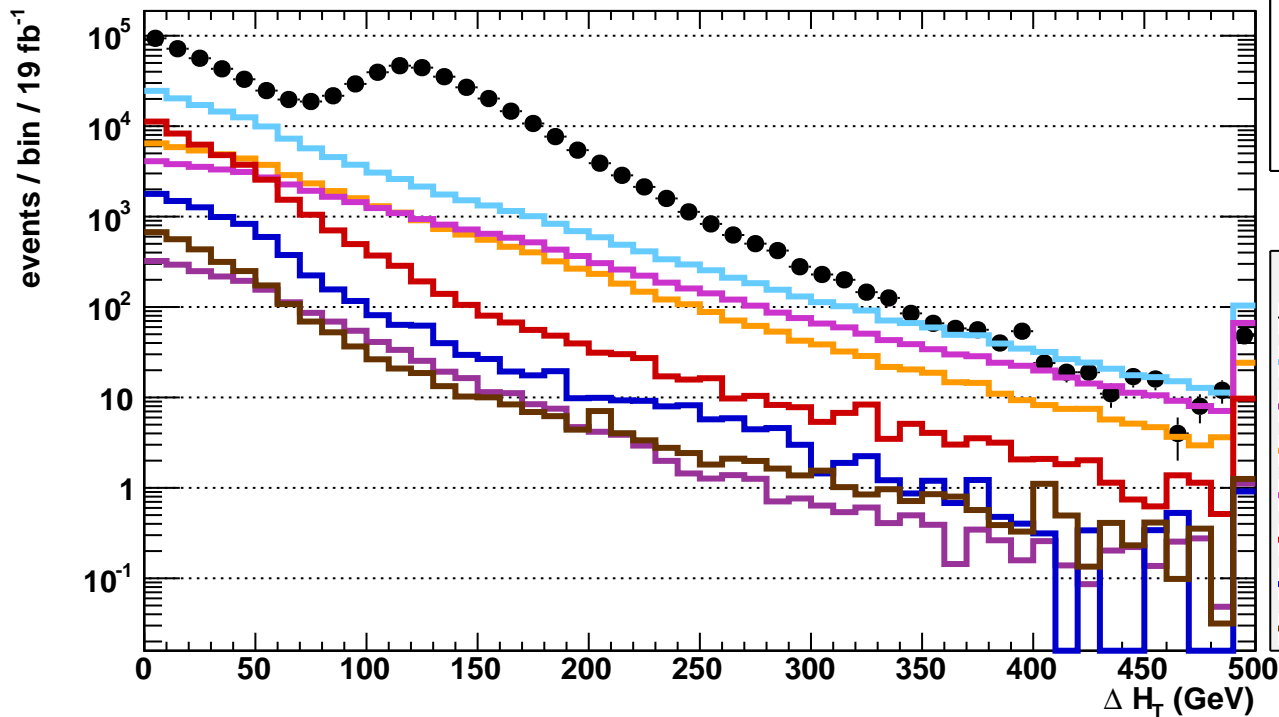




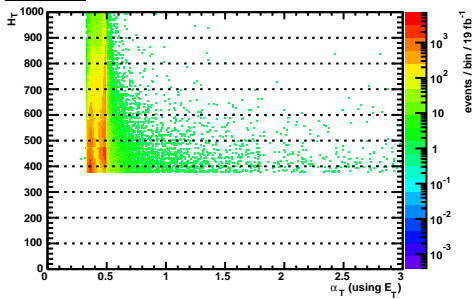




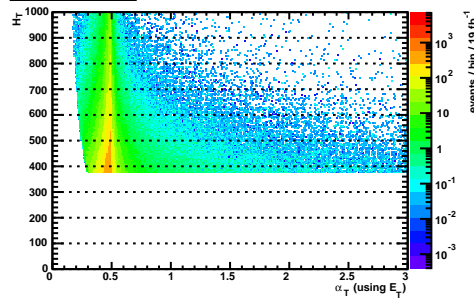




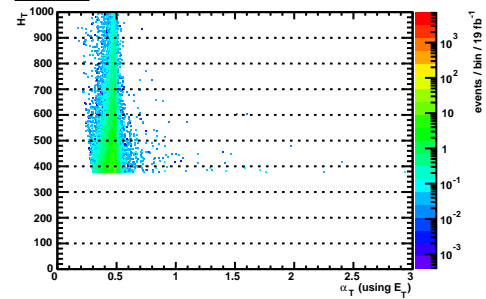
2012 Data



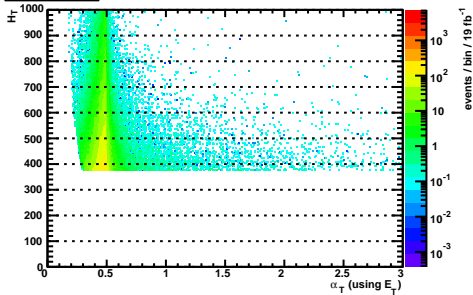
Standard Model



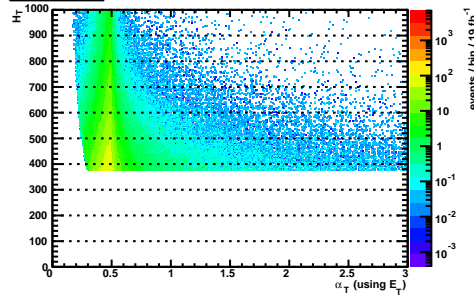
Drell-Yan



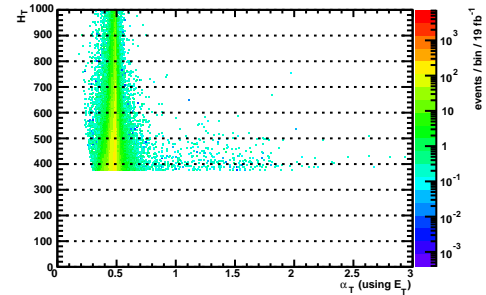
W-&gt;lv + jets



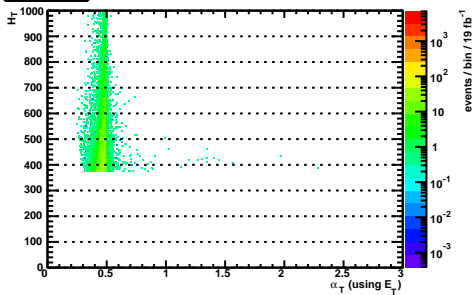
Z-&gt;vv + jets



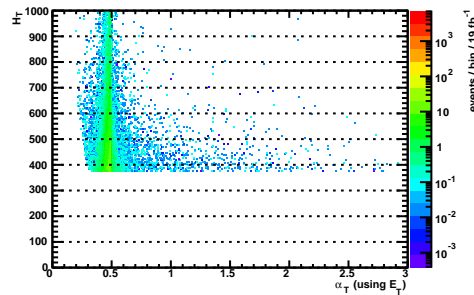
tt



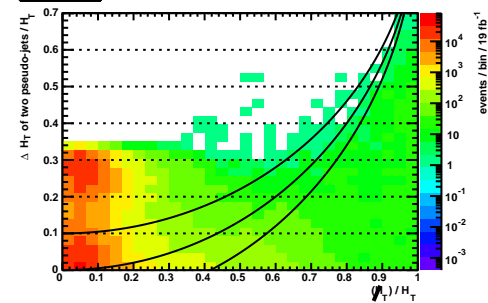
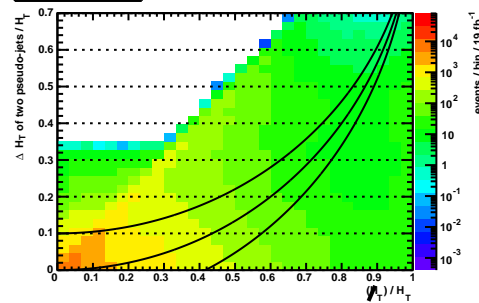
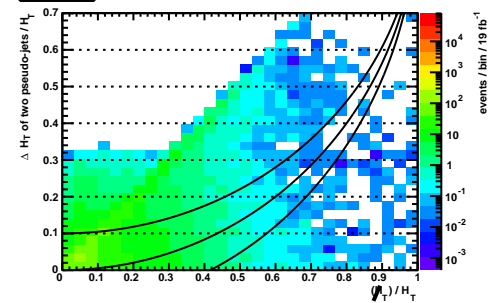
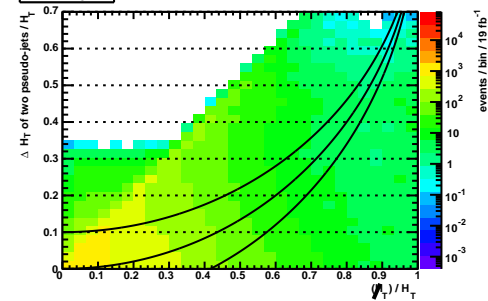
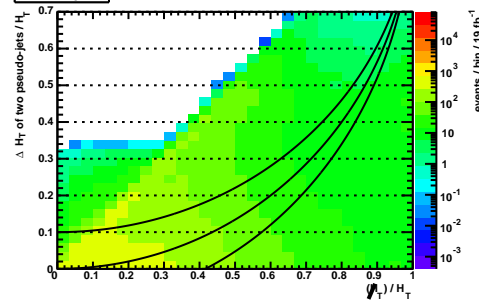
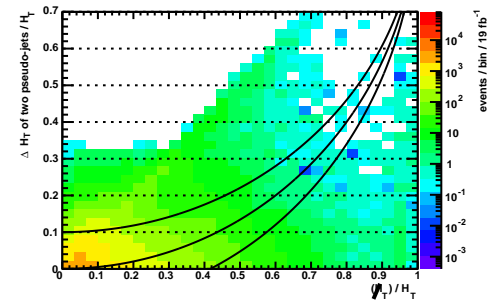
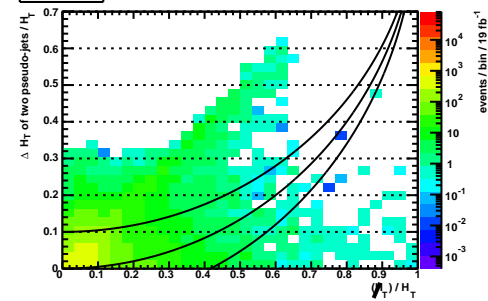
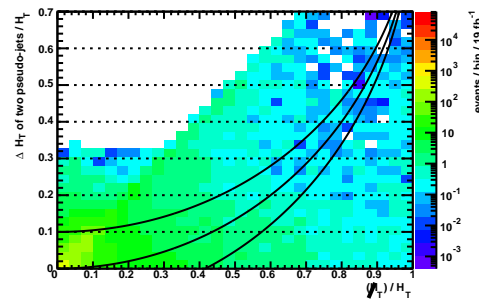
SingleTop

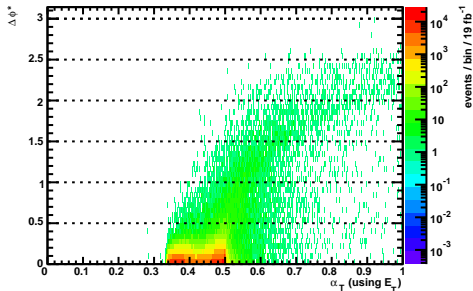
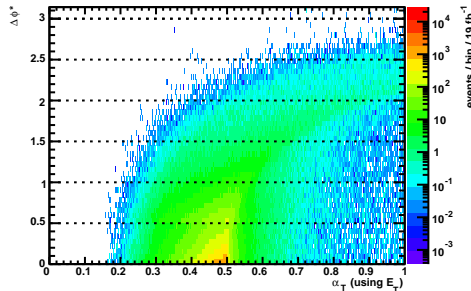
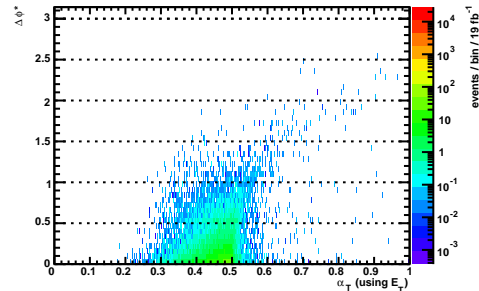
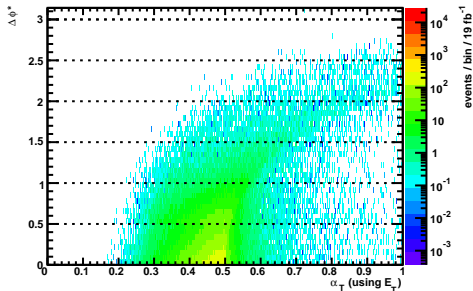
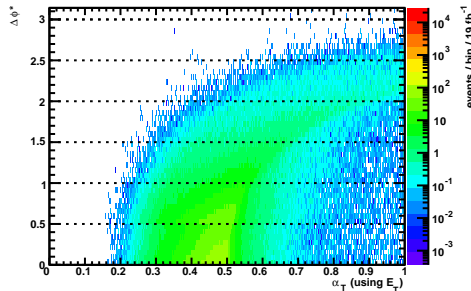
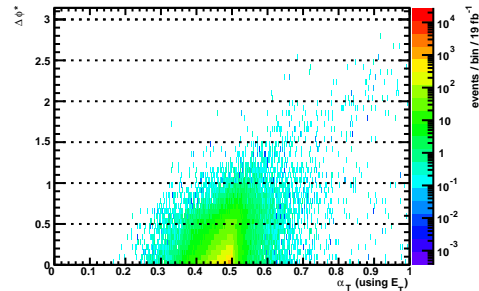
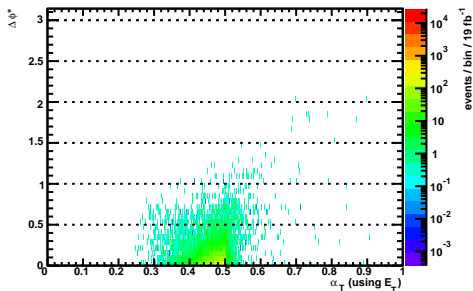
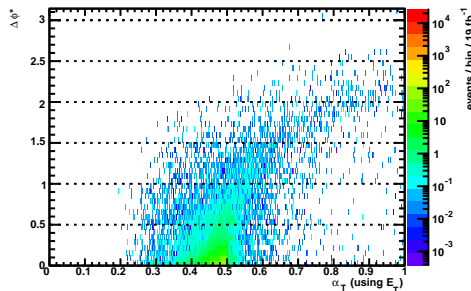


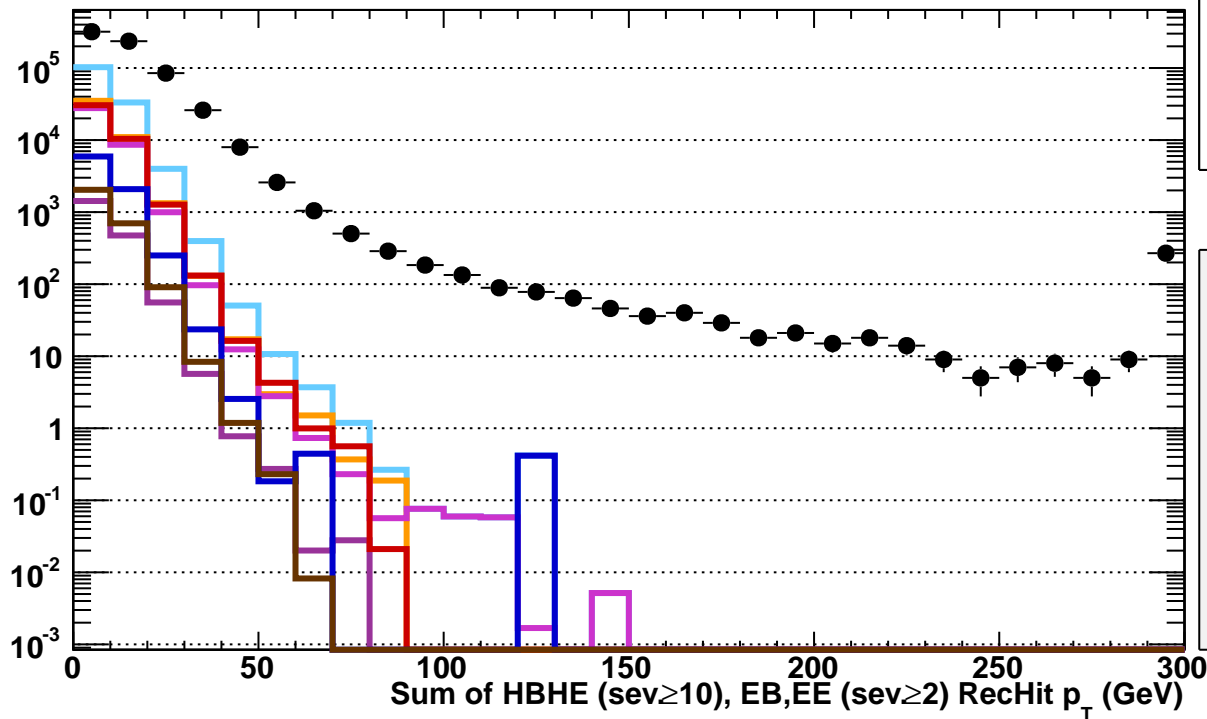
VV



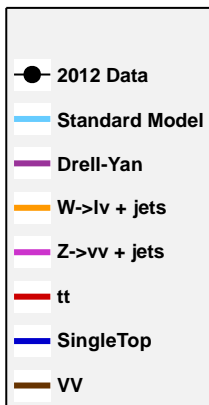


**2012 Data****Standard Model****Drell-Yan****W->lv + jets****Z->vv + jets****tt****SingleTop****vv**

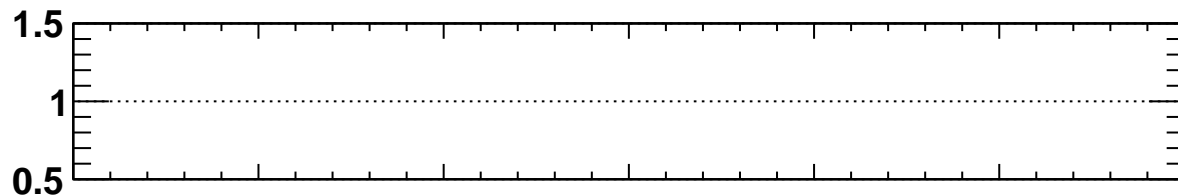
**2012 Data****Standard Model****Drell-Yan****W->lv + jets****Z->vv + jets****tt****SingleTop****vv**

events / bin / 19 fb<sup>-1</sup>

| PFRchHitSumPt |           |
|---------------|-----------|
| Entries       | 678926    |
| Mean          | 13.23     |
| RMS           | 12.18     |
| Underflow     | 0         |
| Overflow      | 0         |
| Integral      | 6.789e+05 |



data/s.m.



```

o: HTxTriggerMap
p: jetEtaSelector          xcak5JetPFPat; |eta[index[0]]|<=2.5
q: jetPtSelector           xcak5JetPFPat; pT[index[0]]>=100.0 GeV
r: jetPtSelector           xcak5JetPFPat; pT[index[1]]>=100.0 GeV
s: value                   375.00<=xcak5JetPFSSumEtPat
t: uniquelyMatchedNonisoMuons xcak5JetPFPat

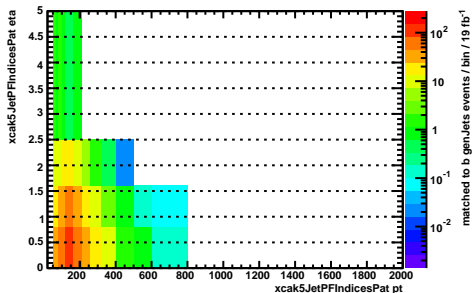
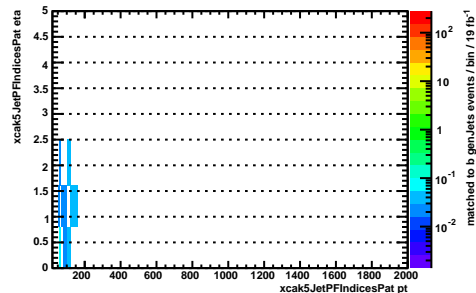
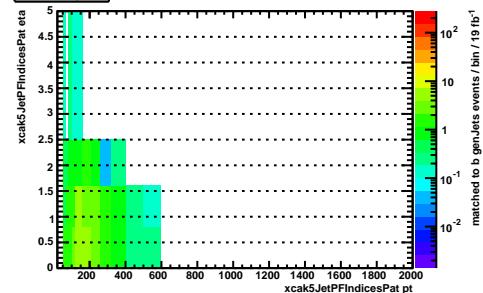
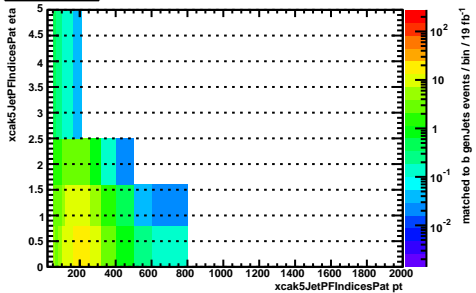
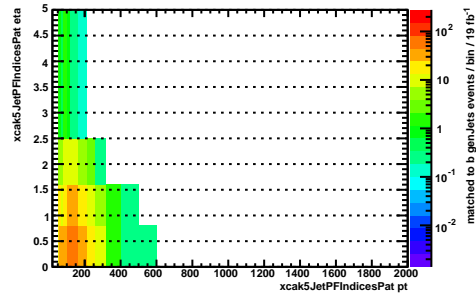
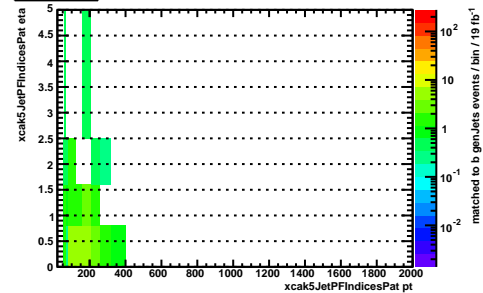
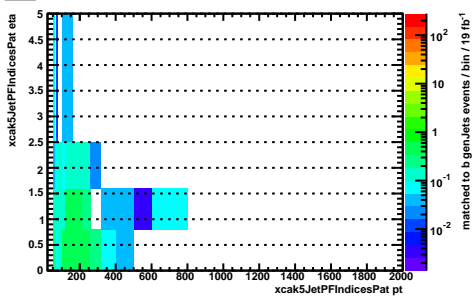
u: multiplicity            0 <= xcak5JetPFIndicesWithOddMuonPat <= 0
v: multiplicity            2 <= xcak5JetPFIndicesPat
w: multiplicity            0 <= xcak5JetPFIndicesOtherPat <= 0
x: multiplicity            0 <= electronIndicesPF <= 0
y: multiplicity            0 <= photonIndicesPat <= 0

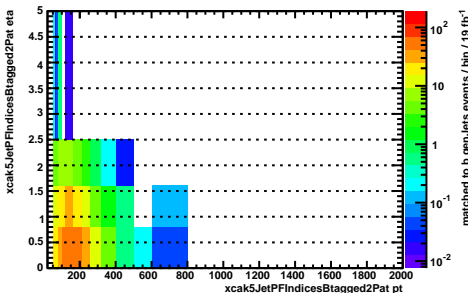
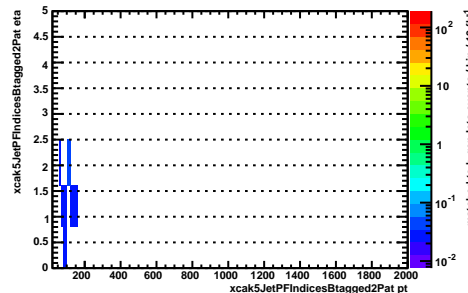
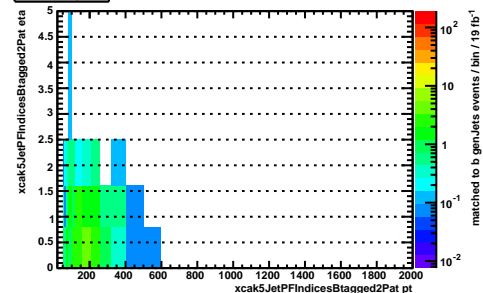
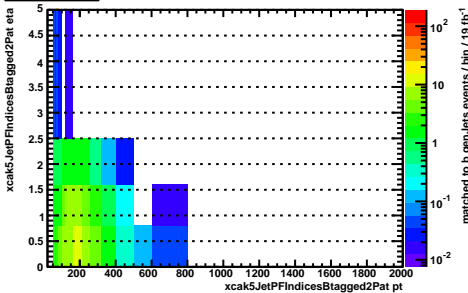
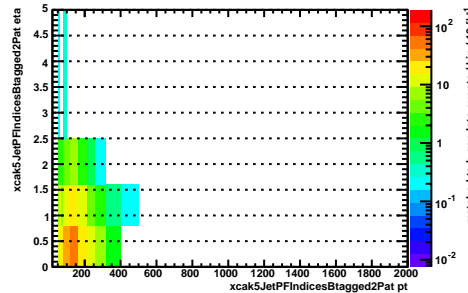
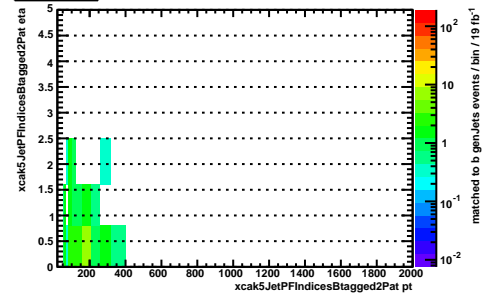
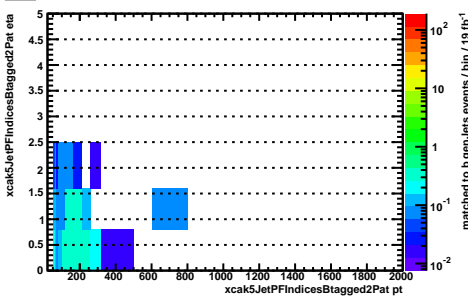
z: multiplicity            0 <= muonIndicesPF <= 0
A: multiplicity            0 <= electronIndicesUnmatchedPF <= 0
B: multiplicity            0 <= photonIndicesUnmatchedPat <= 0
C: deadEcalFilter          xcak5JetPFPat; dR>0.300 when deltaPhiStar<0.500
D: value                   xcak5JetPFMthhighPtPatOvermetP4Type1PF<=1.25

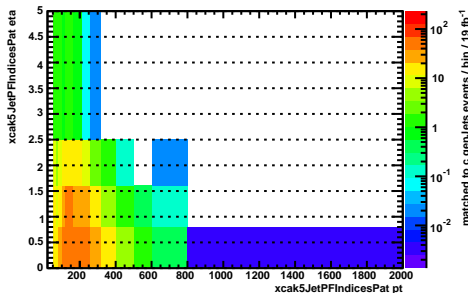
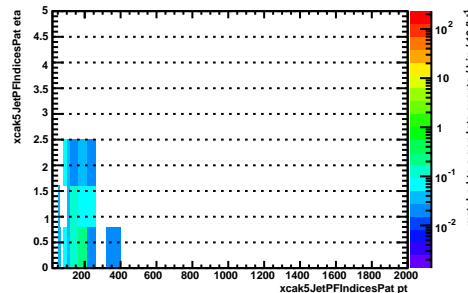
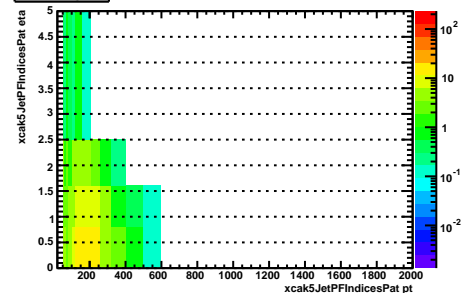
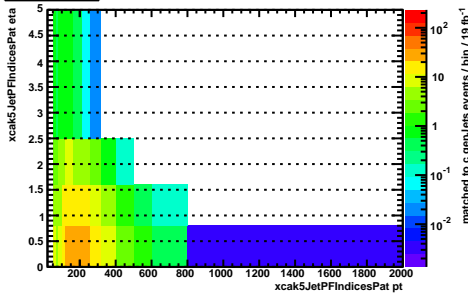
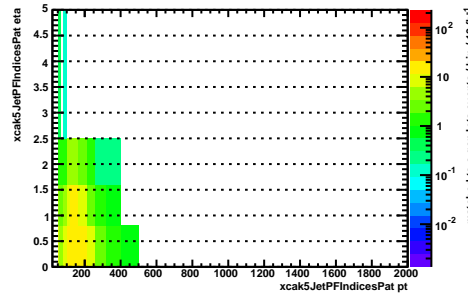
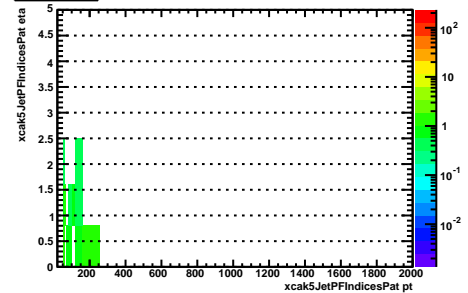
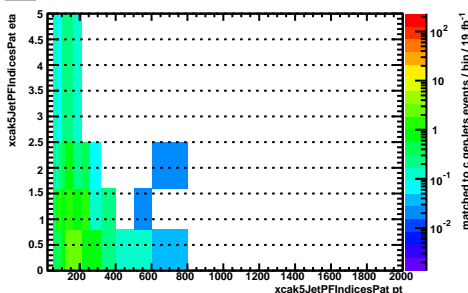
E: value                   PFRecHitSumPt<=30.00
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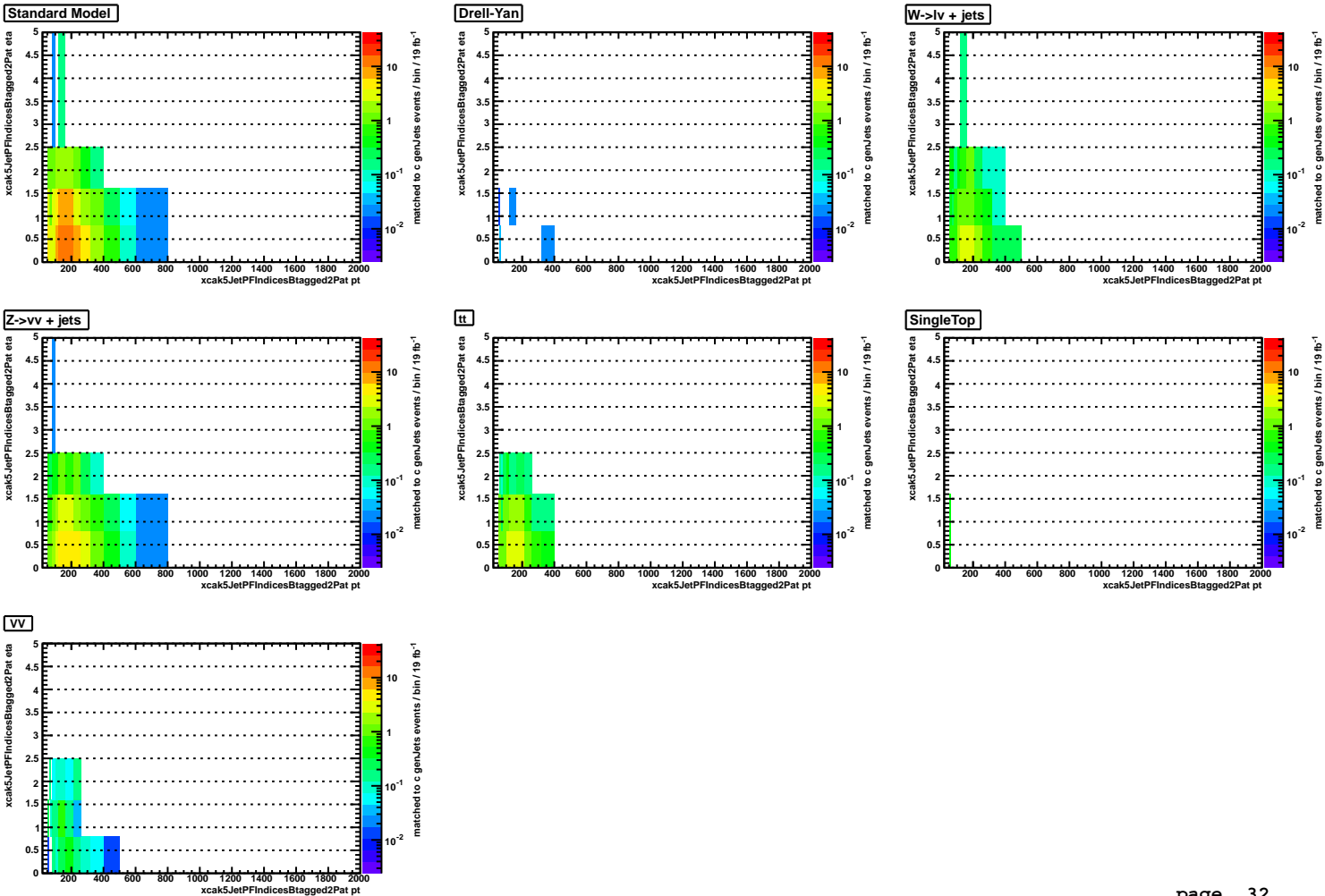
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|    | 2012 Data | Standard Mod | Drell-Yan W->lv + jets Z->vv + jets |             |              |              | tt           | SingleTop   | VV | data/s.m. |
|----|-----------|--------------|-------------------------------------|-------------|--------------|--------------|--------------|-------------|----|-----------|
| o: | 13870537  | -            | -                                   | -           | -            | -            | -            | -           | -  |           |
| p: | 13456243  | 4.664(2)e+7  | 3.443(3)e+6                         | 3.100(2)e+7 | 6.113(1)e+6  | 3.6695(9)e+6 | 1.5261(8)e+6 | 8.844(3)e+5 |    | 0.2885(1) |
| q: | 13299744  | 1.0522(5)e+7 | 6.501(10)e+5                        | 5.802(5)e+6 | 1.4714(6)e+6 | 1.9470(6)e+6 | 4.665(4)e+5  | 1.846(1)e+5 |    | 1.2640(7) |
| r: | 11661811  | 2.3977(9)e+6 | 1.139(2)e+5                         | 9.628(7)e+5 | 2.281(1)e+5  | 8.545(4)e+5  | 1.807(3)e+5  | 5.775(8)e+4 |    | 4.864(2)  |
| s: | 10367684  | 1.1536(5)e+6 | 4.254(5)e+4                         | 3.506(3)e+5 | 8.863(6)e+4  | 5.579(3)e+5  | 8.82(2)e+4   | 2.574(5)e+4 |    | 8.987(5)  |
| t: | 10363080  | 1.1516(5)e+6 | 4.246(5)e+4                         | 3.503(3)e+5 | 8.862(6)e+4  | 5.564(3)e+5  | 8.81(2)e+4   | 2.572(5)e+4 |    | 8.999(5)  |
| u: | 10348024  | 1.1426(5)e+6 | 4.184(5)e+4                         | 3.477(3)e+5 | 8.859(6)e+4  | 5.513(3)e+5  | 8.75(2)e+4   | 2.567(5)e+4 |    | 9.056(5)  |
| v: | 10348024  | 1.1426(5)e+6 | 4.184(5)e+4                         | 3.477(3)e+5 | 8.859(6)e+4  | 5.513(3)e+5  | 8.75(2)e+4   | 2.567(5)e+4 |    | 9.056(5)  |
| w: | 9836240   | 1.1139(5)e+6 | 4.069(5)e+4                         | 3.413(3)e+5 | 8.741(5)e+4  | 5.345(3)e+5  | 8.48(2)e+4   | 2.517(5)e+4 |    | 8.831(5)  |
| x: | 9811777   | 9.505(4)e+5  | 2.563(4)e+4                         | 2.522(2)e+5 | 8.739(5)e+4  | 4.816(3)e+5  | 7.96(2)e+4   | 2.410(5)e+4 |    | 10.323(6) |
| y: | 9779118   | 9.427(4)e+5  | 2.497(4)e+4                         | 2.473(2)e+5 | 8.736(5)e+4  | 4.797(3)e+5  | 7.93(2)e+4   | 2.397(5)e+4 |    | 10.374(6) |
| z: | 9755783   | 7.843(4)e+5  | 1.138(3)e+4                         | 1.572(2)e+5 | 8.735(5)e+4  | 4.312(3)e+5  | 7.42(2)e+4   | 2.295(5)e+4 |    | 12.439(7) |
| A: | 9754104   | 7.838(4)e+5  | 1.136(3)e+4                         | 1.571(2)e+5 | 8.734(5)e+4  | 4.309(3)e+5  | 7.42(2)e+4   | 2.294(5)e+4 |    | 12.445(7) |
| B: | 9753474   | 7.837(4)e+5  | 1.136(3)e+4                         | 1.570(2)e+5 | 8.733(5)e+4  | 4.309(3)e+5  | 7.42(2)e+4   | 2.294(5)e+4 |    | 12.445(7) |
| C: | 1858922   | 2.351(2)e+5  | 3.48(2)e+3                          | 6.33(1)e+4  | 4.425(4)e+4  | 9.98(1)e+4   | 1.853(9)e+4  | 5.81(2)e+3  |    | 7.905(9)  |
| D: | 678926    | 1.404(1)e+5  | 1.96(1)e+3                          | 4.752(9)e+4 | 3.748(4)e+4  | 4.228(9)e+4  | 8.28(6)e+3   | 2.84(2)e+3  |    | 4.837(8)  |
| E: | 639480    | 1.399(1)e+5  | 1.96(1)e+3                          | 4.737(9)e+4 | 3.737(4)e+4  | 4.213(9)e+4  | 8.25(6)e+3   | 2.83(2)e+3  |    | 4.571(8)  |
| F: | 6173      | 6.64(2)e+3   | 14.6(8)                             | 1.98(2)e+3  | 3.71(1)e+3   | 7.7(1)e+2    | 72(6)        | 87(2)       |    | 0.93(1)   |

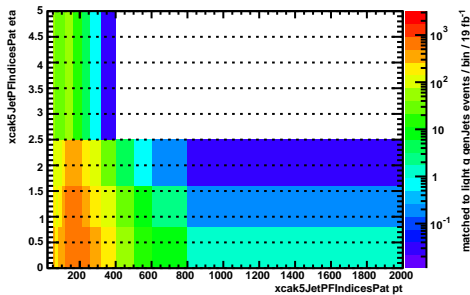
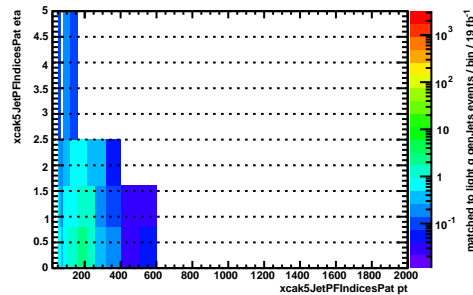
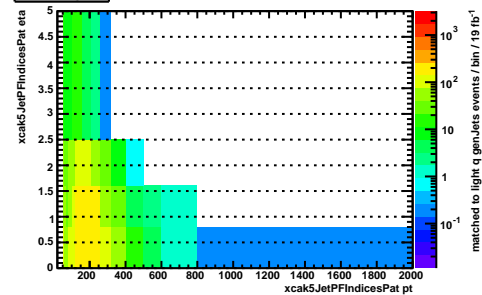
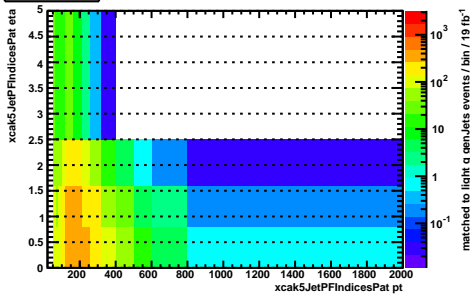
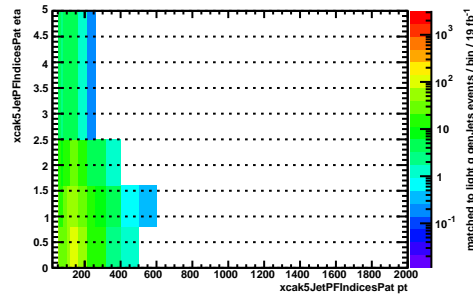
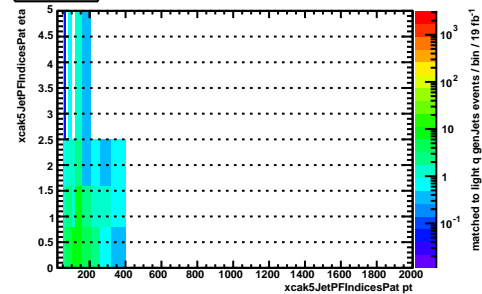
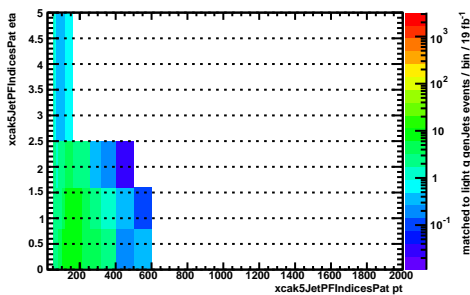
**Standard Model****Drell-Yan****W->lv + jets****Z->vv + jets****tt****SingleTop****VV**

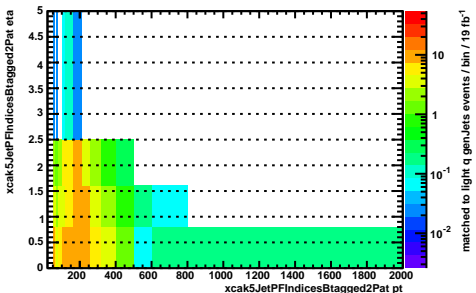
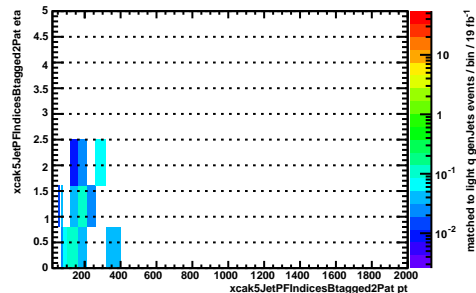
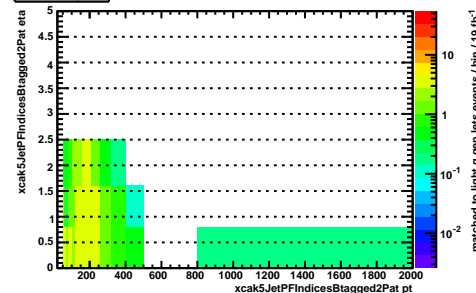
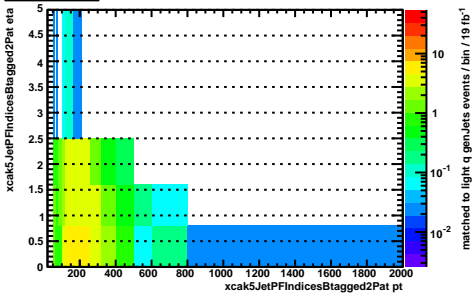
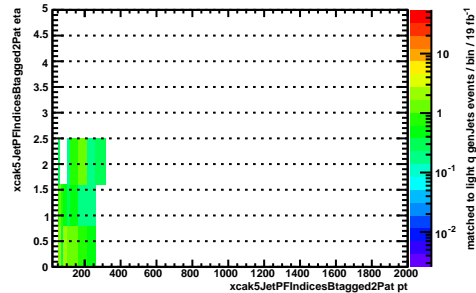
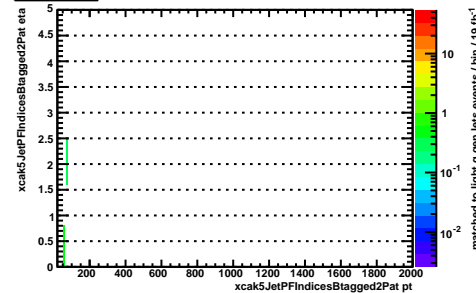
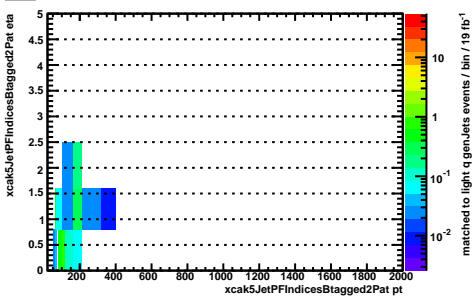
**Standard Model****Drell-Yan****W->lv + jets****Z->vv + jets****tt****SingleTop****VV**

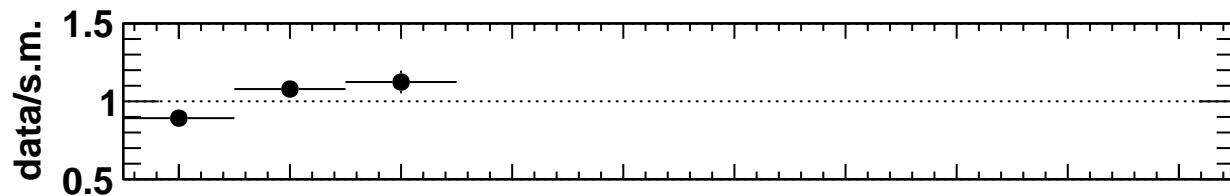
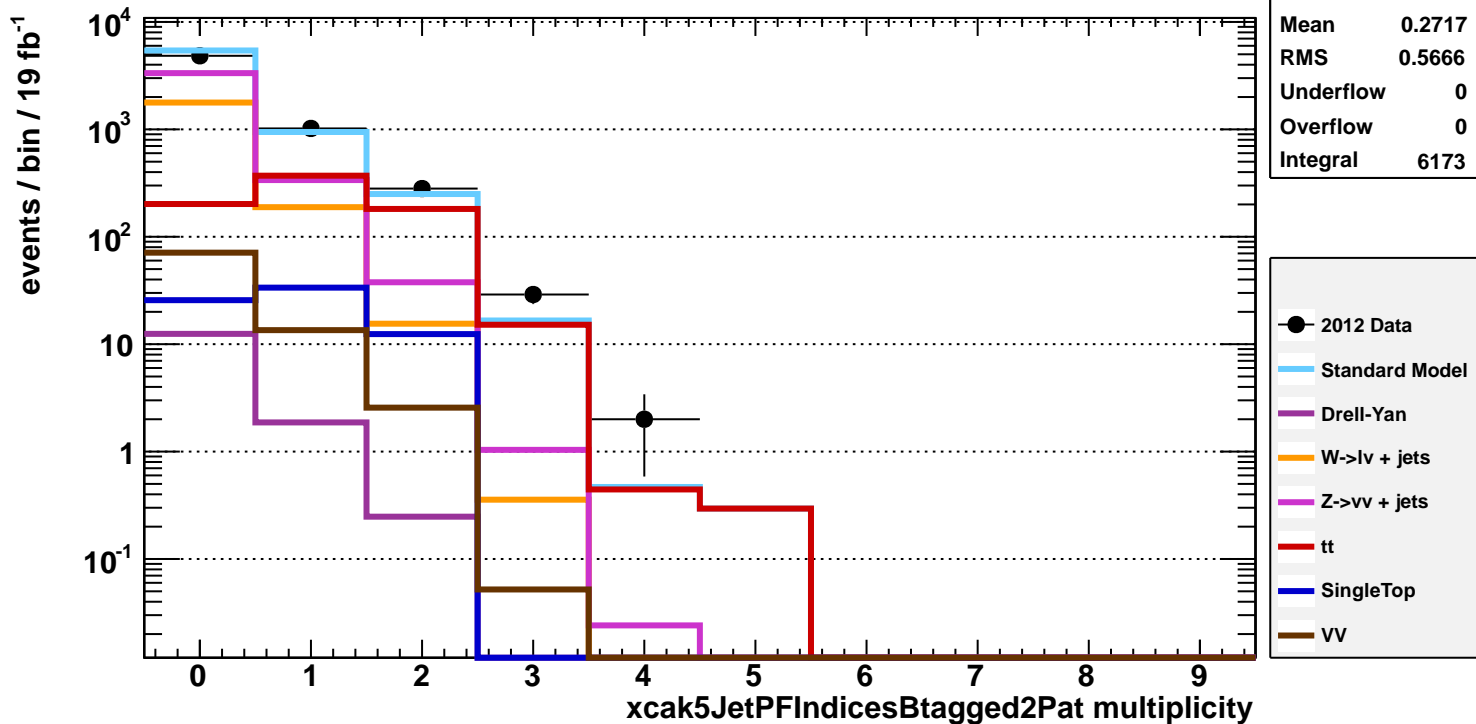
**Standard Model****Drell-Yan****W->lv + jets****Z->vv + jets****tt****SingleTop****VV**





**Standard Model****Drell-Yan****W->lv + jets****Z->vv + jets****tt****SingleTop****VV**

**Standard Model****Drell-Yan****W->lv + jets****Z->vv + jets****tt****SingleTop****VV**



```

q:  jetPtSelector          xcak5JetPFPat; pT[index[0]]>=100.0 GeV
r:  jetPtSelector          xcak5JetPFPat; pT[index[1]]>=100.0 GeV
s:  value                  375.00<=xcak5JetPFSSumEtPat
t:  uniquelyMatchedNonisoMuons xcak5JetPFPat

u:  multiplicity           0 <= xcak5JetPFIndicesWithOddMuonPat <= 0
v:  multiplicity           2 <= xcak5JetPFIndicesPat
w:  multiplicity           0 <= xcak5JetPFIndicesOtherPat <= 0
x:  multiplicity           0 <= electronIndicesPF <= 0
y:  multiplicity           0 <= photonIndicesPat <= 0

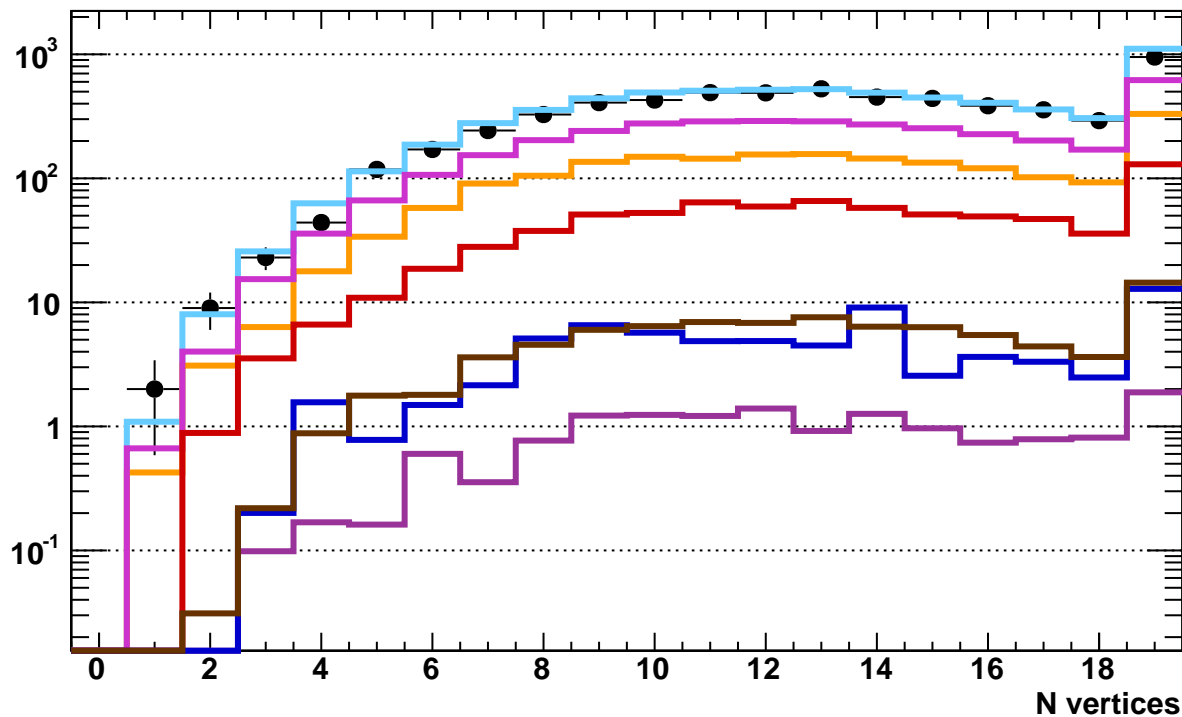
z:  multiplicity           0 <= muonIndicesPF <= 0
A:  multiplicity           0 <= electronIndicesUnmatchedPF <= 0
B:  multiplicity           0 <= photonIndicesUnmatchedPat <= 0
C:  deadCalFilter          xcak5JetPFPat; dR>0.300 when deltaPhiStar<0.500
D:  value                  xcak5JetPFMthhighPtPatOvermetP4TypeIPF<=1.25

E:  value                  PFRchHitSumPt<=30.00
F:  value                  0.55<=xcak5JetPFAlphaTETetPat
G:  value                  1.00<=hcalLaserEvent2012
H:  value                  1.00<=ecalLaserCalibEvent2012

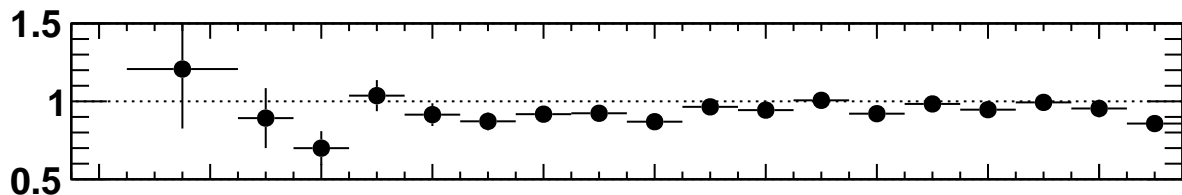
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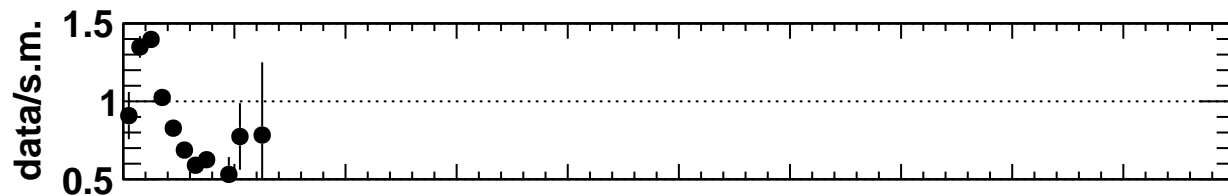
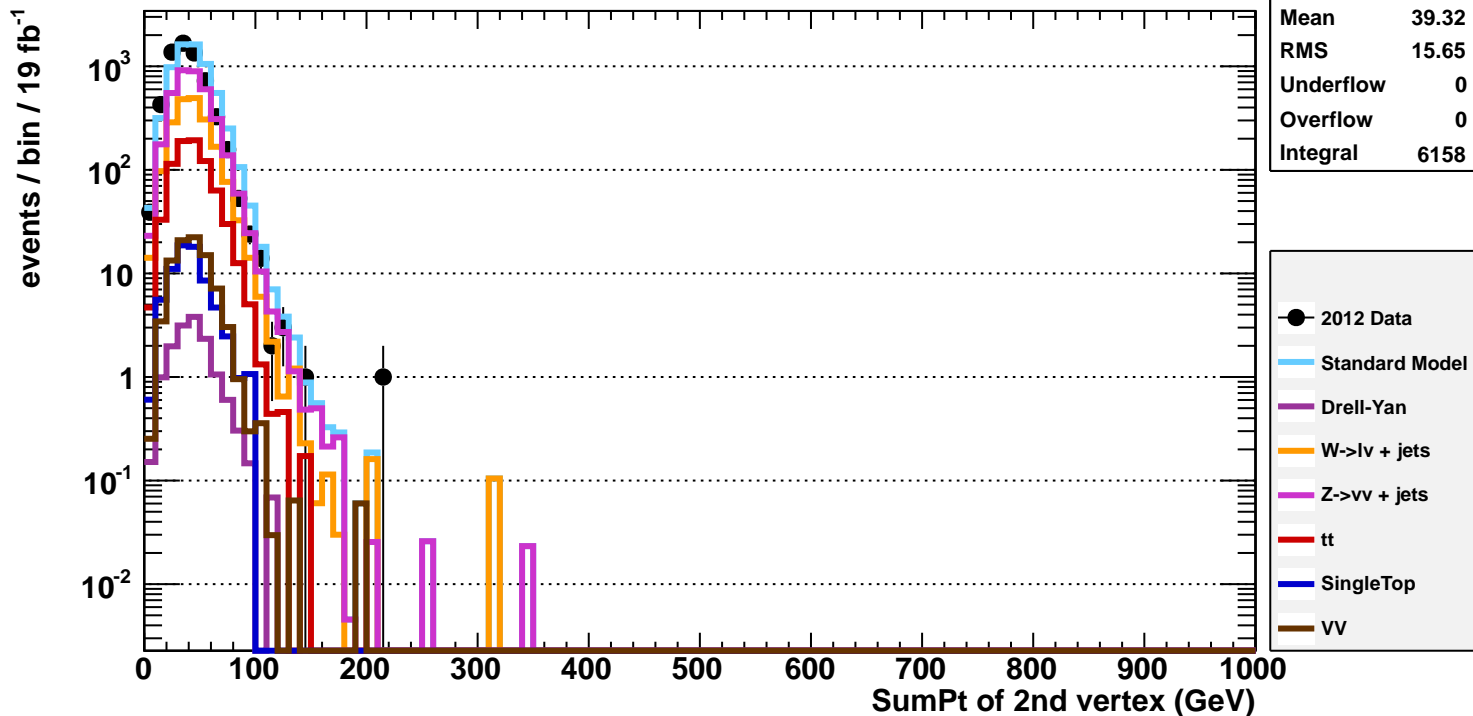
|    | 2012 Data | Standard Mod | Drell-Yan W->lv + jets |             | Z->vv + jets |              | tt          | SingleTop   | VV | data/s.m. |
|----|-----------|--------------|------------------------|-------------|--------------|--------------|-------------|-------------|----|-----------|
| q: | 13299744  | 1.0522(5)e+7 | 6.501(10)e+5           | 5.802(5)e+6 | 1.4714(6)e+6 | 1.9470(6)e+6 | 4.665(4)e+5 | 1.846(1)e+5 |    | 1.2640(7) |
| r: | 11661811  | 2.3977(9)e+6 | 1.139(2)e+5            | 9.628(7)e+5 | 2.281(1)e+5  | 8.545(4)e+5  | 1.807(3)e+5 | 5.775(8)e+4 |    | 4.864(2)  |
| s: | 10367684  | 1.1536(5)e+6 | 4.254(5)e+4            | 3.506(3)e+5 | 8.863(6)e+4  | 5.579(3)e+5  | 8.82(2)e+4  | 2.574(5)e+4 |    | 8.987(5)  |
| t: | 10363080  | 1.1516(5)e+6 | 4.246(5)e+4            | 3.503(3)e+5 | 8.862(6)e+4  | 5.564(3)e+5  | 8.81(2)e+4  | 2.572(5)e+4 |    | 8.999(5)  |
| u: | 10348024  | 1.1426(5)e+6 | 4.184(5)e+4            | 3.477(3)e+5 | 8.859(6)e+4  | 5.513(3)e+5  | 8.75(2)e+4  | 2.567(5)e+4 |    | 9.056(5)  |
| v: | 10348024  | 1.1426(5)e+6 | 4.184(5)e+4            | 3.477(3)e+5 | 8.859(6)e+4  | 5.513(3)e+5  | 8.75(2)e+4  | 2.567(5)e+4 |    | 9.056(5)  |
| w: | 9836240   | 1.1139(5)e+6 | 4.069(5)e+4            | 3.413(3)e+5 | 8.741(5)e+4  | 5.345(3)e+5  | 8.48(2)e+4  | 2.517(5)e+4 |    | 8.831(5)  |
| x: | 9811777   | 9.505(4)e+5  | 2.563(4)e+4            | 2.522(2)e+5 | 8.739(5)e+4  | 4.816(3)e+5  | 7.96(2)e+4  | 2.410(5)e+4 |    | 10.323(6) |
| y: | 9779118   | 9.427(4)e+5  | 2.497(4)e+4            | 2.473(2)e+5 | 8.736(5)e+4  | 4.797(3)e+5  | 7.93(2)e+4  | 2.397(5)e+4 |    | 10.374(6) |
| z: | 9755783   | 7.843(4)e+5  | 1.138(3)e+4            | 1.572(2)e+5 | 8.735(5)e+4  | 4.312(3)e+5  | 7.42(2)e+4  | 2.295(5)e+4 |    | 12.439(7) |
| A: | 9754104   | 7.838(4)e+5  | 1.136(3)e+4            | 1.571(2)e+5 | 8.734(5)e+4  | 4.309(3)e+5  | 7.42(2)e+4  | 2.294(5)e+4 |    | 12.445(7) |
| B: | 9753474   | 7.837(4)e+5  | 1.136(3)e+4            | 1.570(2)e+5 | 8.733(5)e+4  | 4.309(3)e+5  | 7.42(2)e+4  | 2.294(5)e+4 |    | 12.445(7) |
| C: | 1858922   | 2.351(2)e+5  | 3.48(2)e+3             | 6.33(1)e+4  | 4.425(4)e+4  | 9.98(1)e+4   | 1.853(9)e+4 | 5.81(2)e+3  |    | 7.905(9)  |
| D: | 678926    | 1.404(1)e+5  | 1.96(1)e+3             | 4.752(9)e+4 | 3.748(4)e+4  | 4.228(9)e+4  | 8.28(6)e+3  | 2.84(2)e+3  |    | 4.837(8)  |
| E: | 639480    | 1.399(1)e+5  | 1.96(1)e+3             | 4.737(9)e+4 | 3.737(4)e+4  | 4.213(9)e+4  | 8.25(6)e+3  | 2.83(2)e+3  |    | 4.571(8)  |
| F: | 6173      | 6.64(2)e+3   | 14.6(8)                | 1.98(2)e+3  | 3.71(1)e+3   | 7.7(1)e+2    | 72(6)       | 87(2)       |    | 0.93(1)   |
| G: | 6173      | -            | -                      | -           | -            | -            | -           | -           |    | -         |
| H: | 6158      | -            | -                      | -           | -            | -            | -           | -           |    | -         |

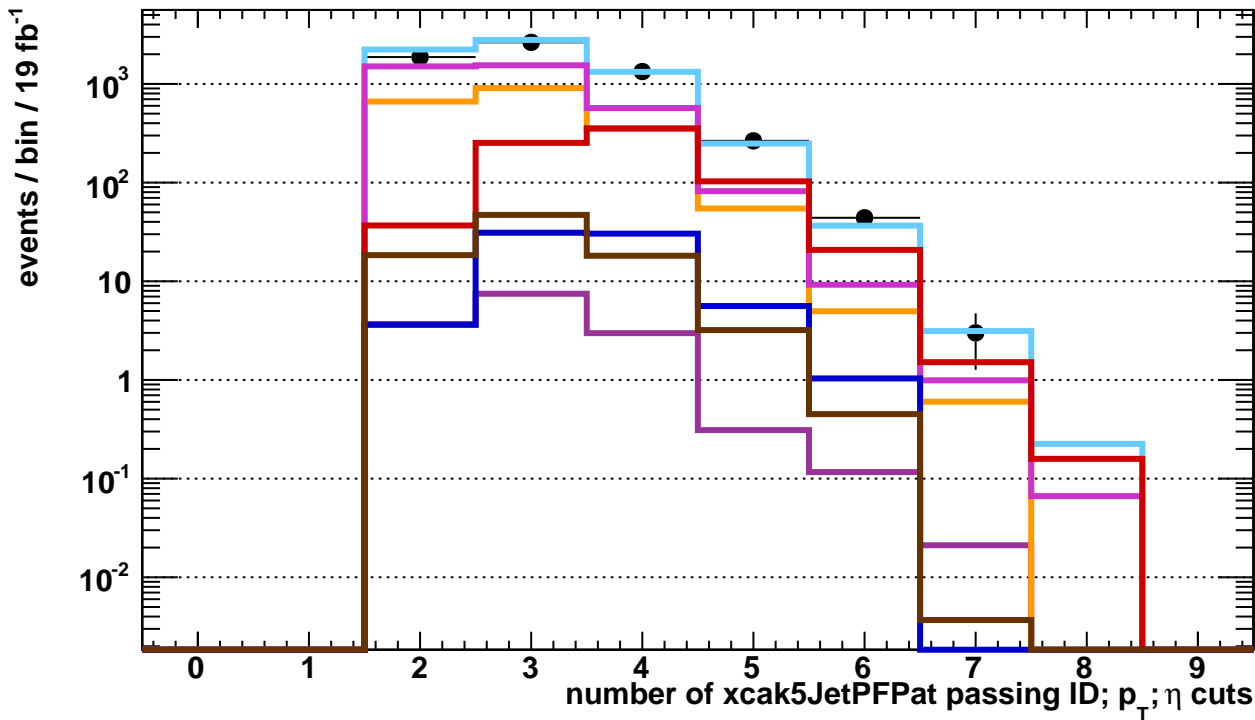
events / bin / 19 fb<sup>-1</sup>



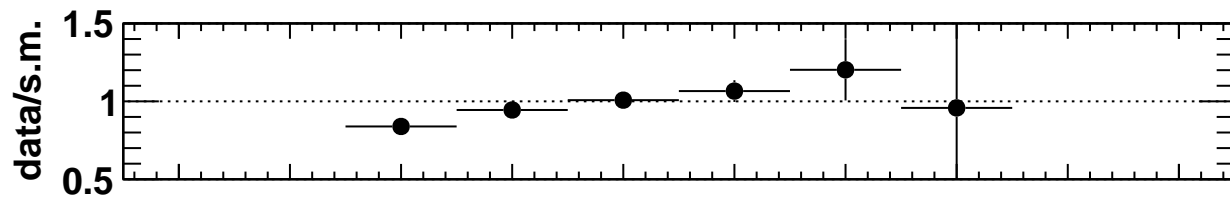
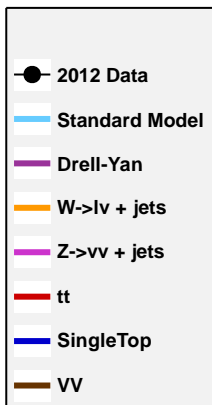
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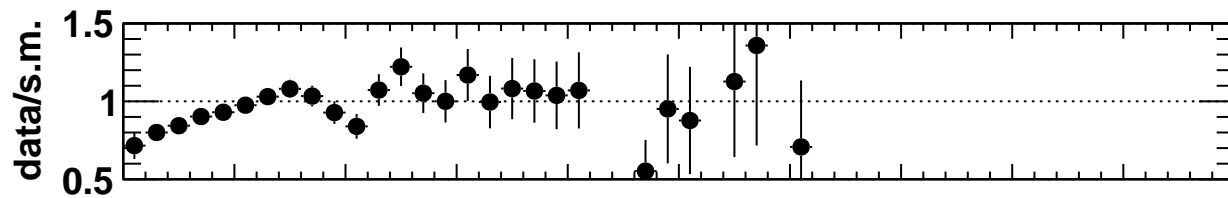
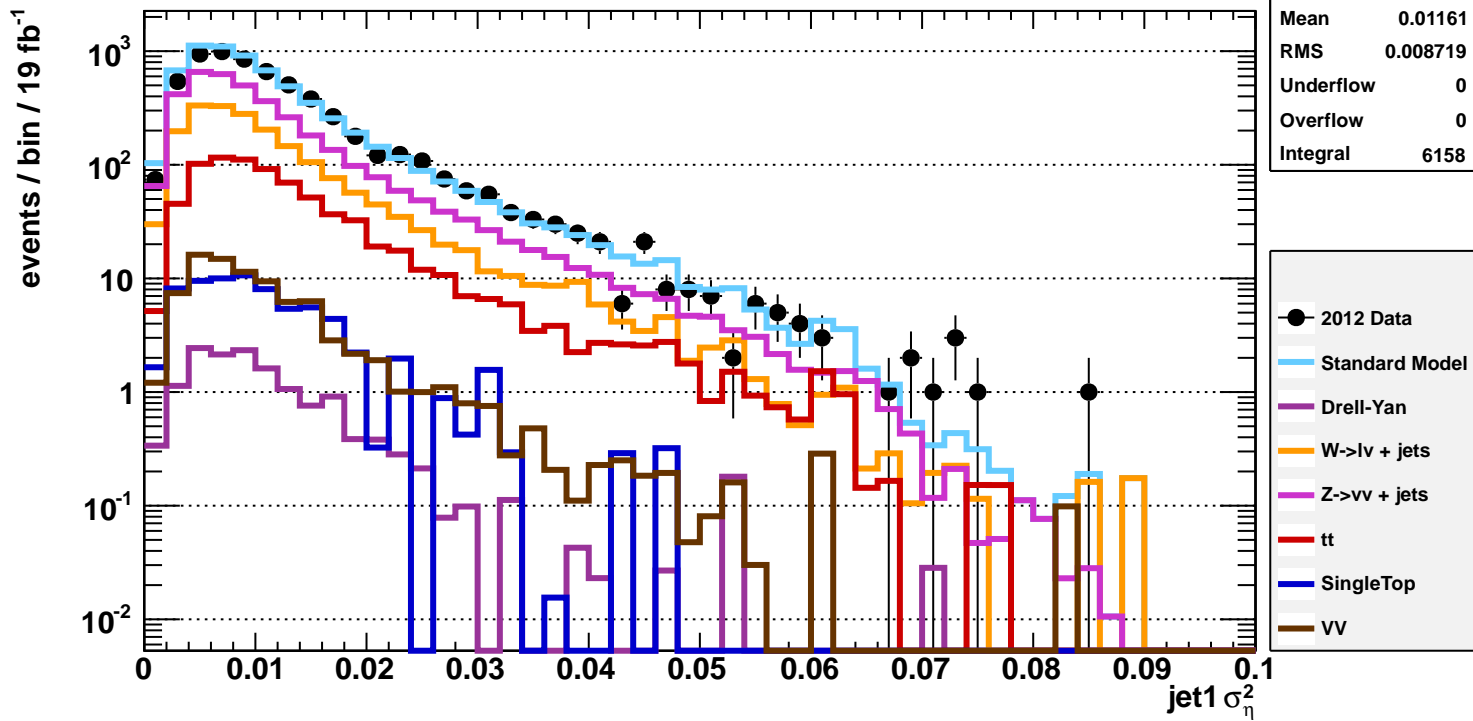




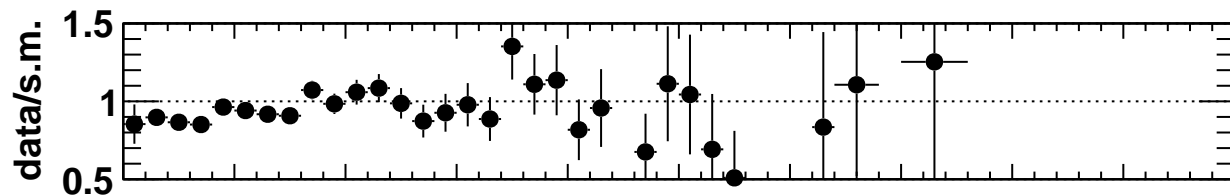
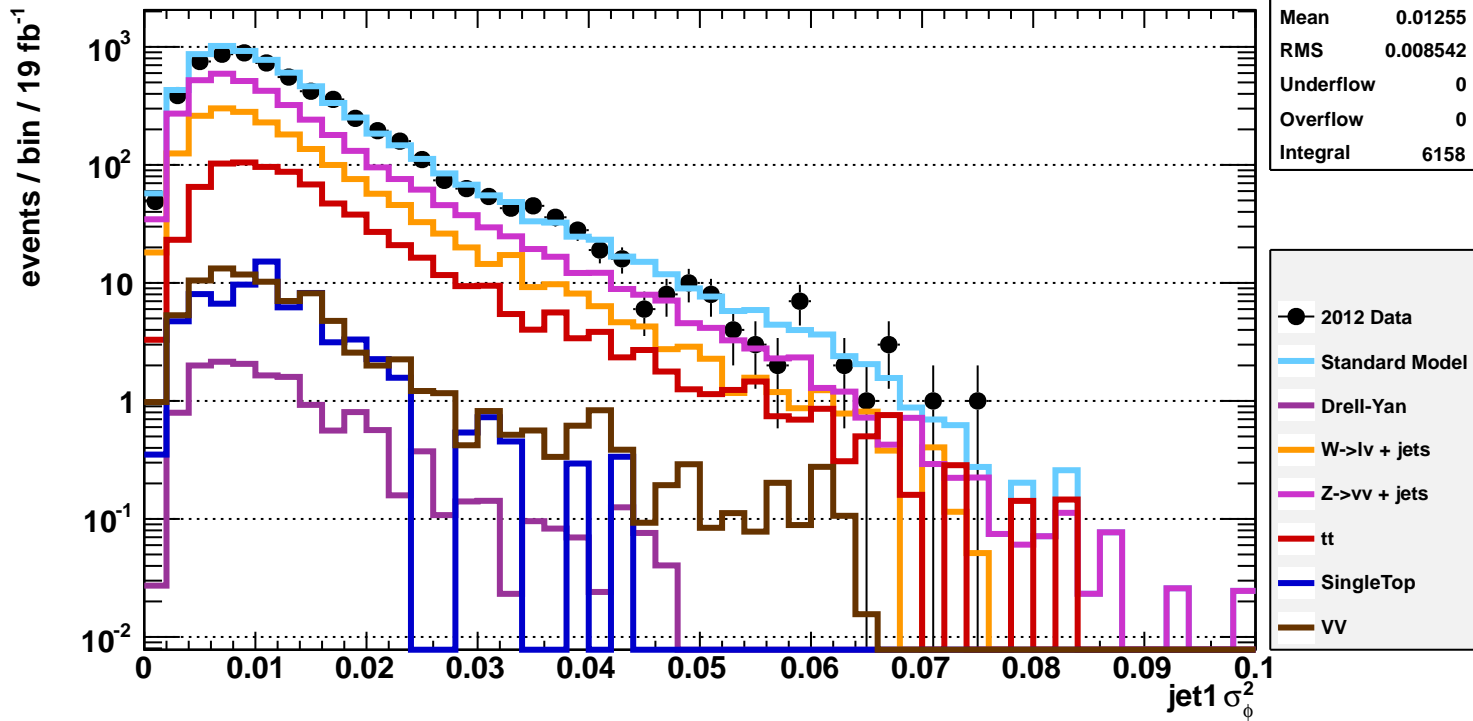


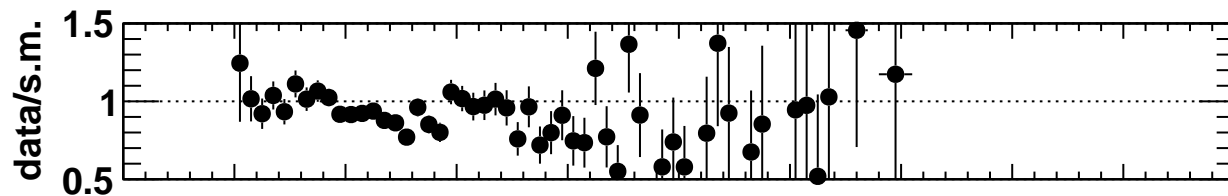
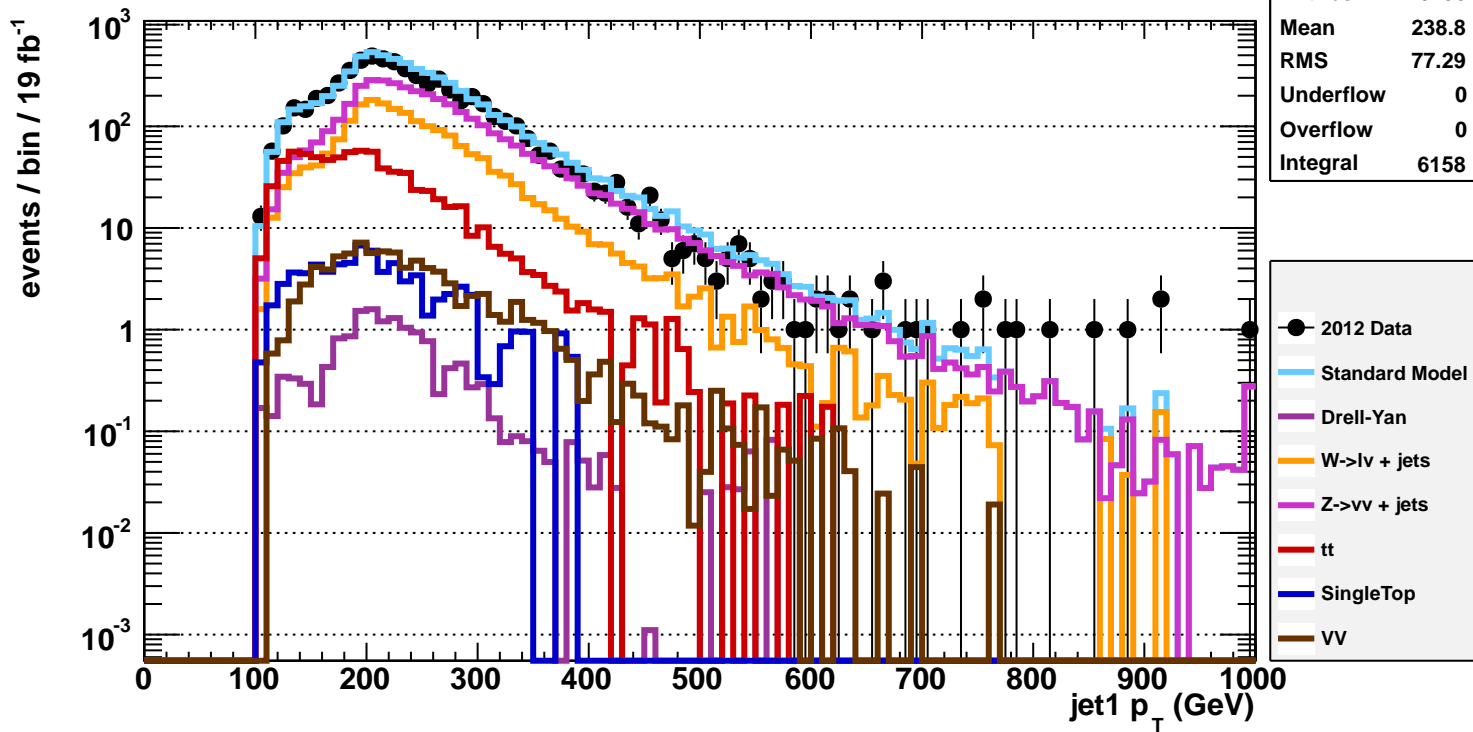
| jetMultiplicity |        |
|-----------------|--------|
| Entries         | 6158   |
| Mean            | 3.022  |
| RMS             | 0.8744 |
| Underflow       | 0      |
| Overflow        | 0      |
| Integral        | 6158   |

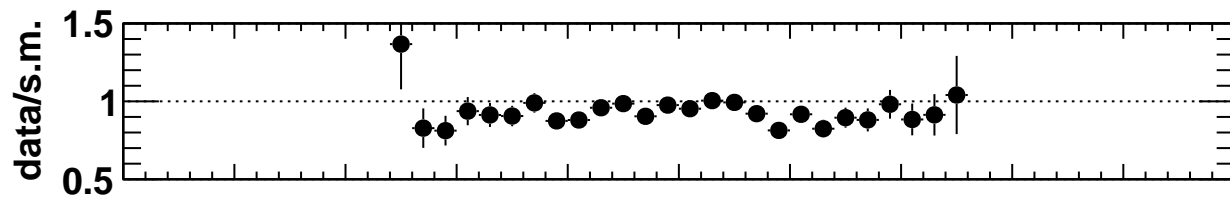
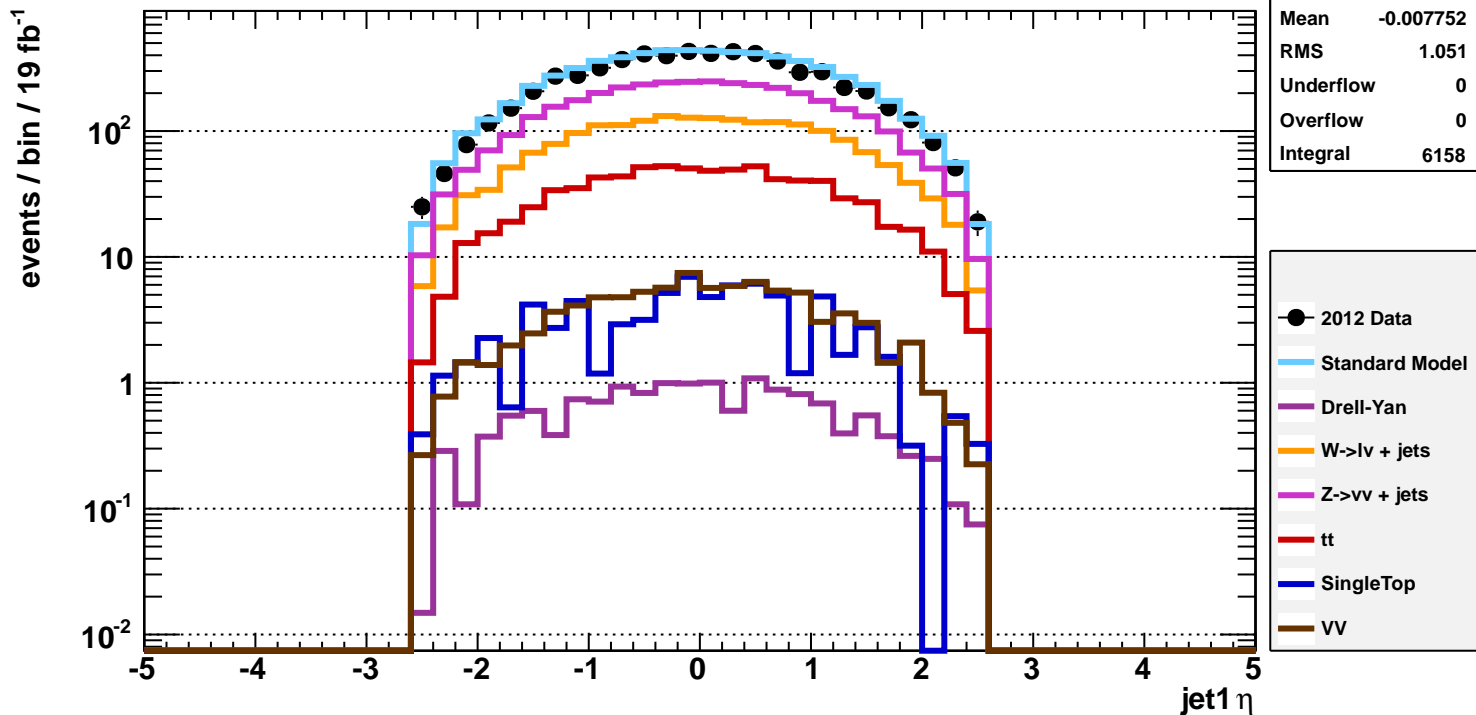


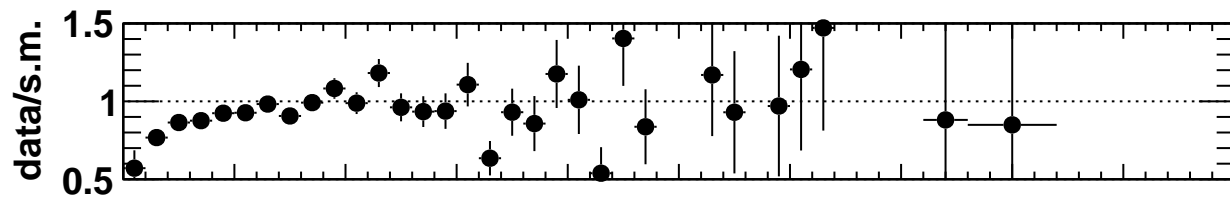
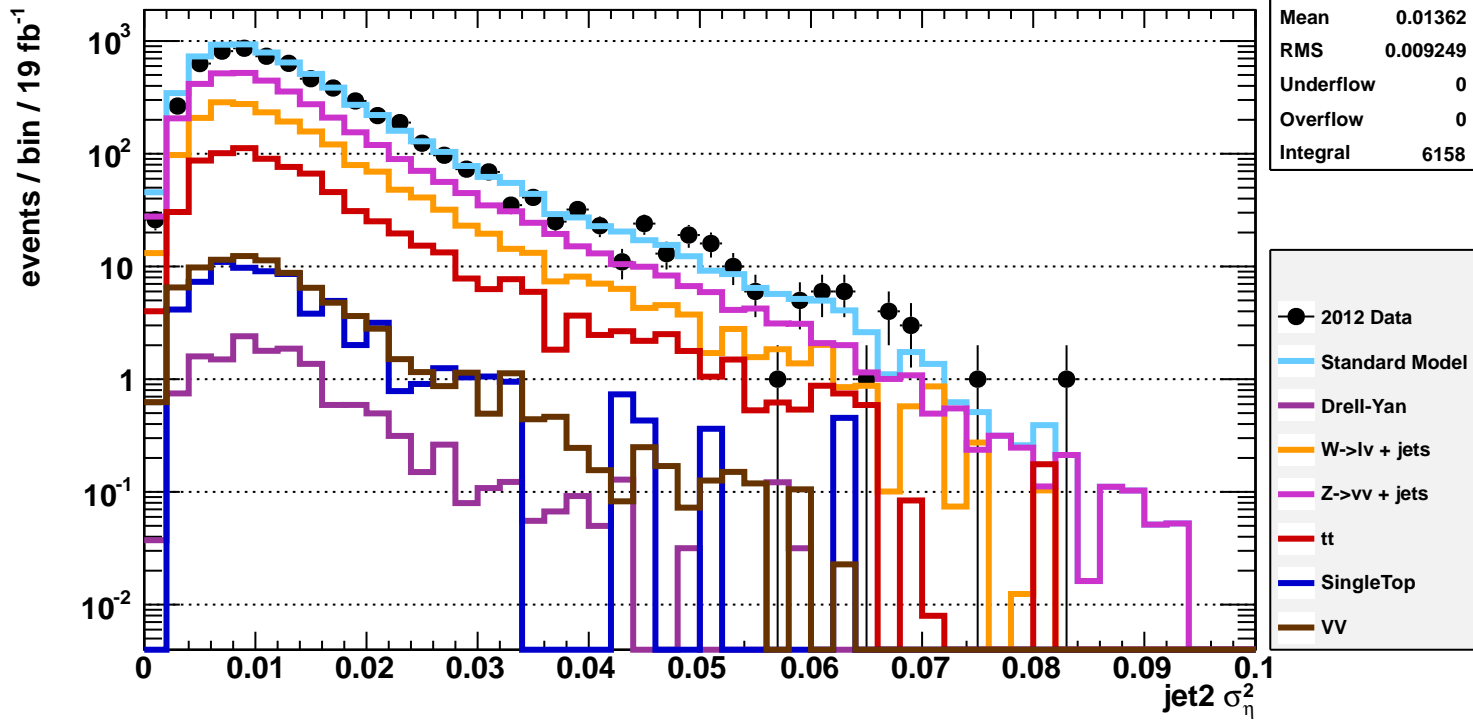


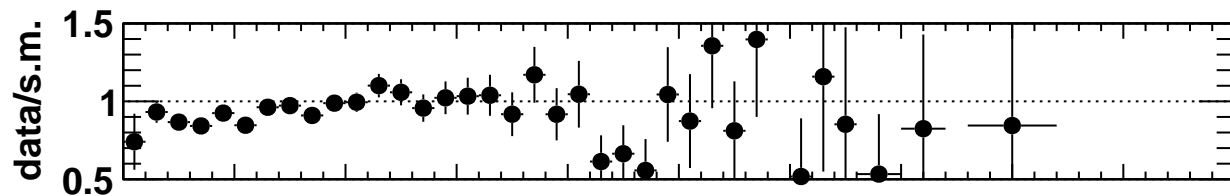
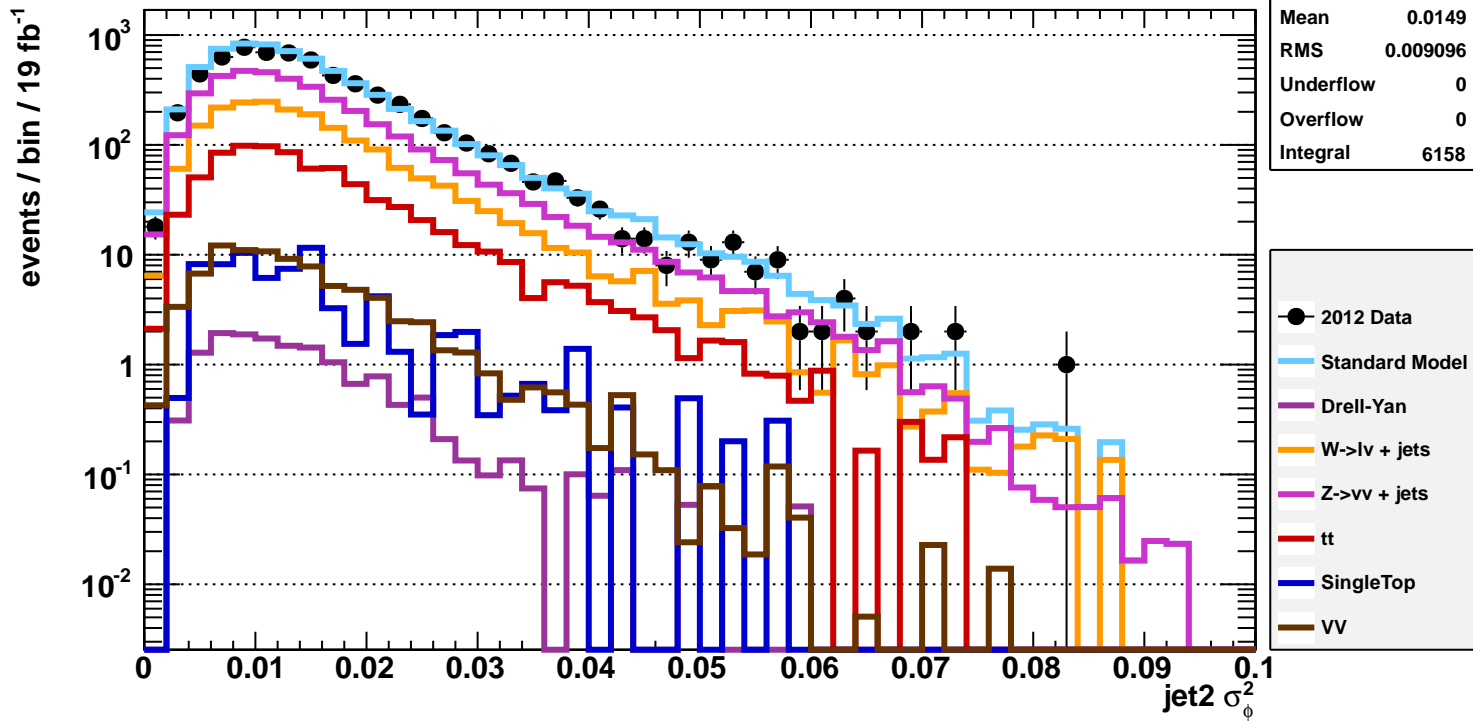


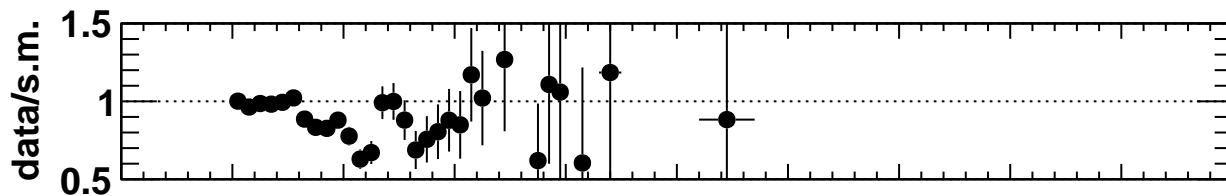
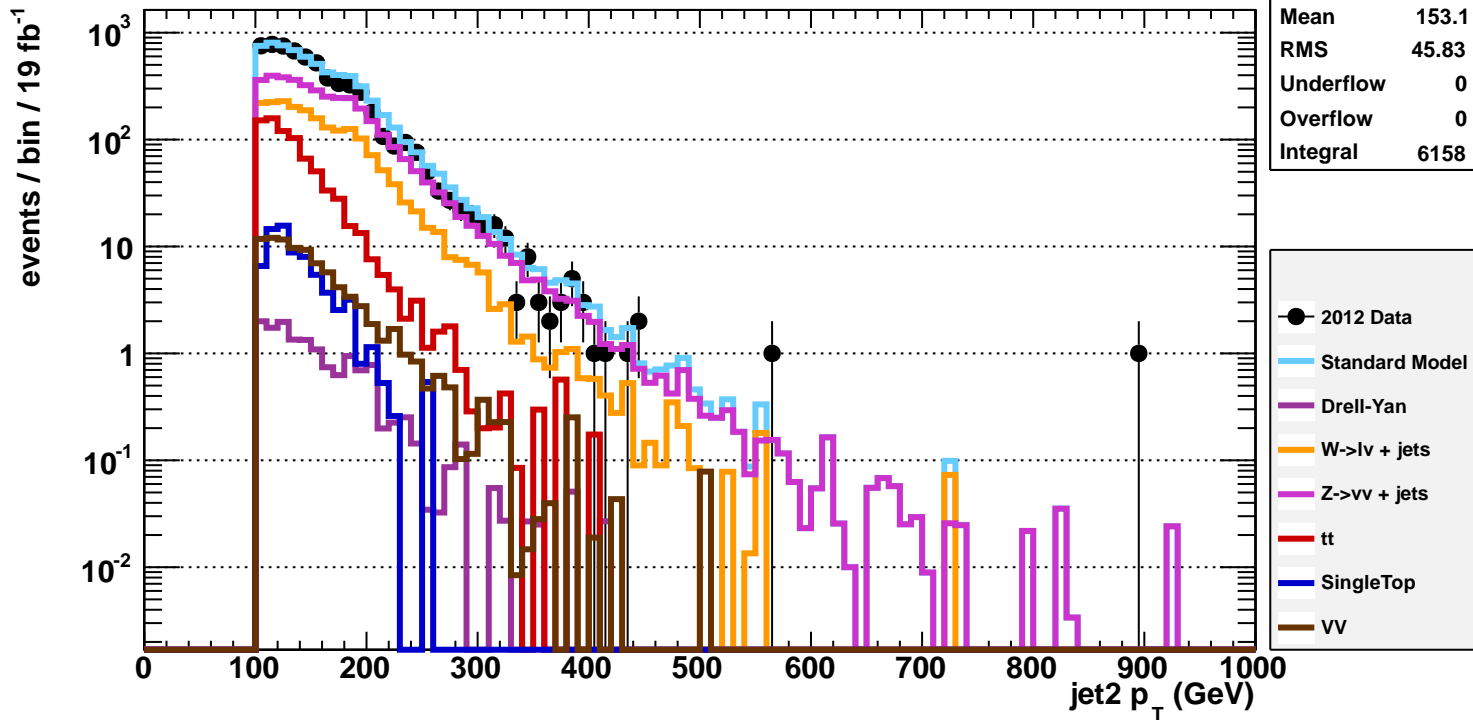


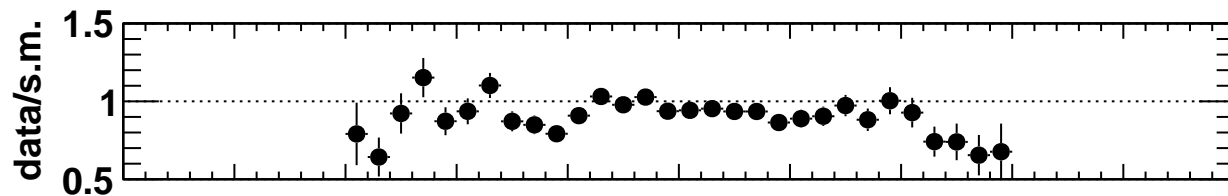
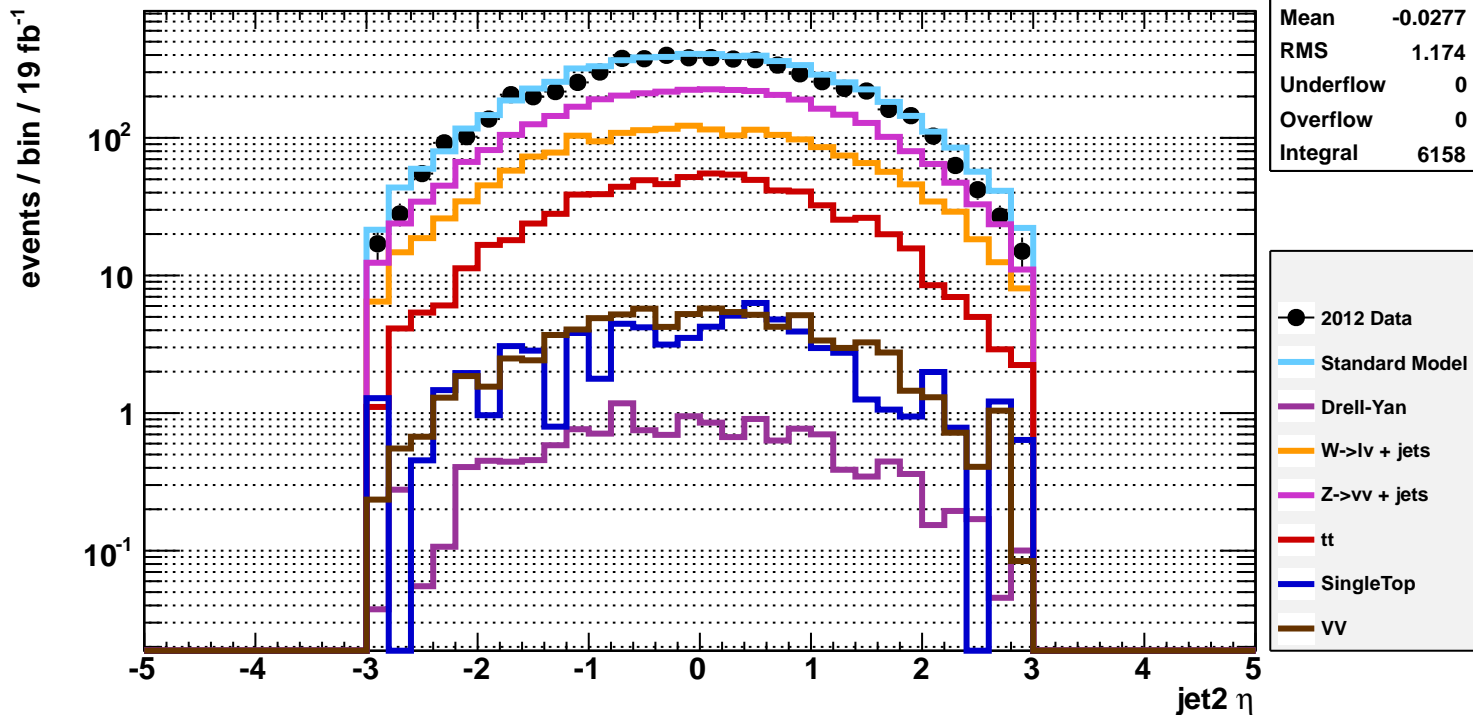


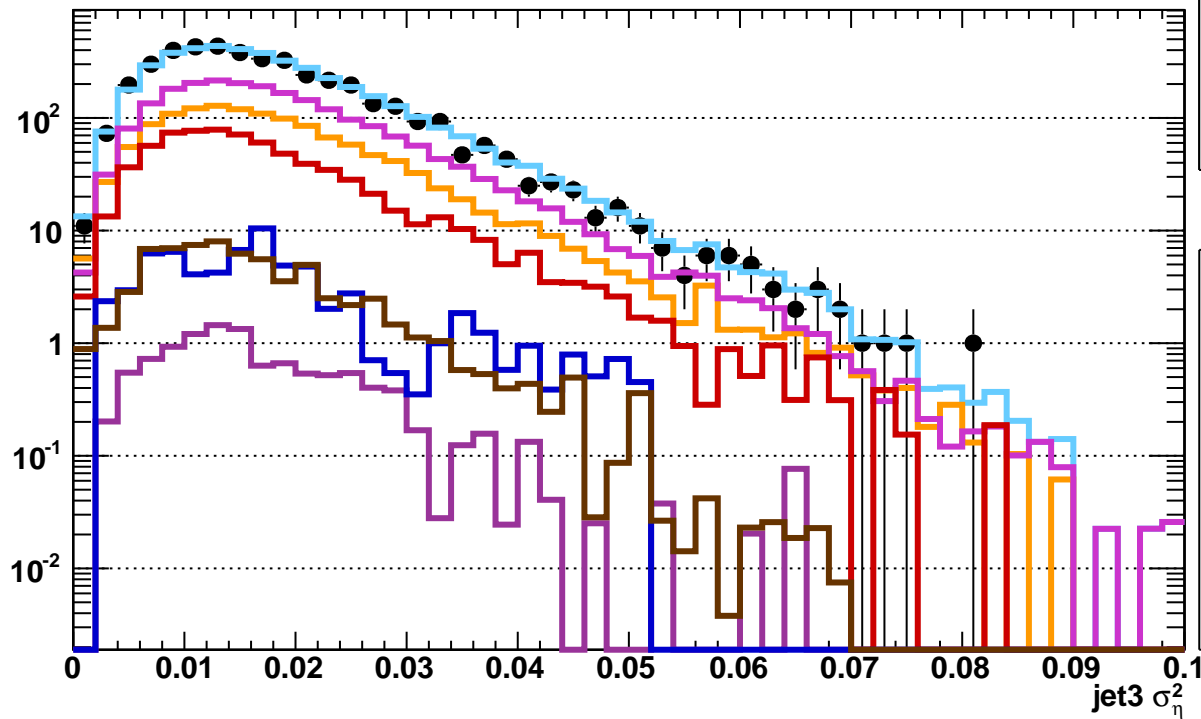




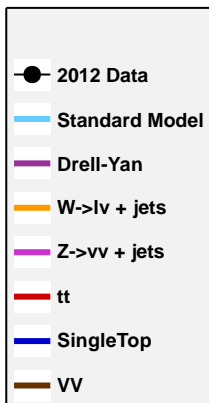




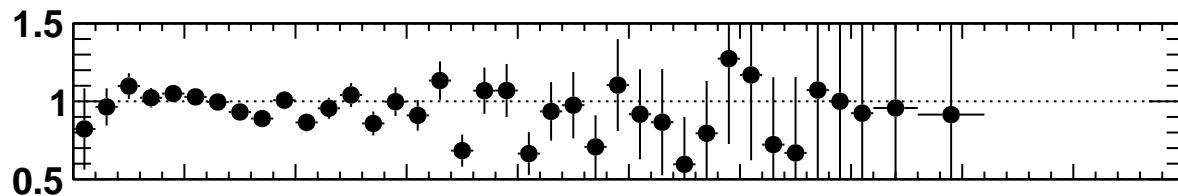


events / bin / 19 fb<sup>-1</sup>

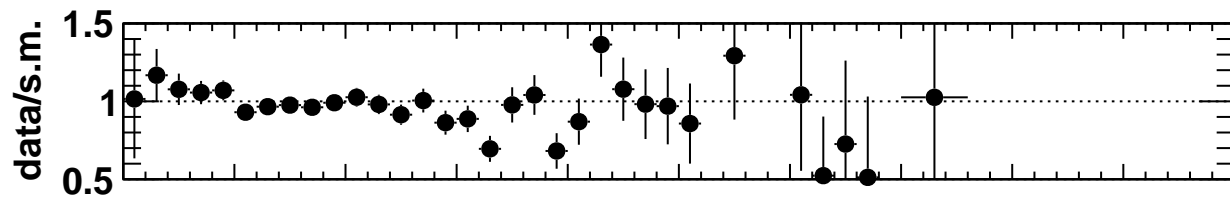
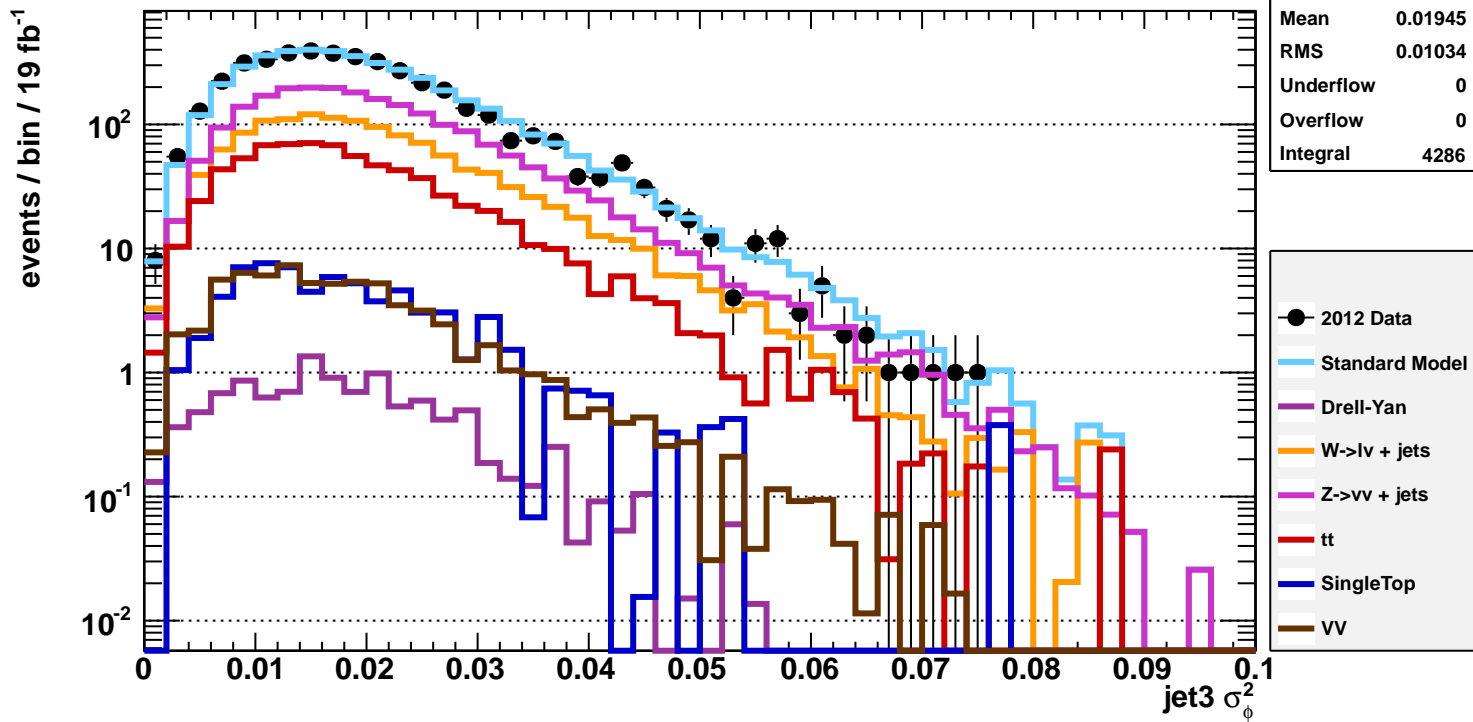
|                       |         |
|-----------------------|---------|
| xcak5JetPFPat3Eta2mom |         |
| Entries               | 4286    |
| Mean                  | 0.01778 |
| RMS                   | 0.01028 |
| Underflow             | 0       |
| Overflow              | 0       |
| Integral              | 4286    |

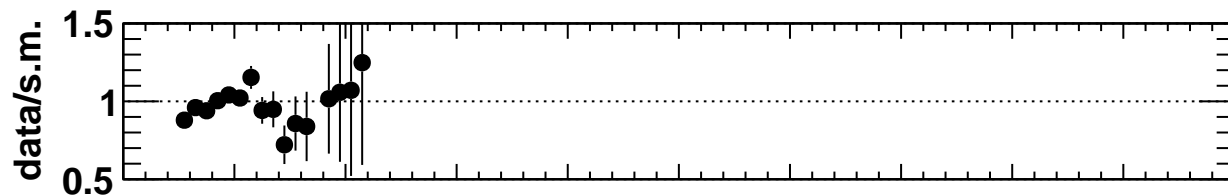
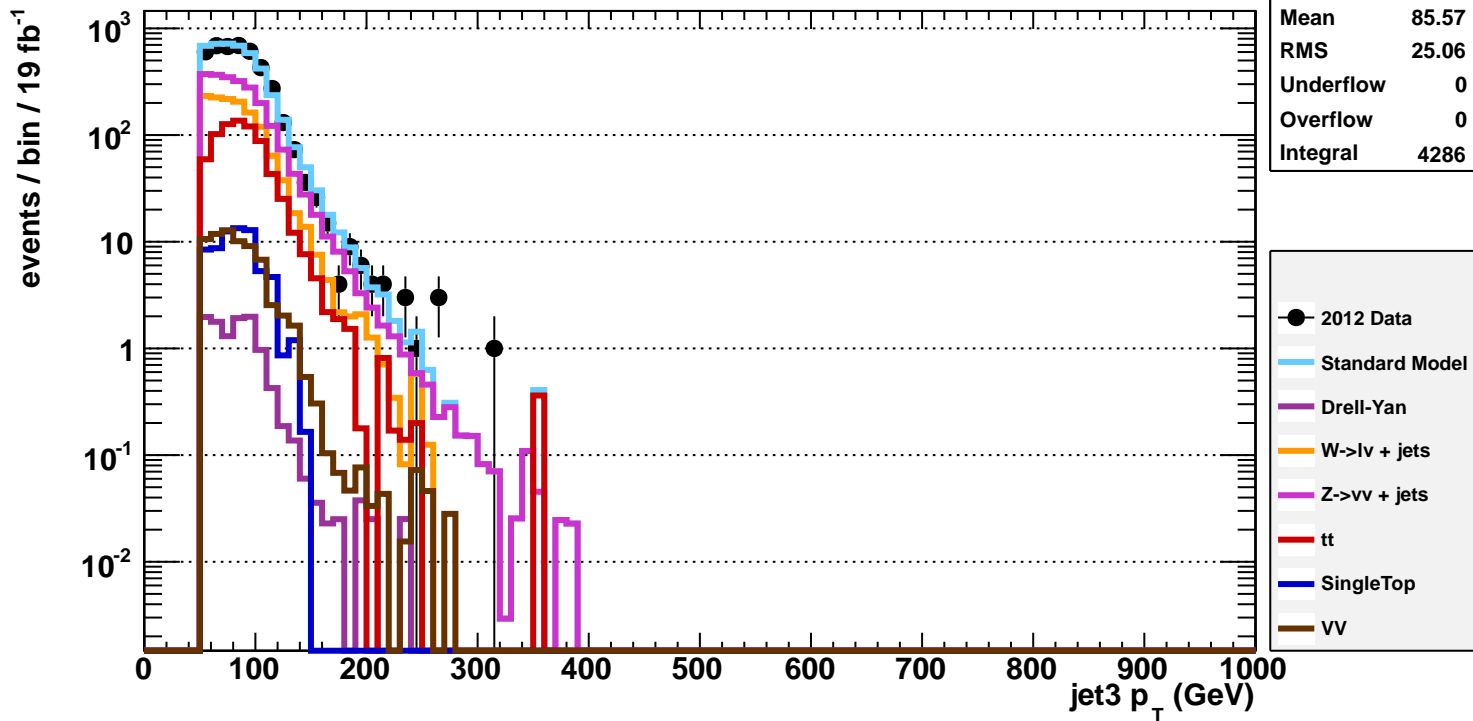


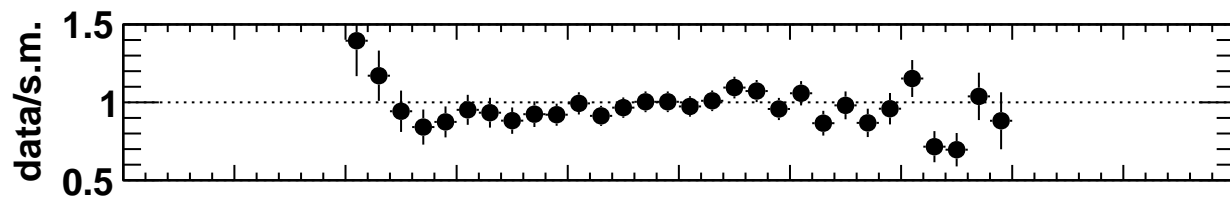
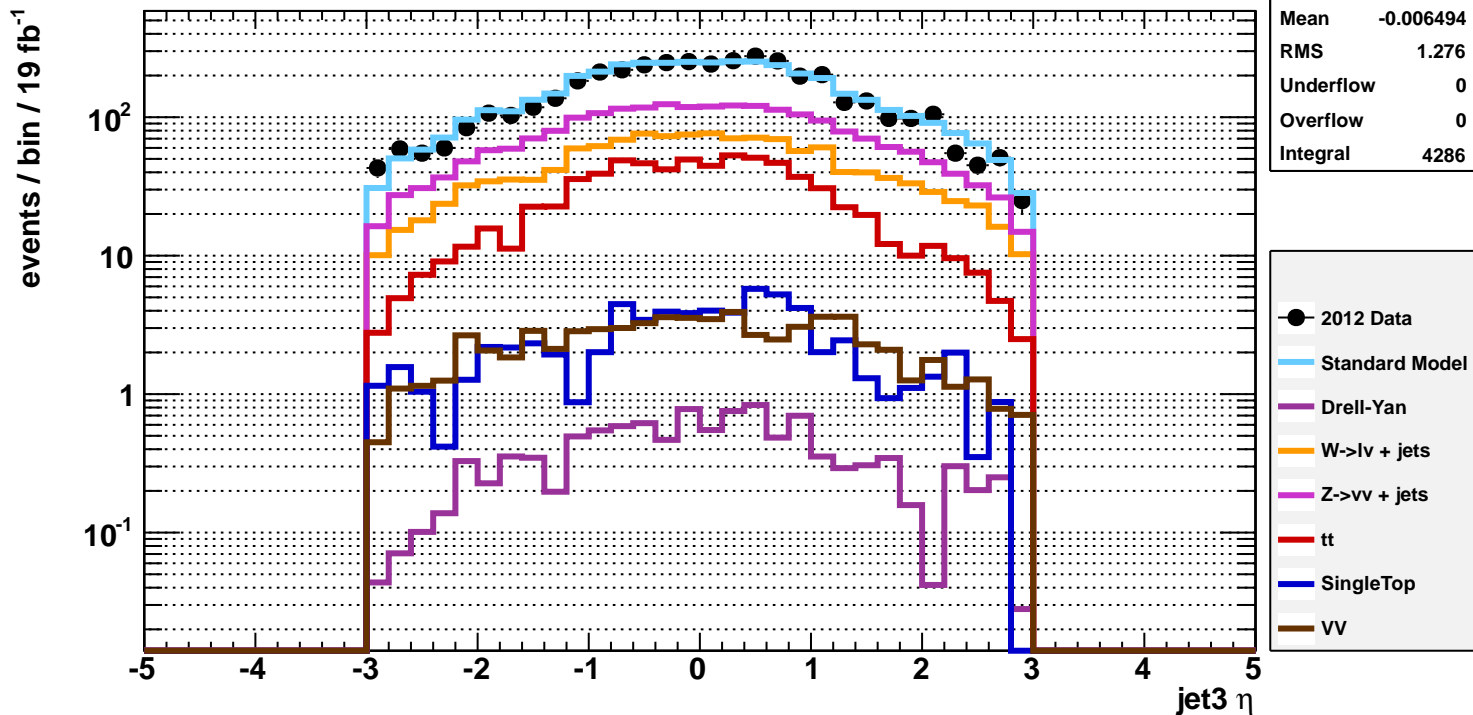
data/s.m.

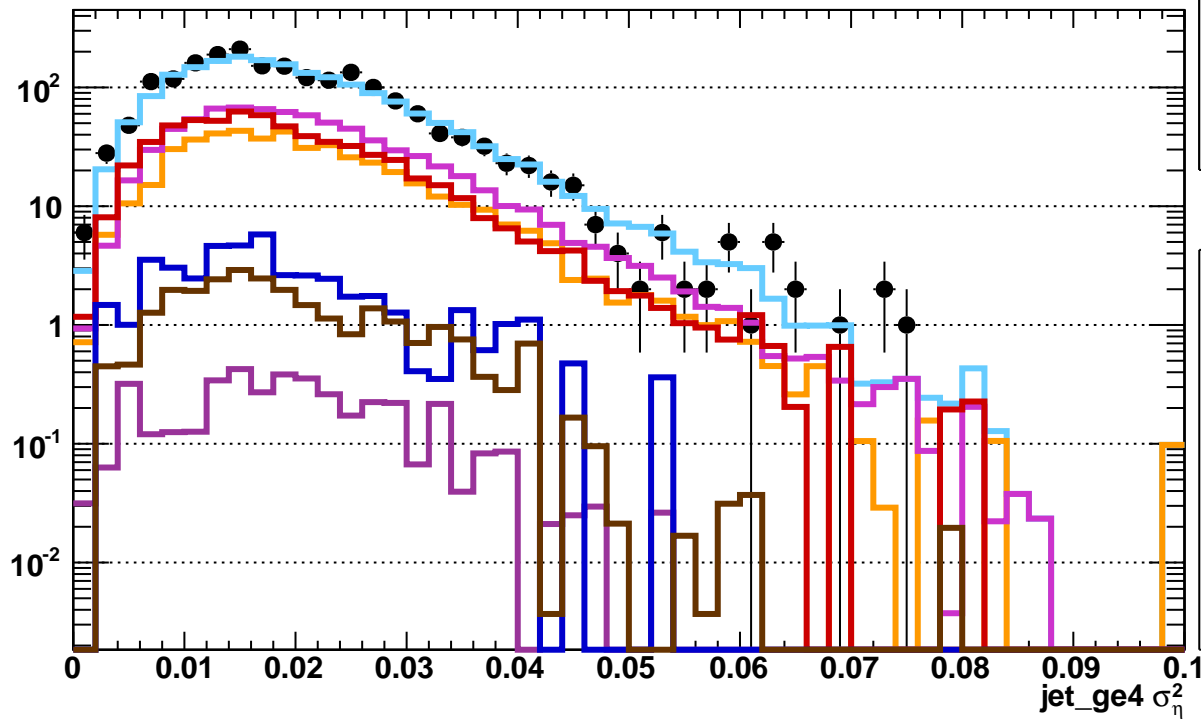




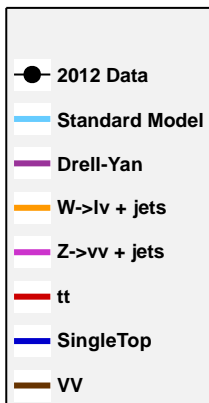




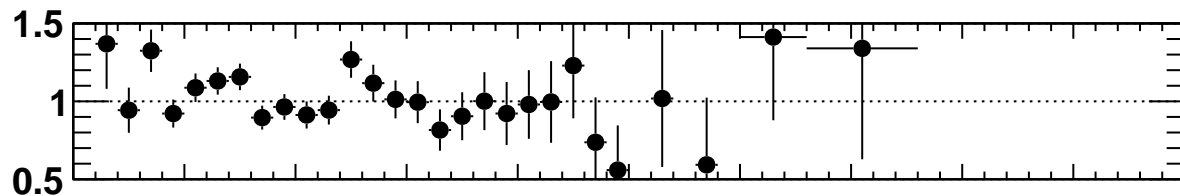


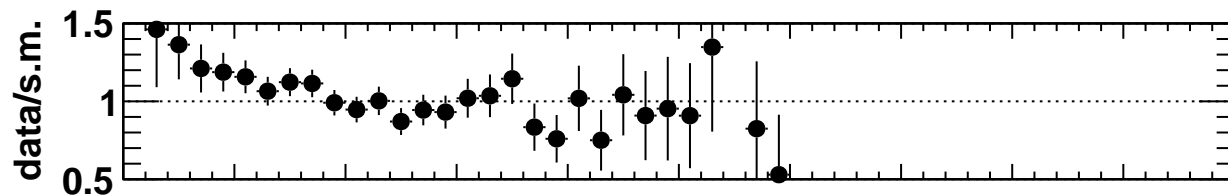
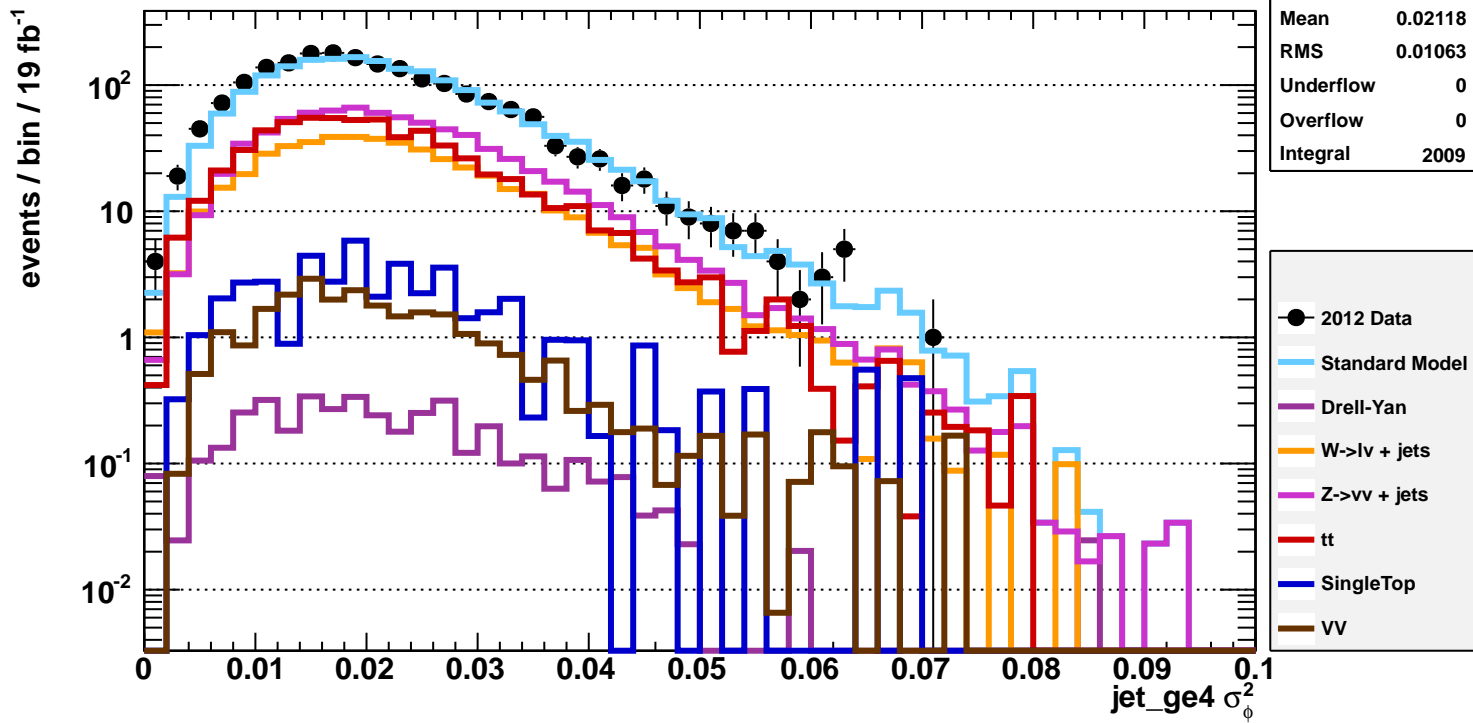
events / bin / 19 fb<sup>-1</sup>

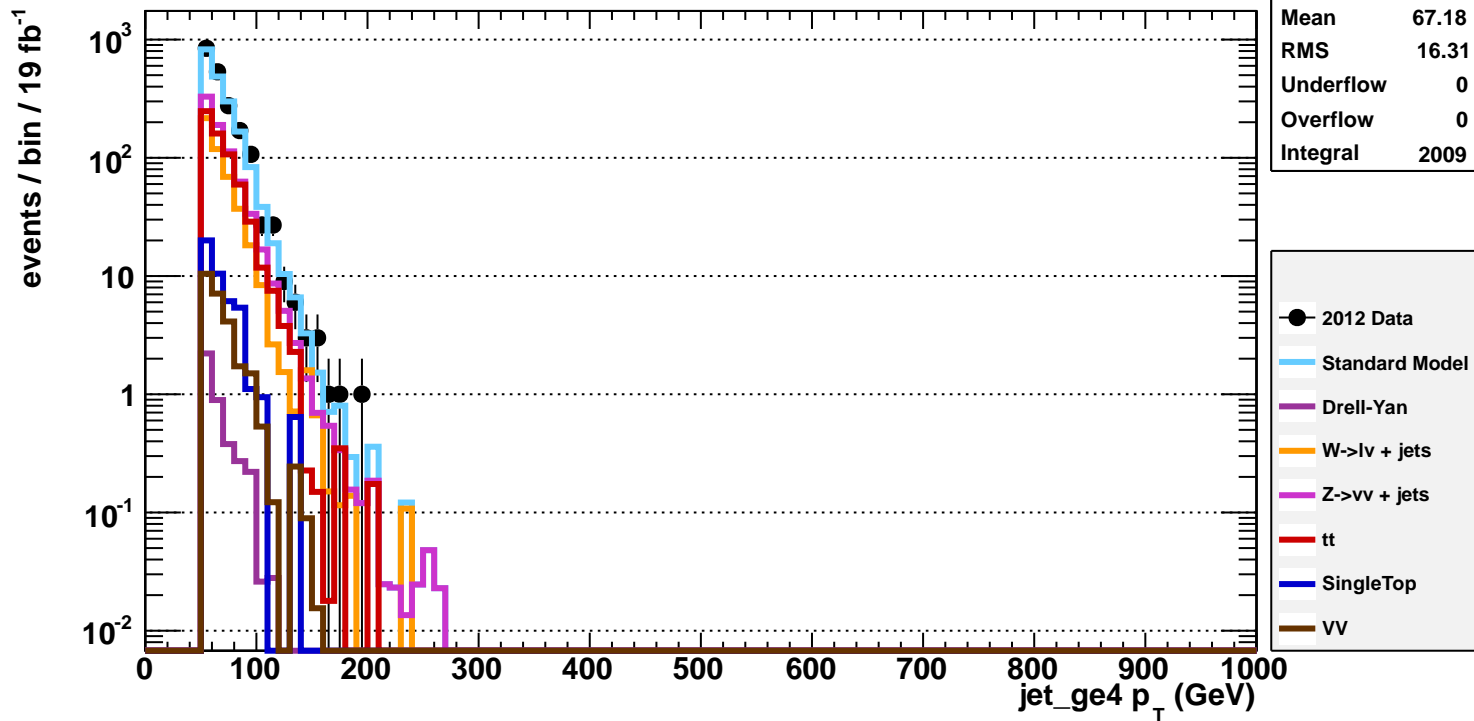
|                          |         |
|--------------------------|---------|
| xcak5JetPFPat_ge4Eta2mom |         |
| Entries                  | 2009    |
| Mean                     | 0.01972 |
| RMS                      | 0.01049 |
| Underflow                | 0       |
| Overflow                 | 0       |
| Integral                 | 2009    |

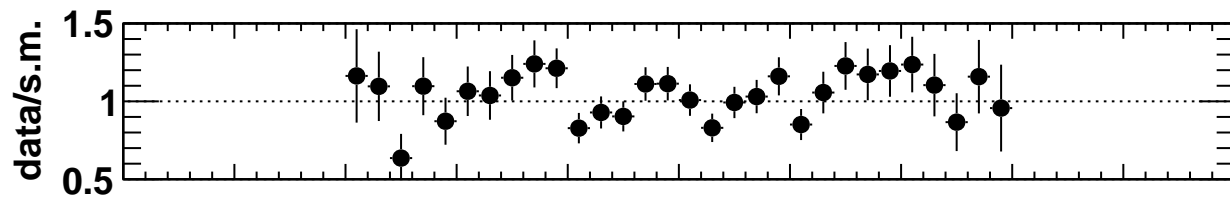
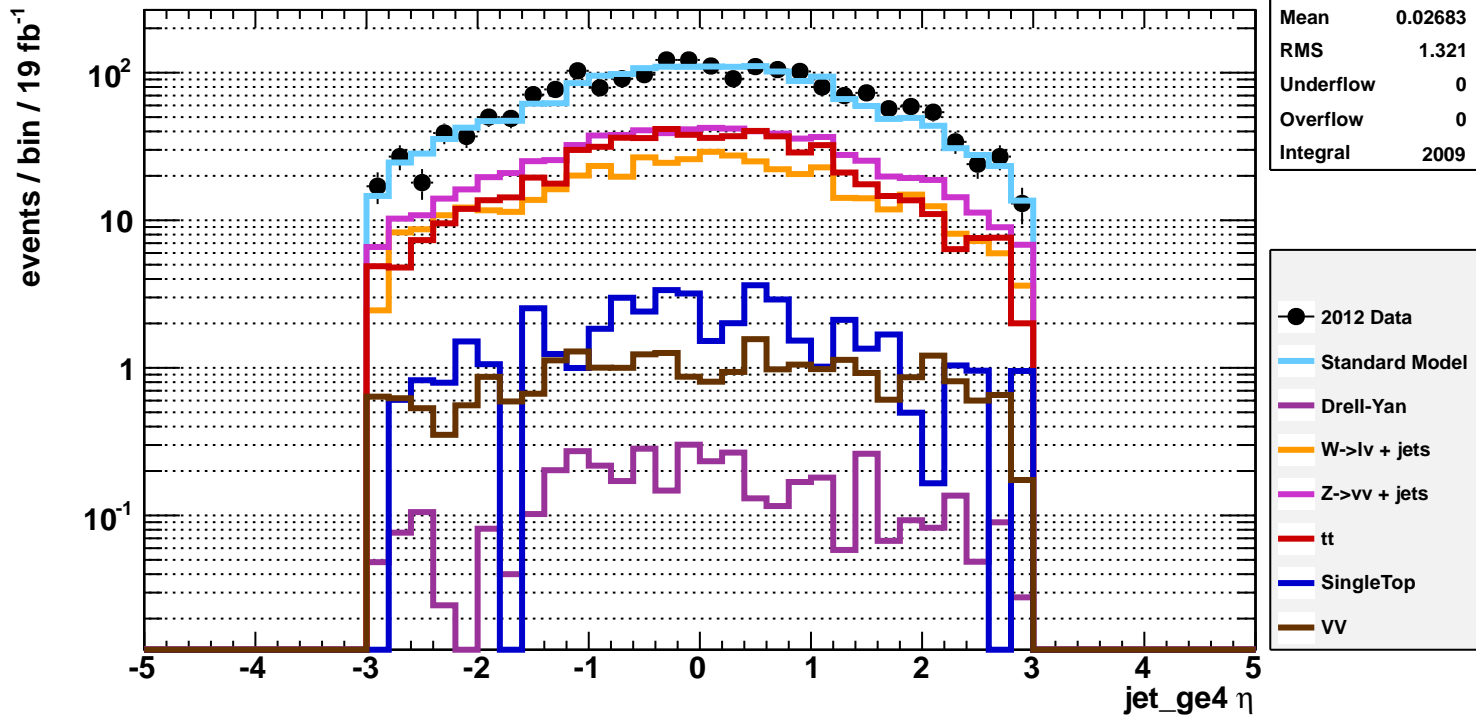


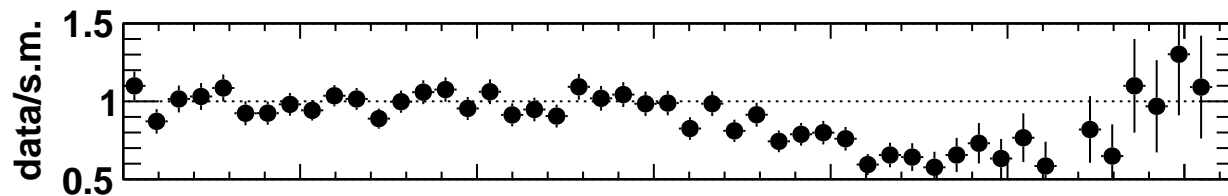
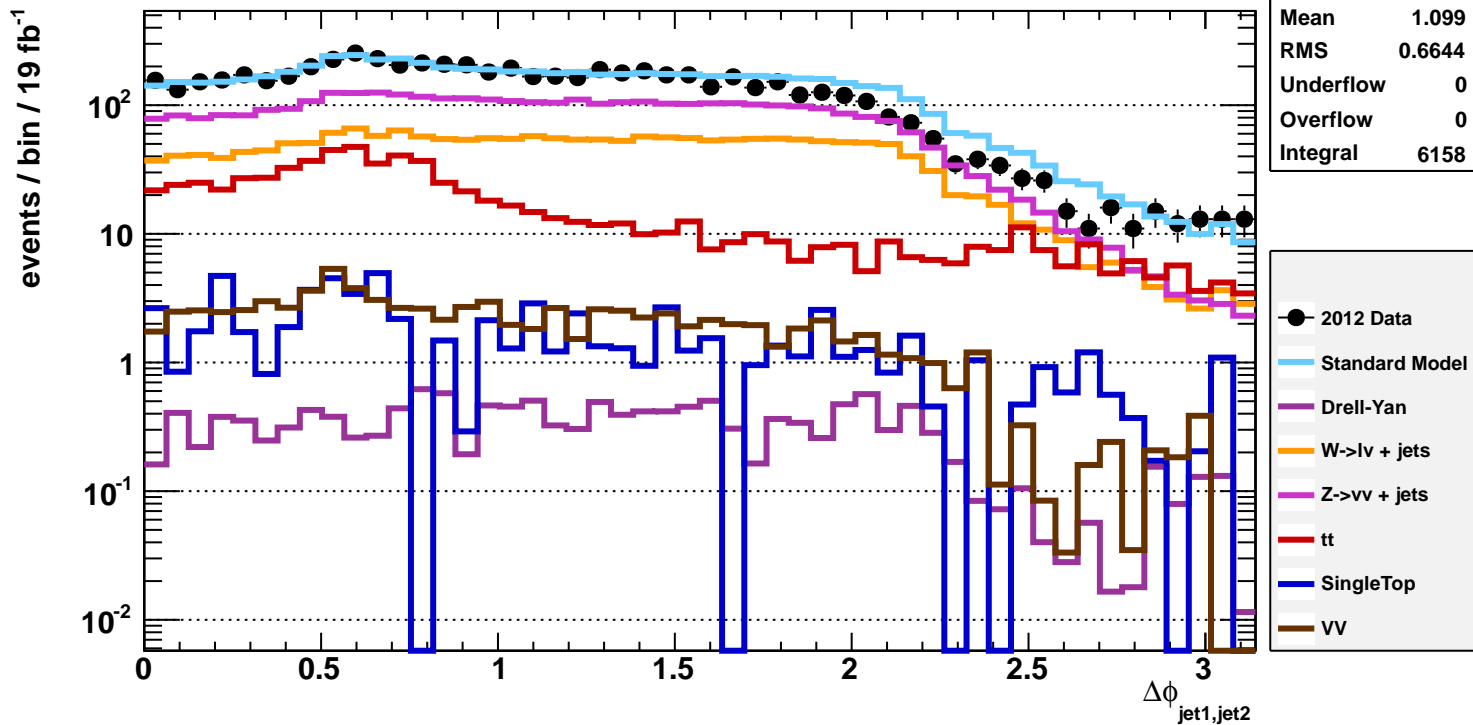
data/s.m.





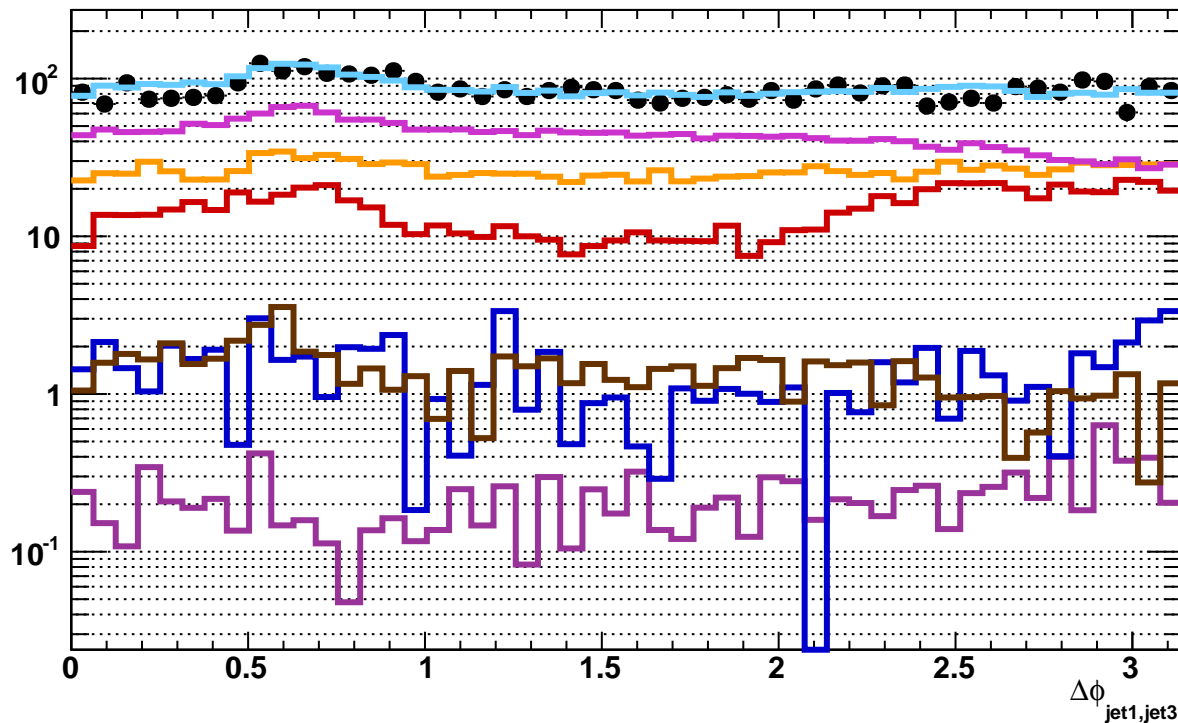




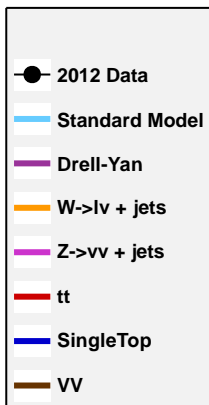




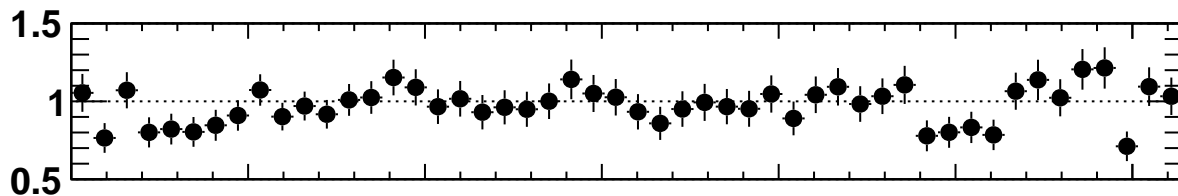
events / bin / 19 fb<sup>-1</sup>



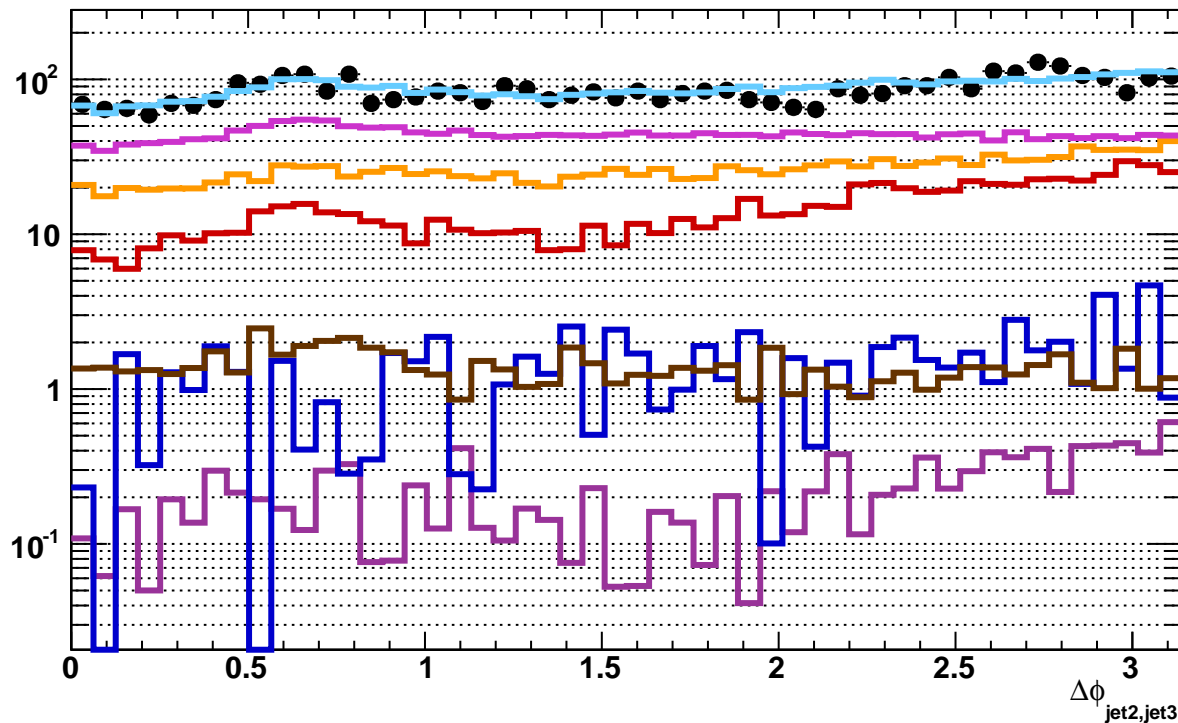
|                     |        |
|---------------------|--------|
| xcak5JetPFPatdphi13 |        |
| Entries             | 4286   |
| Mean                | 1.531  |
| RMS                 | 0.9068 |
| Underflow           | 0      |
| Overflow            | 0      |
| Integral            | 4286   |



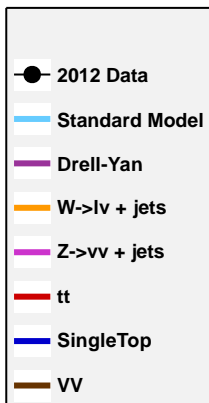
data/s.m.



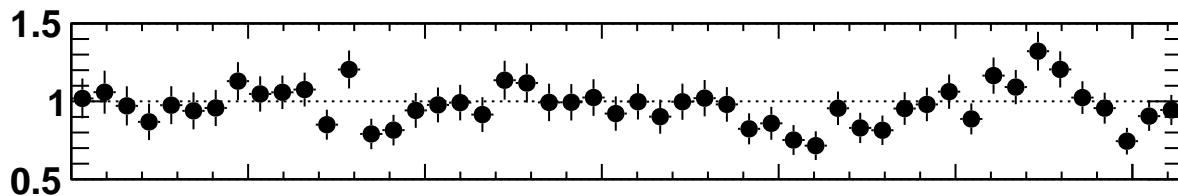
events / bin / 19 fb<sup>-1</sup>



|                     |        |
|---------------------|--------|
| xcak5JetPFPatdphi23 |        |
| Entries             | 4286   |
| Mean                | 1.658  |
| RMS                 | 0.9175 |
| Underflow           | 0      |
| Overflow            | 0      |
| Integral            | 4286   |



data/s.m.



```

r: jetPtSelector          xcak5JetPFPat; pT[index[1]]>=100.0 GeV
s: value                  375.00<=xcak5JetPFSSumEtPat
t: uniquelyMatchedNonisoMuons xcak5JetPFPat

u: multiplicity           0 <= xcak5JetPFIndicesWithOddMuonPat <= 0
v: multiplicity           2 <= xcak5JetPFIndicesPat
w: multiplicity           0 <= xcak5JetPFIndicesOtherPat <= 0
x: multiplicity           0 <= electronIndicesPF <= 0
y: multiplicity           0 <= photonIndicesPat <= 0

z: multiplicity           0 <= muonIndicesPF <= 0
A: multiplicity           0 <= electronIndicesUnmatchedPF <= 0
B: multiplicity           0 <= photonIndicesUnmatchedPat <= 0
C: deadEcalFilter         xcak5JetPFPat; dR>0.300 when deltaPhiStar<0.500
D: value                  xcak5JetPFMhthighPtPatOvermetP4TypeIPF<=1.25

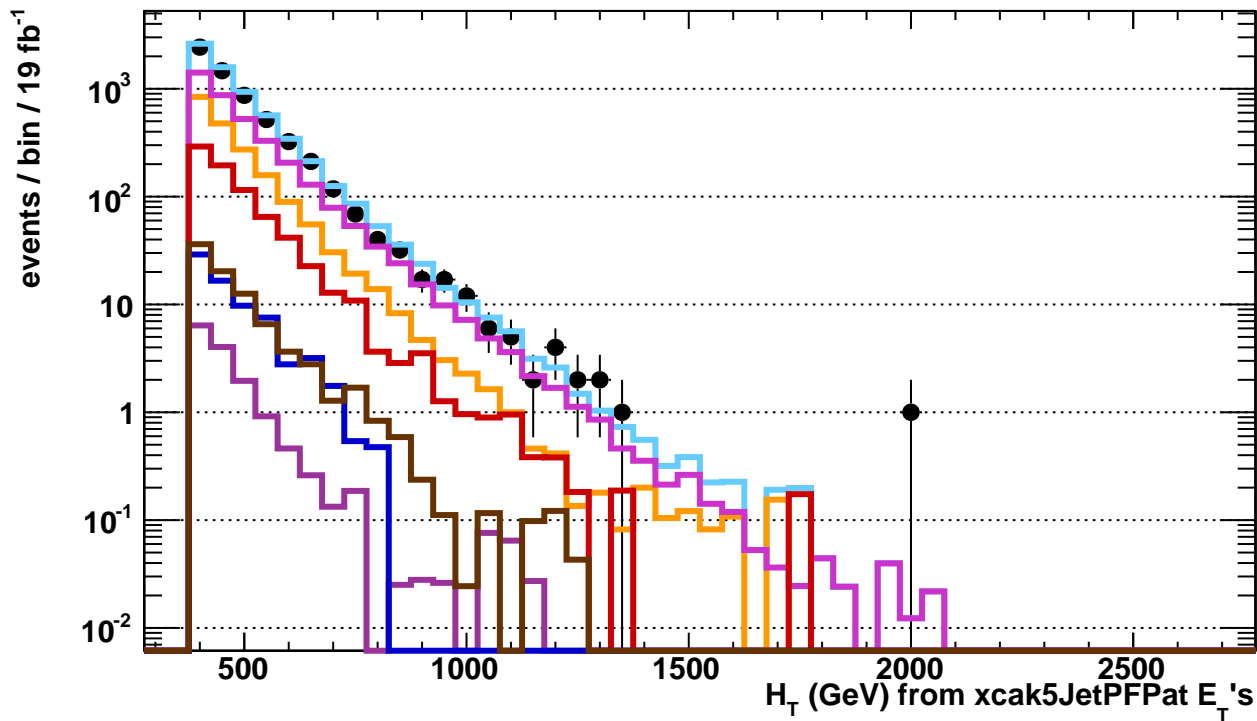
E: value                  PFPRecHitSumPt<=30.00
F: value                  0.55<=xcak5JetPFAlphaTETetPat
G: value                  1.00<=hcalLaserEvent2012
H: value                  1.00<=ecalLaserCalibEvent2012

```

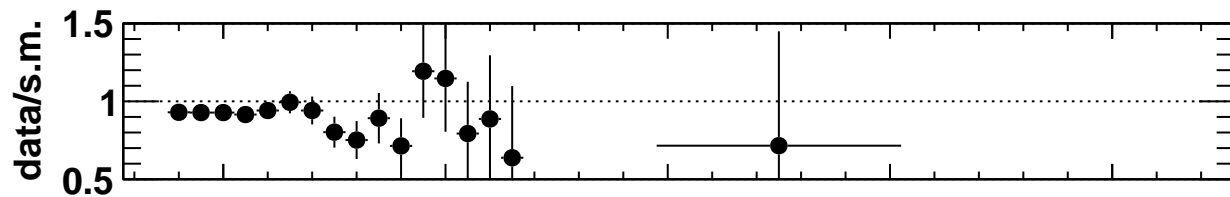
[ jetSumPlots1 ]

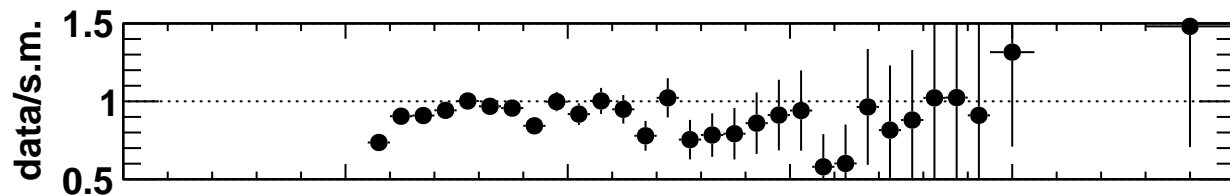
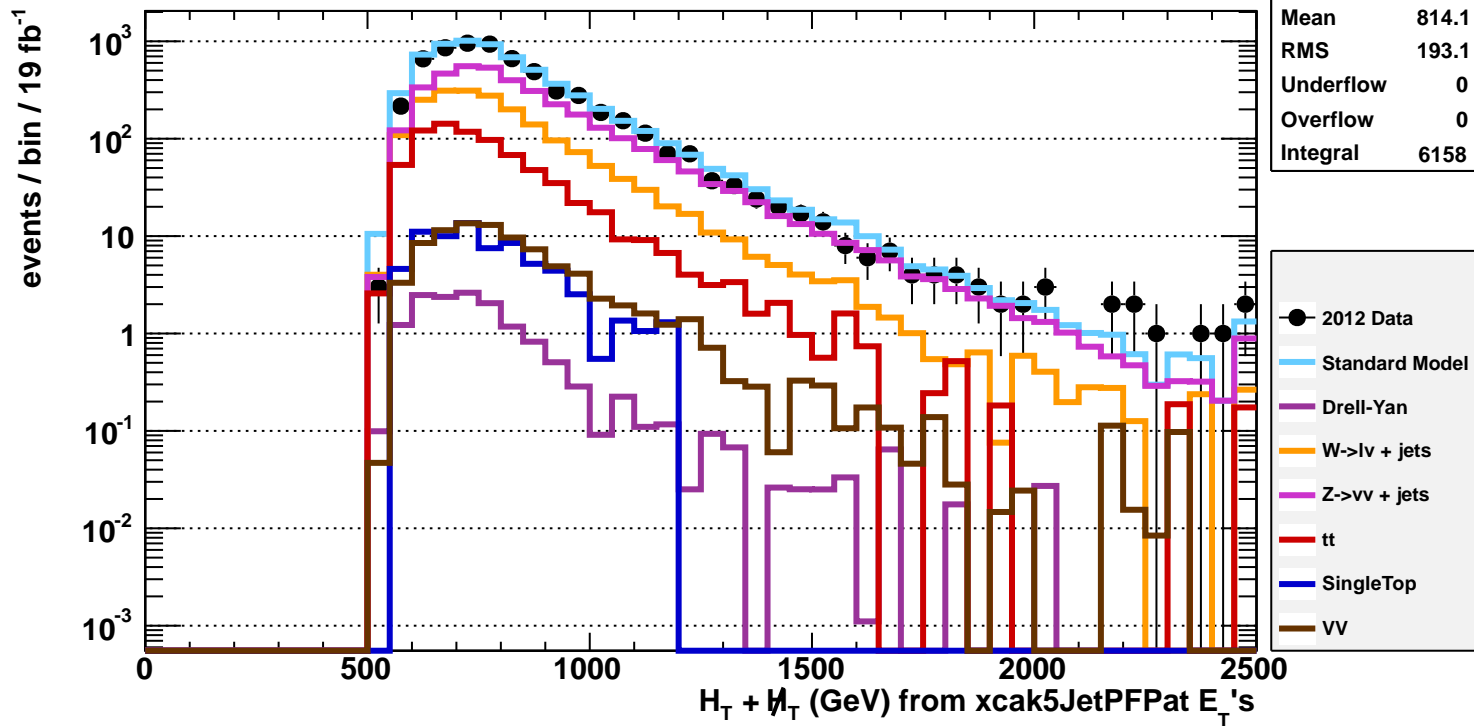
|    | 2012 Data | Standard Mod | Drell-Yan W->lv + jets |             |             |             | tt          | SingleTop   | VV | data/s.m. |
|----|-----------|--------------|------------------------|-------------|-------------|-------------|-------------|-------------|----|-----------|
| r: | 11661811  | 2.3977(9)e+6 | 1.139(2)e+5            | 9.628(7)e+5 | 2.281(1)e+5 | 8.545(4)e+5 | 1.807(3)e+5 | 5.775(8)e+4 |    | 4.864(2)  |
| s: | 10367684  | 1.1536(5)e+6 | 4.254(5)e+4            | 3.506(3)e+5 | 8.863(6)e+4 | 5.579(3)e+5 | 8.82(2)e+4  | 2.574(5)e+4 |    | 8.987(5)  |
| t: | 10363080  | 1.1516(5)e+6 | 4.246(5)e+4            | 3.503(3)e+5 | 8.862(6)e+4 | 5.564(3)e+5 | 8.81(2)e+4  | 2.572(5)e+4 |    | 8.999(5)  |
| u: | 10348024  | 1.1426(5)e+6 | 4.184(5)e+4            | 3.477(3)e+5 | 8.859(6)e+4 | 5.513(3)e+5 | 8.75(2)e+4  | 2.567(5)e+4 |    | 9.056(5)  |
| v: | 10348024  | 1.1426(5)e+6 | 4.184(5)e+4            | 3.477(3)e+5 | 8.859(6)e+4 | 5.513(3)e+5 | 8.75(2)e+4  | 2.567(5)e+4 |    | 9.056(5)  |
| w: | 9836240   | 1.1139(5)e+6 | 4.069(5)e+4            | 3.413(3)e+5 | 8.741(5)e+4 | 5.345(3)e+5 | 8.48(2)e+4  | 2.517(5)e+4 |    | 8.831(5)  |
| x: | 9811777   | 9.505(4)e+5  | 2.563(4)e+4            | 2.522(2)e+5 | 8.739(5)e+4 | 4.816(3)e+5 | 7.96(2)e+4  | 2.410(5)e+4 |    | 10.323(6) |
| y: | 9779118   | 9.427(4)e+5  | 2.497(4)e+4            | 2.473(2)e+5 | 8.736(5)e+4 | 4.797(3)e+5 | 7.93(2)e+4  | 2.397(5)e+4 |    | 10.374(6) |
| z: | 9755783   | 7.843(4)e+5  | 1.138(3)e+4            | 1.572(2)e+5 | 8.735(5)e+4 | 4.312(3)e+5 | 7.42(2)e+4  | 2.295(5)e+4 |    | 12.439(7) |
| A: | 9754104   | 7.838(4)e+5  | 1.136(3)e+4            | 1.571(2)e+5 | 8.734(5)e+4 | 4.309(3)e+5 | 7.42(2)e+4  | 2.294(5)e+4 |    | 12.445(7) |
| B: | 9753474   | 7.837(4)e+5  | 1.136(3)e+4            | 1.570(2)e+5 | 8.733(5)e+4 | 4.309(3)e+5 | 7.42(2)e+4  | 2.294(5)e+4 |    | 12.445(7) |
| C: | 1858922   | 2.351(2)e+5  | 3.48(2)e+3             | 6.33(1)e+4  | 4.425(4)e+4 | 9.98(1)e+4  | 1.853(9)e+4 | 5.81(2)e+3  |    | 7.905(9)  |
| D: | 678926    | 1.404(1)e+5  | 1.96(1)e+3             | 4.752(9)e+4 | 3.748(4)e+4 | 4.228(9)e+4 | 8.28(6)e+3  | 2.84(2)e+3  |    | 4.837(8)  |
| E: | 639480    | 1.399(1)e+5  | 1.96(1)e+3             | 4.737(9)e+4 | 3.737(4)e+4 | 4.213(9)e+4 | 8.25(6)e+3  | 2.83(2)e+3  |    | 4.571(8)  |
| F: | 6173      | 6.64(2)e+3   | 14.6(8)                | 1.98(2)e+3  | 3.71(1)e+3  | 7.7(1)e+2   | 72(6)       | 87(2)       |    | 0.93(1)   |
| G: | 6173      | -            | -                      | -           | -           | -           | -           | -           |    | -         |
| H: | 6158      | -            | -                      | -           | -           | -           | -           | -           |    | -         |

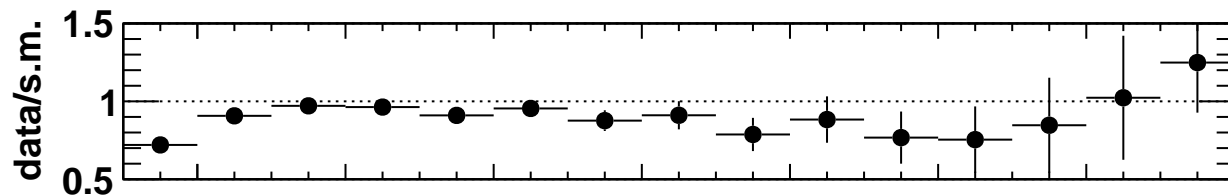
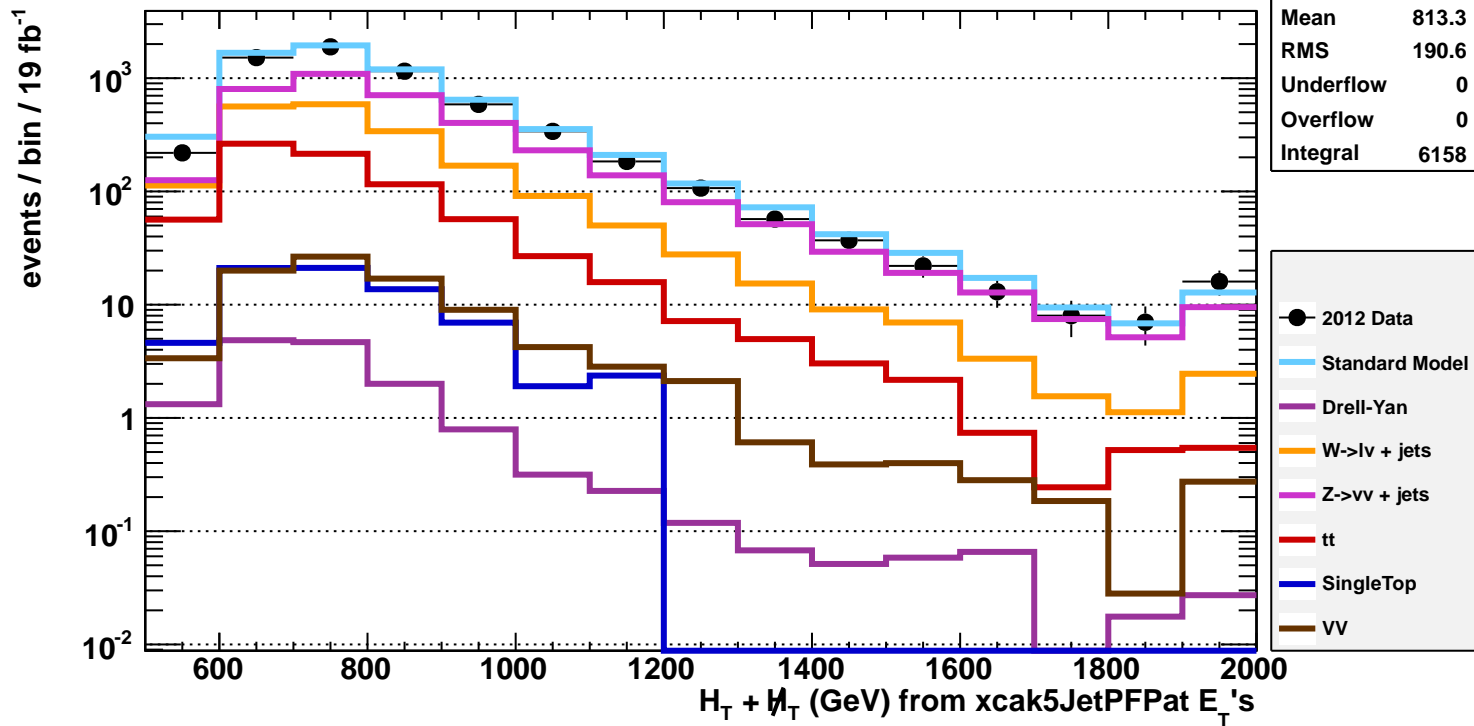
[ jetSumPlots1 ]

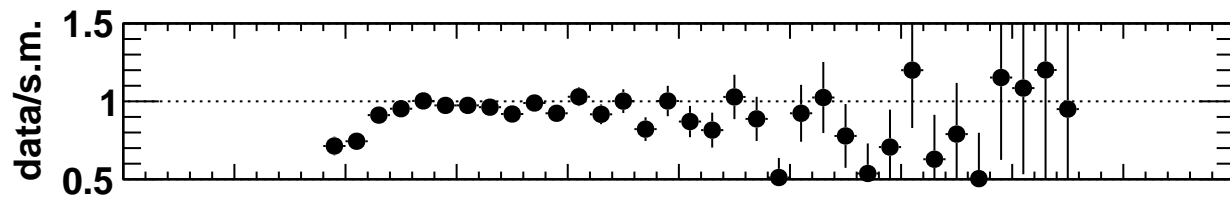
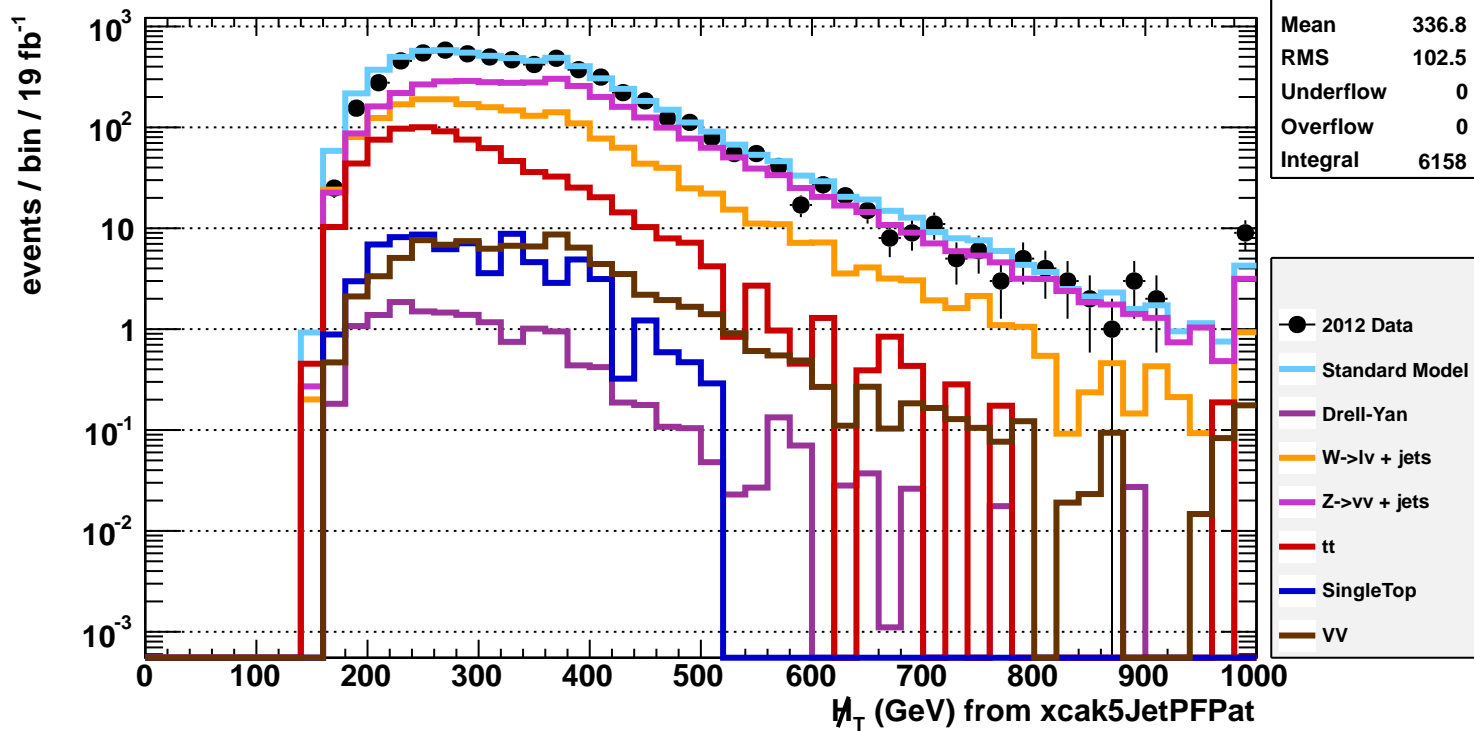


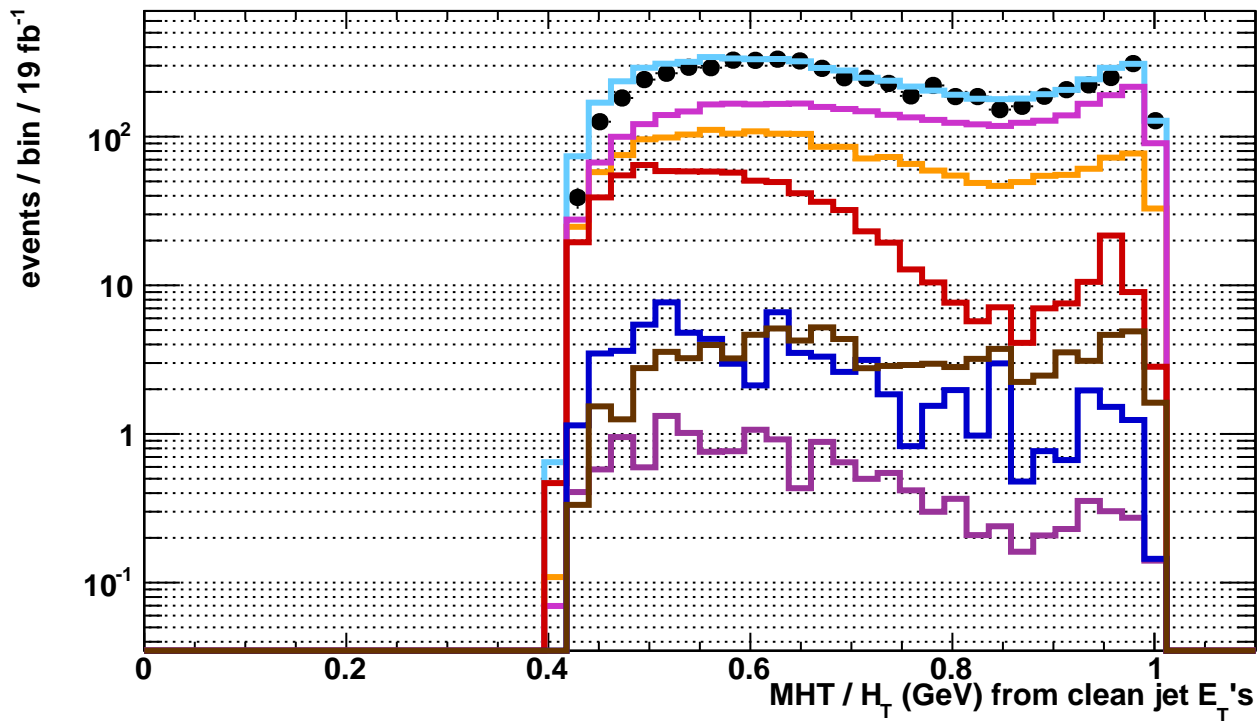
| xcak5JetPFPat |       |
|---------------|-------|
| Entries       | 6158  |
| Mean          | 477.1 |
| RMS           | 109.3 |
| Underflow     | 0     |
| Overflow      | 0     |
| Integral      | 6158  |



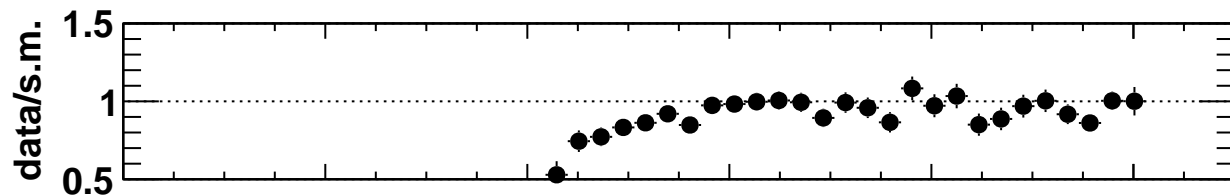
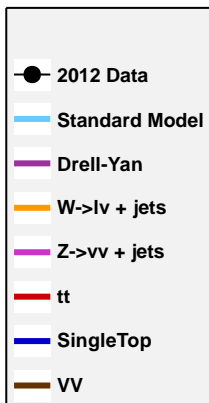




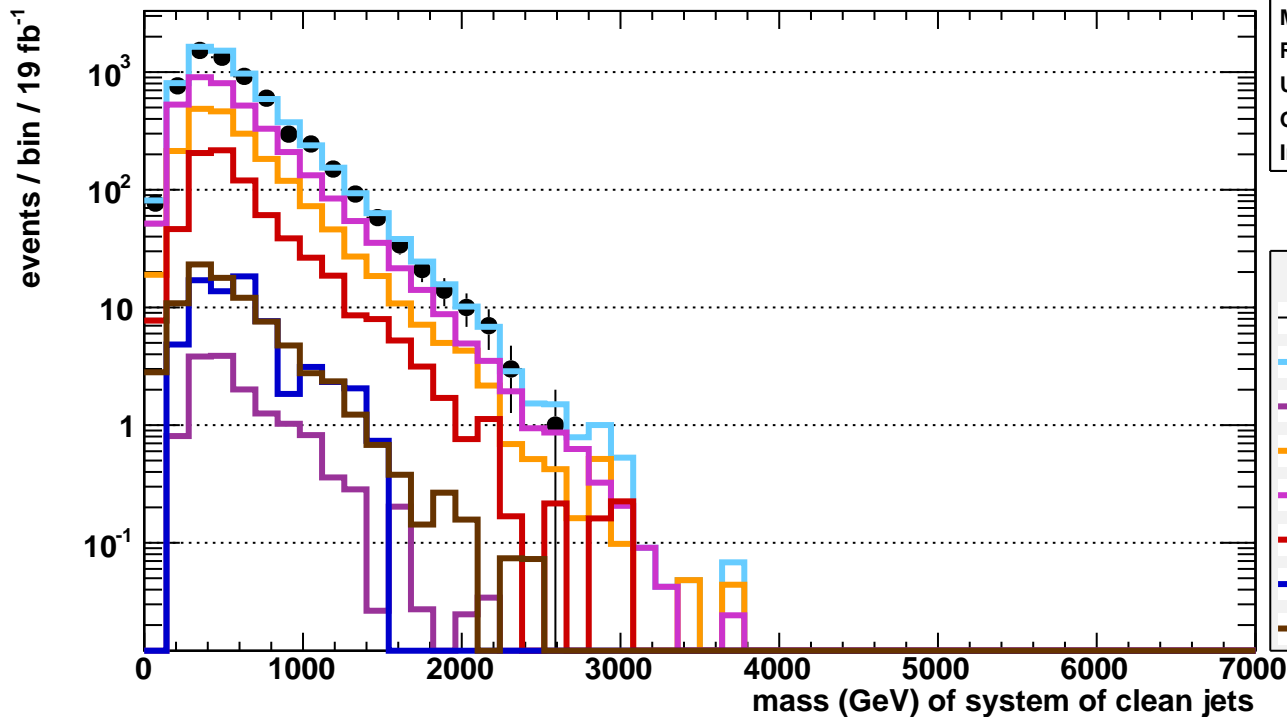




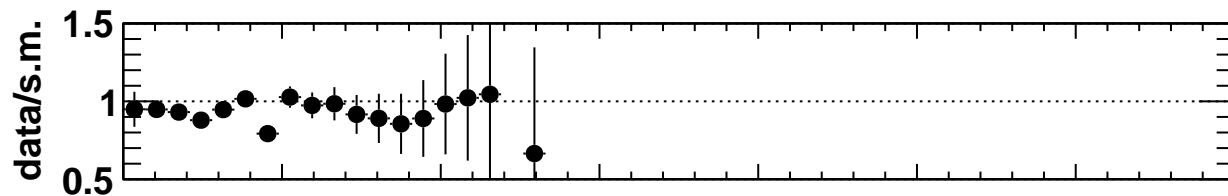
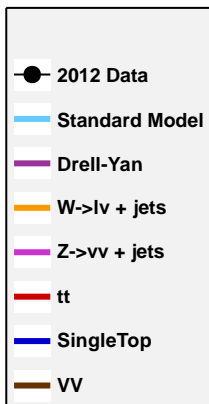
|                        |        |
|------------------------|--------|
| xcak5JetPFmHtOverHtPat |        |
| Entries                | 6158   |
| Mean                   | 0.7104 |
| RMS                    | 0.1599 |
| Underflow              | 0      |
| Overflow               | 0      |
| Integral               | 6158   |

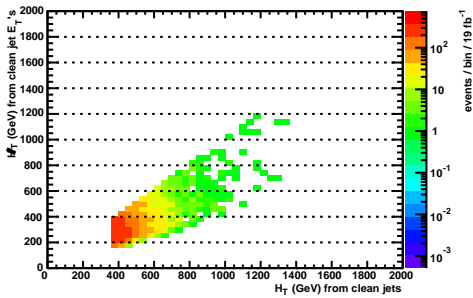
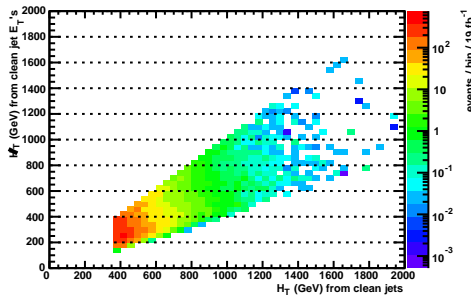
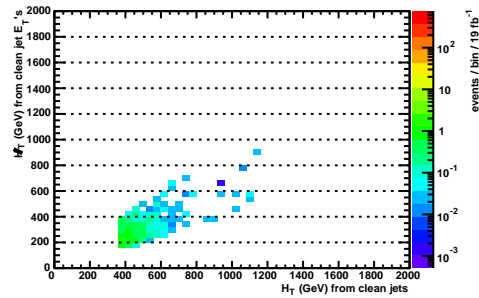
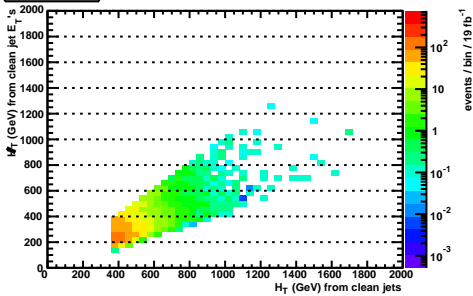
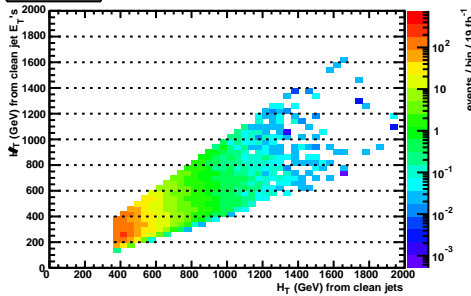
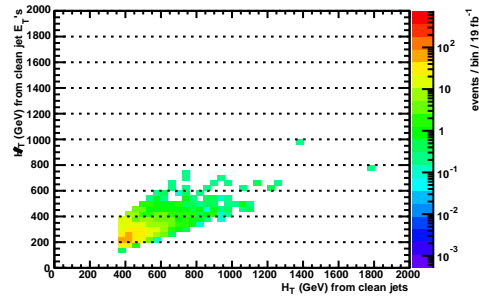
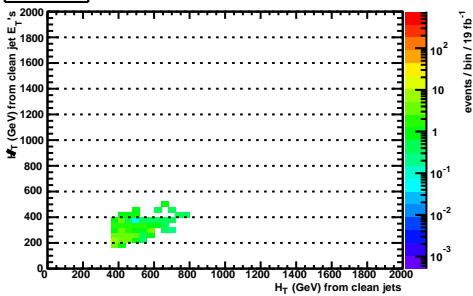
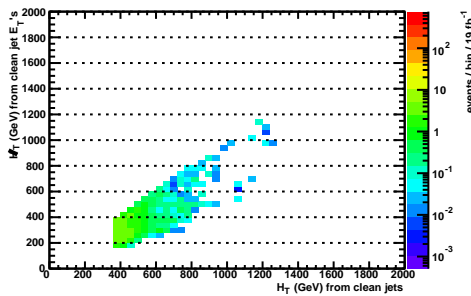




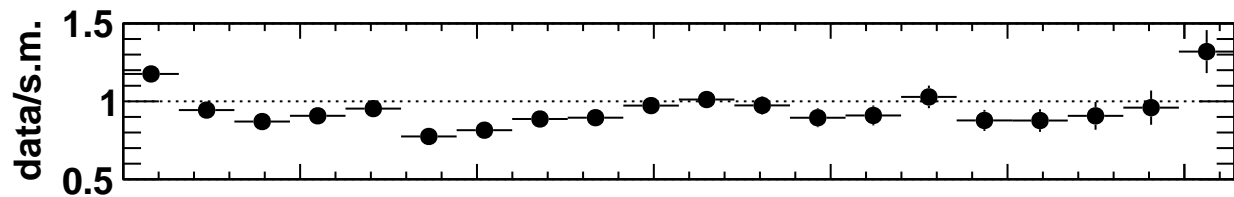
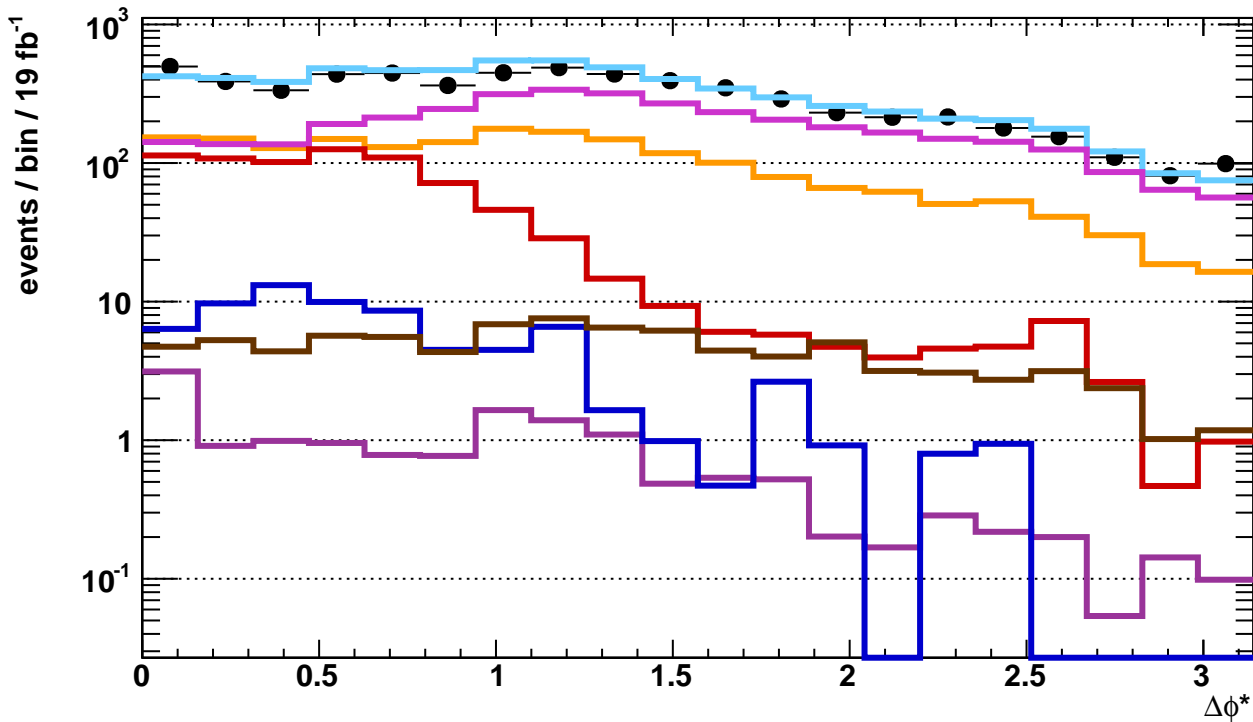


| xcak5JetPFmPat |       |
|----------------|-------|
| Entries        | 6158  |
| Mean           | 563.7 |
| RMS            | 315.5 |
| Underflow      | 0     |
| Overflow       | 0     |
| Integral       | 6158  |

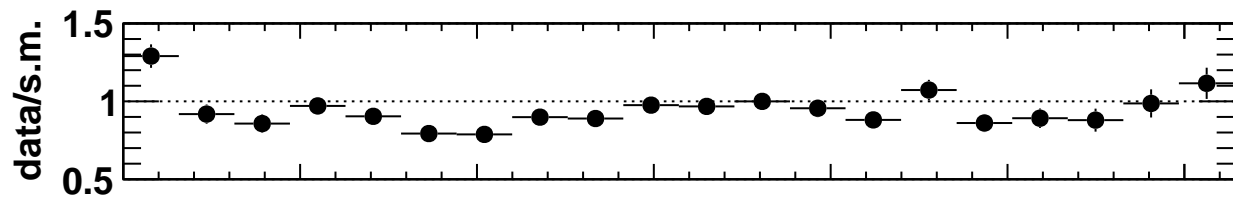
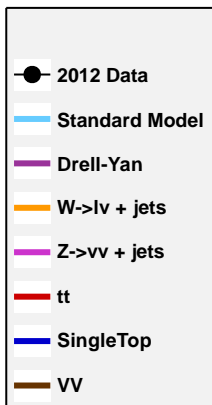
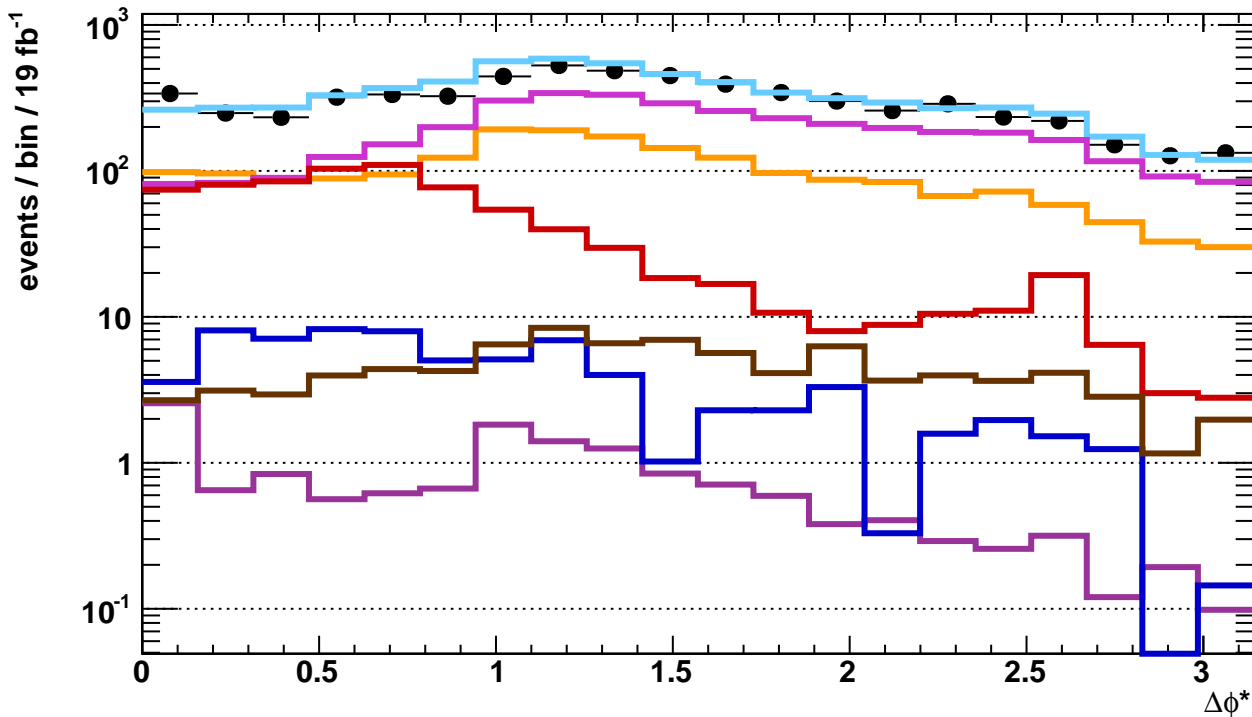


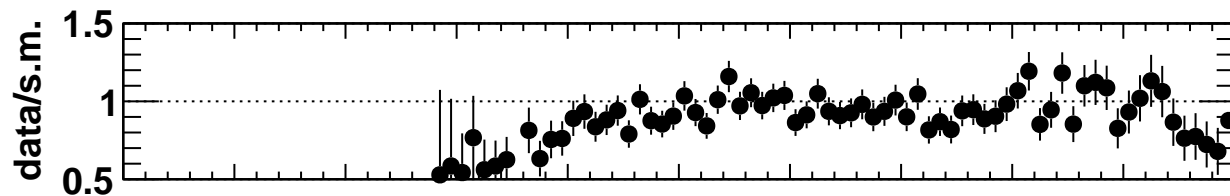
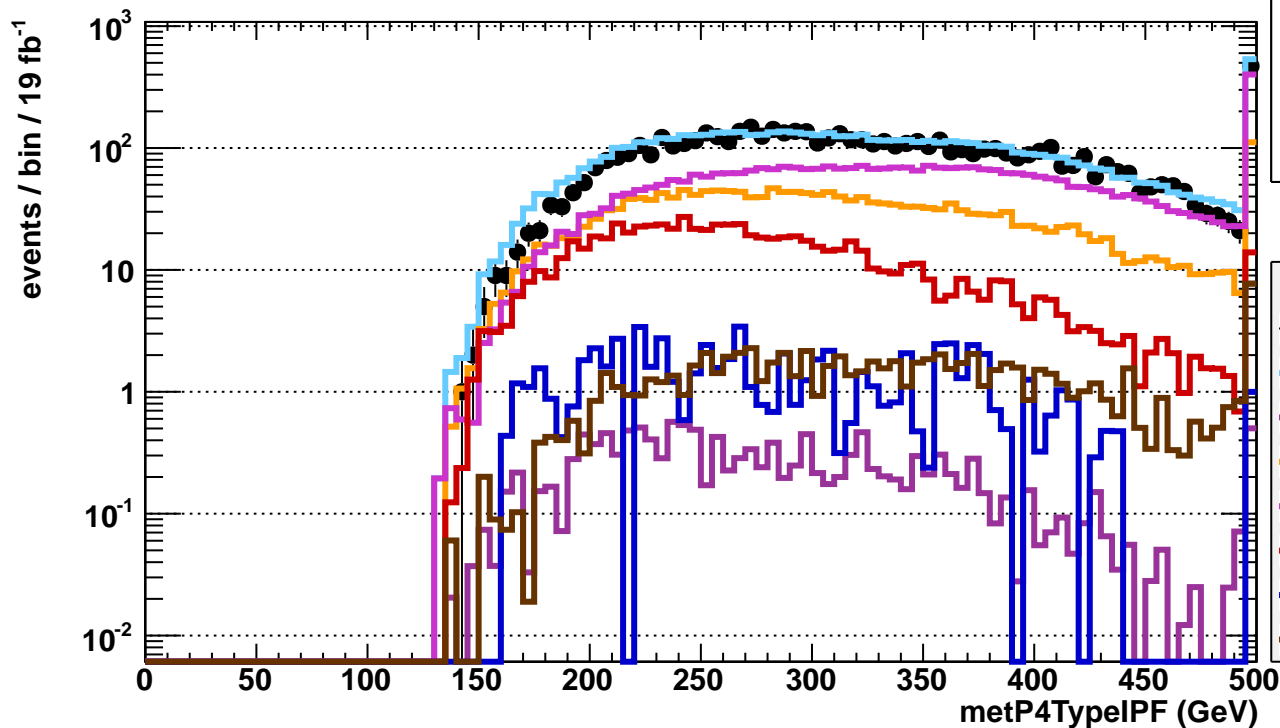
**2012 Data****Standard Model****Drell-Yan****W->lv + jets****Z->vv + jets****tt****SingleTop****VV**

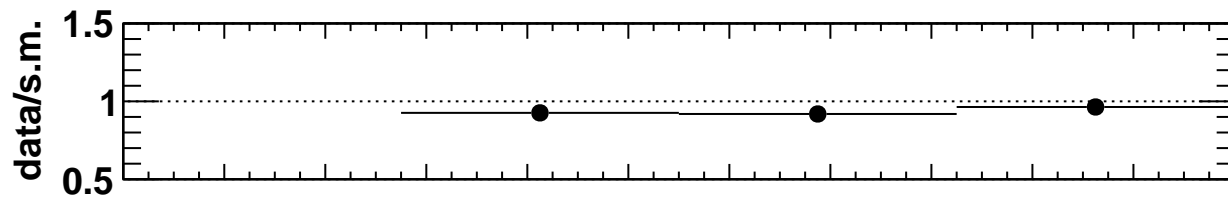
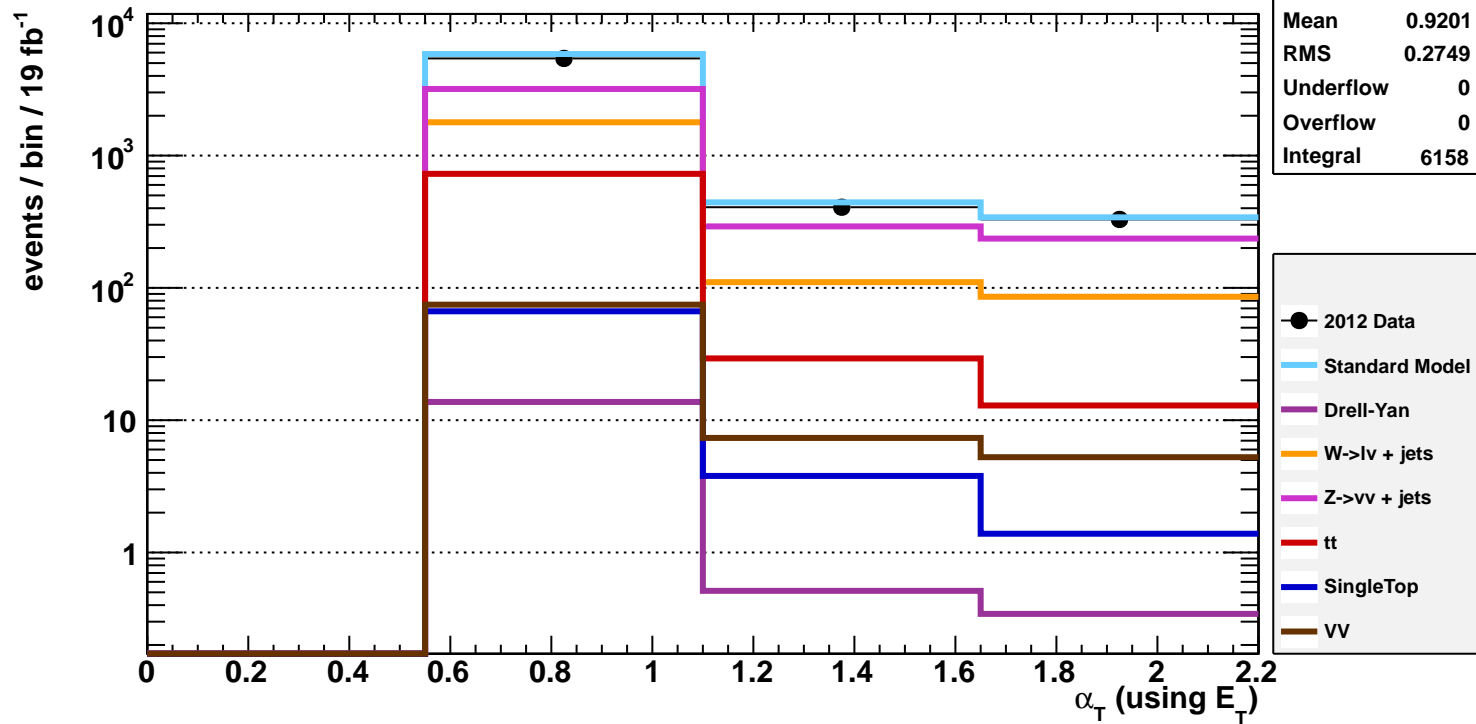
|                                |        |
|--------------------------------|--------|
| kcak5JetPFDeltaPhiStarlowPtPat |        |
| Entries                        | 6158   |
| Mean                           | 1.219  |
| RMS                            | 0.7833 |
| Underflow                      | 0      |
| Overflow                       | 0      |
| Integral                       | 6158   |

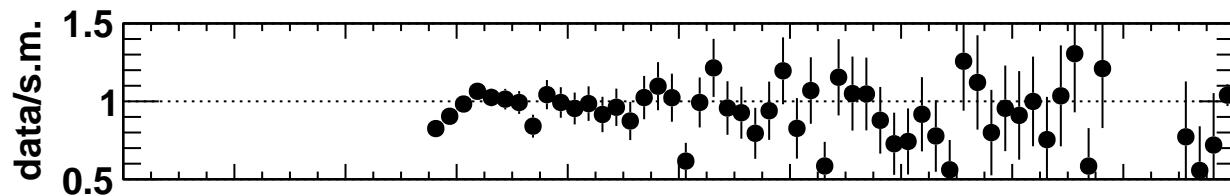
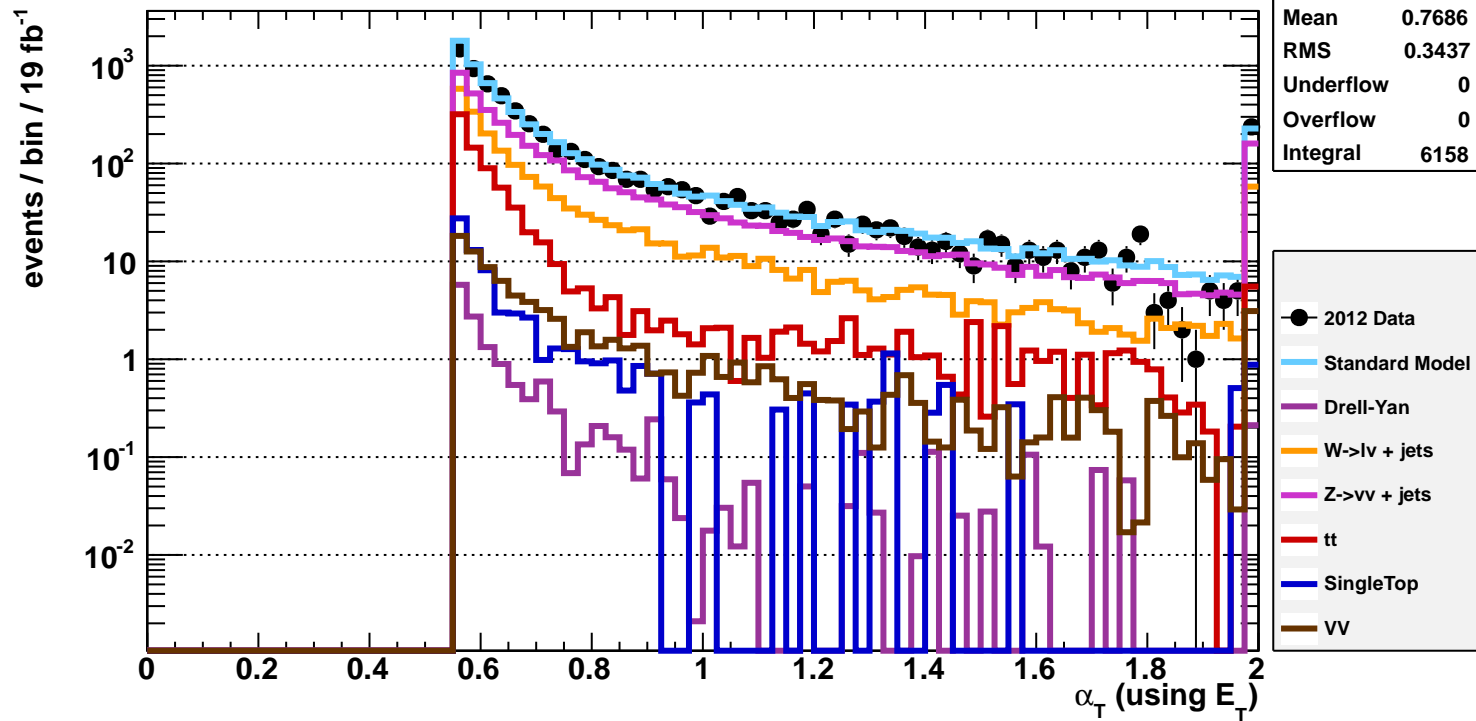


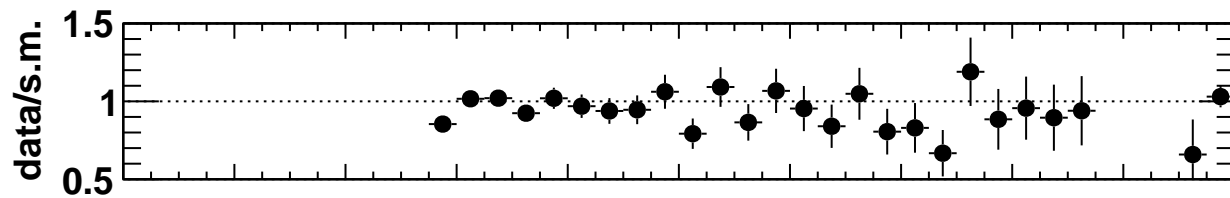
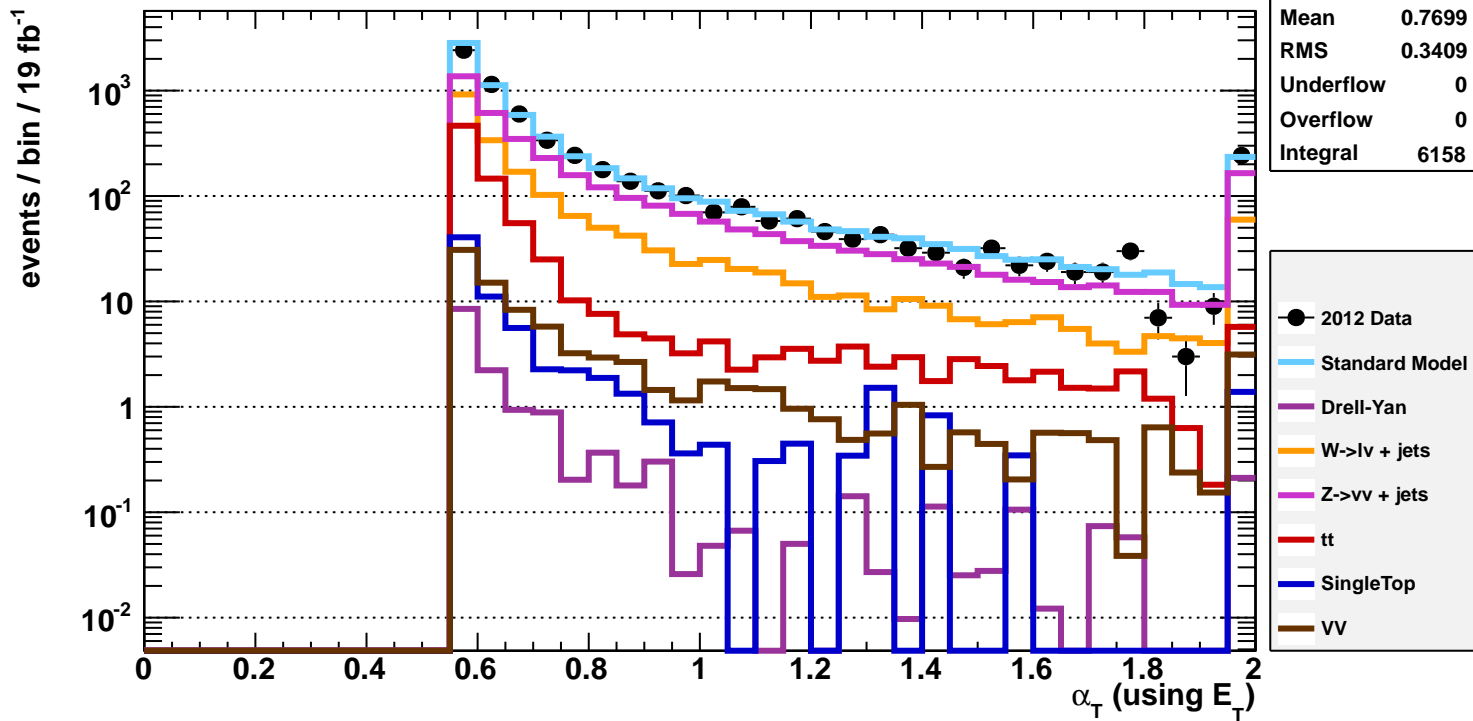
|                           |        |
|---------------------------|--------|
| xcak5JetPFDeltaPhiStarPat |        |
| Entries                   | 6158   |
| Mean                      | 1.406  |
| RMS                       | 0.7857 |
| Underflow                 | 0      |
| Overflow                  | 0      |
| Integral                  | 6158   |



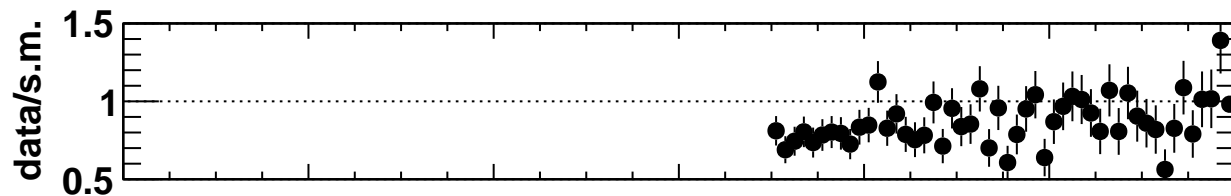
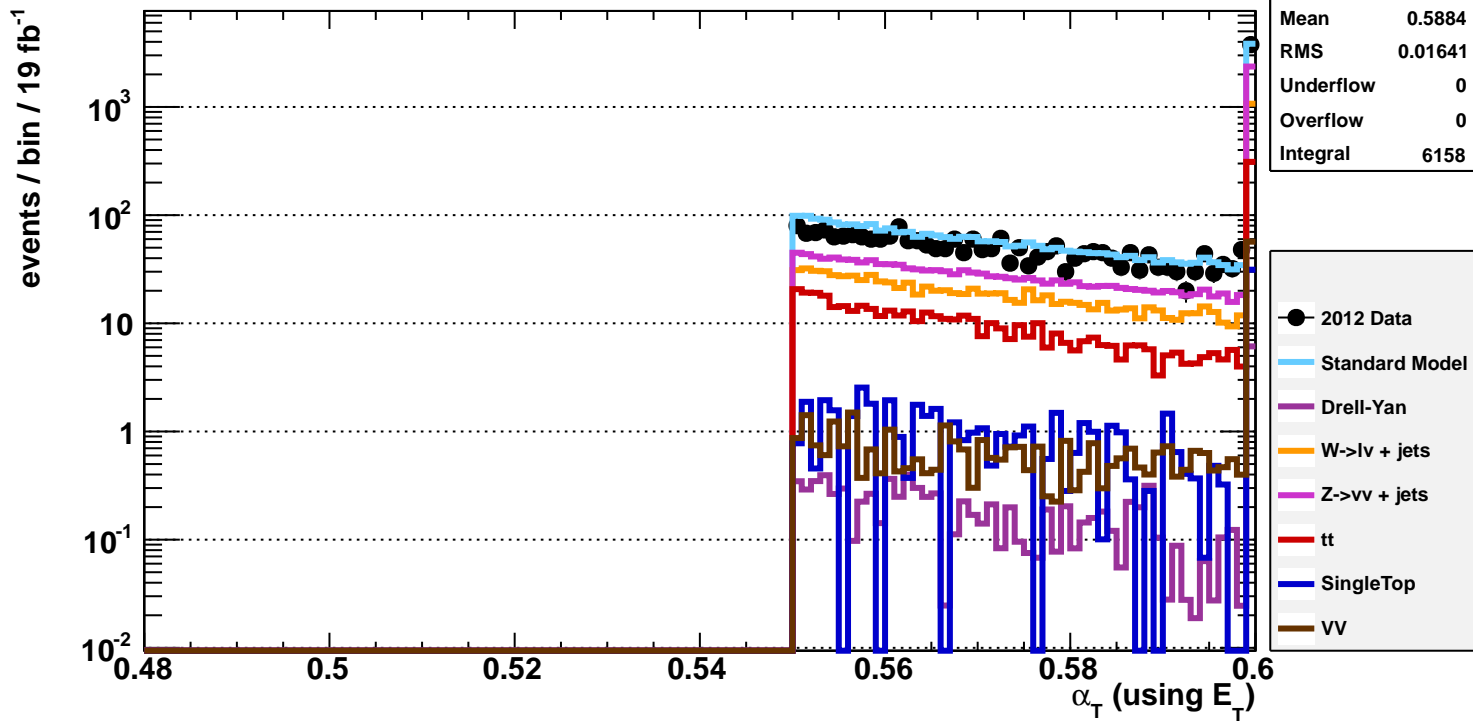


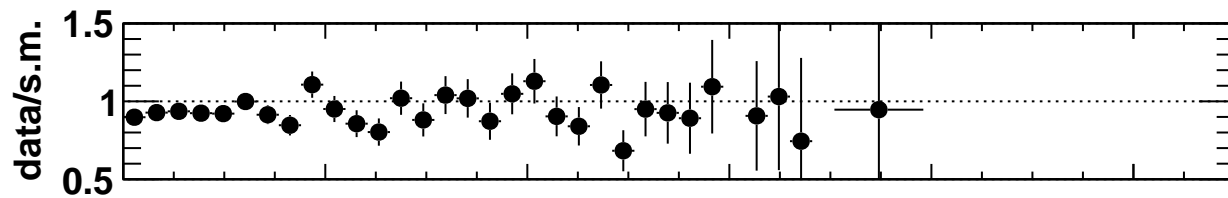
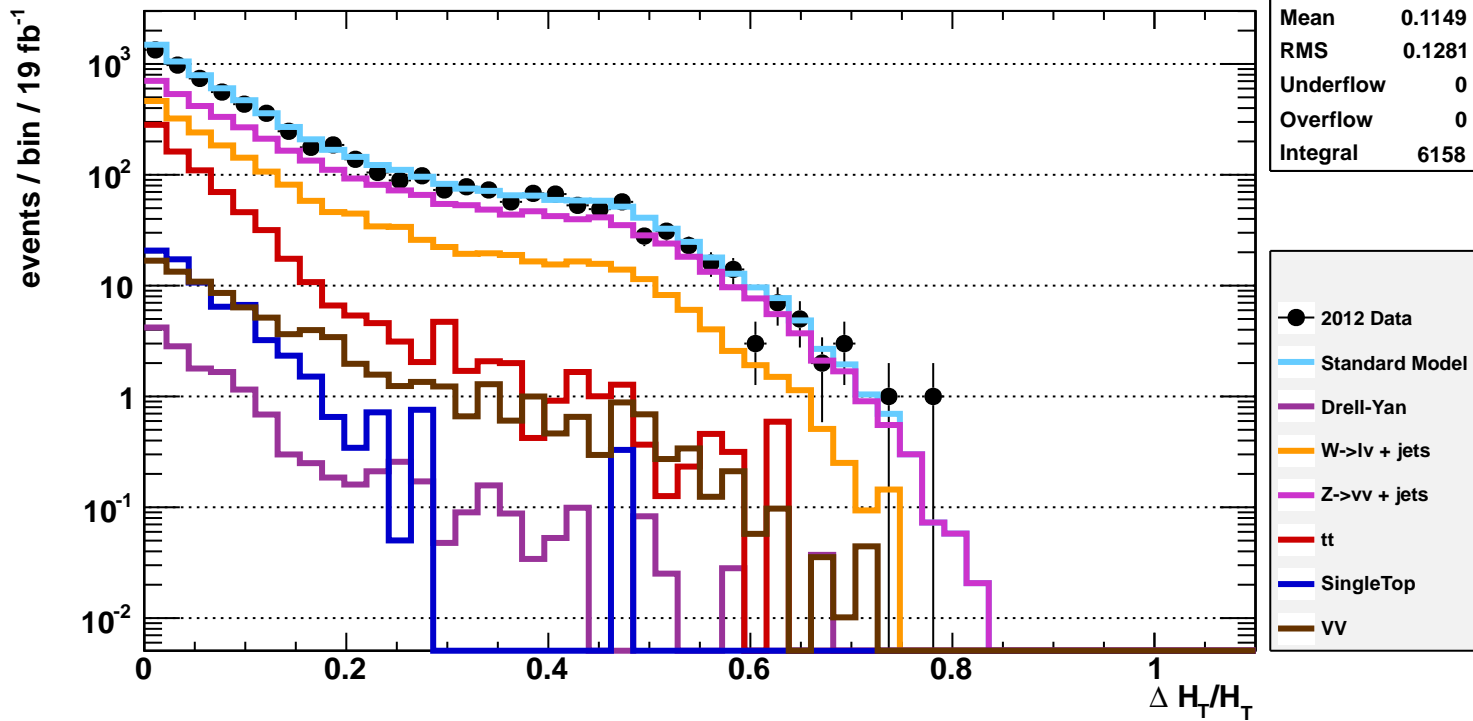


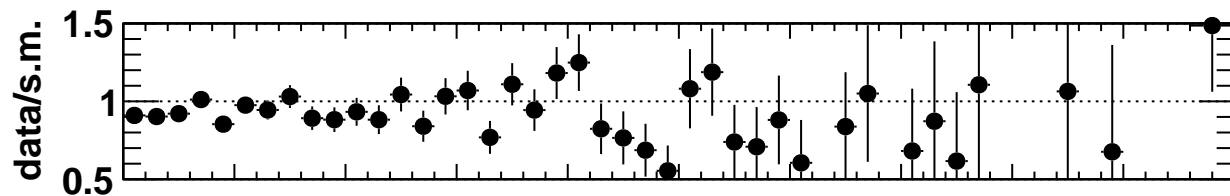
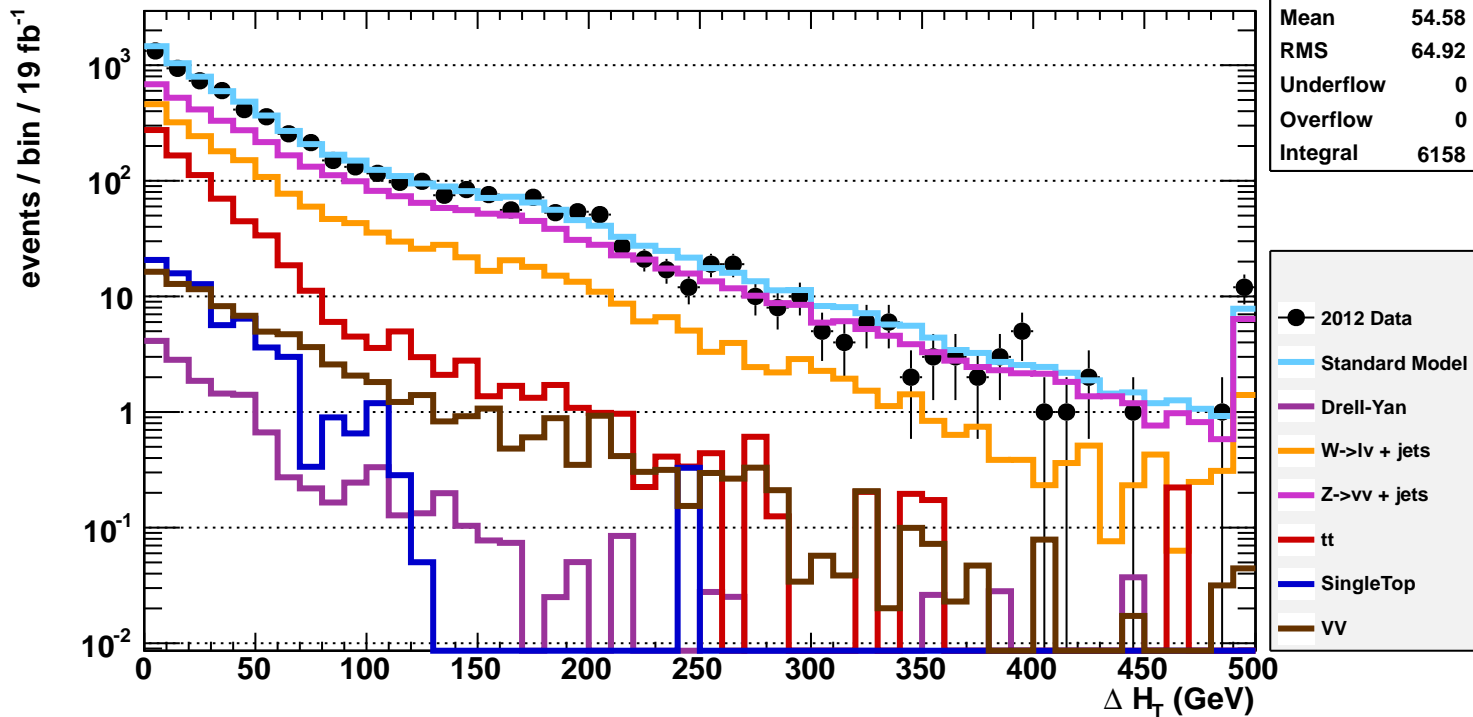




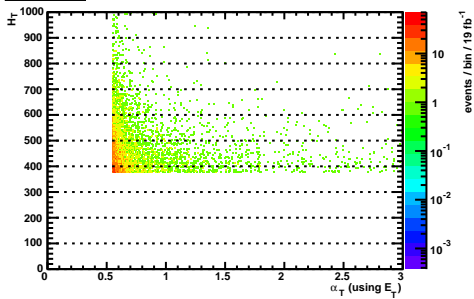




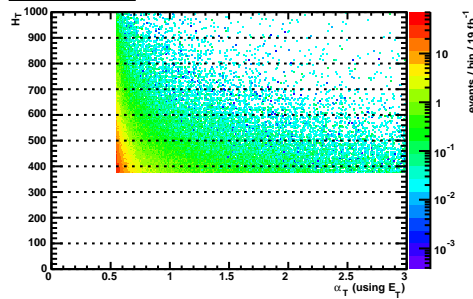




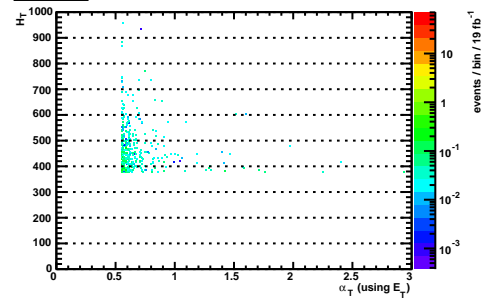
2012 Data



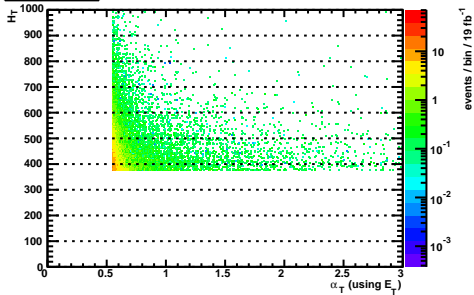
Standard Model



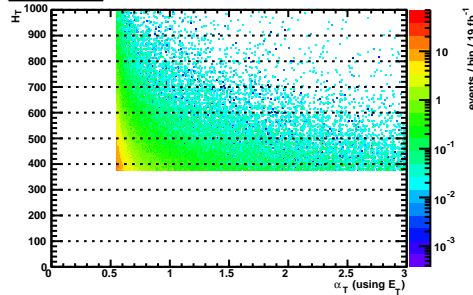
Drell-Yan



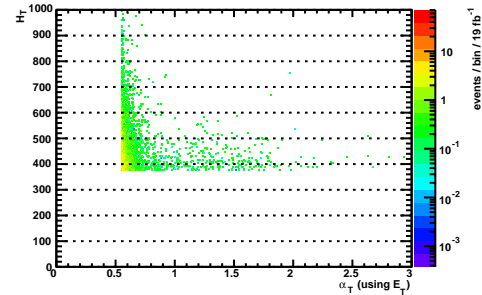
W-&gt;lv + jets



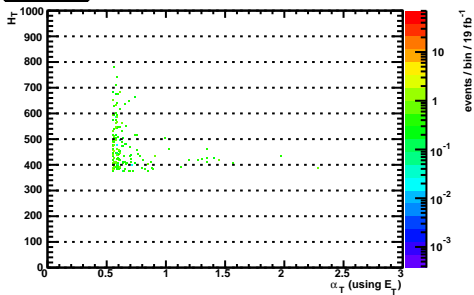
Z-&gt;vv + jets



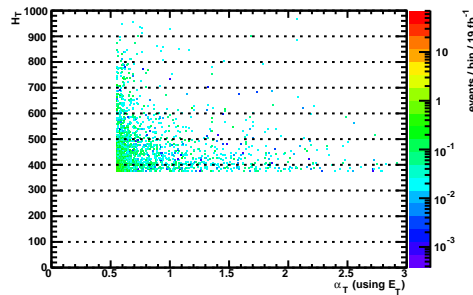
tt

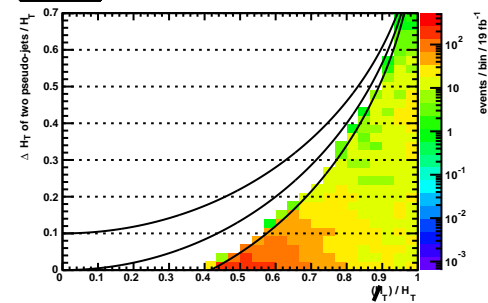
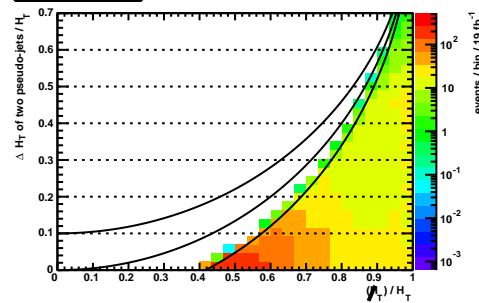
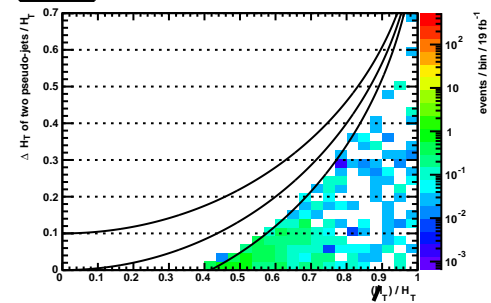
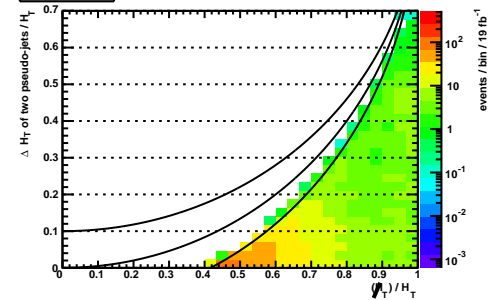
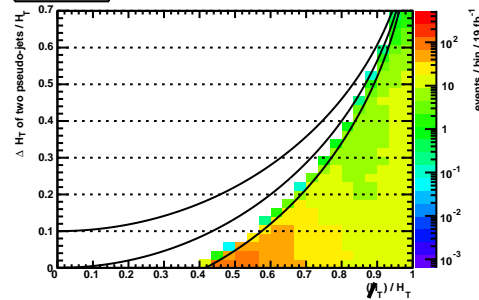
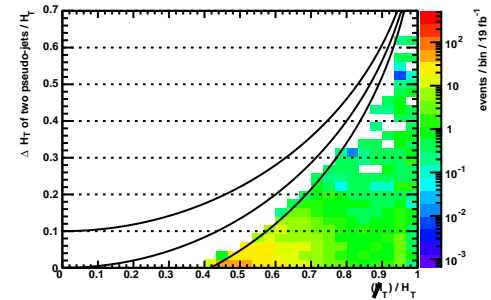
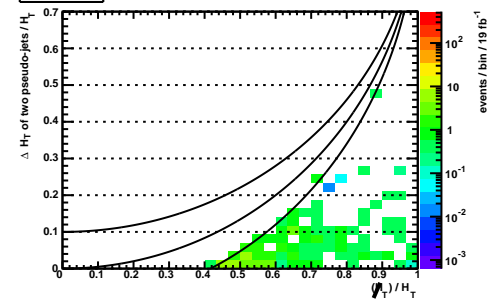
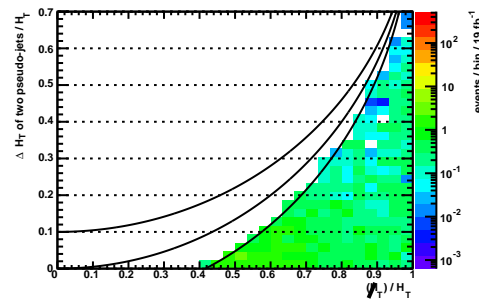


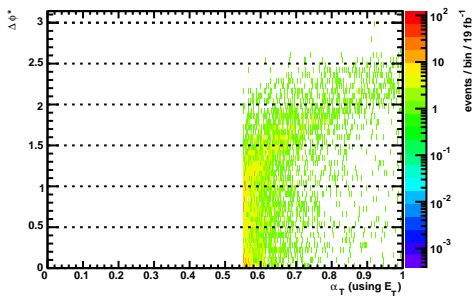
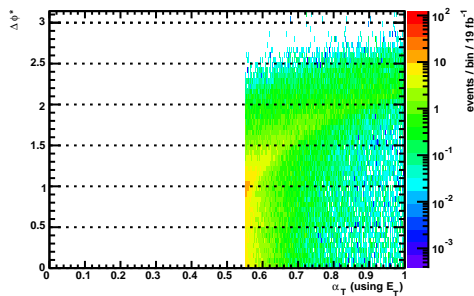
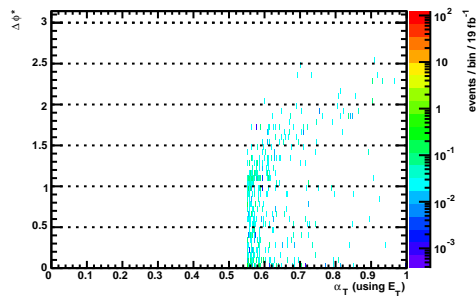
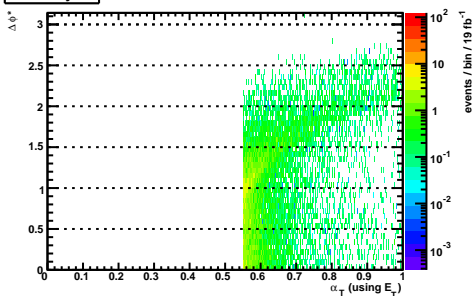
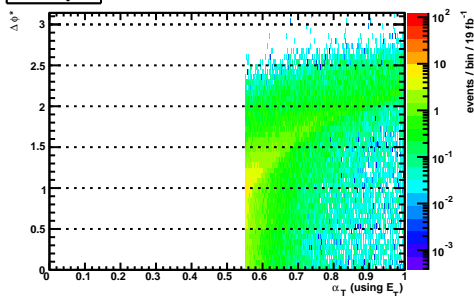
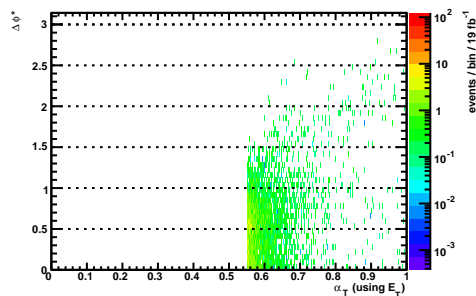
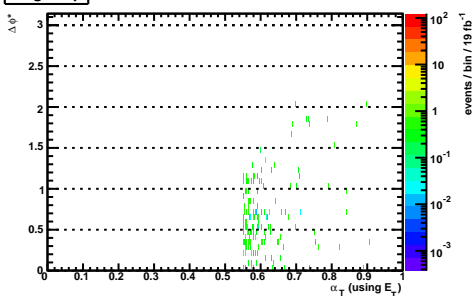
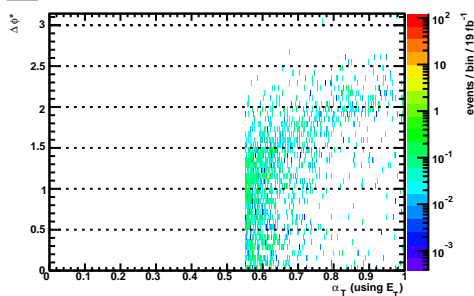
SingleTop

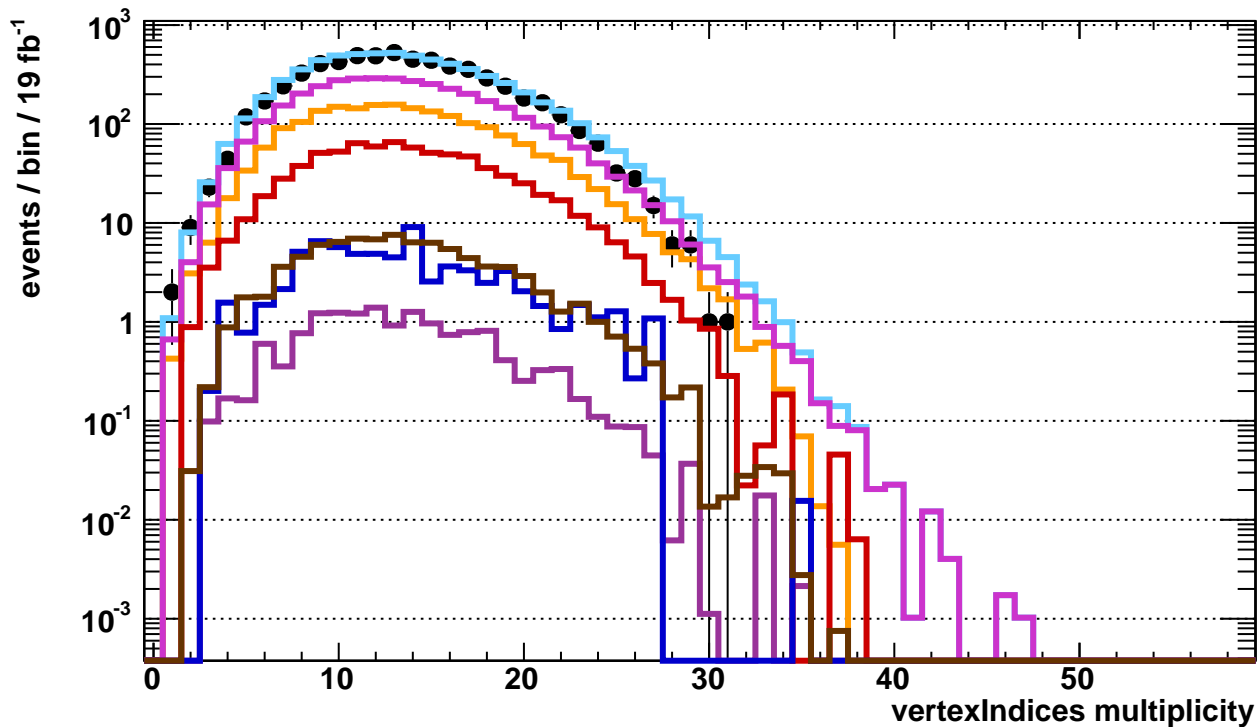


VV

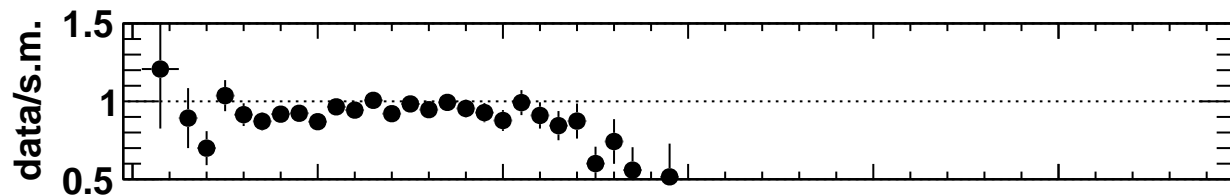
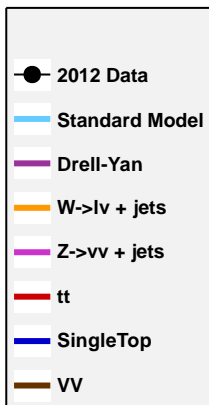


**2012 Data****Standard Model****Drell-Yan****W->lv + jets****Z->vv + jets****tt****SingleTop****VV**

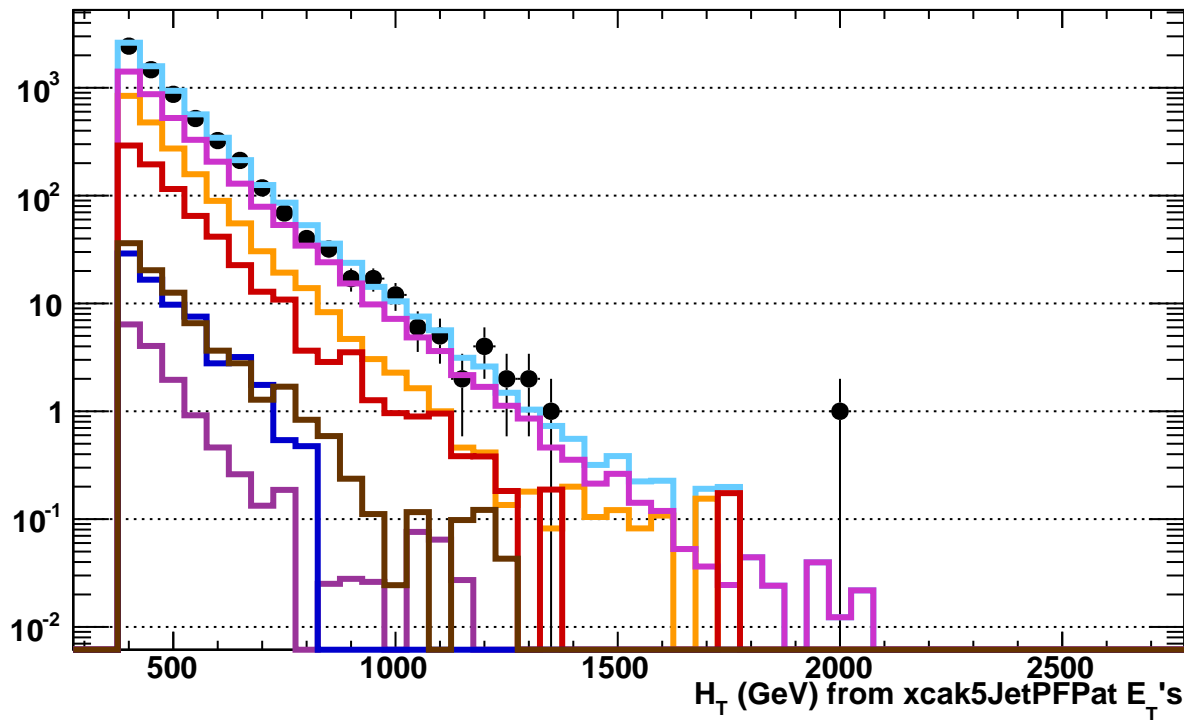
**2012 Data****Standard Model****Drell-Yan****W->lv + jets****Z->vv + jets****tt****SingleTop****VV**



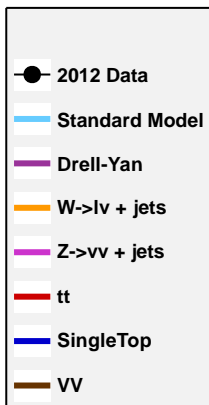
| vertexIndicesMultiplicity |       |
|---------------------------|-------|
| Entries                   | 6158  |
| Mean                      | 13.47 |
| RMS                       | 4.778 |
| Underflow                 | 0     |
| Overflow                  | 0     |
| Integral                  | 6158  |



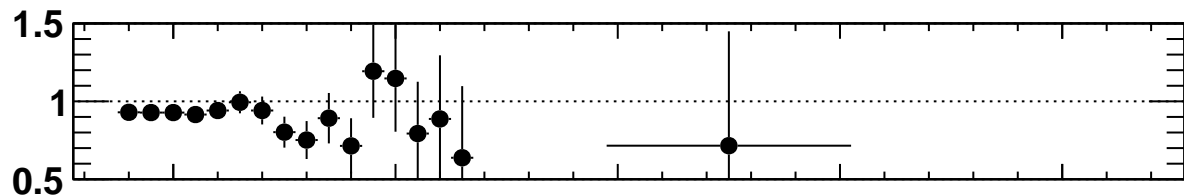
events / bin / 19 fb<sup>-1</sup>



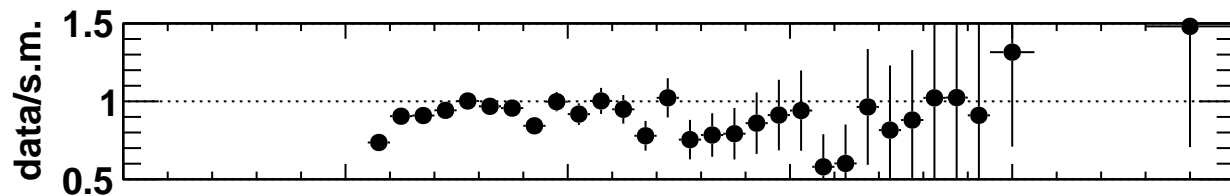
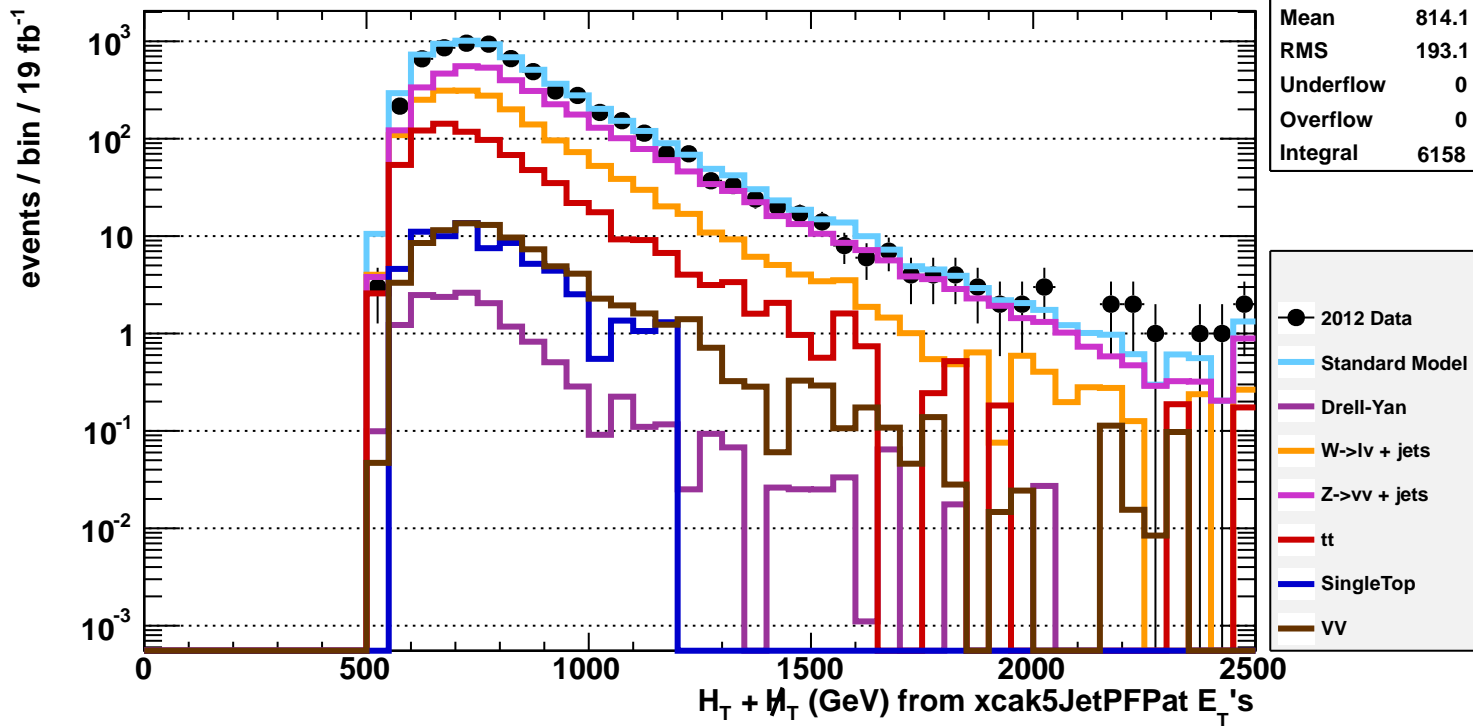
| xcak5JetPFPat |       |
|---------------|-------|
| Entries       | 6158  |
| Mean          | 477.1 |
| RMS           | 109.3 |
| Underflow     | 0     |
| Overflow      | 0     |
| Integral      | 6158  |

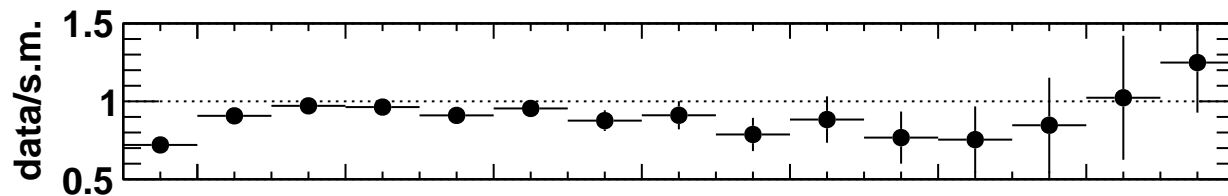
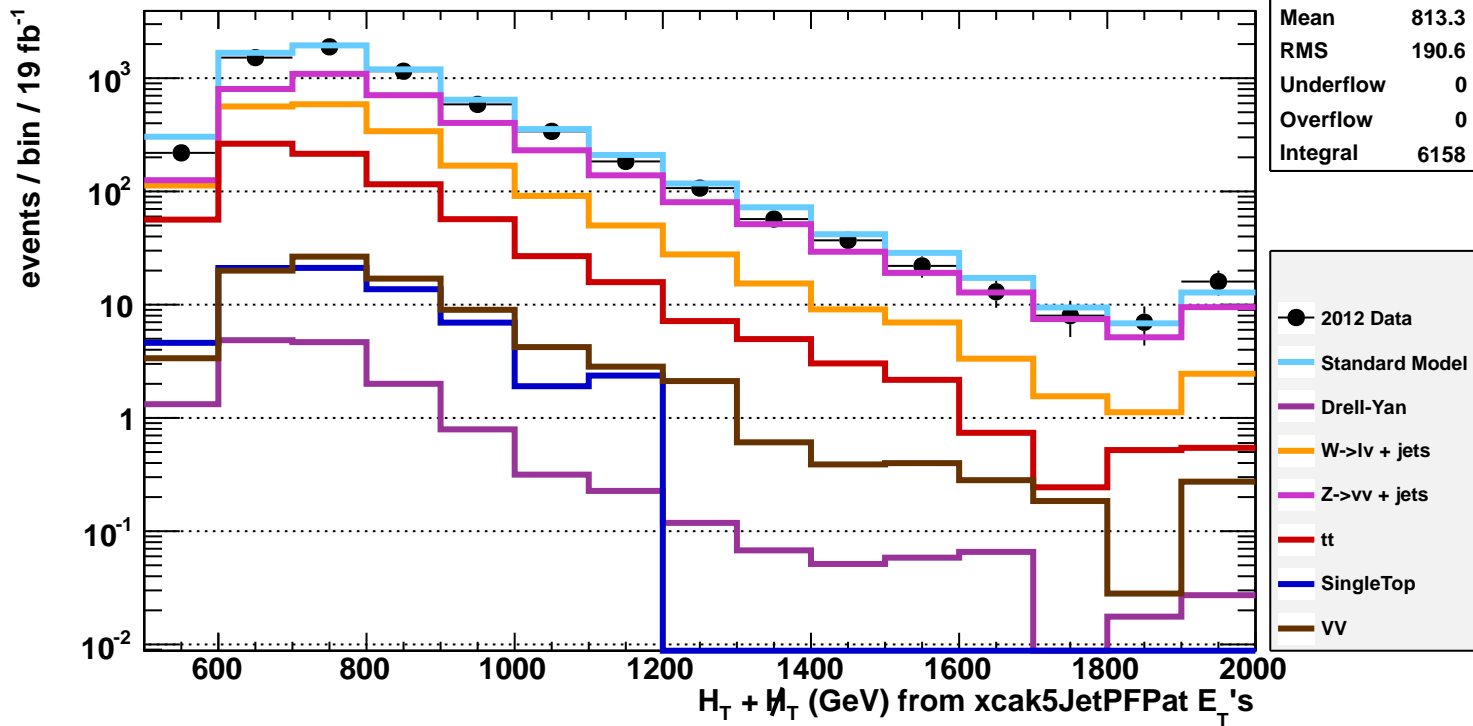


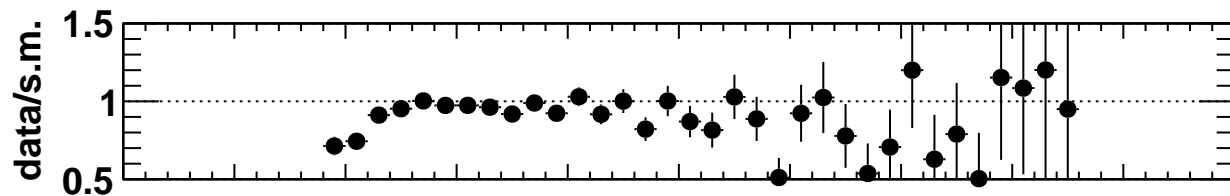
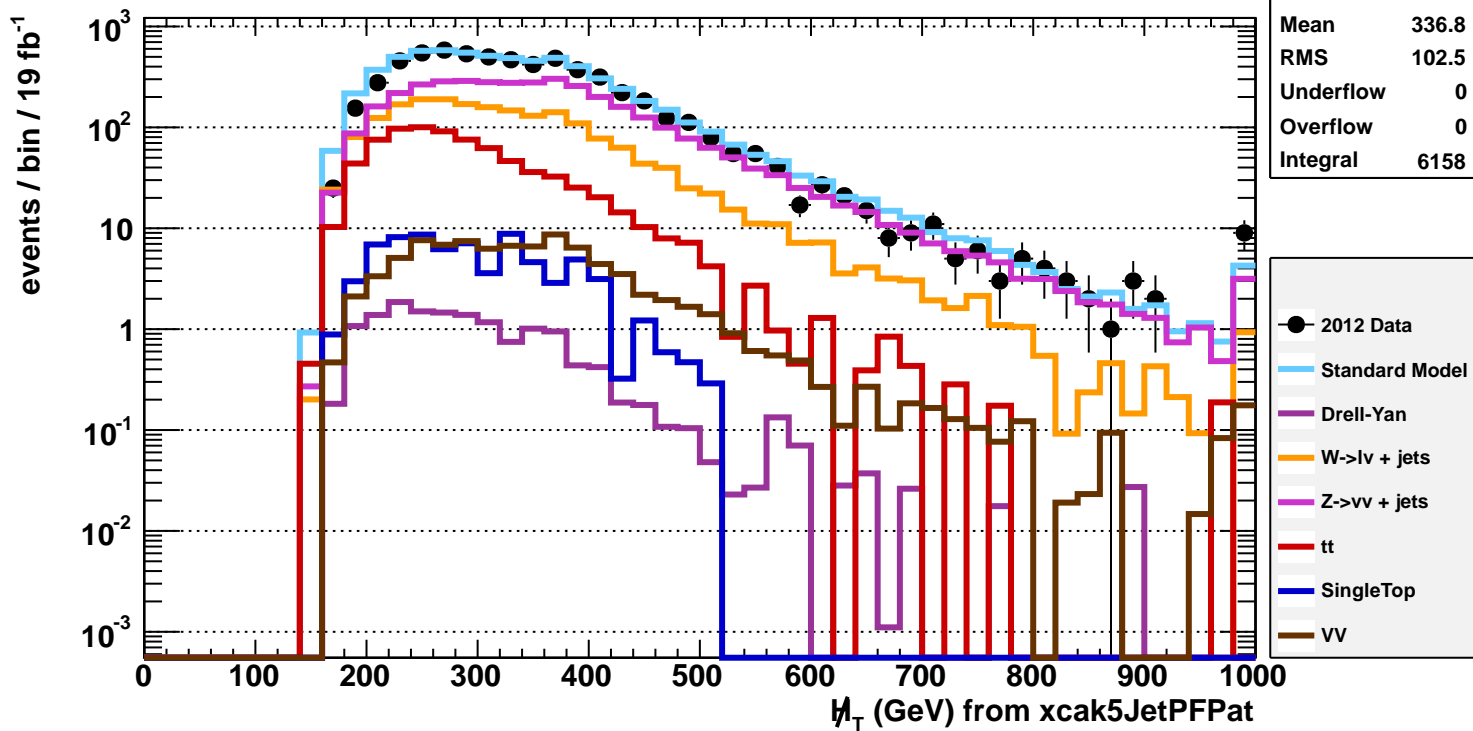
data/s.m.

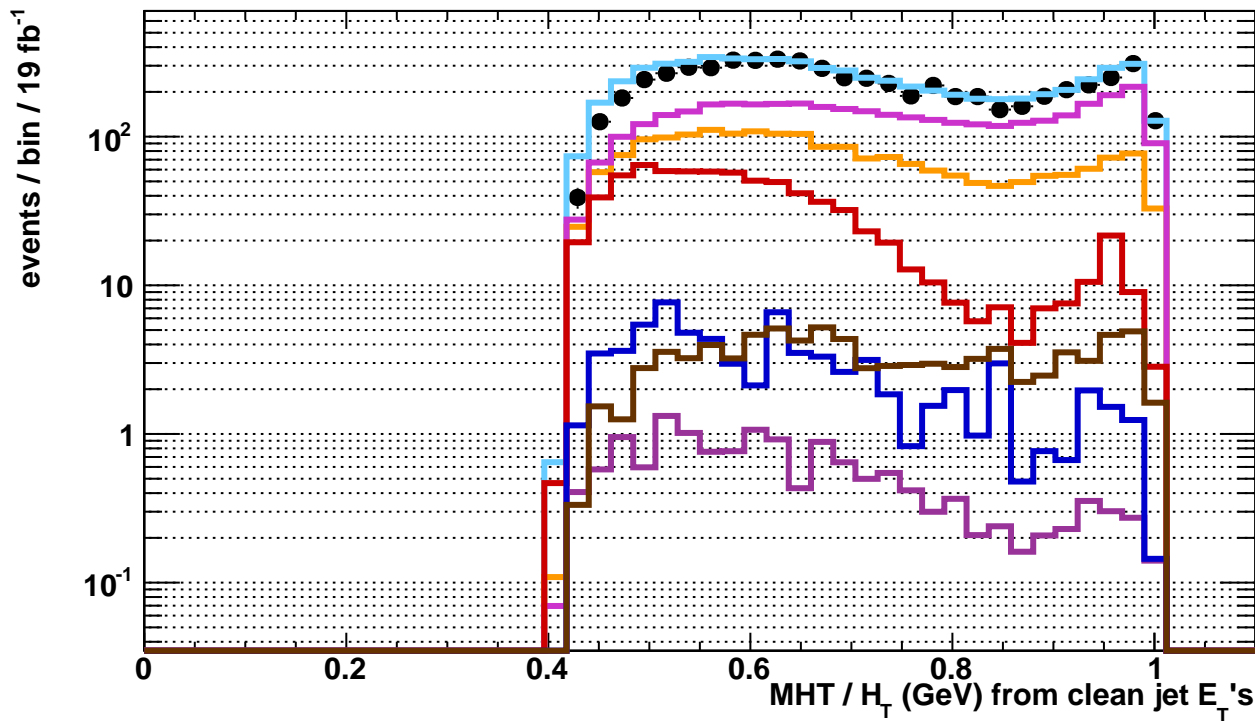




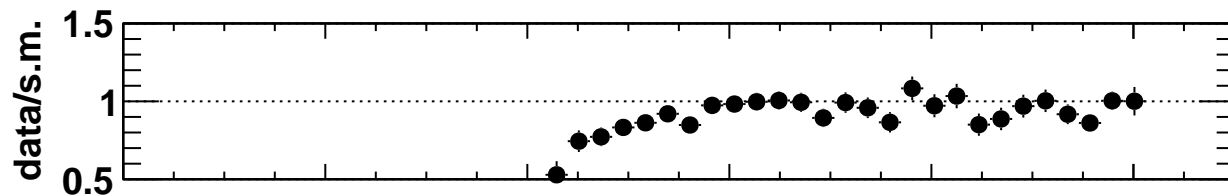
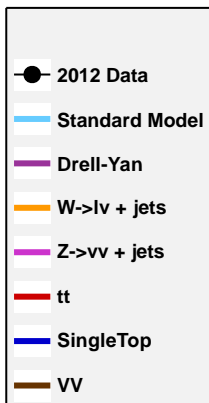


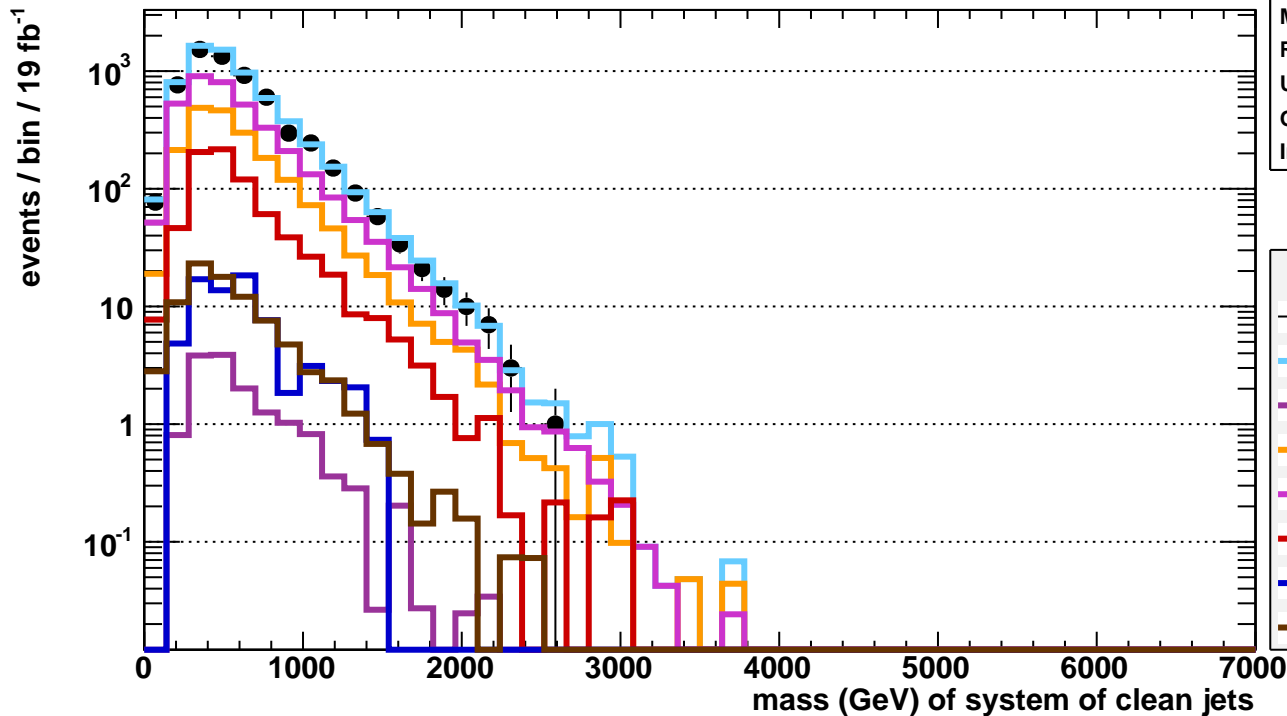




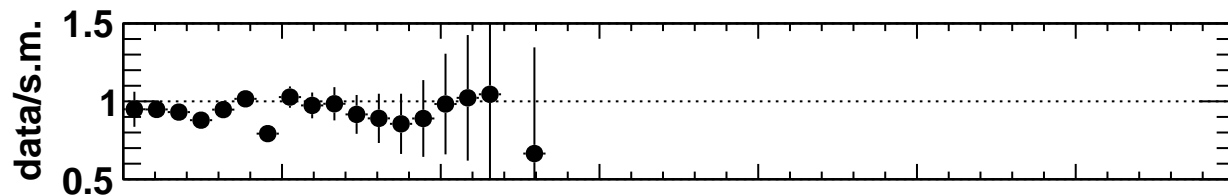
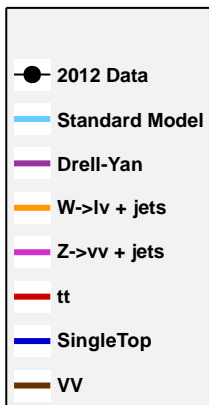


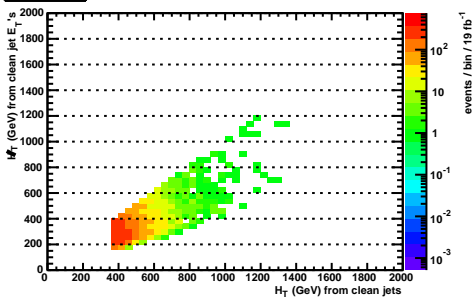
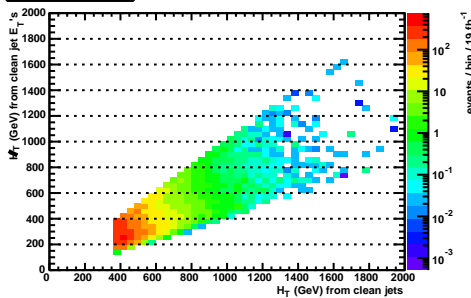
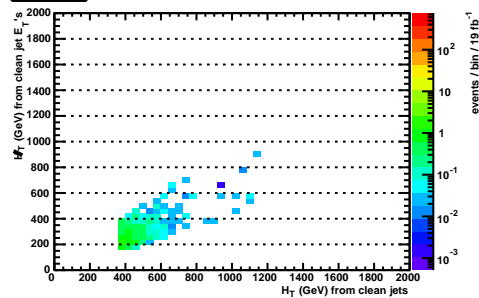
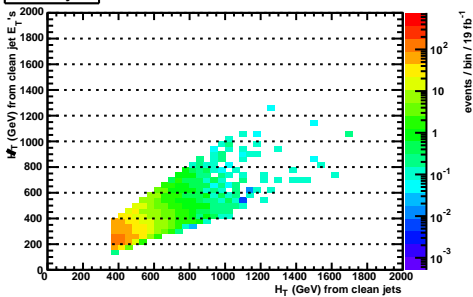
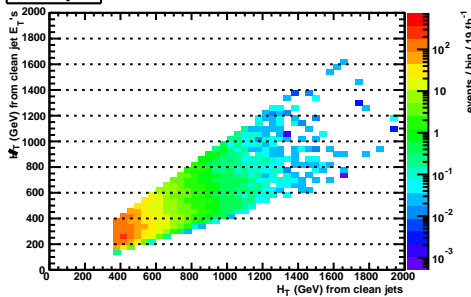
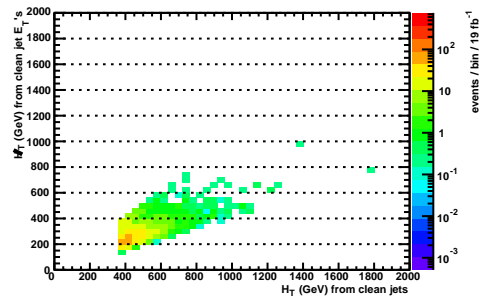
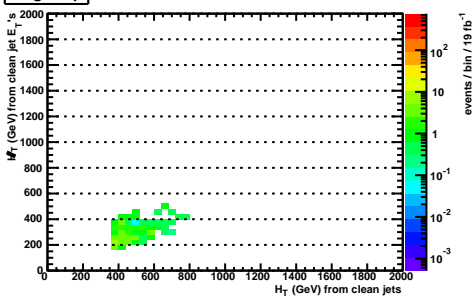
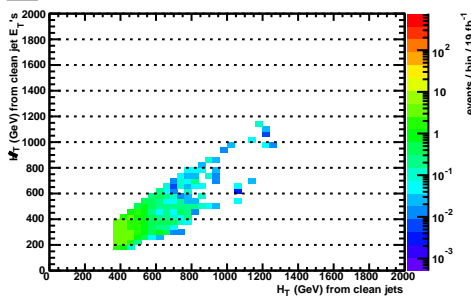
|                        |        |
|------------------------|--------|
| xcak5JetPFmHtOverHtPat |        |
| Entries                | 6158   |
| Mean                   | 0.7104 |
| RMS                    | 0.1599 |
| Underflow              | 0      |
| Overflow               | 0      |
| Integral               | 6158   |



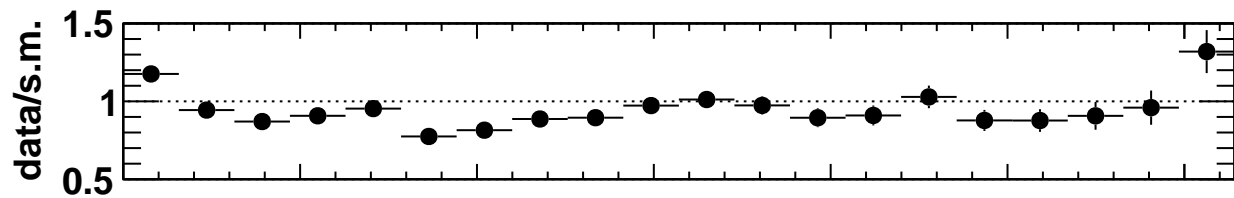
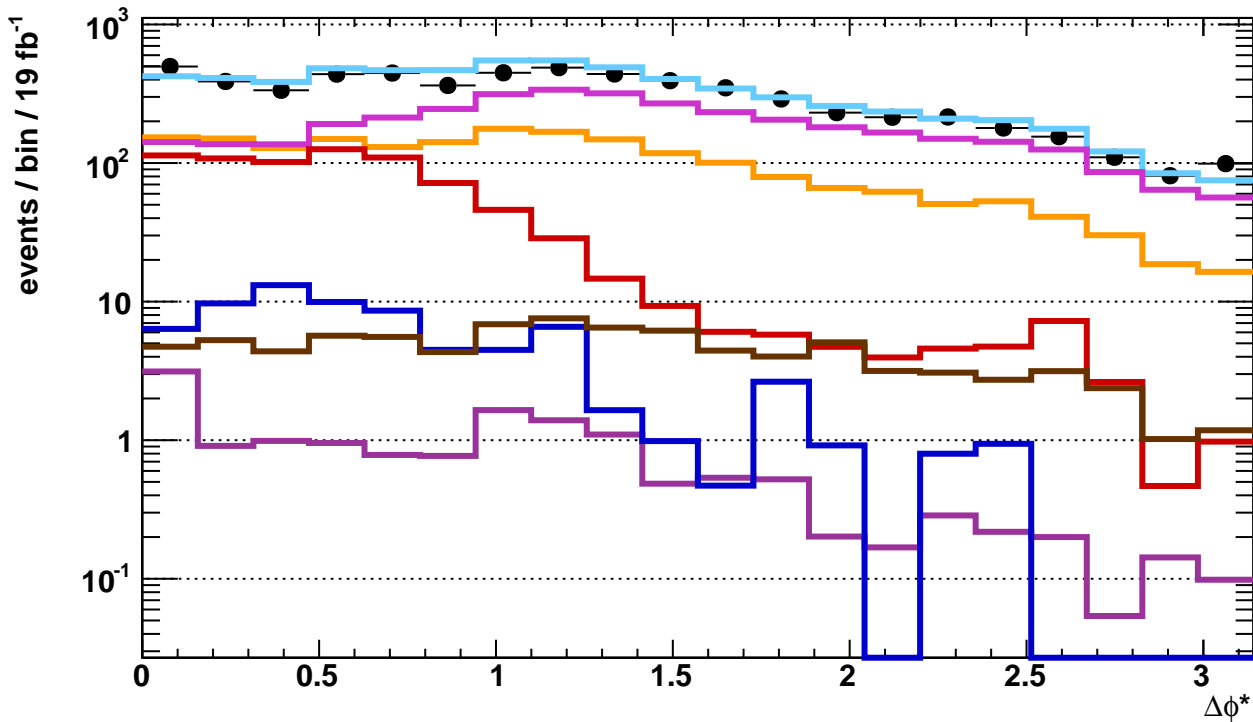


| xcak5JetPFmPat |       |
|----------------|-------|
| Entries        | 6158  |
| Mean           | 563.7 |
| RMS            | 315.5 |
| Underflow      | 0     |
| Overflow       | 0     |
| Integral       | 6158  |

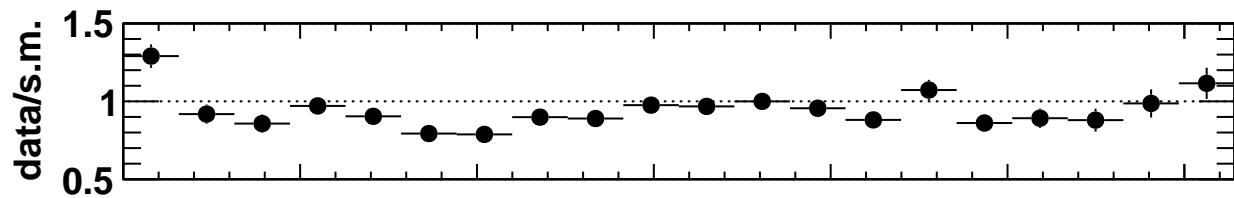
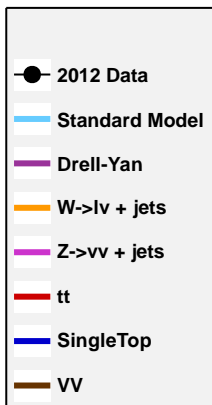
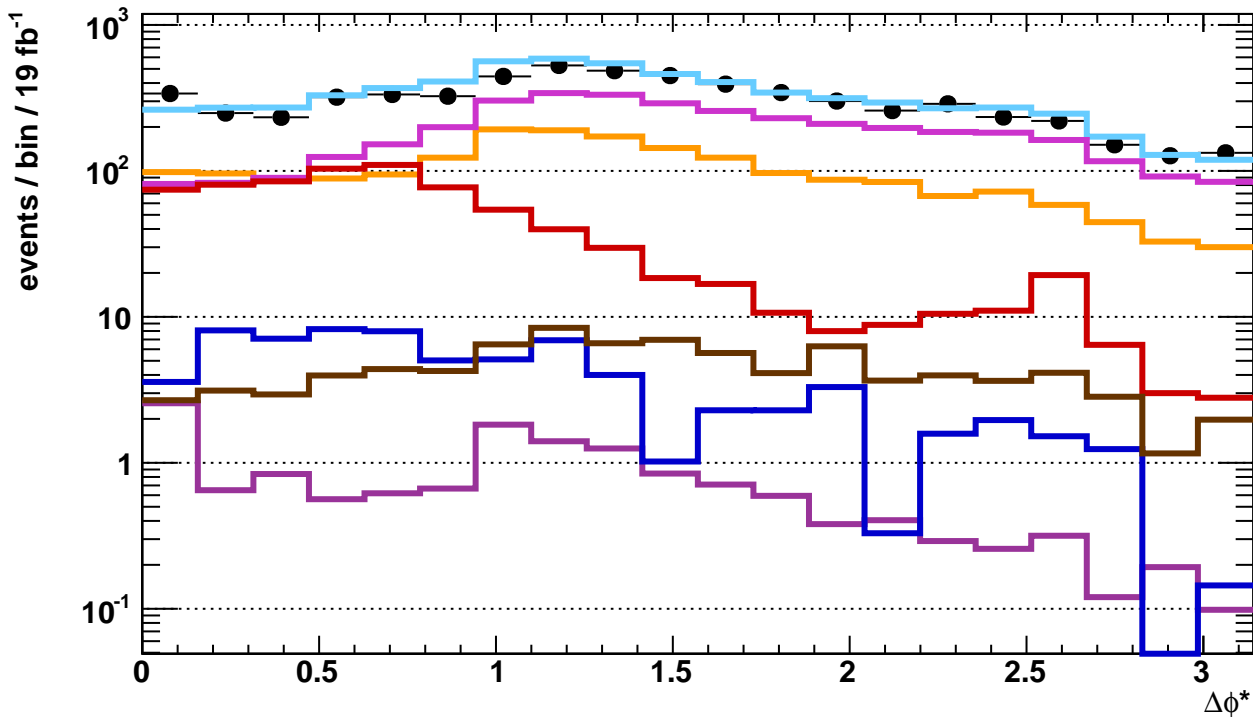


**2012 Data****Standard Model****Drell-Yan****W->lv + jets****Z->vv + jets****tt****SingleTop****VV**

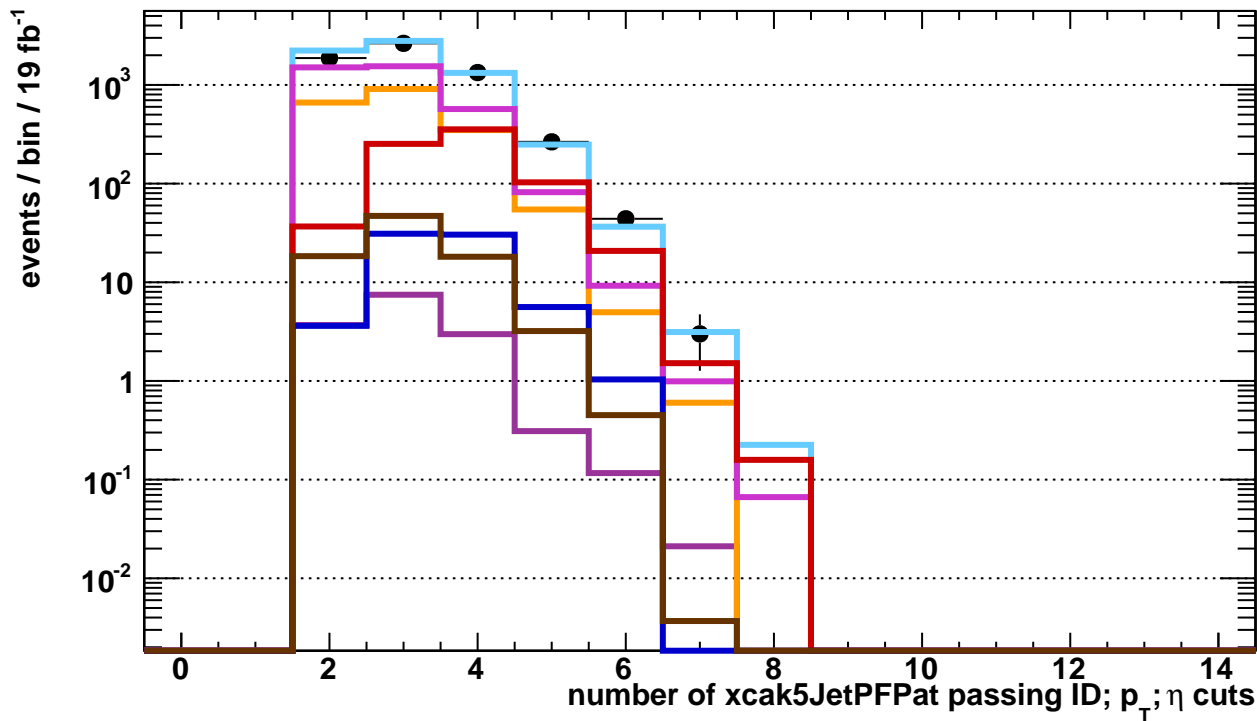
|                                |        |
|--------------------------------|--------|
| kcak5JetPFDeltaPhiStarlowPtPat |        |
| Entries                        | 6158   |
| Mean                           | 1.219  |
| RMS                            | 0.7833 |
| Underflow                      | 0      |
| Overflow                       | 0      |
| Integral                       | 6158   |



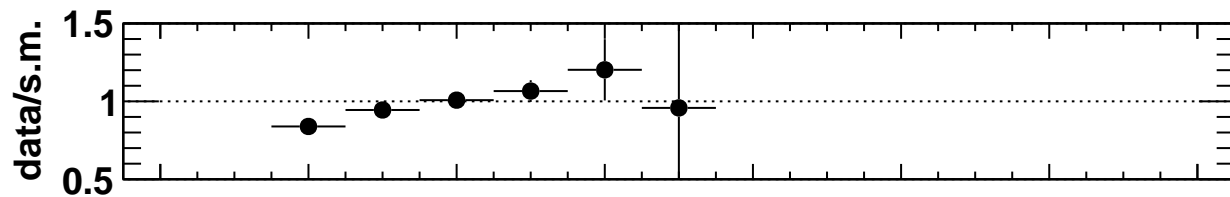
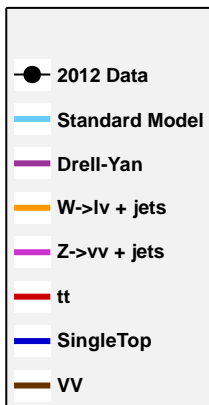
|                           |        |
|---------------------------|--------|
| xcak5JetPFDeltaPhiStarPat |        |
| Entries                   | 6158   |
| Mean                      | 1.406  |
| RMS                       | 0.7857 |
| Underflow                 | 0      |
| Overflow                  | 0      |
| Integral                  | 6158   |

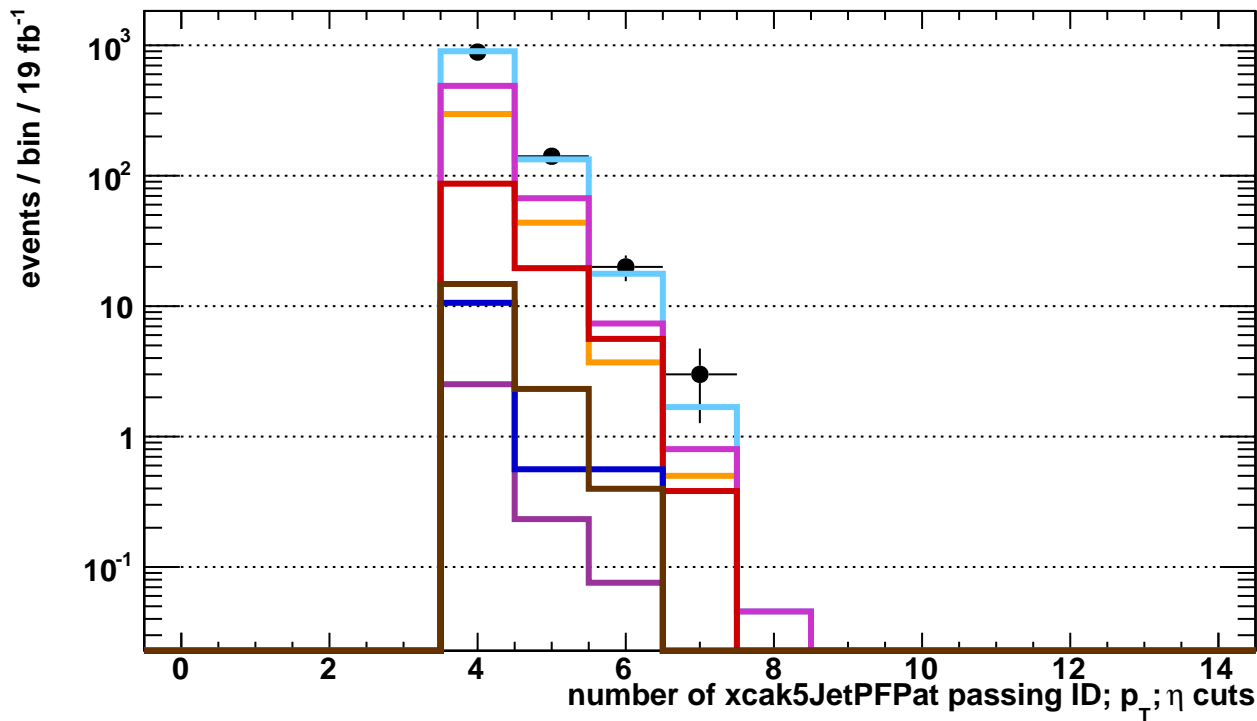




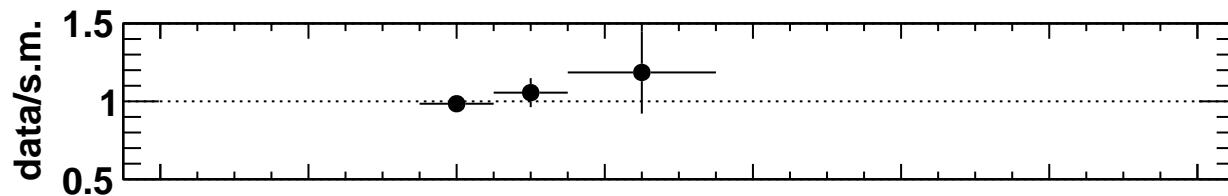
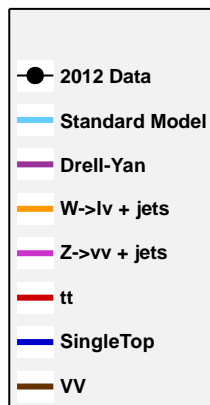


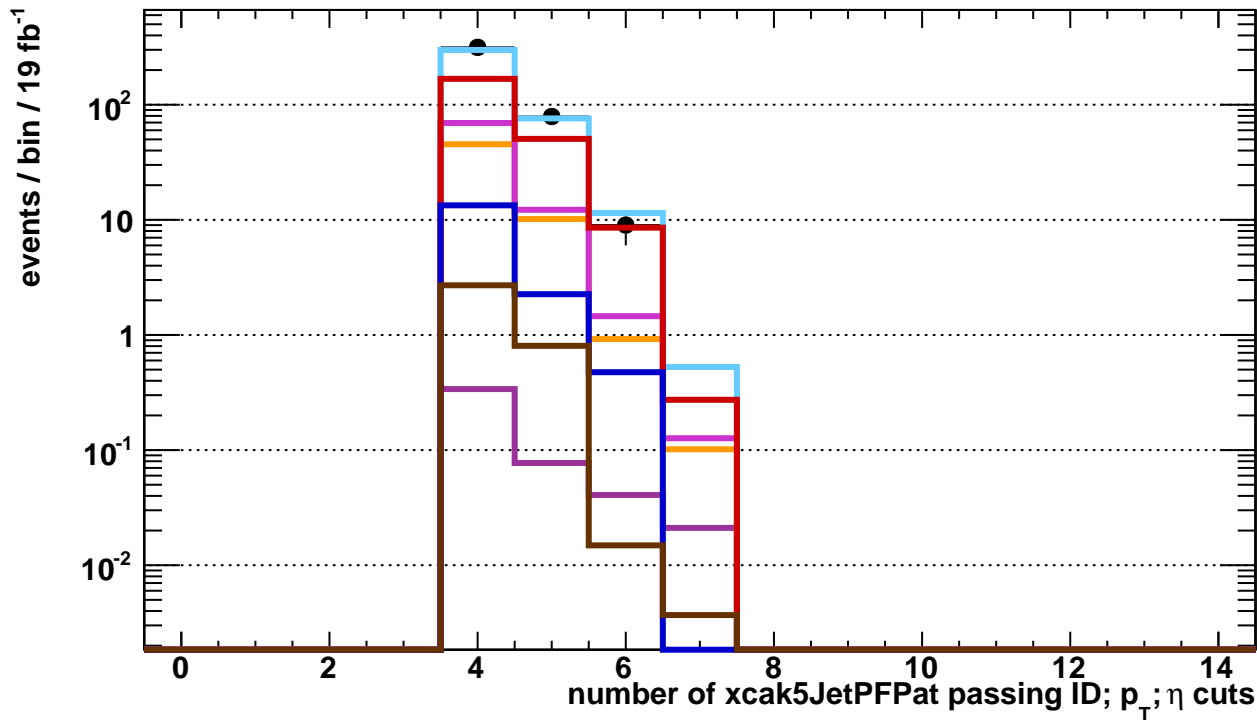
| xcak5JetPFPIndicesPat |        |
|-----------------------|--------|
| Entries               | 6158   |
| Mean                  | 3.022  |
| RMS                   | 0.8744 |
| Underflow             | 0      |
| Overflow              | 0      |
| Integral              | 6158   |



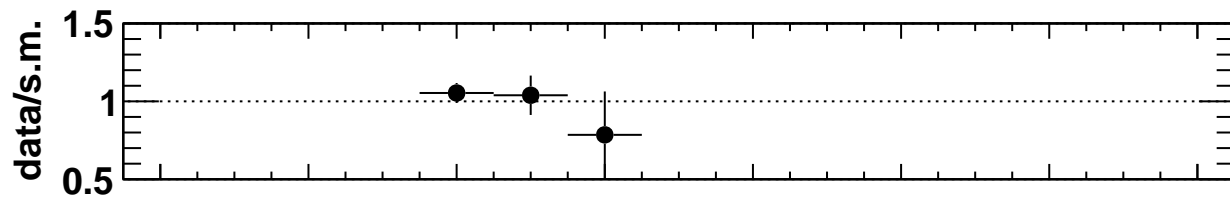
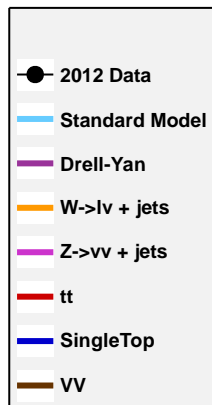


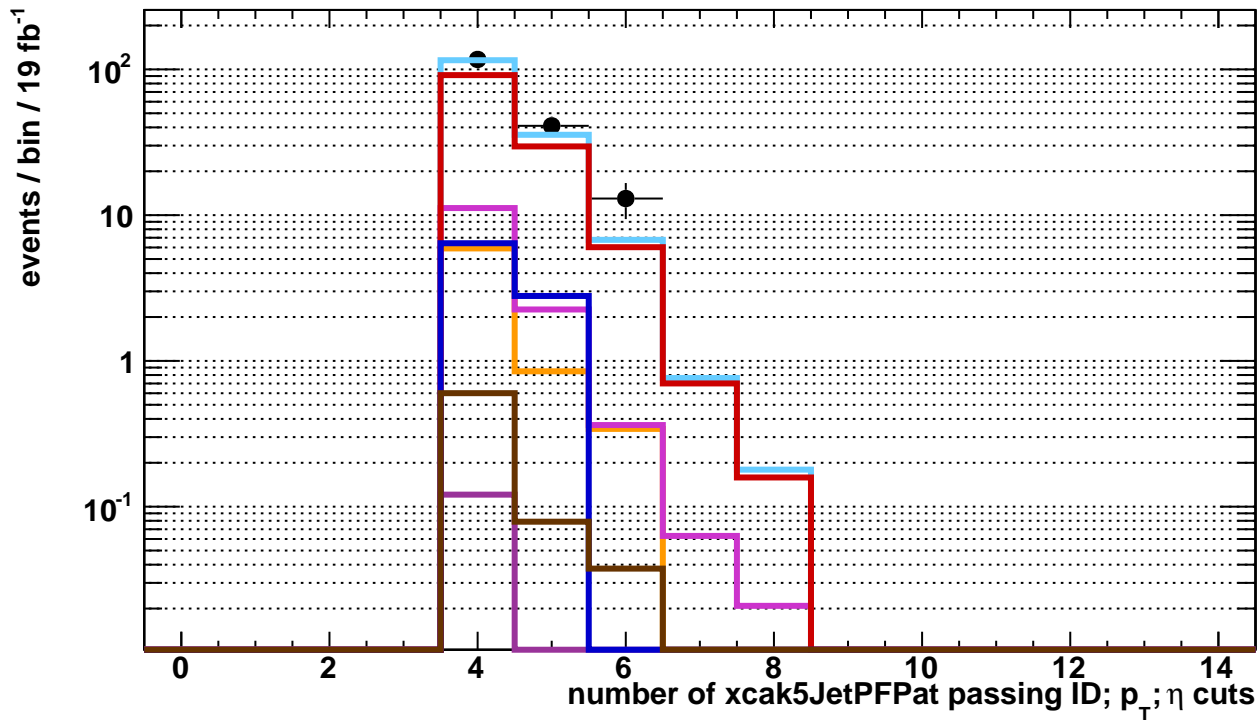
|                                 |        |
|---------------------------------|--------|
| xcak5JetPFPIndicesPat_ge4j_eq0b |        |
| Entries                         | 1051   |
| Mean                            | 4.181  |
| RMS                             | 0.4509 |
| Underflow                       | 0      |
| Overflow                        | 0      |
| Integral                        | 1051   |



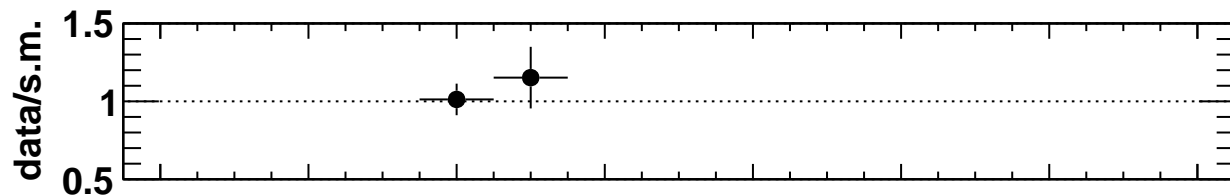
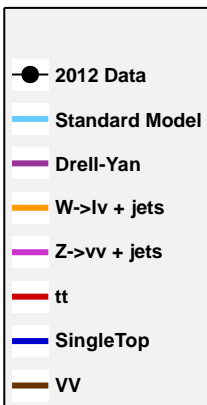


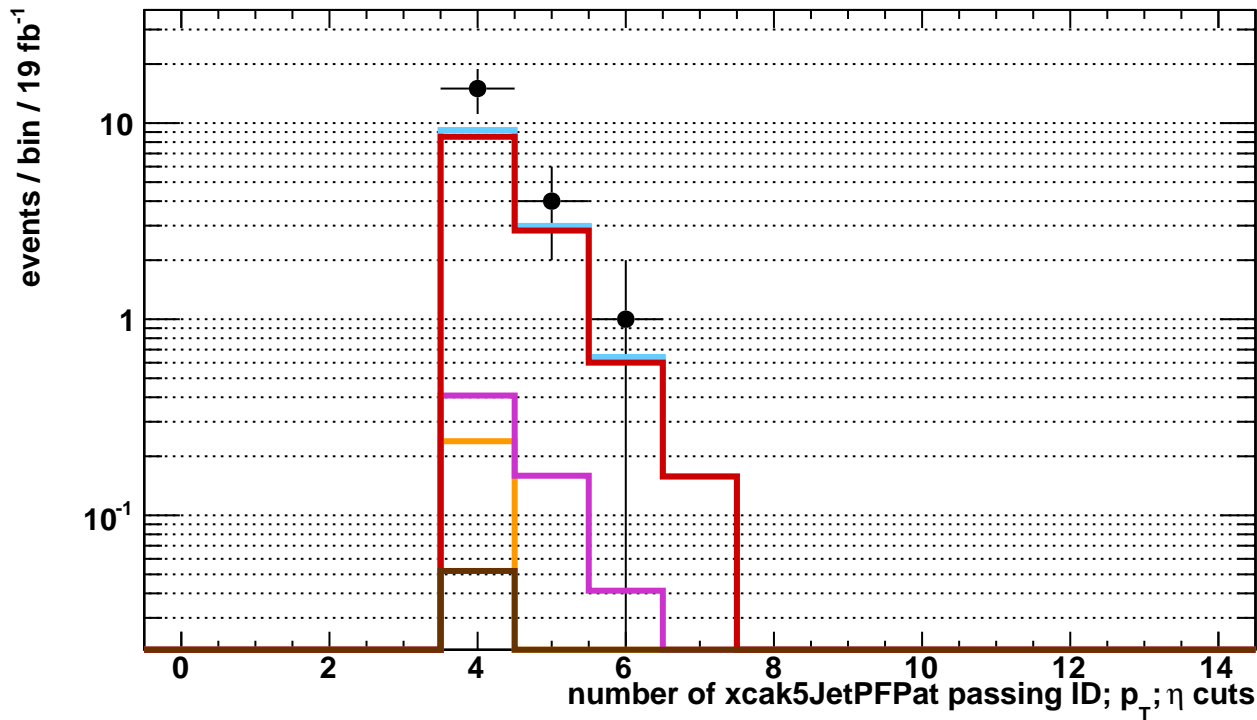
|                                 |        |
|---------------------------------|--------|
| xcak5JetPFPIndicesPat_ge4j_eq1b |        |
| Entries                         | 403    |
| Mean                            | 4.241  |
| RMS                             | 0.4769 |
| Underflow                       | 0      |
| Overflow                        | 0      |
| Integral                        | 403    |



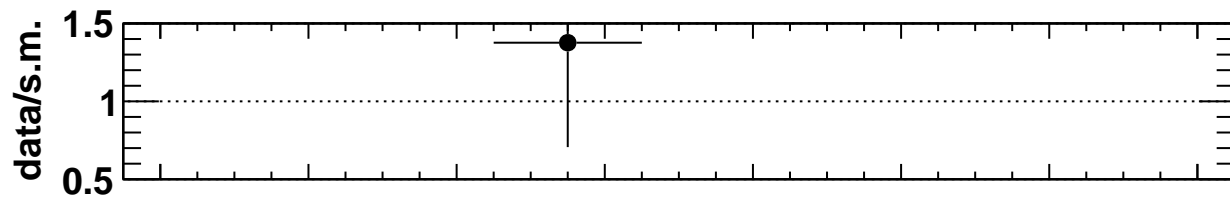
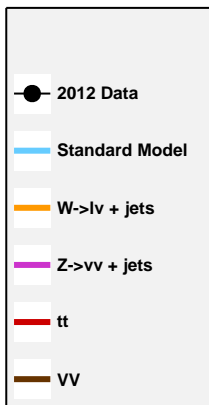


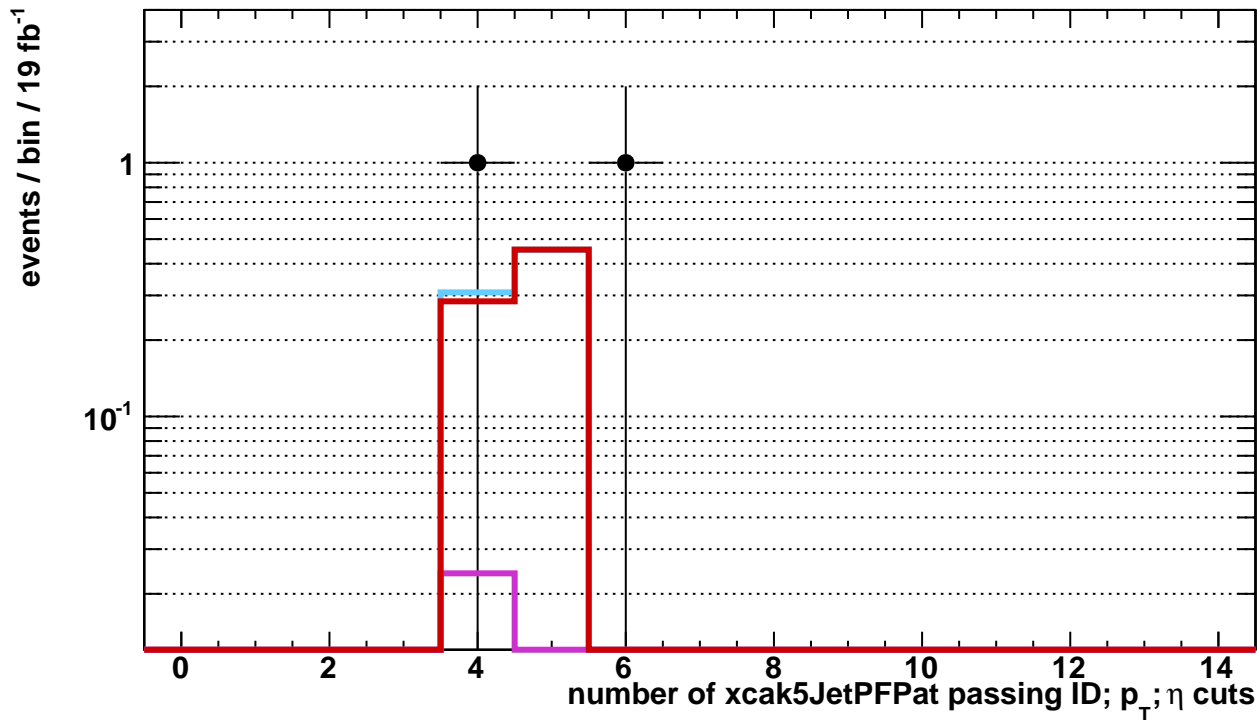
|                                 |        |
|---------------------------------|--------|
| xcak5JetPFPIndicesPat_ge4j_eq2b |        |
| Entries                         | 171    |
| Mean                            | 4.392  |
| RMS                             | 0.6248 |
| Underflow                       | 0      |
| Overflow                        | 0      |
| Integral                        | 171    |



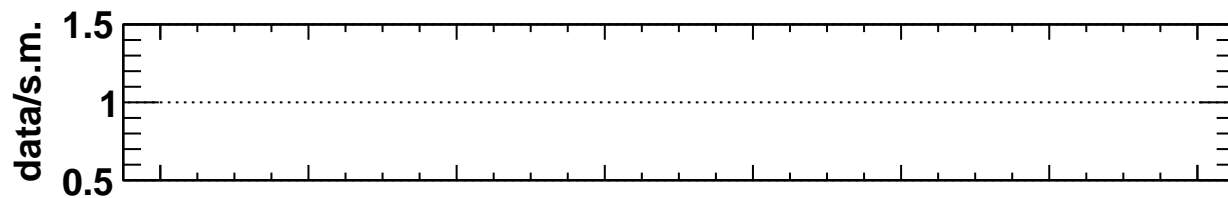
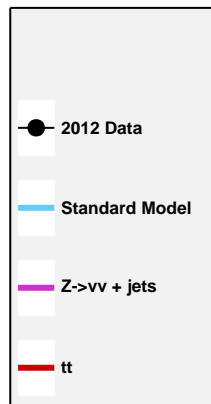


|                                 |        |
|---------------------------------|--------|
| xcak5JetPFPIndicesPat_ge4j_eq3b |        |
| Entries                         | 20     |
| Mean                            | 4.3    |
| RMS                             | 0.5568 |
| Underflow                       | 0      |
| Overflow                        | 0      |
| Integral                        | 20     |



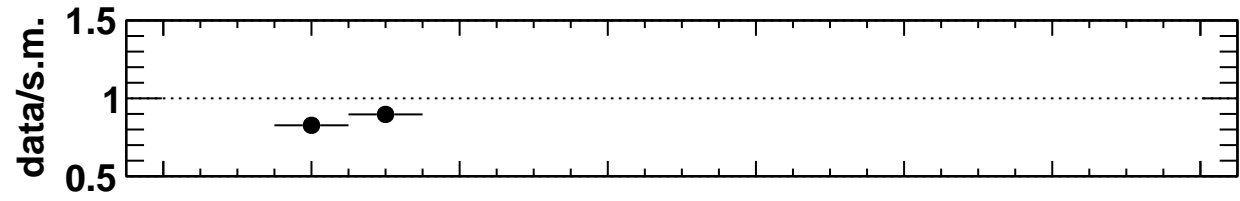
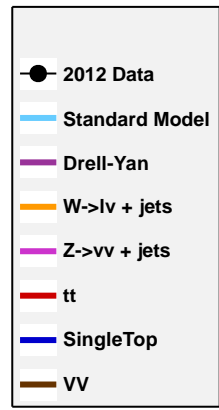
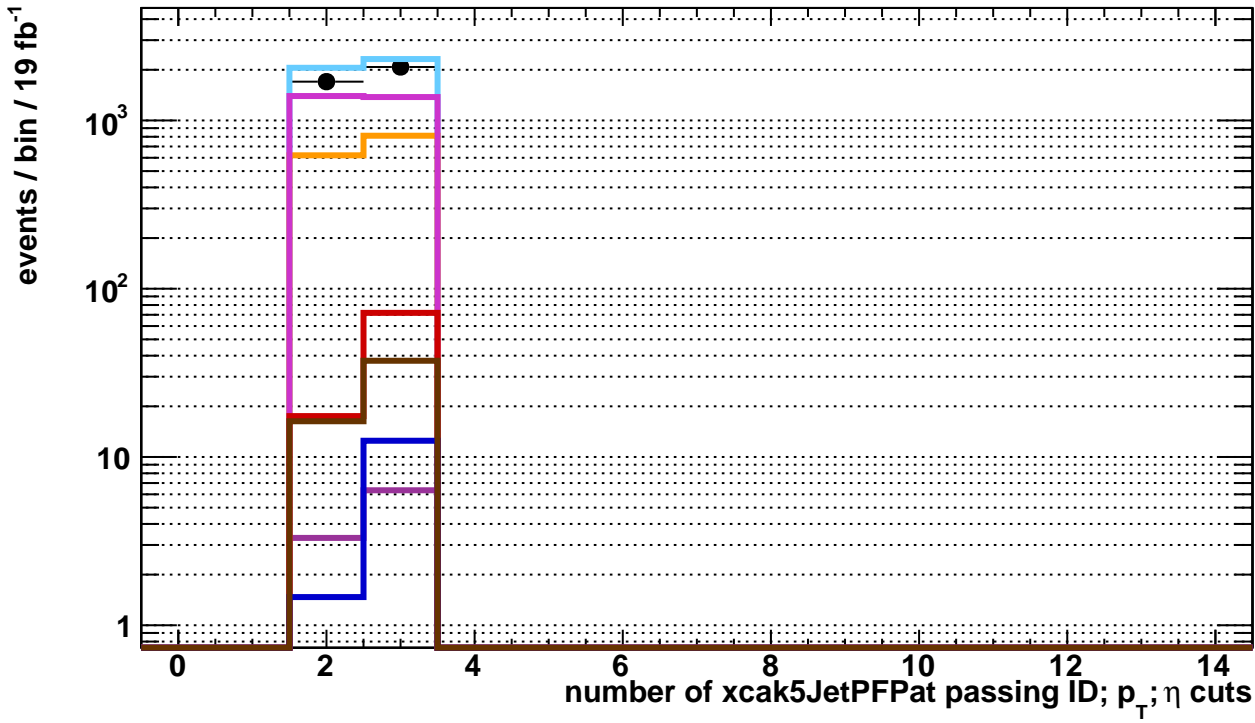


|                                 |   |
|---------------------------------|---|
| xcak5JetPFPIndicesPat_ge4j_ge4b |   |
| Entries                         | 2 |
| Mean                            | 5 |
| RMS                             | 1 |
| Underflow                       | 0 |
| Overflow                        | 0 |
| Integral                        | 2 |

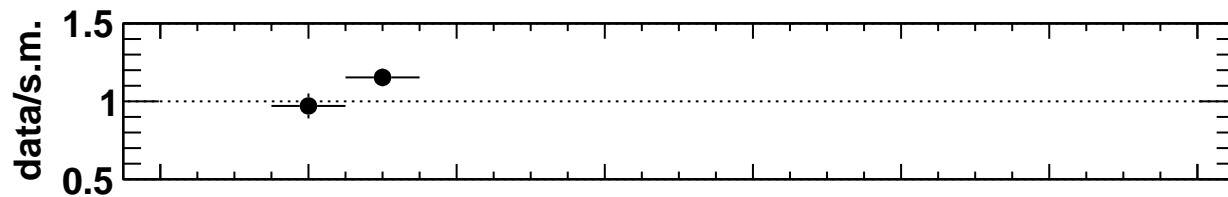
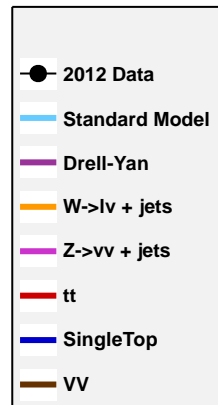
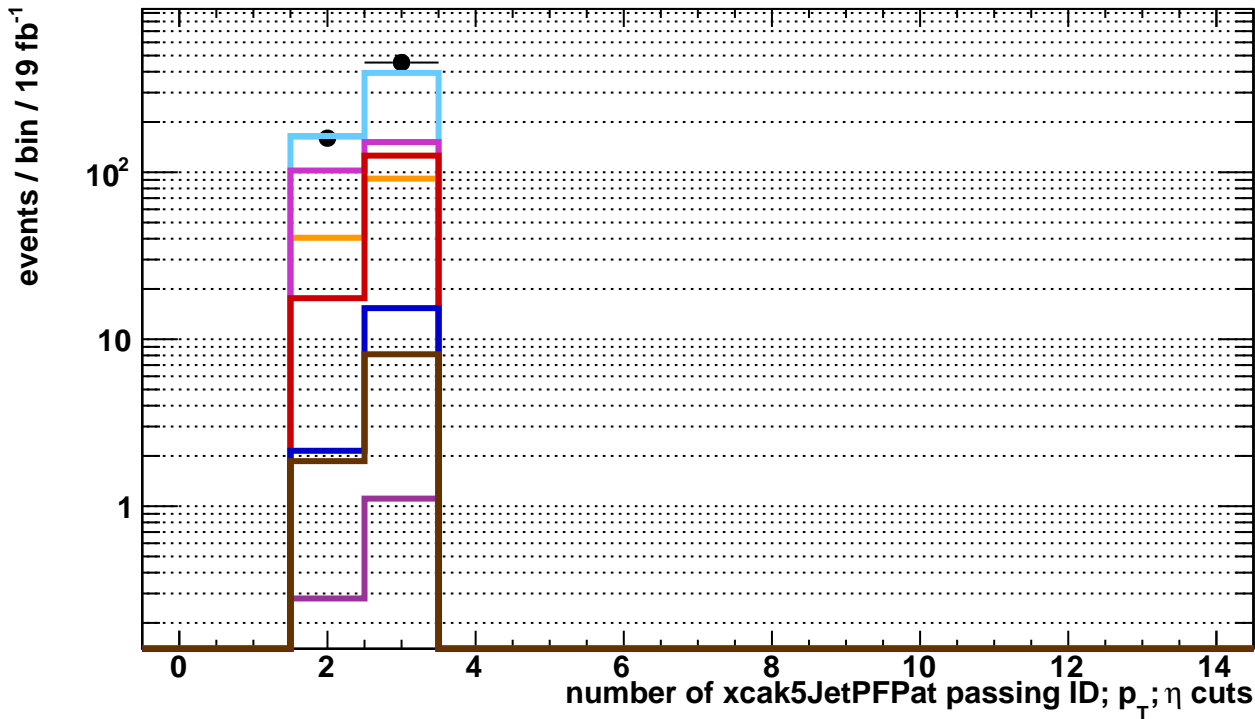


xcak5JetPFPIndicesPat\_le3j\_eq0b

|           |        |
|-----------|--------|
| Entries   | 3778   |
| Mean      | 2.55   |
| RMS       | 0.4975 |
| Underflow | 0      |
| Overflow  | 0      |
| Integral  | 3778   |

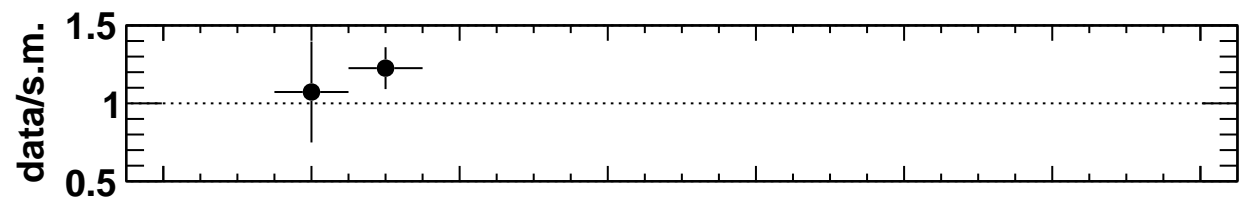
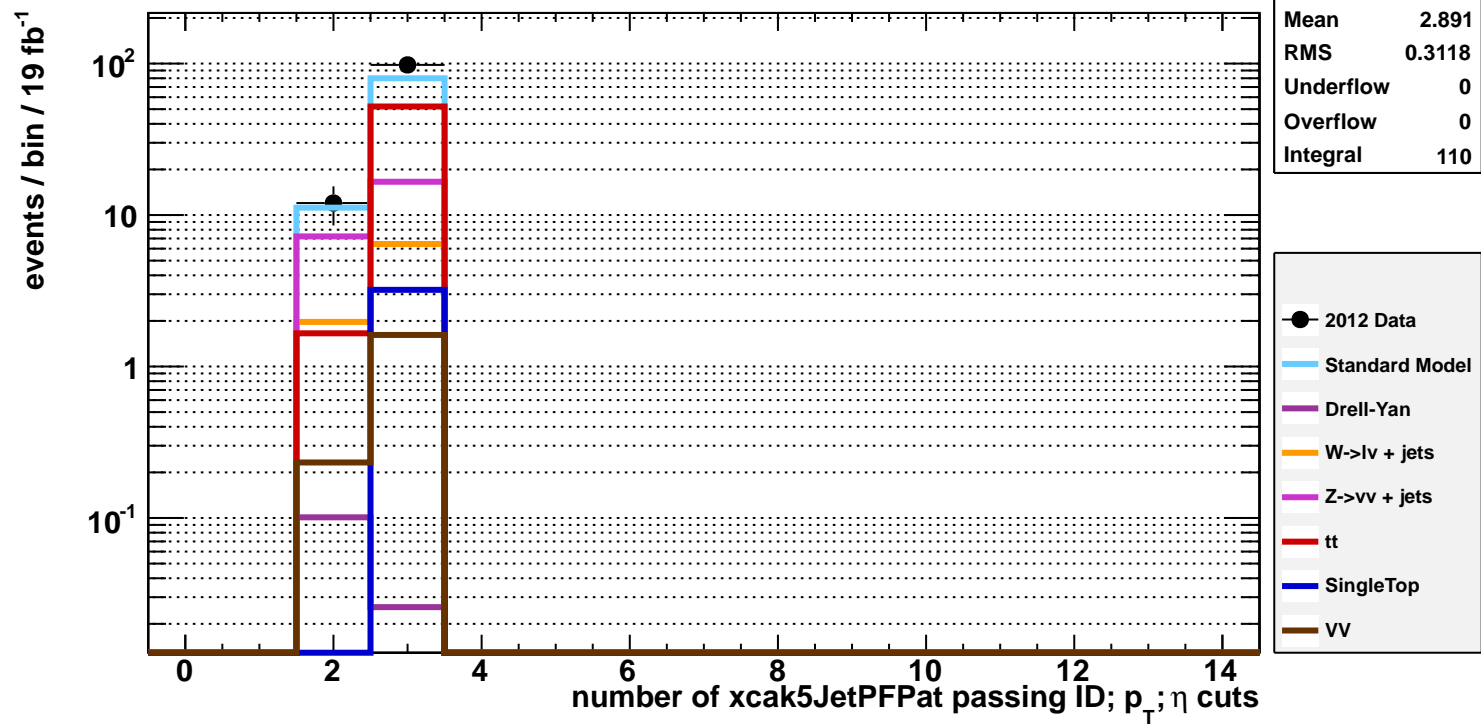


|                                 |       |
|---------------------------------|-------|
| xcak5JetPFIIndicesPat_le3j_eq1b |       |
| Entries                         | 614   |
| Mean                            | 2.739 |
| RMS                             | 0.439 |
| Underflow                       | 0     |
| Overflow                        | 0     |
| Integral                        | 614   |



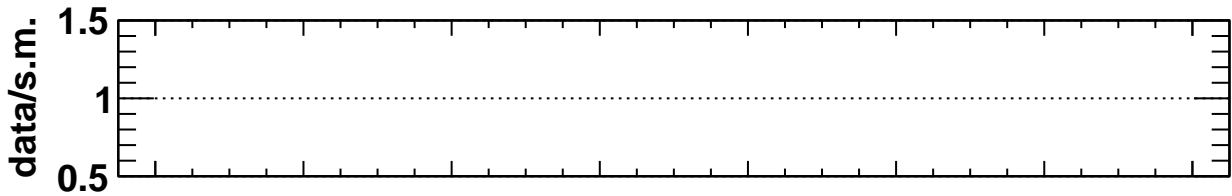
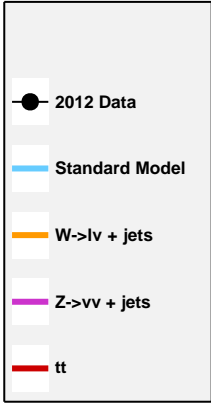
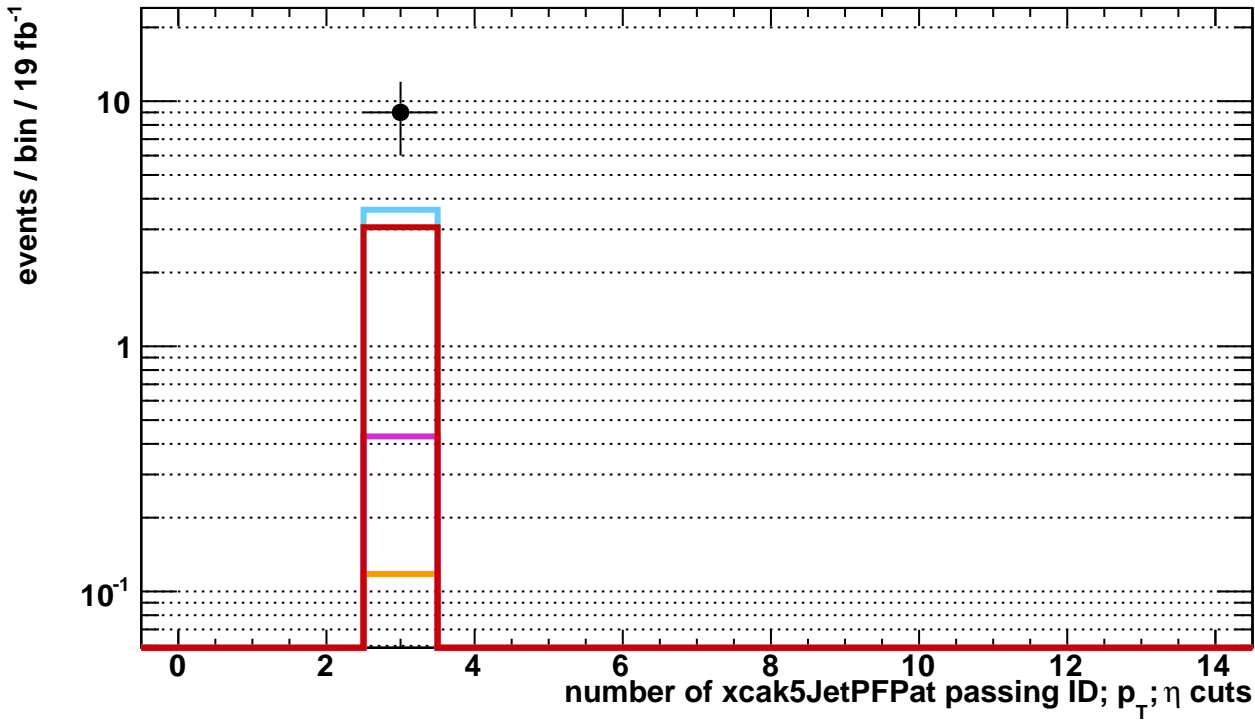


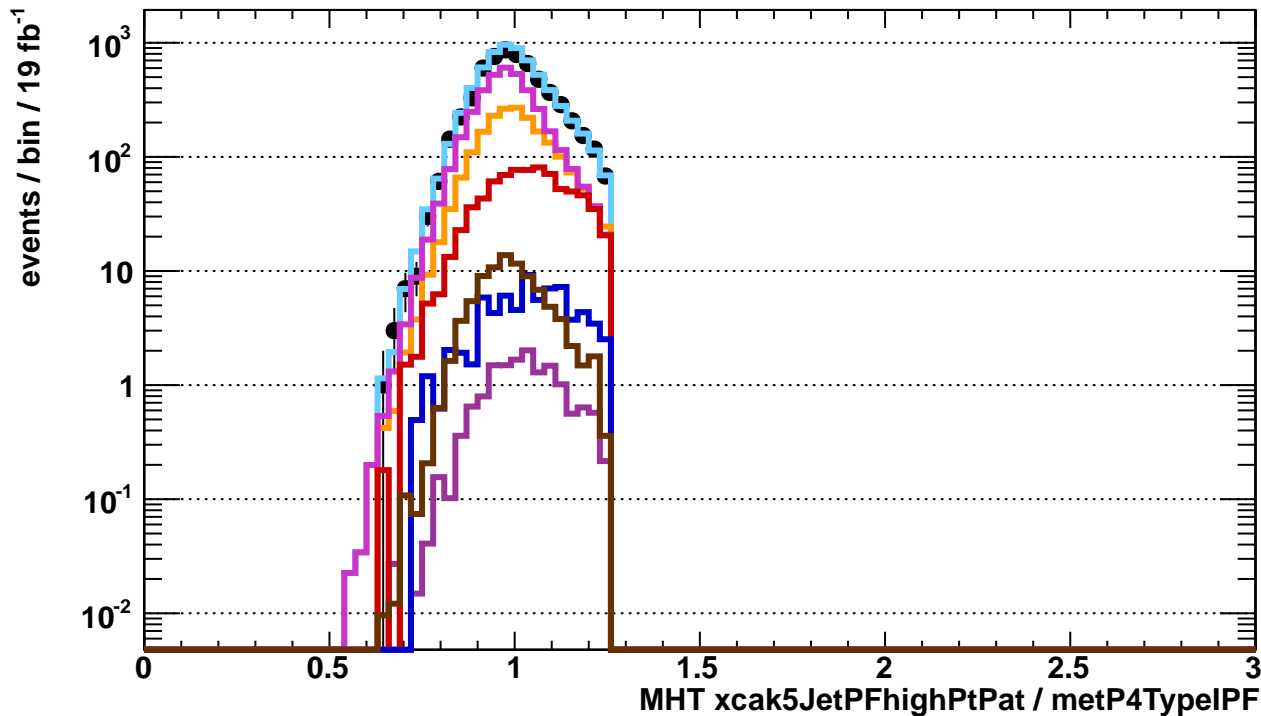
|                                 |        |
|---------------------------------|--------|
| xcak5JetPFPIndicesPat_le3j_eq2b |        |
| Entries                         | 110    |
| Mean                            | 2.891  |
| RMS                             | 0.3118 |
| Underflow                       | 0      |
| Overflow                        | 0      |
| Integral                        | 110    |



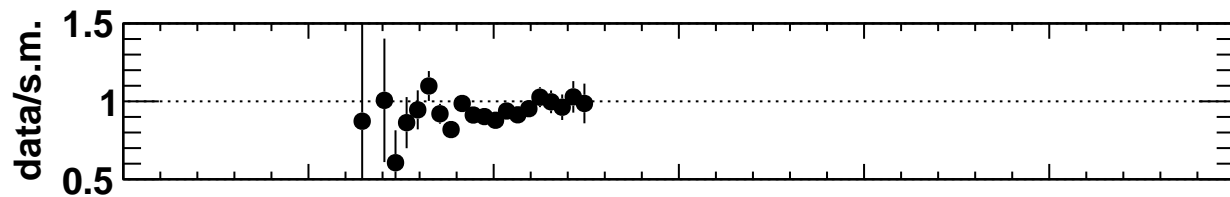
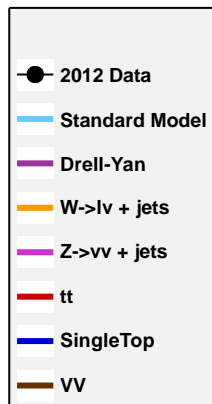
xcak5JetPFPIndicesPat\_le3j\_eq3b

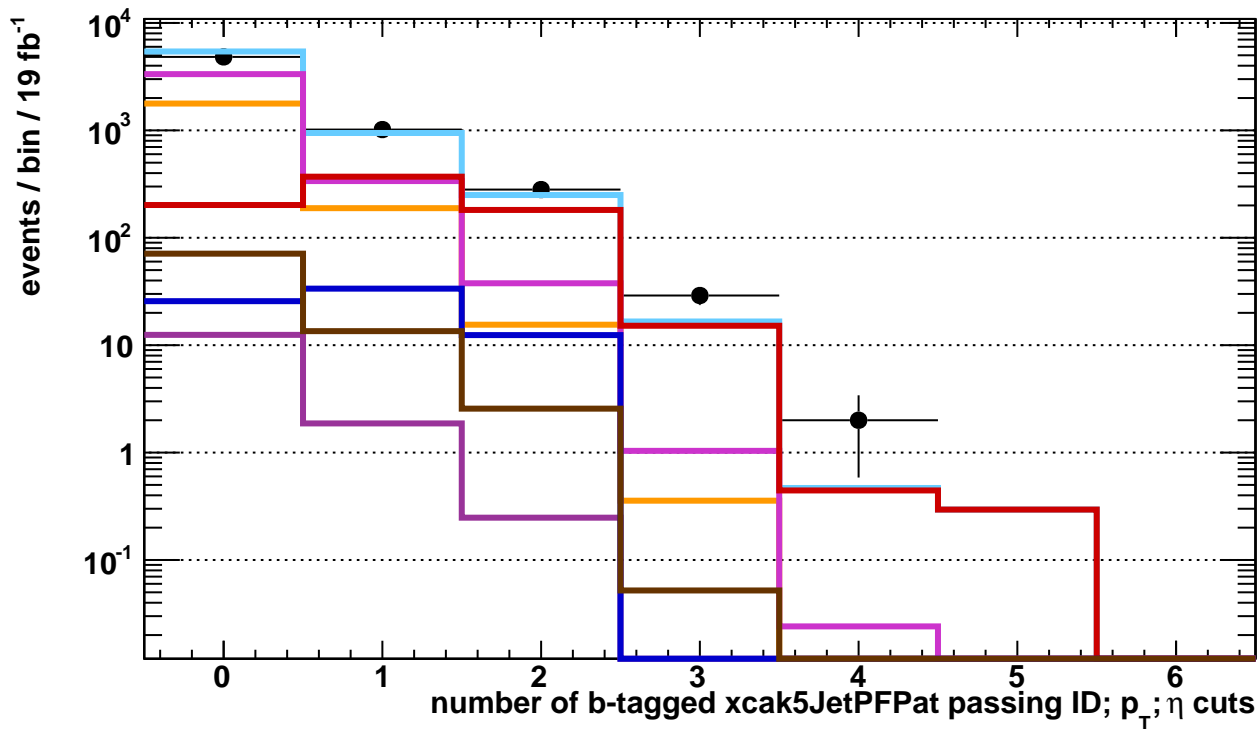
|           |   |
|-----------|---|
| Entries   | 9 |
| Mean      | 3 |
| RMS       | 0 |
| Underflow | 0 |
| Overflow  | 0 |
| Integral  | 9 |



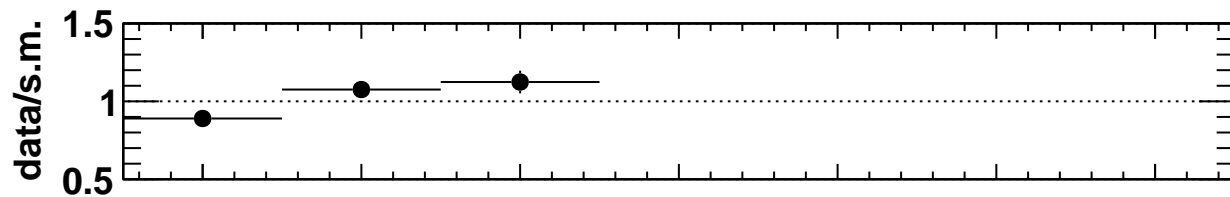


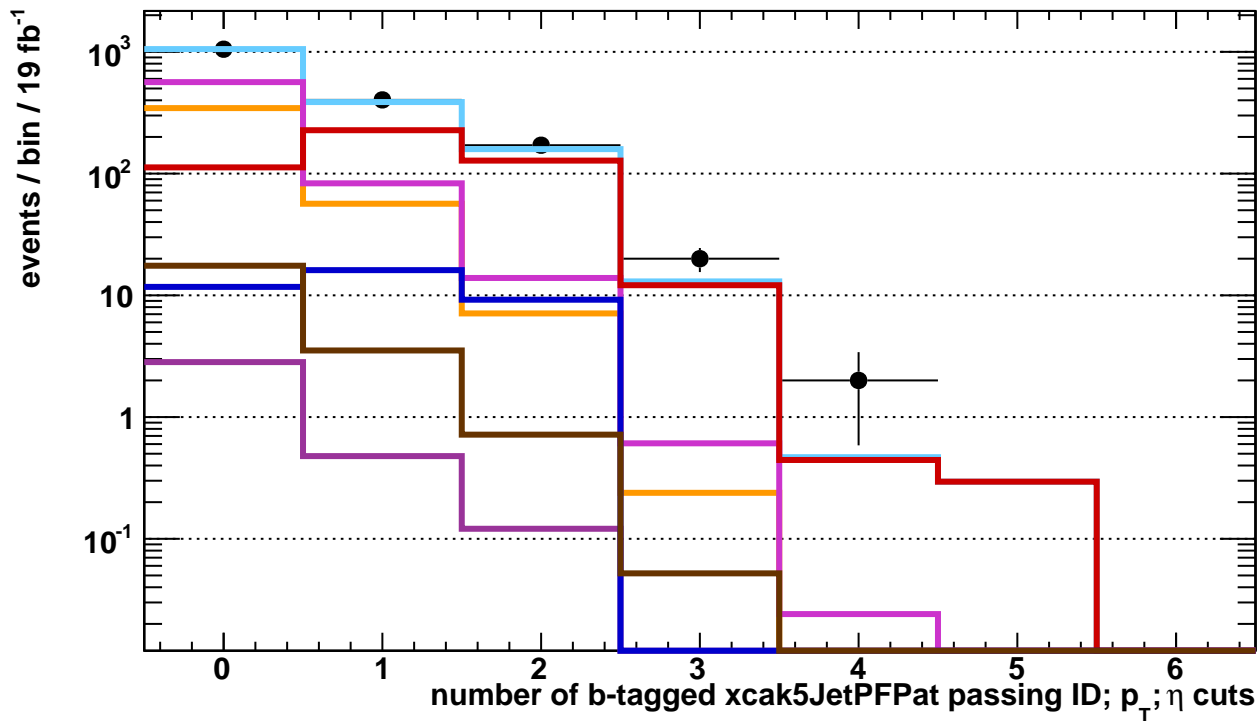
|                                     |         |
|-------------------------------------|---------|
| xcak5JetPFhighPtPatOvermetP4TypeIPF |         |
| Entries                             | 6158    |
| Mean                                | 0.9994  |
| RMS                                 | 0.09549 |
| Underflow                           | 0       |
| Overflow                            | 0       |
| Integral                            | 6158    |



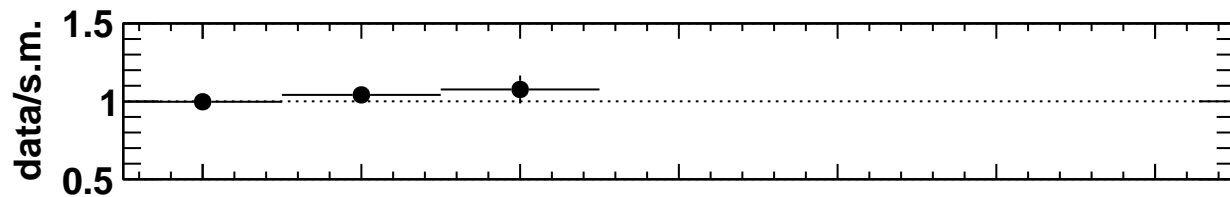
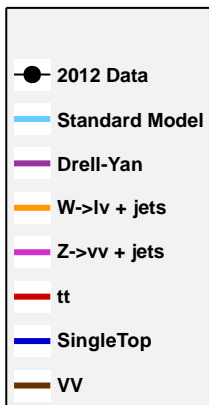


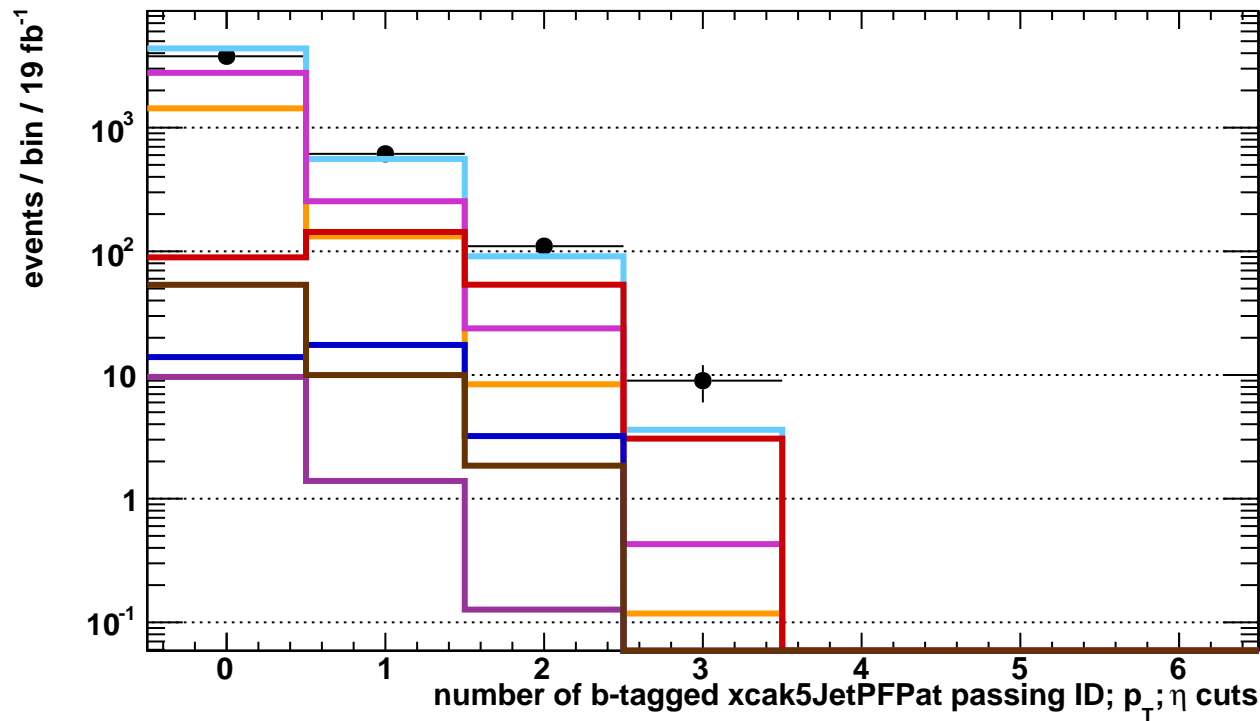
|                               |        |
|-------------------------------|--------|
| xcak5JetPFPIndicesBtagged2Pat |        |
| Entries                       | 6158   |
| Mean                          | 0.2718 |
| RMS                           | 0.5669 |
| Underflow                     | 0      |
| Overflow                      | 0      |
| Integral                      | 6158   |



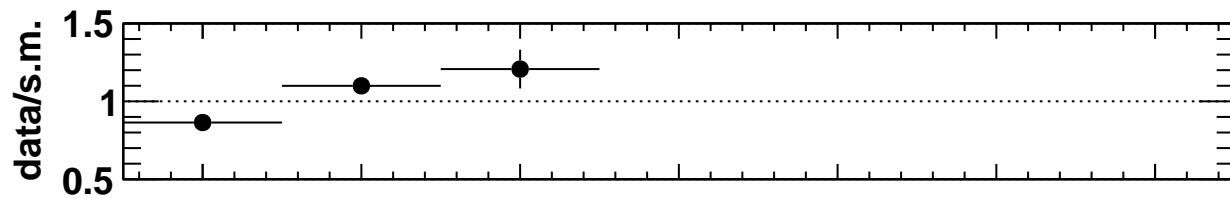
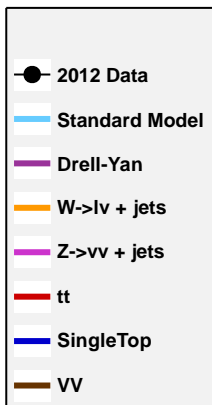


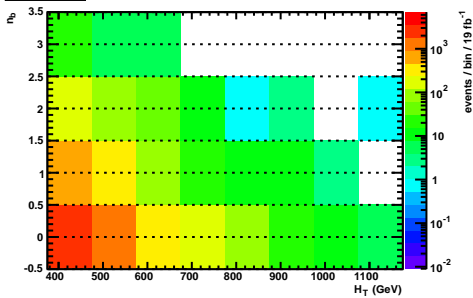
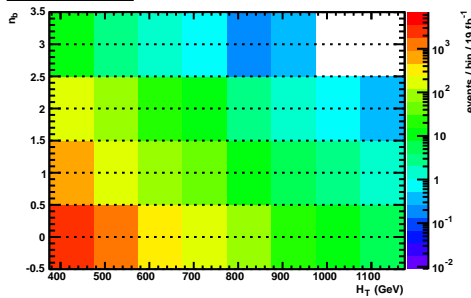
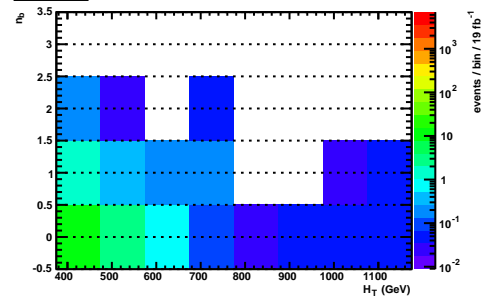
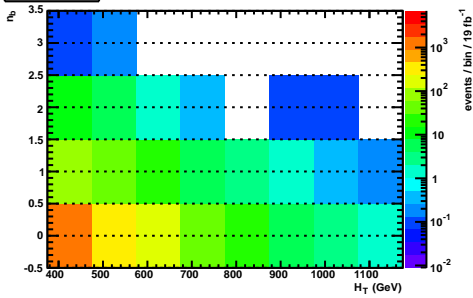
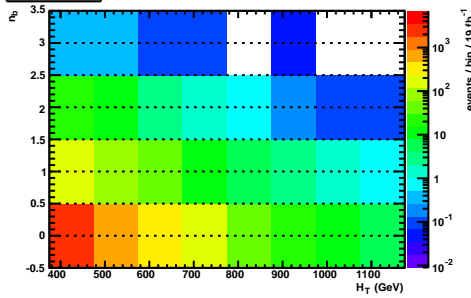
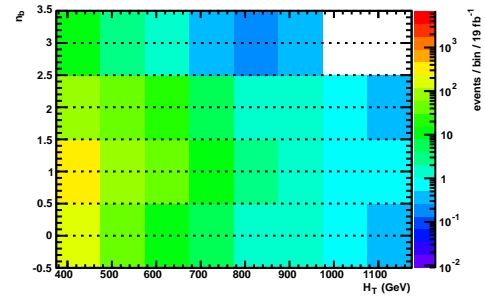
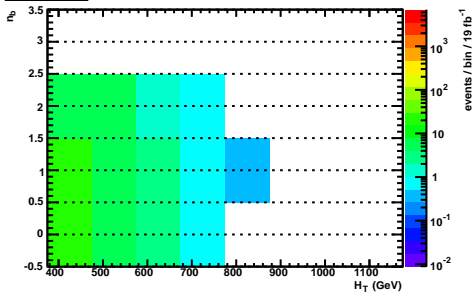
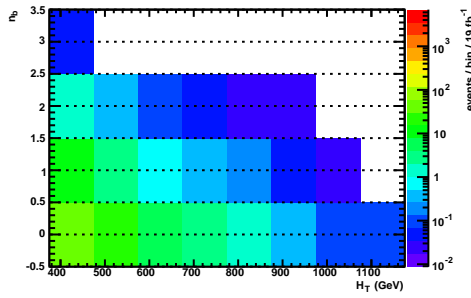
|                                    |        |
|------------------------------------|--------|
| xcak5JetPFPIndicesBtagged2Pat_ge4J |        |
| Entries                            | 1647   |
| Mean                               | 0.4936 |
| RMS                                | 0.7383 |
| Underflow                          | 0      |
| Overflow                           | 0      |
| Integral                           | 1647   |



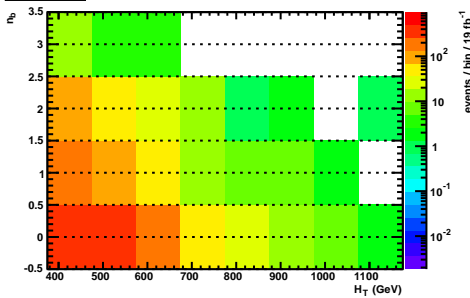


|                                    |        |
|------------------------------------|--------|
| xcak5JetPFPIndicesBtagged2Pat_le3j |        |
| Entries                            | 4511   |
| Mean                               | 0.1909 |
| RMS                                | 0.4639 |
| Underflow                          | 0      |
| Overflow                           | 0      |
| Integral                           | 4511   |

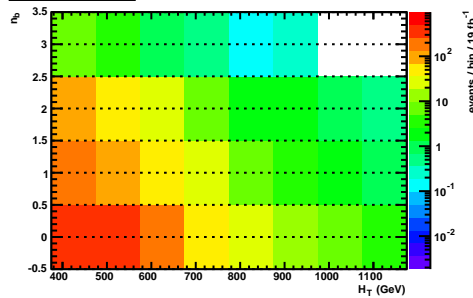


**2012 Data****Standard Model****Drell-Yan****W->lv + jets****Z->vv + jets****tt****SingleTop****VV**

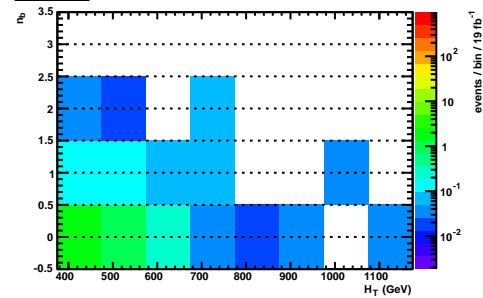
2012 Data



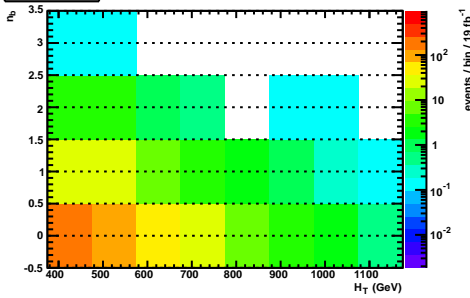
Standard Model



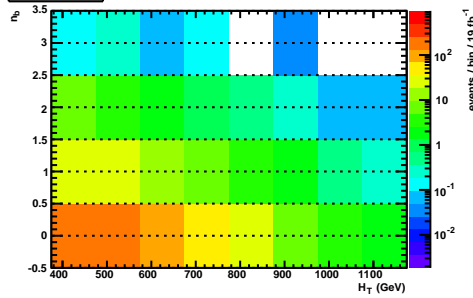
Drell-Yan



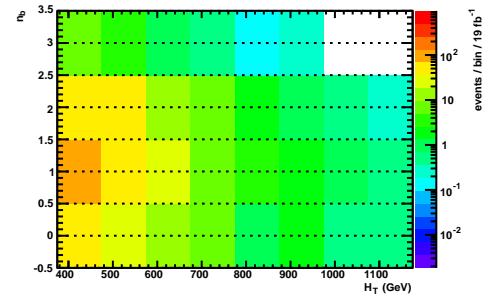
W-&gt;lv + jets



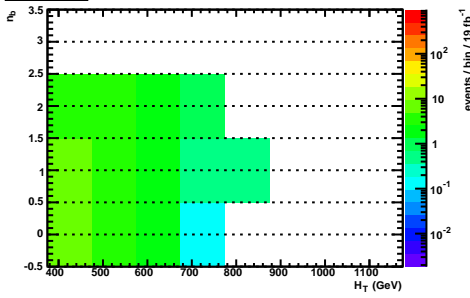
Z-&gt;vv + jets



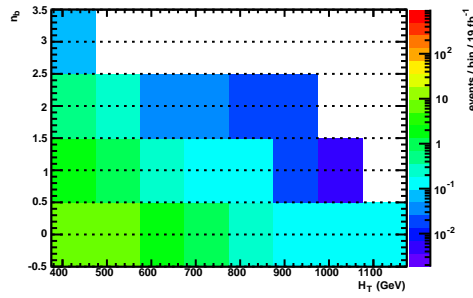
tt



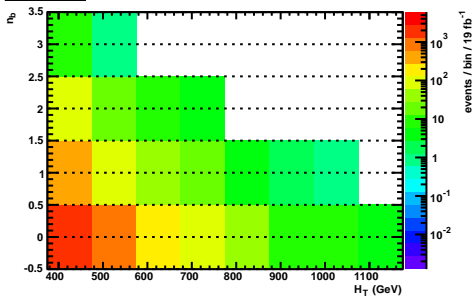
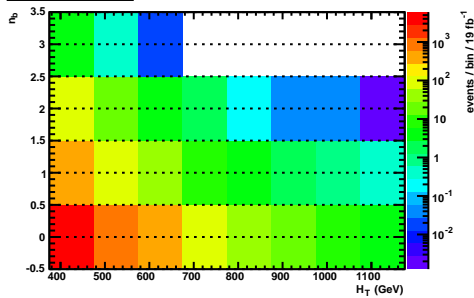
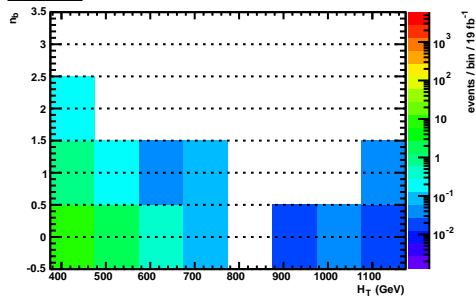
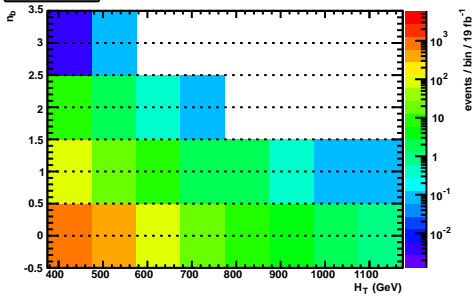
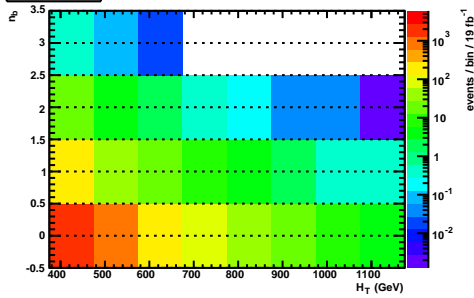
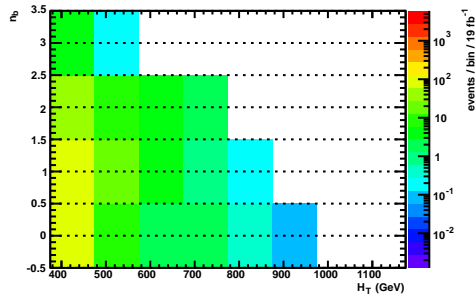
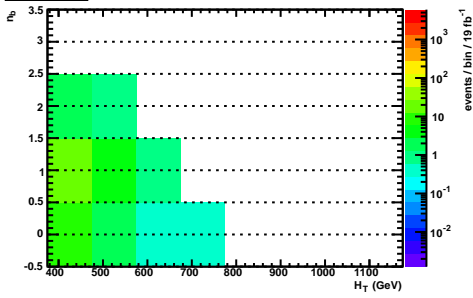
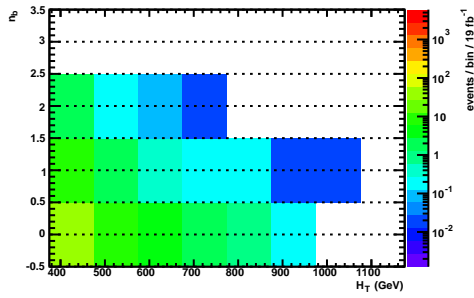
SingleTop

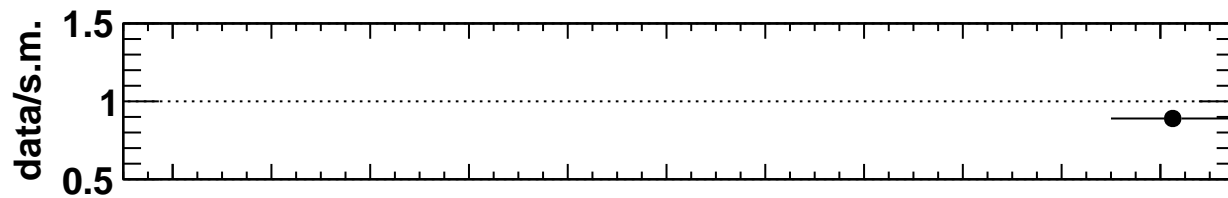
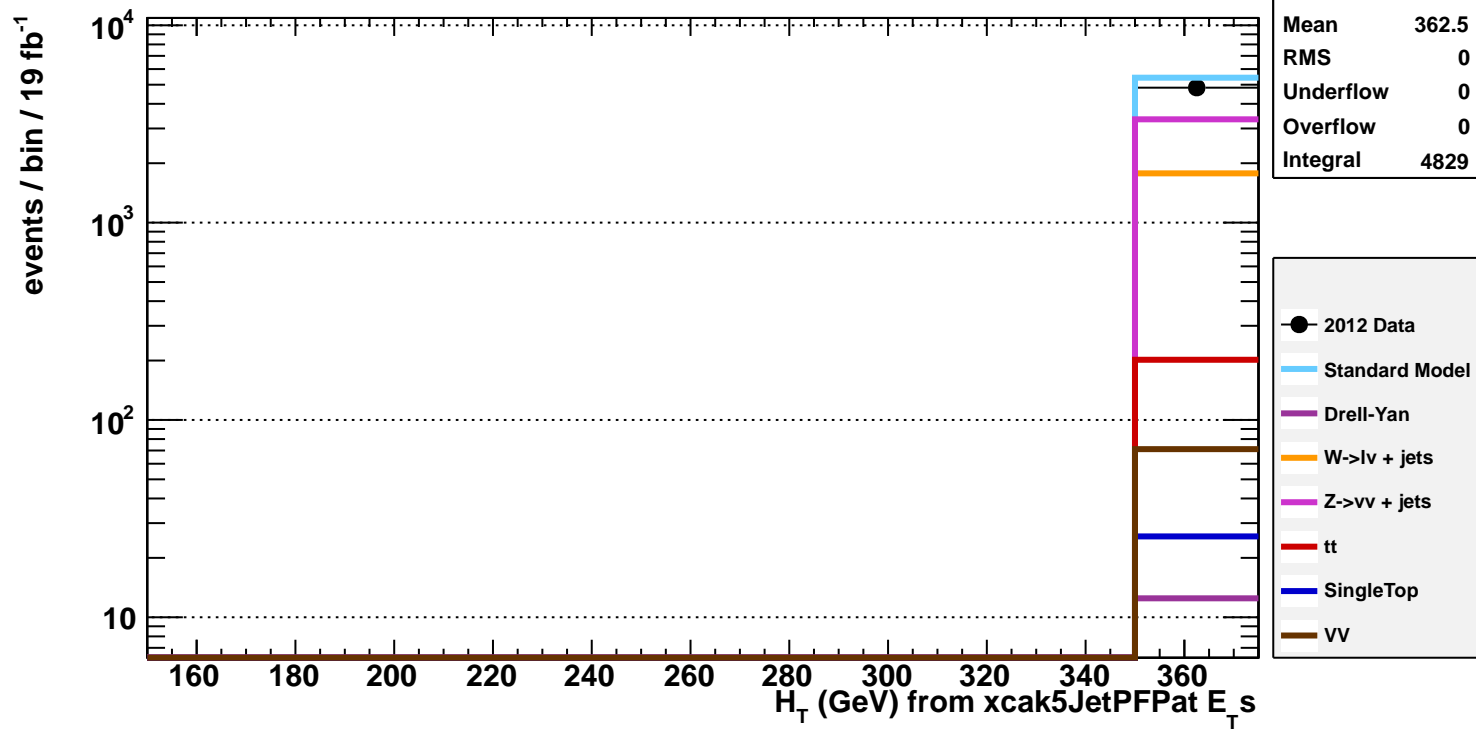


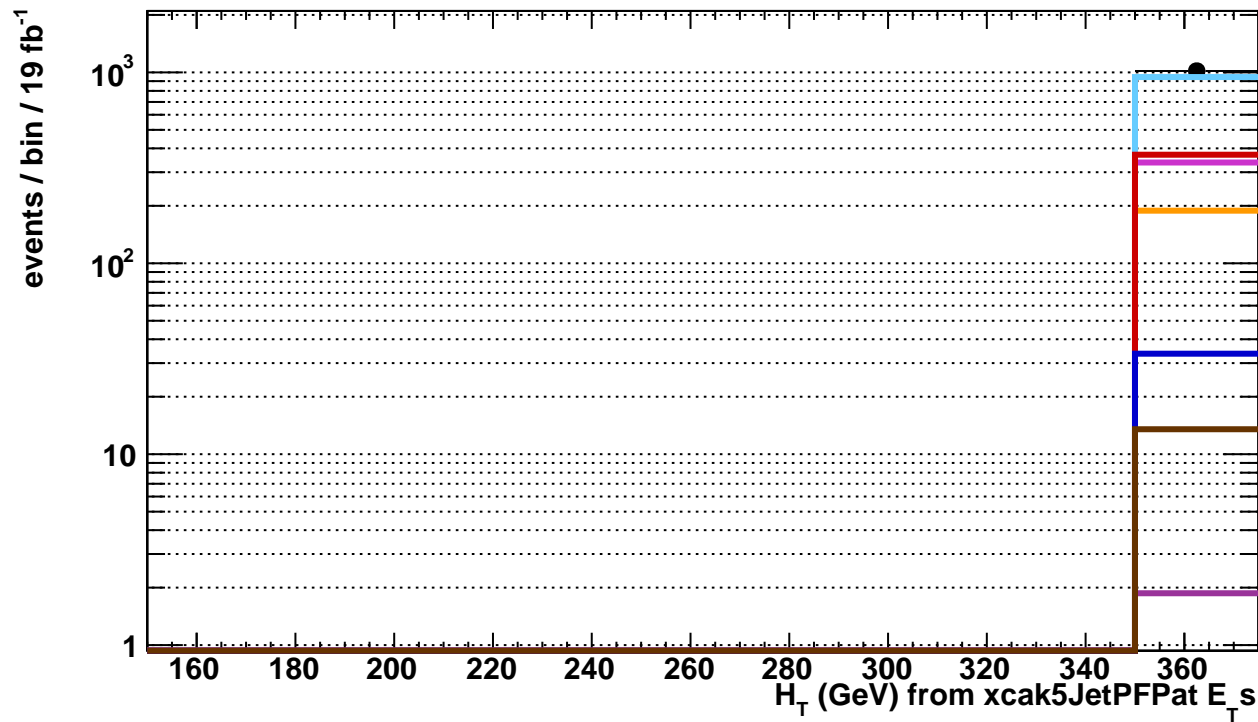
VV



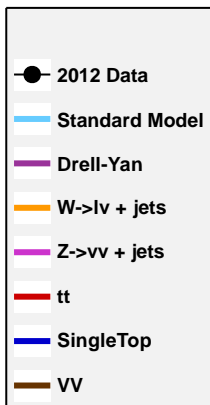


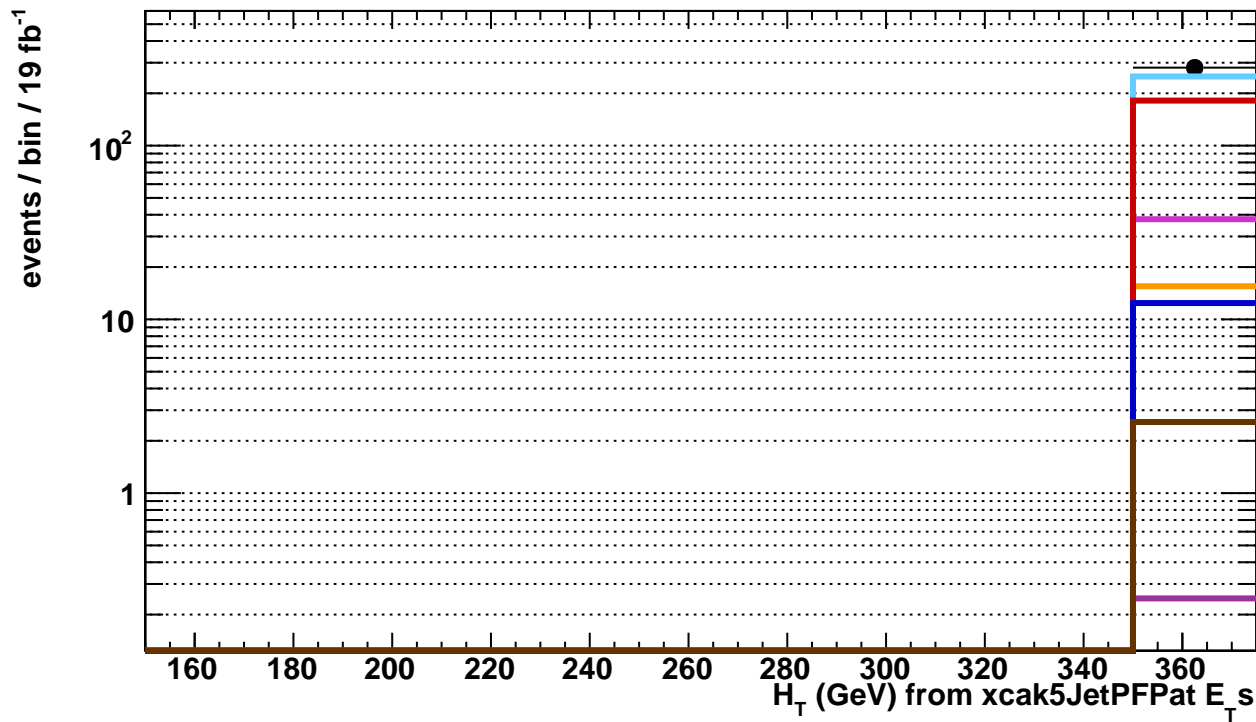
**2012 Data****Standard Model****Drell-Yan****W->lv + jets****Z->vv + jets****tt****SingleTop****vv**



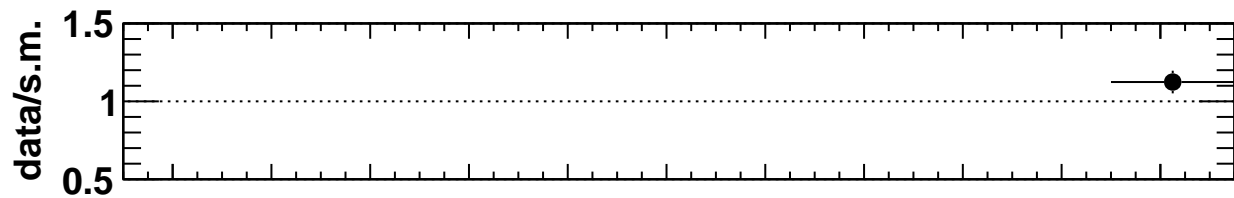
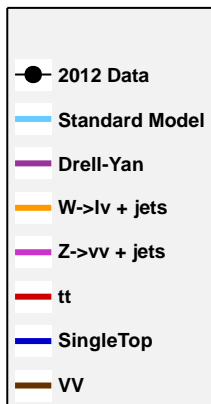


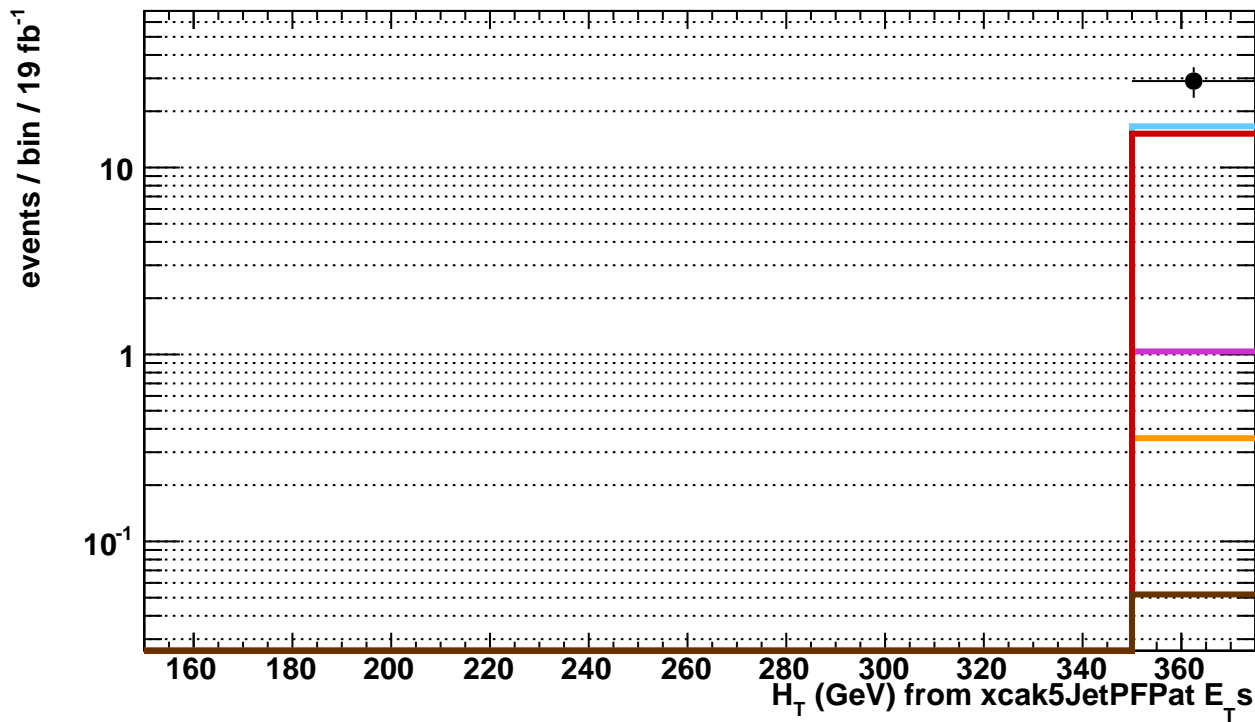
| xcak5JetPFSumETPat_eq1b |       |
|-------------------------|-------|
| Entries                 | 1017  |
| Mean                    | 362.5 |
| RMS                     | 0     |
| Underflow               | 0     |
| Overflow                | 0     |
| Integral                | 1017  |



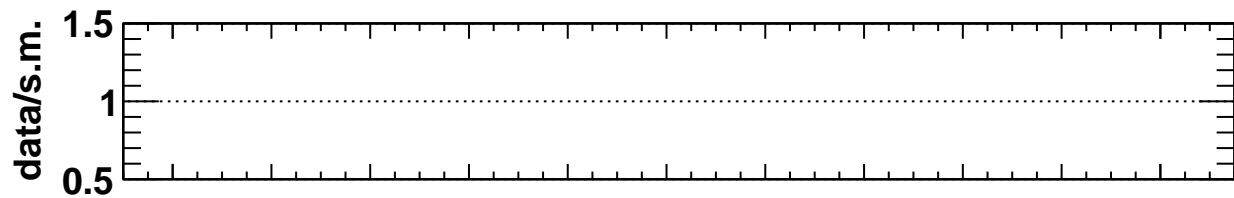
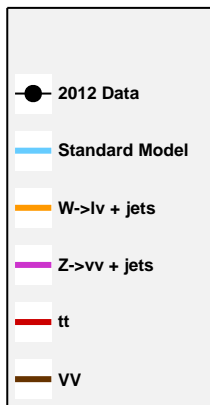


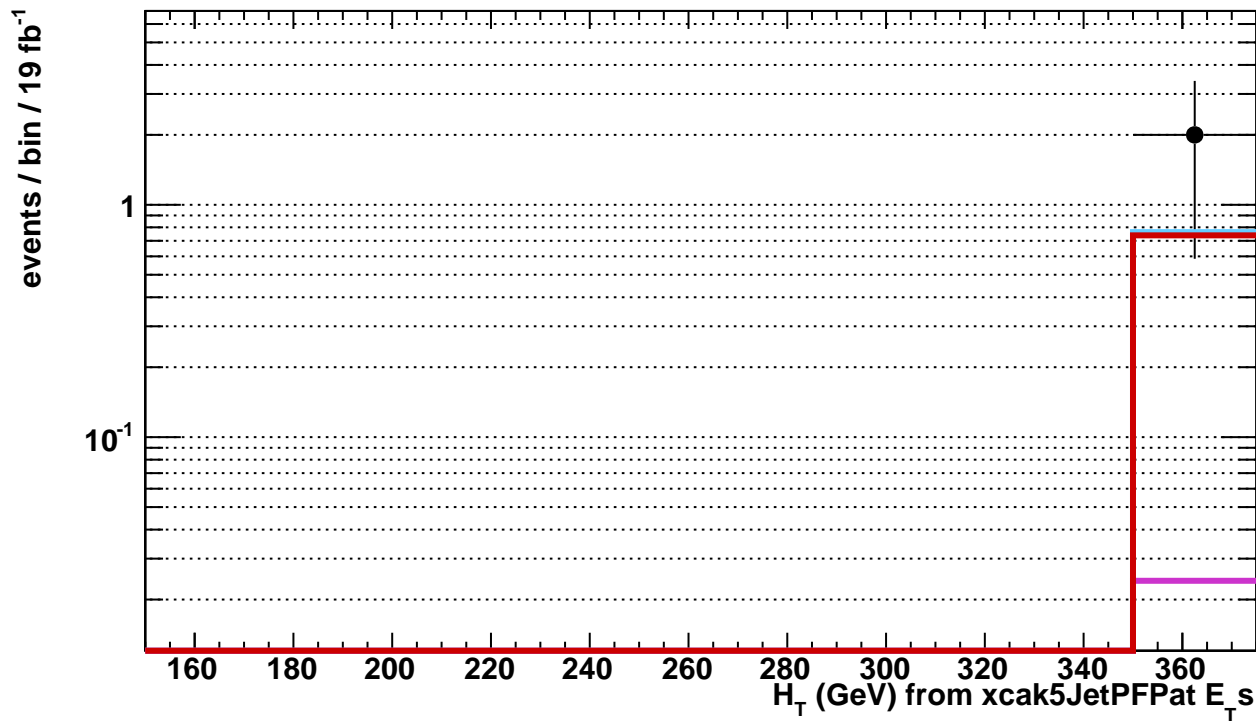
| xcak5JetPFSumEtPat_eq2b |       |
|-------------------------|-------|
| Entries                 | 281   |
| Mean                    | 362.5 |
| RMS                     | 0     |
| Underflow               | 0     |
| Overflow                | 0     |
| Integral                | 281   |



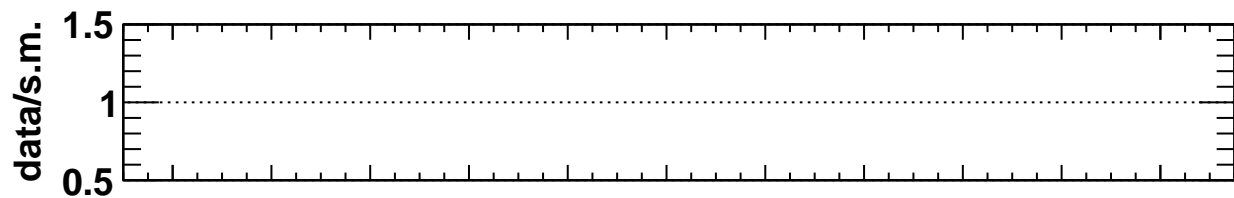
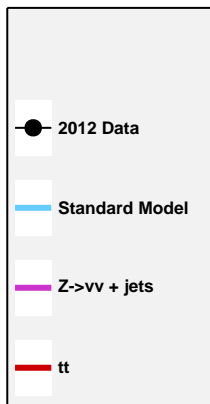


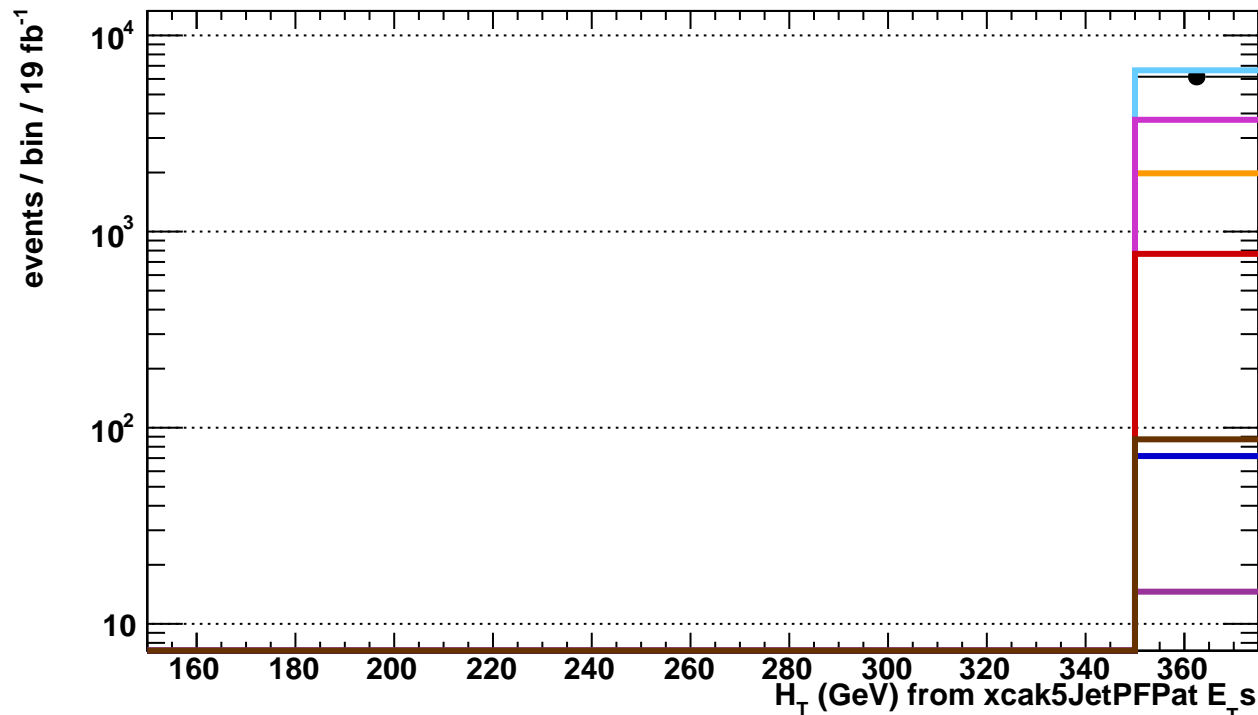
|                         |       |
|-------------------------|-------|
| xcak5JetPFSumEtPat_eq3b |       |
| Entries                 | 29    |
| Mean                    | 362.5 |
| RMS                     | 0     |
| Underflow               | 0     |
| Overflow                | 0     |
| Integral                | 29    |





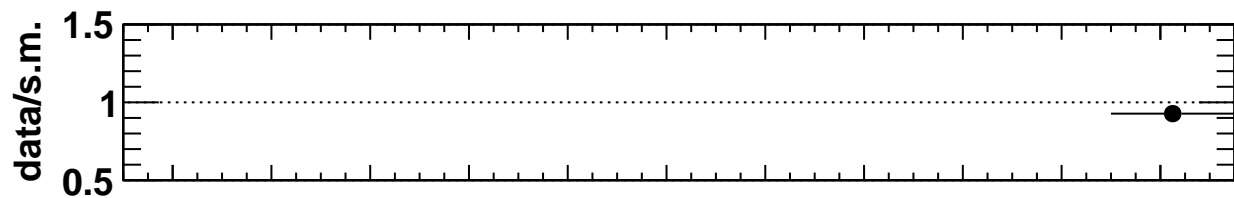
| xcak5JetPFSumEtPat_ge4b |       |
|-------------------------|-------|
| Entries                 | 2     |
| Mean                    | 362.5 |
| RMS                     | 0     |
| Underflow               | 0     |
| Overflow                | 0     |
| Integral                | 2     |

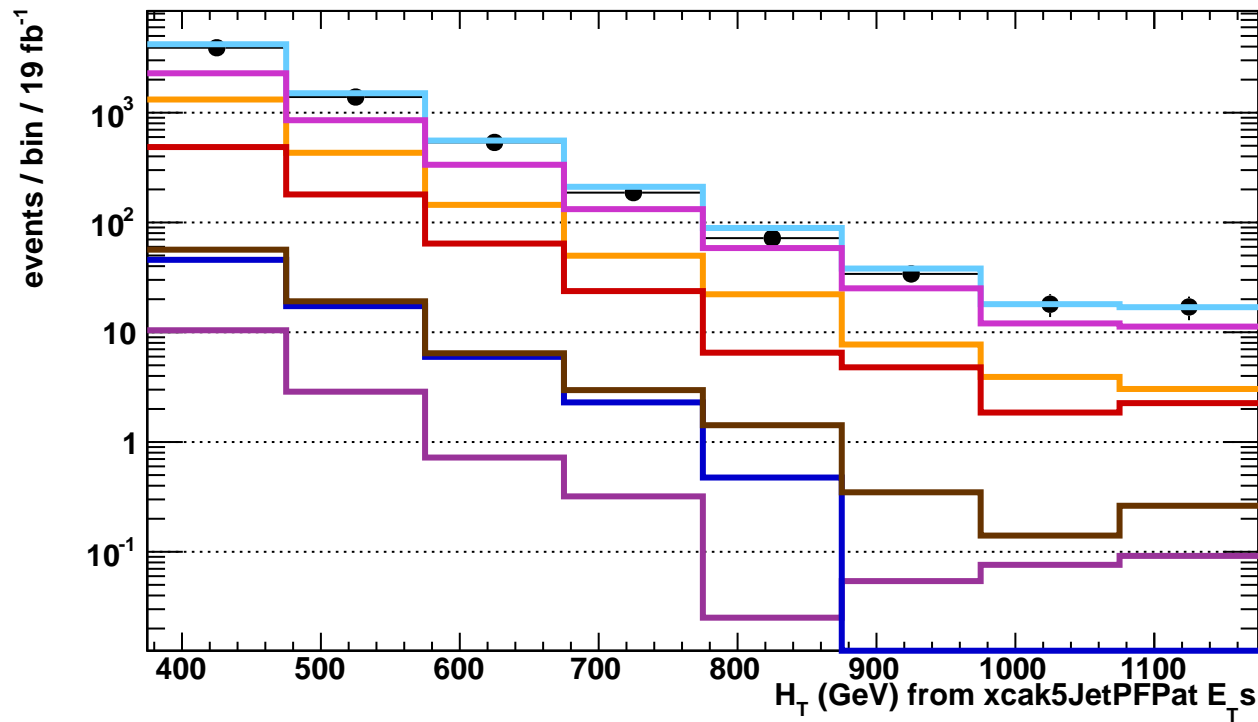




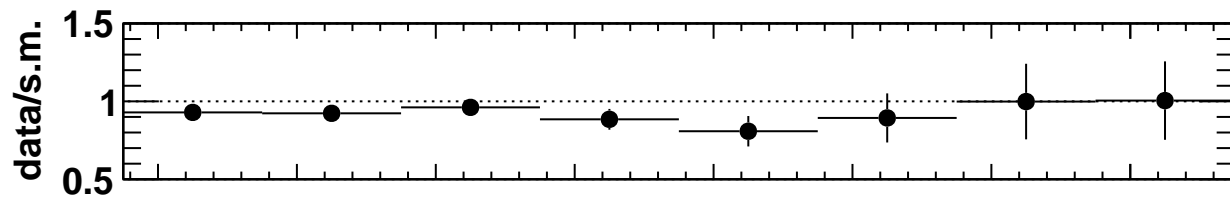
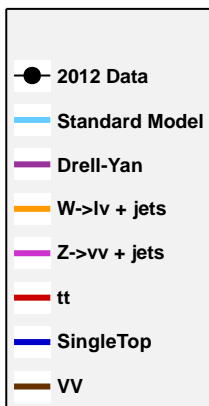
| xcak5JetPFSumEtPat |       |
|--------------------|-------|
| Entries            | 6158  |
| Mean               | 362.5 |
| RMS                | 0     |
| Underflow          | 0     |
| Overflow           | 0     |
| Integral           | 6158  |

|                |
|----------------|
| 2012 Data      |
| Standard Model |
| Drell-Yan      |
| W->lv + jets   |
| Z->vv + jets   |
| tt             |
| SingleTop      |
| VV             |

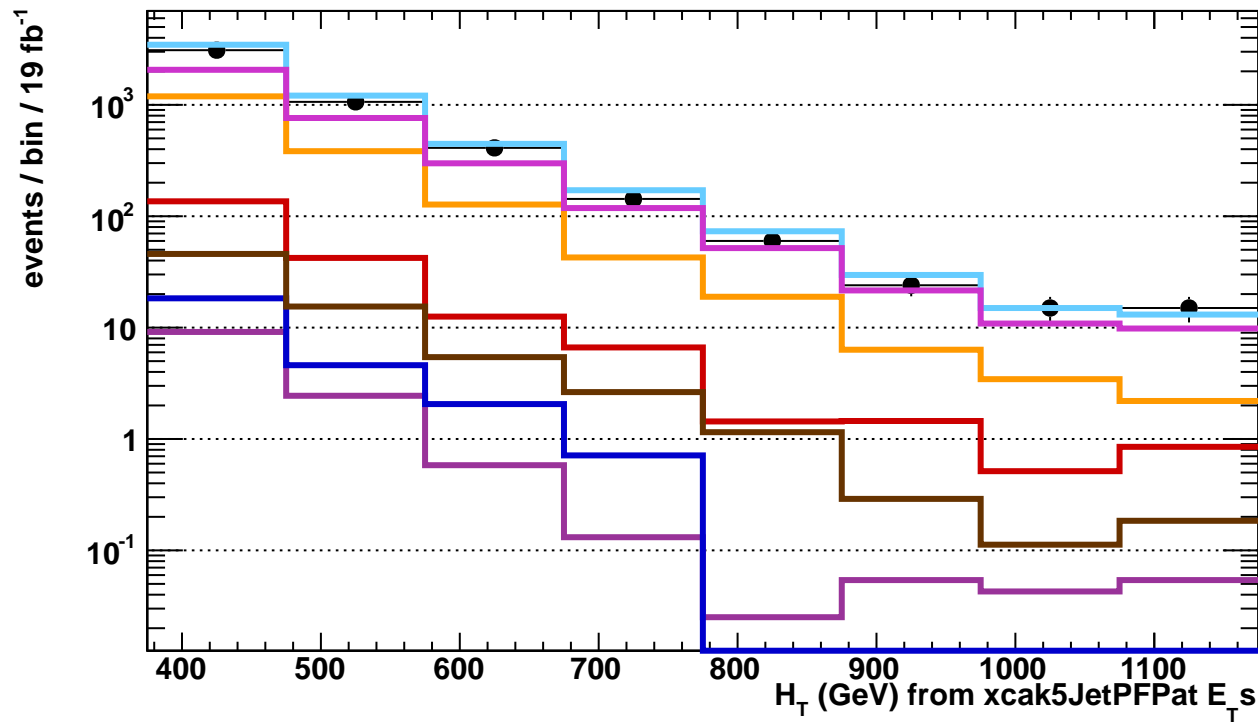




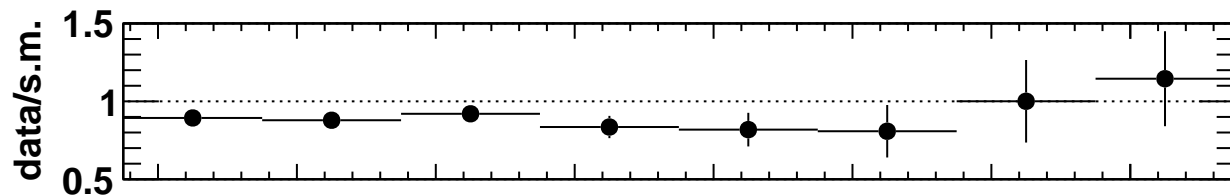
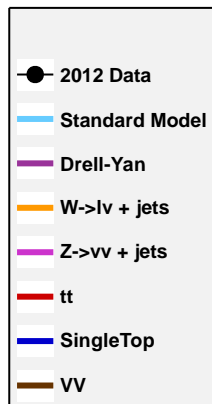
|                    |       |
|--------------------|-------|
| xcak5JetPFSumEtPat |       |
| Entries            | 6158  |
| Mean               | 485.2 |
| RMS                | 102.5 |
| Underflow          | 0     |
| Overflow           | 0     |
| Integral           | 6158  |

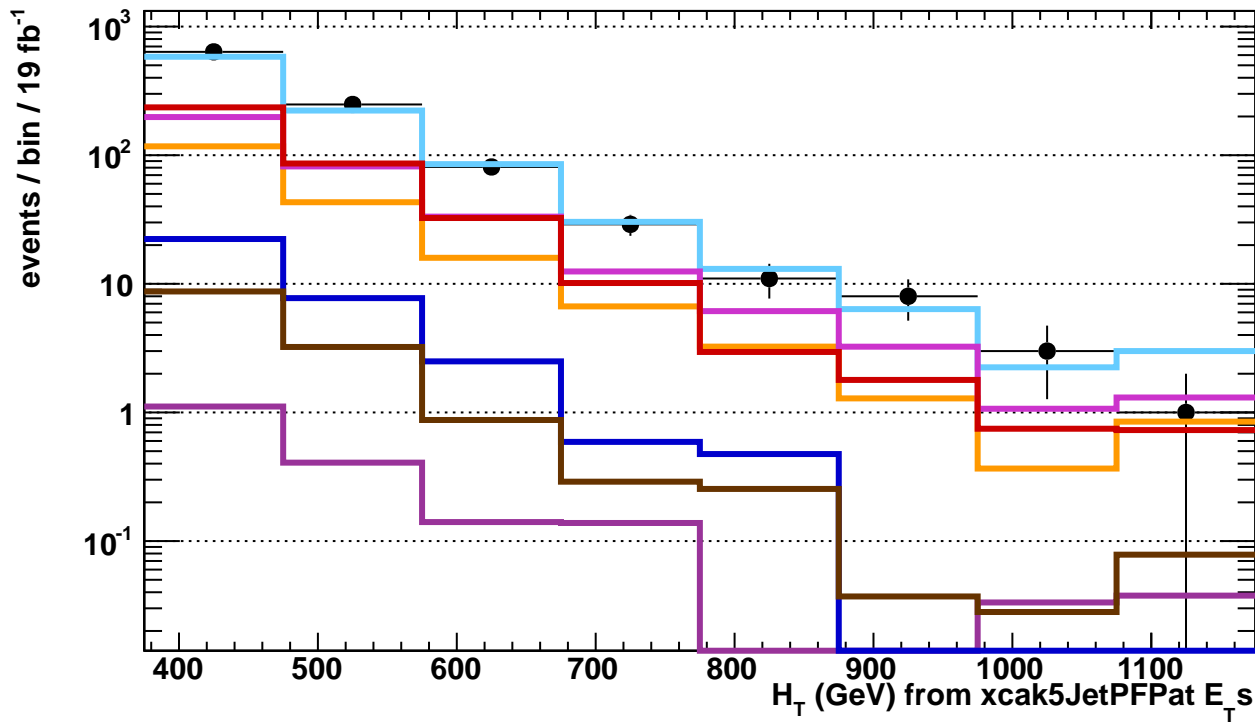




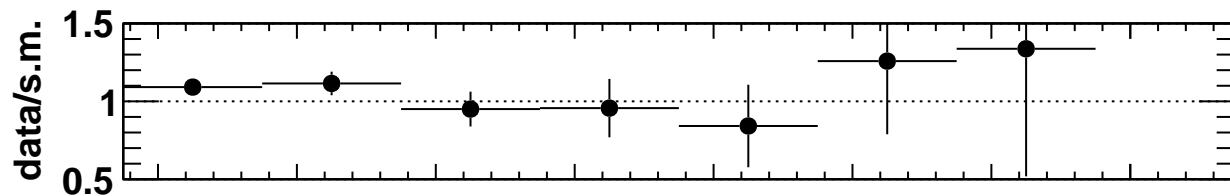


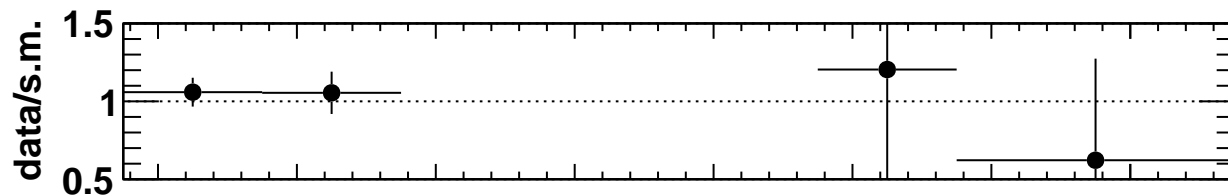
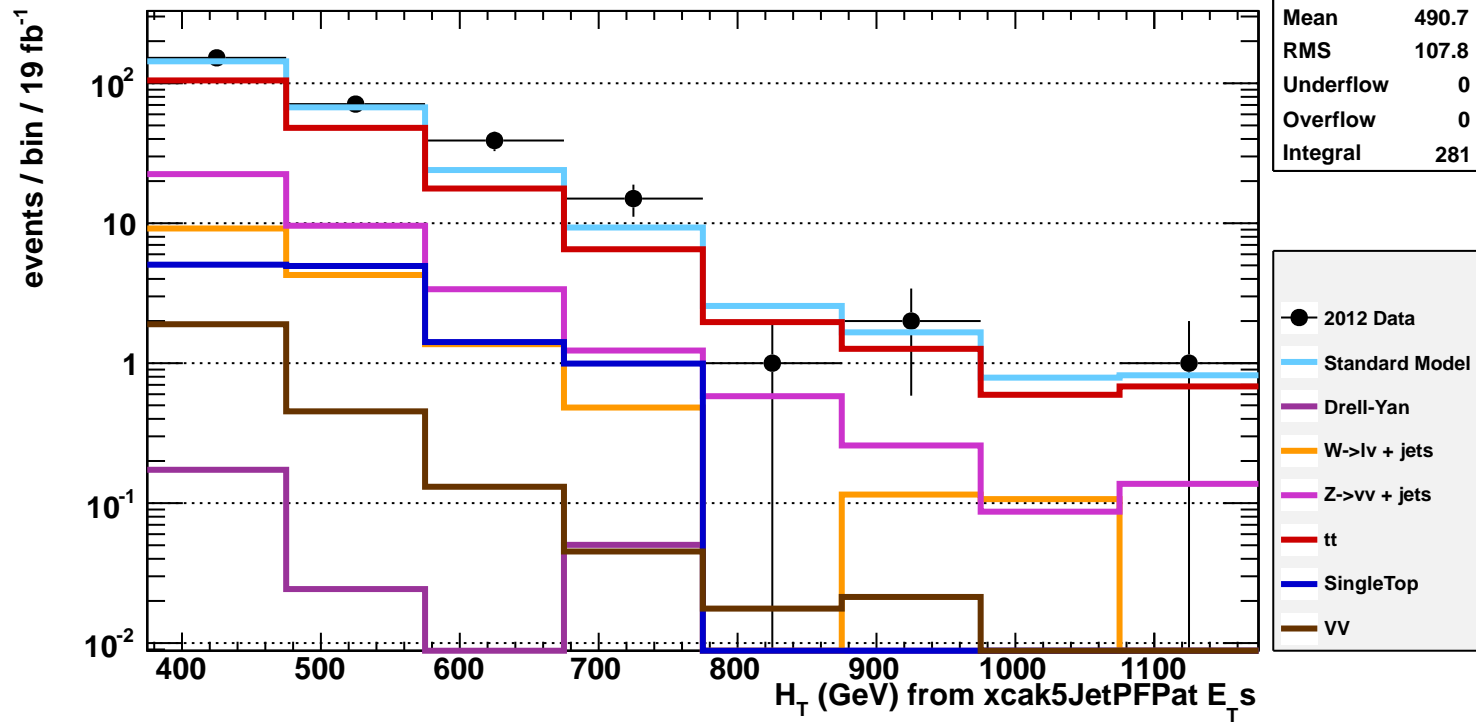
|                            |       |
|----------------------------|-------|
| xcak5JetPFPatSumETPat_eq0b |       |
| Entries                    | 4829  |
| Mean                       | 484.4 |
| RMS                        | 103   |
| Underflow                  | 0     |
| Overflow                   | 0     |
| Integral                   | 4829  |

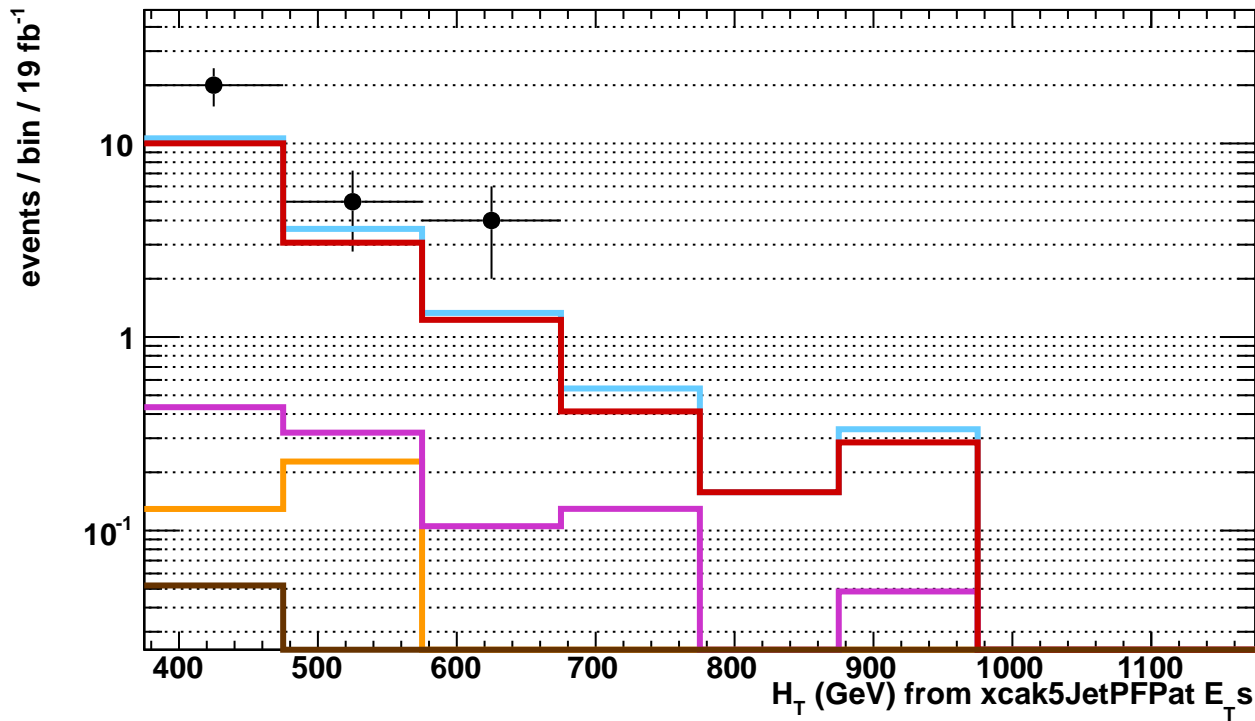




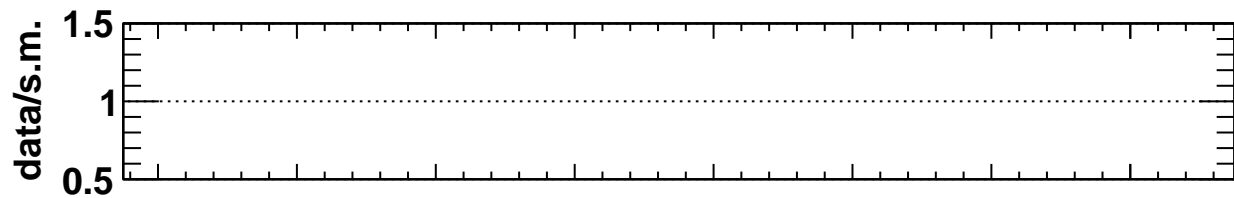
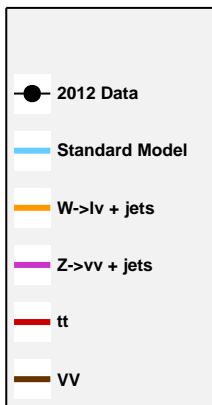
| xcak5JetPFSumETPat_eq1b |       |
|-------------------------|-------|
| Entries                 | 1017  |
| Mean                    | 484.6 |
| RMS                     | 99.4  |
| Underflow               | 0     |
| Overflow                | 0     |
| Integral                | 1017  |

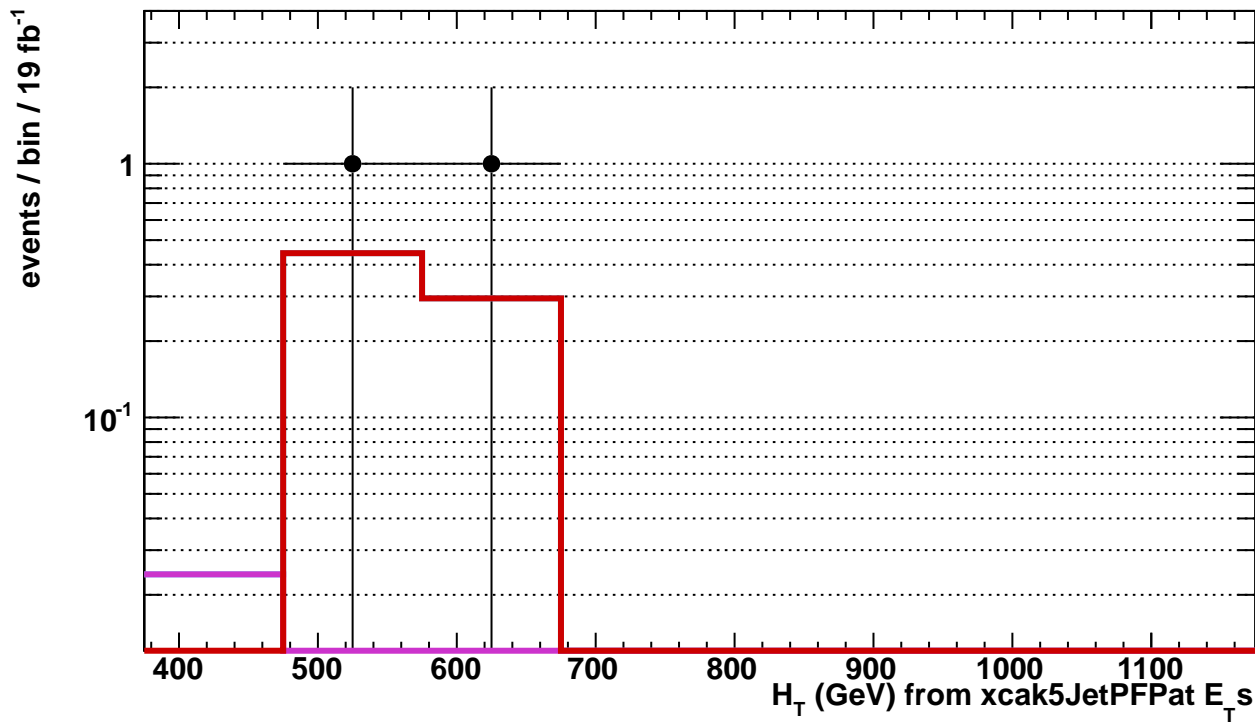




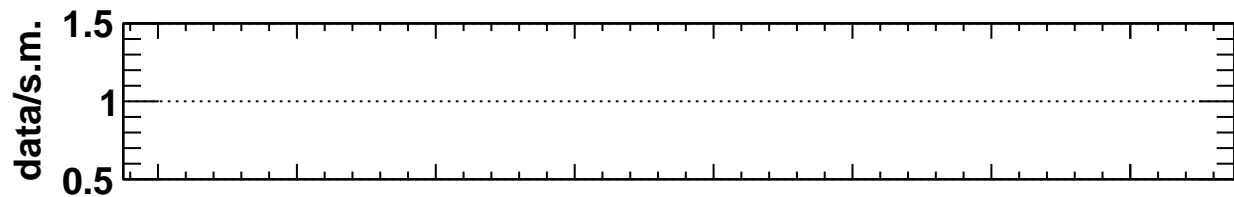
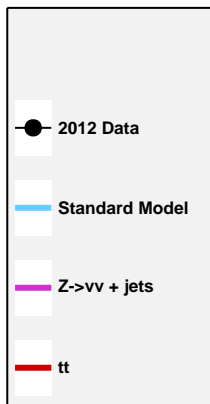


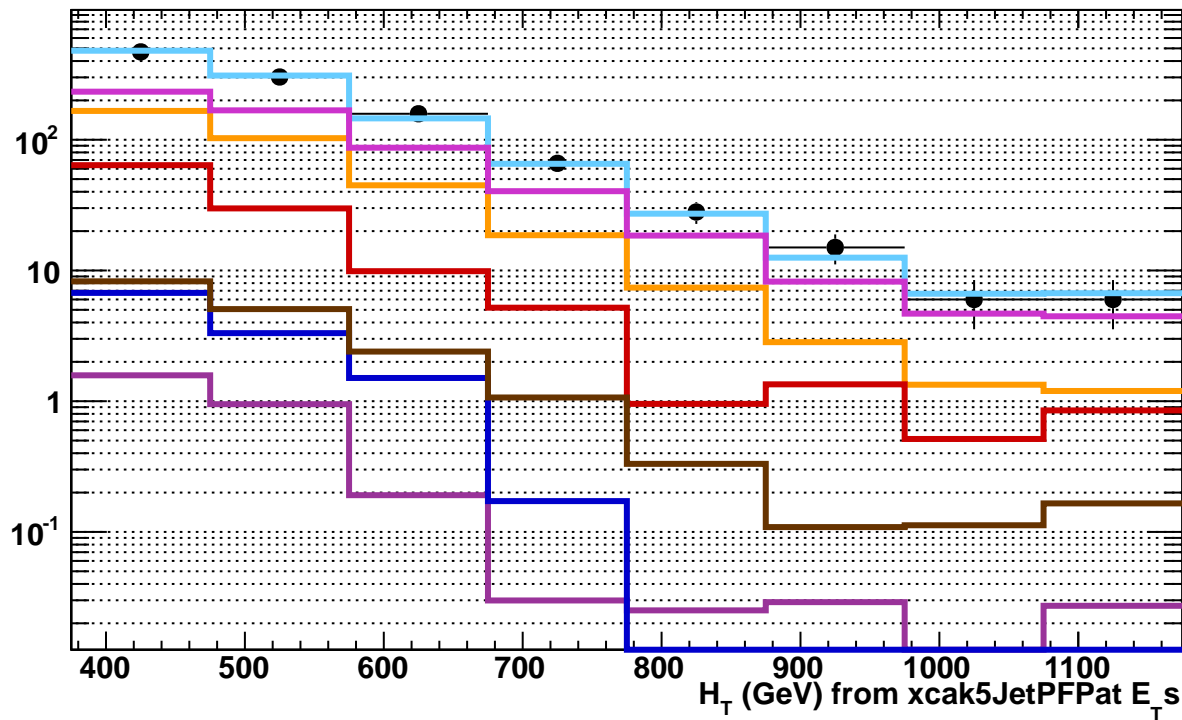
|                         |       |
|-------------------------|-------|
| xcak5JetPFSumETPat_eq3b |       |
| Entries                 | 29    |
| Mean                    | 475.5 |
| RMS                     | 80.73 |
| Underflow               | 0     |
| Overflow                | 0     |
| Integral                | 29    |





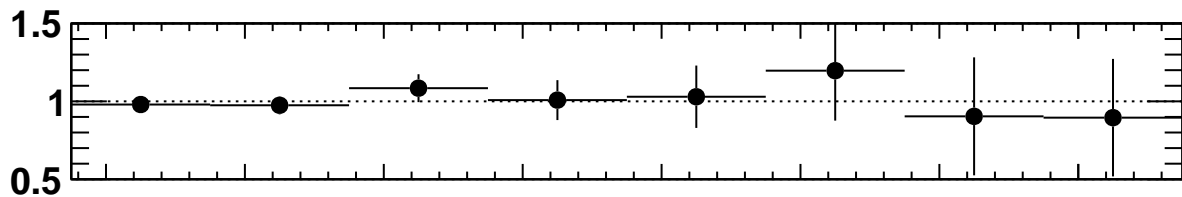
| xcak5JetPFSumEtPat_ge4b |       |
|-------------------------|-------|
| Entries                 | 2     |
| Mean                    | 594.7 |
| RMS                     | 27.75 |
| Underflow               | 0     |
| Overflow                | 0     |
| Integral                | 2     |

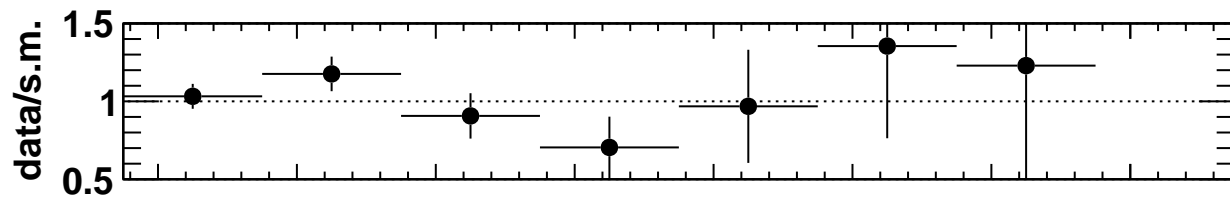
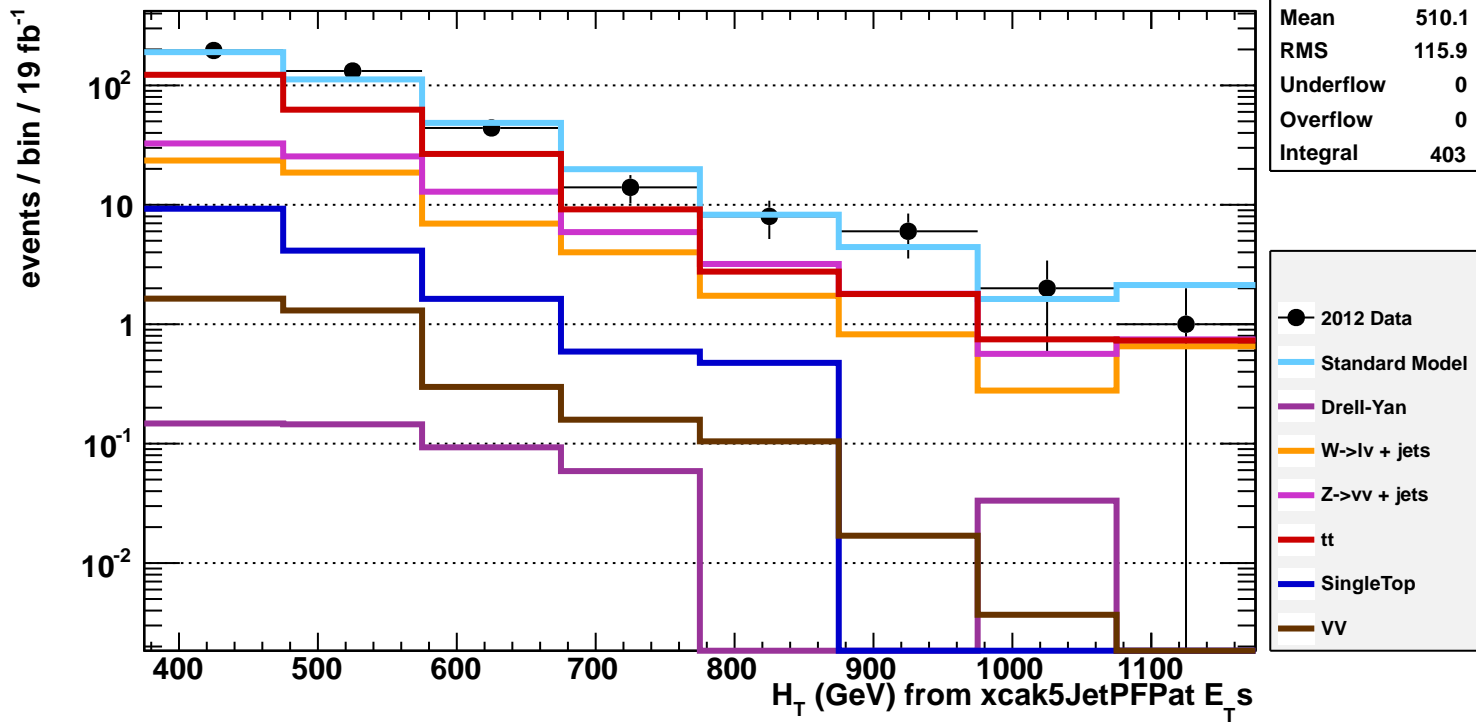


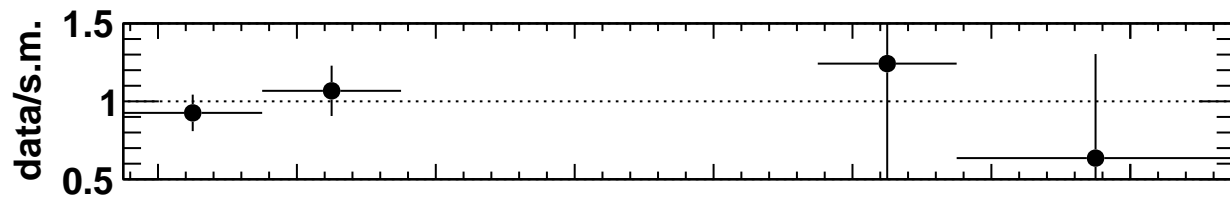
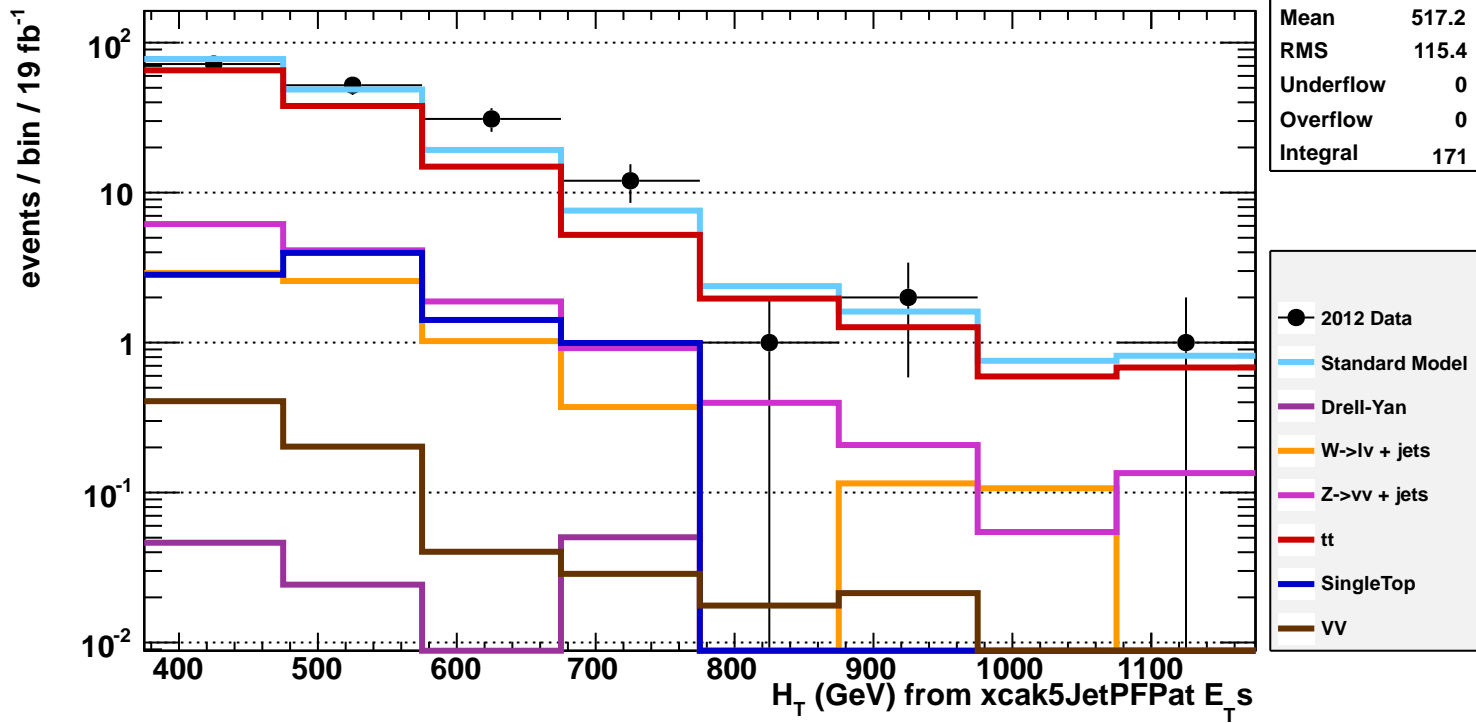
events / bin / 19 fb<sup>-1</sup>

|                              |       |
|------------------------------|-------|
| xcak5JetPFSumEtPat_ge4j_eq0b |       |
| Entries                      | 1051  |
| Mean                         | 527.9 |
| RMS                          | 129   |
| Underflow                    | 0     |
| Overflow                     | 0     |
| Integral                     | 1051  |

data/s.m.



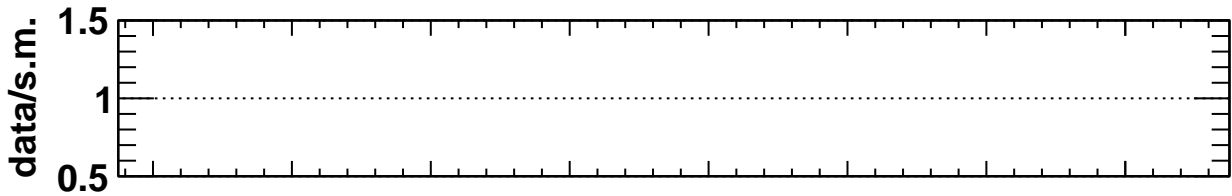
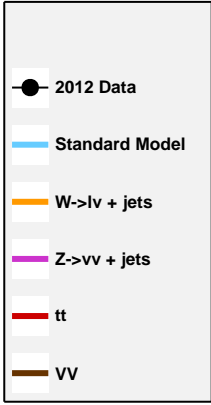
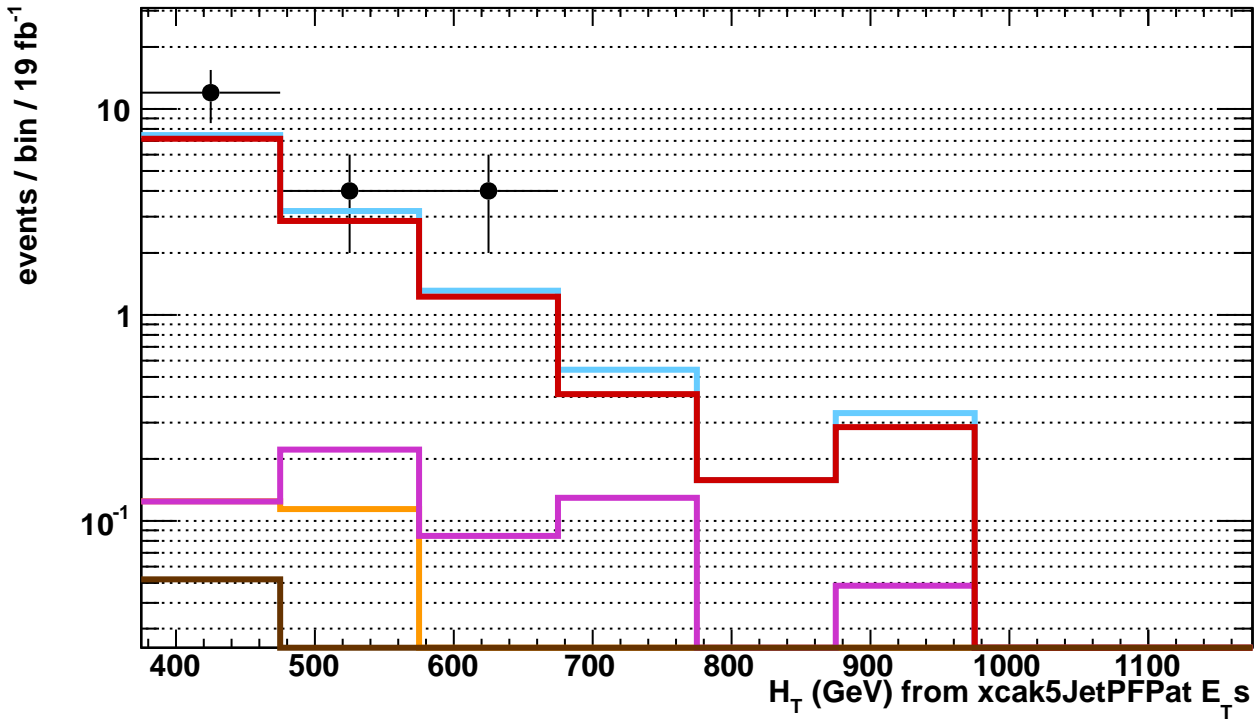




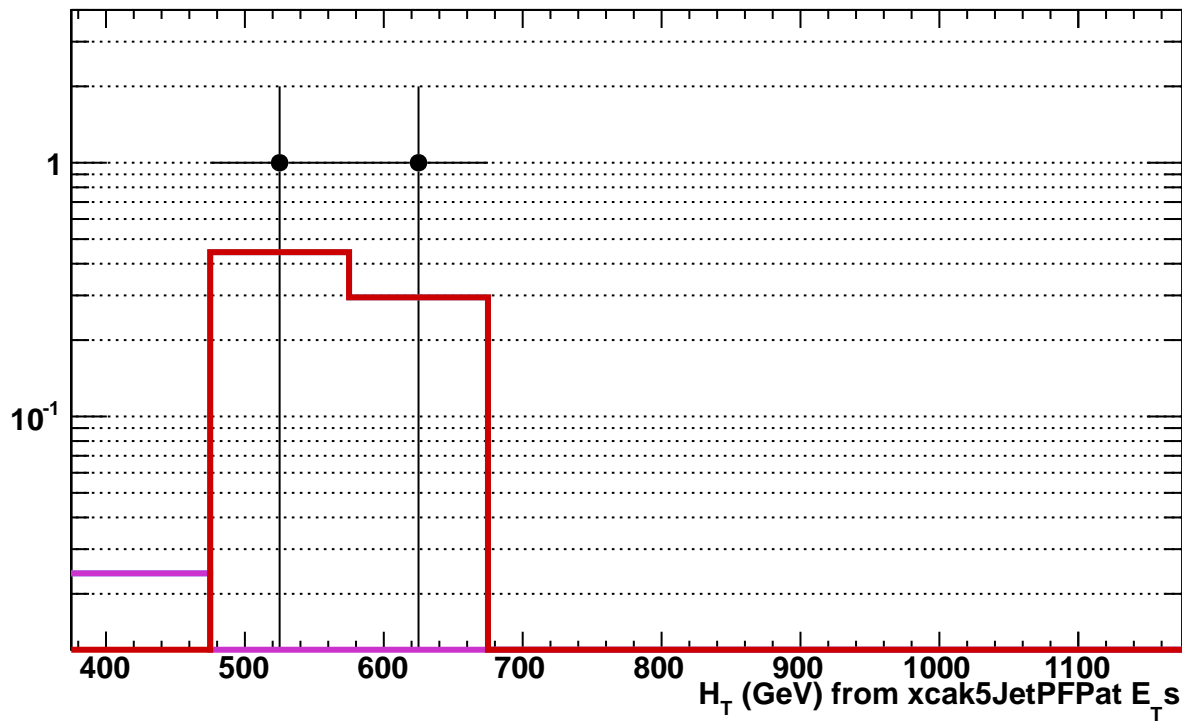


xcak5JetPFSumEtPat\_ge4j\_eq3b

|           |       |
|-----------|-------|
| Entries   | 20    |
| Mean      | 493.1 |
| RMS       | 87.21 |
| Underflow | 0     |
| Overflow  | 0     |
| Integral  | 20    |

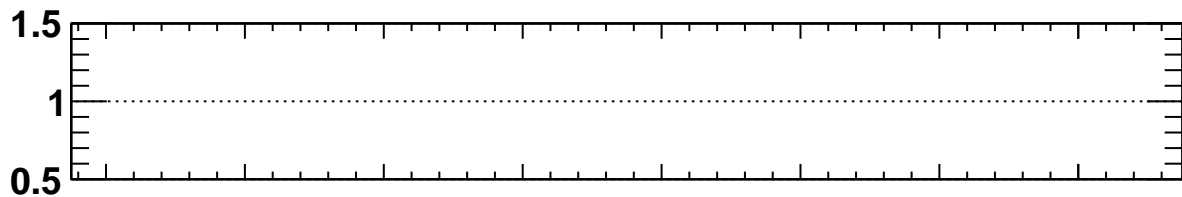


events / bin / 19 fb<sup>-1</sup>

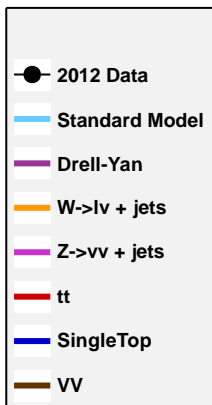
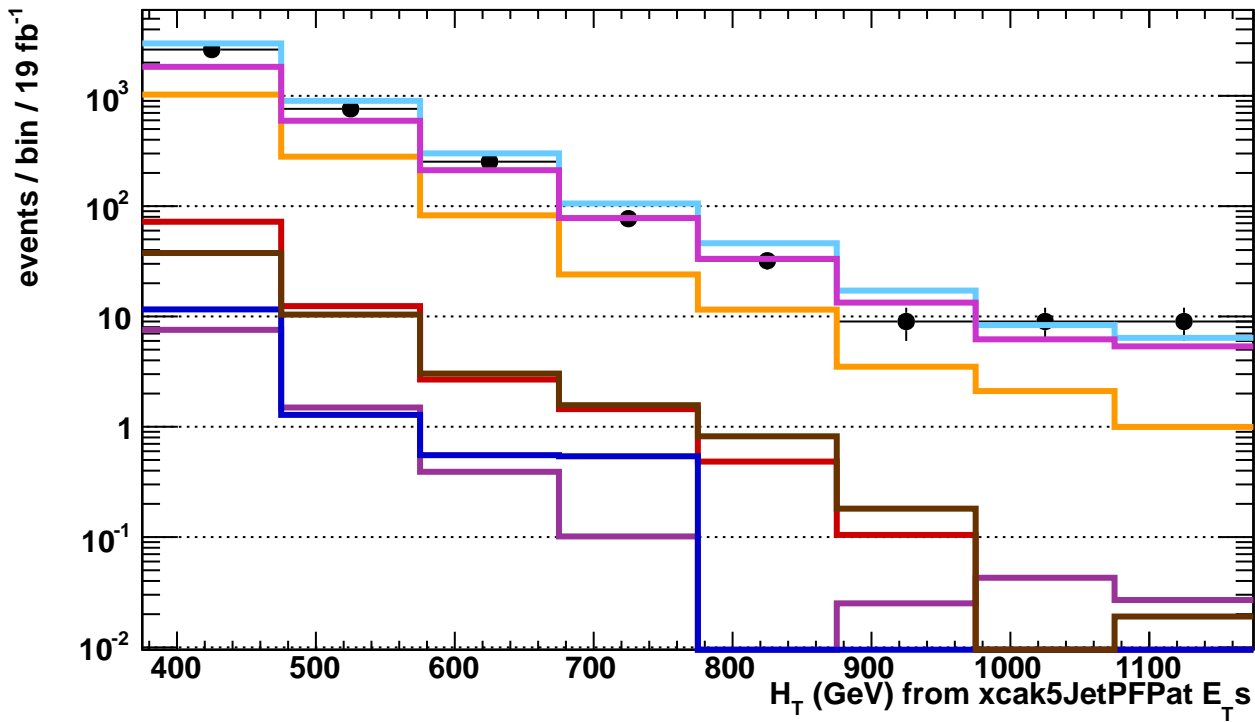


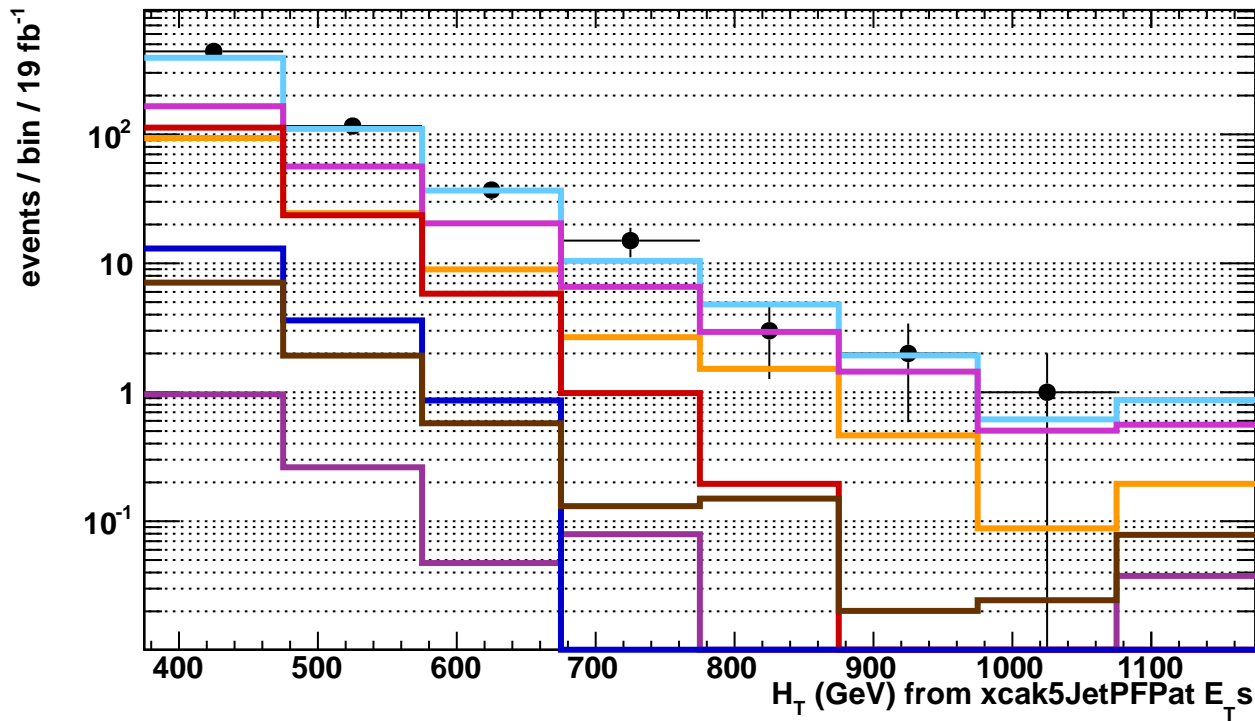
|                              |       |
|------------------------------|-------|
| xcak5JetPFSumEtPat_ge4j_ge4b |       |
| Entries                      | 2     |
| Mean                         | 594.7 |
| RMS                          | 27.75 |
| Underflow                    | 0     |
| Overflow                     | 0     |
| Integral                     | 2     |

data/s.m.



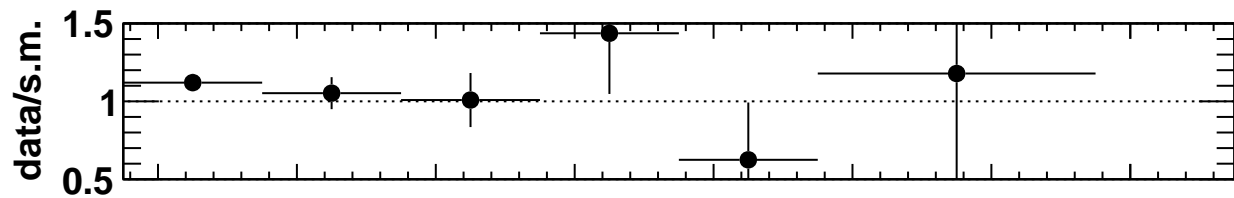
|                              |       |
|------------------------------|-------|
| xcak5JetPFSumEtPat_le3j_eq0b |       |
| Entries                      | 3778  |
| Mean                         | 472.4 |
| RMS                          | 90.9  |
| Underflow                    | 0     |
| Overflow                     | 0     |
| Integral                     | 3778  |



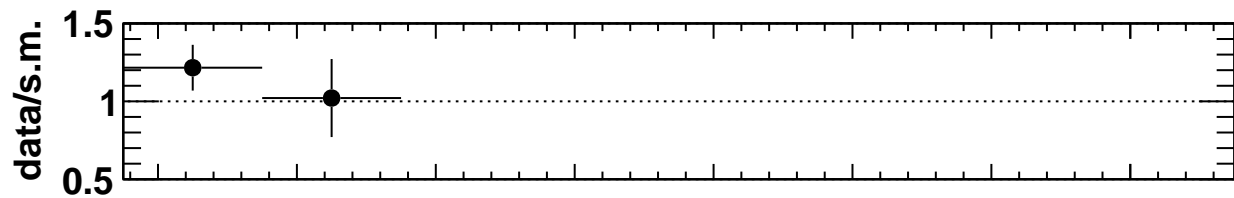
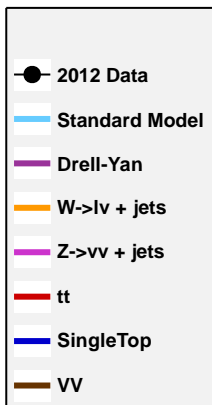
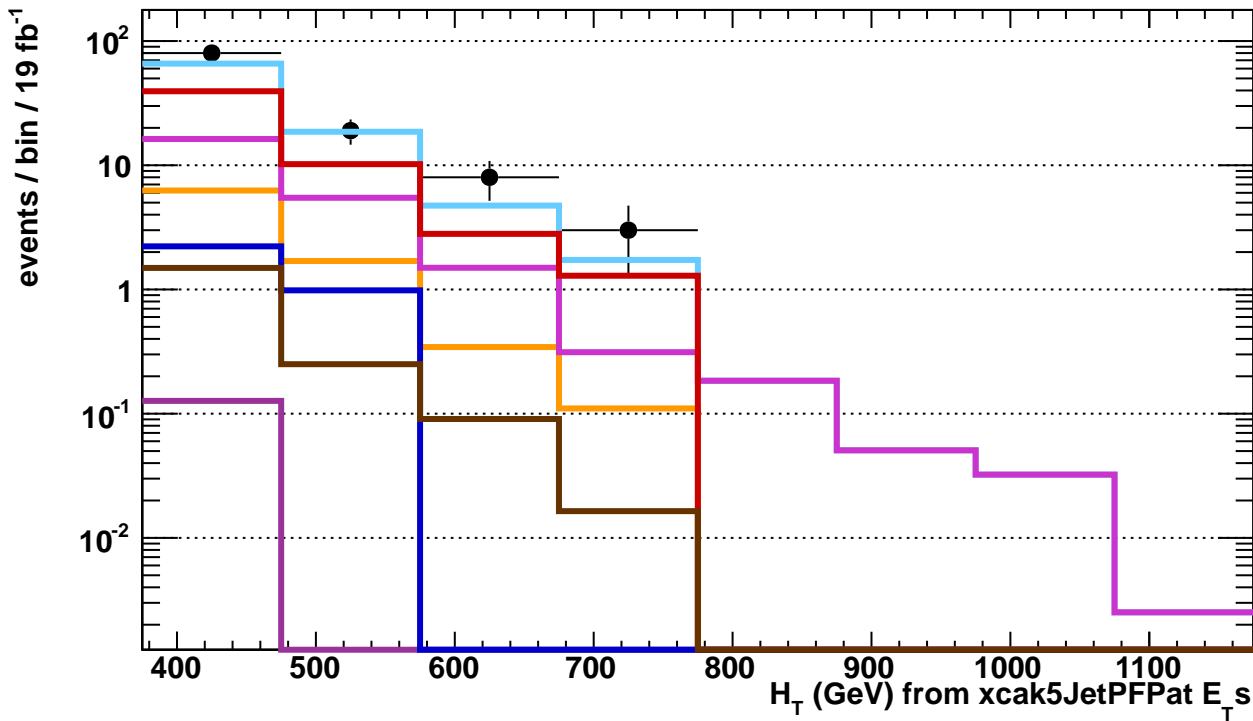


|                              |       |
|------------------------------|-------|
| xcak5JetPFSumEtPat_le3j_eq1b |       |
| Entries                      | 614   |
| Mean                         | 457.1 |
| RMS                          | 87.5  |
| Underflow                    | 0     |
| Overflow                     | 0     |
| Integral                     | 614   |

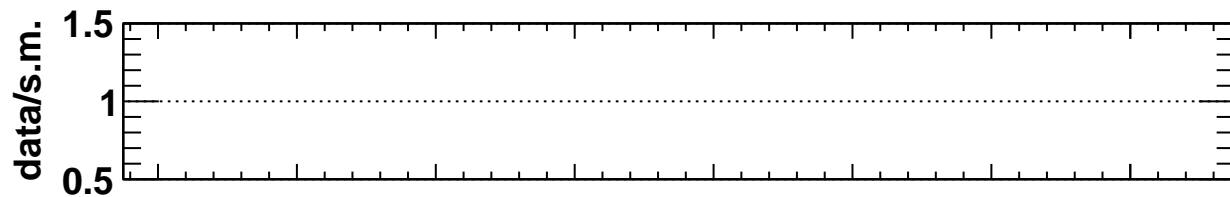
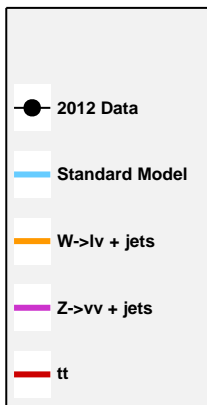
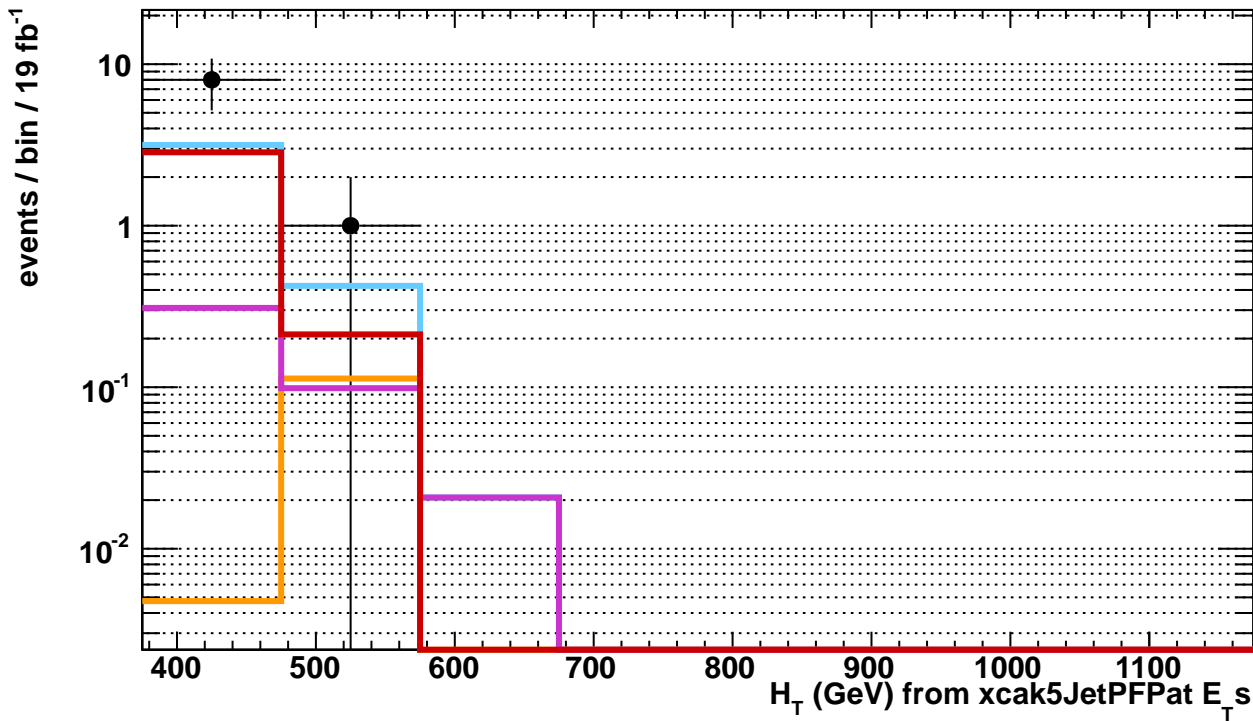
|                |
|----------------|
| ● 2012 Data    |
| Standard Model |
| Drell-Yan      |
| W->lv + jets   |
| Z->vv + jets   |
| tt             |
| SingleTop      |
| VV             |



|                              |       |
|------------------------------|-------|
| xcak5JetPFSumEtPat_le3j_eq2b |       |
| Entries                      | 110   |
| Mean                         | 449.6 |
| RMS                          | 78.8  |
| Underflow                    | 0     |
| Overflow                     | 0     |
| Integral                     | 110   |



|                              |       |
|------------------------------|-------|
| xcak5JetPFSumEtPat_le3j_eq3b |       |
| Entries                      | 9     |
| Mean                         | 436.6 |
| RMS                          | 43.55 |
| Underflow                    | 0     |
| Overflow                     | 0     |
| Integral                     | 9     |



```

y: multiplicity                                0 <= photonIndicesPat <= 0
z: multiplicity                                0 <= muonIndicesPF <= 0
A: multiplicity                                0 <= electronIndicesUnmatchedPF <= 0
B: multiplicity                                0 <= photonIndicesUnmatchedPat <= 0
C: deadEcalFilter                             xcak5JetPFPat; dR>0.300 when deltaPhiStar<0.500
D: value                                       xcak5JetPFPmthhighPtPatOvermetP4TypeIPF<=1.25

E: value                                       PFRecHitSumPt<=30.00
F: value                                       0.55<=xcak5JetPFAlphaTETetPat
G: value                                       1.00<=hcalLaserEvent2012
H: value                                       1.00<=ecalLaserCalibEvent2012

[ jetSumPlots1 ]

J: value                                       475.00<=xcak5JetPFSumEtPat
K: value                                       575.00<=xcak5JetPFSumEtPat
L: value                                       675.00<=xcak5JetPFSumEtPat
M: value                                       775.00<=xcak5JetPFSumEtPat
N: value                                       875.00<=xcak5JetPFSumEtPat

O: value                                       975.00<=xcak5JetPFSumEtPat
P: value                                       1075.00<=xcak5JetPFSumEtPat

```

|                  | 2012 Data | Standard Mod | Drell-Yan W->lv + jets Z->vv + jets |             |             | tt          | SingleTop   | VV          | data/s.m. |
|------------------|-----------|--------------|-------------------------------------|-------------|-------------|-------------|-------------|-------------|-----------|
| y:               | 9779118   | 9.427(4)e+5  | 2.497(4)e+4                         | 2.473(2)e+5 | 8.736(5)e+4 | 4.797(3)e+5 | 7.93(2)e+4  | 2.397(5)e+4 | 10.374(6) |
| z:               | 9755783   | 7.843(4)e+5  | 1.138(3)e+4                         | 1.572(2)e+5 | 8.735(5)e+4 | 4.312(3)e+5 | 7.42(2)e+4  | 2.295(5)e+4 | 12.439(7) |
| A:               | 9754104   | 7.838(4)e+5  | 1.136(3)e+4                         | 1.571(2)e+5 | 8.734(5)e+4 | 4.309(3)e+5 | 7.42(2)e+4  | 2.294(5)e+4 | 12.445(7) |
| B:               | 9753474   | 7.837(4)e+5  | 1.136(3)e+4                         | 1.570(2)e+5 | 8.733(5)e+4 | 4.309(3)e+5 | 7.42(2)e+4  | 2.294(5)e+4 | 12.445(7) |
| C:               | 1858922   | 2.351(2)e+5  | 3.48(2)e+3                          | 6.33(1)e+4  | 4.425(4)e+4 | 9.98(1)e+4  | 1.853(9)e+4 | 5.81(2)e+3  | 7.905(9)  |
| D:               | 678926    | 1.404(1)e+5  | 1.96(1)e+3                          | 4.752(9)e+4 | 3.748(4)e+4 | 4.228(9)e+4 | 8.28(6)e+3  | 2.84(2)e+3  | 4.837(8)  |
| E:               | 639480    | 1.399(1)e+5  | 1.96(1)e+3                          | 4.737(9)e+4 | 3.737(4)e+4 | 4.213(9)e+4 | 8.25(6)e+3  | 2.83(2)e+3  | 4.571(8)  |
| F:               | 6173      | 6.64(2)e+3   | 14.6(8)                             | 1.98(2)e+3  | 3.71(1)e+3  | 7.7(1)e+2   | 72(6)       | 87(2)       | 0.93(1)   |
| G:               | 6173      | -            | -                                   | -           | -           | -           | -           | -           | -         |
| H:               | 6158      | -            | -                                   | -           | -           | -           | -           | -           | -         |
| [ jetSumPlots1 ] |           |              |                                     |             |             |             |             |             |           |
| J:               | 2253      | 2.44(1)e+3   | 4.2(3)                              | 663(9)      | 1429(6)     | 283(7)      | 26(3)       | 31(1)       | 0.93(2)   |
| K:               | 864       | 931(8)       | 1.3(2)                              | 231(5)      | 575(4)      | 103(5)      | 9(2)        | 11.6(9)     | 0.93(3)   |
| L:               | 328       | 373(5)       | 0.6(1)                              | 87(3)       | 239(2)      | 39(3)       | 3(1)        | 5.1(6)      | 0.88(5)   |
| M:               | 141       | 162(3)       | 0.25(8)                             | 37(2)       | 107(2)      | 15(2)       | 0.5(5)      | 2.2(4)      | 0.87(8)   |
| N:               | 69        | 73(2)        | 0.22(8)                             | 15(1)       | 48(1)       | 9(1)        | 0(0)        | 0.8(2)      | 0.9(1)    |
| O:               | 35        | 35(1)        | 0.17(7)                             | 7.0(8)      | 23.3(8)     | 4.1(10)     | -           | 0.4(1)      | 1.0(2)    |
| P:               | 17        | 17(1)        | 9(5)e-2                             | 3.0(5)      | 11.3(5)     | 2.3(7)      | -           | 0.3(1)      | 1.0(3)    |