

sample	nEventsIn	weightIn	lumi
GJets_HT400toinf.puWeight.bTagWeight	9459561	9.75e+06	
GJets_HT200to400.puWeight.bTagWeight	57747147	5.95e+07	
Photon.Run2012A-22Jan2013.jsonWeight	12661036	9.17e+06	
SinglePhotonParked.Run2012B-22Jan2013.jsonWeight	11298492	1.03e+07	
SinglePhotonParked.Run2012C-22Jan2013.jsonWeight	20484103	1.98e+07	
SinglePhotonParked.Run2012D-22Jan2013.jsonWeight	101053432	9.59e+07	

file created at Mon Sep 15 21:51:13 2014

Calculables

```

electronIndicesNonIsoPF      pass ptMin & id; fail iso
electronIndicesOtherPF      pass ptMin; fail id
    electronIndicesPF      pt>10.0; |eta|<2.5; (2012 Veto)
electronIndicesUnmatchedPF  electronIndicesOtherPF; no dR<0.5 match in ak5JetPFCorrectedP4Pat
    jsonWeight              run:ls in cert/Cert_190456-208686_8TeV_22Jan2013ReReco_Collisions12_JSON.txt
lowestUnprescaledTrigger    lowest unprescaled of HLT_Photon1{50_v{1,2,3,4,5,6,7,8,9,1{0,1,2,3,4,5,6,7,8,9}}},
    muonIdPog2012LoosePF    https://twiki.cern.ch/twiki/bin/view/CMSPublic/SWGuideMuonId#Loose_Muon
    muonIdPog2012TightPF    https://twiki.cern.ch/twiki/bin/view/CMSPublic/SWGuideMuonId#Tight_Muon
    muonIndicesNonIsoPF    pass ptMin & id; fail iso
        muonIndicesOtherPF pass ptMin; fail id
        muonIndicesPF      IdPog2012Tight; pt>10.0 GeV; PfiIsolationR04DeltaBCorrected<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.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
xcak5JetPFDeadEcalDRlowPtPat xcak5JetPFPat; nXtal>=10; cracks checked
xcak5JetPFIndicesBtagged2Pat (>0.679)
    xcak5JetPFIndicesOtherPat pass ptMin; fail jetID or etaMax
        xcak5JetPFIndicesPat pT>=50.0 GeV; |eta|<3.0;
xcak5JetPFIndiceshighPtPat pT>=50.0 GeV; |eta|<3.0;
xcak5JetPFIndiceslowPtPat  pT>=30.0 GeV; |eta|<3.0;

```

Calculables (imperfect) absent calc leaf sltr

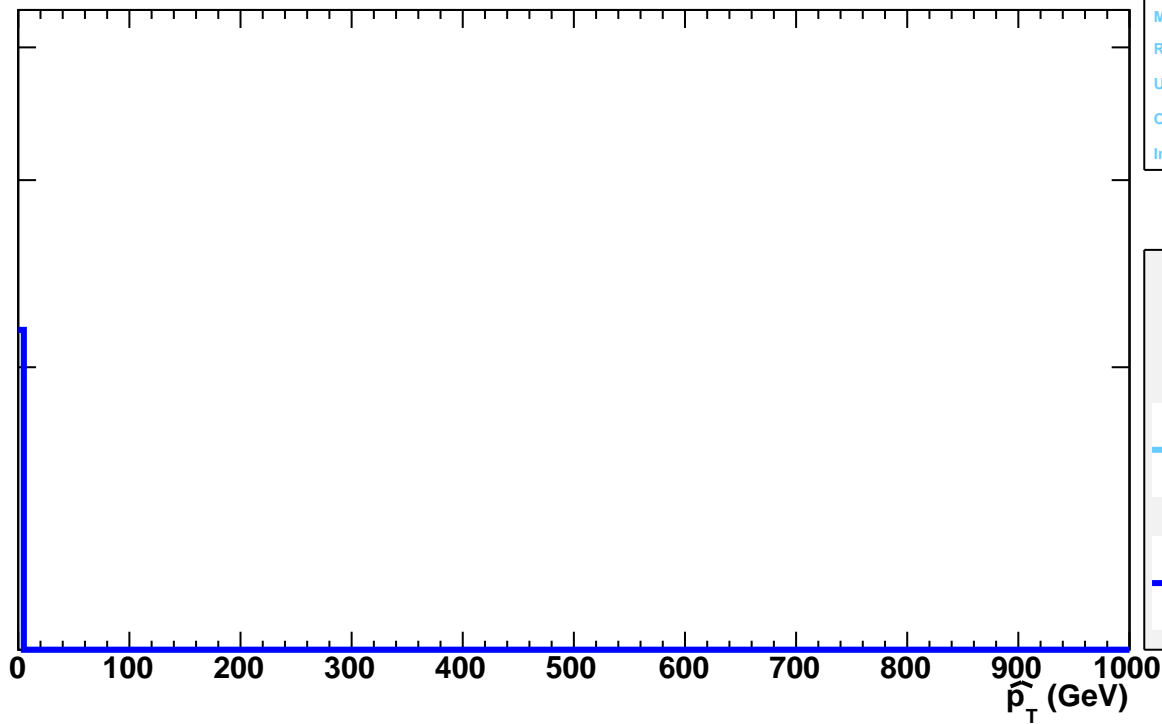
NONE

	Data	Standard Model	GJets	data/s.m.
a:	135218985	2.1686(3)e+7	2.1686(3)e+7	6.2352(10)

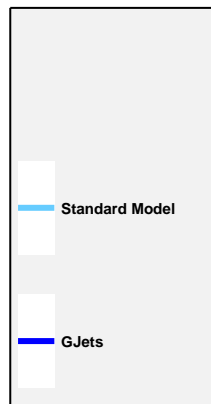
a:	master	master
b:	l1Filter	L1Tech_BPTX_plus_AND_minus.v0
c:	physicsDeclaredFilter	physicsDeclaredFilter
d:	value	lowestUnPrescaledTrigger
e:	lowestUnPrescaledTriggerFilter	lowest unprescaled of triggers in calculable

	Data	Standard Model	GJets	data/s.m.
a:	135218985	2.1686(3)e+7	2.1686(3)e+7	6.2352(10)
b:	135124590	-	-	
c:	135022364	-	-	
d:	135022364	-	-	
e:	17726400	-	-	

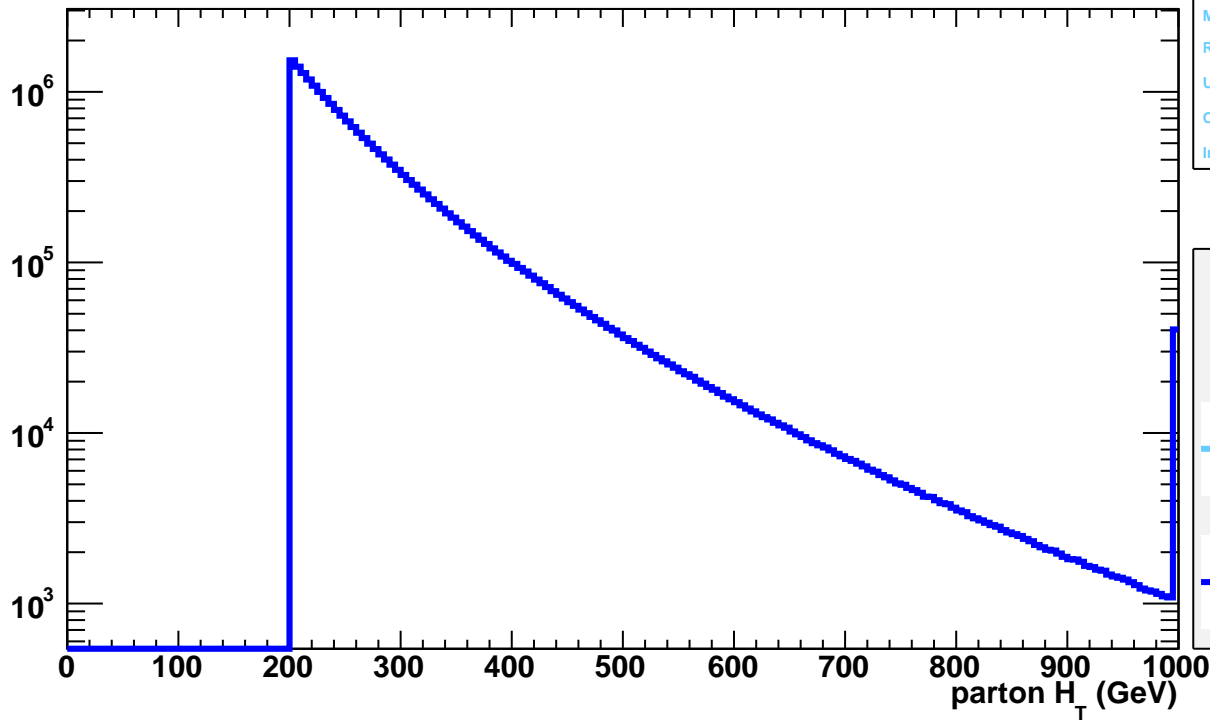
events / bin / 20 fb⁻¹



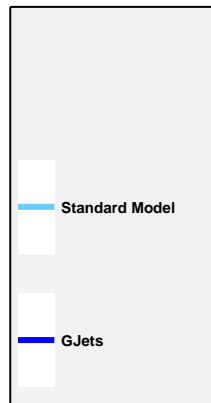
genpthat	
Entries	6.720671e+07
Mean	2.5
RMS	0
Underflow	0
Overflow	0
Integral	2.169e+07



events / bin / 20 fb⁻¹



genPartonHT	
Entries	6.720671e+07
Mean	284.4
RMS	101.8
Underflow	0
Overflow	0
Integral	2.169e+07



```

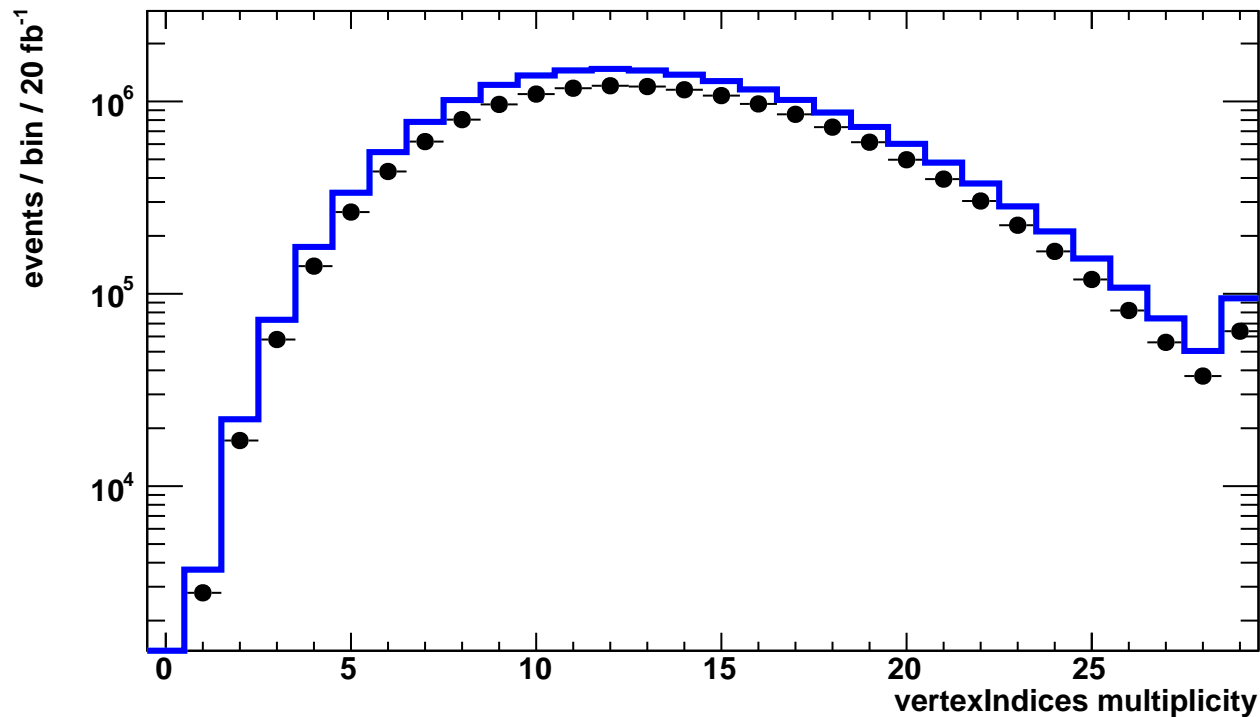
a: master                               master
b: l1Filter                             L1Tech_BPTX_plus_AND_minus.v0
c: physicsDeclaredFilter                physicsDeclaredFilter
d: value                                lowestUnPrescaledTrigger
e: lowestUnPrescaledTriggerFilter        lowest unprescaled of triggers in calculable

f: monster                             <=10 tracks or >0.25 good fraction
g: hbheNoise                           hbheNoise
h: value                                beamHaloCSCTightHaloId<=0.00
i: value                                1.00<=trackingFailureFilterFlag
j: value                                1.00<=hcalLaserEventFilterFlag

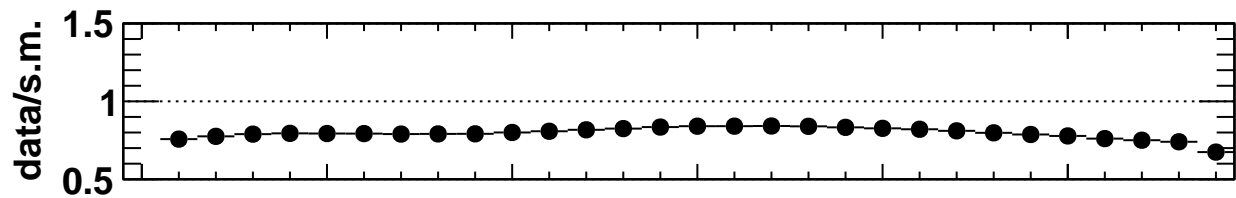
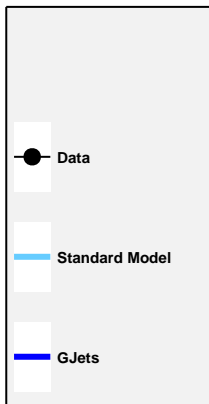
k: value                                1.00<=ecalDeadCellTPFilterFlag
l: value                                1.00<=eeBadScFilterFlag
m: value                                1.00<=inconsistentMuonPFCandidateFilterFlag
n: value                                1.00<=greedyMuonPFCandidateFilterFlag
o: multiplicity                         0 <= singleIsolatedTrack <= 0

```

	Data	Standard Model	GJets	data/s.m.
a:	135218985	2.1686(3)e+7	2.1686(3)e+7	6.2352(10)
b:	135124590	-	-	
c:	135022364	-	-	
d:	135022364	-	-	
e:	17726400	-	-	
f:	17726400	2.1686(3)e+7	2.1686(3)e+7	0.8174(2)
g:	17697532	-	-	
h:	17588310	2.1683(3)e+7	2.1683(3)e+7	0.8112(2)
i:	17586994	2.1683(3)e+7	2.1683(3)e+7	0.8111(2)
j:	17586994	-	-	
k:	17570862	2.1657(3)e+7	2.1657(3)e+7	0.8113(2)
l:	17570800	2.1657(3)e+7	2.1657(3)e+7	0.8113(2)
m:	17569680	2.1656(3)e+7	2.1656(3)e+7	0.8113(2)
n:	17569161	2.1656(3)e+7	2.1656(3)e+7	0.8113(2)
o:	15314330	1.8783(3)e+7	1.8783(3)e+7	0.8153(2)



vertexIndicesMultiplicity	
Entries	1.531433e+07
Mean	13.63
RMS	4.963
Underflow	0
Overflow	0
Integral	1.531e+07



```

d: value lowestUnPrescaledTrigger
e: lowestUnPrescaledTriggerFilter lowest unrescaled of triggers in calculable

f: monster <=10 tracks or >0.25 good fraction
g: hbheNoise hbheNoise
h: value beamHaloCSCTightHaloId<=0.00
i: value 1.00<=trackingFailureFilterFlag
j: value 1.00<=hcalLaserEventFilterFlag

k: value 1.00<=ecalDeadCellTPFilterFlag
l: value 1.00<=eeBadScFilterFlag
m: value 1.00<=inconsistentMuonPFCandidateFilterFlag
n: value 1.00<=greedyMuonPFCandidateFilterFlag
o: multiplicity 0 <= singleIsolatedTrack <= 0

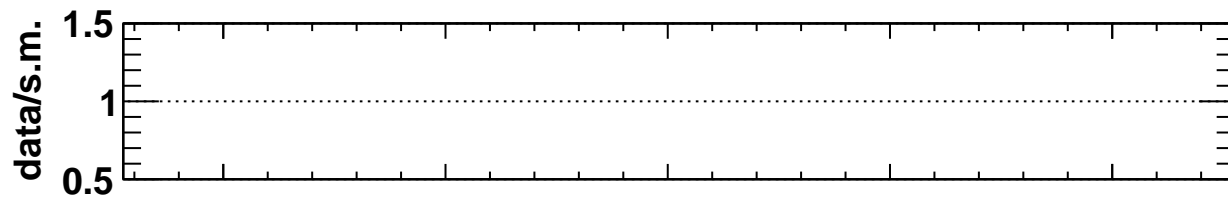
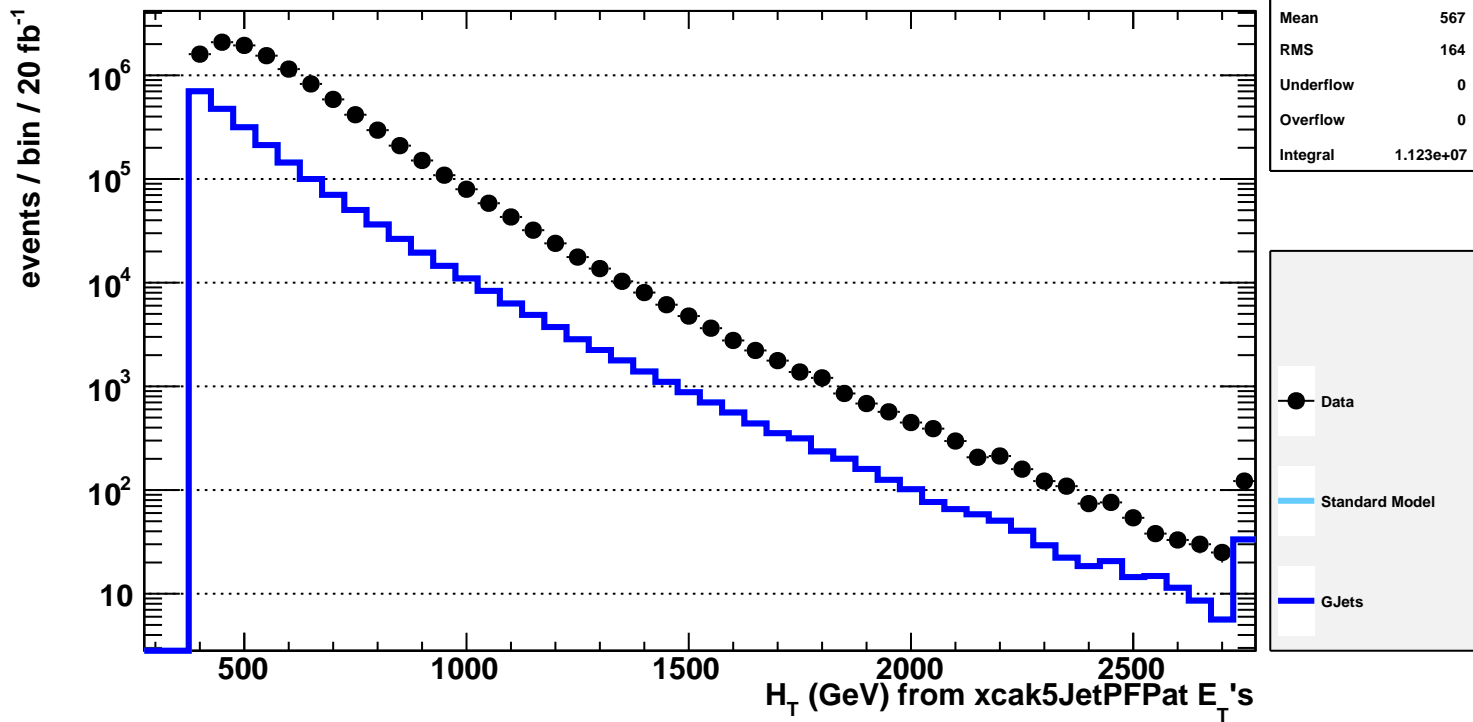
p: multiplicity 1 <= vertexIndices
q: jetPtSelector xcak5JetPFPat; pT[index[0]]>=100.0 GeV
r: jetPtSelector xcak5JetPFPat; pT[index[1]]>=100.0 GeV
s: jetEtaSelector xcak5JetPFPat; |eta[index[0]]|<=2.5
t: value 375.00<=xcak5JetPFSumEtPat

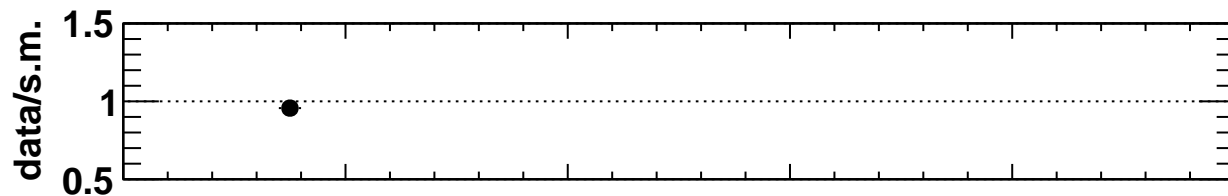
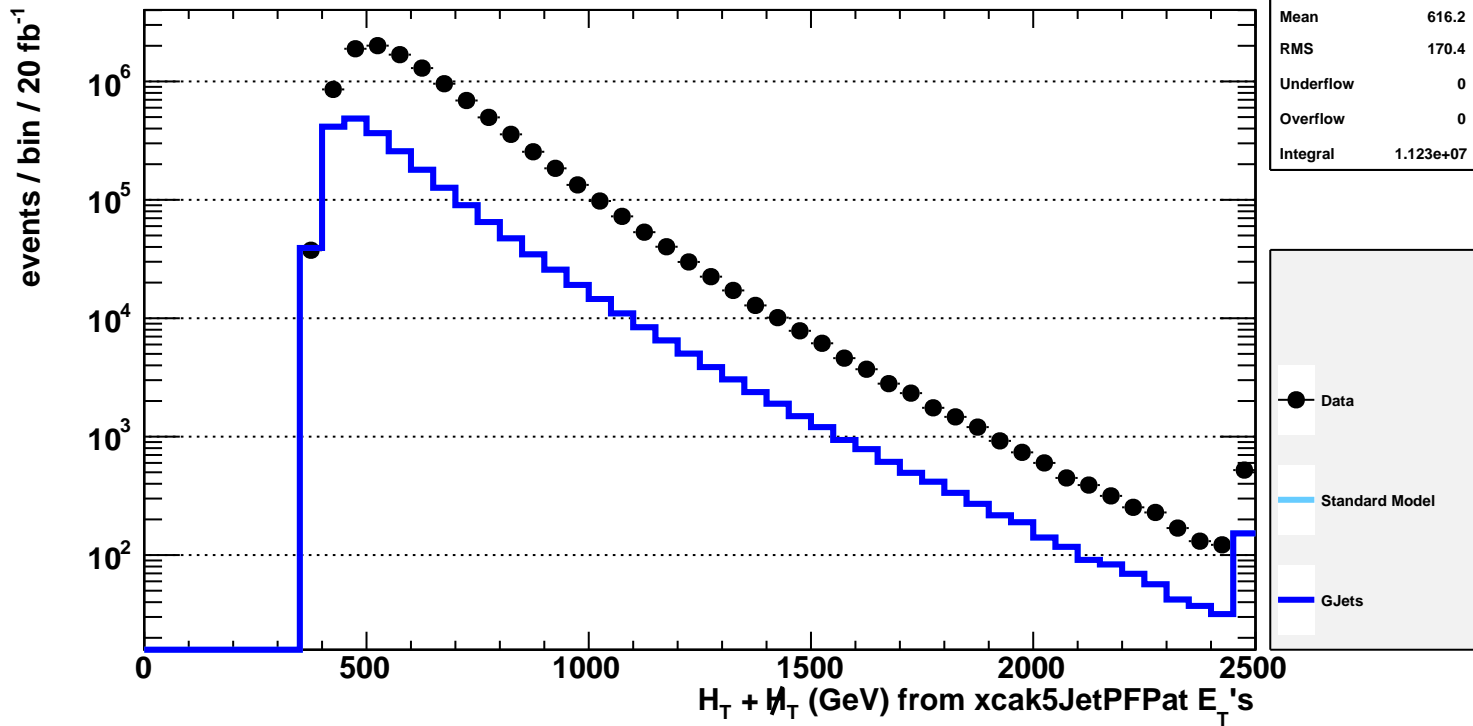
```

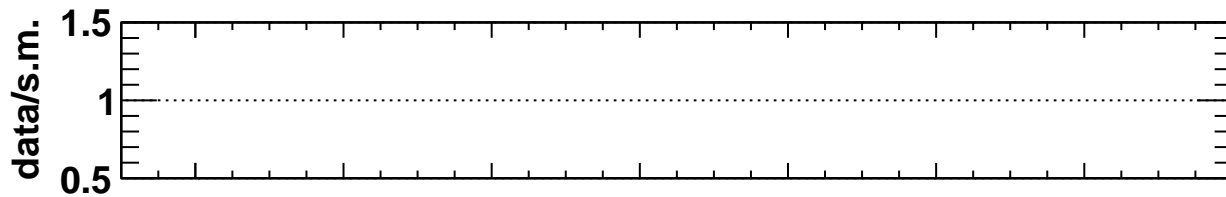
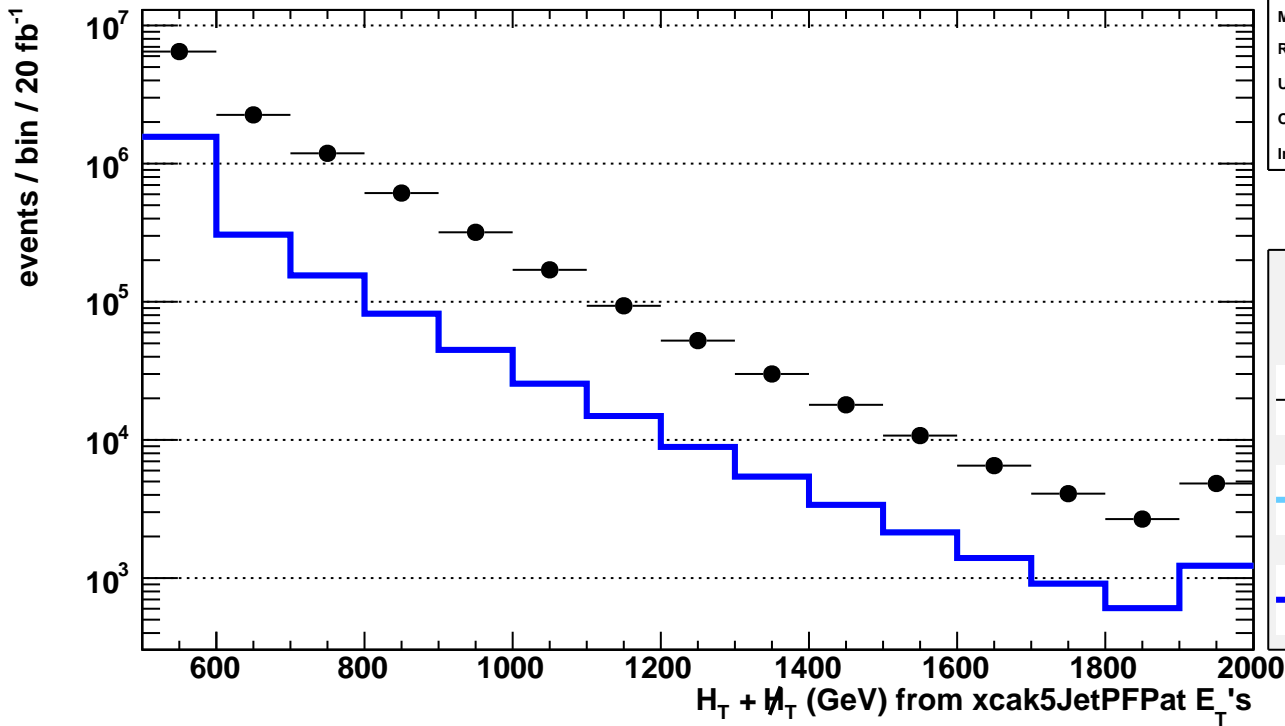
[jetSumPlots]

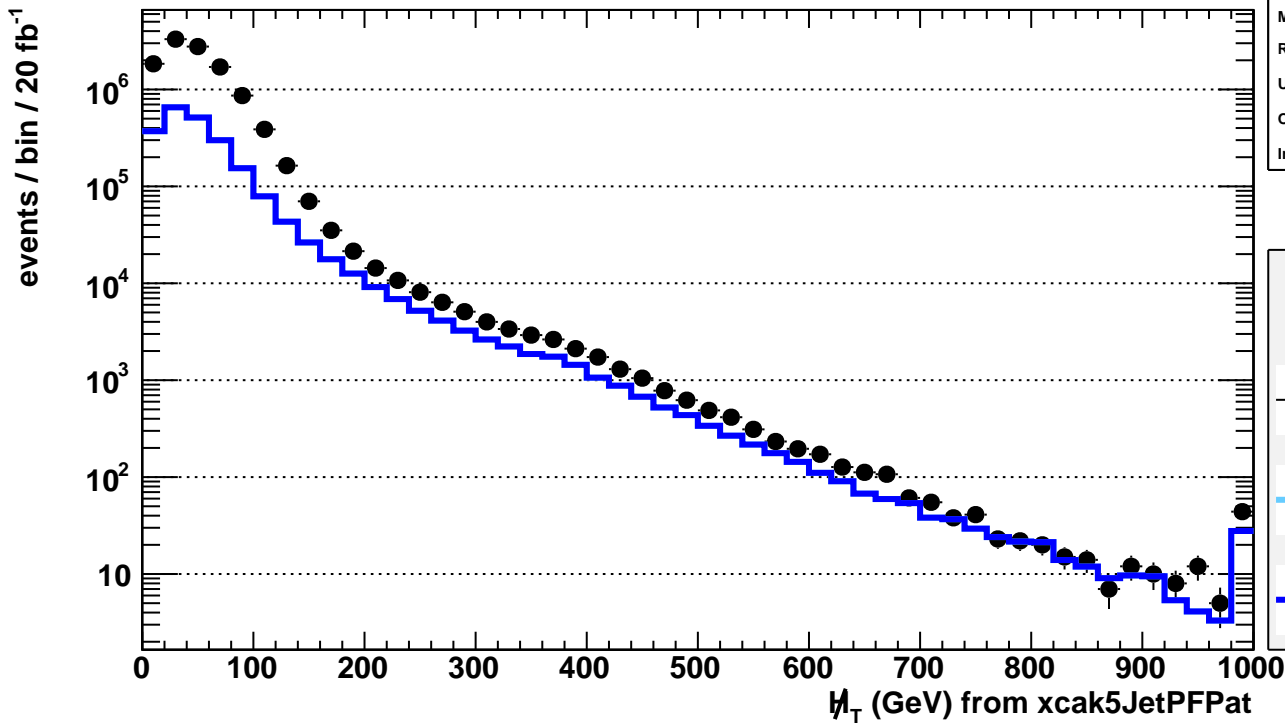
	Data	Standard Model	GJets	data/s.m.
d:	135022364	-	-	
e:	17726400	-	-	
f:	17726400	2.1686(3)e+7	2.1686(3)e+7	0.8174(2)
g:	17697532	-	-	
h:	17588310	2.1683(3)e+7	2.1683(3)e+7	0.8112(2)
i:	17586994	2.1683(3)e+7	2.1683(3)e+7	0.8111(2)
j:	17586994	-	-	
k:	17570862	2.1657(3)e+7	2.1657(3)e+7	0.8113(2)
l:	17570800	2.1657(3)e+7	2.1657(3)e+7	0.8113(2)
m:	17569680	2.1656(3)e+7	2.1656(3)e+7	0.8113(2)
n:	17569161	2.1656(3)e+7	2.1656(3)e+7	0.8113(2)
o:	15314330	1.8783(3)e+7	1.8783(3)e+7	0.8153(2)
p:	15314330	1.8783(3)e+7	1.8783(3)e+7	0.8153(2)
q:	14291023	1.3787(2)e+7	1.3787(2)e+7	1.0366(3)
r:	12528834	6.315(1)e+6	6.315(1)e+6	1.9840(7)
s:	12166027	6.113(1)e+6	6.113(1)e+6	1.9901(7)
t:	11233931	2.2154(8)e+6	2.2154(8)e+6	5.071(2)

[jetSumPlots]

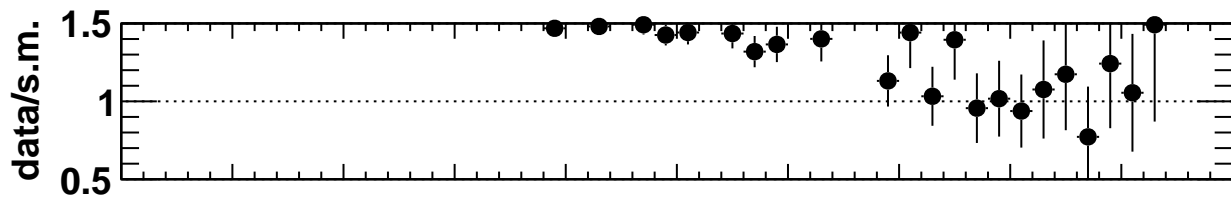
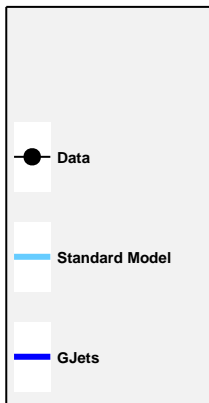


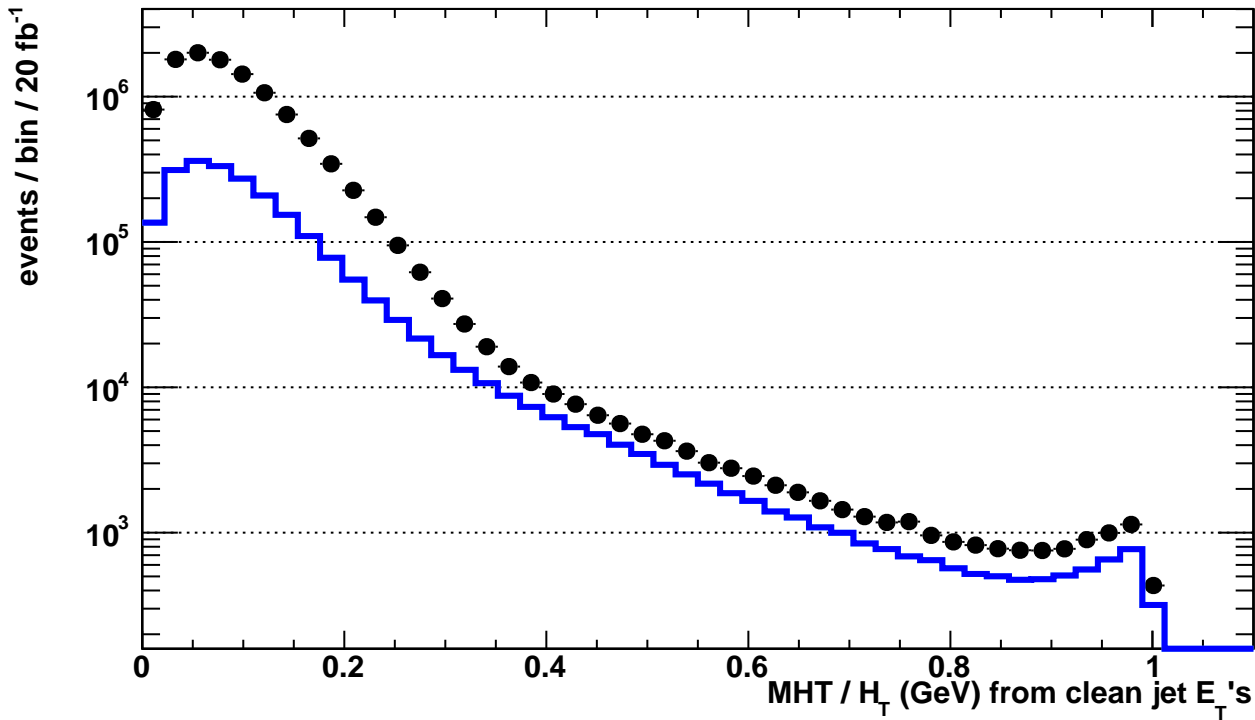




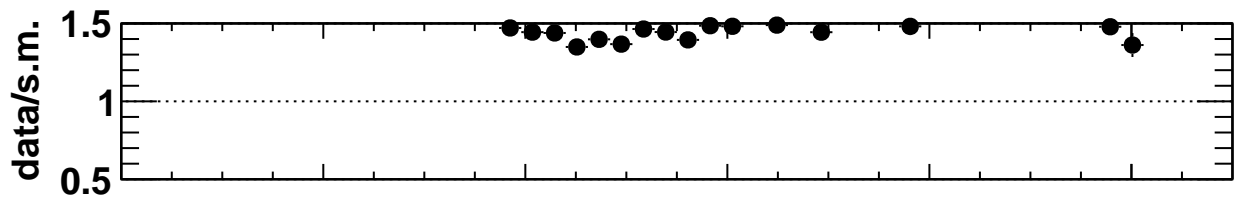
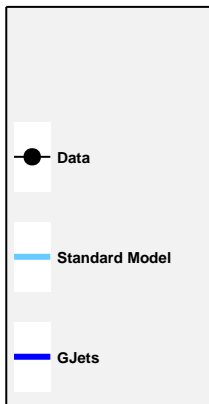


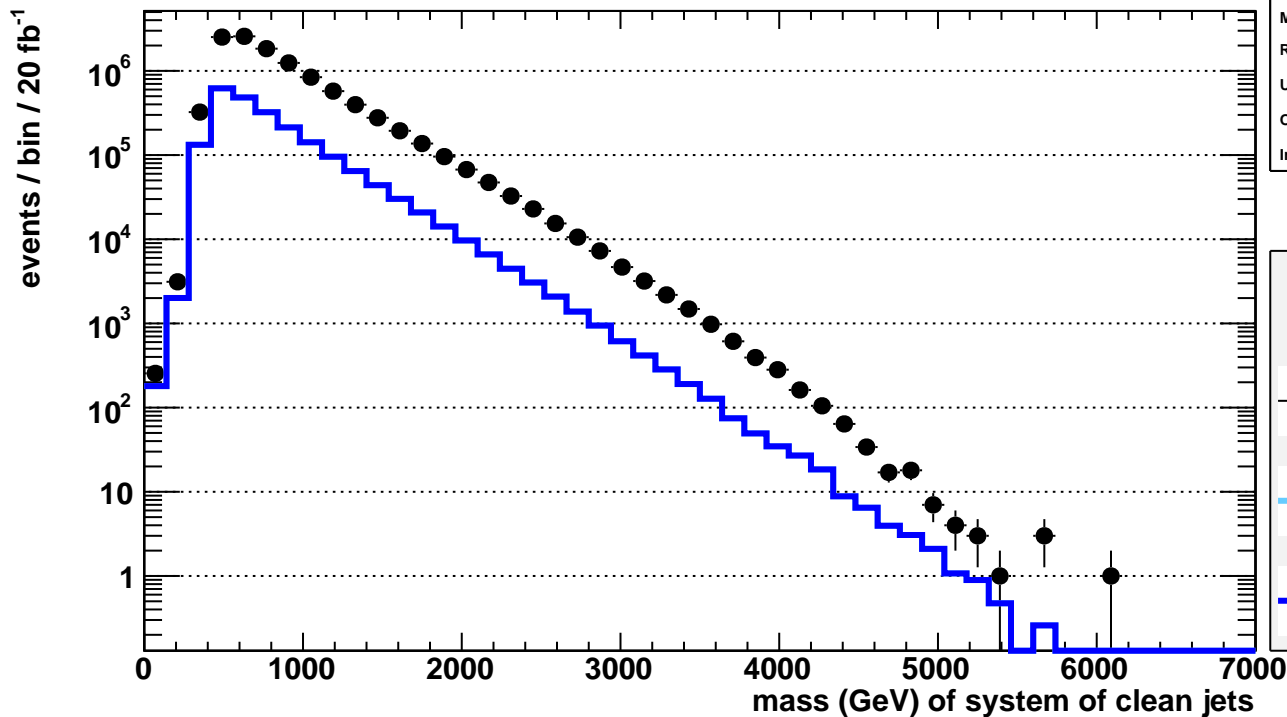
xcak5JetPFMhtPat	
Entries	1.123393e+07
Mean	49.65
RMS	36.53
Underflow	0
Overflow	0
Integral	1.123e+07



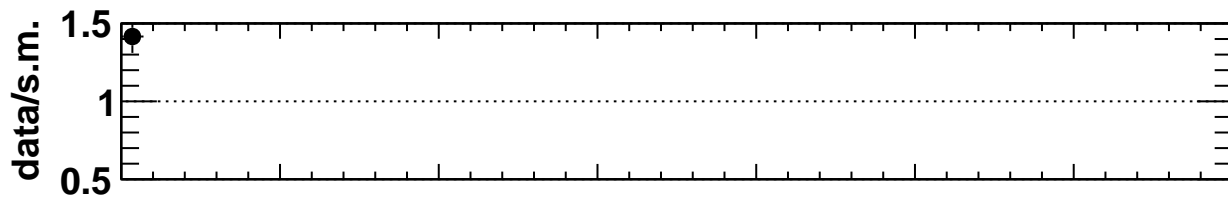
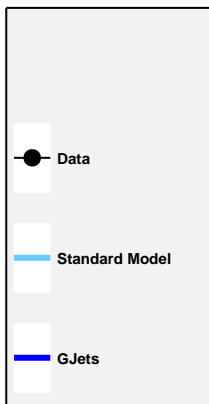


xcak5JetPFmHtOverHtPat	
Entries	1.123393e+07
Mean	0.0928
RMS	0.07133
Underflow	0
Overflow	0
Integral	1.123e+07

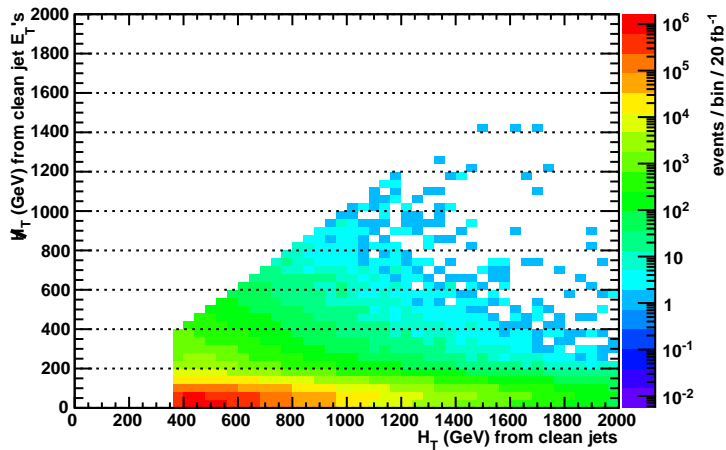




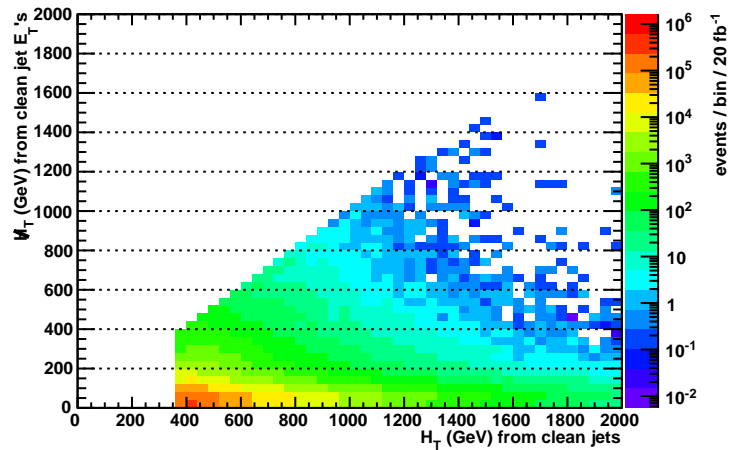
xcak5JetPFmPat	
Entries	1.123393e+07
Mean	823.8
RMS	383.7
Underflow	0
Overflow	0
Integral	1.123e+07



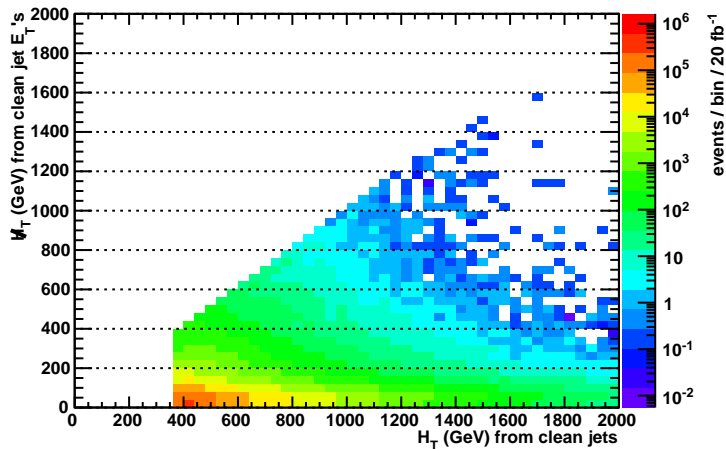
Data

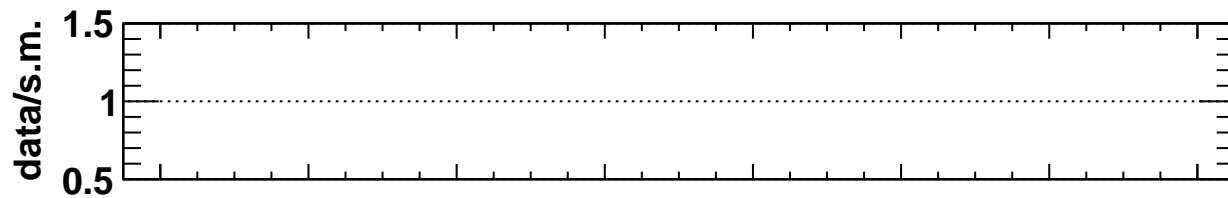
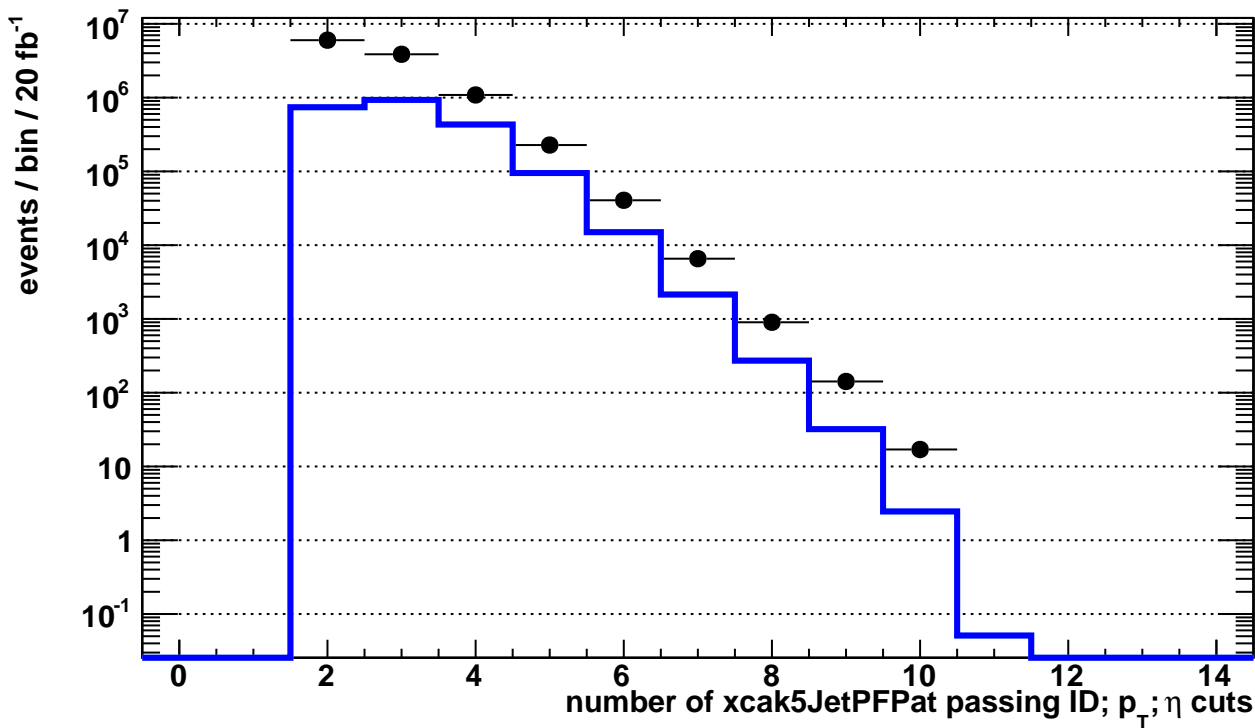


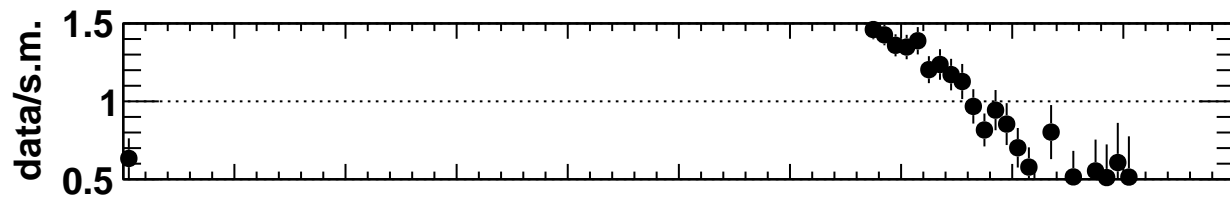
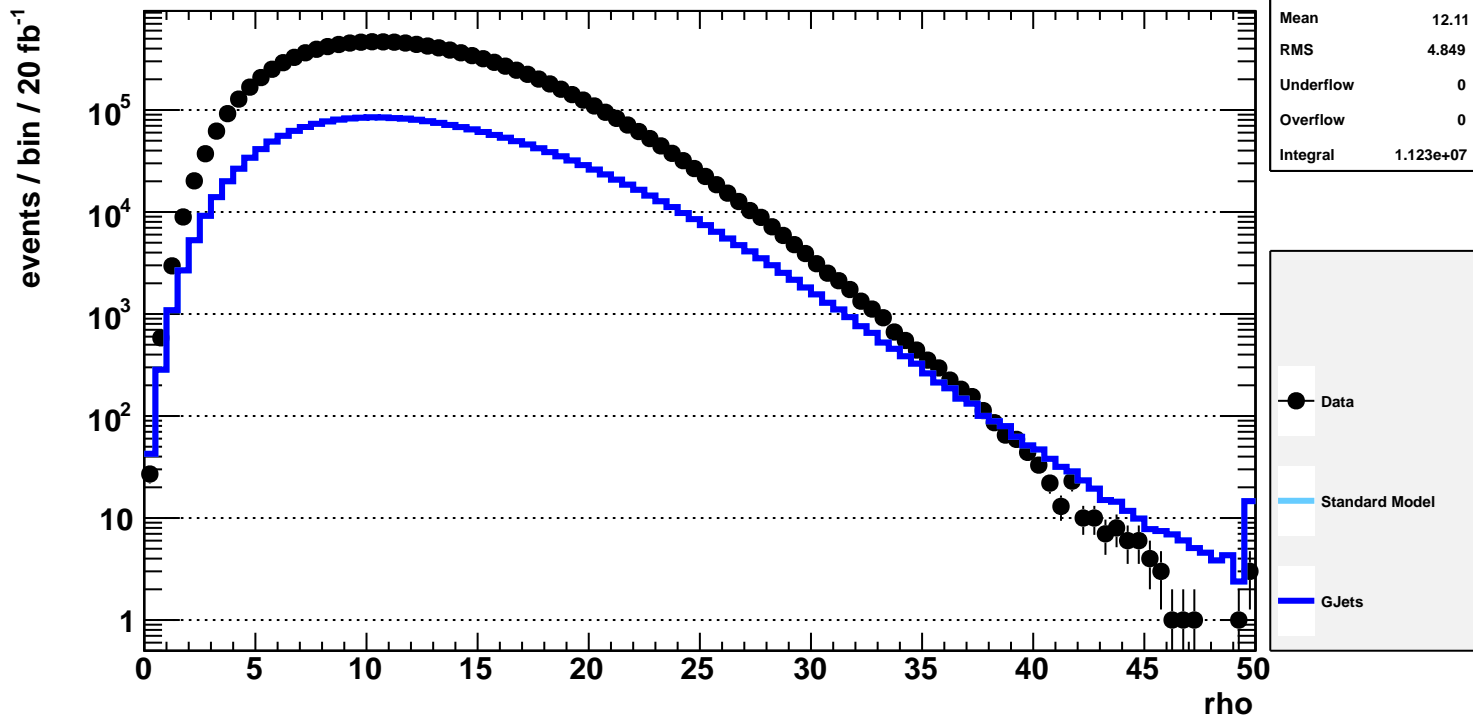
Standard Model



GJets







```

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

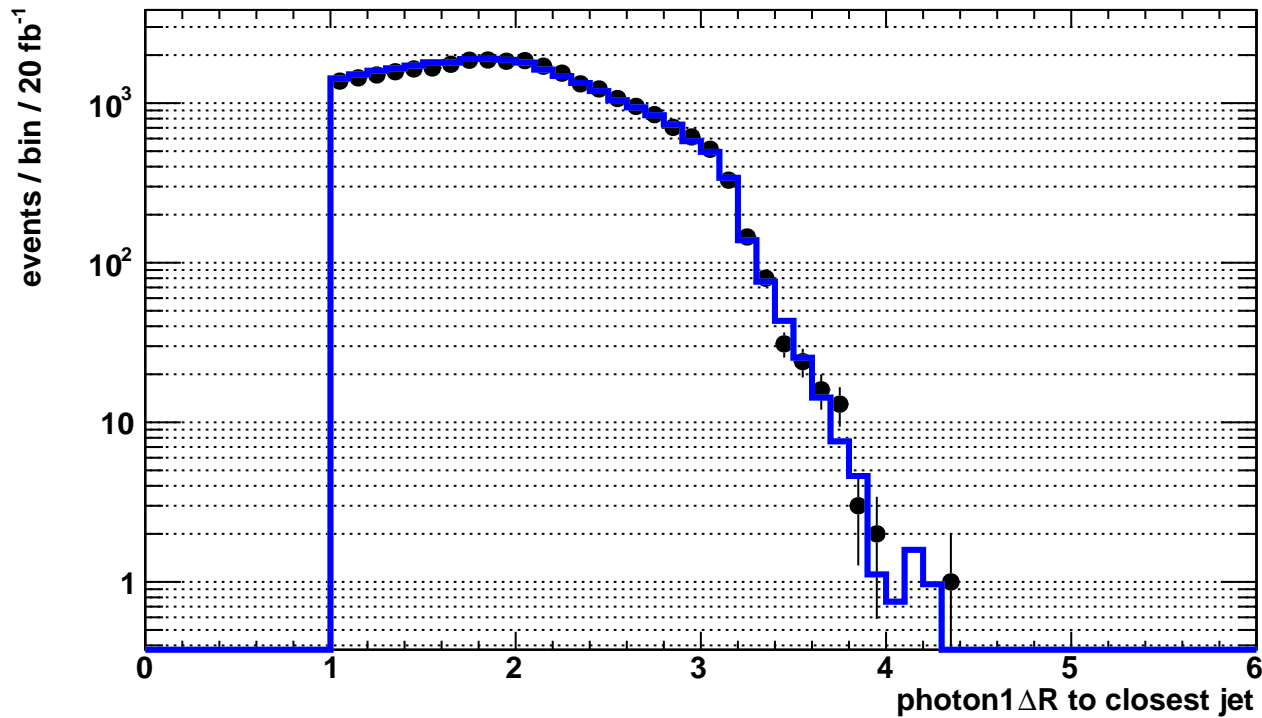
[ jetSumPlots ]
v: multiplicity           2 <= xcak5JetPFIndicesPat
w: multiplicity           0 <= xcak5JetPFIndicesOtherPat <= 0
x: multiplicity           0 <= xcak5JetPFIndicesWithOddMuonPat <= 0
y: uniquelyMatchedNonisoMuons xcak5JetPFPat

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

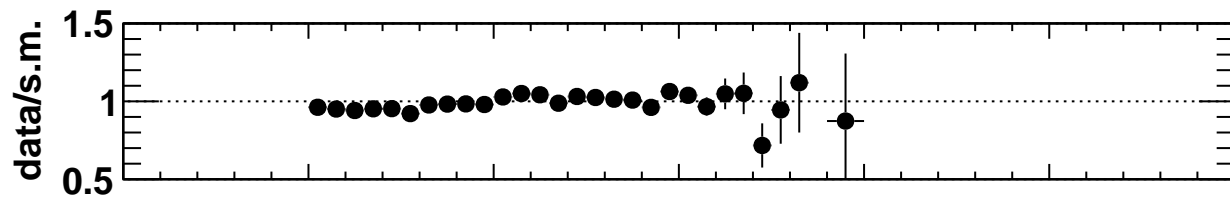
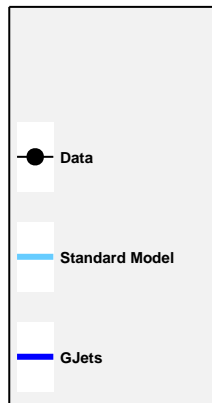
E: pt                     165.00<=photonP4Pat[i[0]].pt; photonIndicesPat
F: absEta                 0.00<=photonP4Pat[i[0]].absEta<=1.44; photonIndicesPat
G: DeltaRGreaterSelector  xcak5JetPFPat; DR(photonPat[i[0]], jet) > 1.00
H: multiplicity           1 <= photonIndicesPat <= 1

```

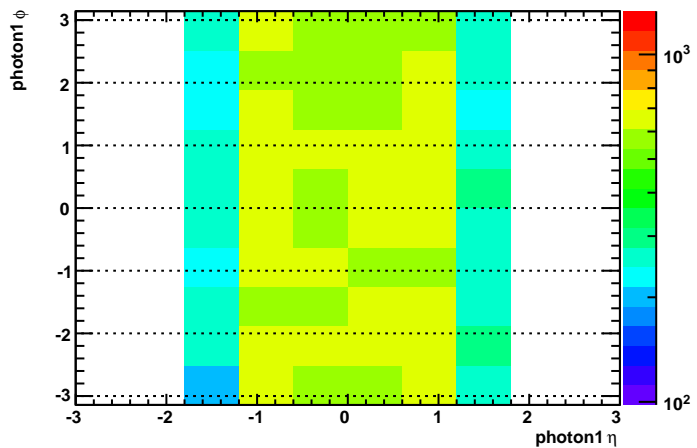
	Data	Standard Model	GJets	data/s.m.
q:	14291023	1.3787(2)e+7	1.3787(2)e+7	1.0366(3)
r:	12528834	6.315(1)e+6	6.315(1)e+6	1.9840(7)
s:	12166027	6.113(1)e+6	6.113(1)e+6	1.9901(7)
t:	11233931	2.2154(8)e+6	2.2154(8)e+6	5.071(2)
[jetSumPlots]				
v:	11233931	2.2154(8)e+6	2.2154(8)e+6	5.071(2)
w:	11055260	2.1843(8)e+6	2.1843(8)e+6	5.061(2)
x:	11052859	2.1838(8)e+6	2.1838(8)e+6	5.061(2)
y:	11049975	2.1832(8)e+6	2.1832(8)e+6	5.061(2)
z:	11015040	2.1413(8)e+6	2.1413(8)e+6	5.144(2)
A:	11009428	2.1411(8)e+6	2.1411(8)e+6	5.142(2)
B:	11008013	2.1407(8)e+6	2.1407(8)e+6	5.142(2)
C:	11007336	2.1400(8)e+6	2.1400(8)e+6	5.144(2)
D:	3388782	6.377(4)e+5	6.377(4)e+5	5.314(5)
E:	39894	3.98(1)e+4	3.98(1)e+4	1.003(6)
F:	34809	3.517(10)e+4	3.517(10)e+4	0.990(6)
G:	29593	2.988(9)e+4	2.988(9)e+4	0.990(6)
H:	29478	2.987(9)e+4	2.987(9)e+4	0.987(6)



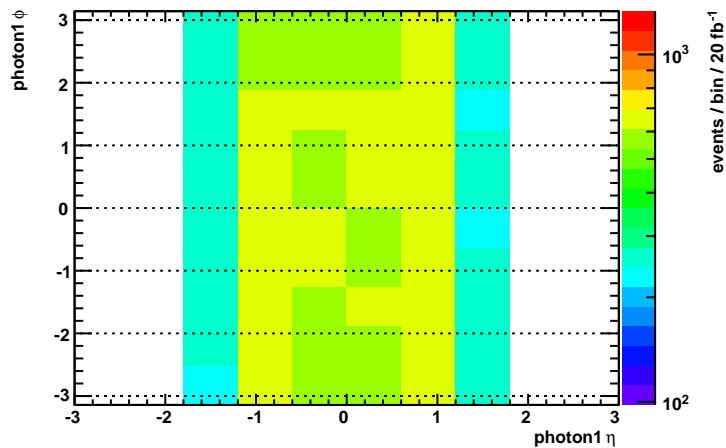
photonPat1MinDRToJet	
Entries	29478
Mean	1.943
RMS	0.5623
Underflow	0
Overflow	0
Integral	2.948e+04



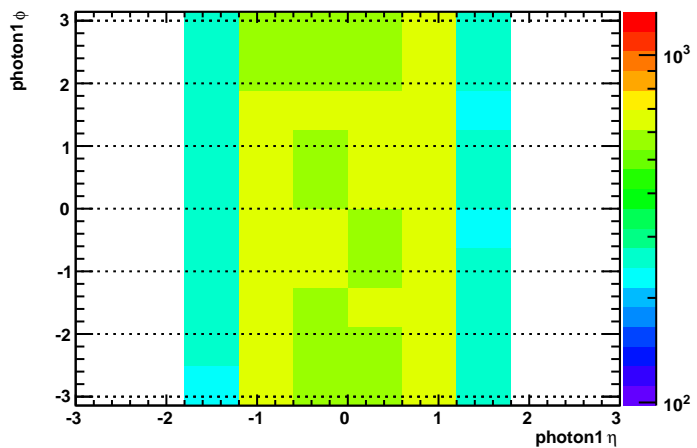
Data



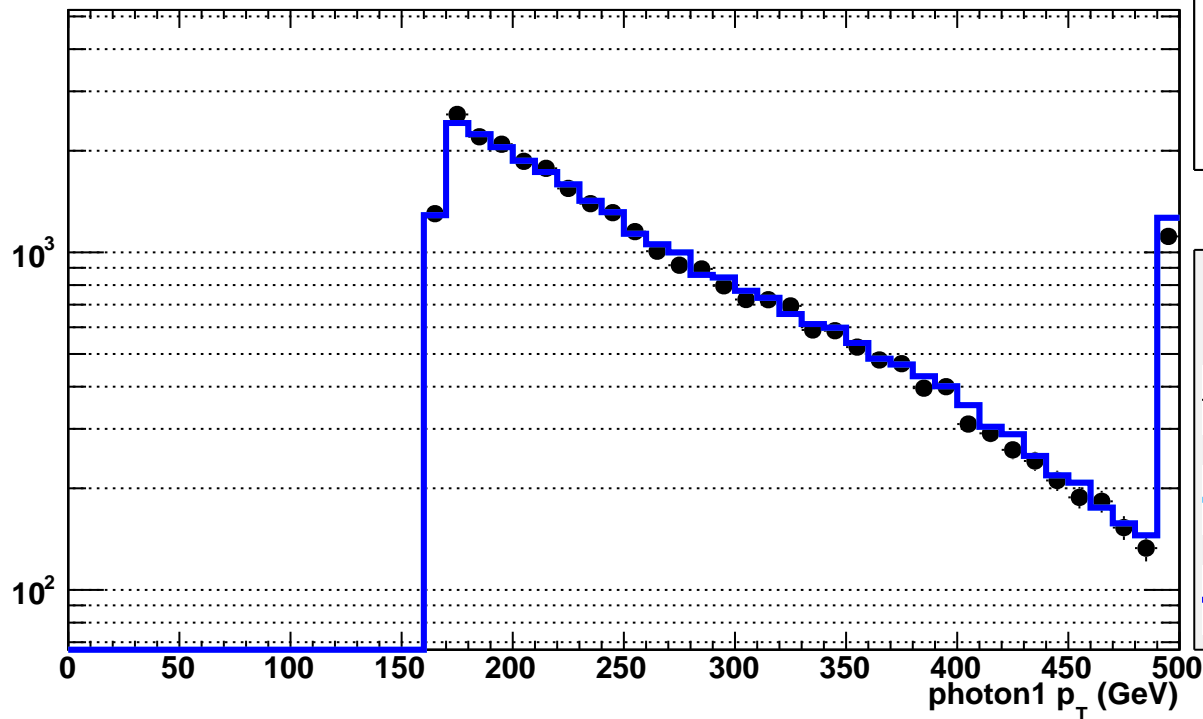
Standard Model



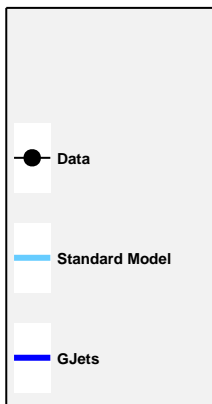
GJets



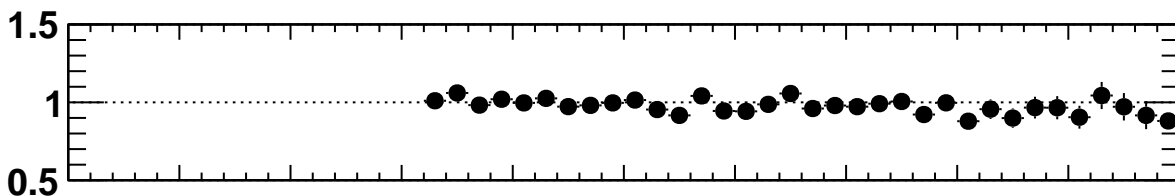
events / bin / 20 fb⁻¹

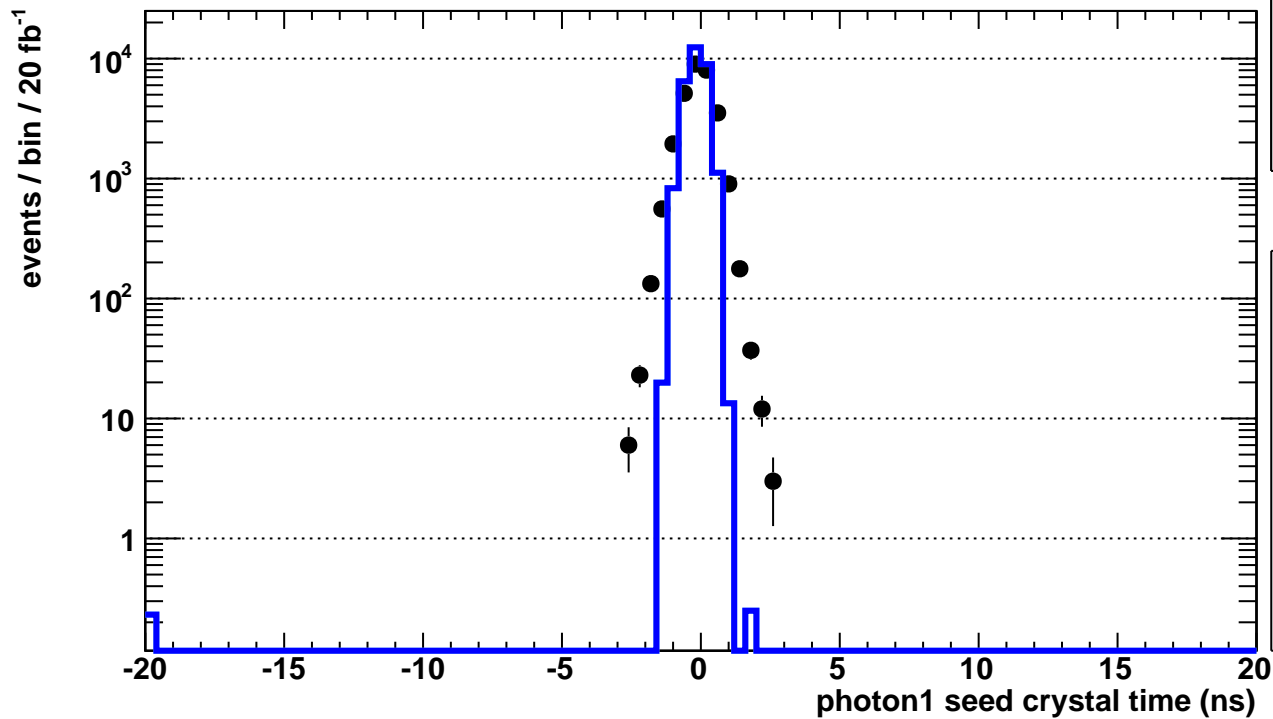


photonPat1Pt	
Entries	29478
Mean	267.2
RMS	88.95
Underflow	0
Overflow	0
Integral	2.948e+04

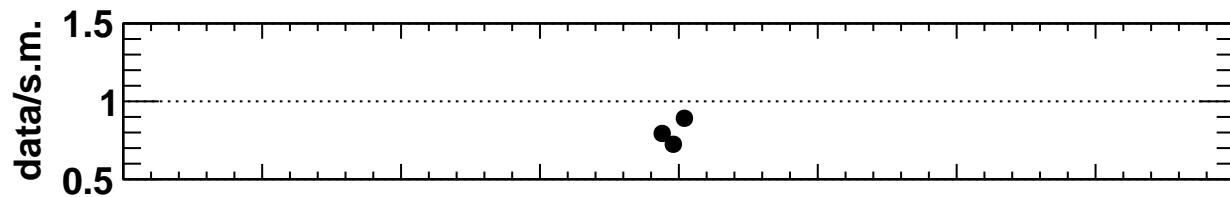
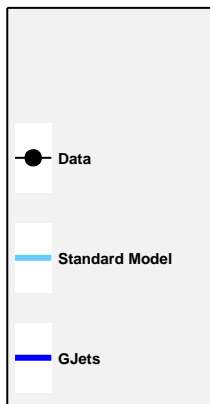


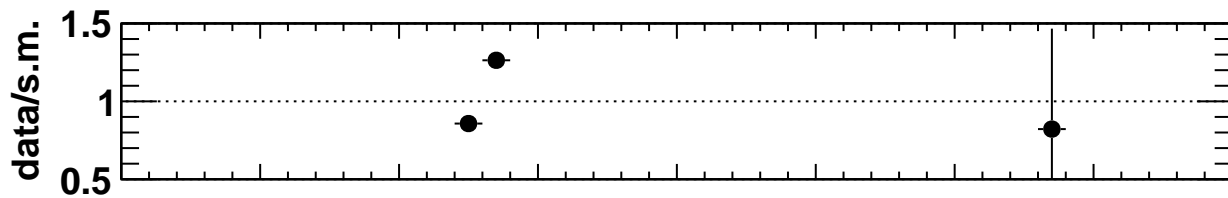
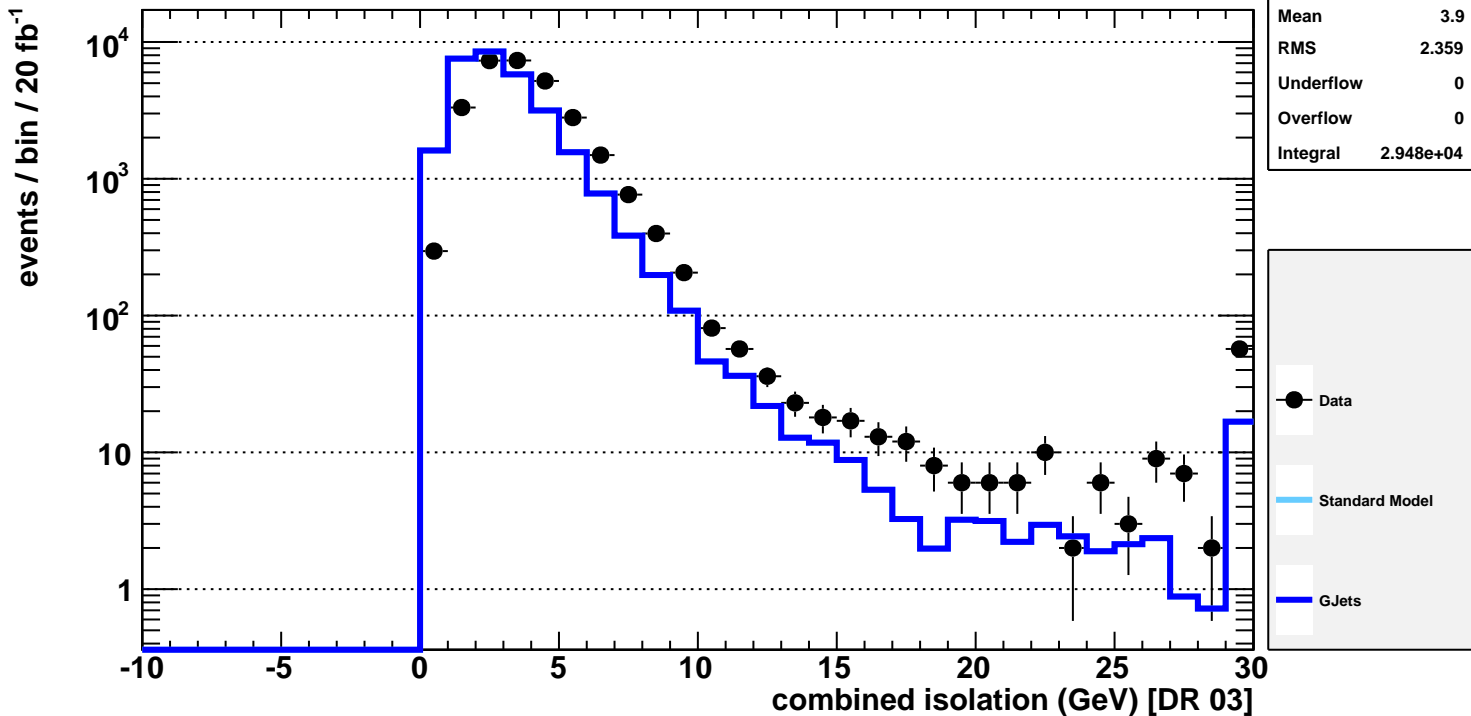
data/s.m.

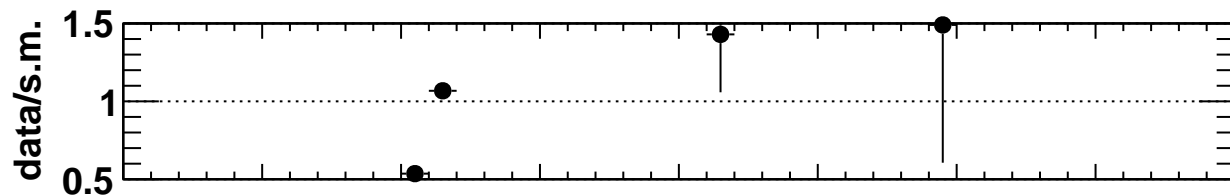
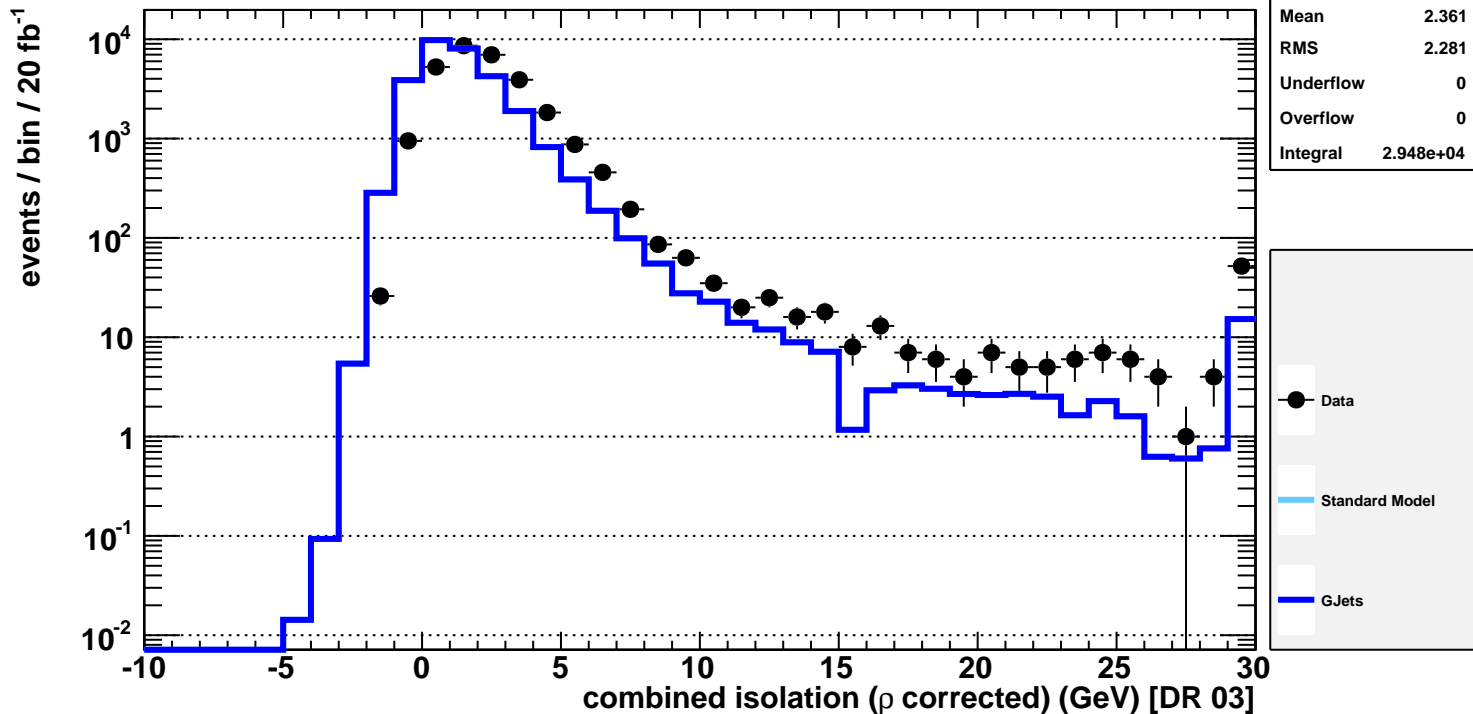




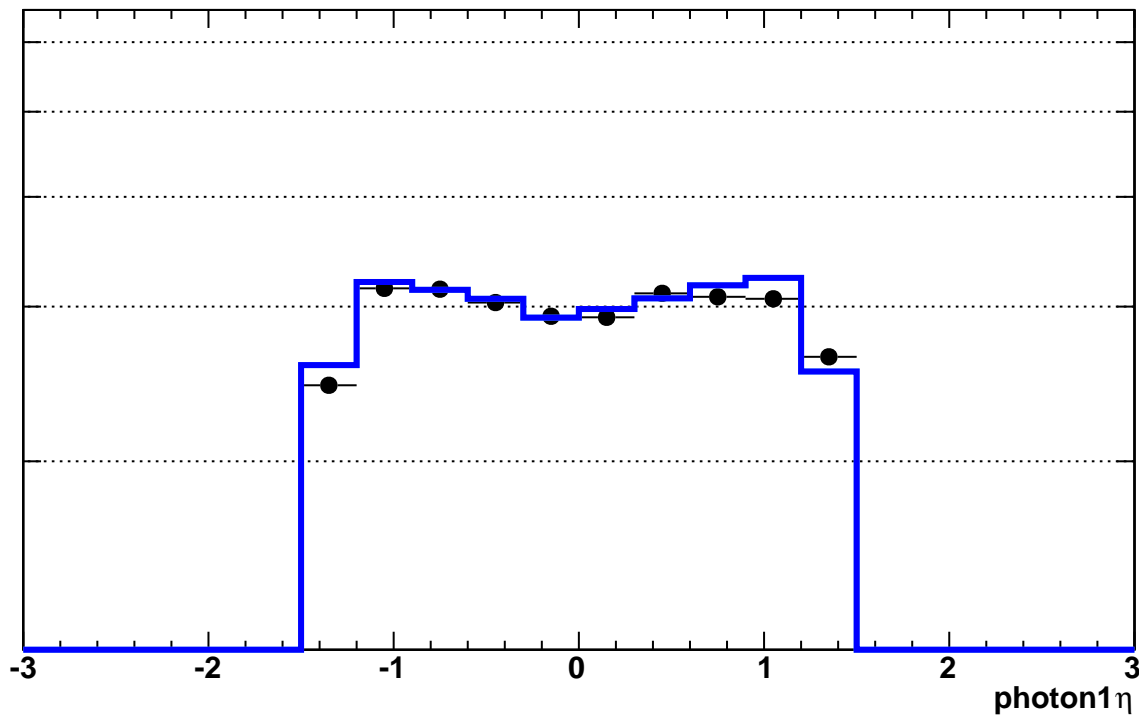
photonPat1SeedTime	
Entries	29478
Mean	-0.1006
RMS	0.5277
Underflow	0
Overflow	0
Integral	2.948e+04



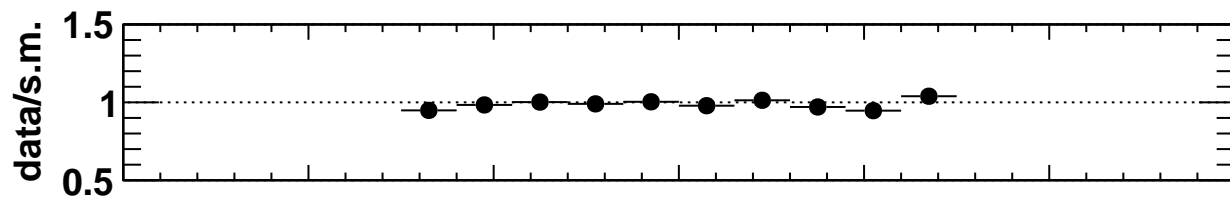
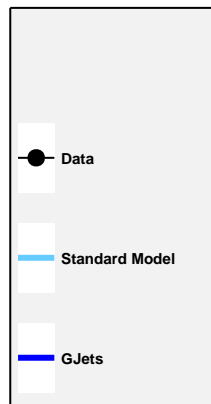


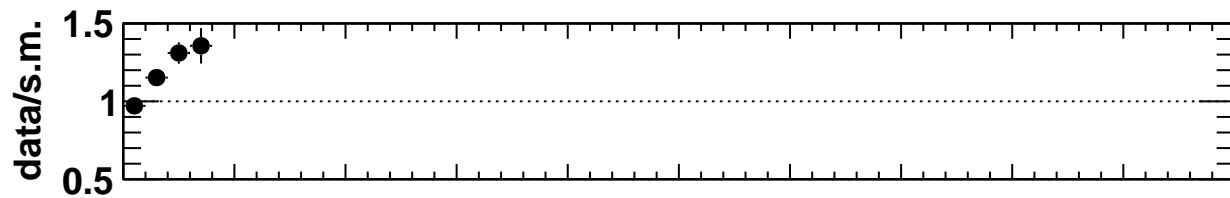
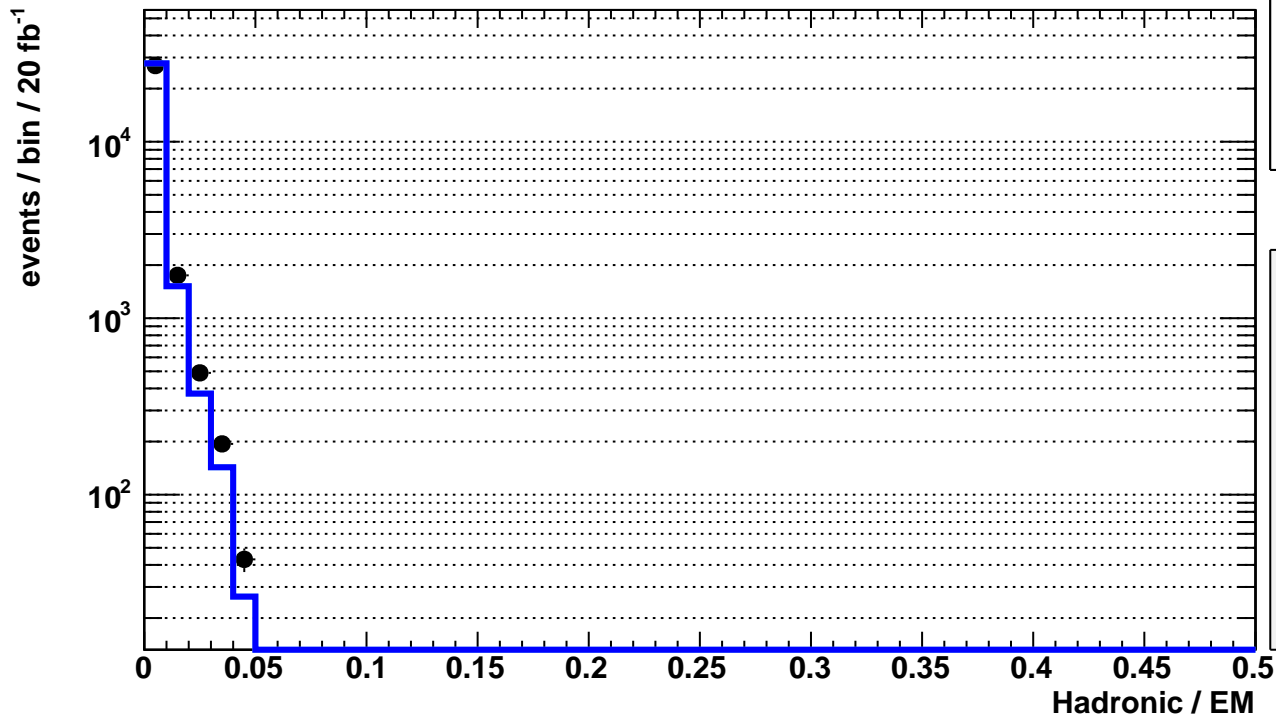


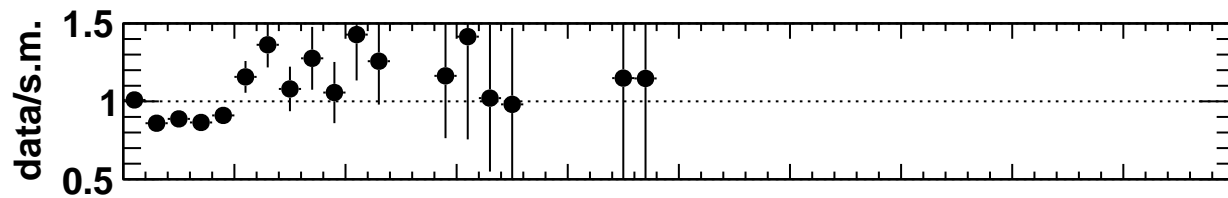
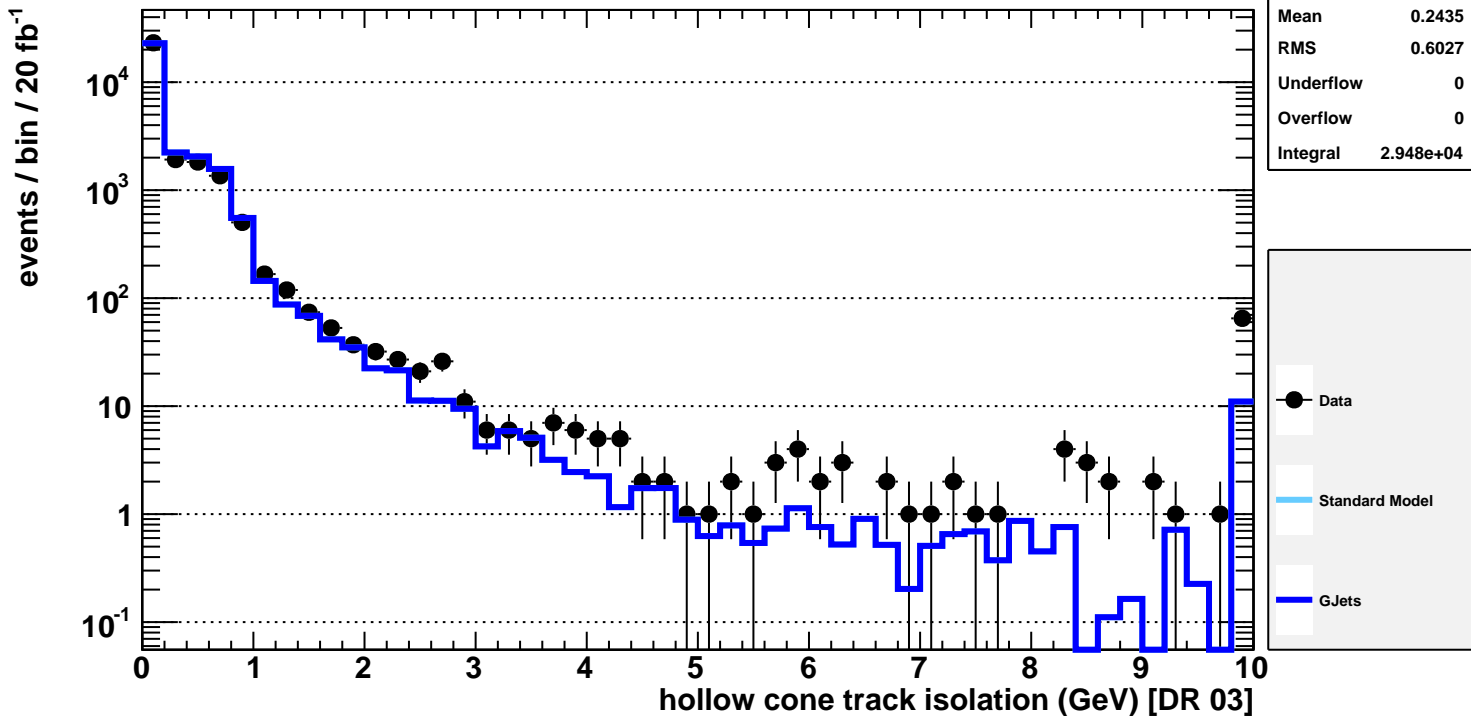
events / bin / 20 fb⁻¹

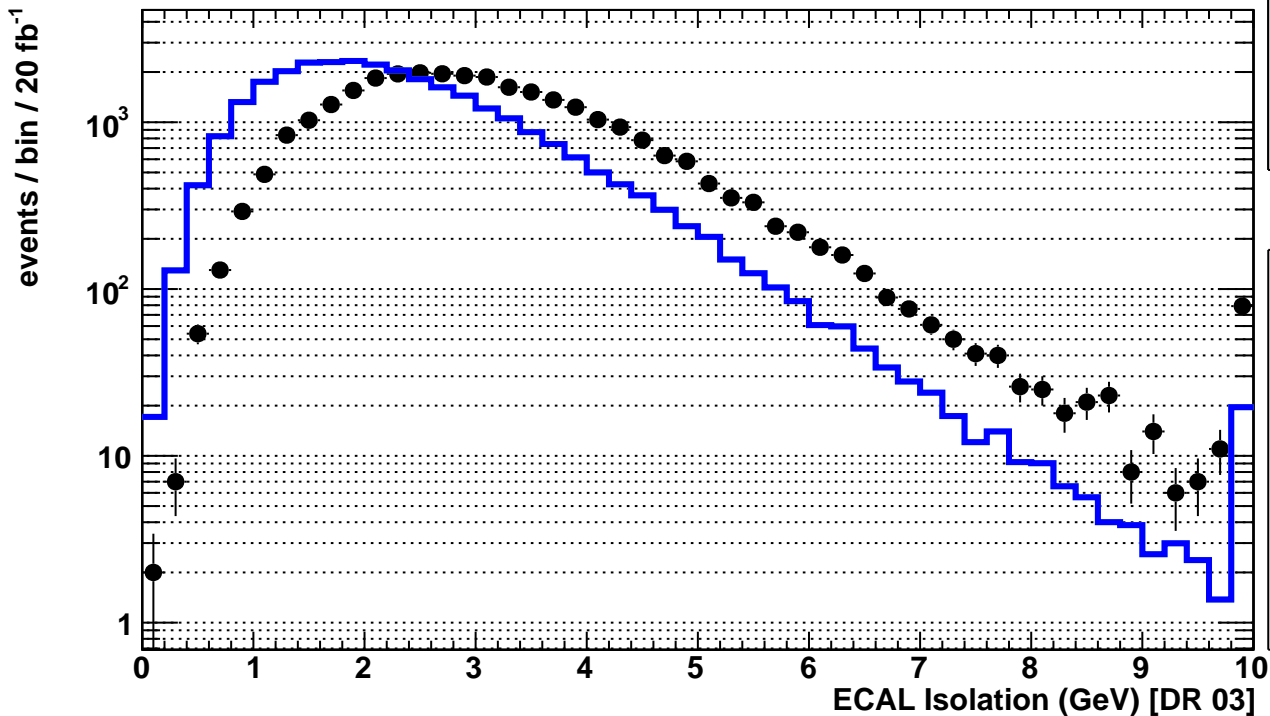


photonPat1eta	
Entries	29478
Mean	0.005187
RMS	0.8381
Underflow	0
Overflow	0
Integral	2.948e+04

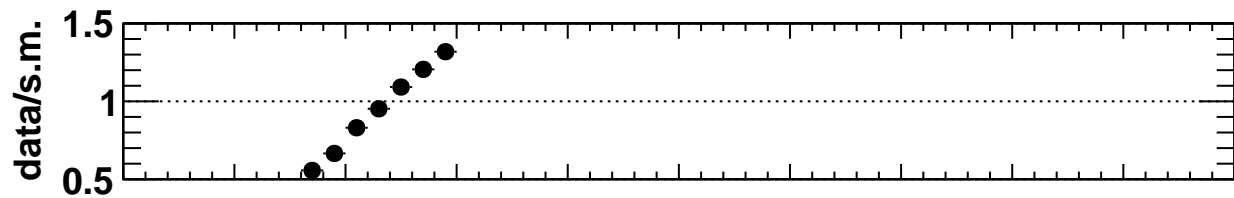
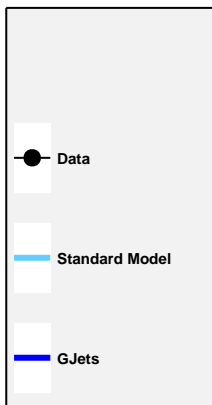


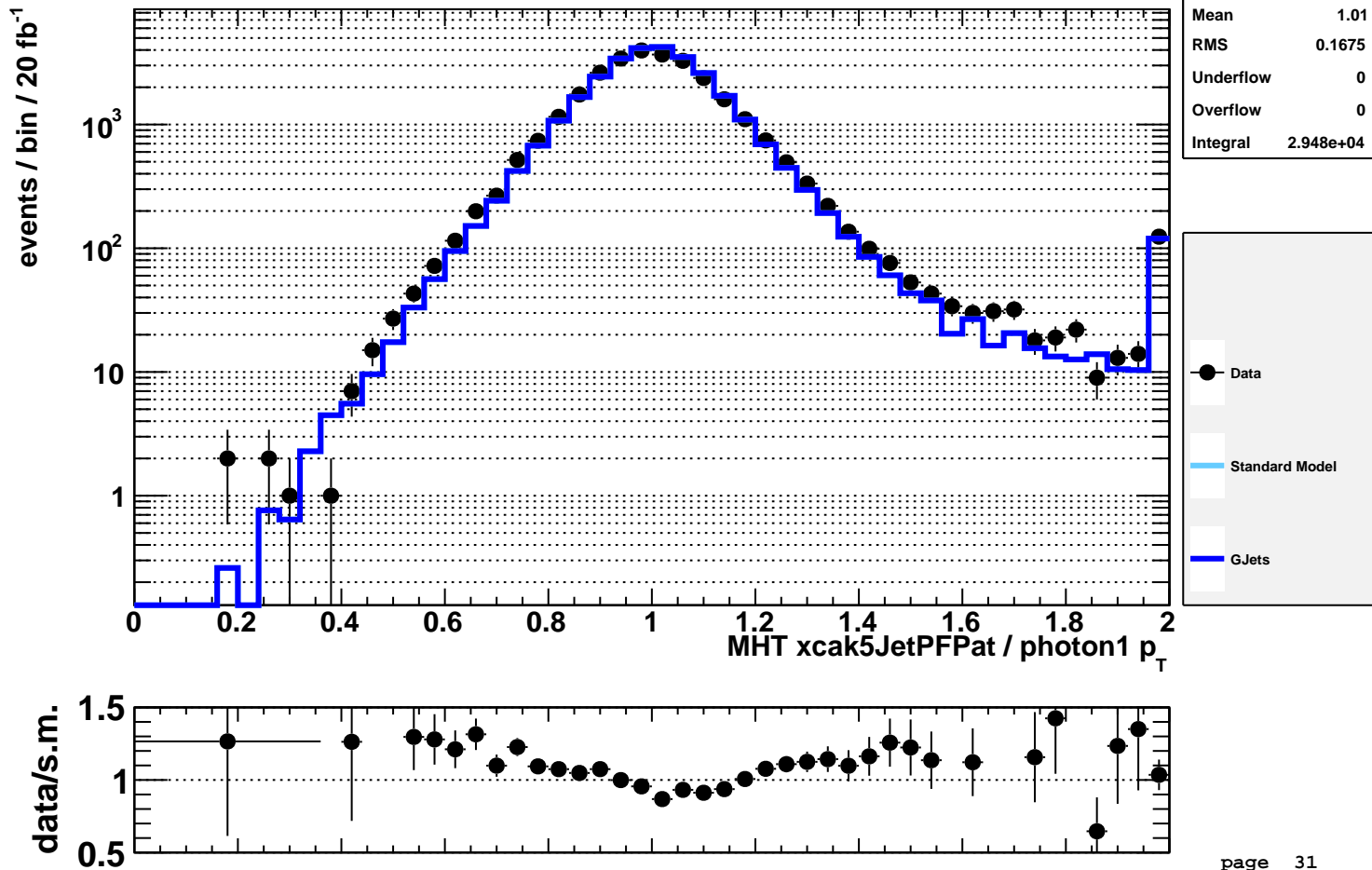


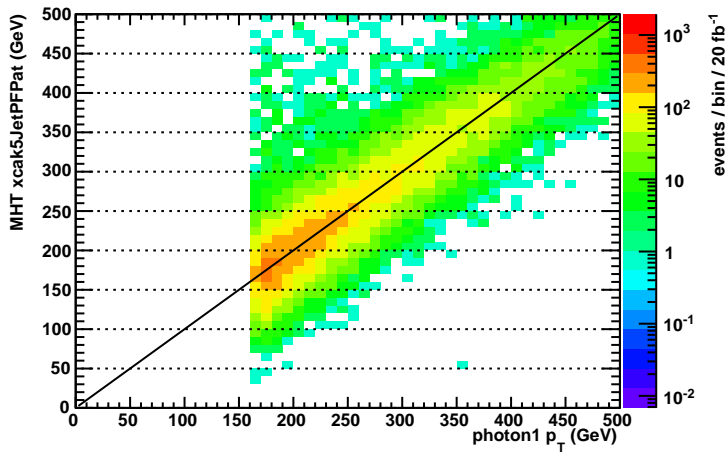
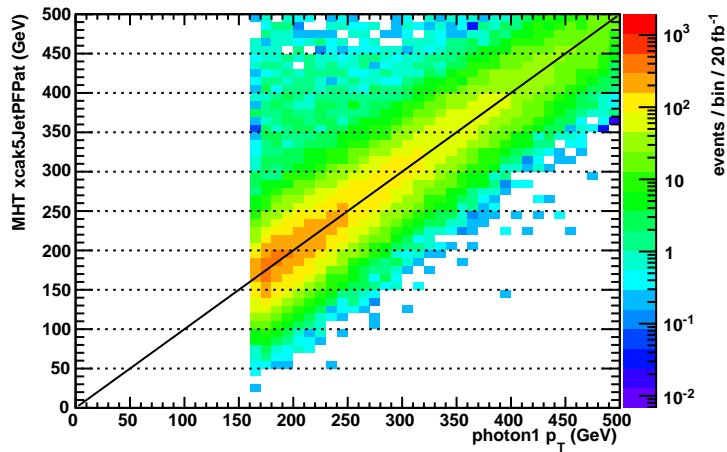
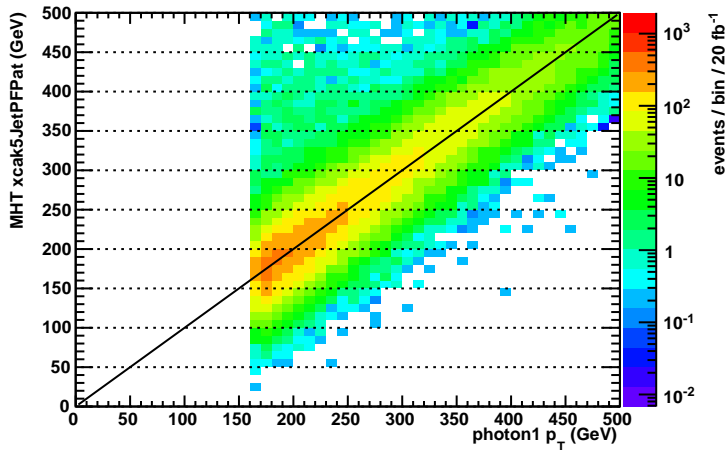




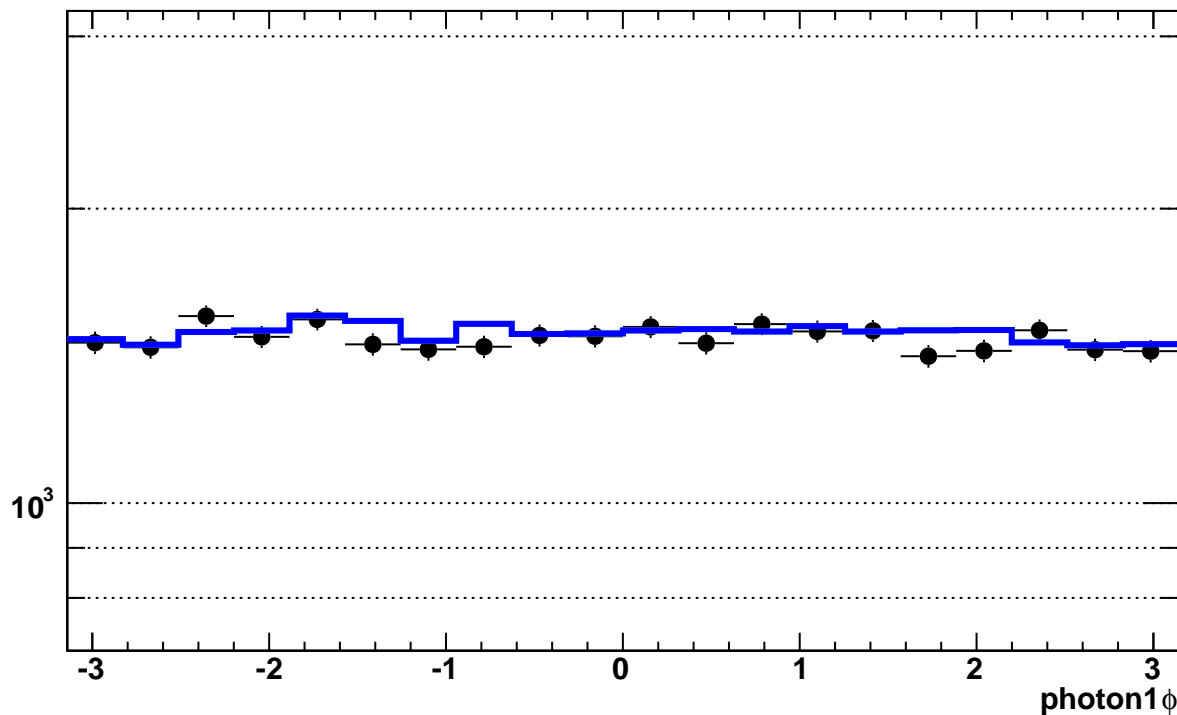
photonPat1jurassicEccalsolation	
Entries	29478
Mean	3.146
RMS	1.37
Underflow	0
Overflow	0
Integral	2.948e+04



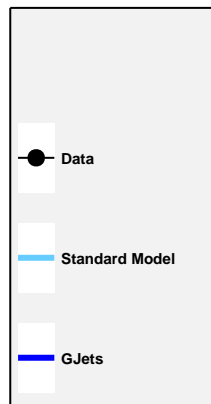


Data**Standard Model****GJets**

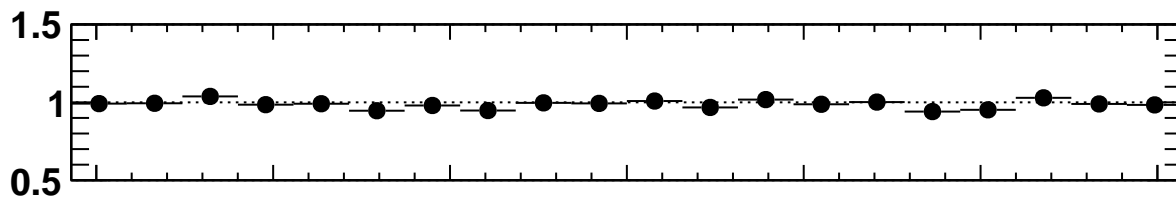
events / bin / 20 fb⁻¹

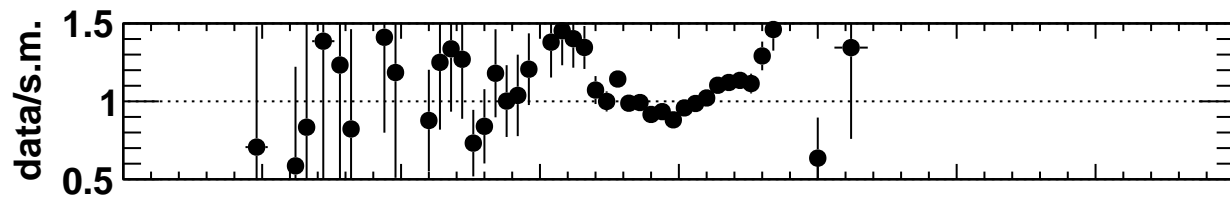
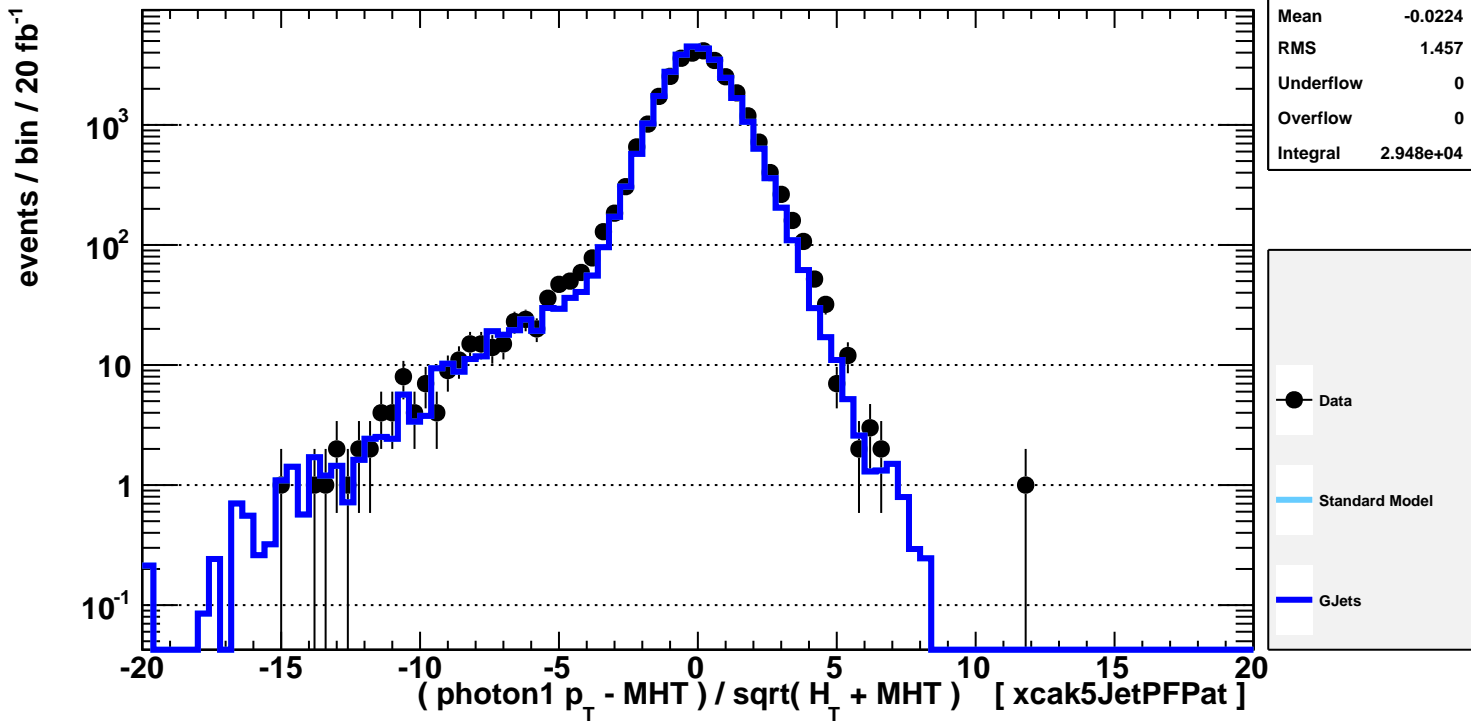


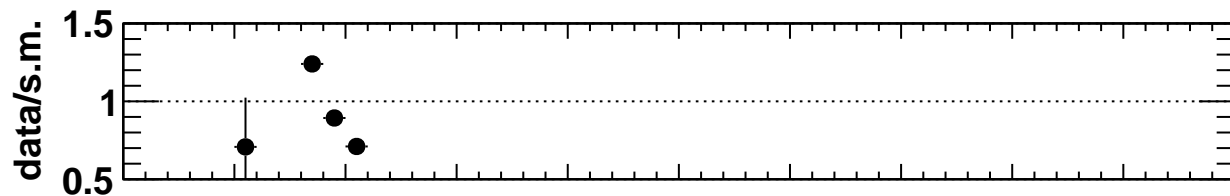
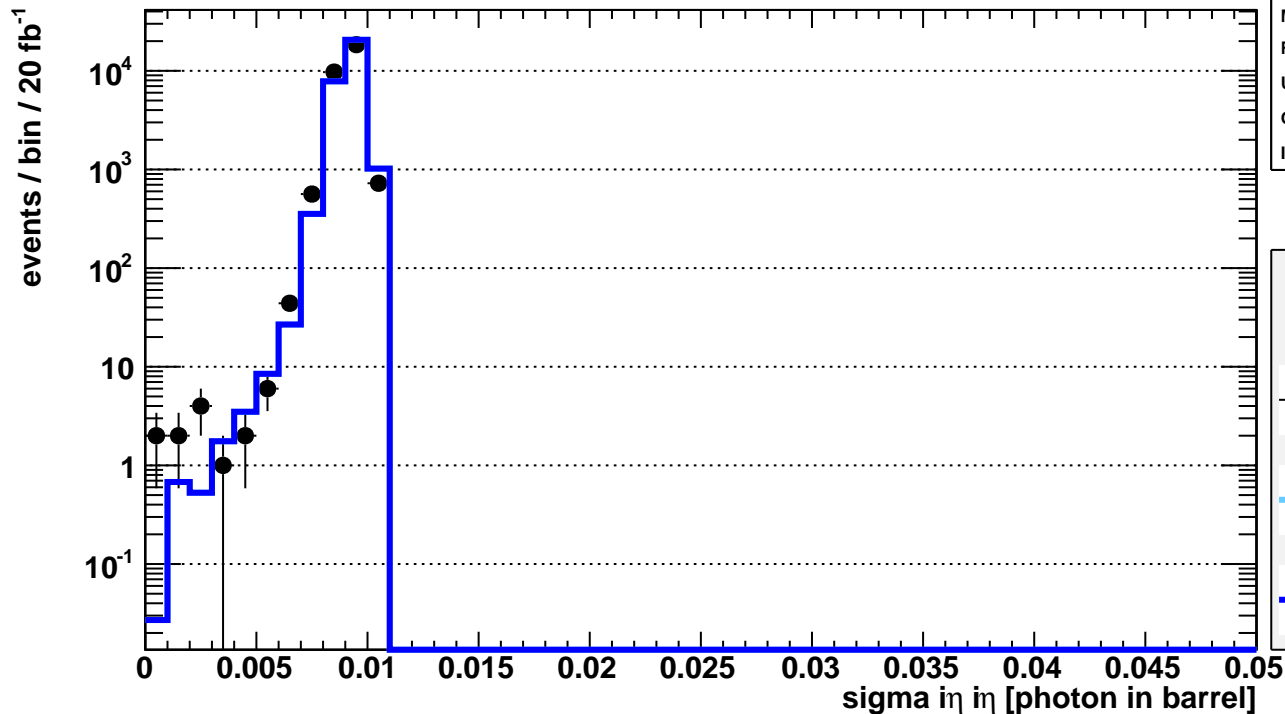
photonPat1phi	
Entries	29478
Mean	-0.01122
RMS	1.809
Underflow	0
Overflow	0
Integral	2.948e+04

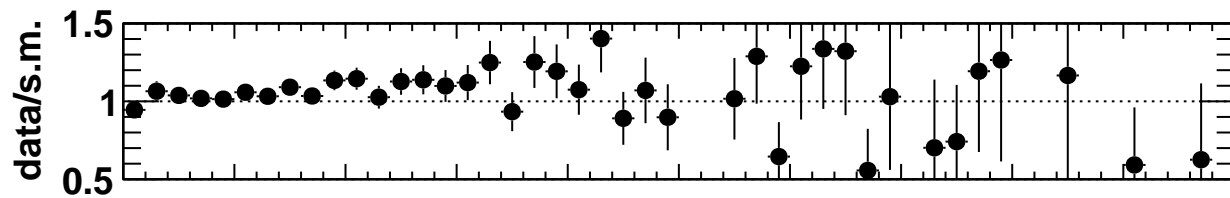
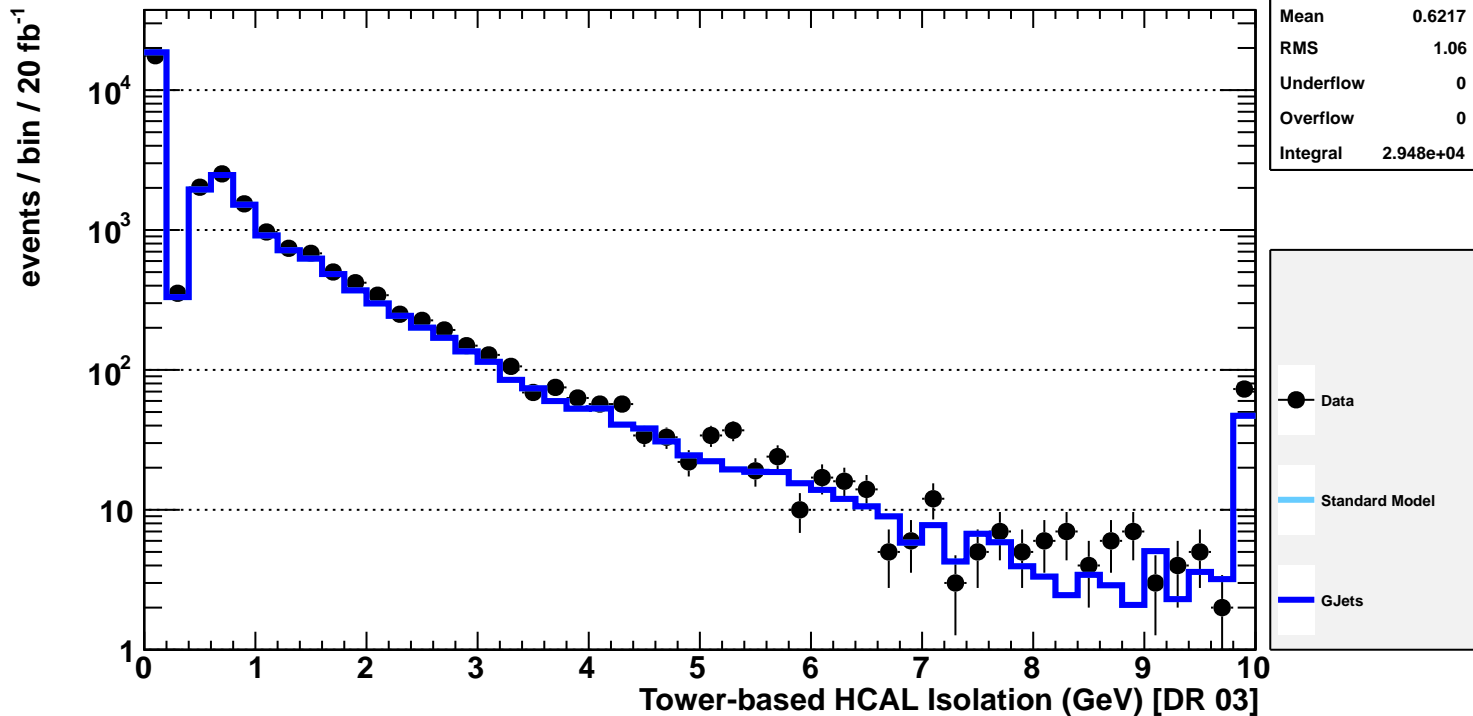


data/s.m.









```

s: jetEtaSelector          xcak5JetPFPat; |eta[index[0]]|<=2.5
t: value                   375.00<=xcak5JetPFSumEtPat

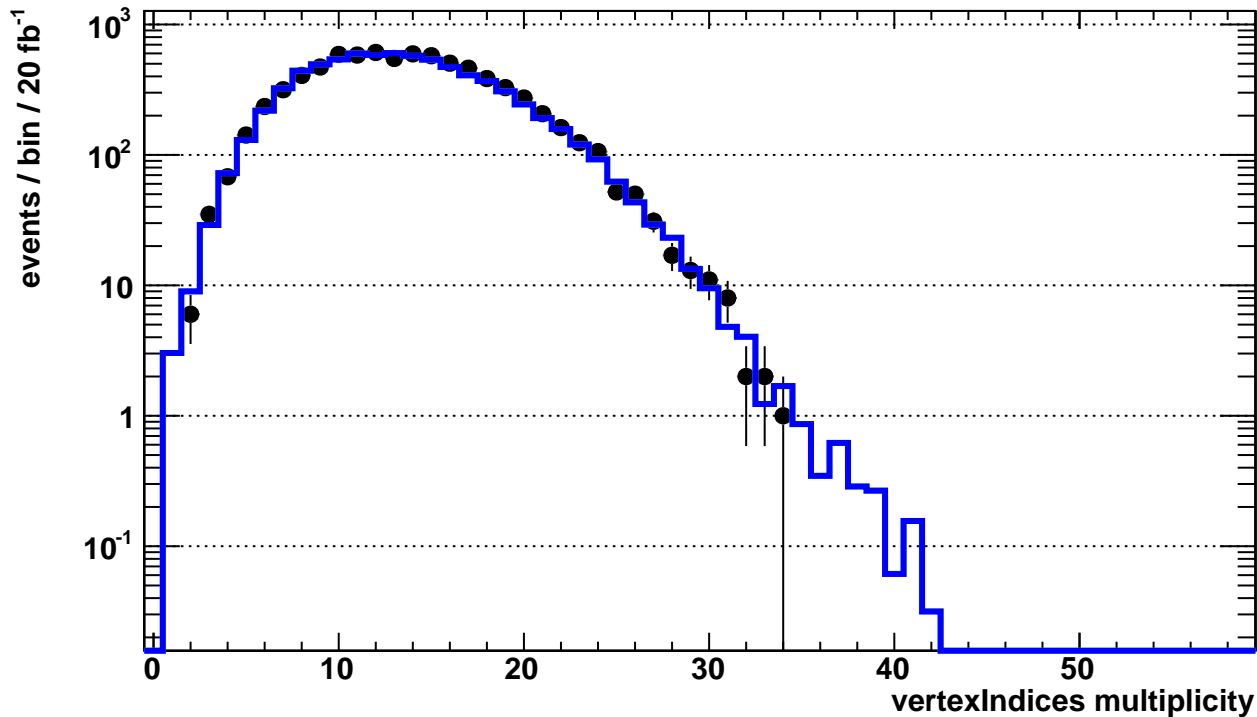
[ jetSumPlots ]
v: multiplicity           2 <= xcak5JetPFIIndicesPat
w: multiplicity           0 <= xcak5JetPFIIndicesOtherPat <= 0
x: multiplicity           0 <= xcak5JetPFIIndicesWithOddMuonPat <= 0
y: uniquelyMatchedNonisoMuons xcak5JetPFPat

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

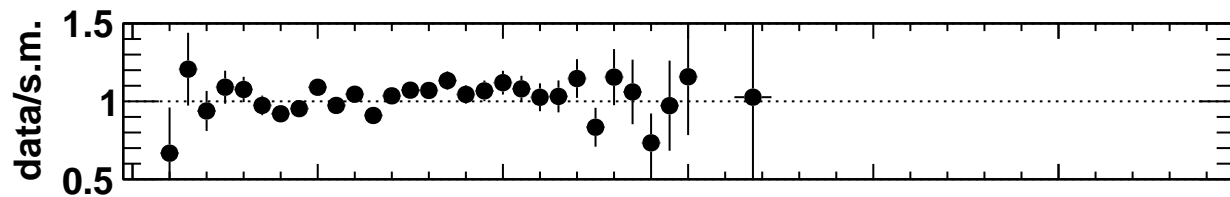
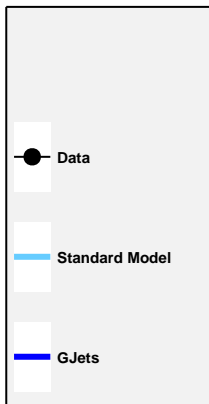
E: pt                     165.00<=photonP4Pat[i[0]].pt; photonIndicesPat
F: absEta                 0.00<=photonP4Pat[i[0]].absEta<=1.44; photonIndicesPat
G: DeltaRGreaterSelector  xcak5JetPFPat; DR(photonPat[i[0]], jet) > 1.00
H: multiplicity           1 <= photonIndicesPat <= 1
I: value                  xcak5JetPFMhthighPtPatOvermetP4TypeIPFPlusphotonIndicesPat<=1.25
J: value                  0.55<=xcak5JetPFAlphaTETPat

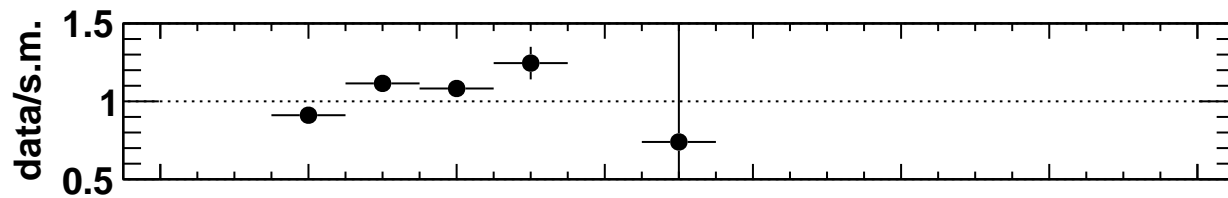
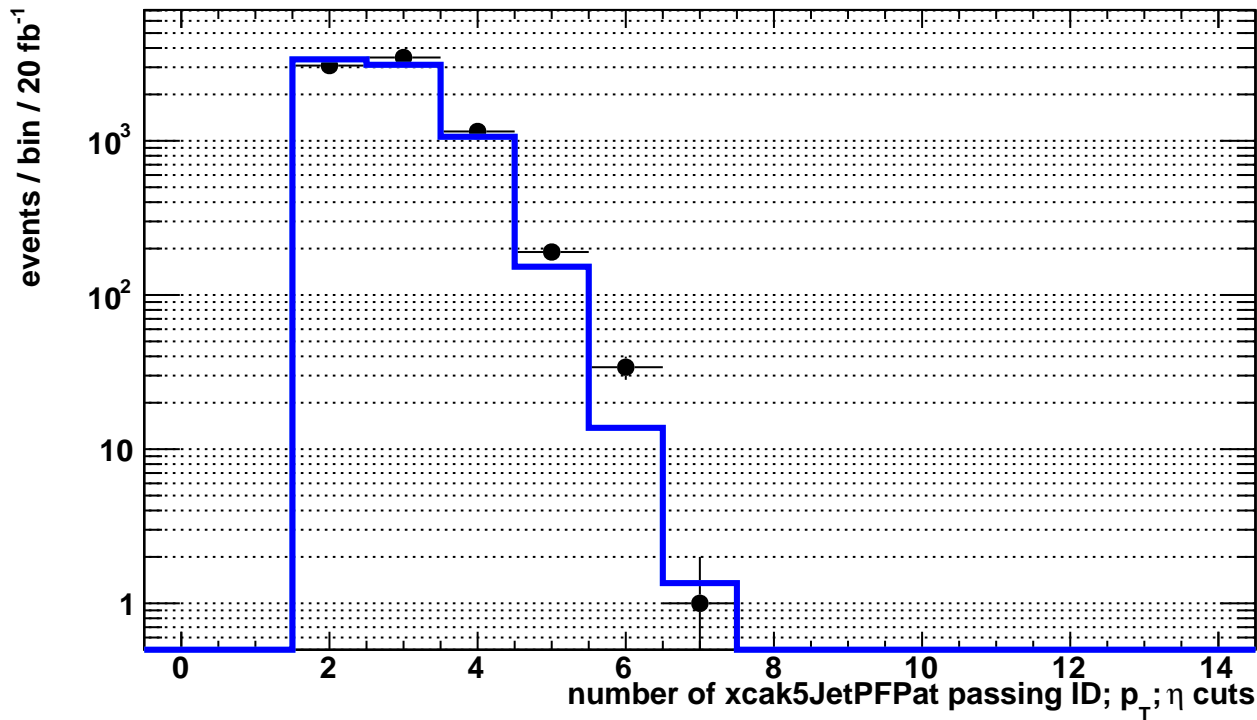
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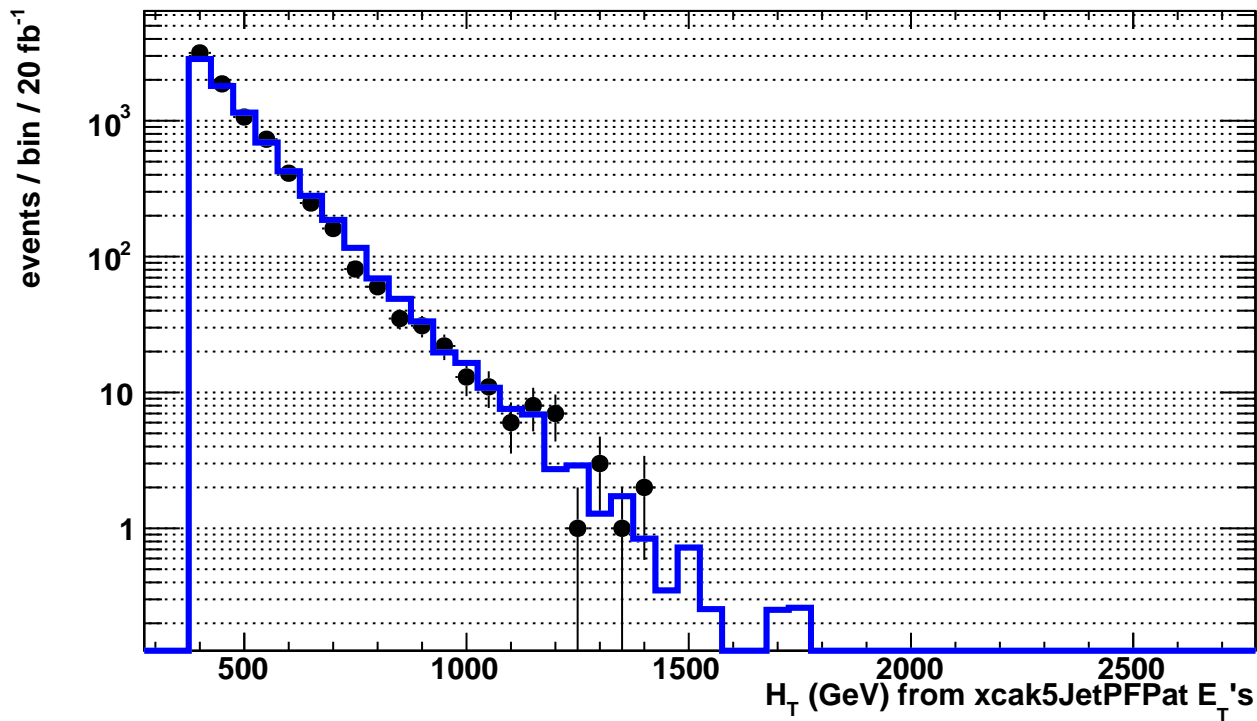
	Data	Standard Model	GJets	data/s.m.
s:	12166027	6.113(1)e+6	6.113(1)e+6	1.9901(7)
t:	11233931	2.2154(8)e+6	2.2154(8)e+6	5.071(2)
[jetSumPlots]				
v:	11233931	2.2154(8)e+6	2.2154(8)e+6	5.071(2)
w:	11055260	2.1843(8)e+6	2.1843(8)e+6	5.061(2)
x:	11052859	2.1838(8)e+6	2.1838(8)e+6	5.061(2)
y:	11049975	2.1832(8)e+6	2.1832(8)e+6	5.061(2)
z:	11015040	2.1413(8)e+6	2.1413(8)e+6	5.144(2)
A:	11009428	2.1411(8)e+6	2.1411(8)e+6	5.142(2)
B:	11008013	2.1407(8)e+6	2.1407(8)e+6	5.142(2)
C:	11007336	2.1400(8)e+6	2.1400(8)e+6	5.144(2)
D:	3388782	6.377(4)e+5	6.377(4)e+5	5.314(5)
E:	39894	3.98(1)e+4	3.98(1)e+4	1.003(6)
F:	34809	3.517(10)e+4	3.517(10)e+4	0.990(6)
G:	29593	2.988(9)e+4	2.988(9)e+4	0.990(6)
H:	29478	2.987(9)e+4	2.987(9)e+4	0.987(6)
I:	27953	2.855(9)e+4	2.855(9)e+4	0.979(7)
J:	7922	7.72(5)e+3	7.72(5)e+3	1.03(1)



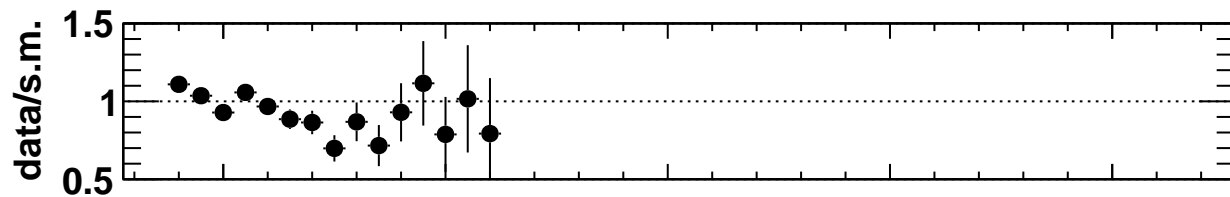
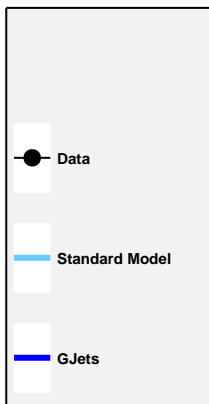
vertexIndicesMultiplicity	
Entries	7922
Mean	13.74
RMS	5.043
Underflow	0
Overflow	0
Integral	7922

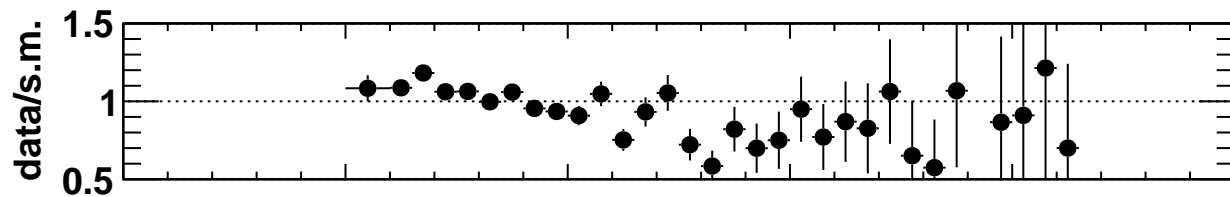
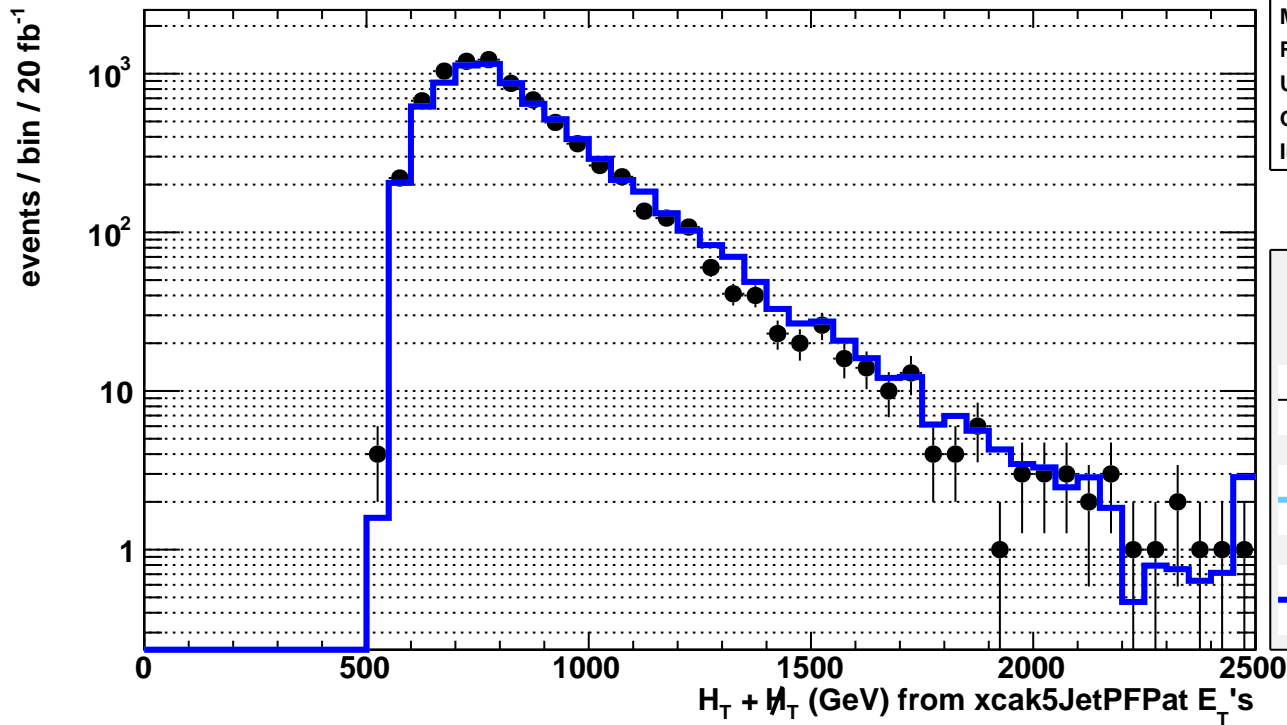




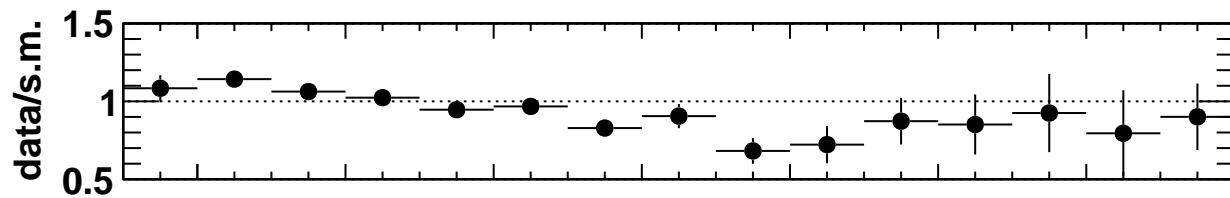
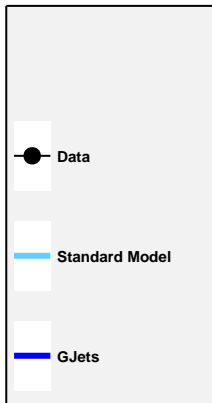
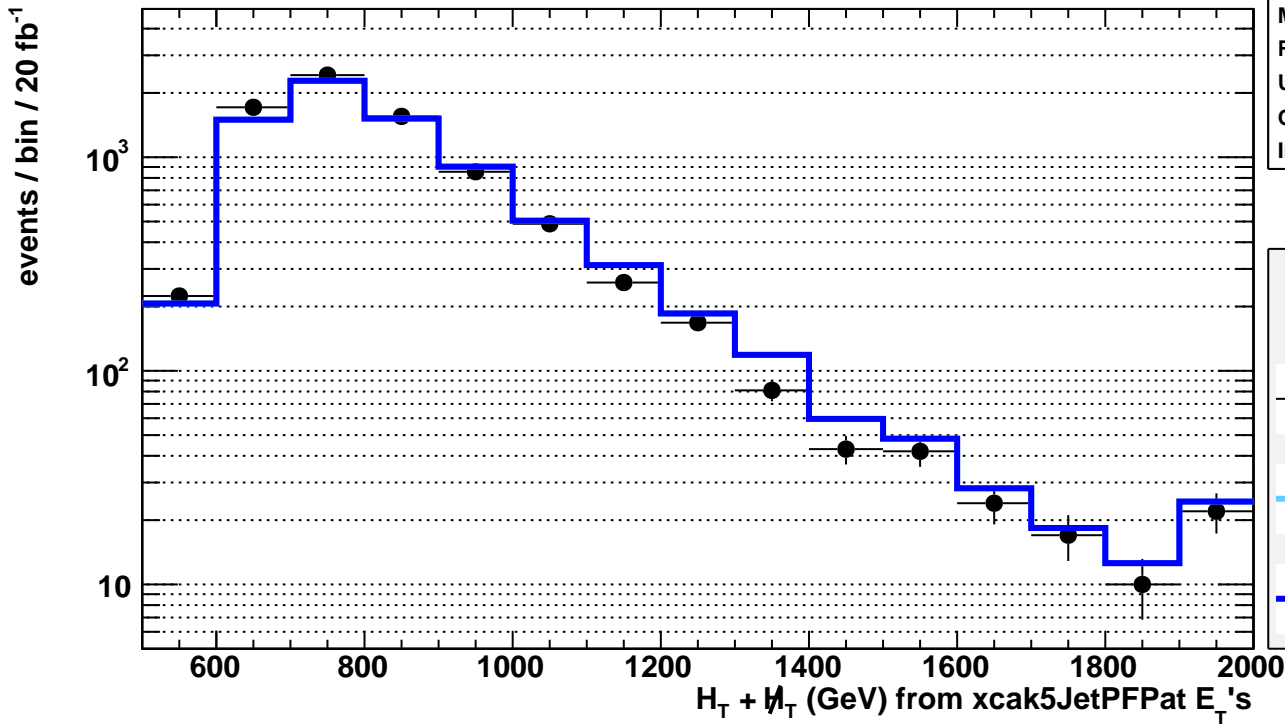


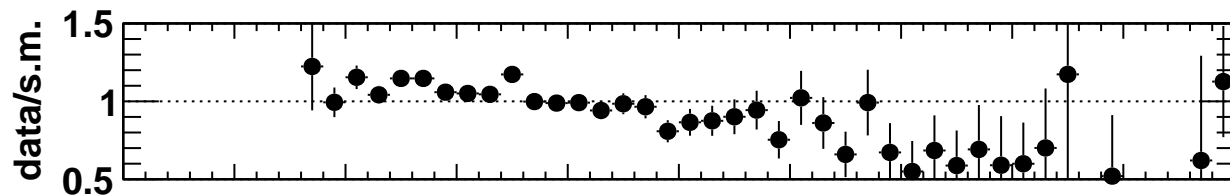
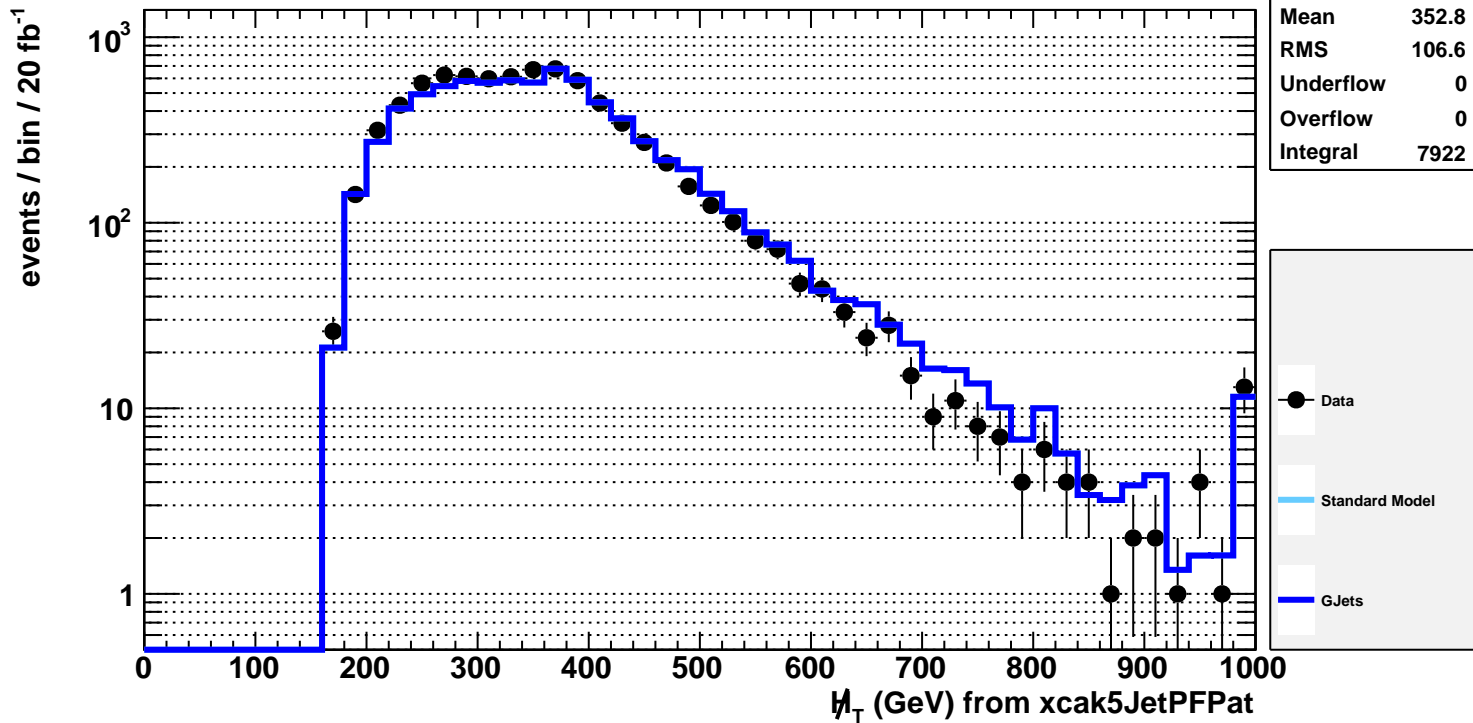
xcak5JetPFPat	
Entries	7922
Mean	477.9
RMS	110.5
Underflow	0
Overflow	0
Integral	7922

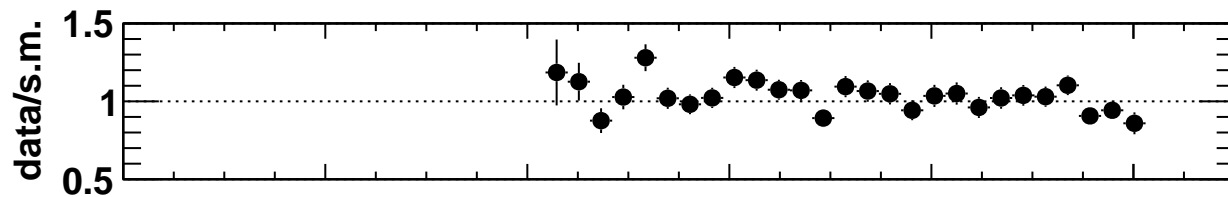
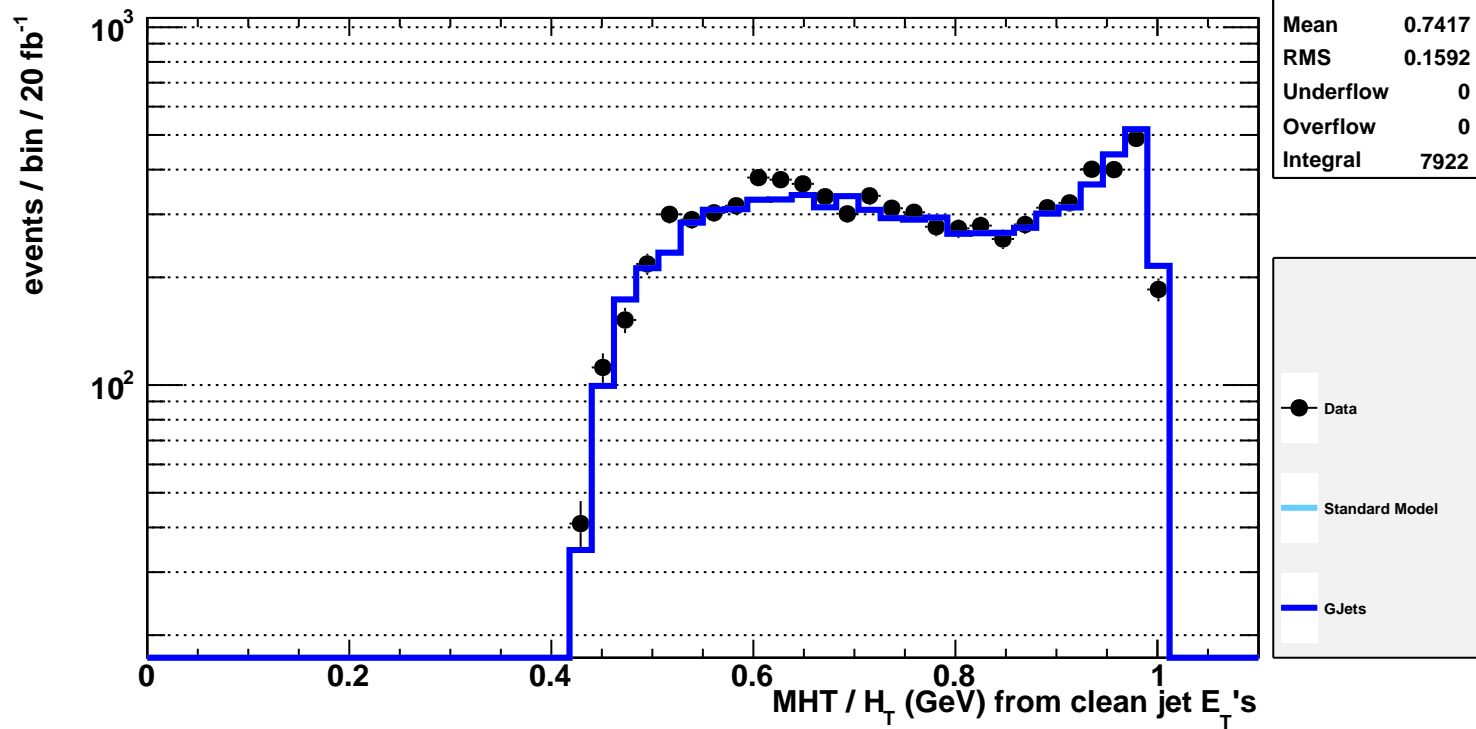


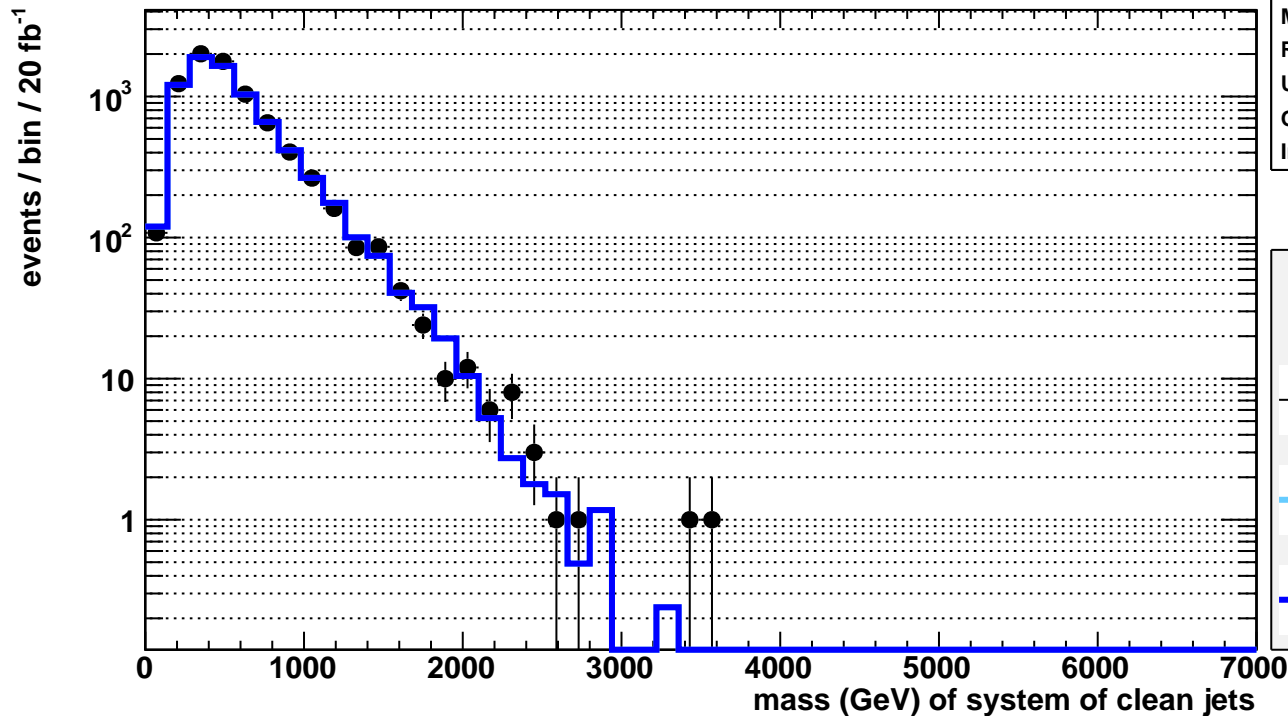


xcak5JetPFHTPlusMhtRoughPat	
Entries	7922
Mean	829.8
RMS	197.8
Underflow	0
Overflow	0
Integral	7922

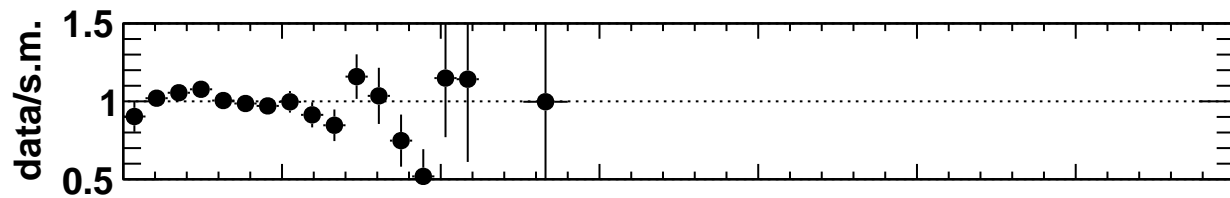
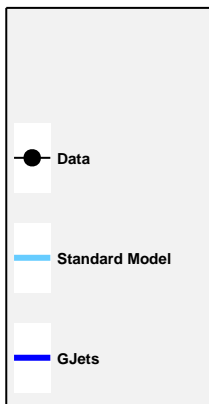


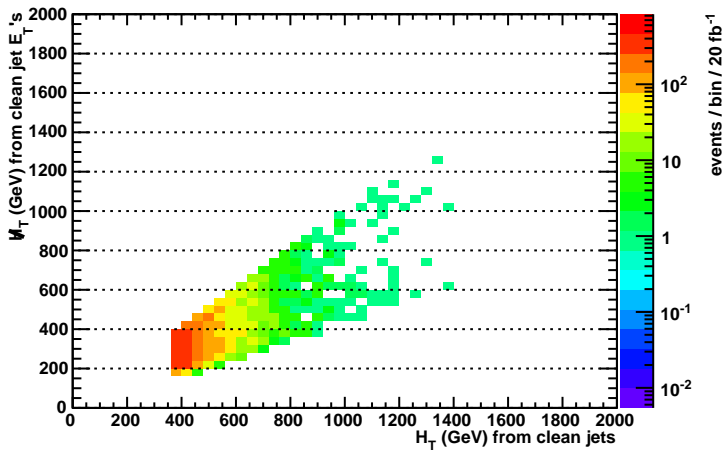
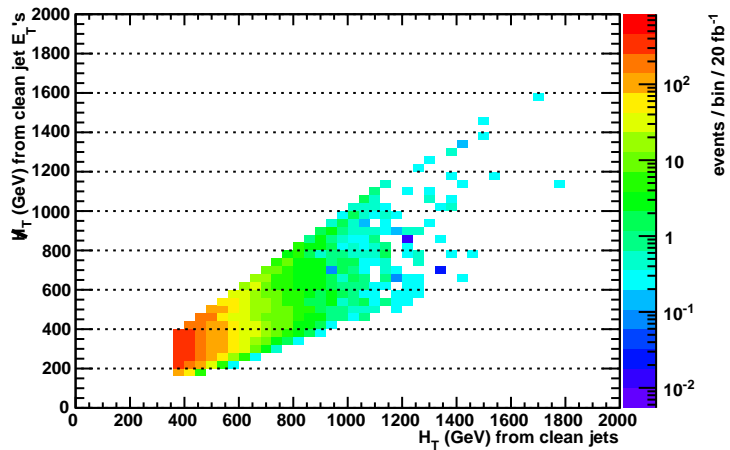
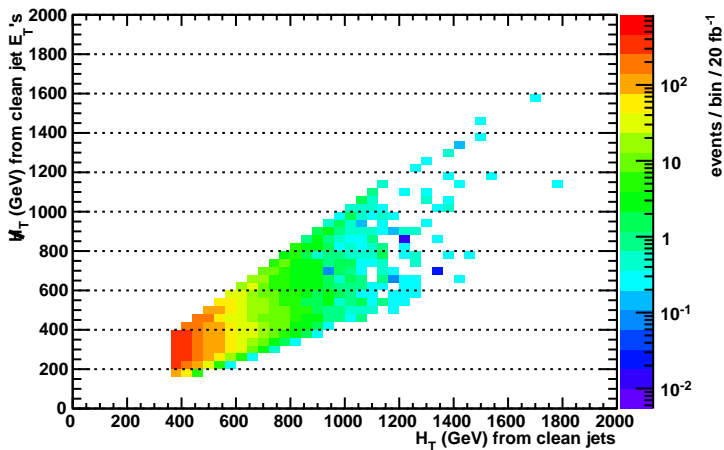


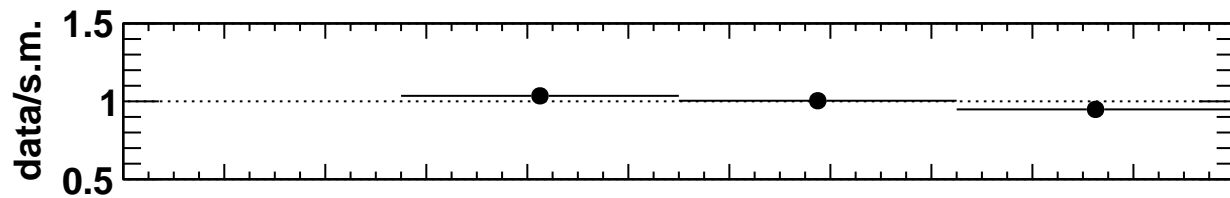
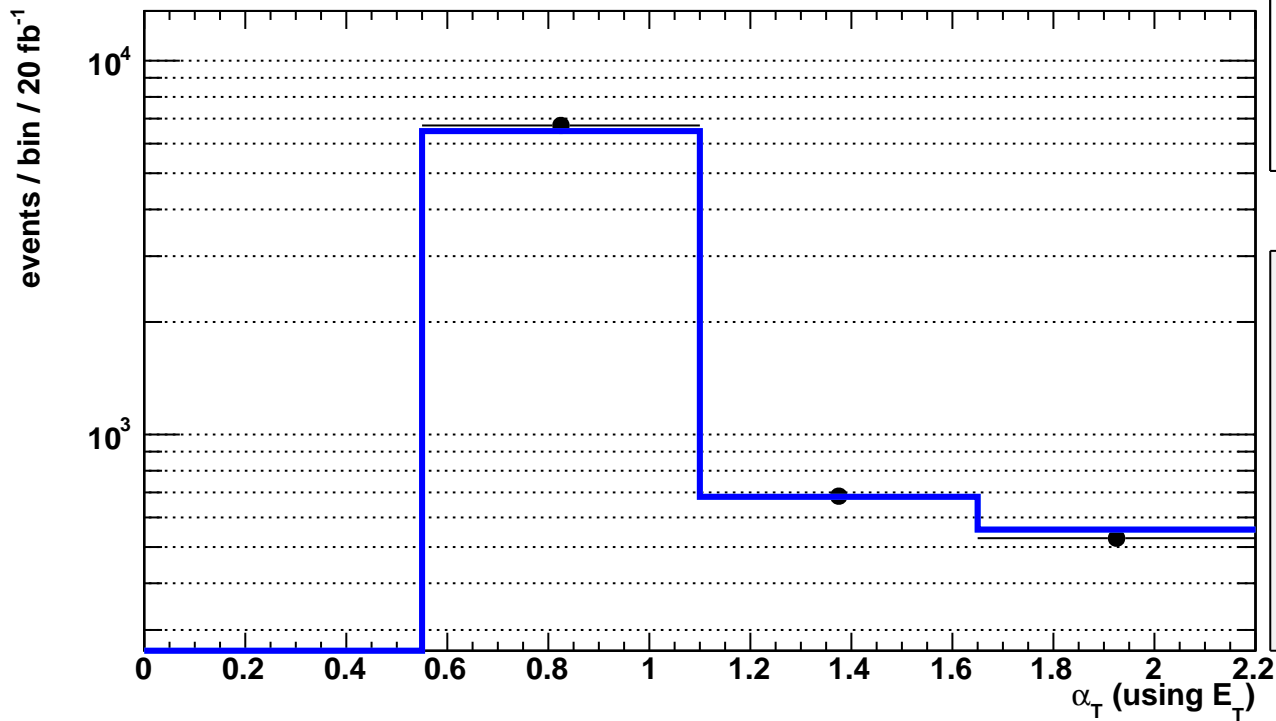


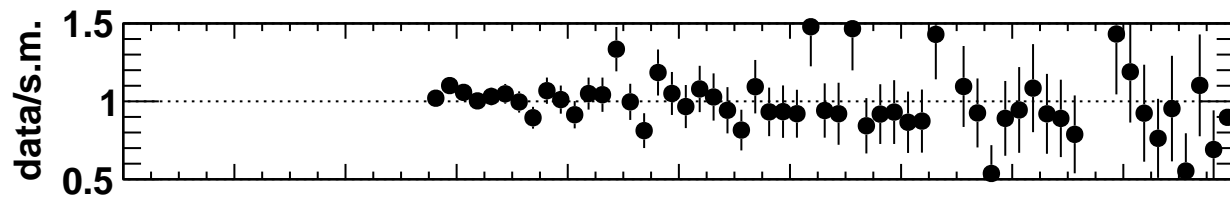
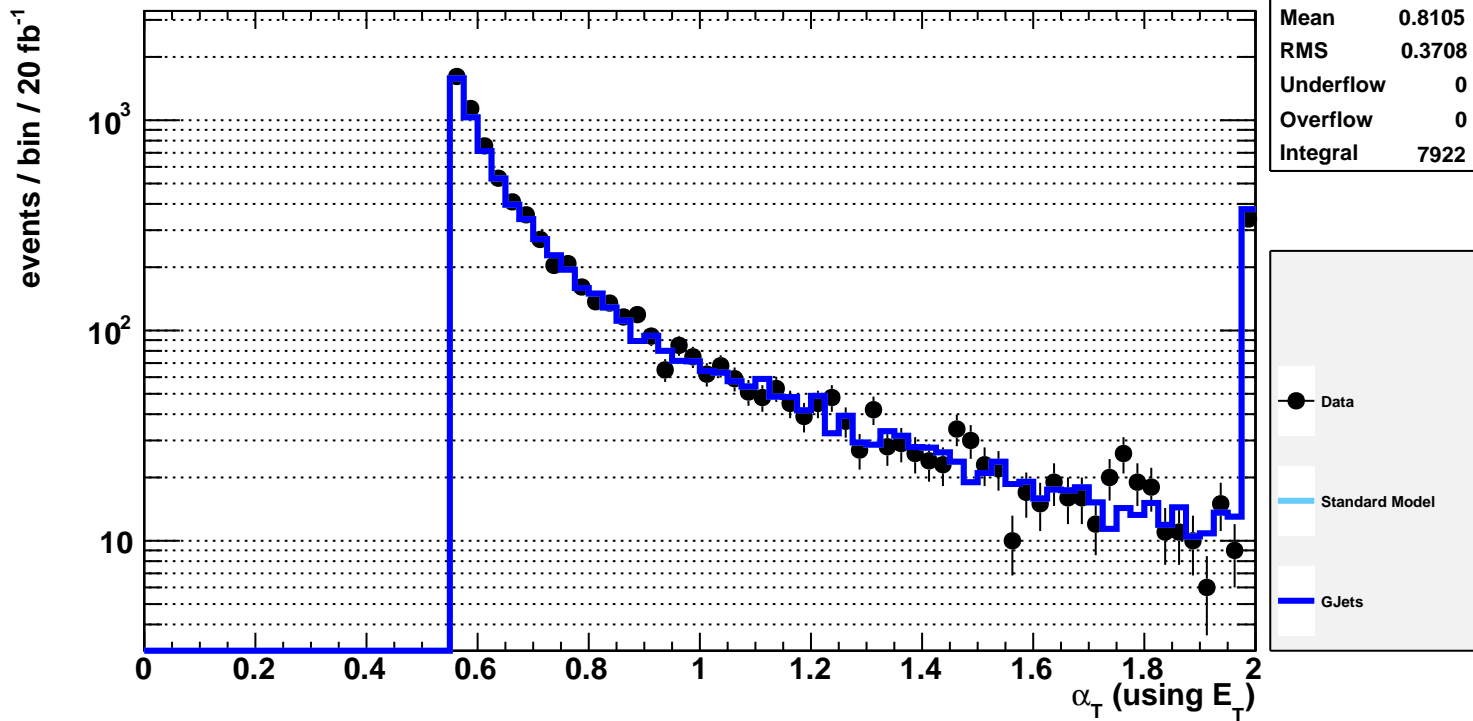


xcak5JetPFmPat	
Entries	7922
Mean	539
RMS	316.9
Underflow	0
Overflow	0
Integral	7922

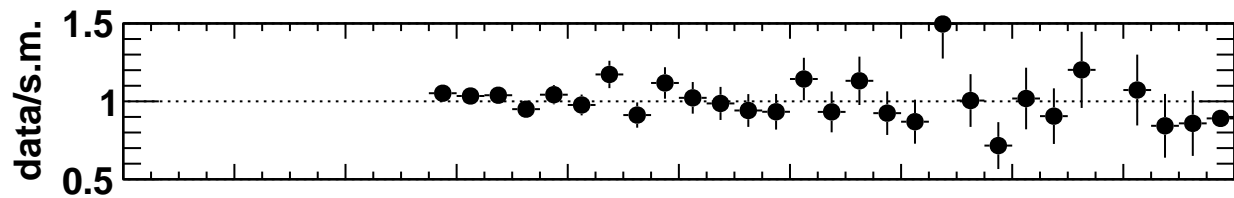
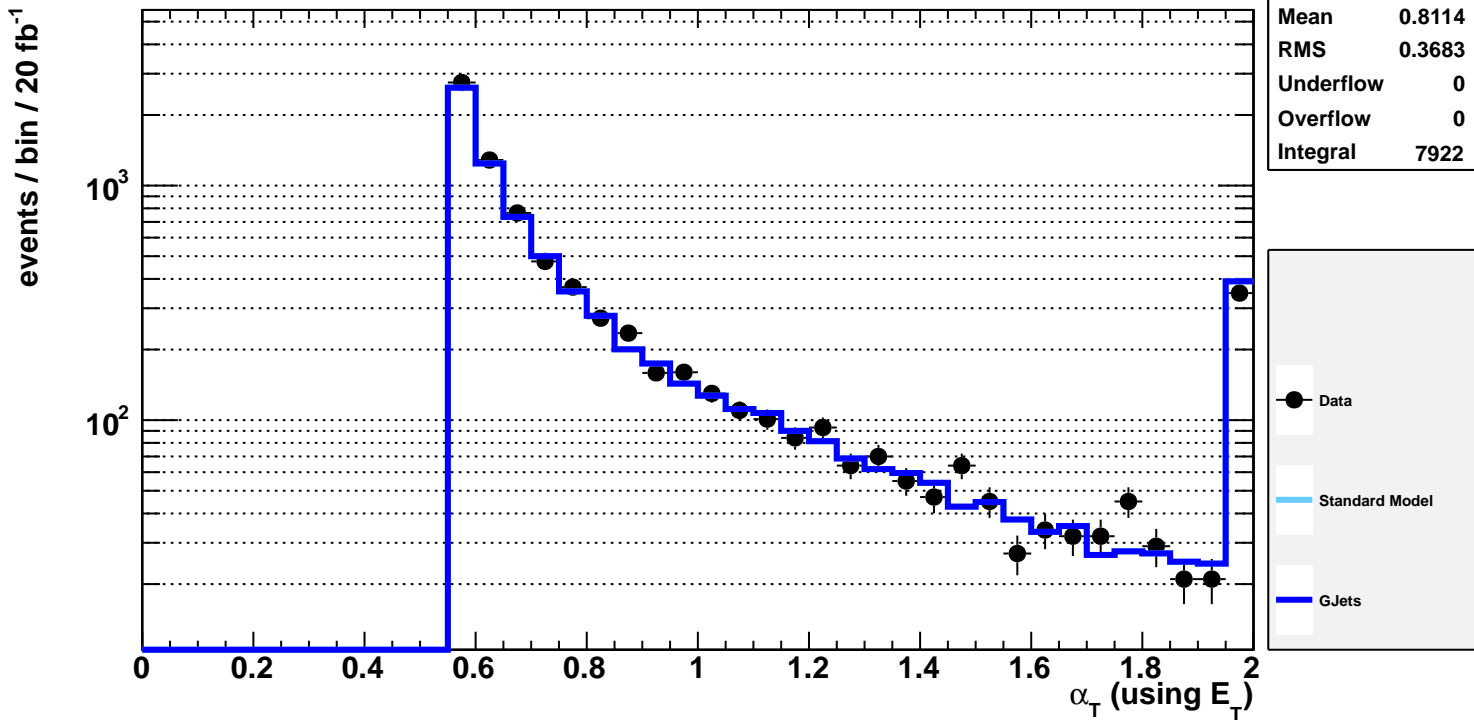


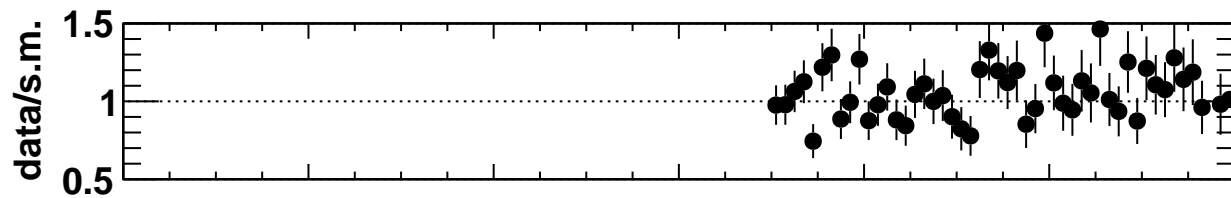
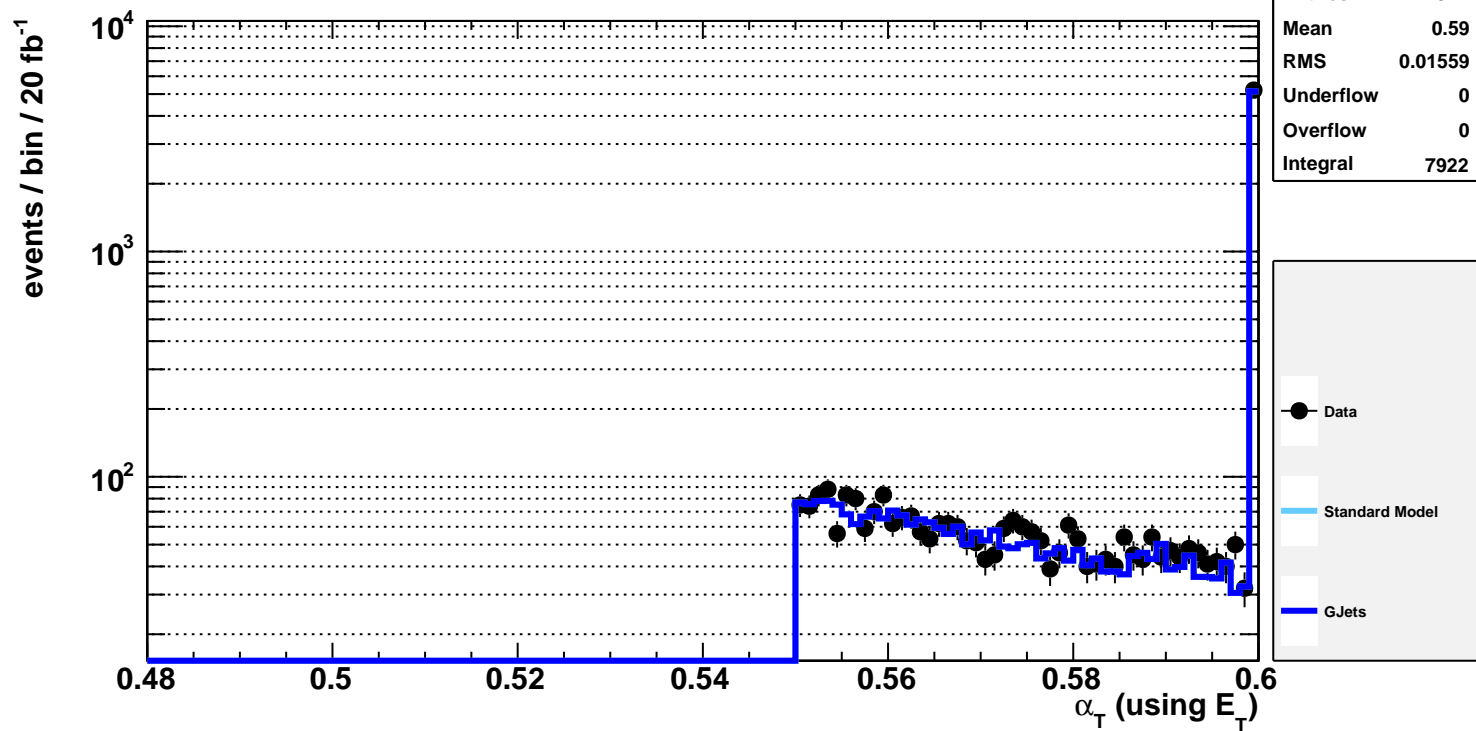
Data**Standard Model****GJets**

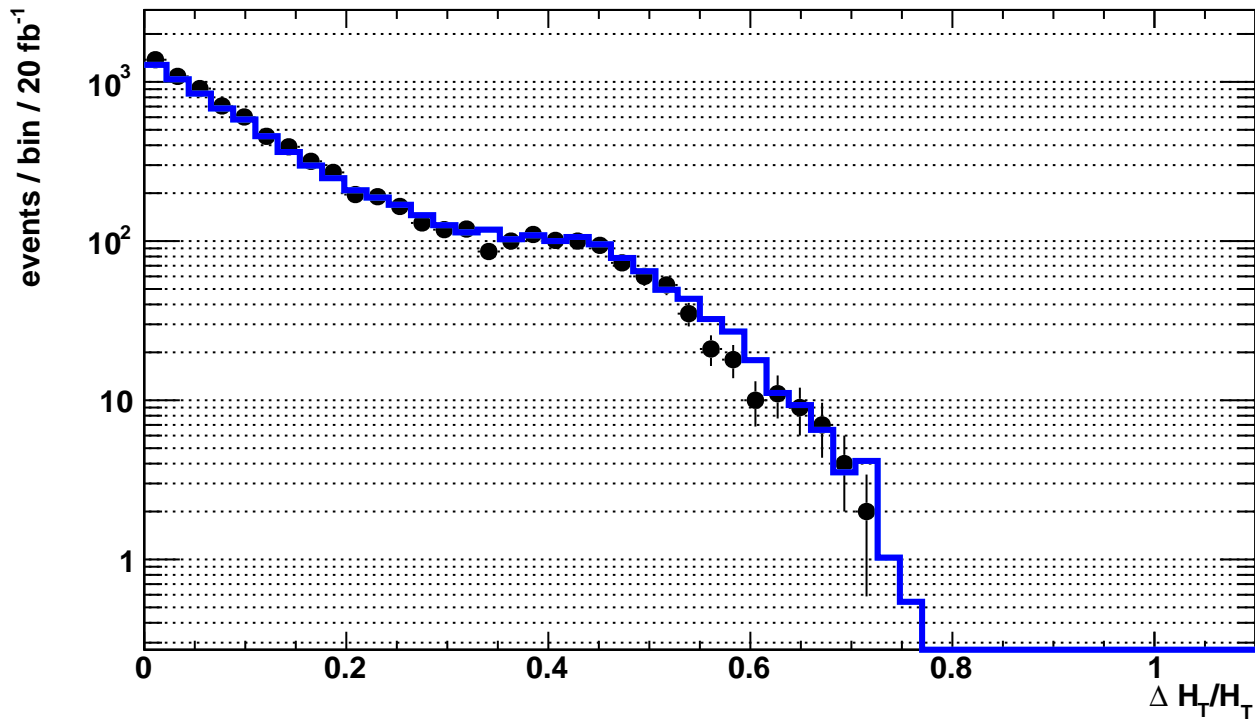




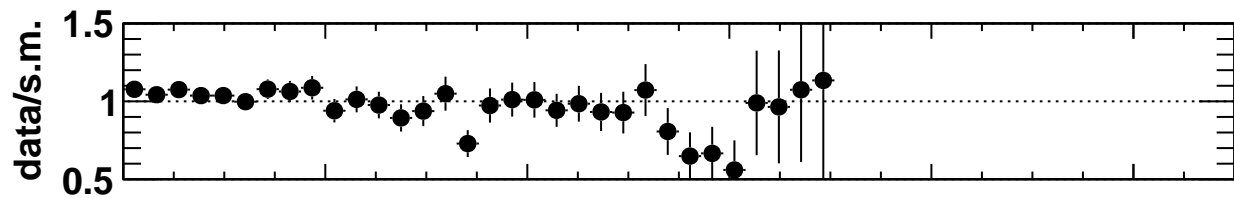
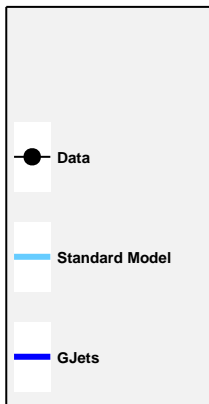
xcak5JetPFAAlphaTRoughPat	
Entries	7922
Mean	0.8114
RMS	0.3683
Underflow	0
Overflow	0
Integral	7922

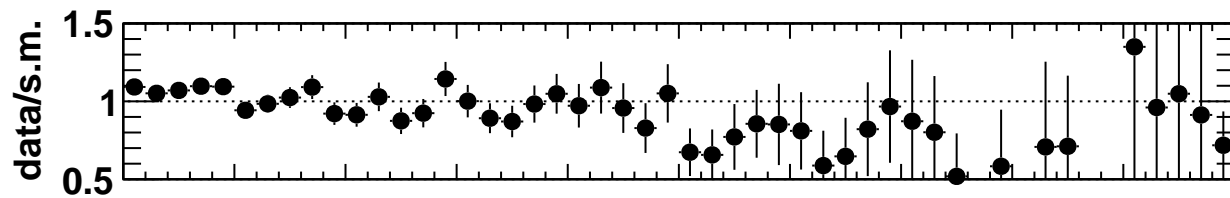
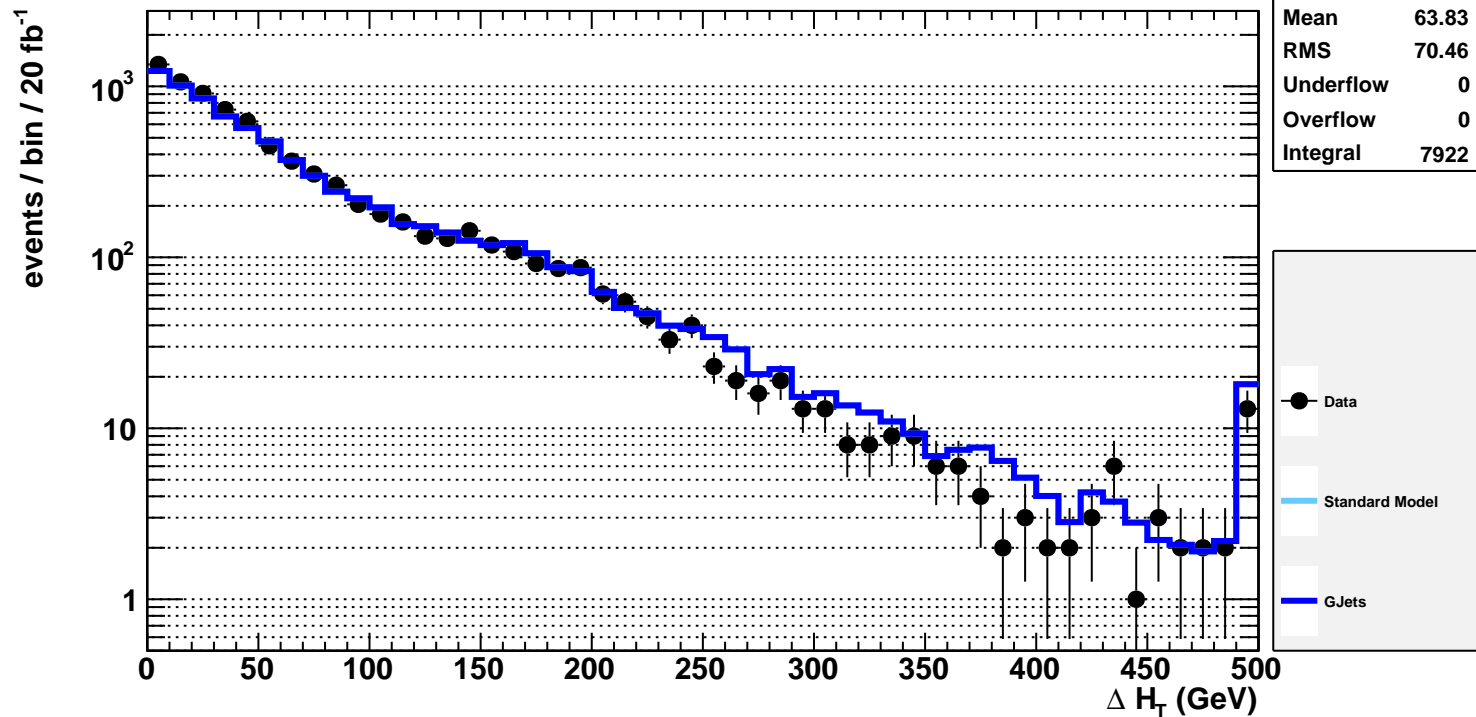


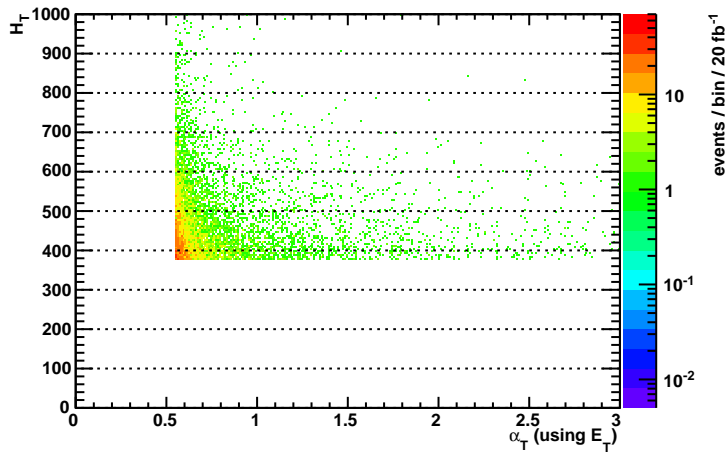
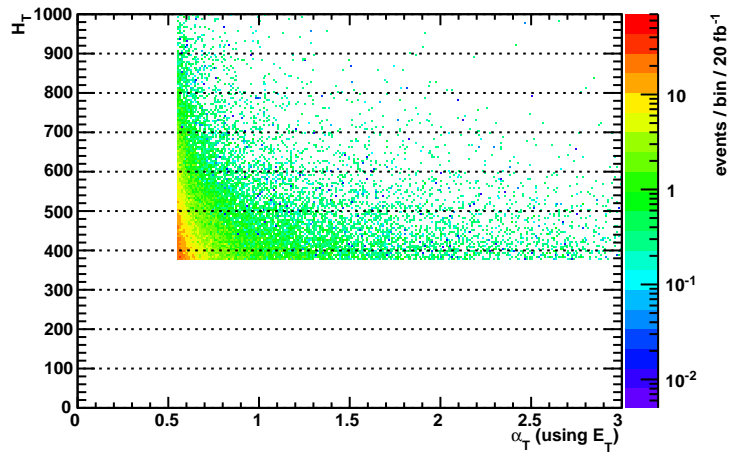
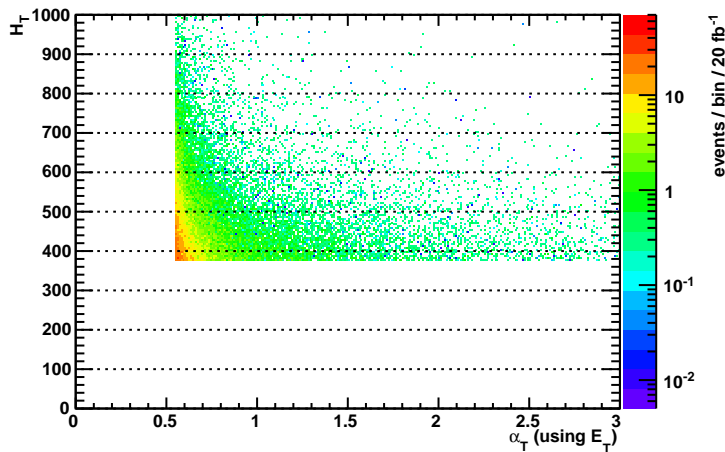


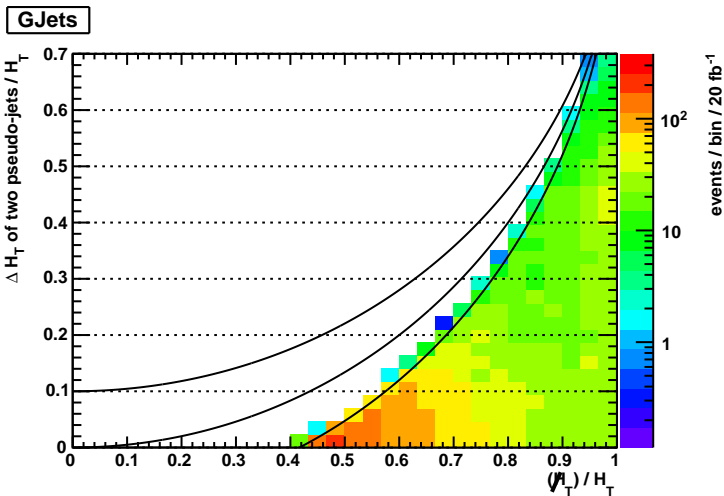
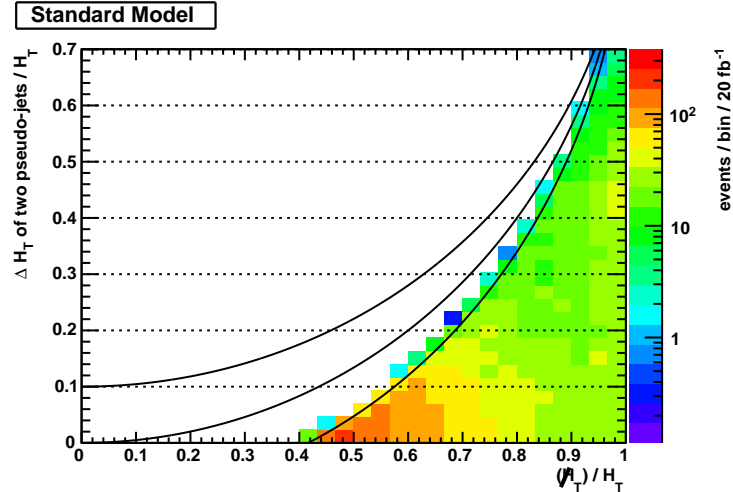
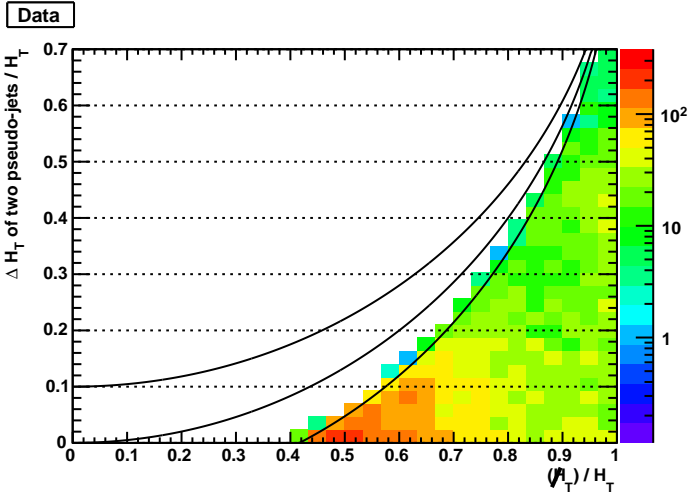


xcak5JetPFDeltaHtOverHtPat	
Entries	7922
Mean	0.1334
RMS	0.1363
Underflow	0
Overflow	0
Integral	7922

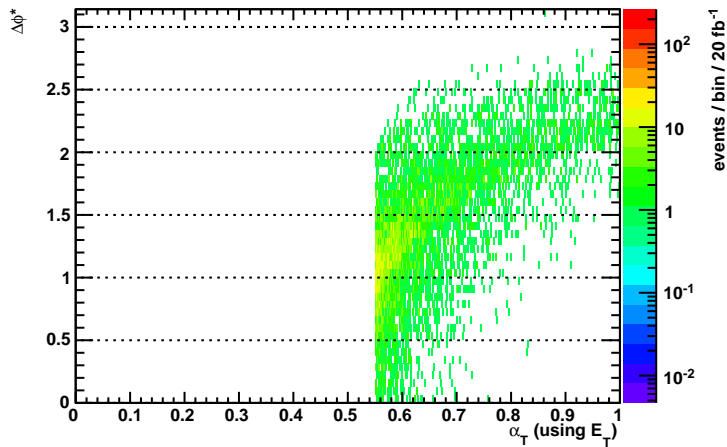




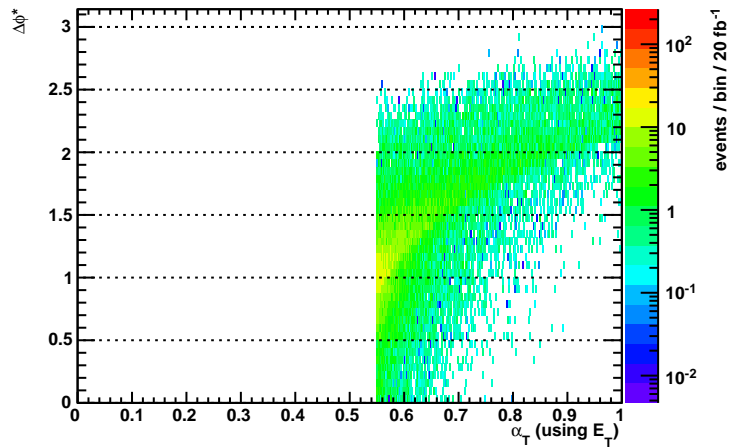
Data**Standard Model****GJets**



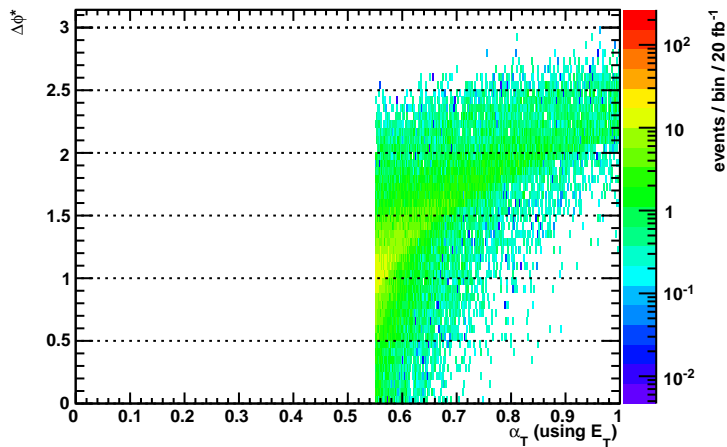
Data

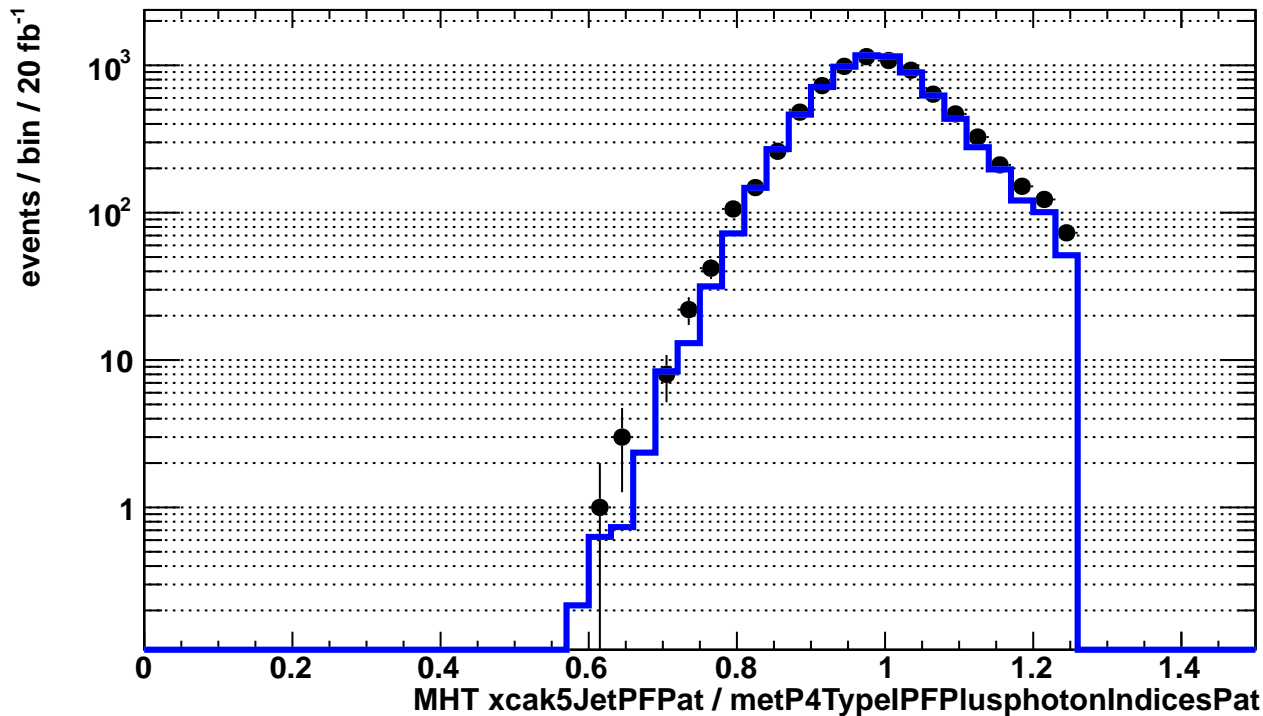


Standard Model

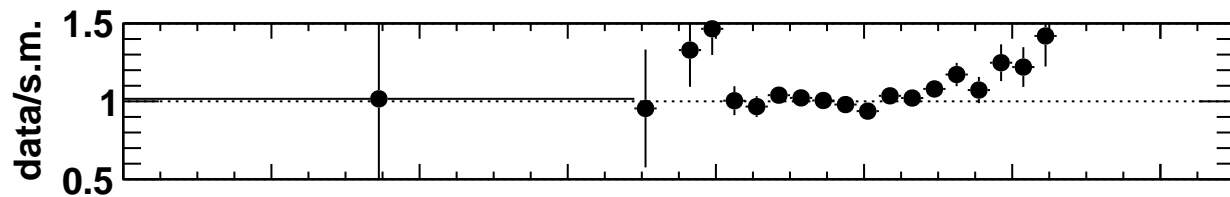
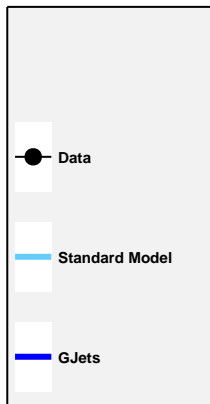


GJets

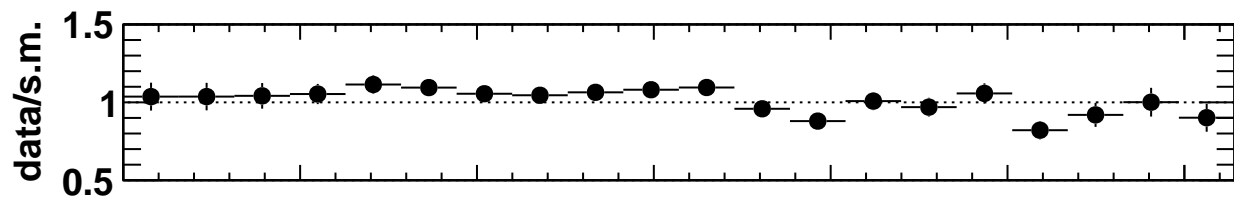
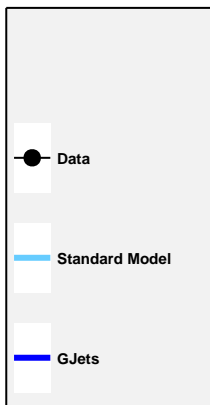
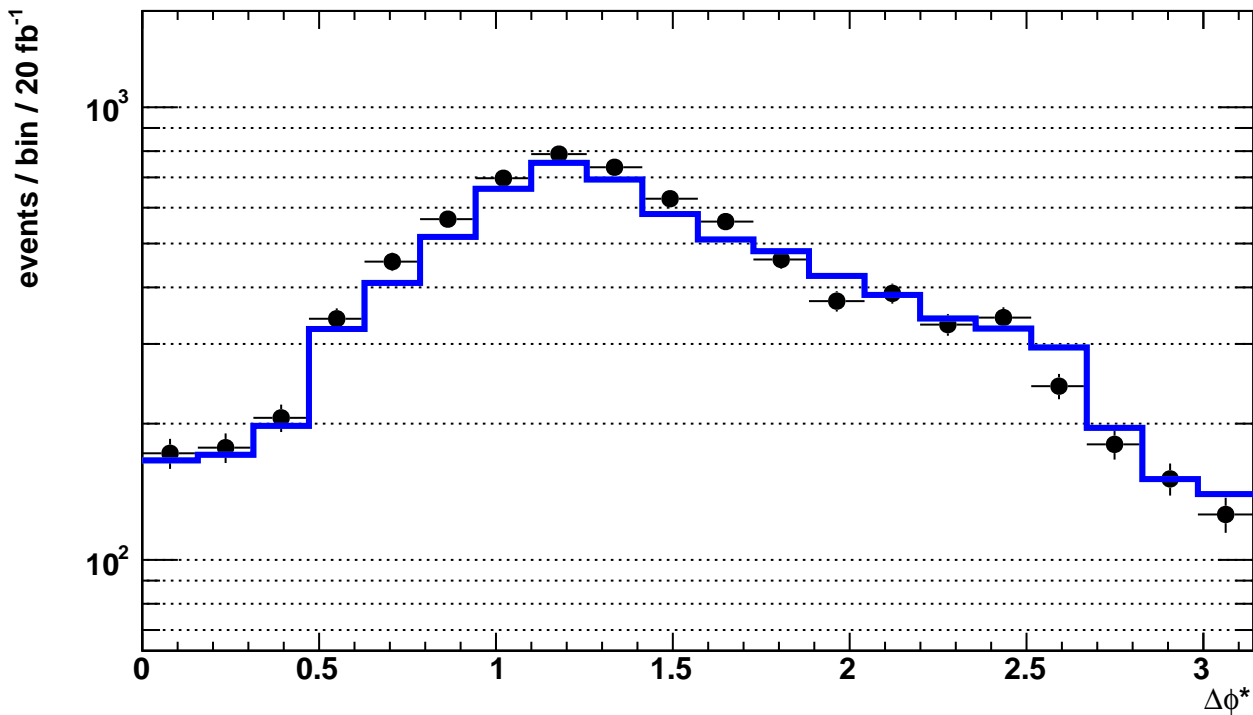




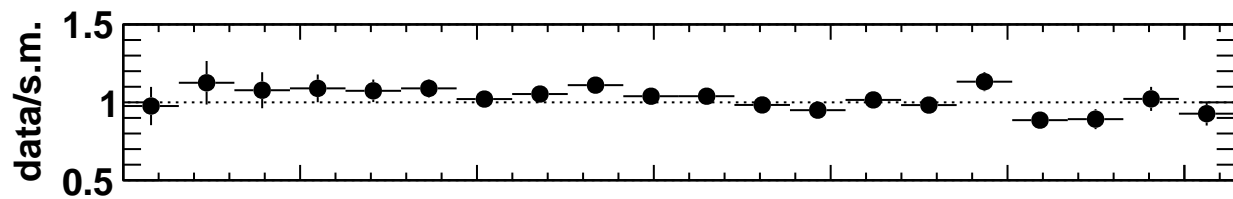
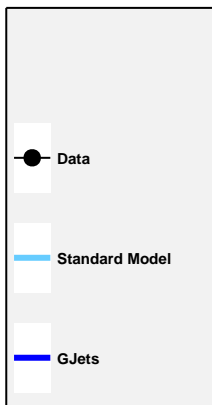
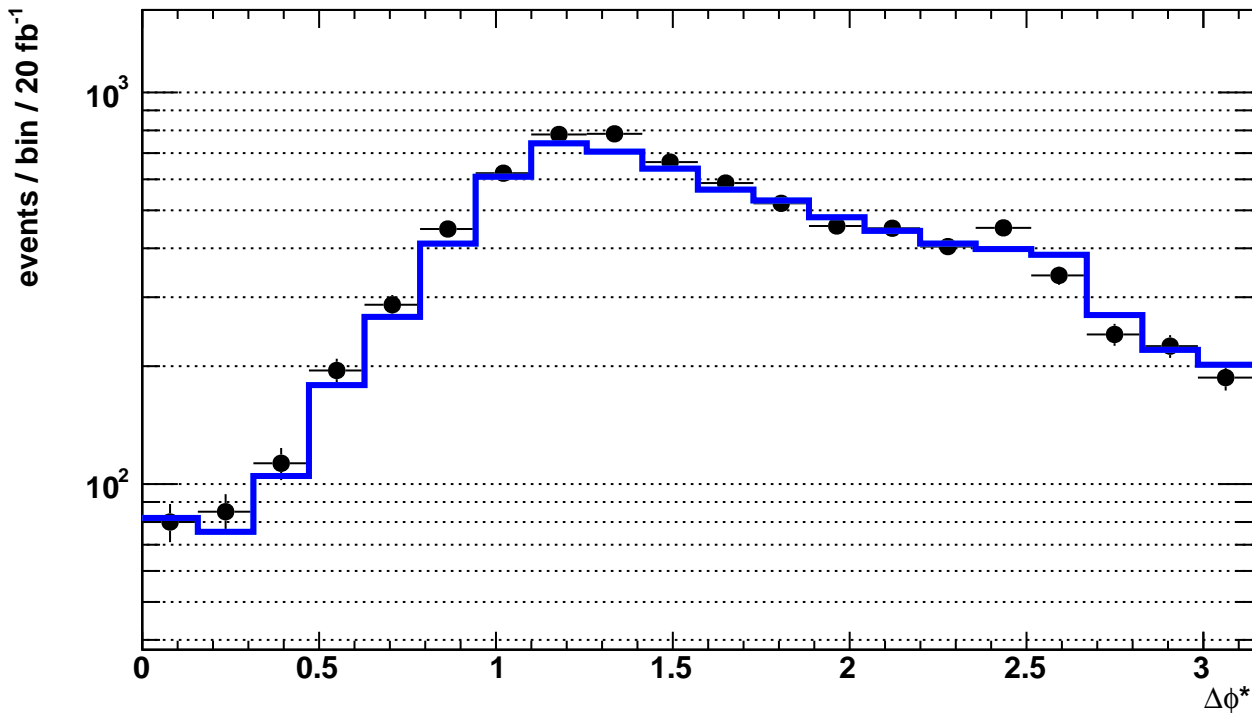
Entries	7922
Mean	0.9954
RMS	0.09225
Underflow	0
Overflow	0
Integral	7922

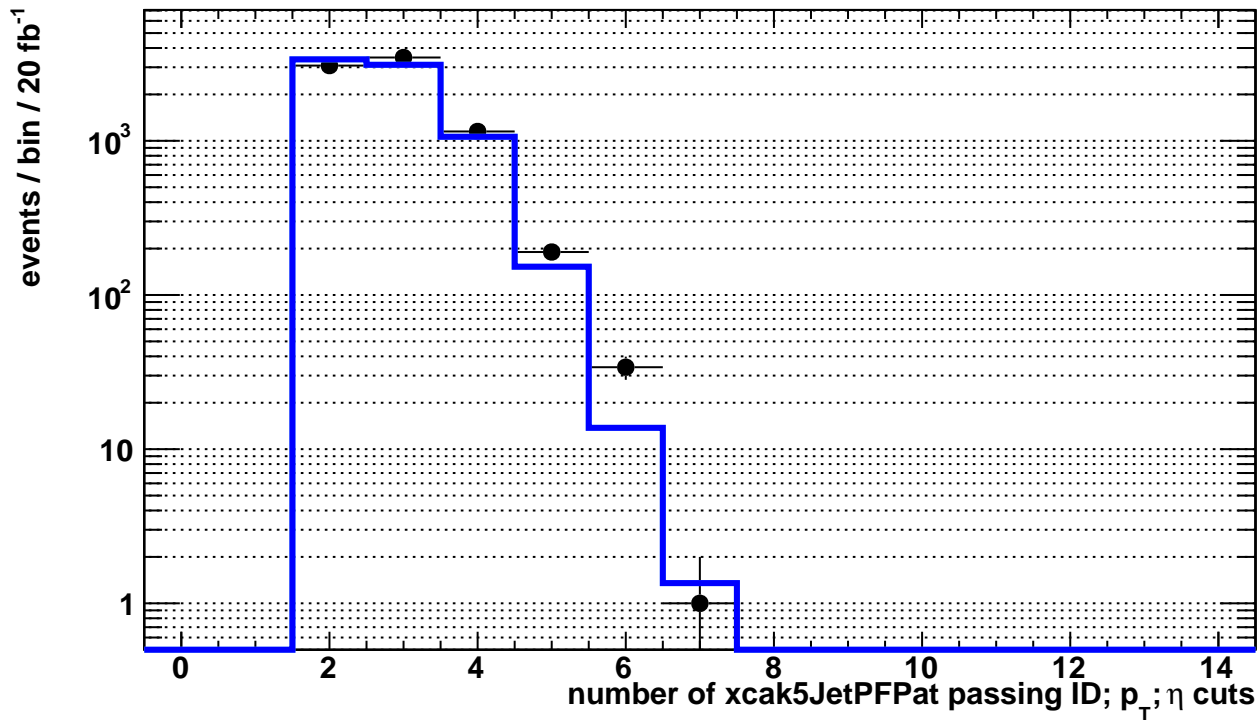


kcak5JetPFDeltaPhiStarlowPtPat	
Entries	7922
Mean	1.457
RMS	0.7024
Underflow	0
Overflow	0
Integral	7922

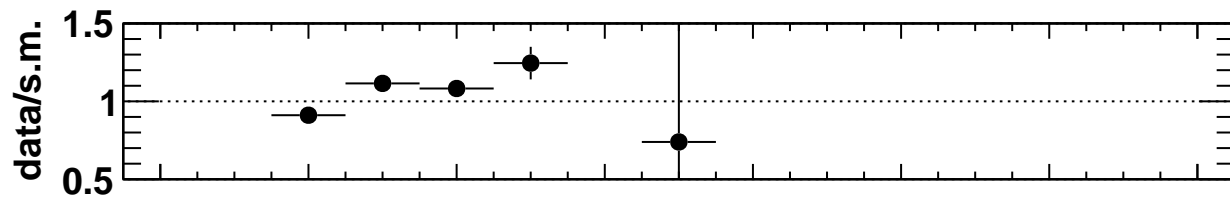
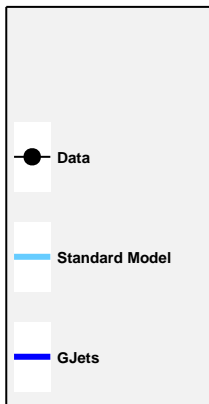


xcak5JetPFDeltaPhiStarPat	
Entries	7922
Mean	1.63
RMS	0.6853
Underflow	0
Overflow	0
Integral	7922

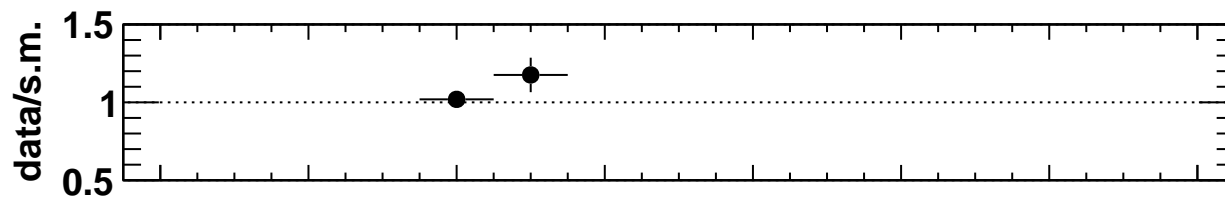
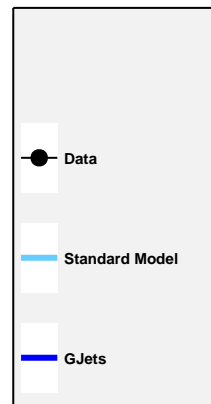
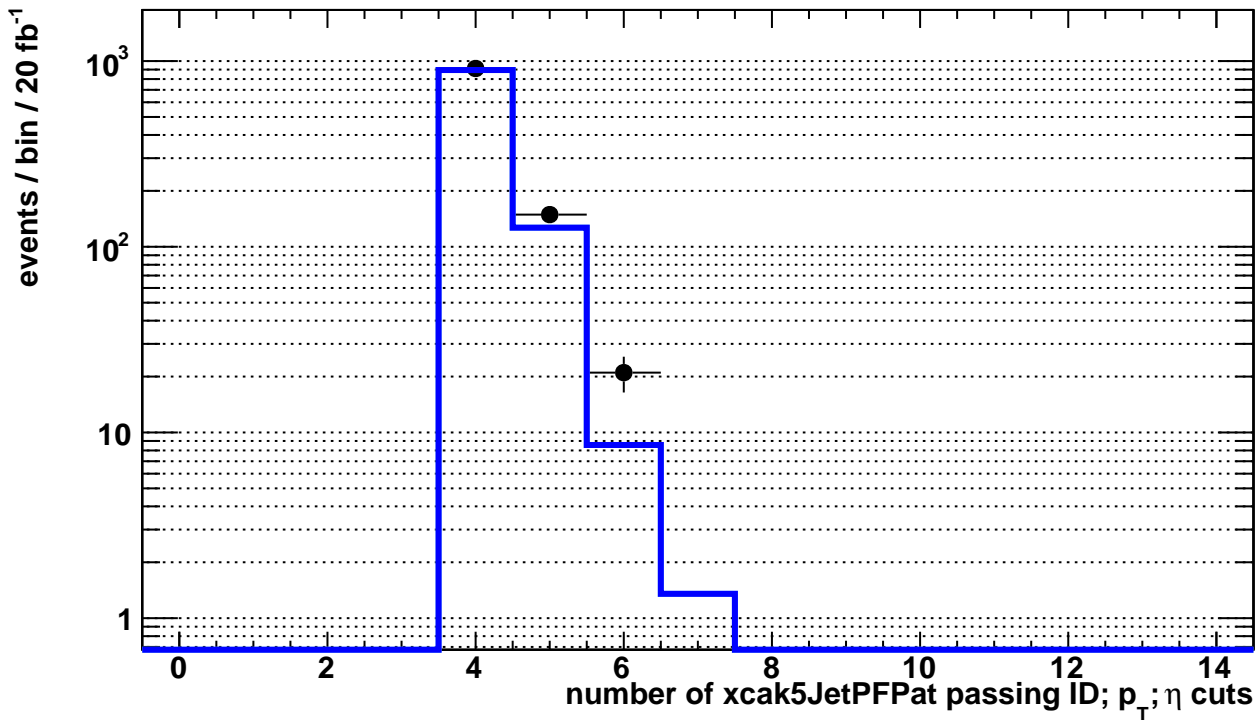




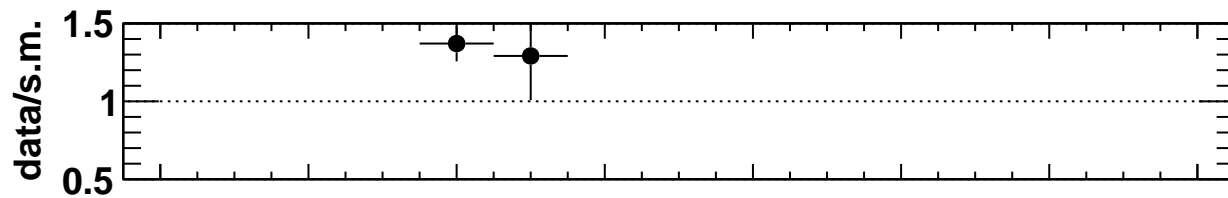
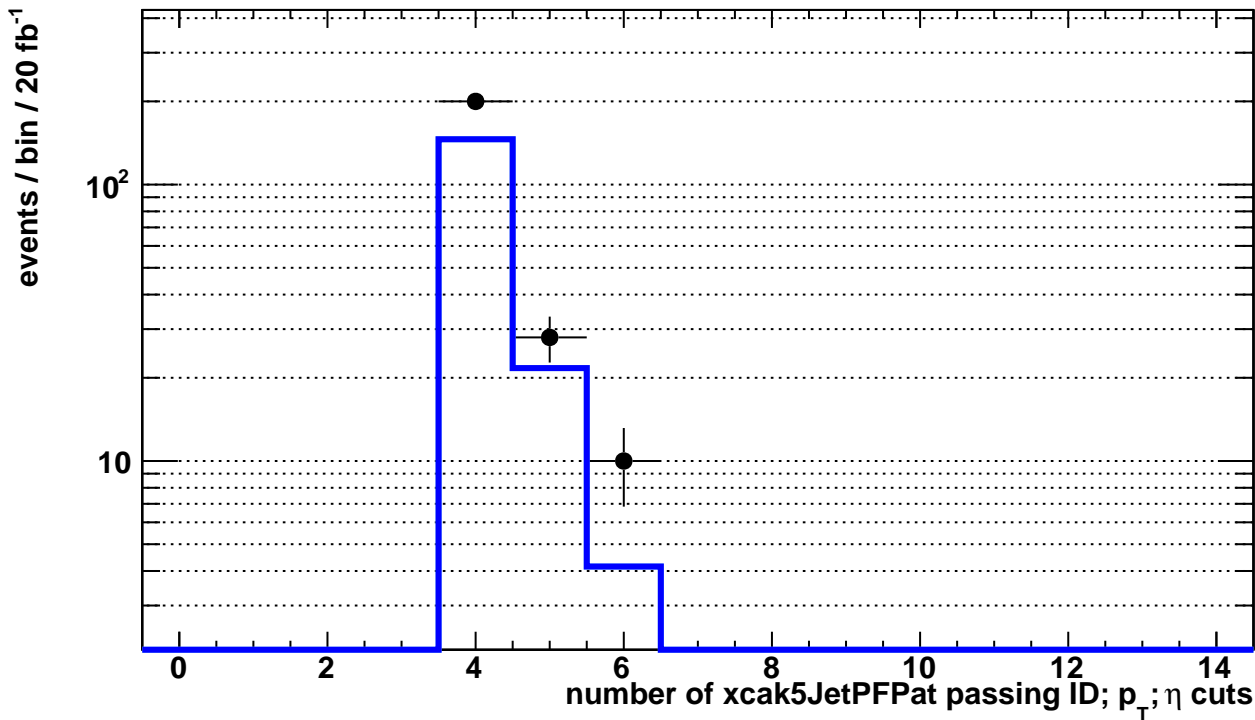
xcak5JetPFPIndicesPat	
Entries	7922
Mean	2.818
RMS	0.7981
Underflow	0
Overflow	0
Integral	7922

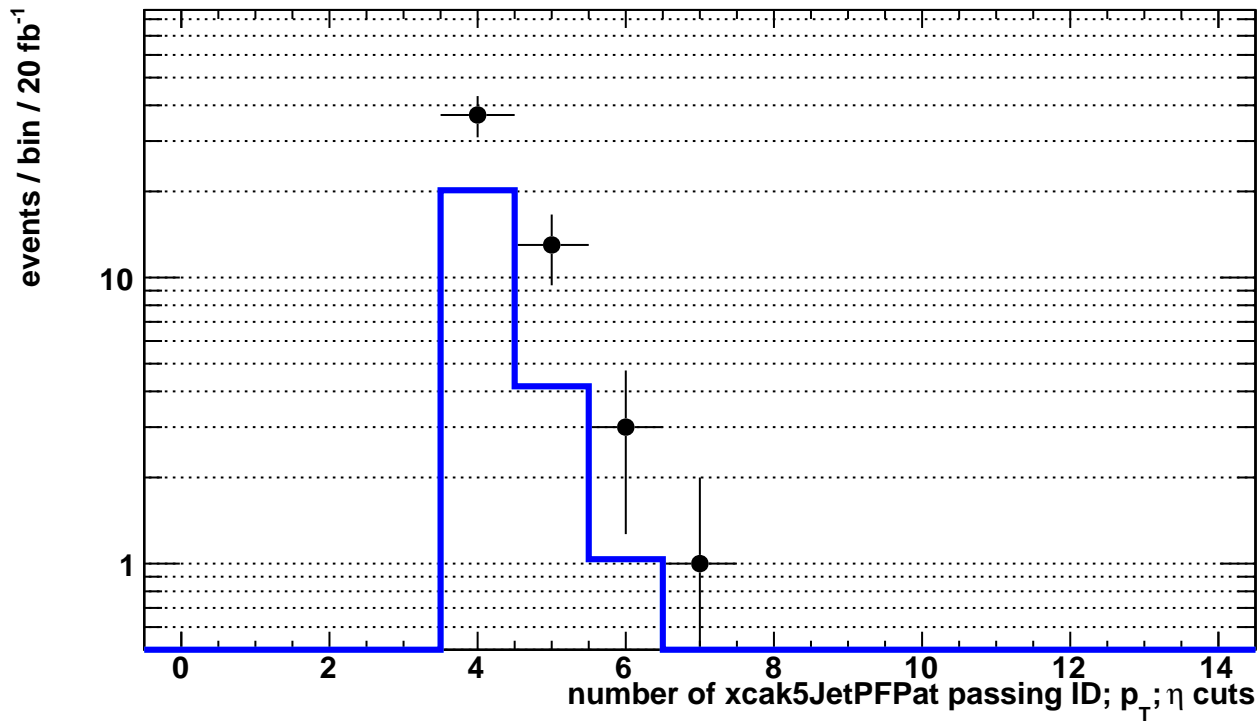


xcak5JetPFIIndicesPat_ge4j_eq0b	
Entries	1082
Mean	4.177
RMS	0.4292
Underflow	0
Overflow	0
Integral	1082

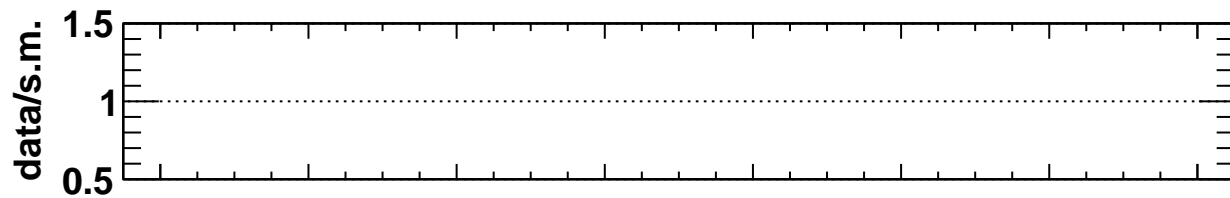
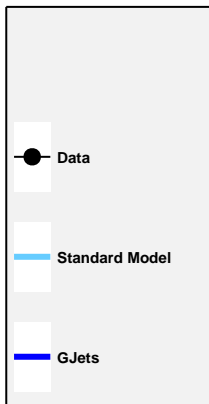


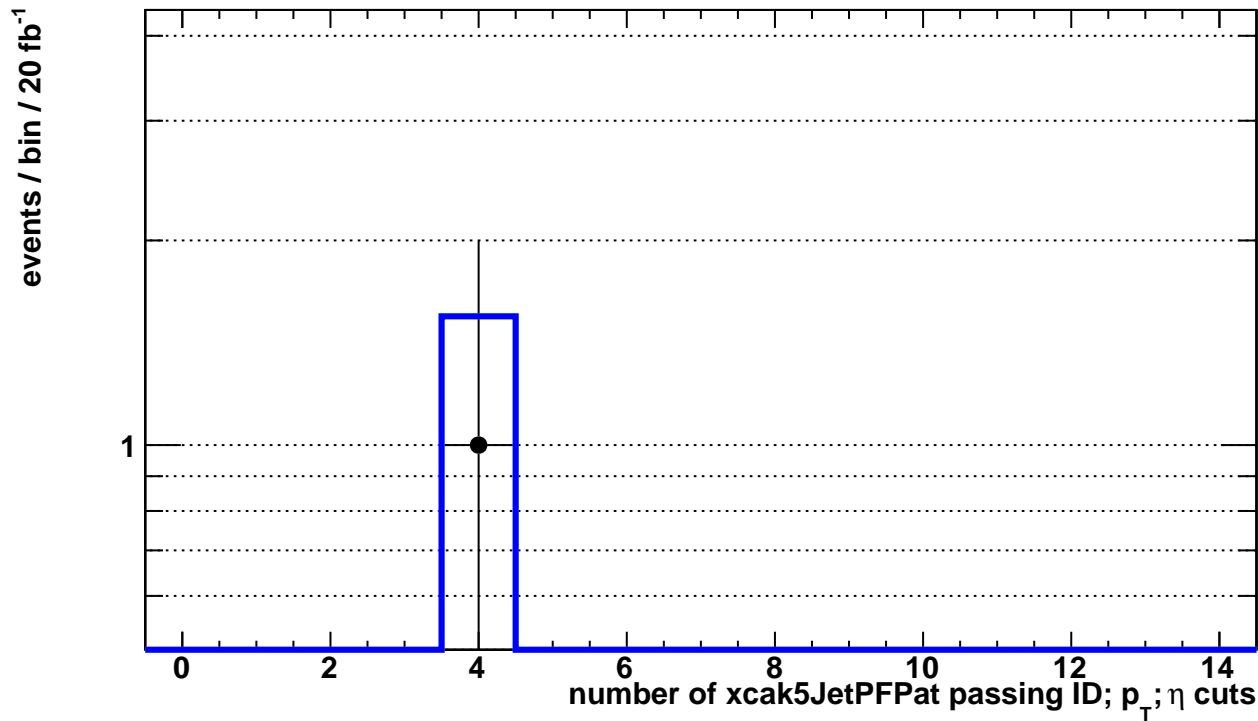
xcak5JetPFPIndicesPat_ge4j_eq1b	
Entries	238
Mean	4.202
RMS	0.495
Underflow	0
Overflow	0
Integral	238



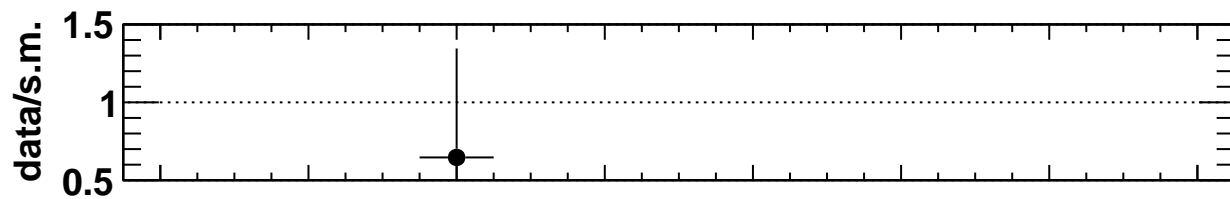
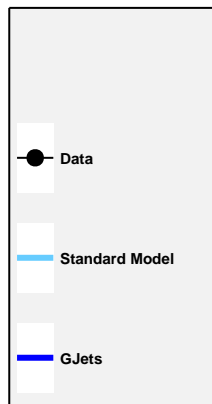


xcak5JetPFPIndicesPat_ge4j_eq2b	
Entries	54
Mean	4.407
RMS	0.6809
Underflow	0
Overflow	0
Integral	54

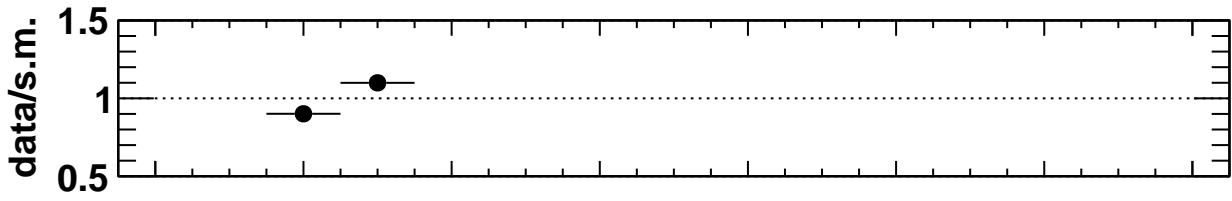
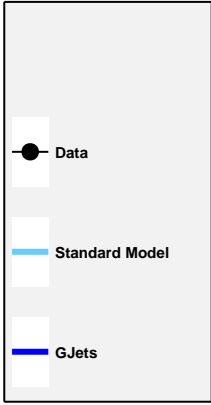
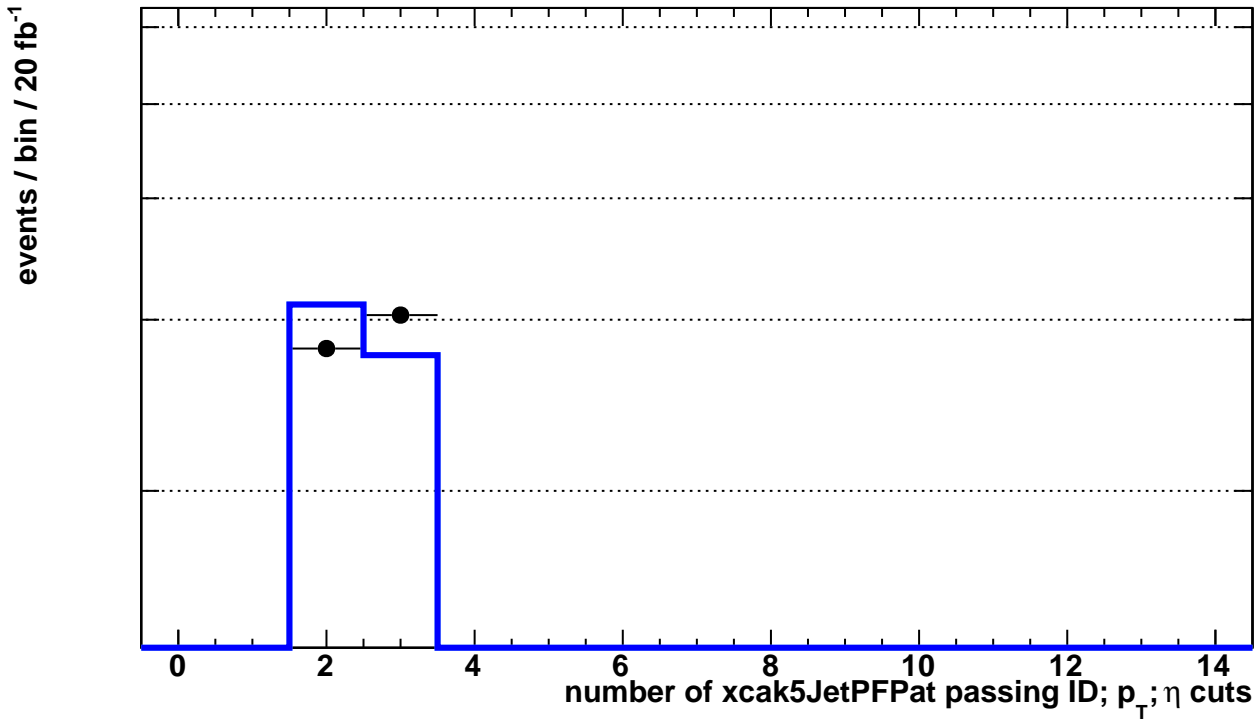




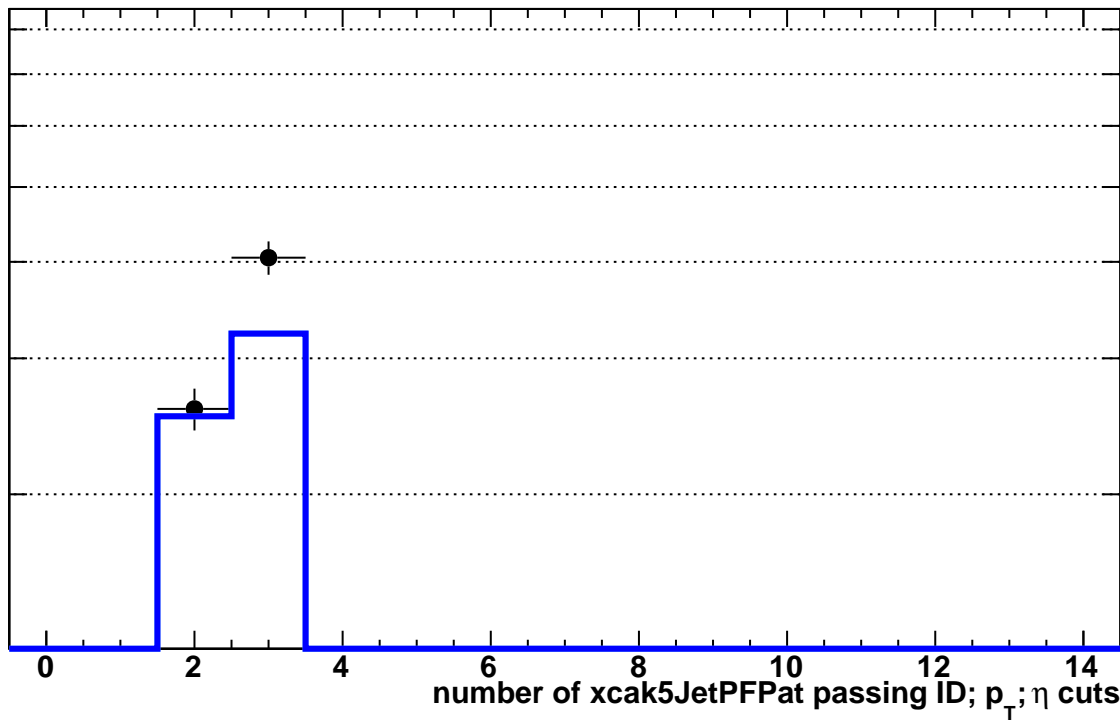
xcak5JetPFPIndicesPat_ge4j_eq3b	
Entries	1
Mean	4
RMS	0
Underflow	0
Overflow	0
Integral	1



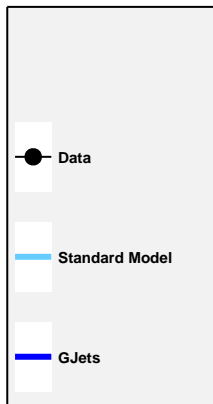
xcak5JetPFPIndicesPat_le3j_eq0b	
Entries	5835
Mean	2.52
RMS	0.4996
Underflow	0
Overflow	0
Integral	5835



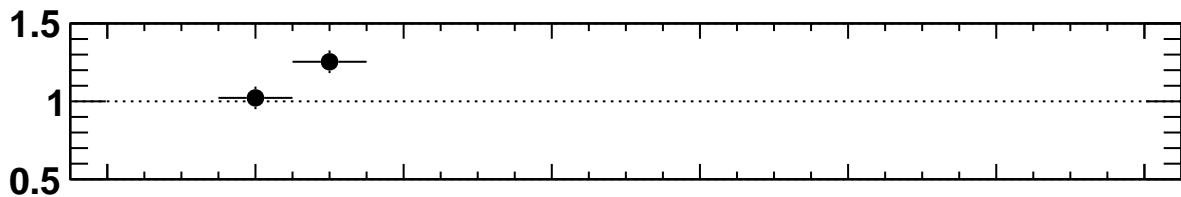
events / bin / 20 fb⁻¹



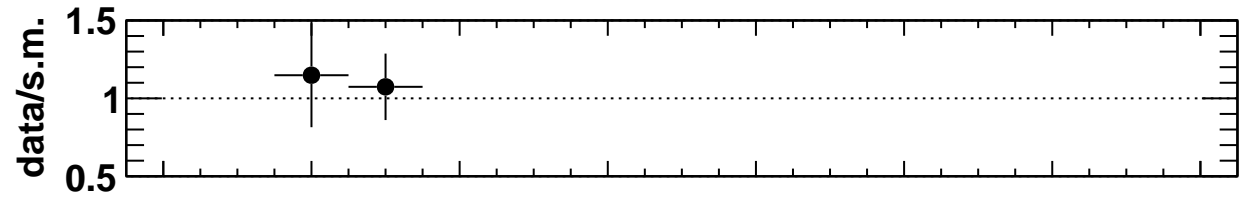
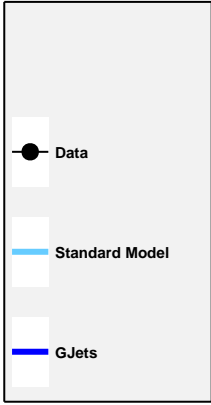
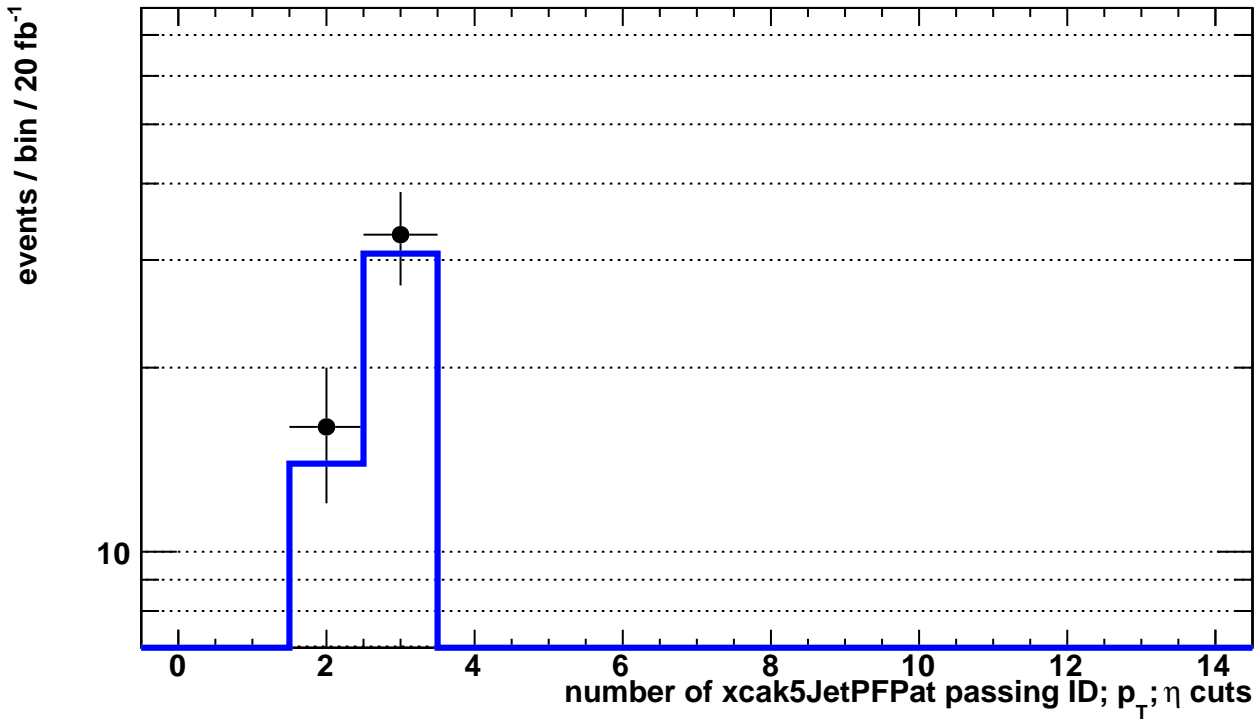
xcak5JetPFPIndicesPat_le3_eq1b	
Entries	663
Mean	2.611
RMS	0.4876
Underflow	0
Overflow	0
Integral	663



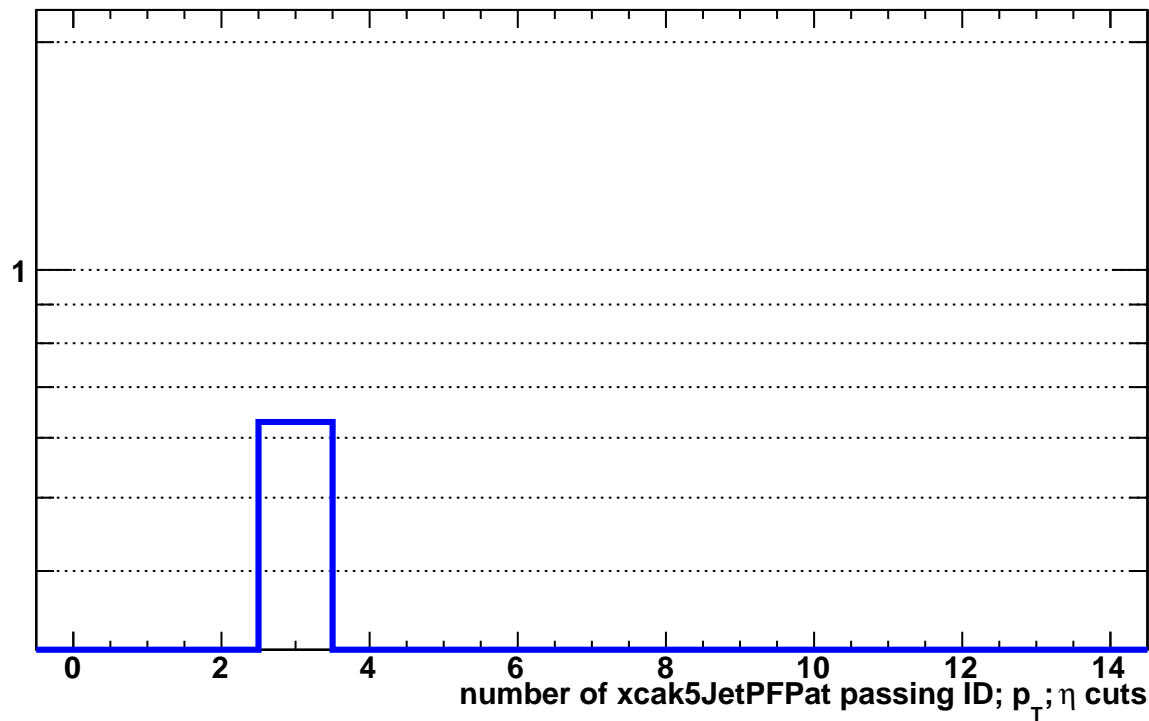
data/s.m.



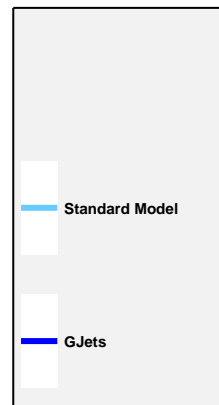
xcak5JetPFPIndicesPat_le3j_eq2b	
Entries	49
Mean	2.673
RMS	0.4689
Underflow	0
Overflow	0
Integral	49

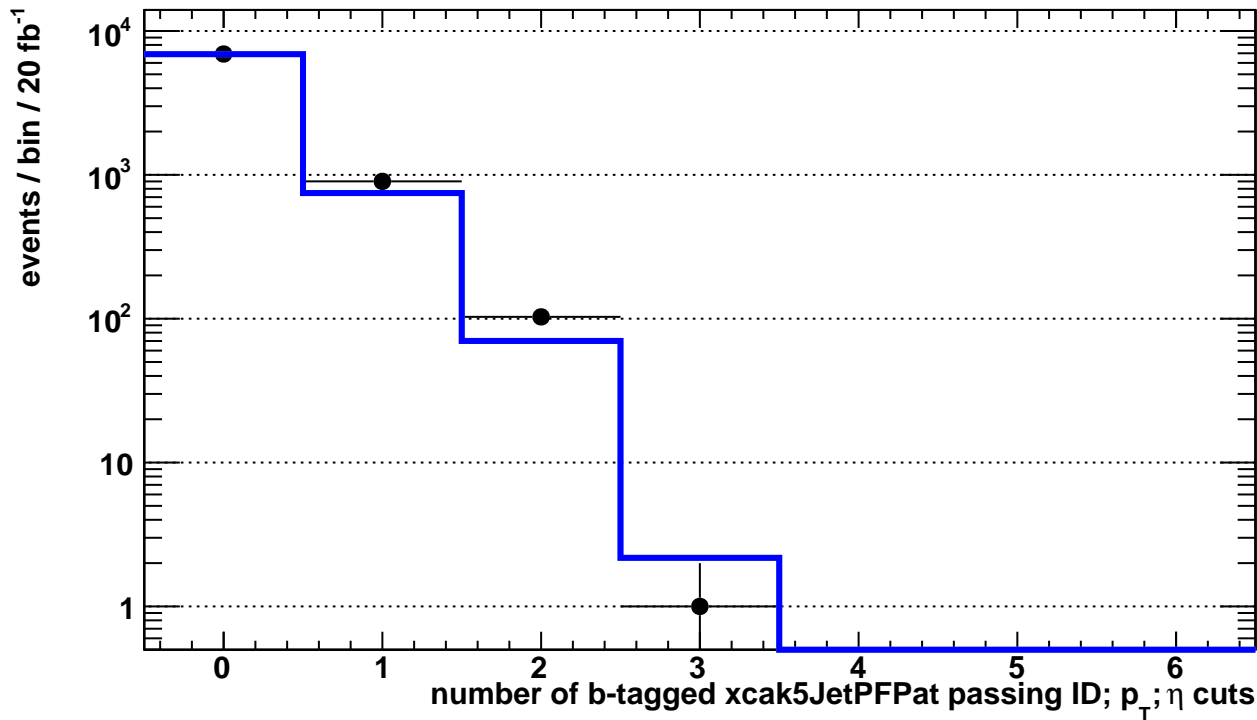


events / bin / 20 fb⁻¹

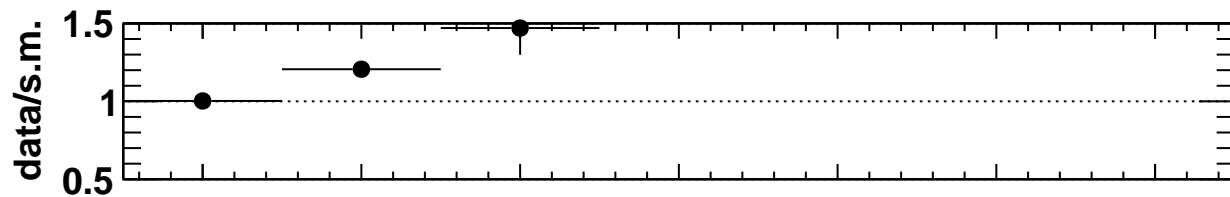
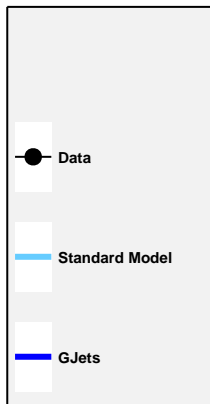


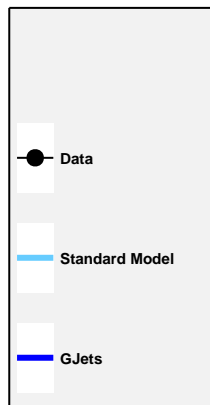
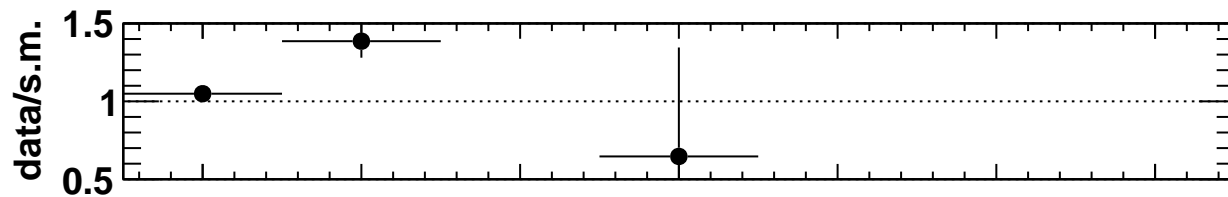
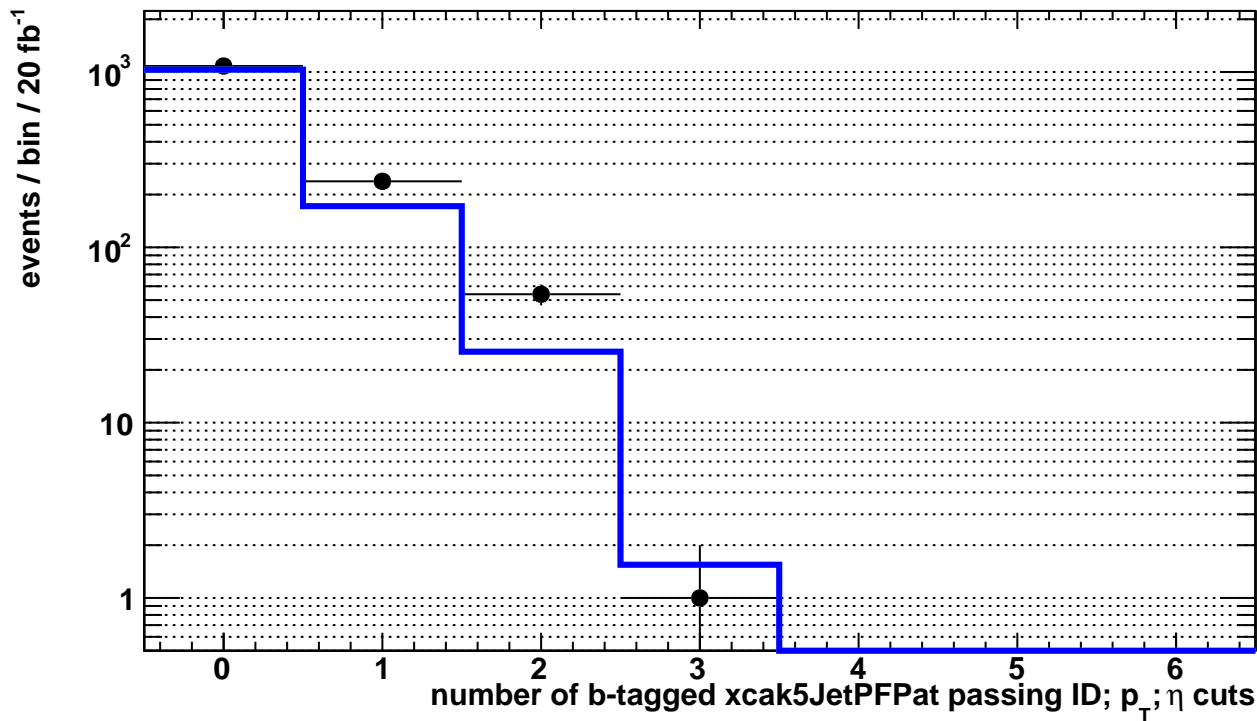
xcak5JetPFPat passing ID; p _T ; η cuts	
Entries	2
Mean	3
RMS	7.3e-08
Underflow	0
Overflow	0
Integral	0.6296

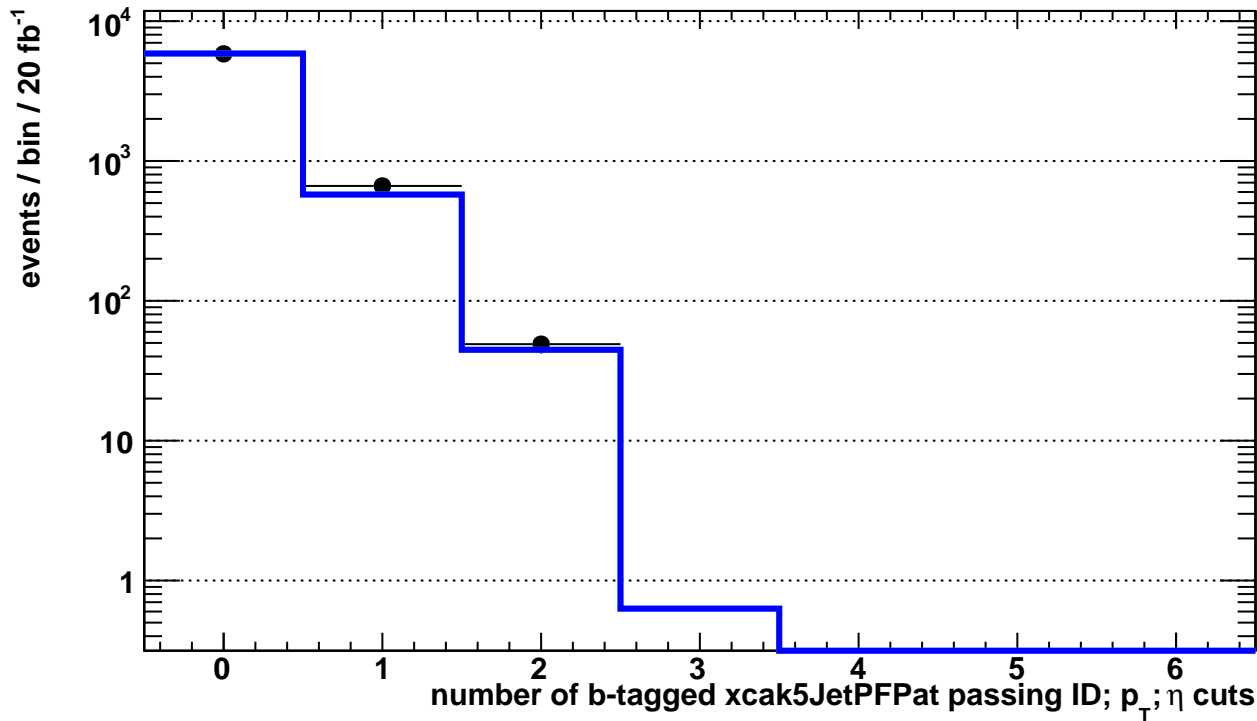




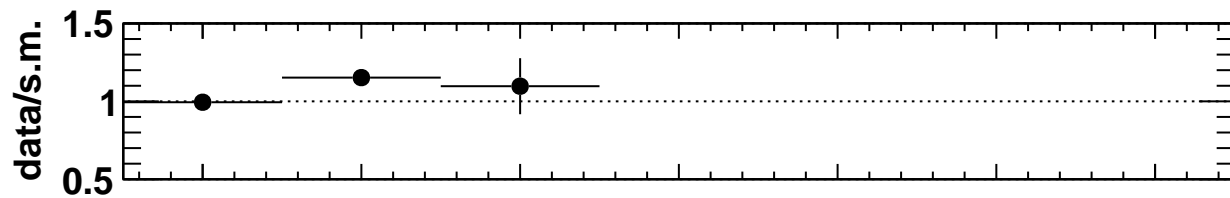
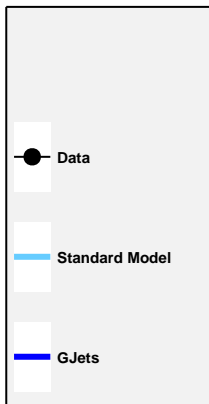
xcak5JetPFPIndicesBtagged2Pat	
Entries	7922
Mean	0.1401
RMS	0.3837
Underflow	0
Overflow	0
Integral	7922



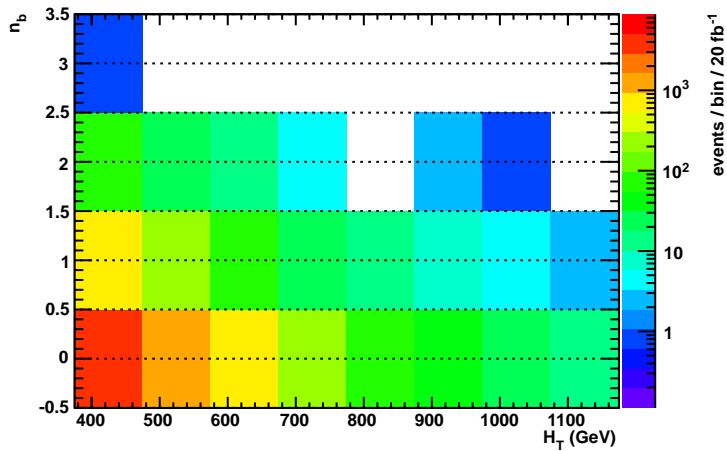




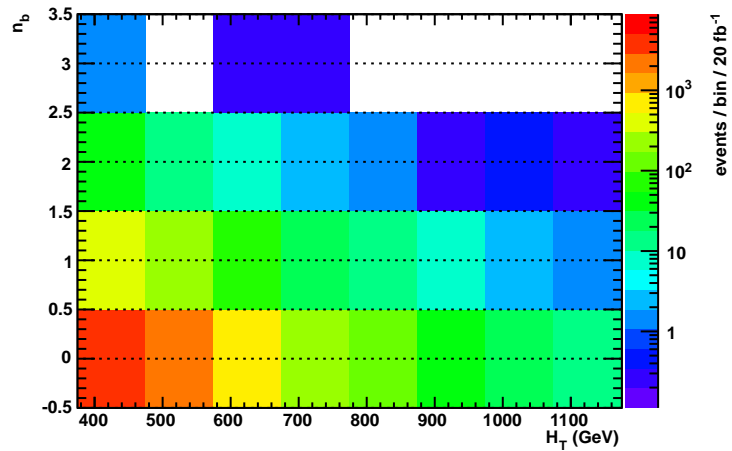
xcak5JetPFPIndicesBtagged2Pat_le3j	
Entries	6547
Mean	0.1162
RMS	0.3431
Underflow	0
Overflow	0
Integral	6547



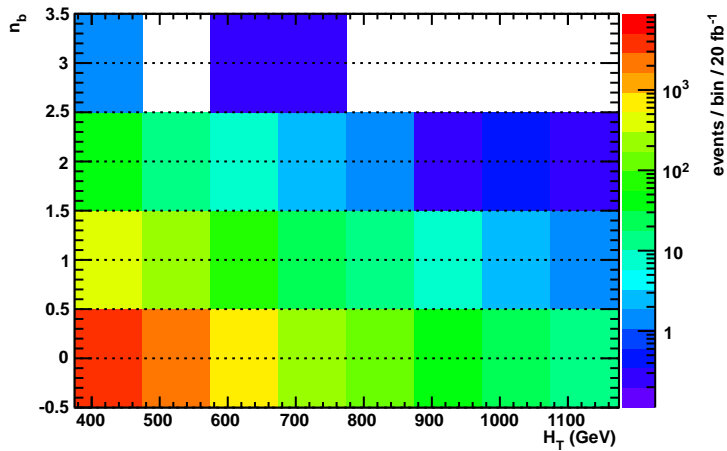
Data

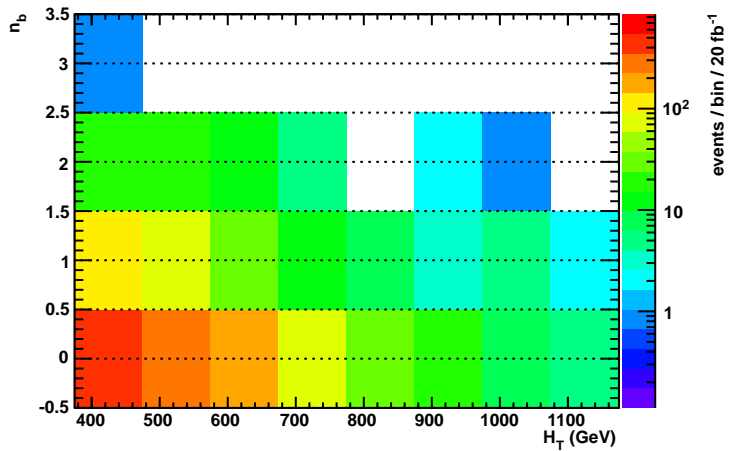
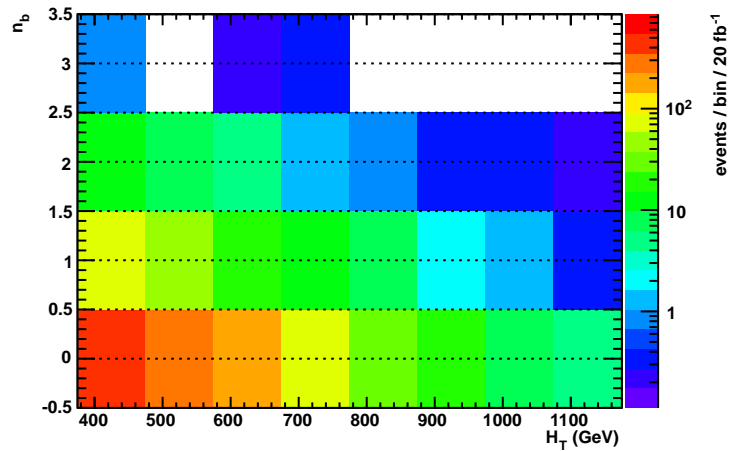
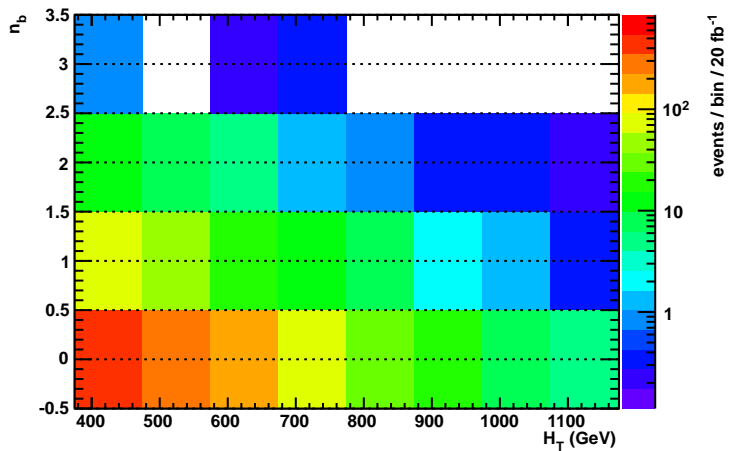


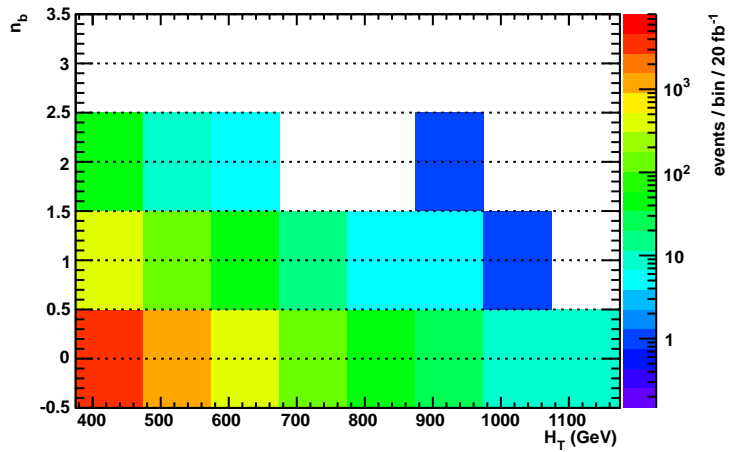
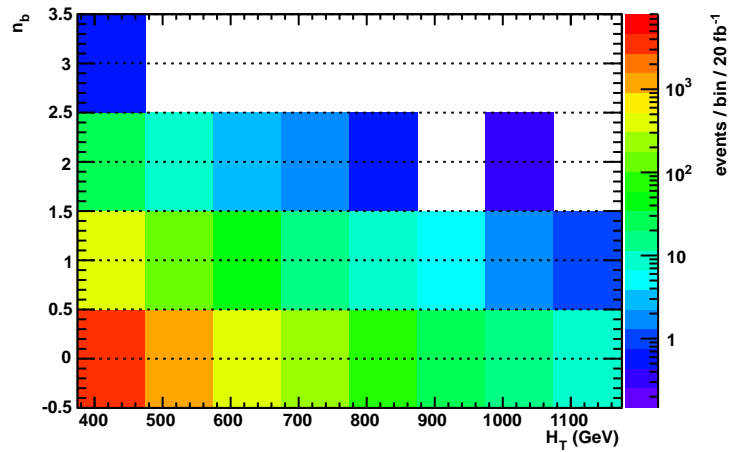
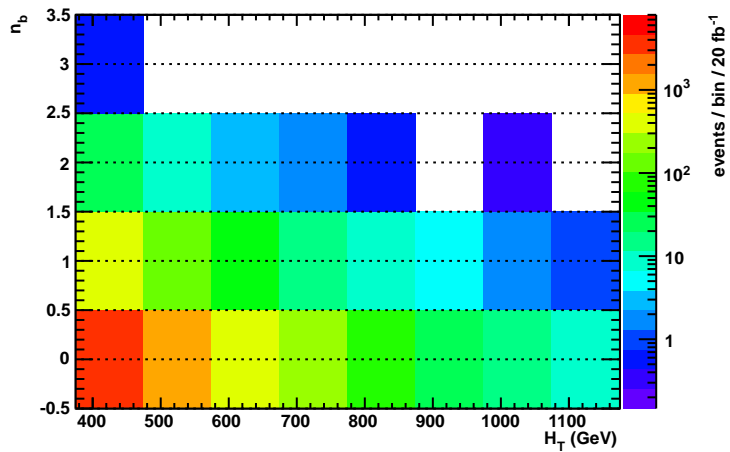
Standard Model

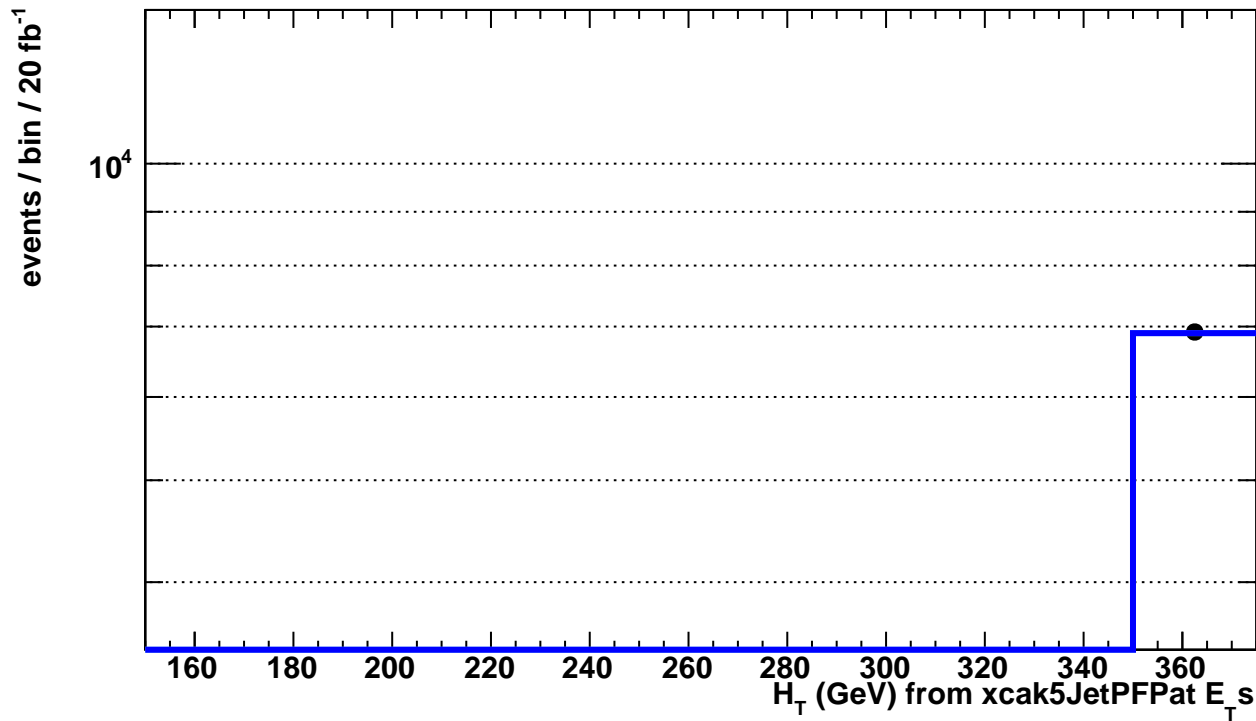


GJets

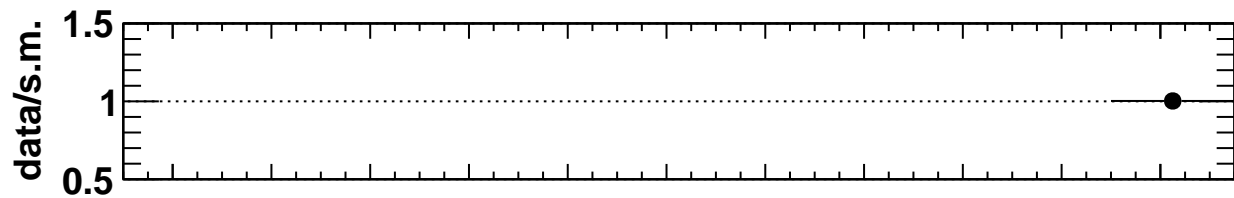
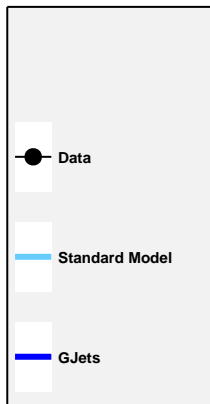


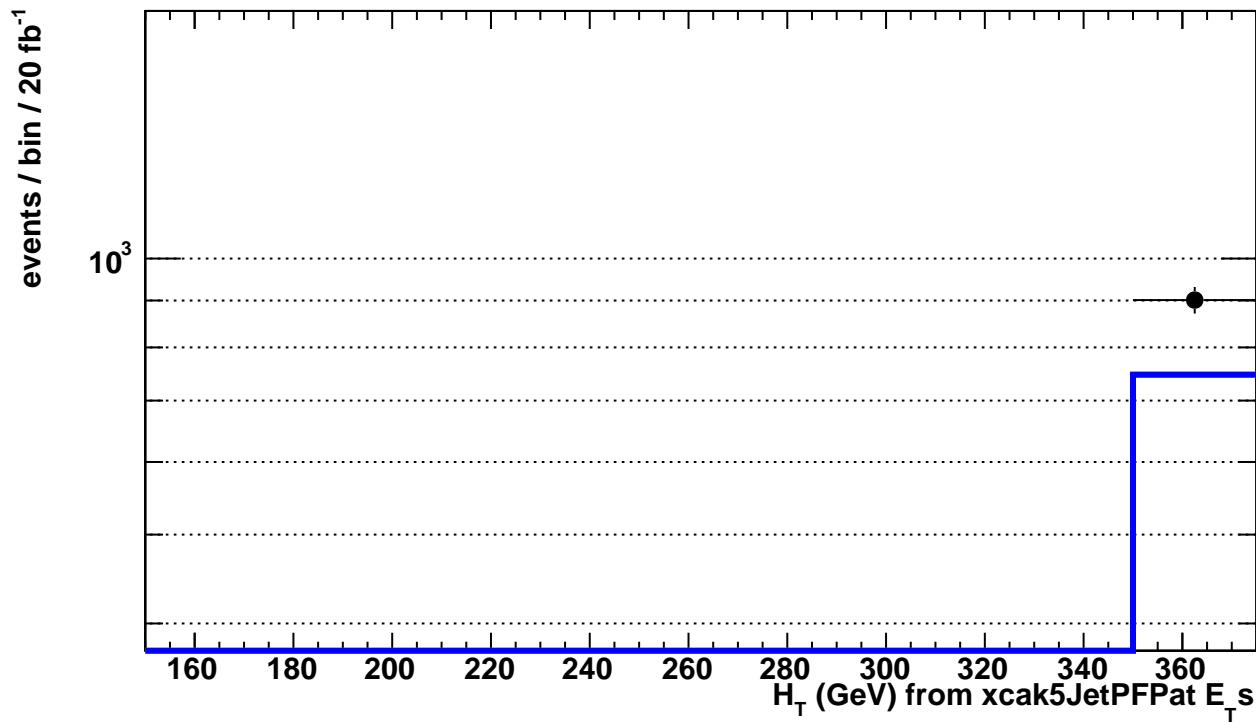
Data**Standard Model****GJets**

Data**Standard Model****GJets**

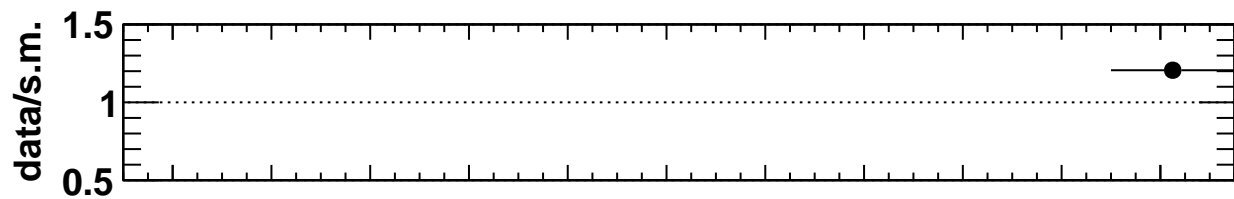
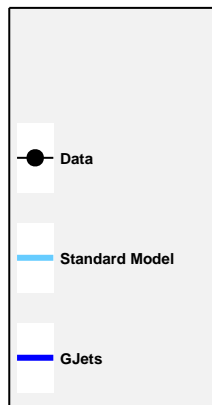


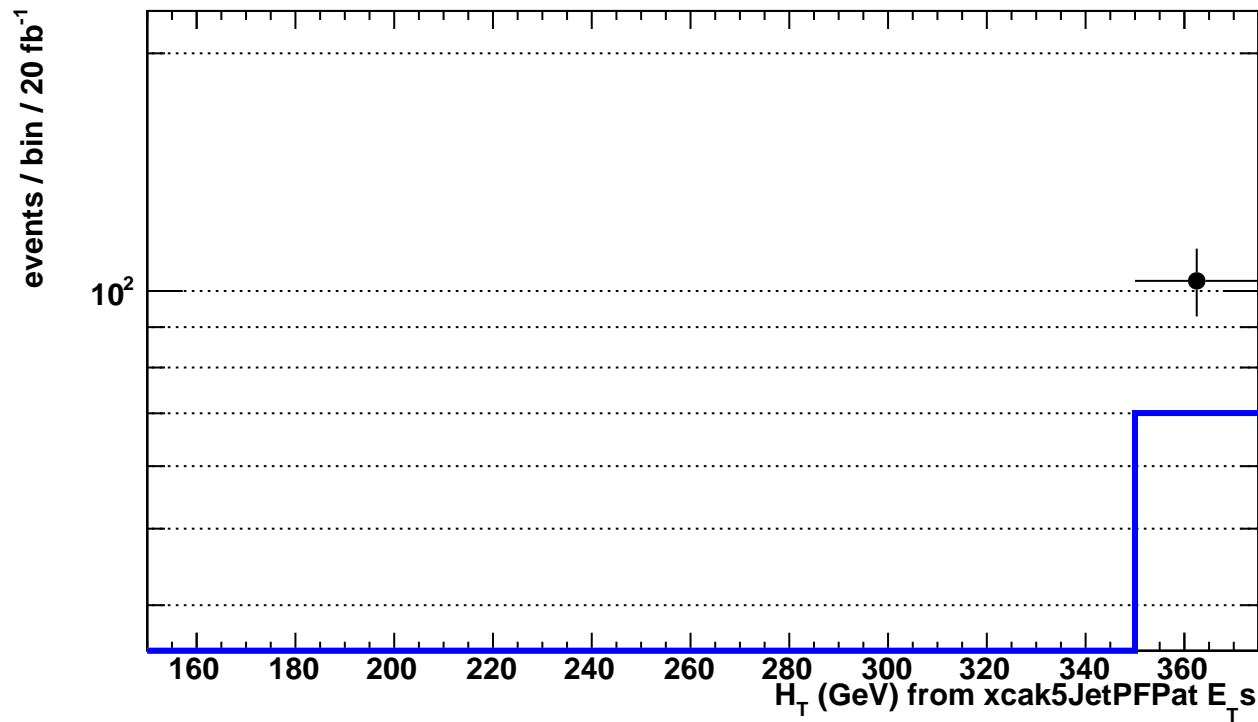
xcak5JetPFSumETPat_eq0b	
Entries	6917
Mean	362.5
RMS	0
Underflow	0
Overflow	0
Integral	6917



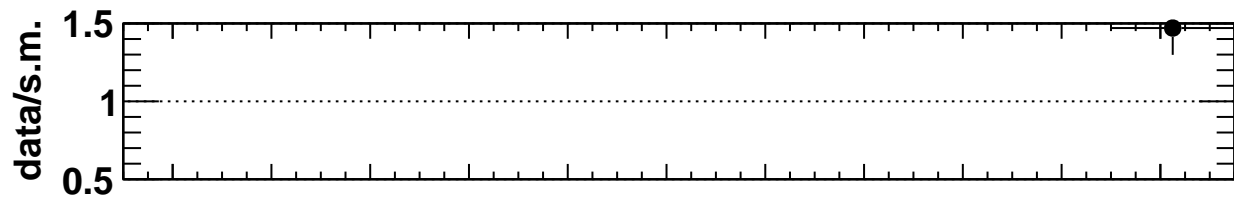
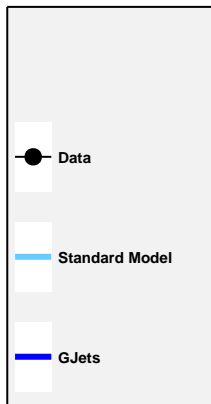


xcak5JetPFSumETPat_eq1b	
Entries	901
Mean	362.5
RMS	0
Underflow	0
Overflow	0
Integral	901

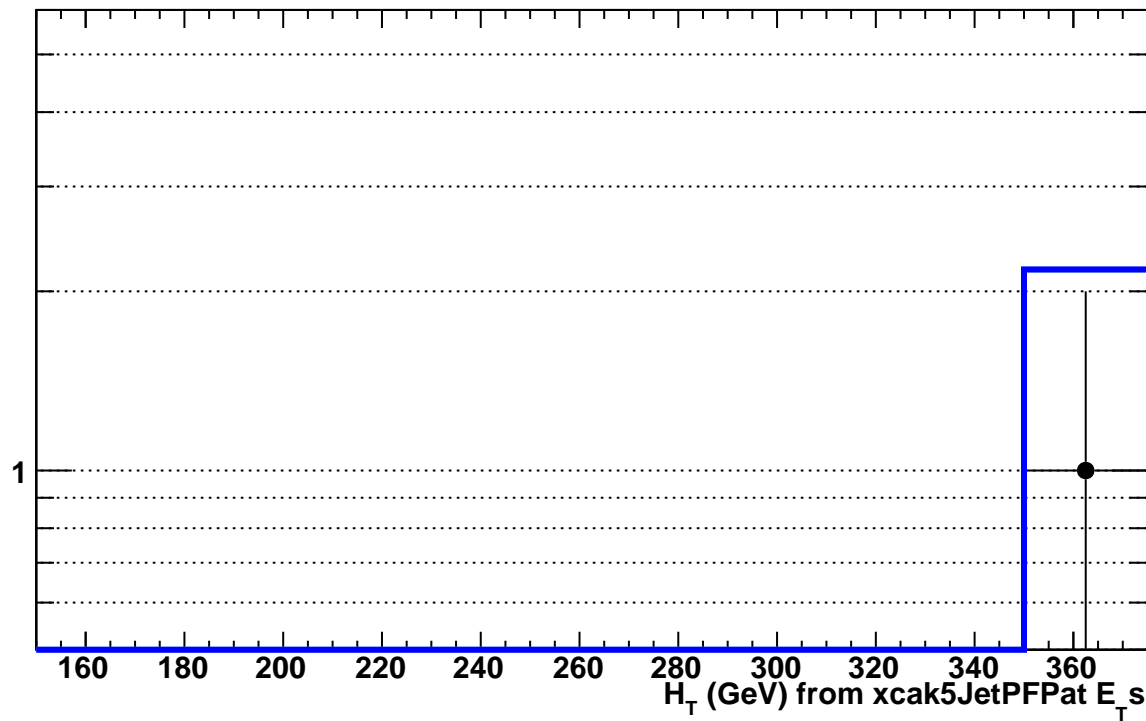




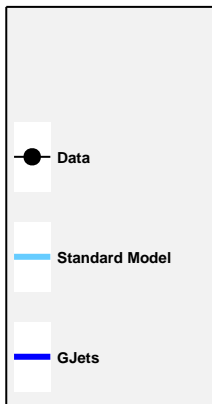
xcak5JetPFSumETPat_eq2b	
Entries	103
Mean	362.5
RMS	0
Underflow	0
Overflow	0
Integral	103



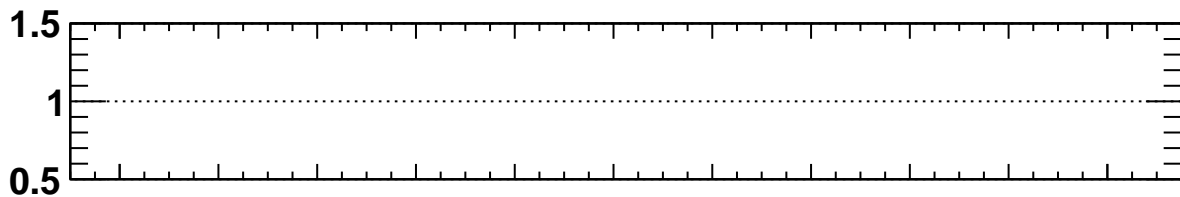
events / bin / 20 fb⁻¹

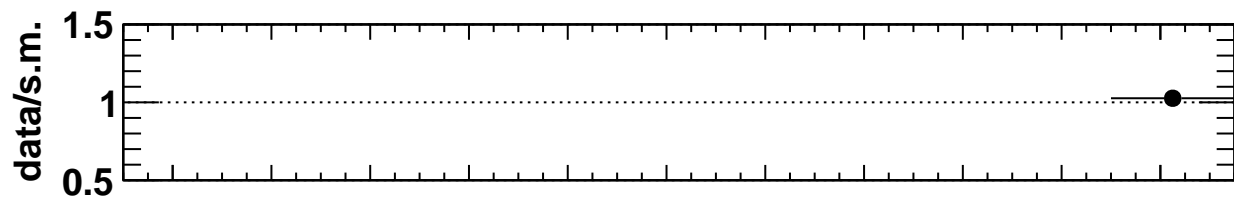
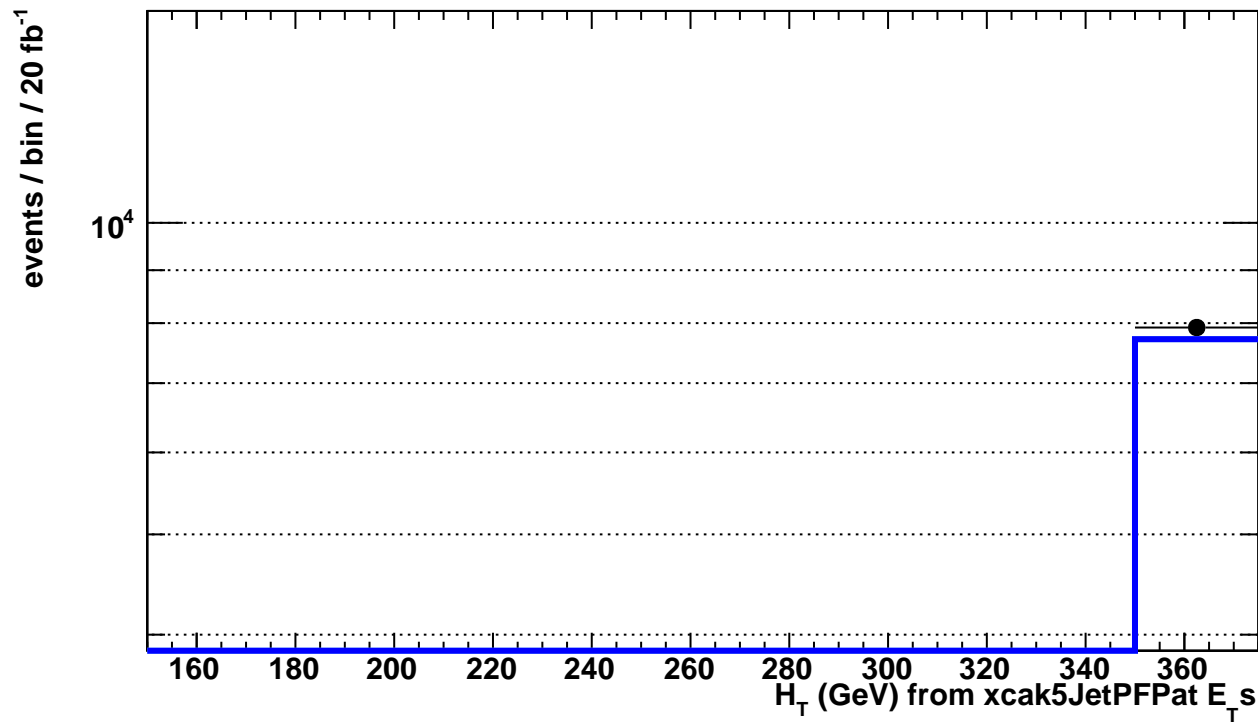


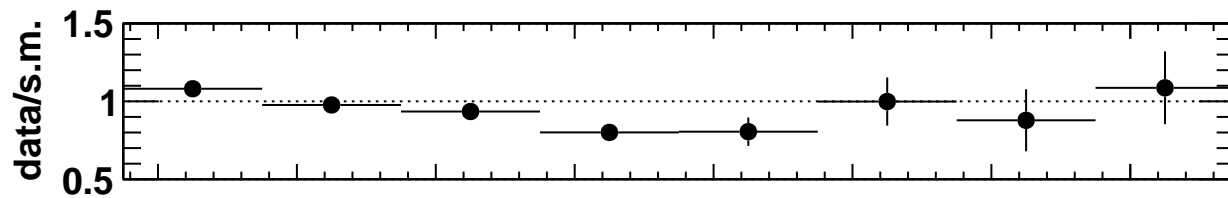
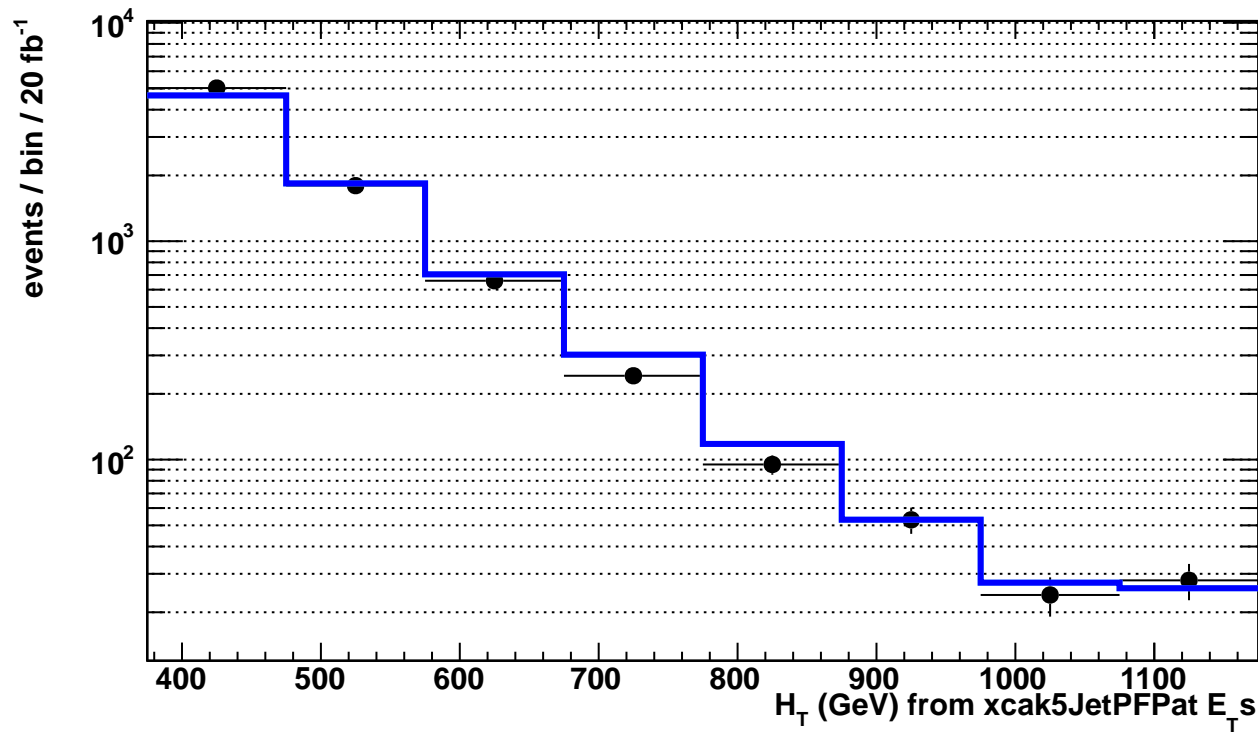
xcak5JetPFSumETPat_eq3b	
Entries	1
Mean	362.5
RMS	0
Underflow	0
Overflow	0
Integral	1



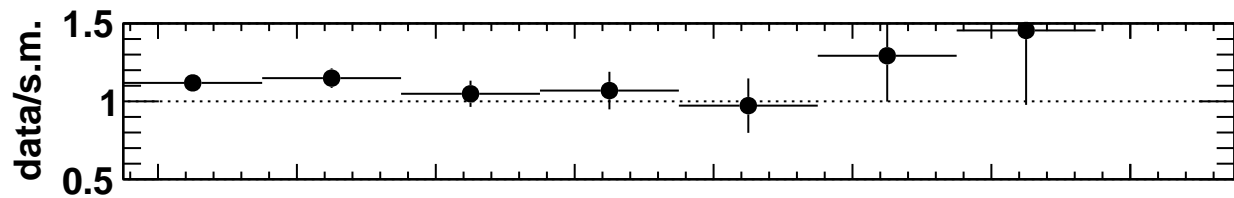
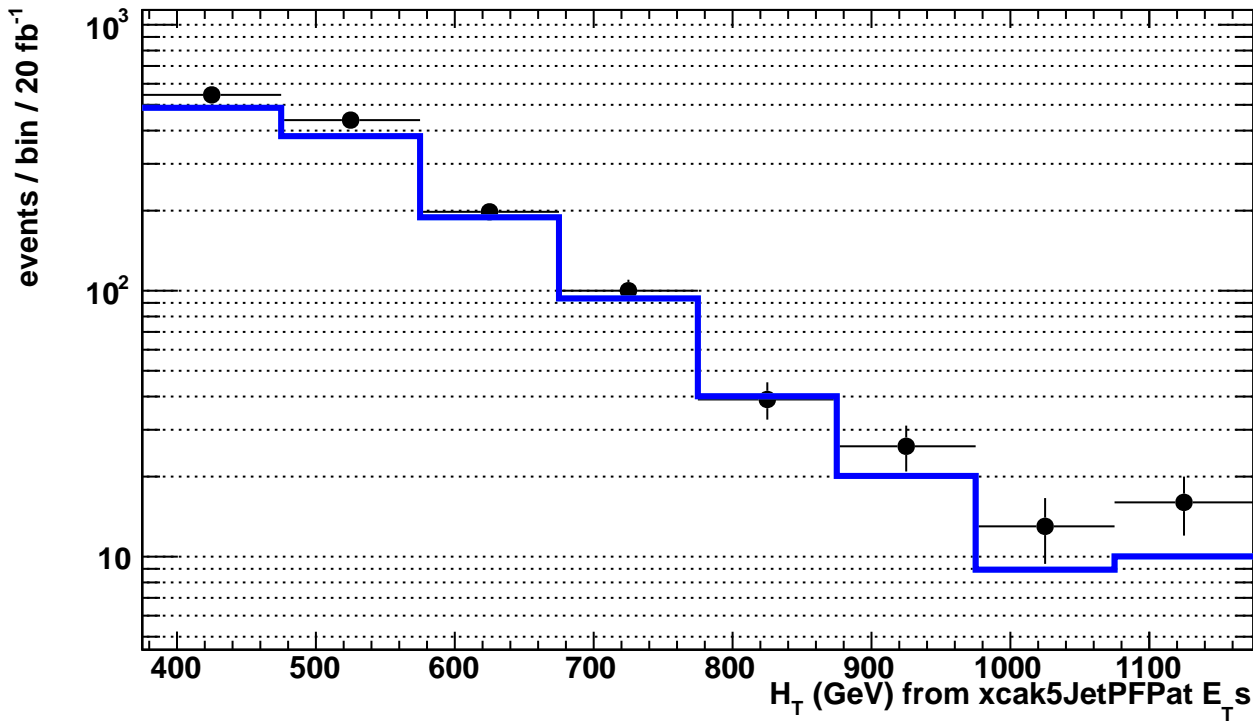
data/s.m.

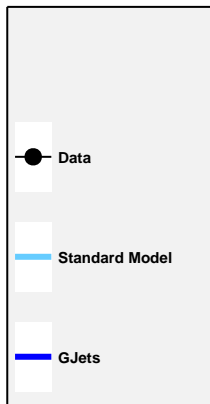
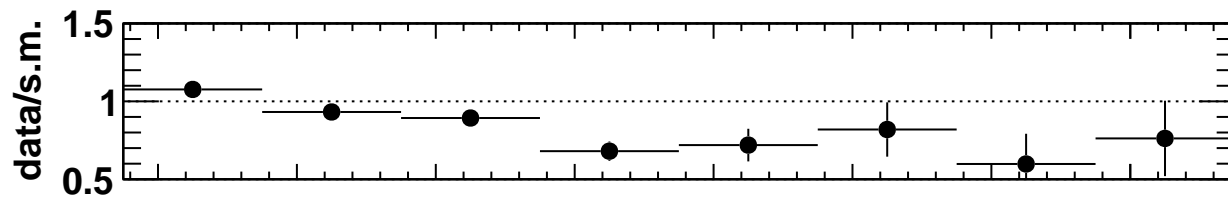
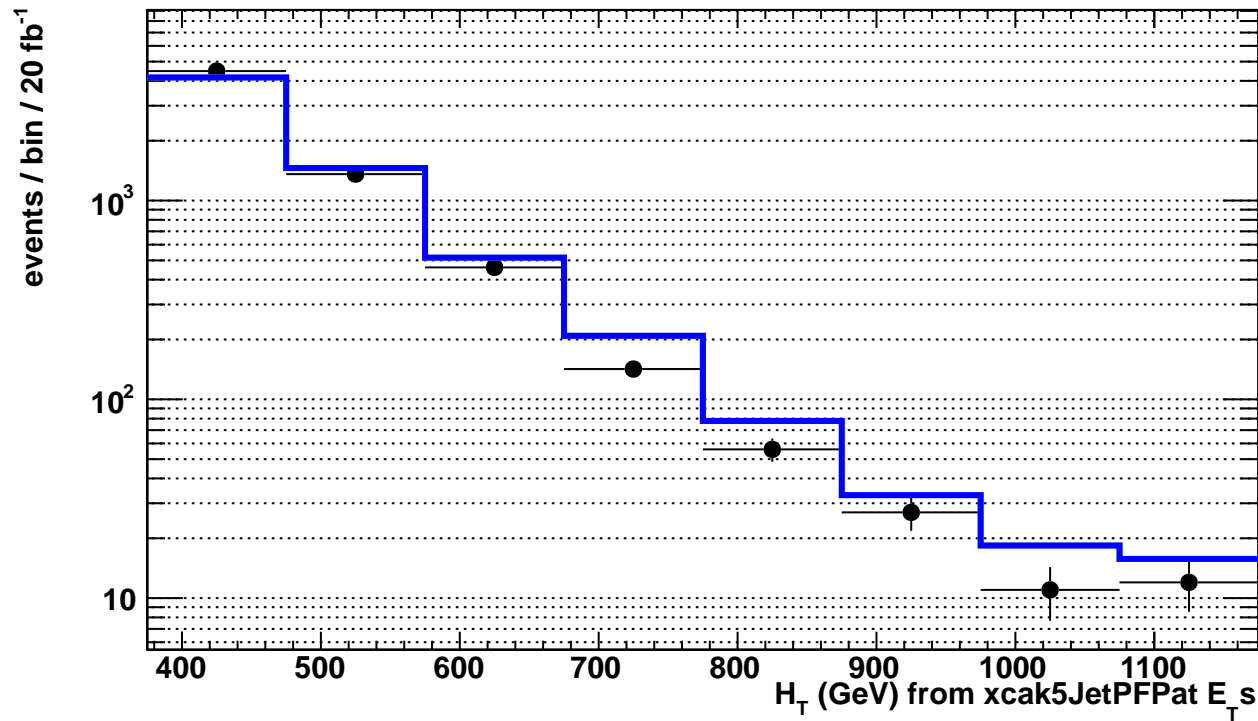


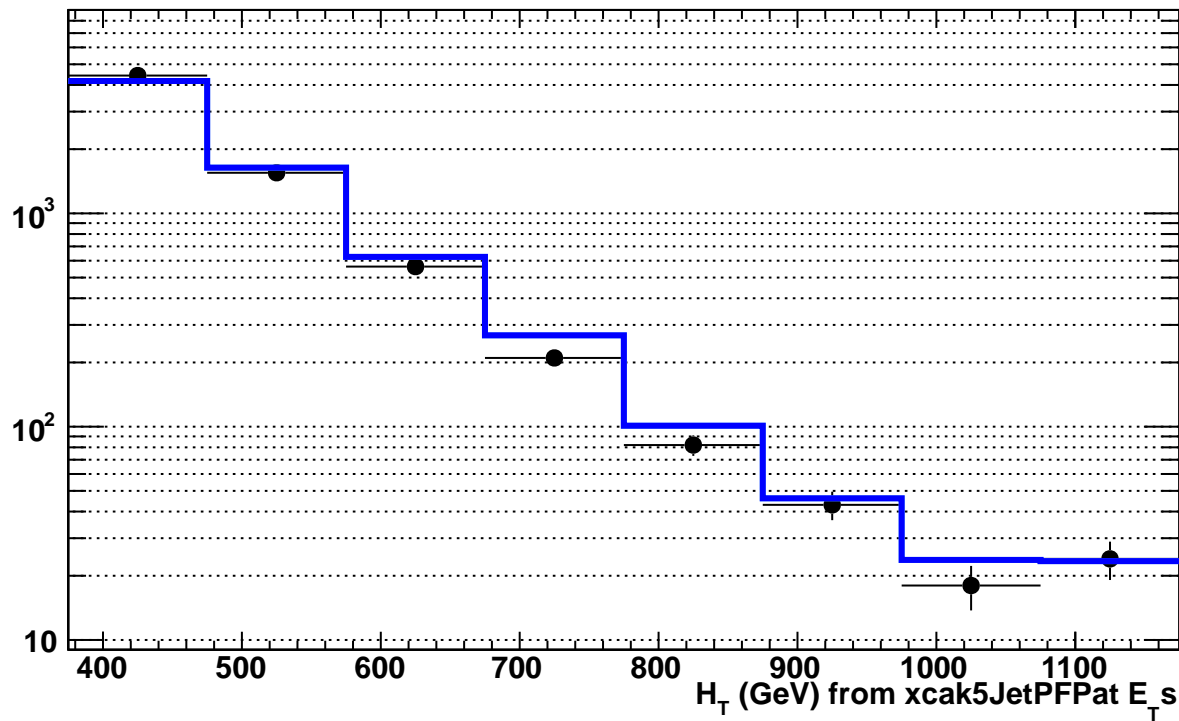




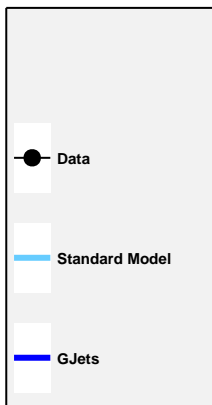
xcak5JetPFSumEtPat_ge4J_aTge55	
Entries	1375
Mean	542.1
RMS	142
Underflow	0
Overflow	0
Integral	1375



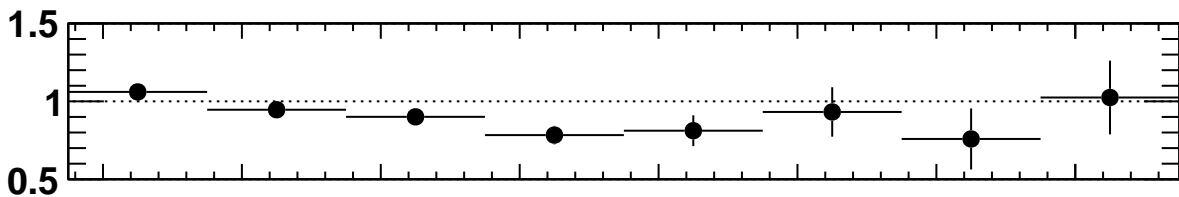


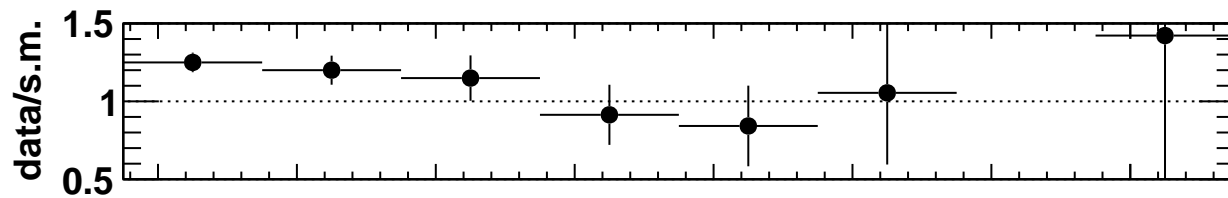
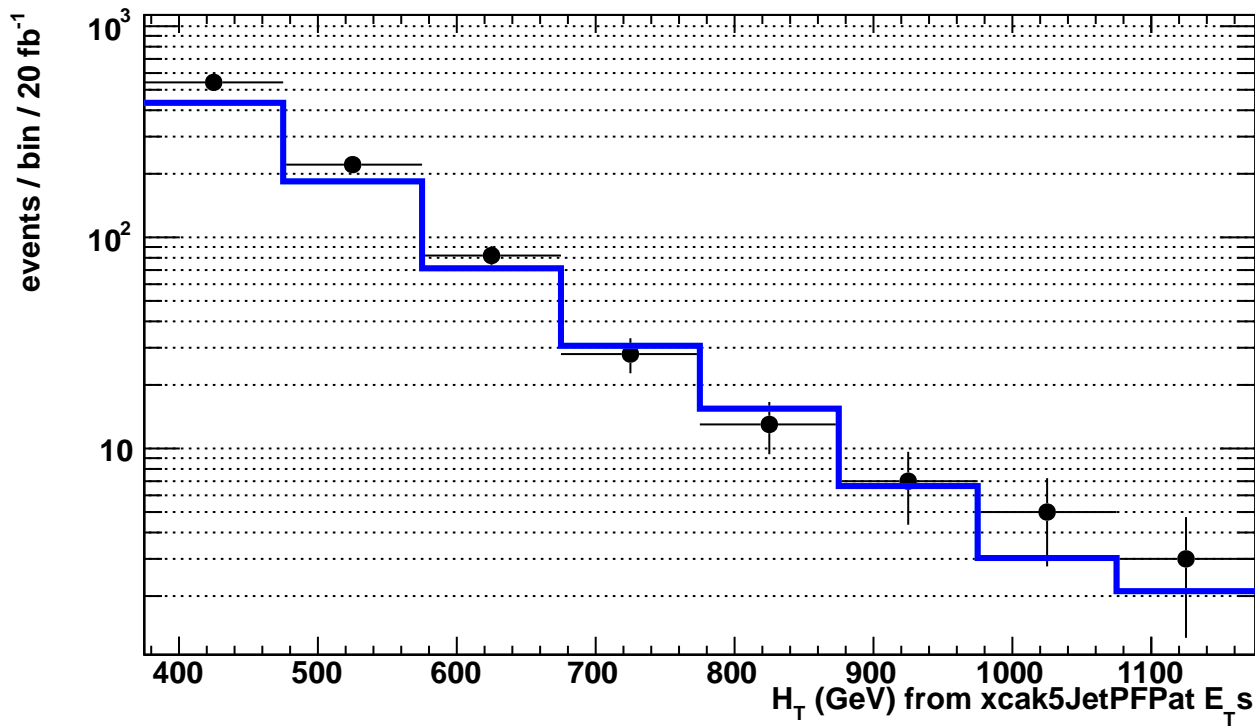
events / bin / 20 fb⁻¹

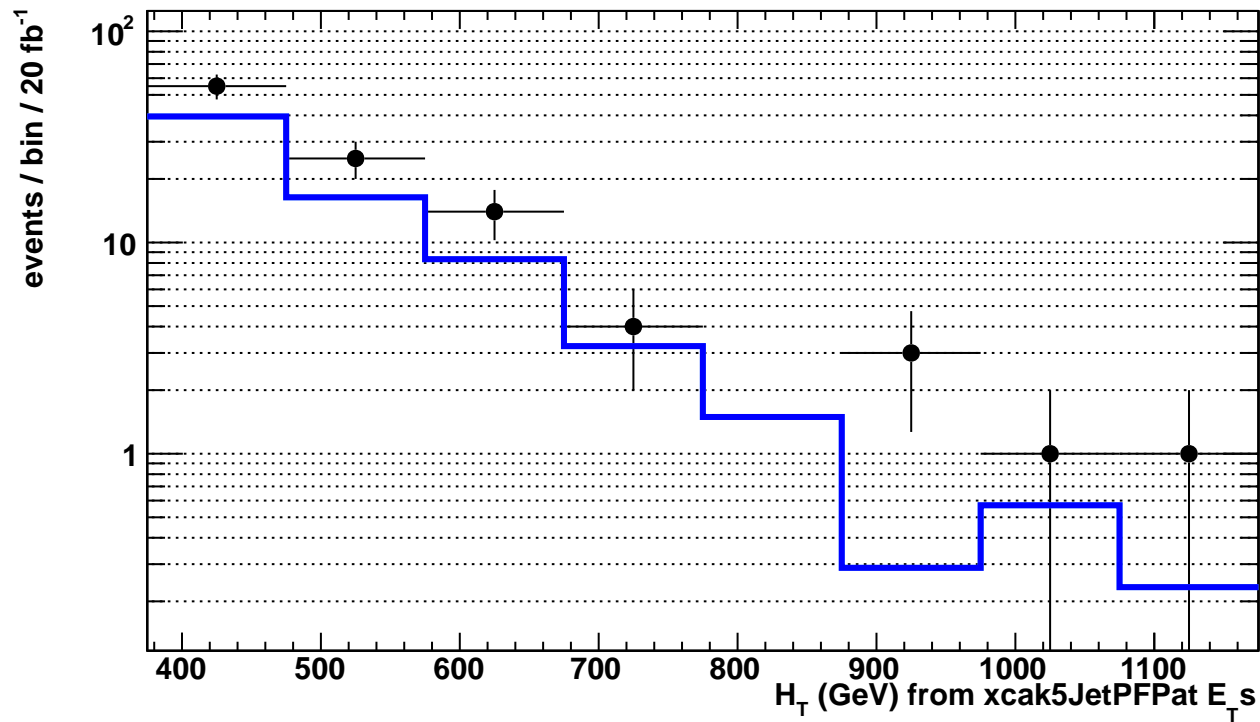
xcak5JetPFSumEtPat_eq0b	
Entries	6917
Mean	484.6
RMS	103.7
Underflow	0
Overflow	0
Integral	6917



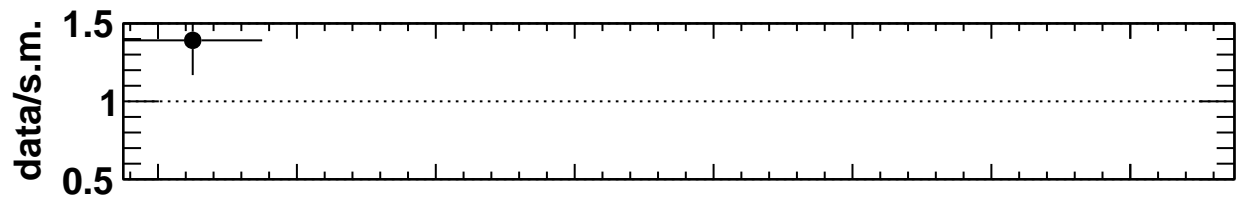
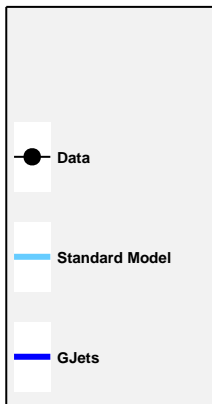
data/s.m.



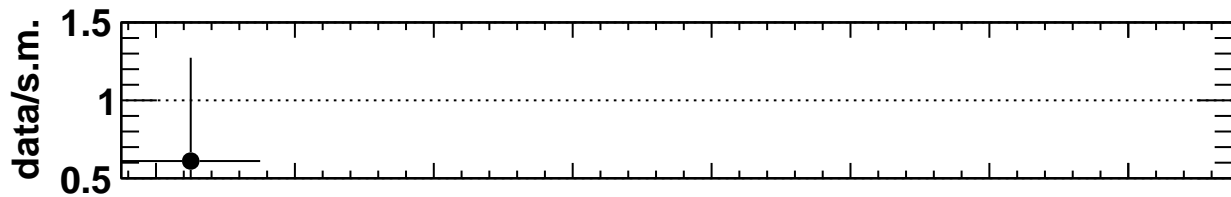
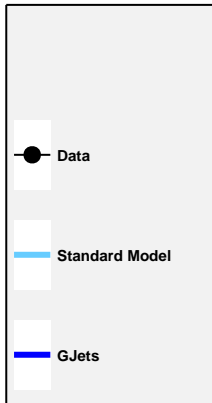
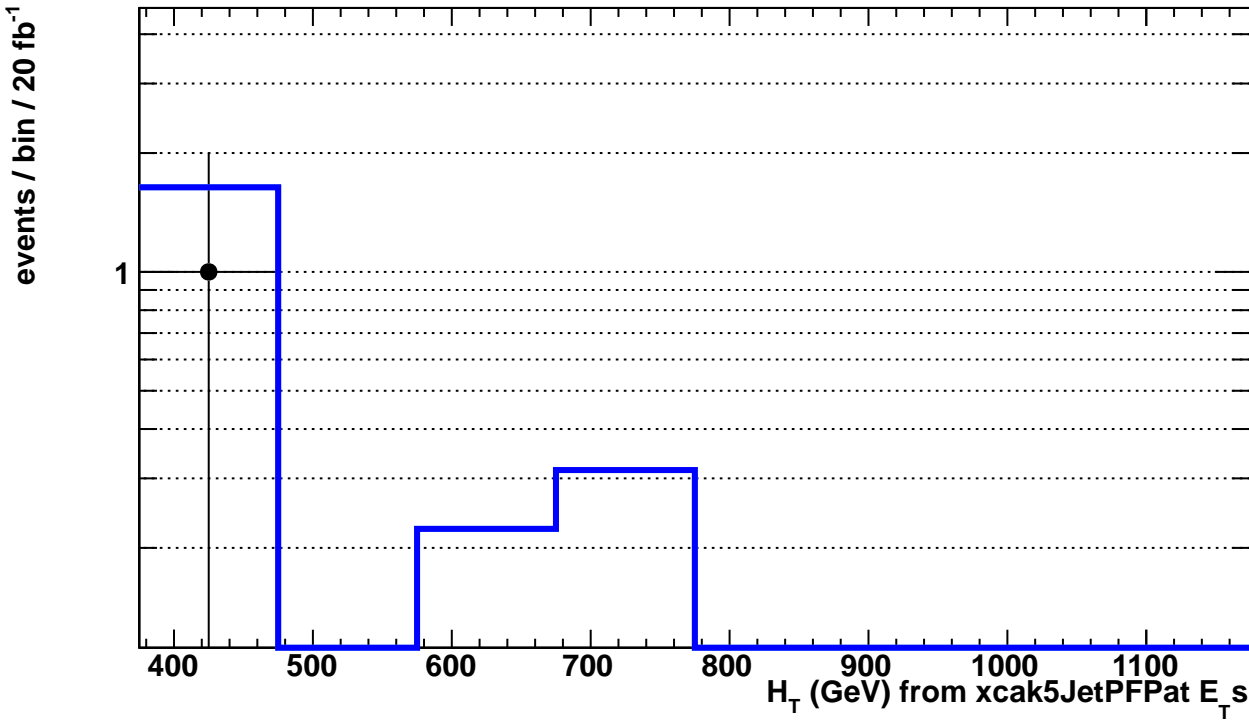




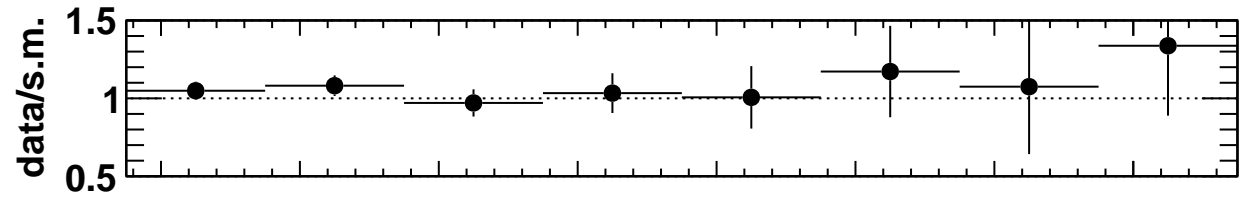
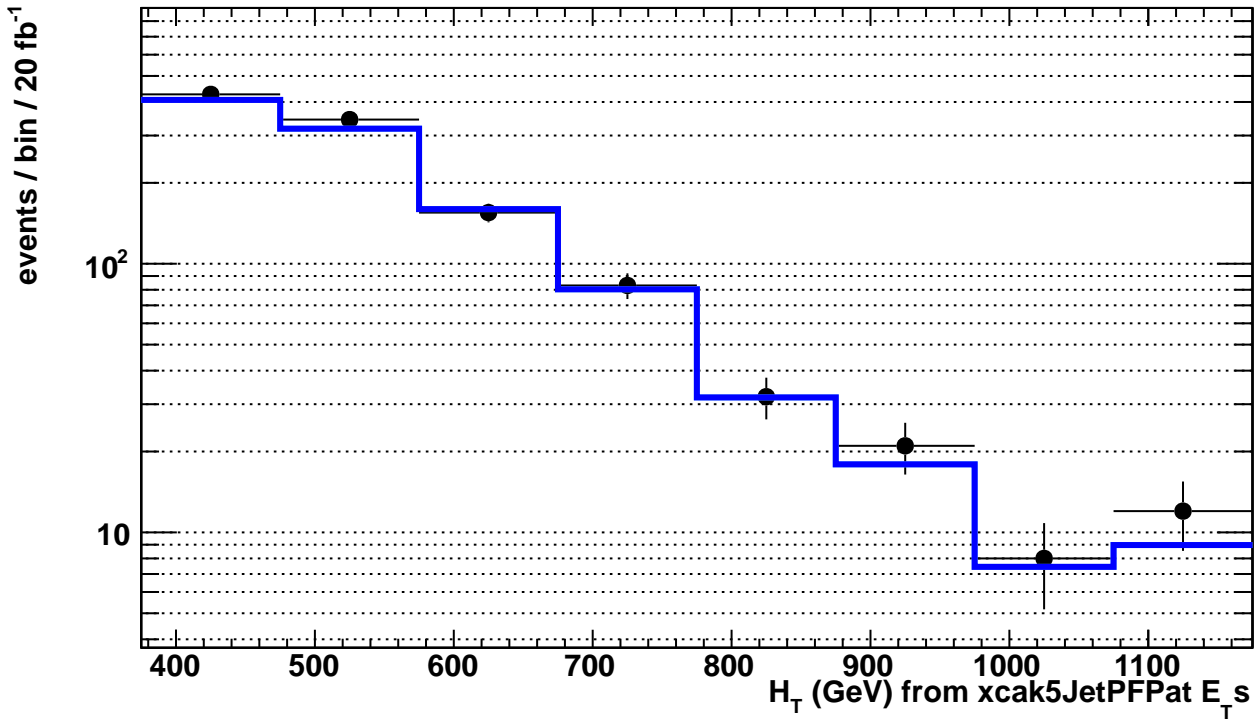
xcak5JetPFSumEtpat_eq2b	
Entries	103
Mean	515.3
RMS	136.9
Underflow	0
Overflow	0
Integral	103



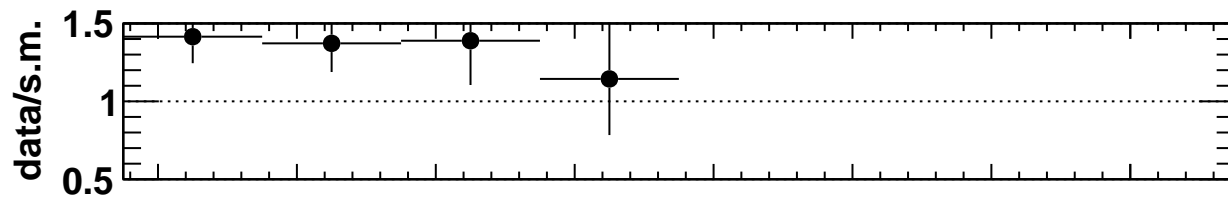
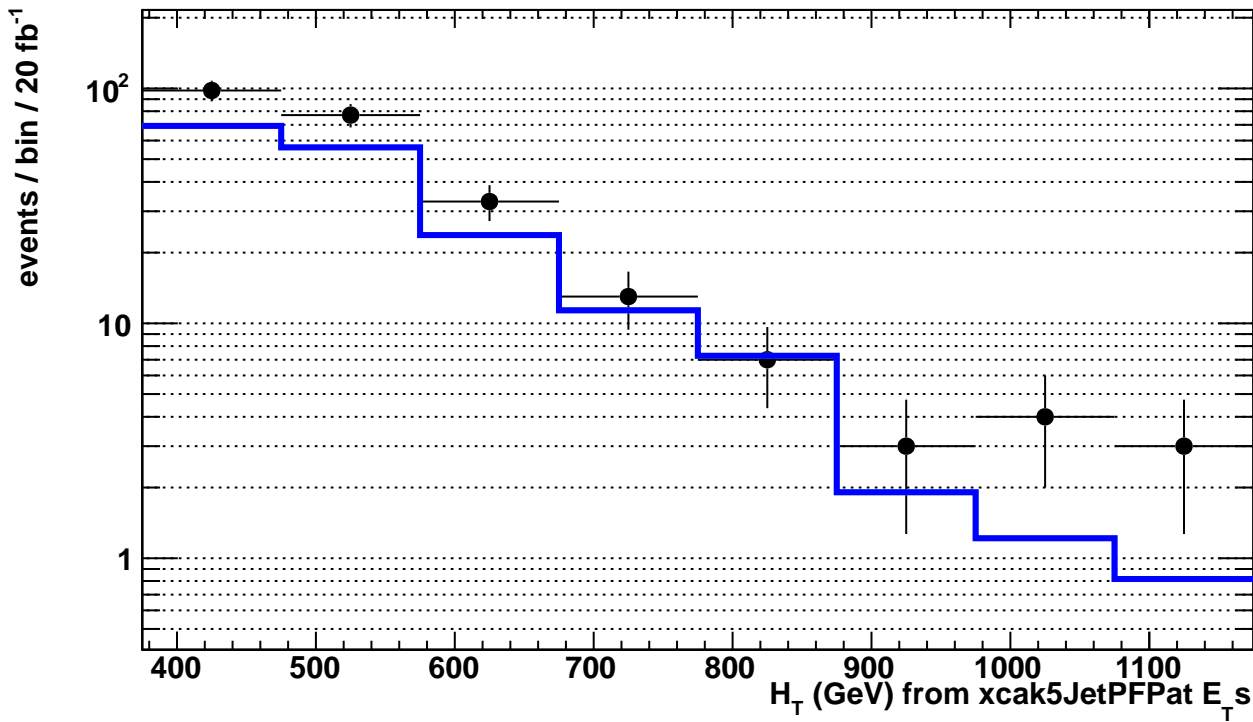
xcak5JetPFSumEtPat_eq3b	
Entries	1
Mean	430.4
RMS	0
Underflow	0
Overflow	0
Integral	1



xcak5JetPFSumEtPat_ge4j_eq0b	
Entries	1082
Mean	542.2
RMS	140.6
Underflow	0
Overflow	0
Integral	1082

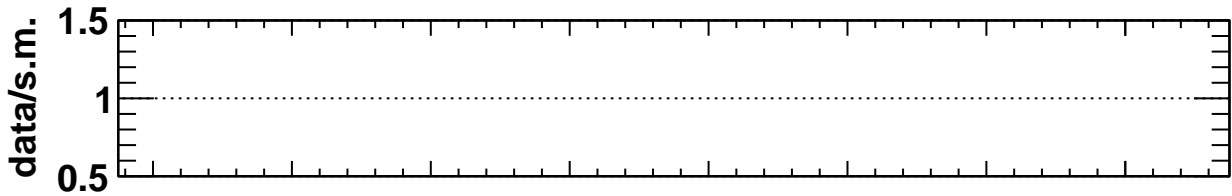
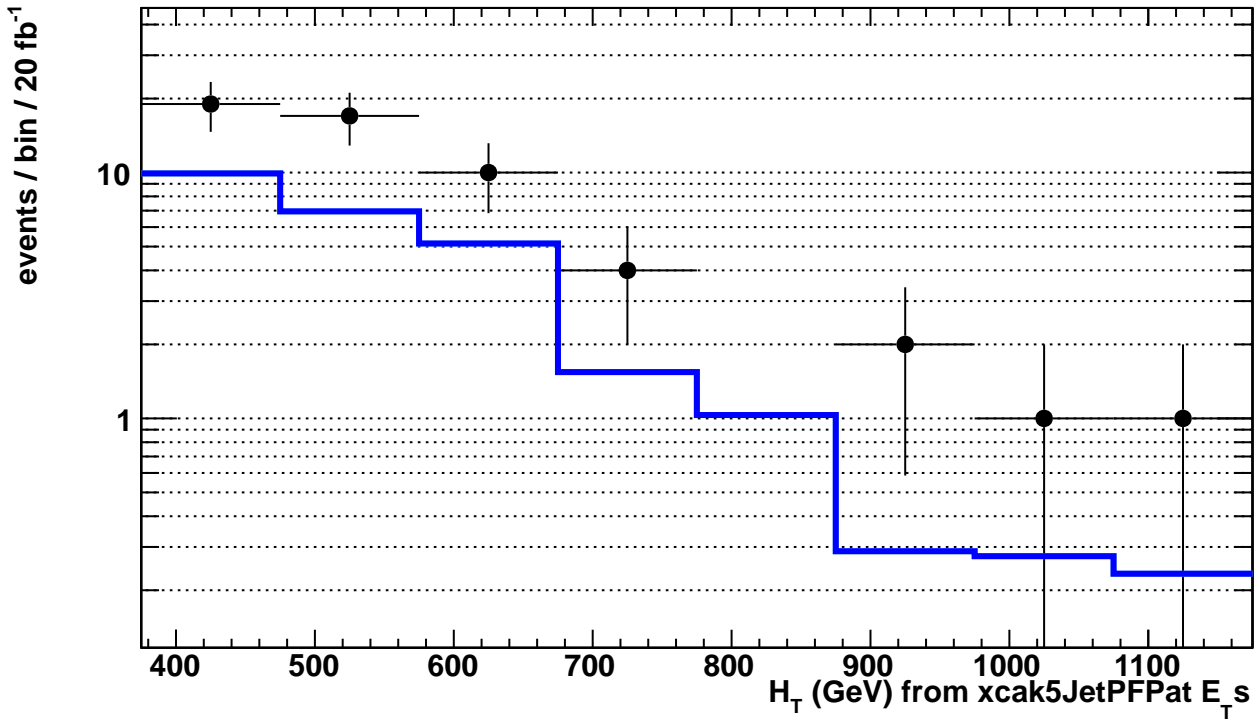


xcak5JetPFSumEtPat_ge4j_eq1b	
Entries	238
Mean	538.4
RMS	144.6
Underflow	0
Overflow	0
Integral	238

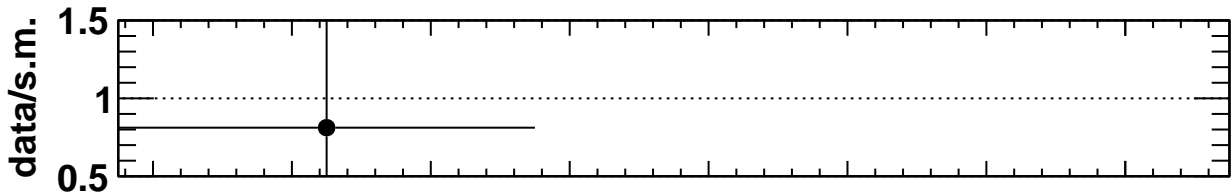
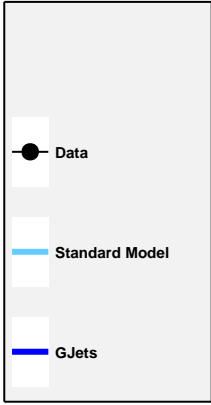
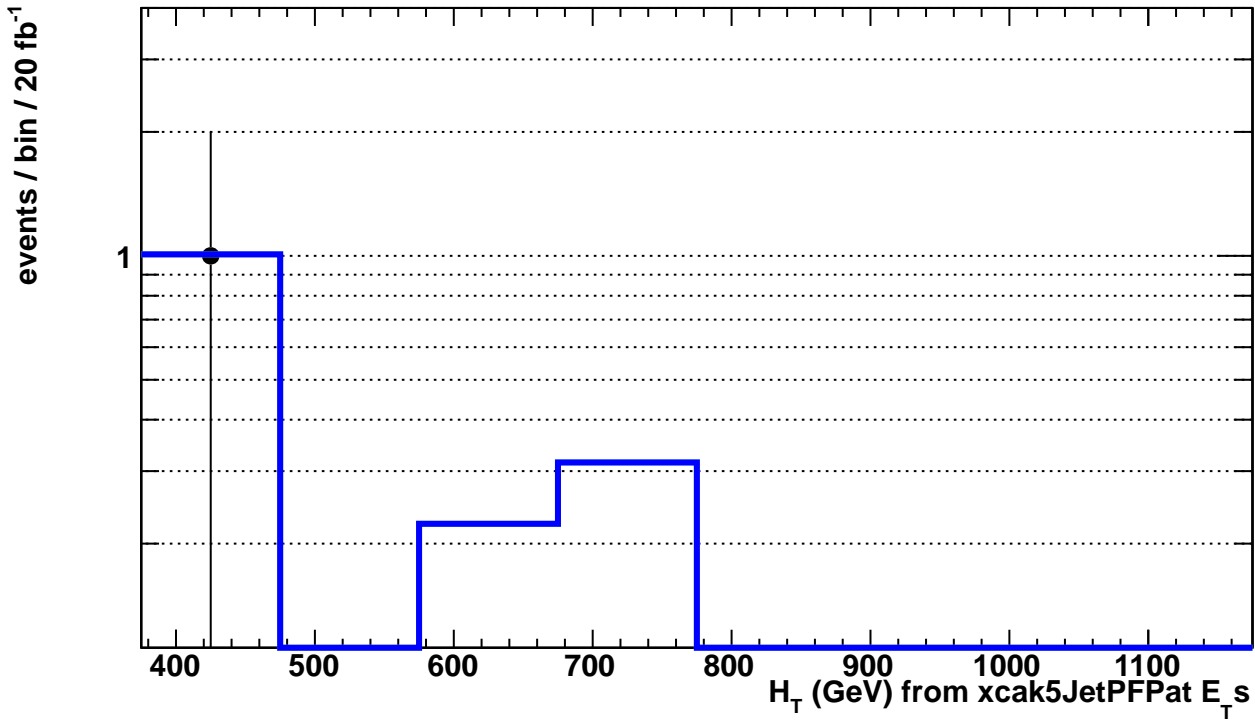


xcak5JetPFSumEtPat_ge4j_eq2b

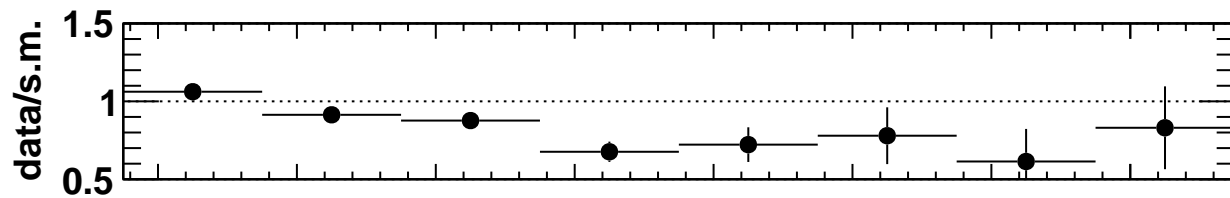
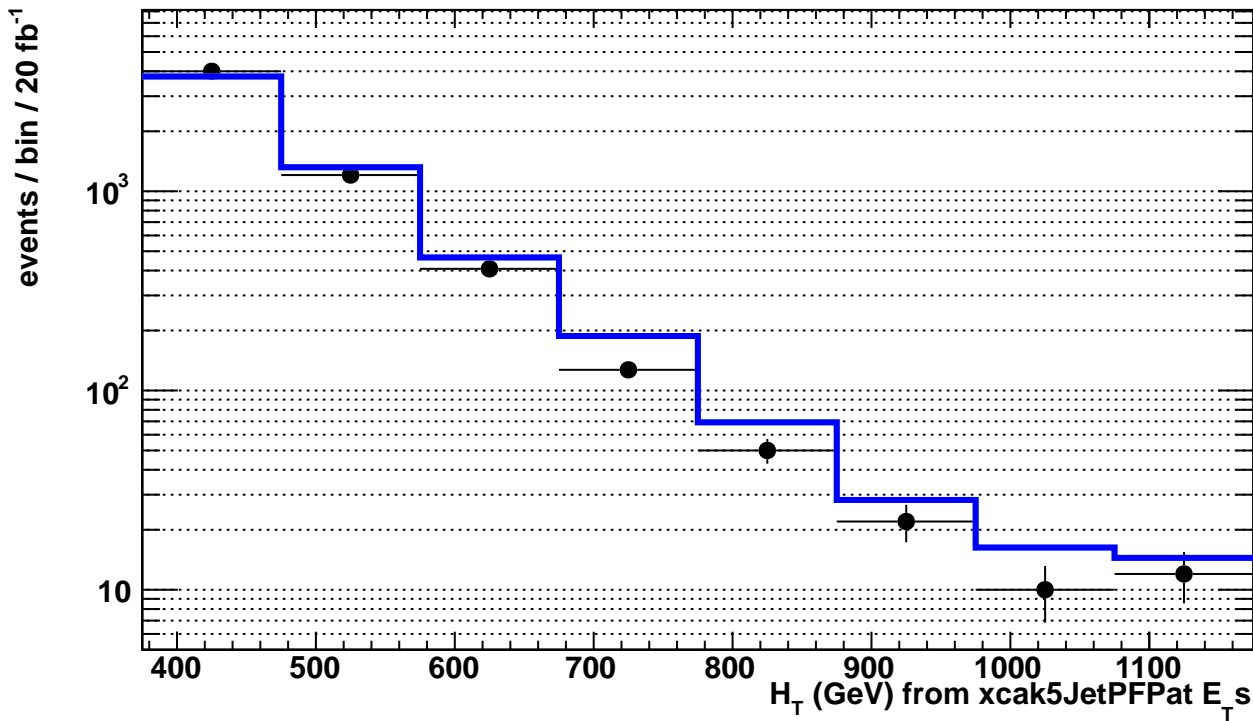
Entries	54
Mean	558.3
RMS	156.3
Underflow	0
Overflow	0
Integral	54

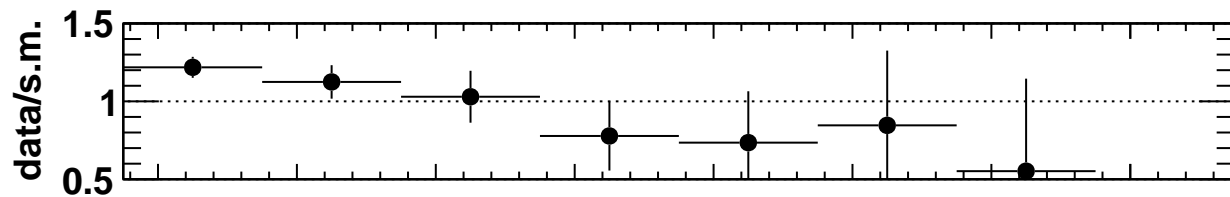
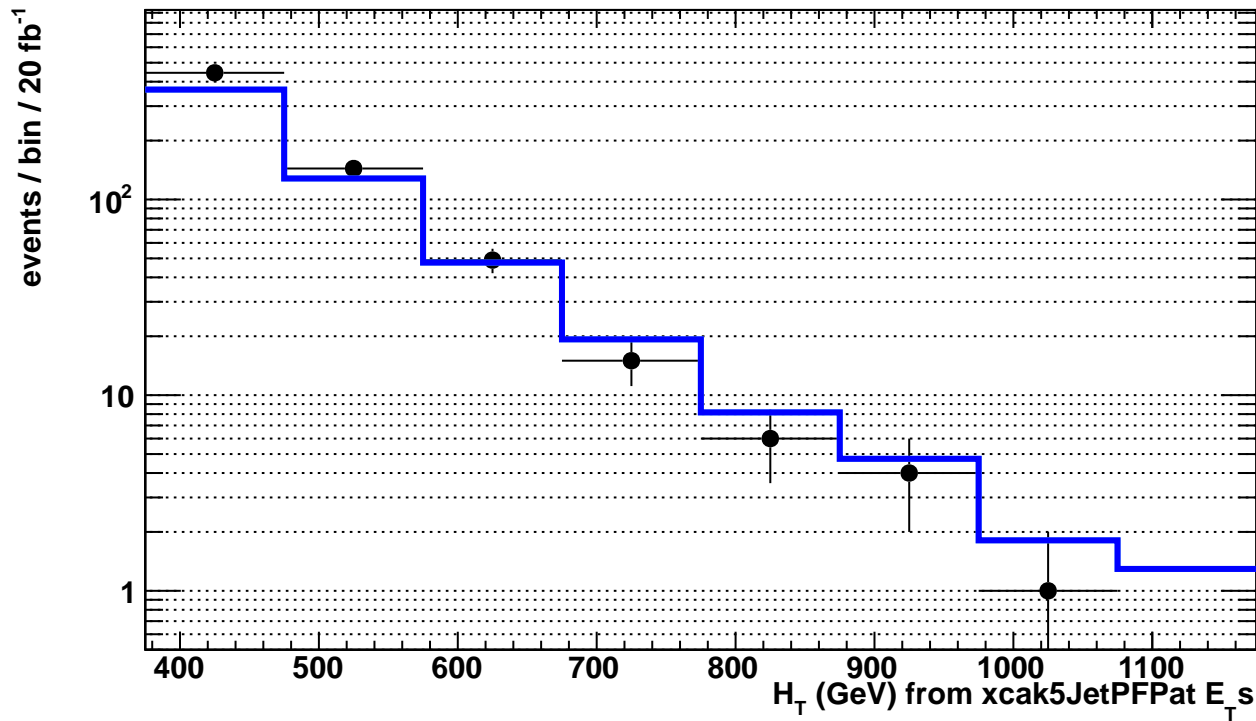


xcak5JetPFSumEtPat_ge4j_eq3b	
Entries	1
Mean	430.4
RMS	0
Underflow	0
Overflow	0
Integral	1

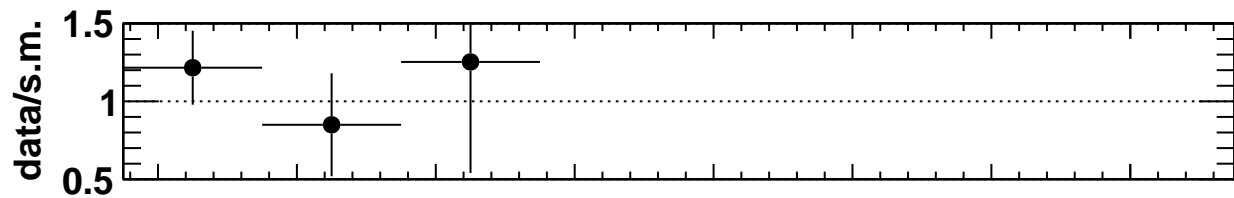
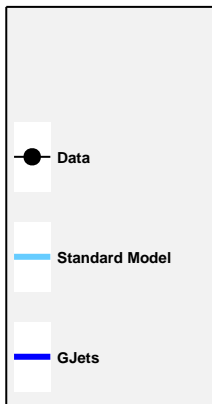
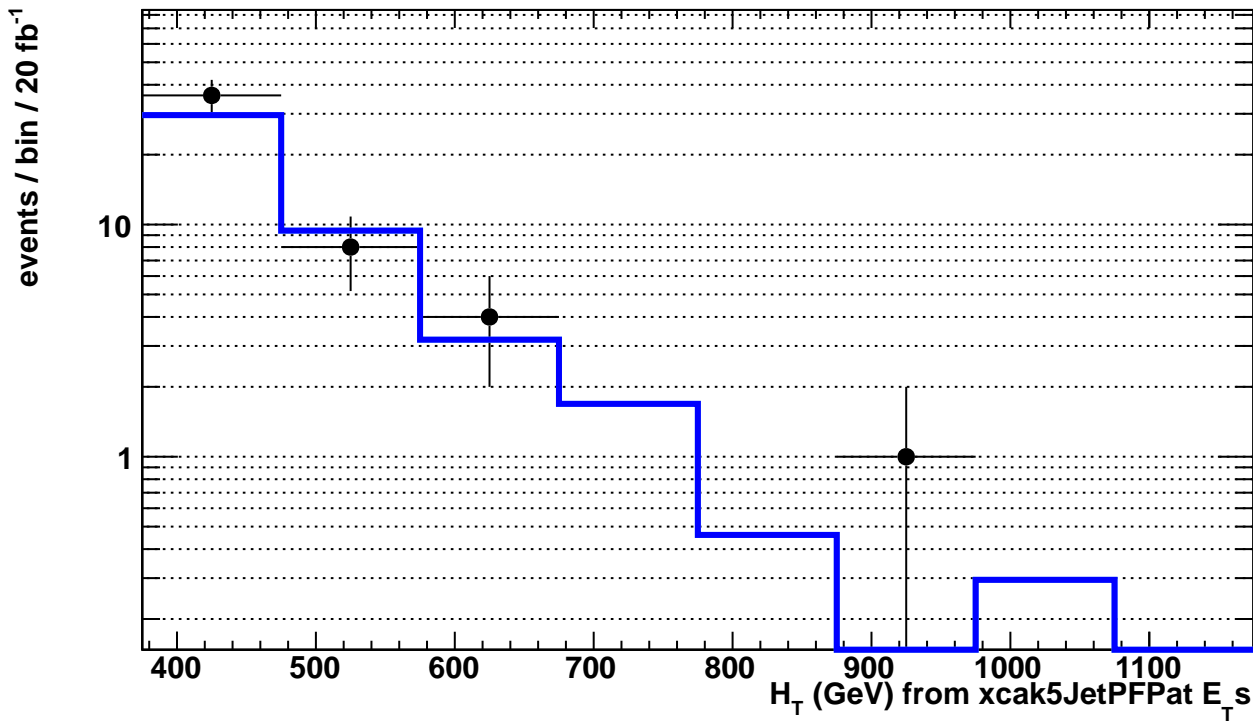


xcak5JetPFSumEtPat_le3j_eq0b	
Entries	5835
Mean	474
RMS	91.45
Underflow	0
Overflow	0
Integral	5835

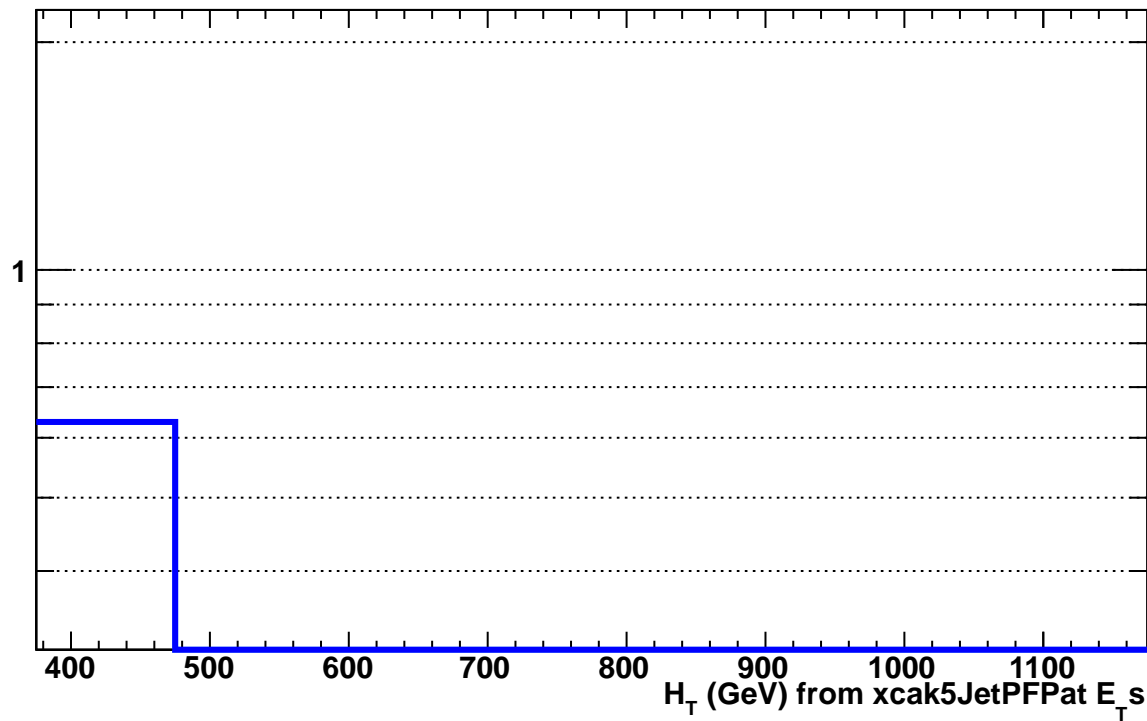




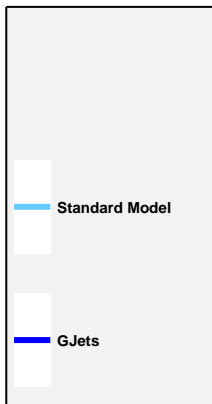
xcak5JetPFSumEtPat_le3j_eq2b	
Entries	49
Mean	454.3
RMS	94.53
Underflow	0
Overflow	0
Integral	49



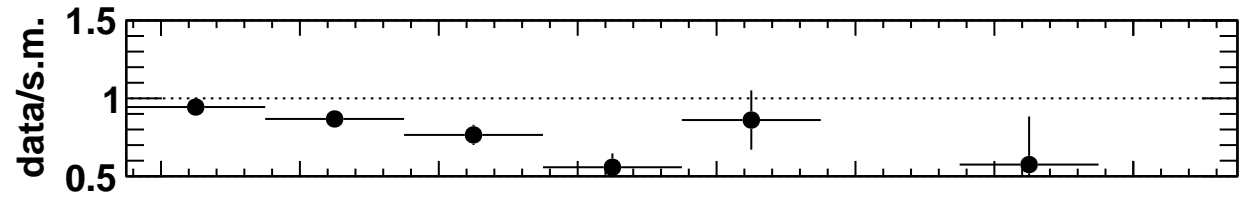
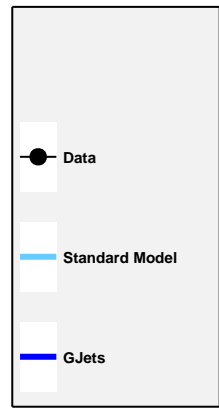
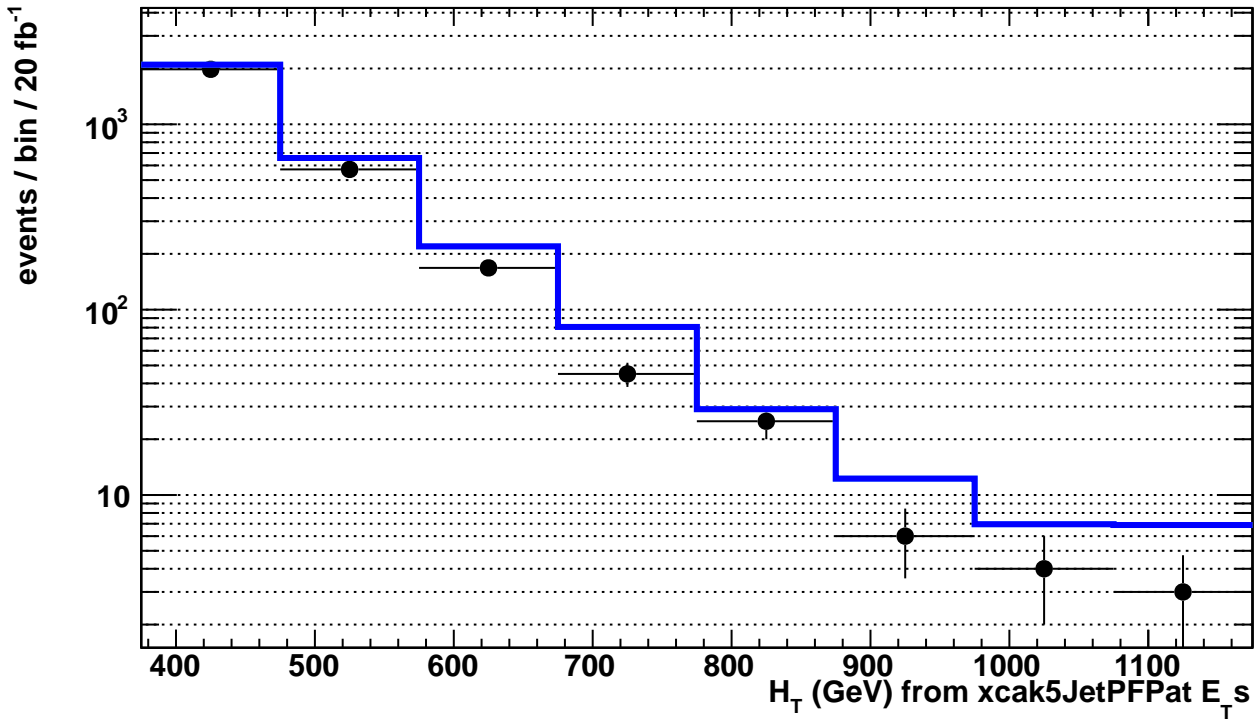
events / bin / 20 fb⁻¹



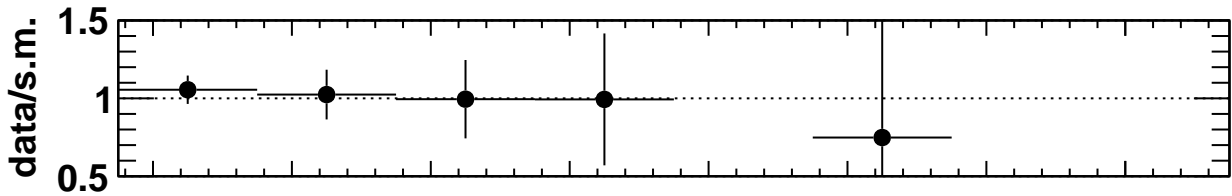
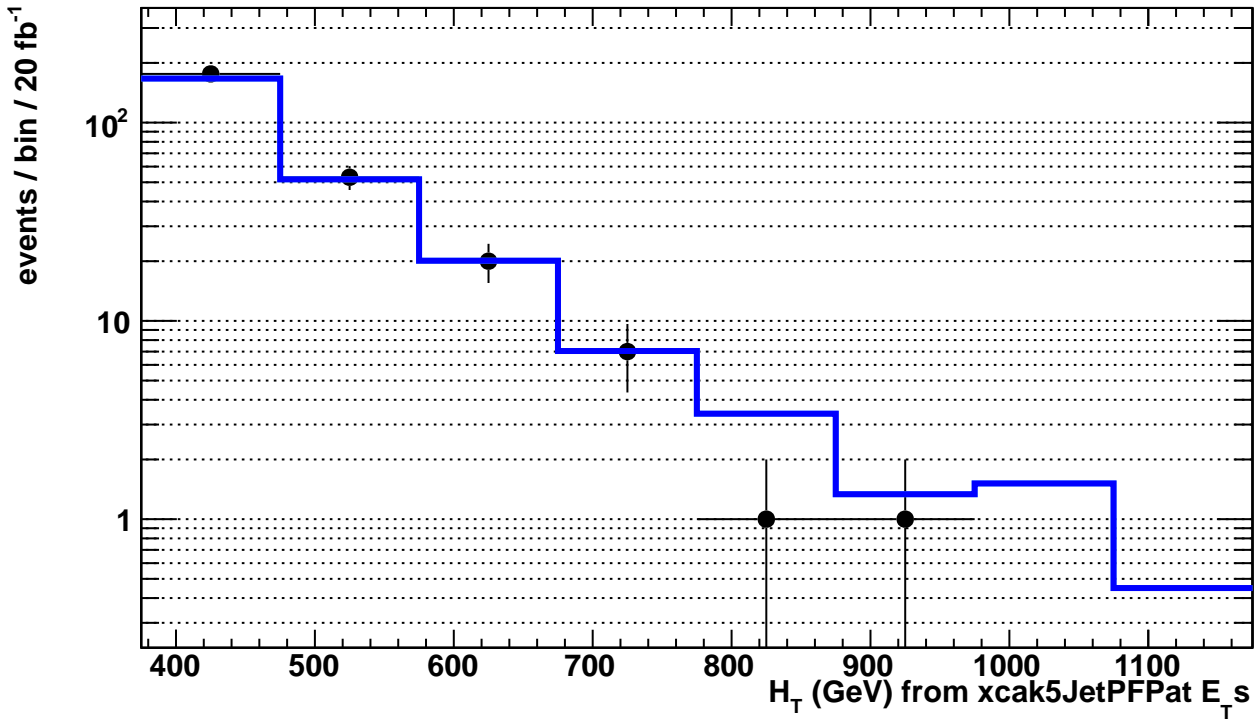
xcak5JetPFSumEtPat_le3_eq3b	
Entries	2
Mean	472.3
RMS	3.607
Underflow	0
Overflow	0
Integral	0.6296



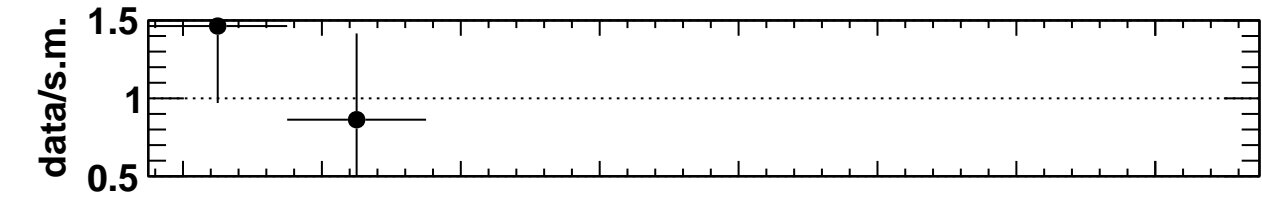
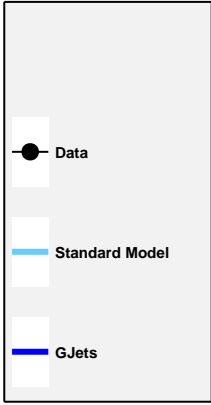
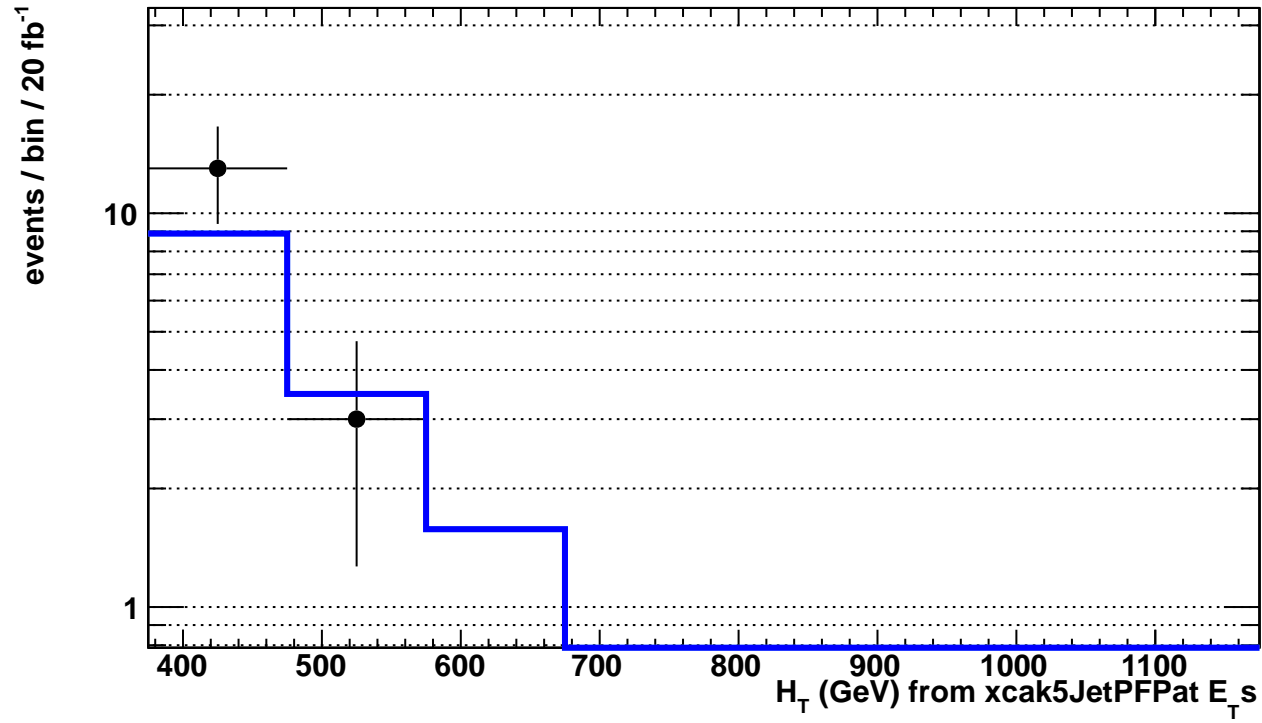
xcak5JetPFSumEtPat_eq2j_eq0b	
Entries	2802
Mean	468.4
RMS	83.65
Underflow	0
Overflow	0
Integral	2802



xcak5JetPFSumEtPat_eq2j_eq1b	
Entries	258
Mean	459.4
RMS	87.64
Underflow	0
Overflow	0
Integral	258

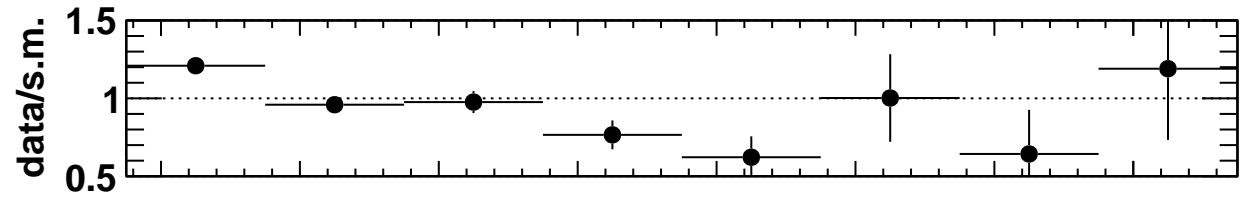
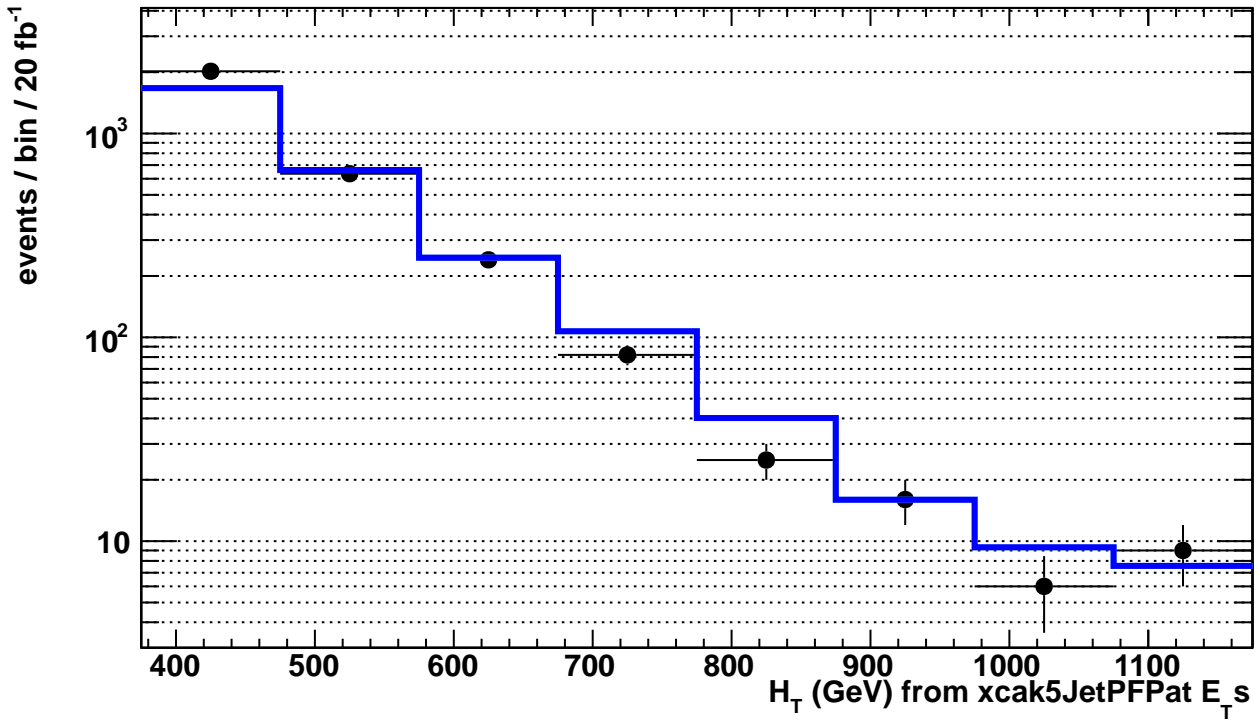


xcak5JetPFSumEtPat_eq2j_eq2b	
Entries	16
Mean	423.2
RMS	53.25
Underflow	0
Overflow	0
Integral	16

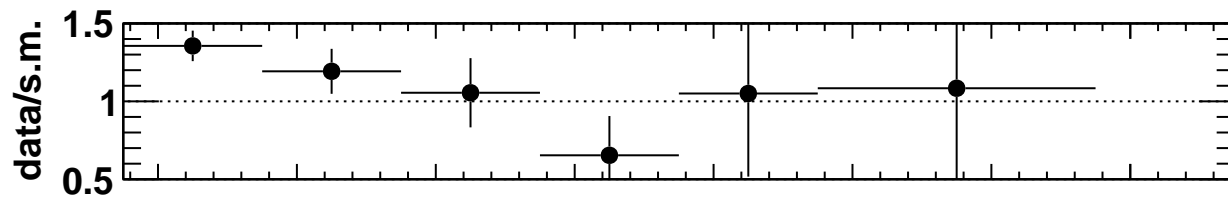
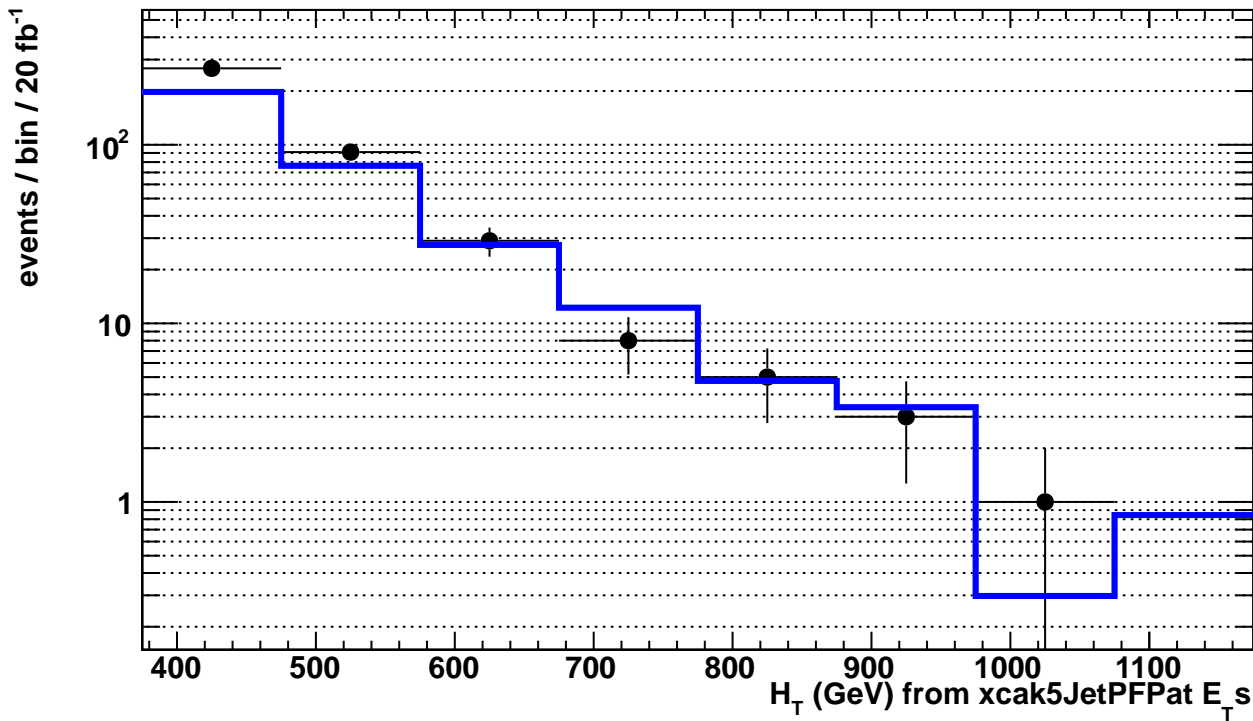


xcak5JetPFSumEtPat_eq3j_eq0b

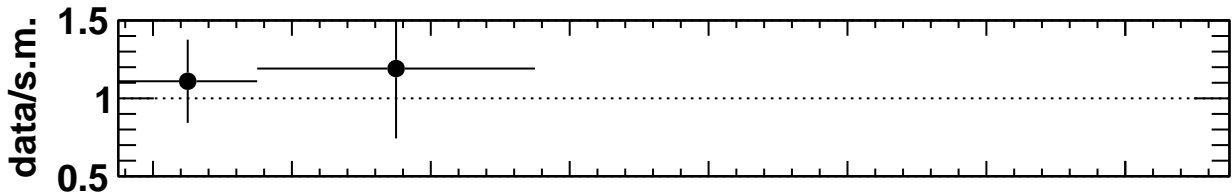
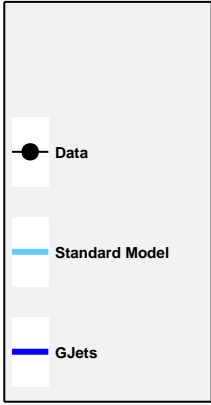
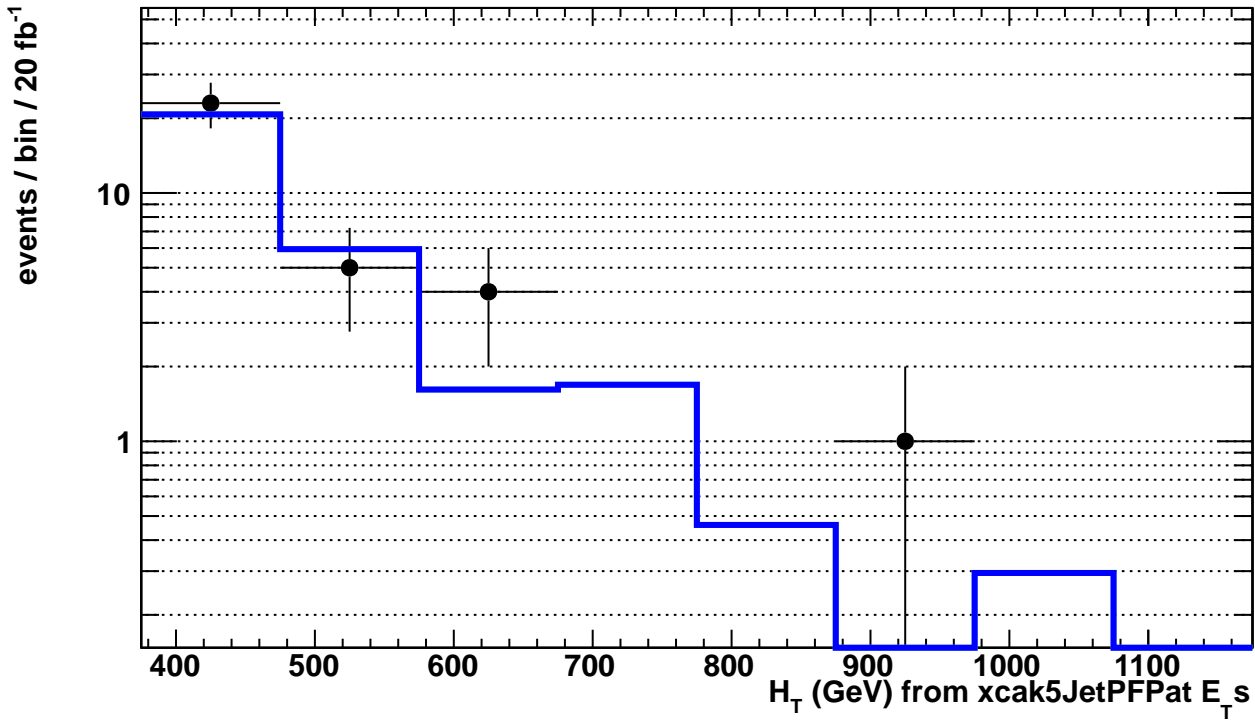
Entries	3033
Mean	479.1
RMS	97.84
Underflow	0
Overflow	0
Integral	3033

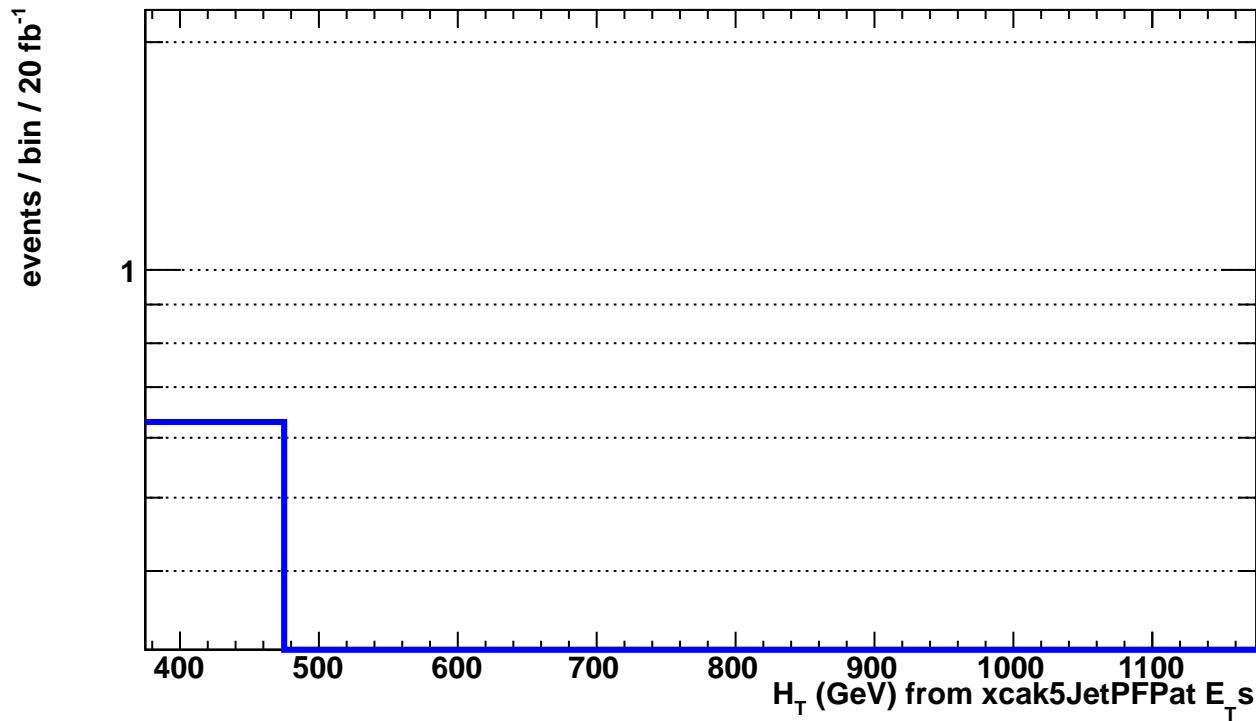


xcak5JetPFSumEtPat_eq3j_eq1b	
Entries	405
Mean	468
RMS	99.05
Underflow	0
Overflow	0
Integral	405

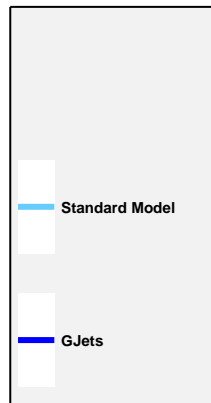


xcak5JetPFSumEtPat_eq3_eq2b	
Entries	33
Mean	469.4
RMS	105.8
Underflow	0
Overflow	0
Integral	33

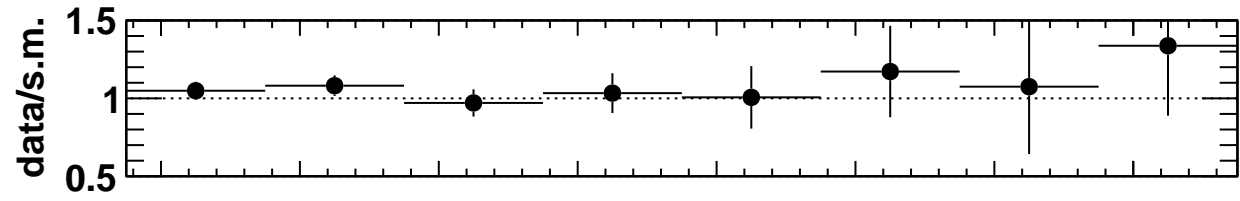
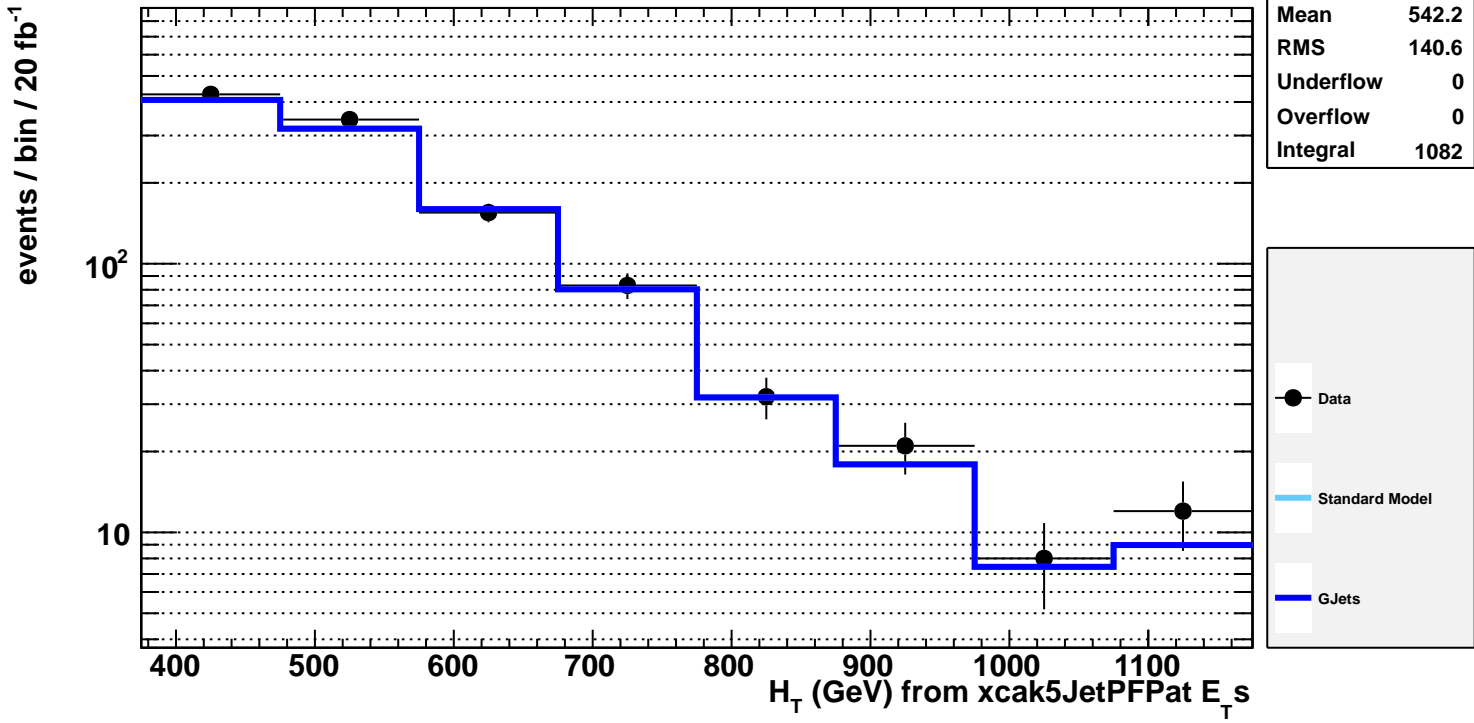




xcak5JetPFSumEtPat_eq3_eq3b	
Entries	2
Mean	472.3
RMS	3.607
Underflow	0
Overflow	0
Integral	0.6296

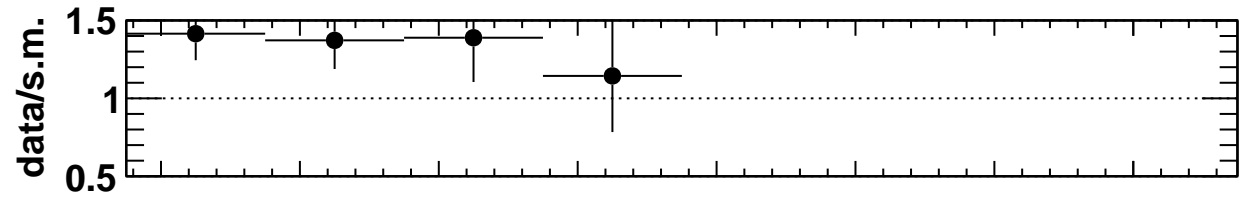
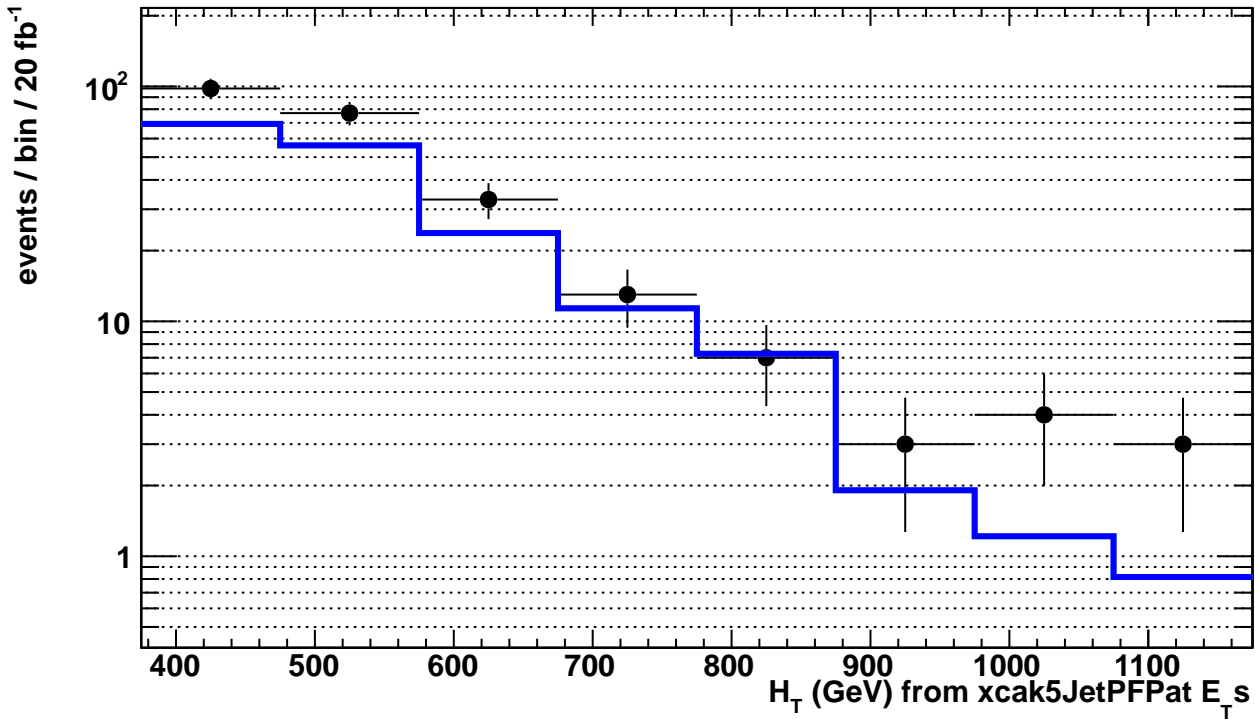


xcak5JetPFSumEtPat_ge4j_eq0b	
Entries	1082
Mean	542.2
RMS	140.6
Underflow	0
Overflow	0
Integral	1082



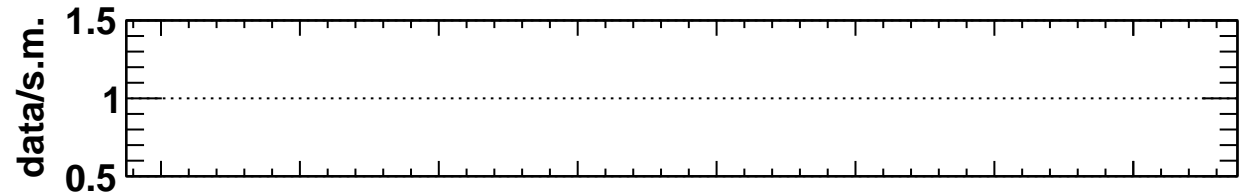
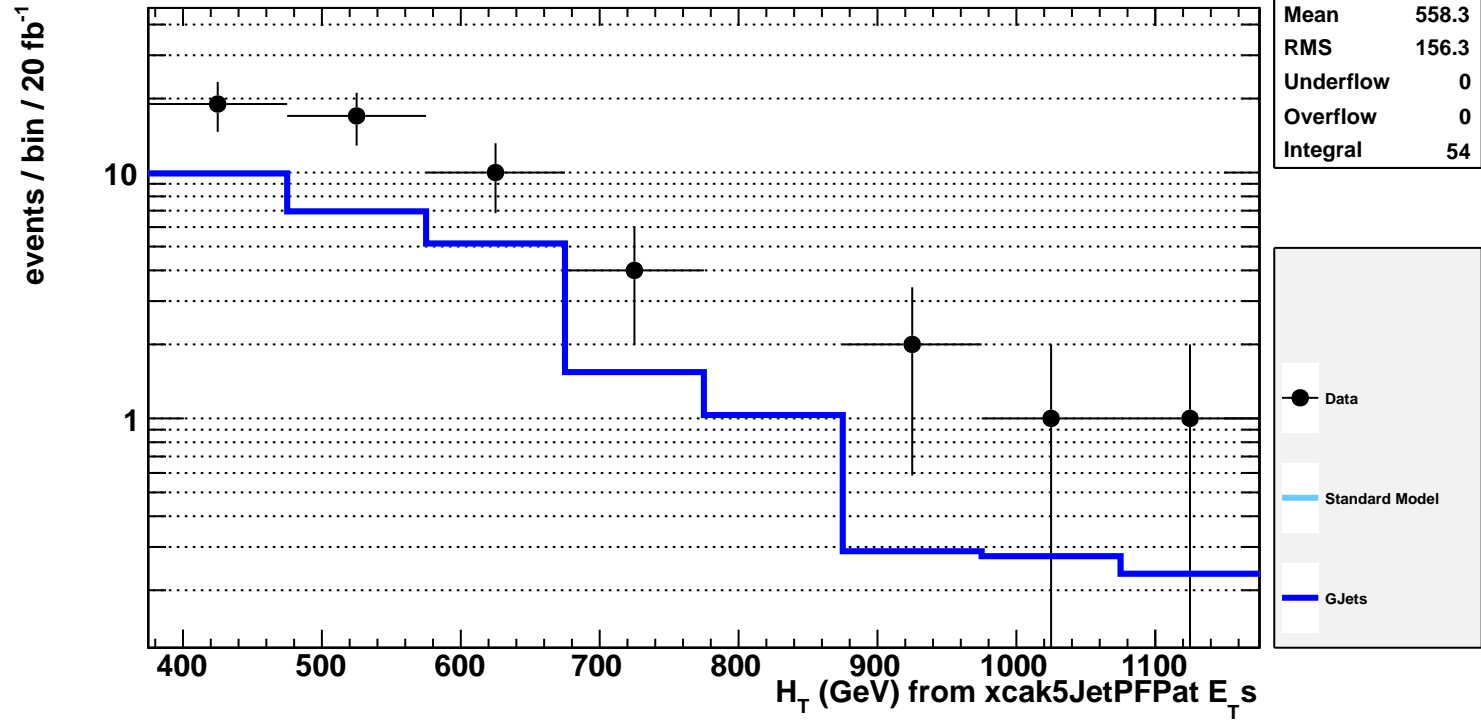
xcak5JetPFSumEtPat_ge4j_eq1b

Entries	238
Mean	538.4
RMS	144.6
Underflow	0
Overflow	0
Integral	238

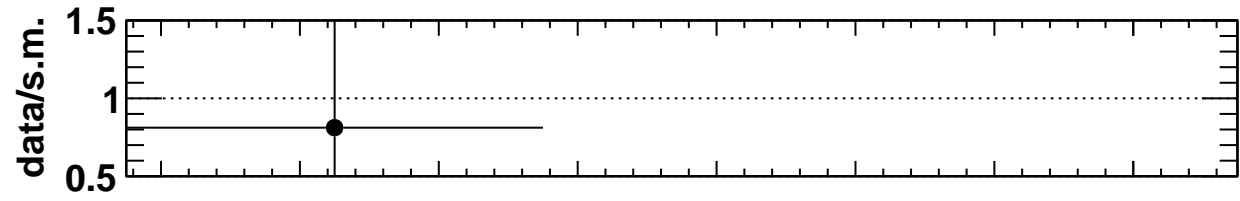
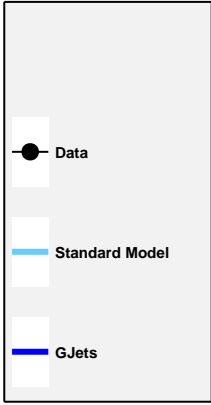
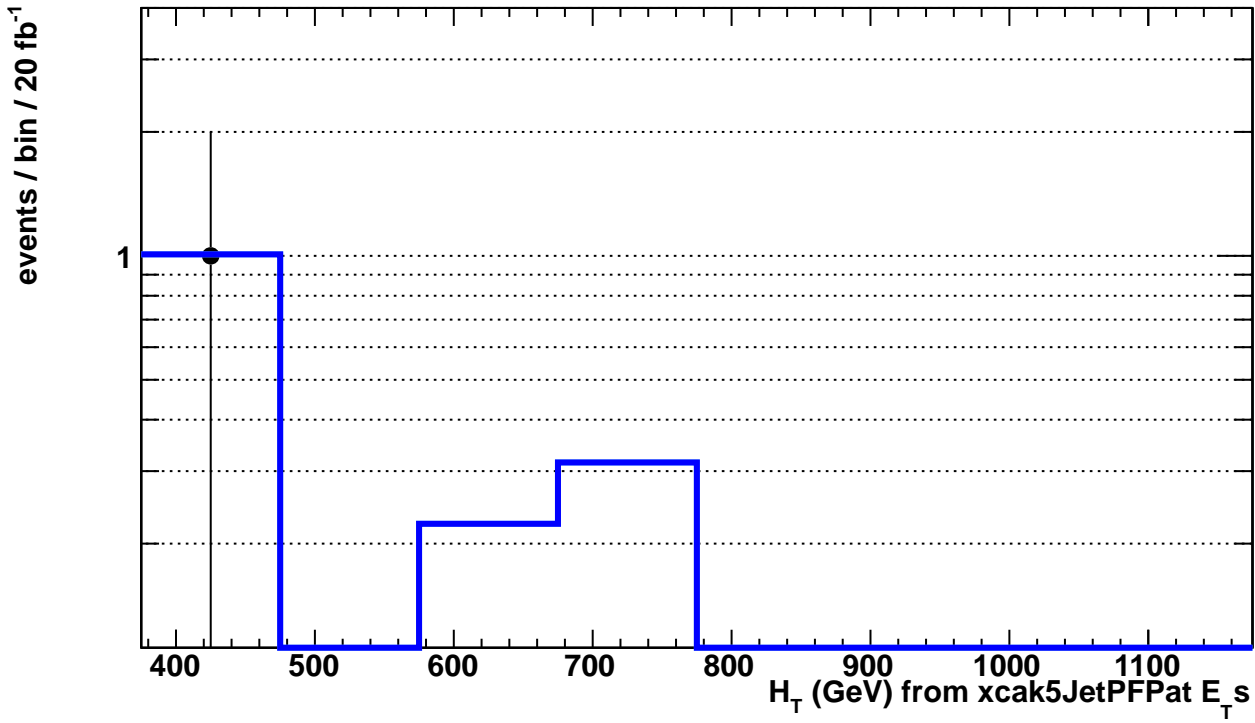


xcak5JetPFSumEtPat_ge4j_eq2b

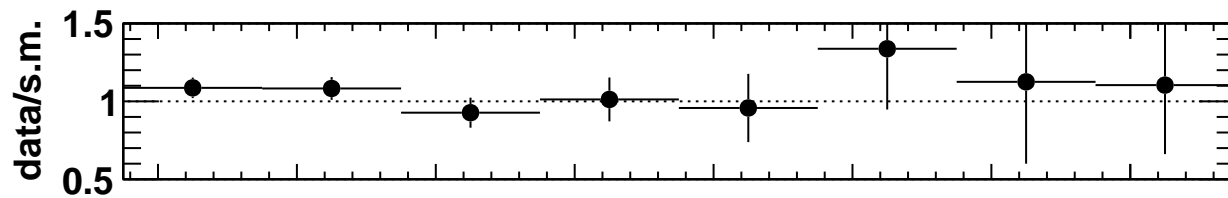
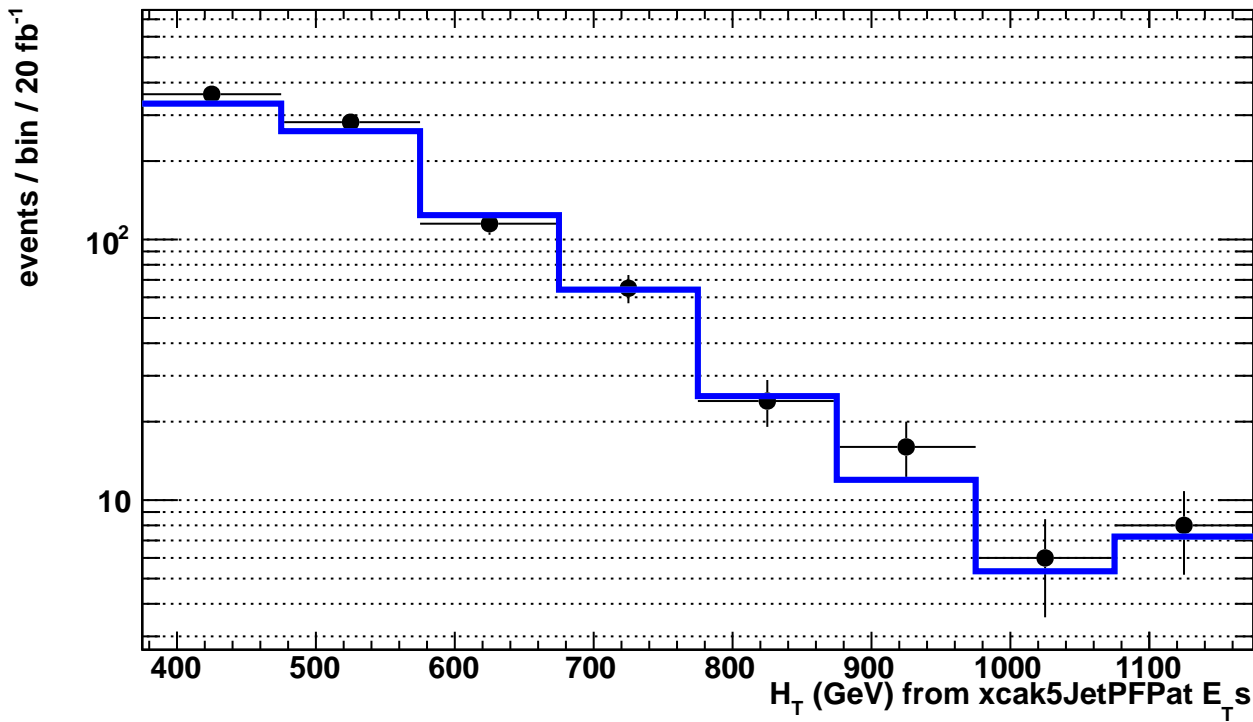
Entries	54
Mean	558.3
RMS	156.3
Underflow	0
Overflow	0
Integral	54



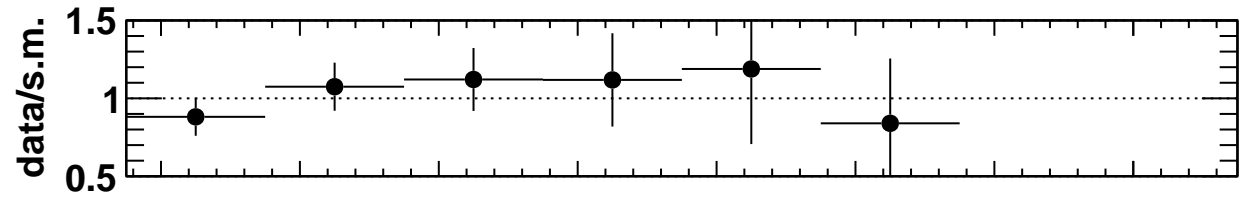
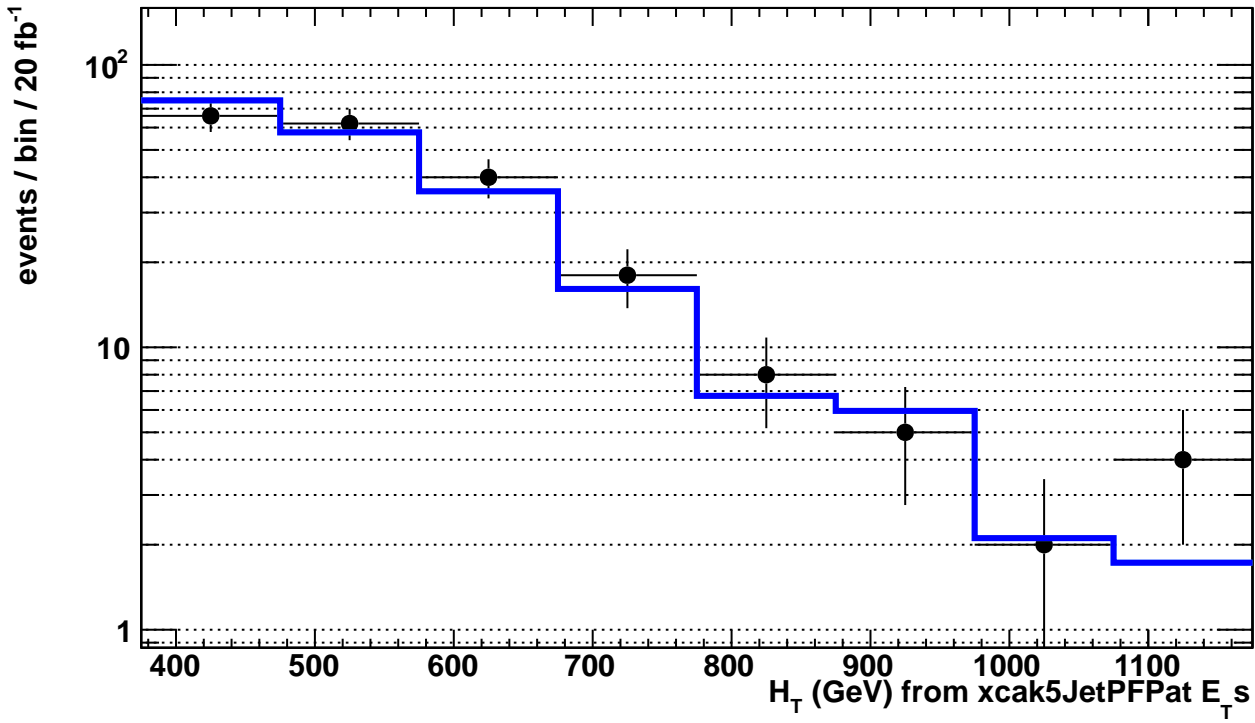
xcak5JetPFSumEtPat_ge4j_eq3b	
Entries	1
Mean	430.4
RMS	0
Underflow	0
Overflow	0
Integral	1

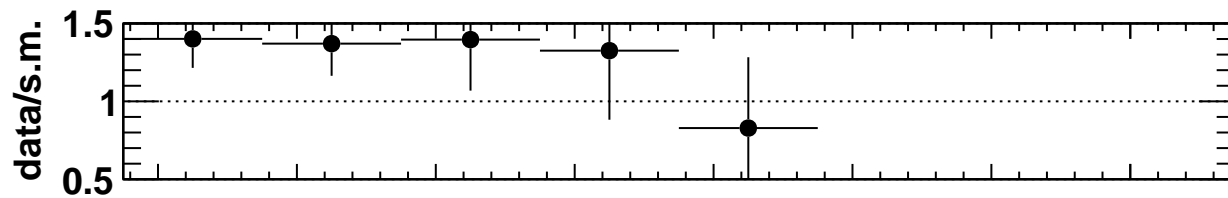
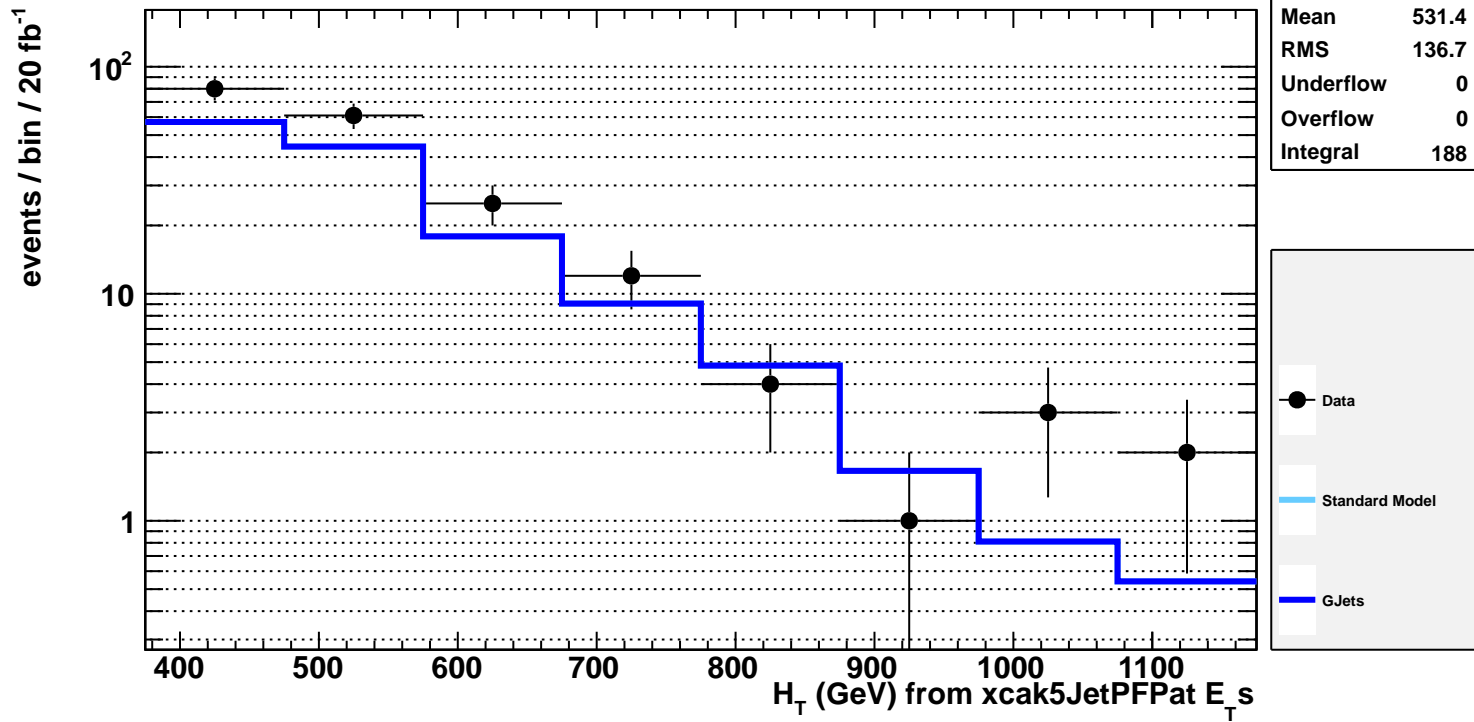


xcak5JetPFSumEtPat_ge4J_eq0b_dRge65	
Entries	877
Mean	536.2
RMS	136.5
Underflow	0
Overflow	0
Integral	877

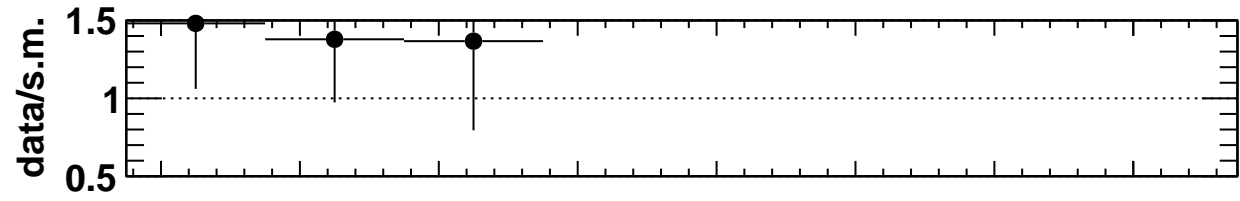
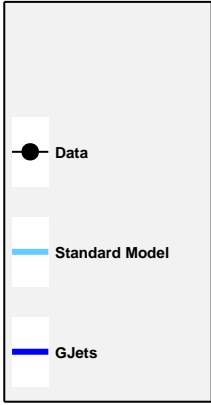
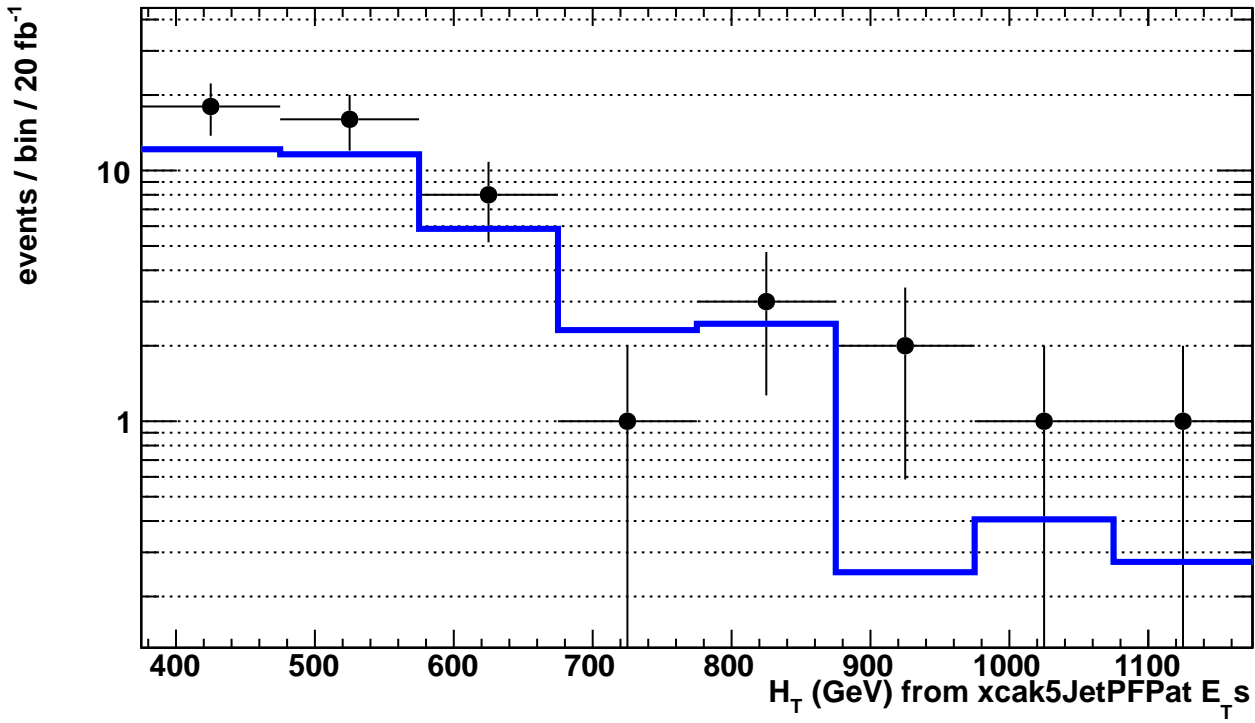


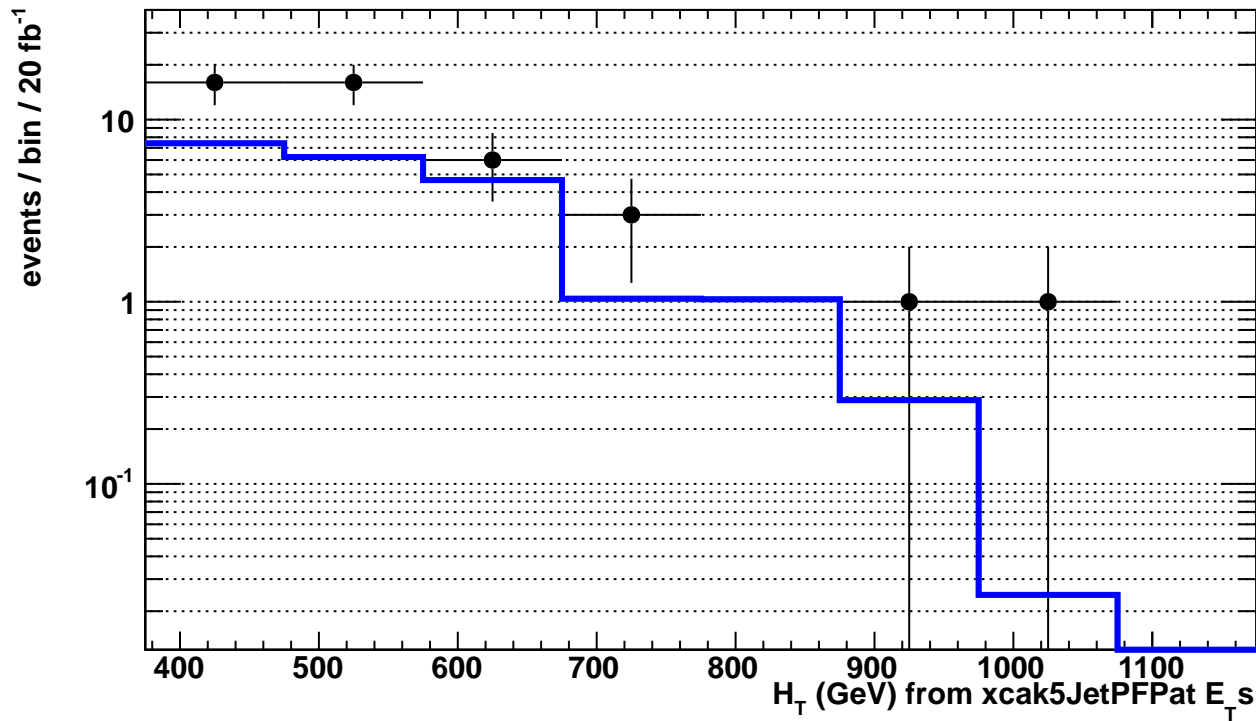
xcak5JetPFSumEtPat_ge4j_eq0b_dRl65	
Entries	205
Mean	567.9
RMS	154
Underflow	0
Overflow	0
Integral	205



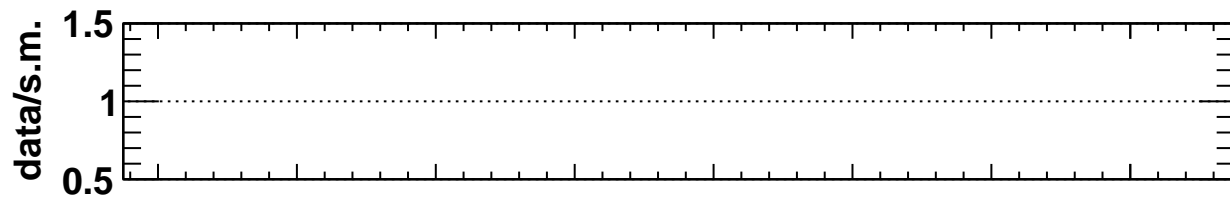
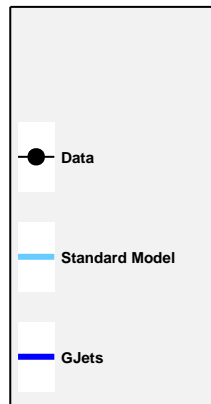


xcak5JetPFSumEtPat_ge4j_eq1b_dRl65	
Entries	50
Mean	564
RMS	166.3
Underflow	0
Overflow	0
Integral	50

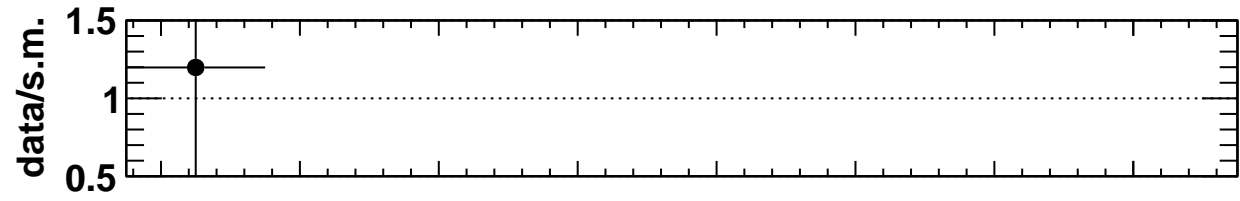
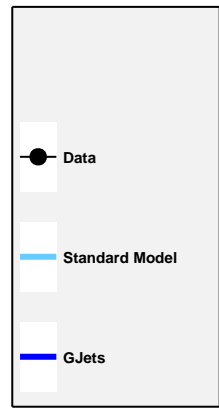
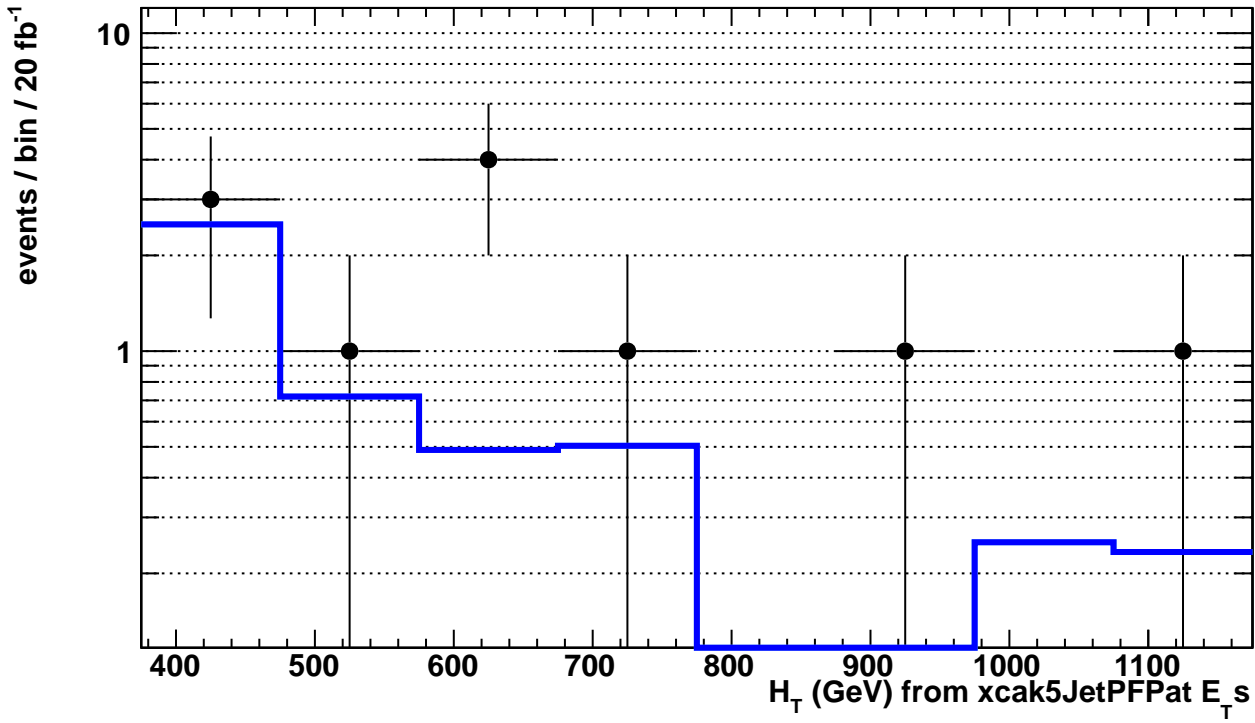




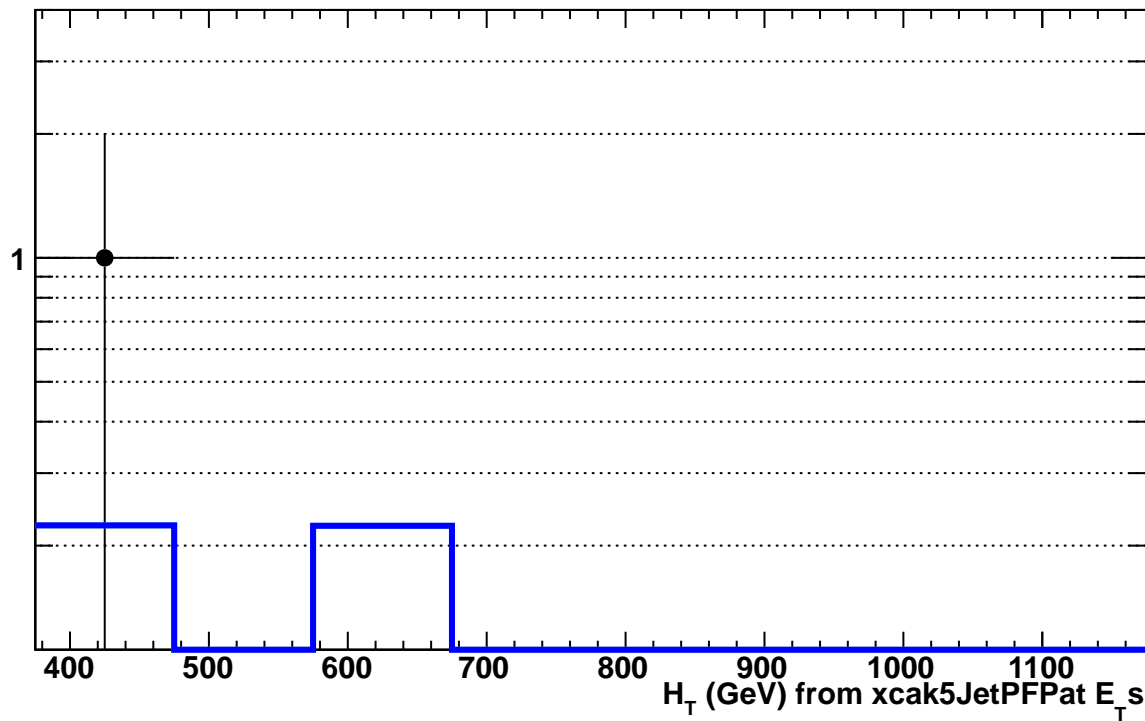
xcak5JetPFSumEtPat_ge4J_eq2b_dRge65	
Entries	43
Mean	535.8
RMS	138.1
Underflow	0
Overflow	0
Integral	43



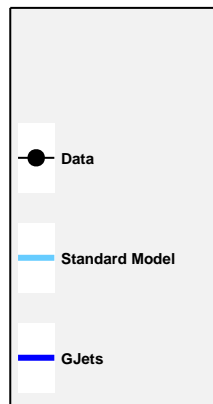
xcak5JetPFSumEtPat_ge4j_eq2b_dRl65	
Entries	11
Mean	643.2
RMS	208.1
Underflow	0
Overflow	0
Integral	11



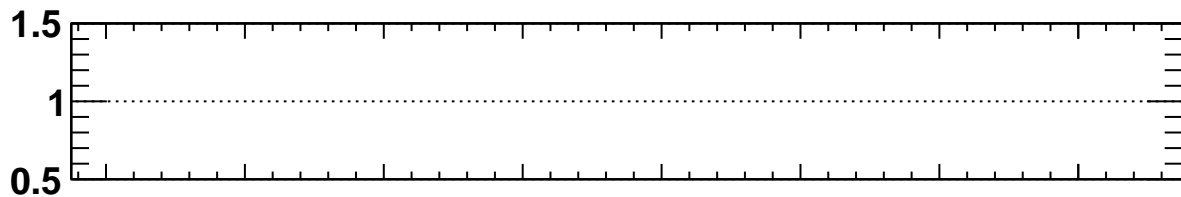
events / bin / 20 fb⁻¹



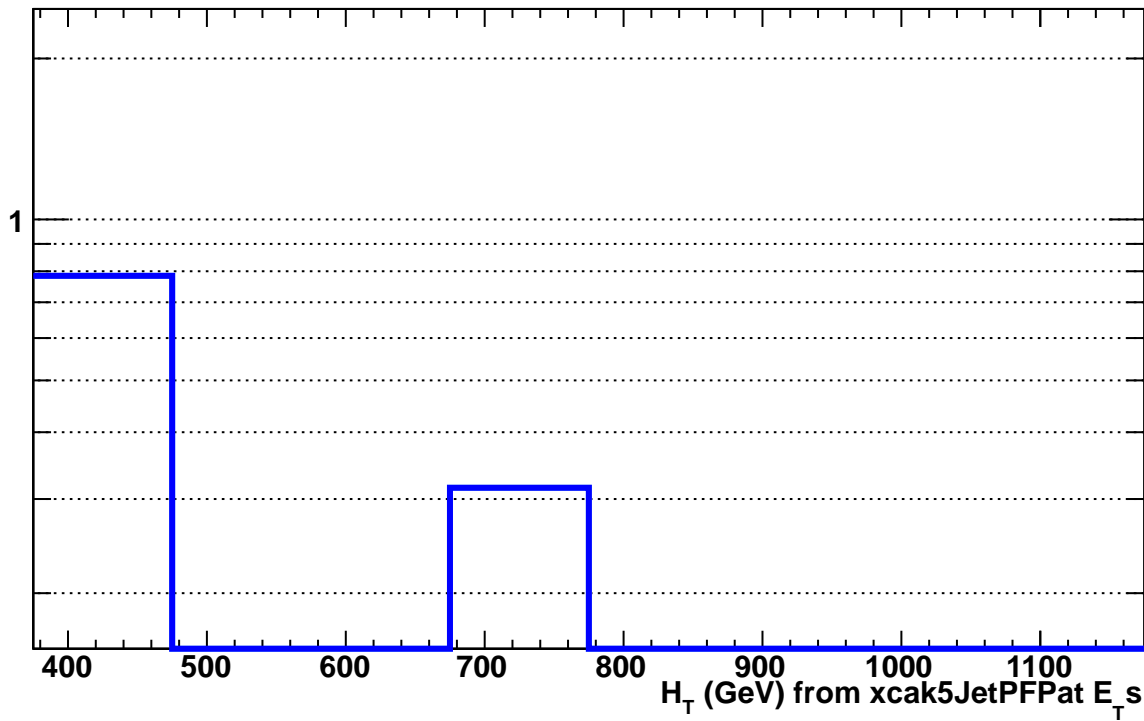
xcak5JetPFSumEtPat_ge4J_eq3b_dRge65	
Entries	1
Mean	430.4
RMS	0
Underflow	0
Overflow	0
Integral	1



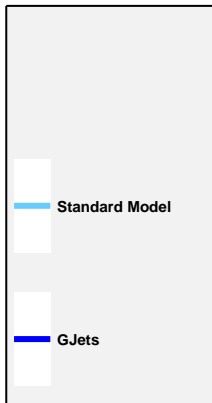
data/s.m.



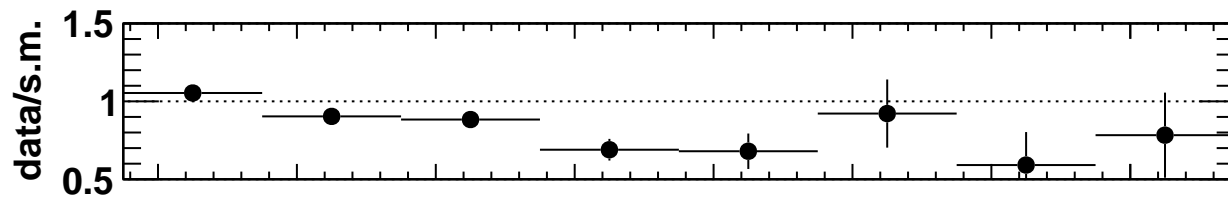
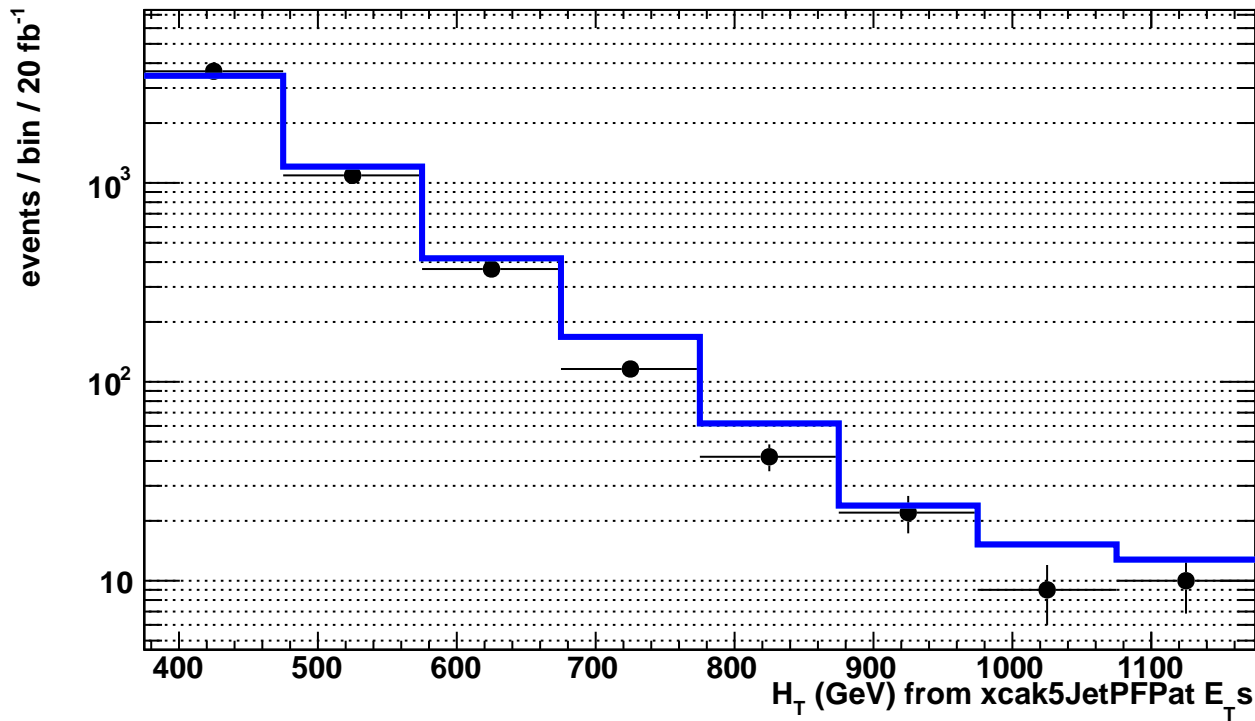
events / bin / 20 fb⁻¹



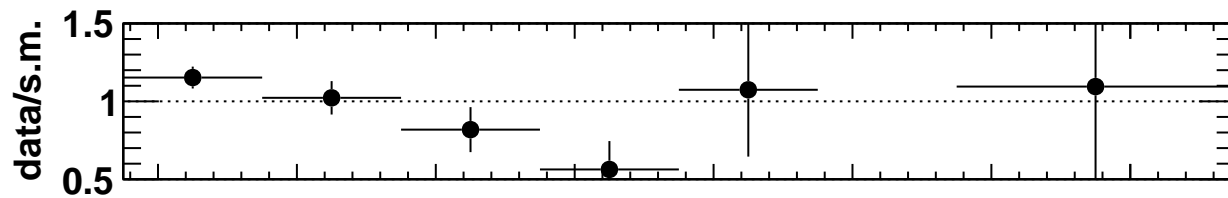
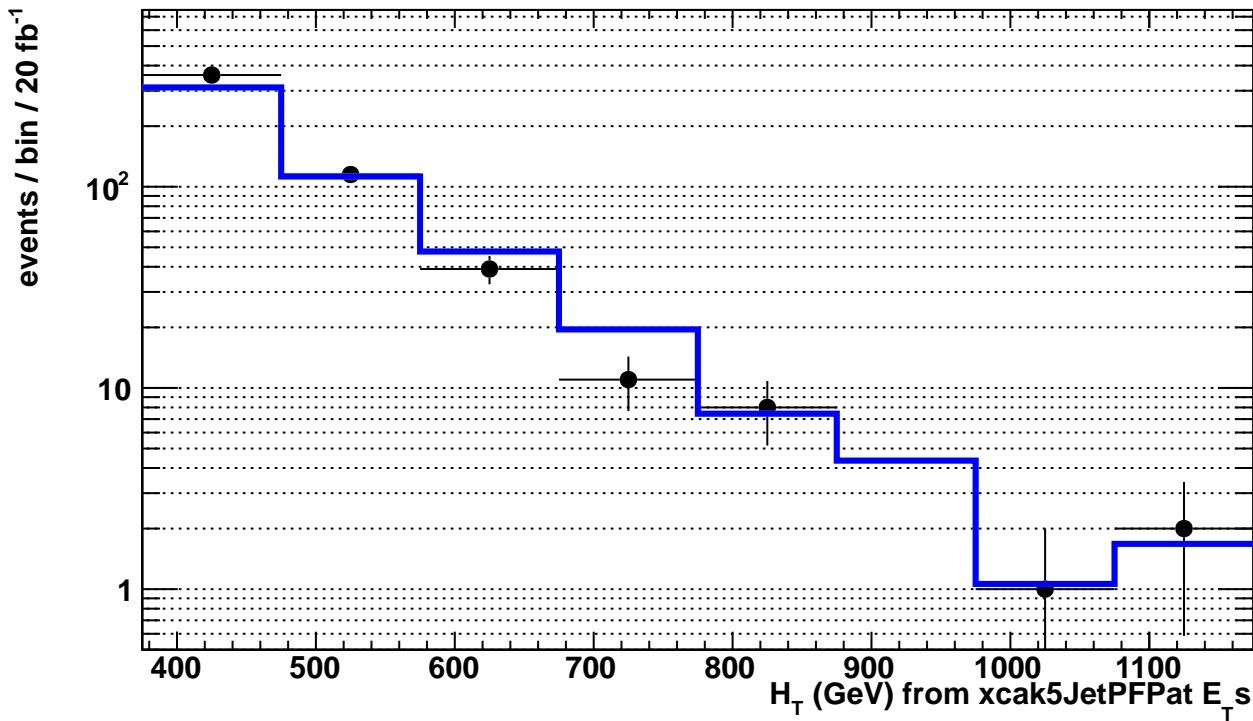
xcak5JetPFSumEIPat_ge4j_eq3b_dRl65	
Entries	4
Mean	525.7
RMS	141.9
Underflow	0
Overflow	0
Integral	1.099



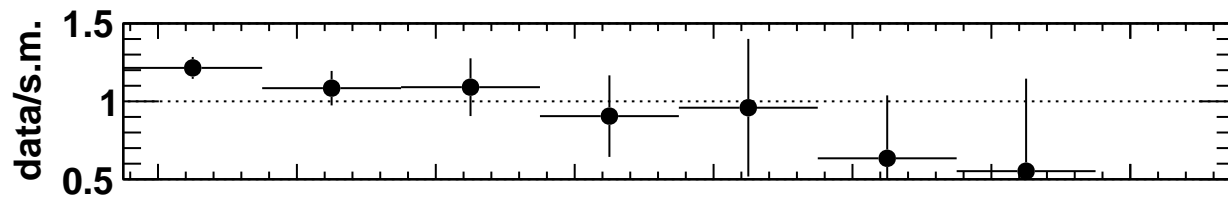
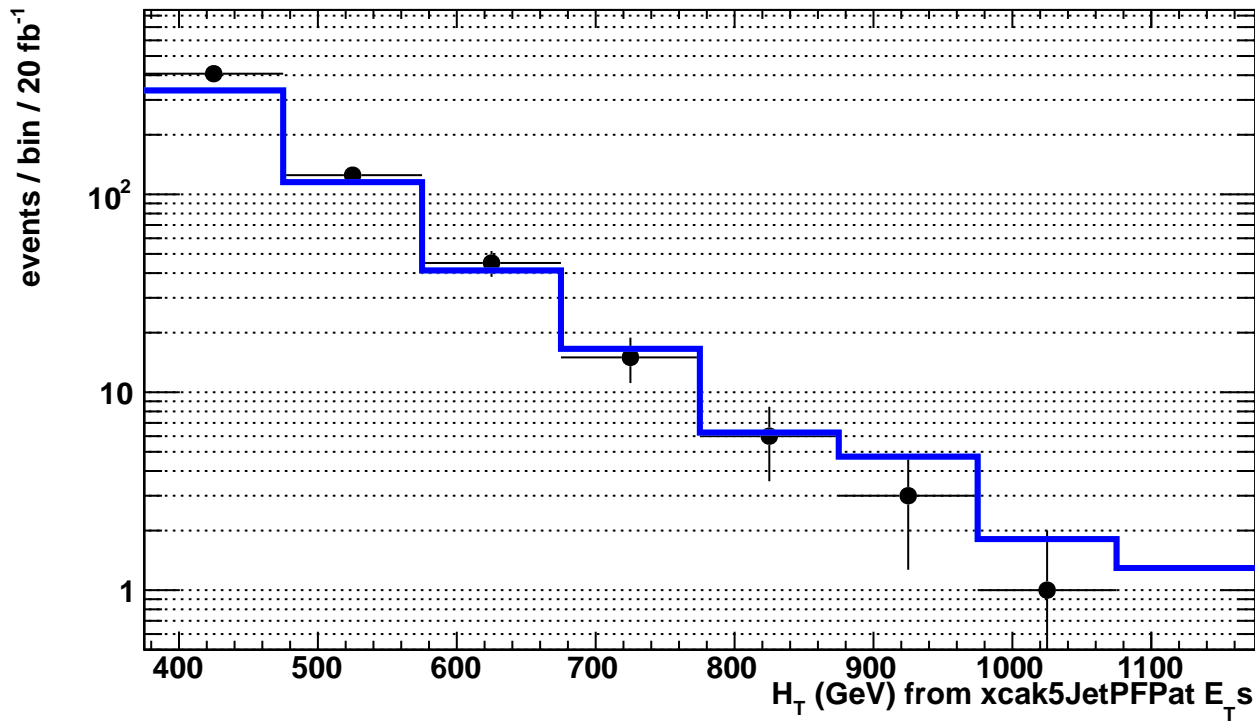
xcak5JetPFSumEIPat_1e3_eq0b_dRge65	
Entries	5300
Mean	473.7
RMS	91.03
Underflow	0
Overflow	0
Integral	5300

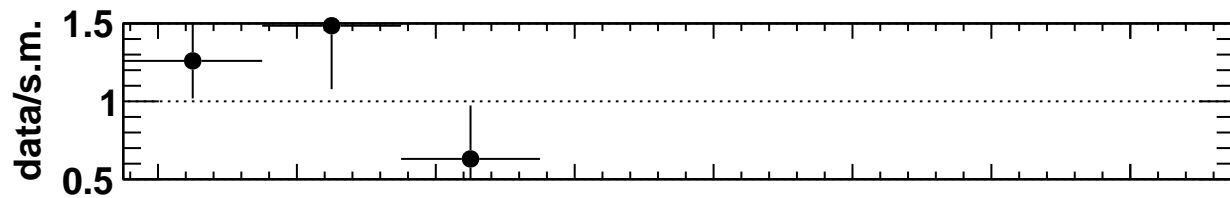
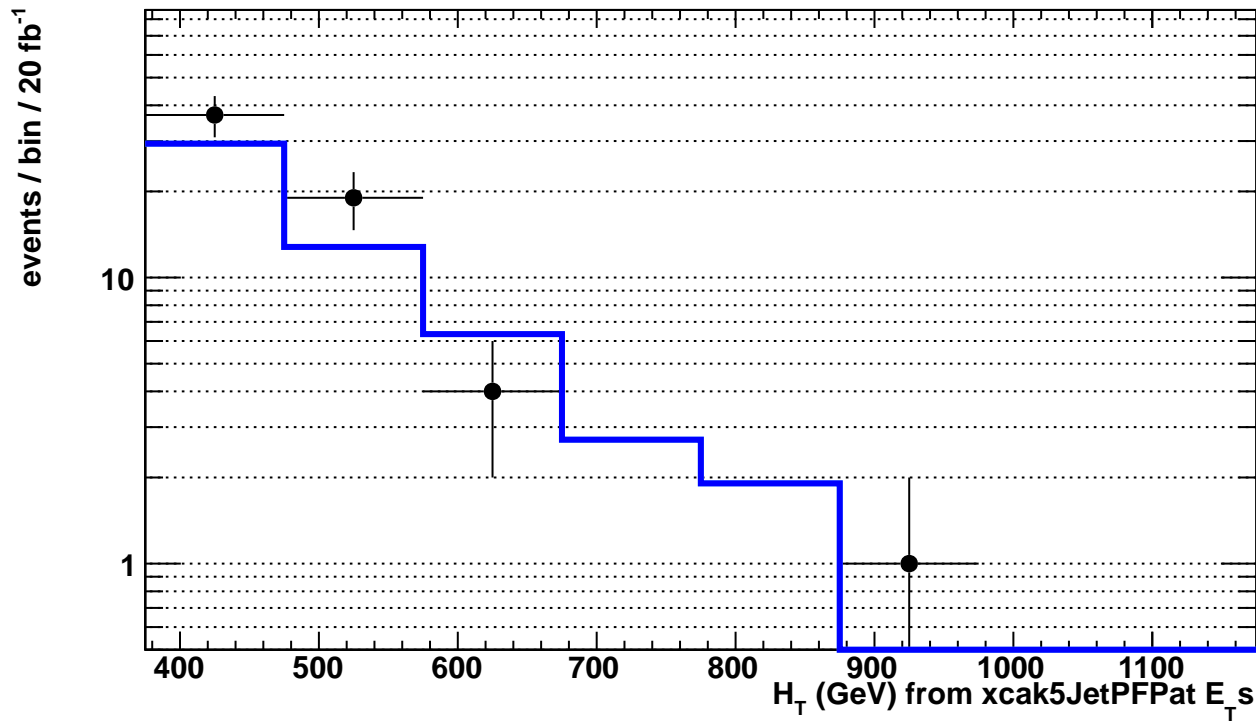


xcak5JetPFSumEtPat_le3_eq0b_dR165	
Entries	535
Mean	477
RMS	95.46
Underflow	0
Overflow	0
Integral	535

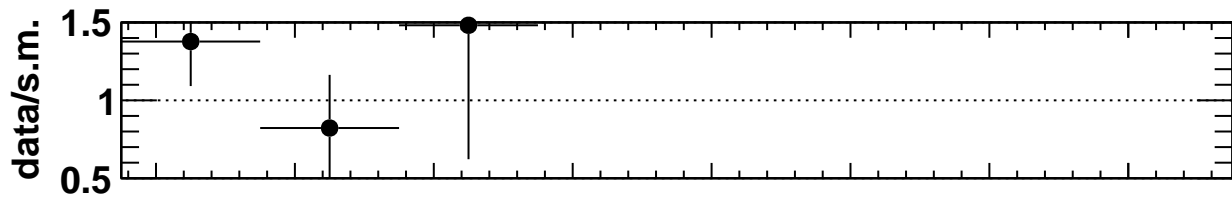
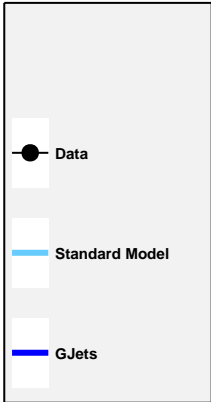
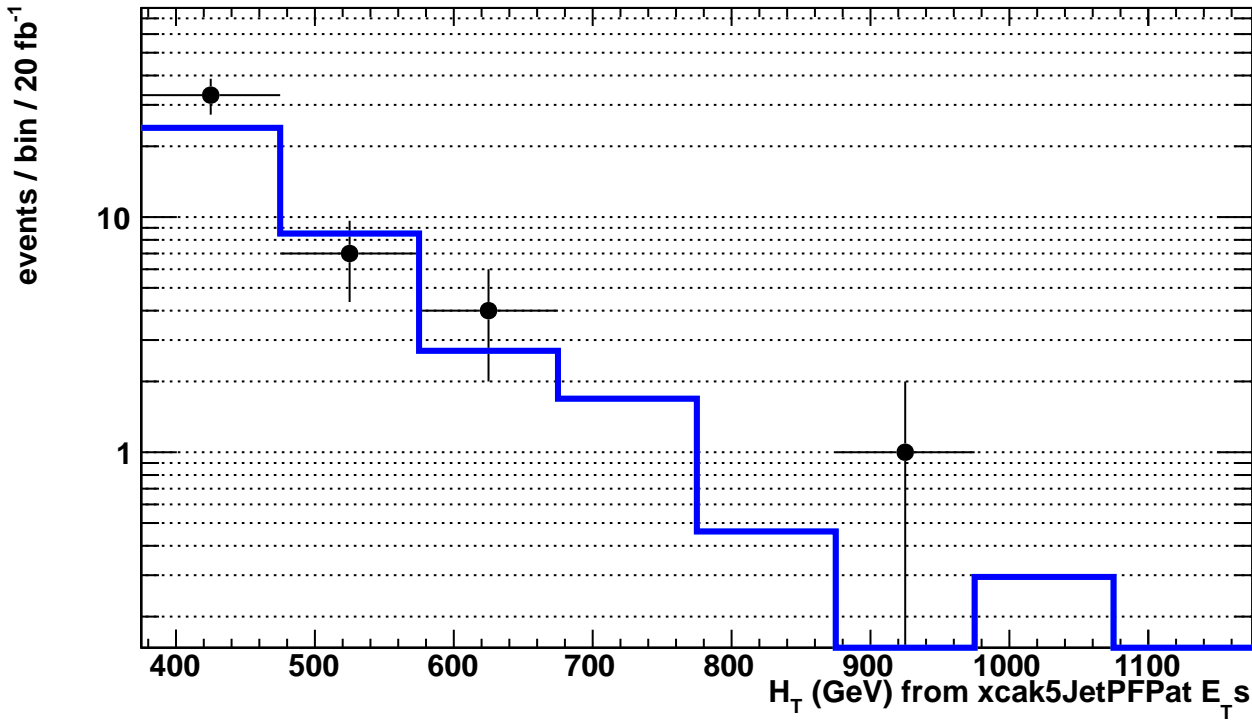


xcak5JetPFSumEt(Pat_63)_eq1b_dRge65	
Entries	602
Mean	463.9
RMS	96.22
Underflow	0
Overflow	0
Integral	602

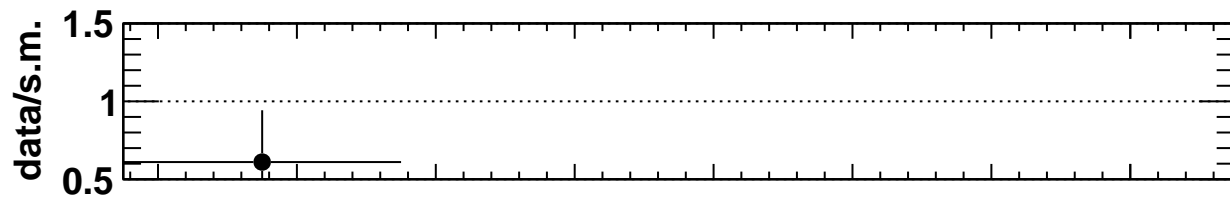
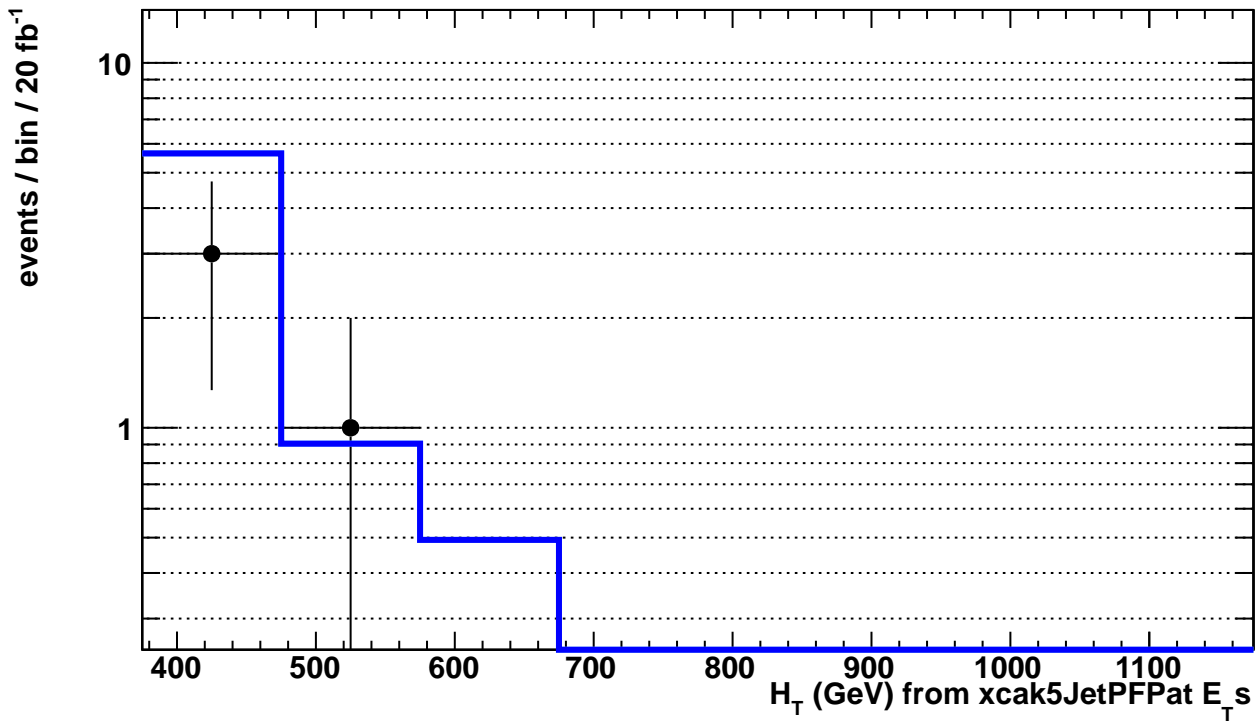




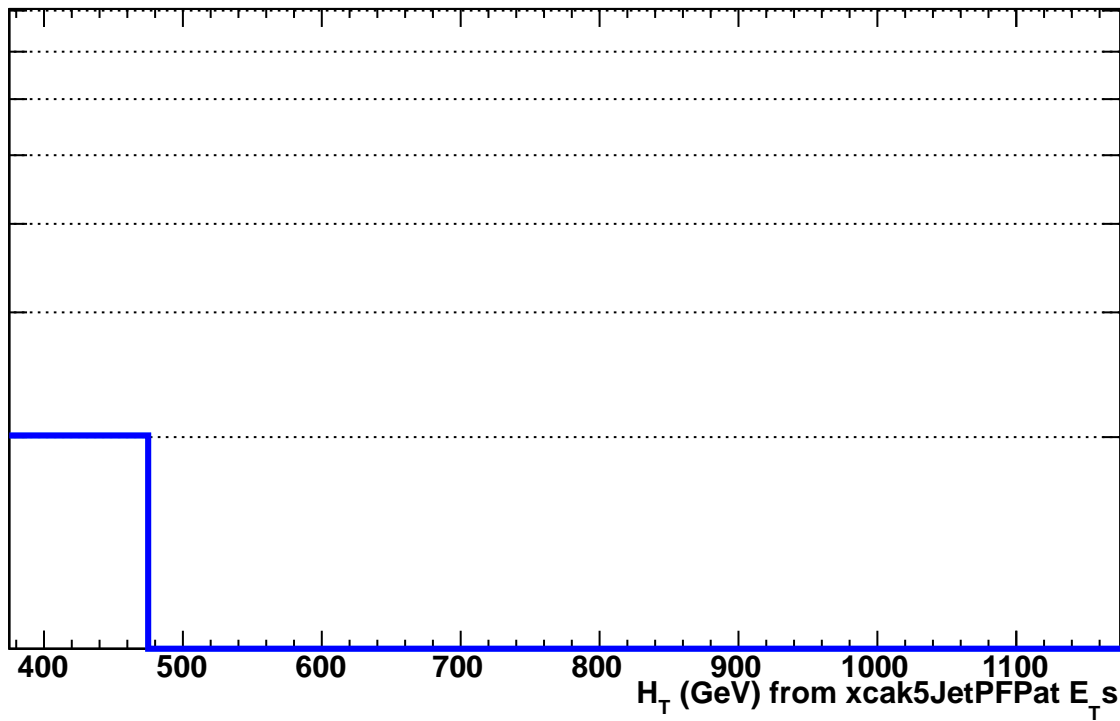
xcak5JetPFSumEt(Pat_1e3)_eq2b_dRge65	
Entries	45
Mean	456.6
RMS	97.38
Underflow	0
Overflow	0
Integral	45



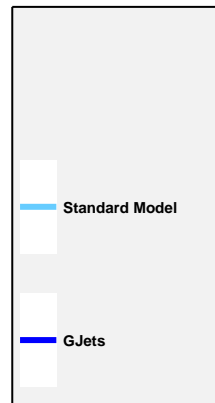
xcak5JetPFSumEtPat_le3j_eq2b_dR165	
Entries	4
Mean	429.2
RMS	45.58
Underflow	0
Overflow	0
Integral	4



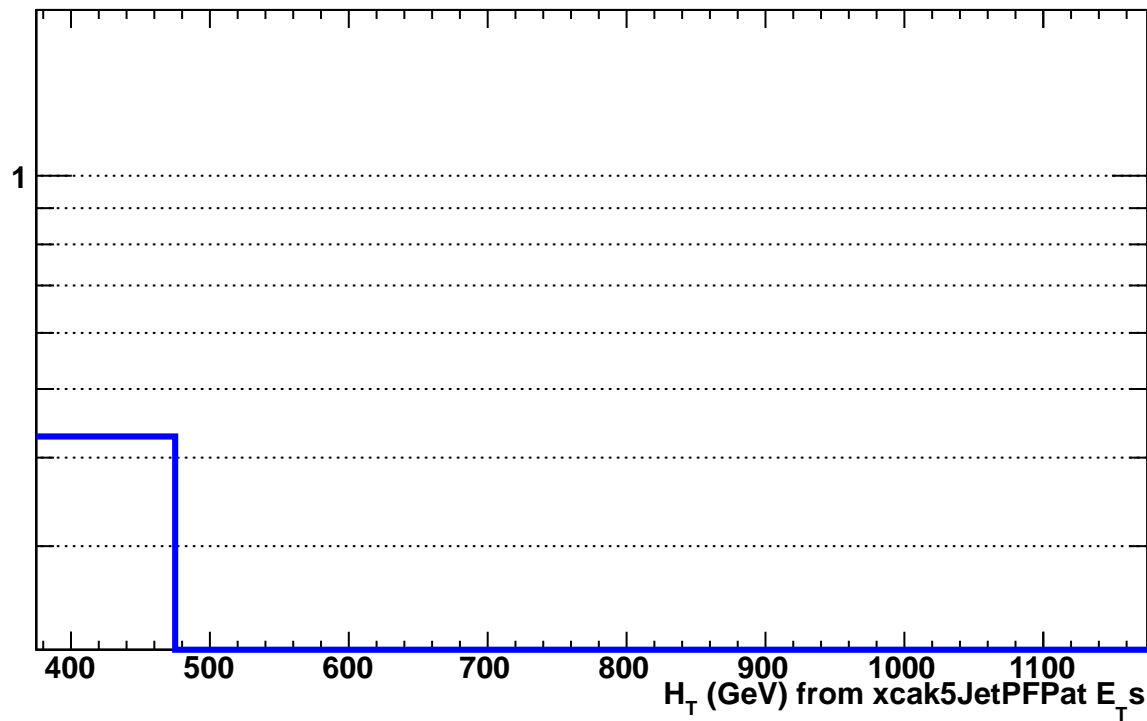
events / bin / 20 fb⁻¹



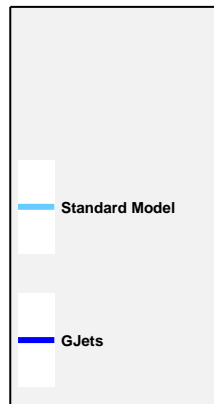
xcak5JetPFPatEIPat_63_eq3b_dRge65	
Entries	1
Mean	467
RMS	5.395e-06
Underflow	0
Overflow	0
Integral	0.2011

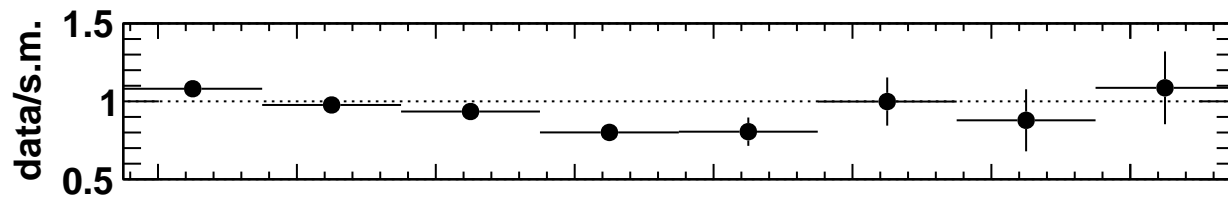
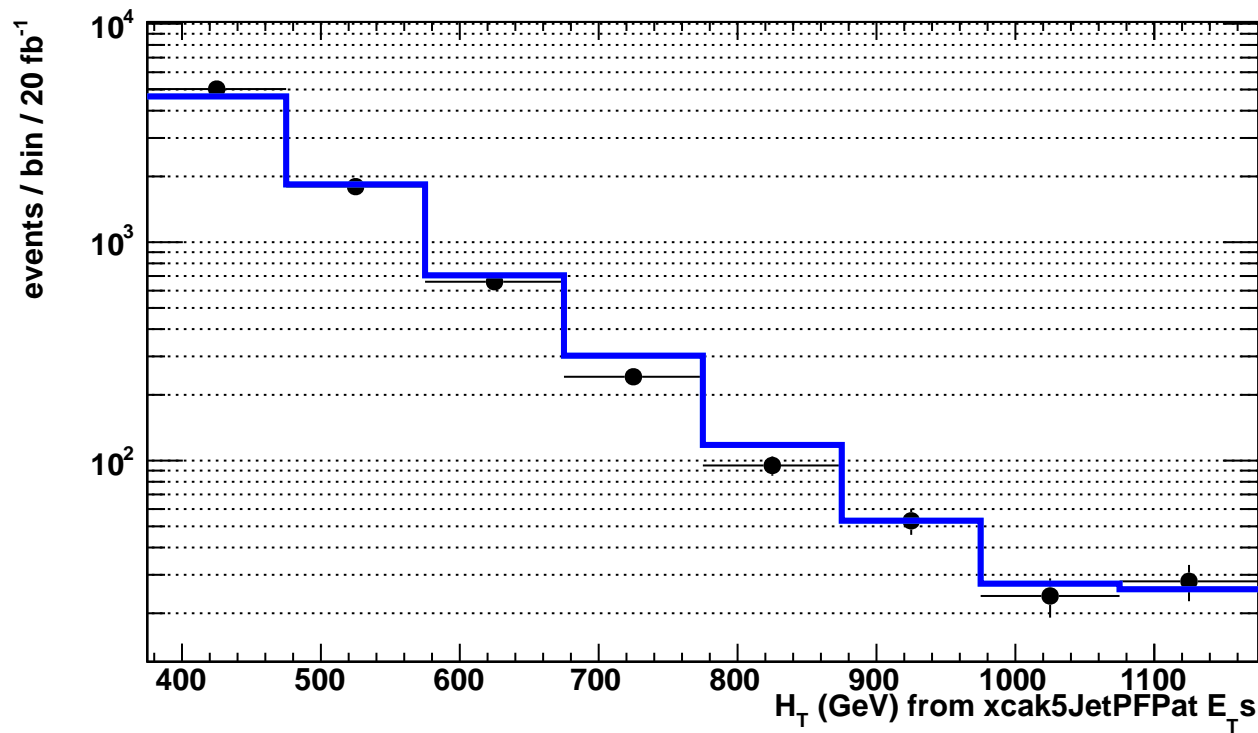


events / bin / 20 fb⁻¹



xcak5JetPFSumEtPat_le3_eq3b_dR165	
Entries	1
Mean	474.8
RMS	7.629e-06
Underflow	0
Overflow	0
Integral	0.4285





```

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

E: pt                    165.00<=photonP4Pat[i[0]].pt; photonIndicesPat
F: absEta                0.00<=photonP4Pat[i[0]].absEta<=1.44; photonIndicesPat
G: DeltaRGreaterSelector xcak5JetPFPat; DR(photonPat[i[0]], jet) > 1.00
H: multiplicity          1 <= photonIndicesPat <= 1
I: value                 xcak5JetPFMhthighPtPatOvermetP4TypeIPFFplusphotonIndicesPat<=1.25

J: value                 0.55<=xcak5JetPFAlphaTETPat
K: value                 475.00<=xcak5JetPFSumEtPat
L: value                 575.00<=xcak5JetPFSumEtPat
M: value                 675.00<=xcak5JetPFSumEtPat
N: value                 775.00<=xcak5JetPFSumEtPat

O: value                 875.00<=xcak5JetPFSumEtPat
P: value                 975.00<=xcak5JetPFSumEtPat
Q: value                 1075.00<=xcak5JetPFSumEtPat

```

	Data	Standard Model	GJets	data/s.m.
Z:	11015040	2.1413(8)e+6	2.1413(8)e+6	5.144(2)
A:	11009428	2.1411(8)e+6	2.1411(8)e+6	5.142(2)
B:	11008013	2.1407(8)e+6	2.1407(8)e+6	5.142(2)
C:	11007336	2.1400(8)e+6	2.1400(8)e+6	5.144(2)
D:	3388782	6.377(4)e+5	6.377(4)e+5	5.314(5)
E:	39894	3.98(1)e+4	3.98(1)e+4	1.003(6)
F:	34809	3.517(10)e+4	3.517(10)e+4	0.990(6)
G:	29593	2.988(9)e+4	2.988(9)e+4	0.990(6)
H:	29478	2.987(9)e+4	2.987(9)e+4	0.987(6)
I:	27953	2.855(9)e+4	2.855(9)e+4	0.979(7)
J:	7922	7.72(5)e+3	7.72(5)e+3	1.03(1)
K:	2897	3.07(3)e+3	3.07(3)e+3	0.94(2)
L:	1101	1.23(2)e+3	1.23(2)e+3	0.89(3)
M:	442	5.3(1)e+2	5.3(1)e+2	0.84(4)
N:	200	224(8)	224(8)	0.89(7)
O:	105	106(5)	106(5)	1.0(1)
P:	52	53(4)	53(4)	1.0(2)
Q:	28	26(3)	26(3)	1.1(2)