

sample	nEventsIn	weightIn	lumi
GJets_HT400toinf.puWeight.bTagWeight	9459562	9.75e+06	
GJets_HT200to400.puWeight.bTagWeight	57747146	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

electronIndicesNonIsoPat	pass ptMin & id; fail iso
electronIndicesOtherPat	pass ptMin; fail id
electronIndicesPat	pt>10.0;  eta <2.5; (2012 Veto)
electronIndicesUnmatchedPat	electronIndicesOtherPat; no dR<0.5 match in ak5JetCorrectedP4Pat
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}}},6
muonIdPog2012LoosePat	<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>
muonIdPog2012TightPat	<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>
muonIndicesNonIsoPat	pass ptMin & id; fail iso
muonIndicesOtherPat	pass ptMin; fail id
muonIndicesPat	IdPog2012Tight; pt>10.0 GeV; PfIsolationR04DeltaBCorrected<0.12
photonIndicesOtherPat	pass ptMin; fail id/iso
photonIndicesPat	pT>=25.0 GeV; photonSimpleCutBased2012TightPat
photonIndicesUnmatchedPat	photonIndicesOtherPat; no dR<0.5 match in ak5JetCorrectedP4Pat
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	muonPatDR<0.50; electronPatDR<0.50; photonPatDR<0.50
xcak5JetDeadEcalDRlowPtPat	xcak5JetPat; nXtal>=10; cracks checked
xcak5JetIndicesBtagged2Pat	(>0.679)
xcak5JetIndicesOtherPat	pass ptMin; fail jetID or etaMax
xcak5JetIndicesPat	pT>=50.0 GeV;  eta <3.0;
xcak5JetIndiceshighPtPat	pT>=50.0 GeV;  eta <3.0;
xcak5JetIndiceslowPtPat	pT>=30.0 GeV;  eta <3.0;

Calculables (imperfect) absent calc leaf sltr

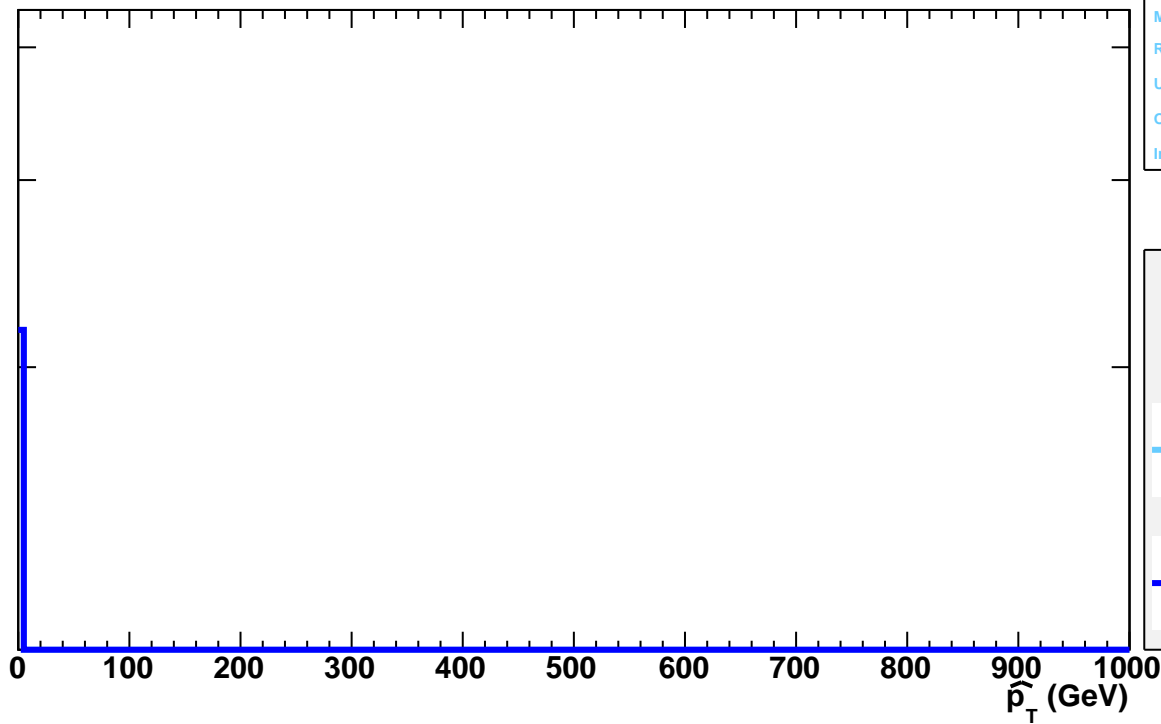
NONE

	Data	Standard Model	GJets	data/s.m.
a:	135218985	2.1684(3)e+7	2.1684(3)e+7	6.2360(10)

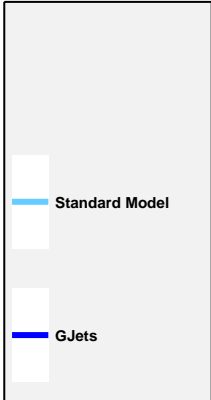
a:	master	master
b:	llFilter	LlTech_BPTX_plus_AND_minus.v0
c:	physicsDeclaredFilter	physicsDeclaredFilter
d:	value	lowestUnPrescaledTrigger
e:	lowestUnPrescaledTriggerFilter	lowest unprescaled of triggers in calculable

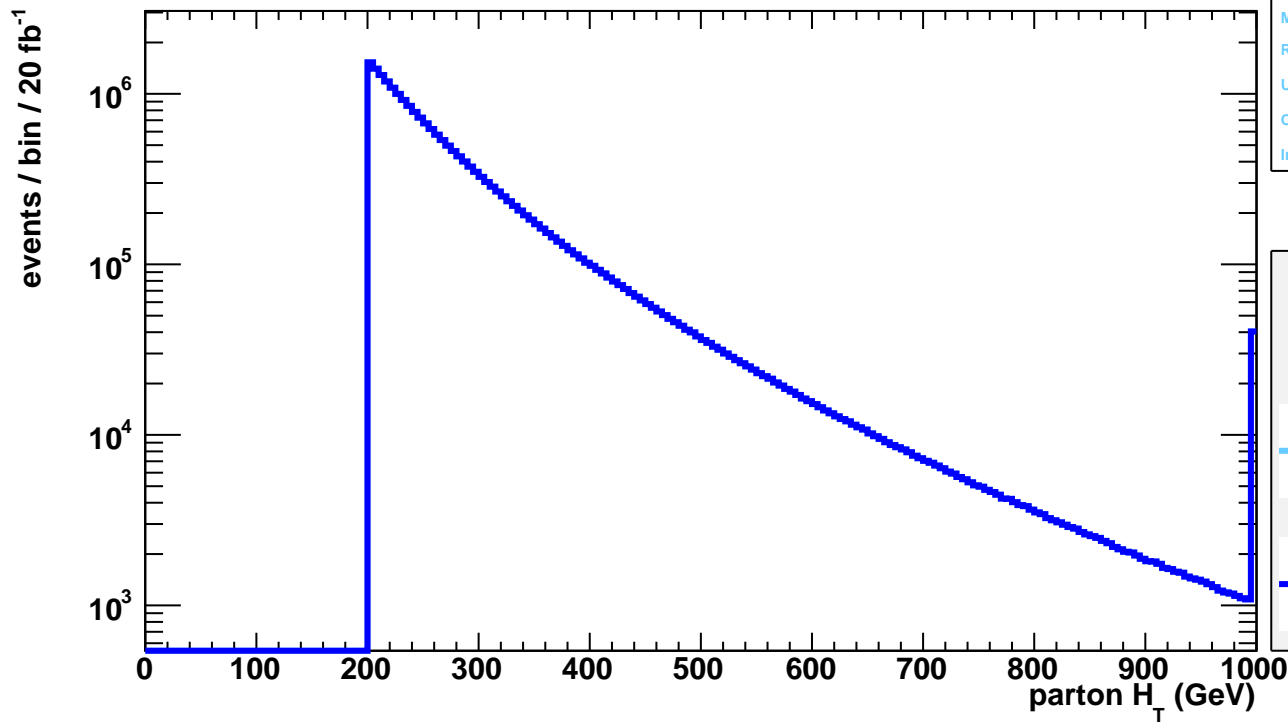
	Data	Standard Model	GJets	data/s.m.
a:	135218985	2.1684(3)e+7	2.1684(3)e+7	6.2360(10)
b:	135124590	-	-	
c:	135022364	-	-	
d:	135022364	-	-	
e:	17726400	-	-	

events / bin / 20 fb<sup>-1</sup>

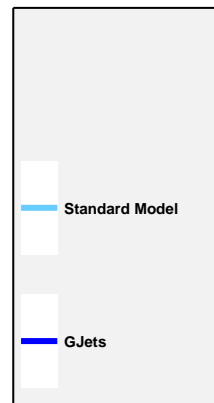


genpthat	
Entries	6.720671e+07
Mean	2.5
RMS	0
Underflow	0
Overflow	0
Integral	2.168e+07





genPartonHT	
Entries	6.720671e+07
Mean	284.4
RMS	101.8
Underflow	0
Overflow	0
Integral	2.168e+07



```

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

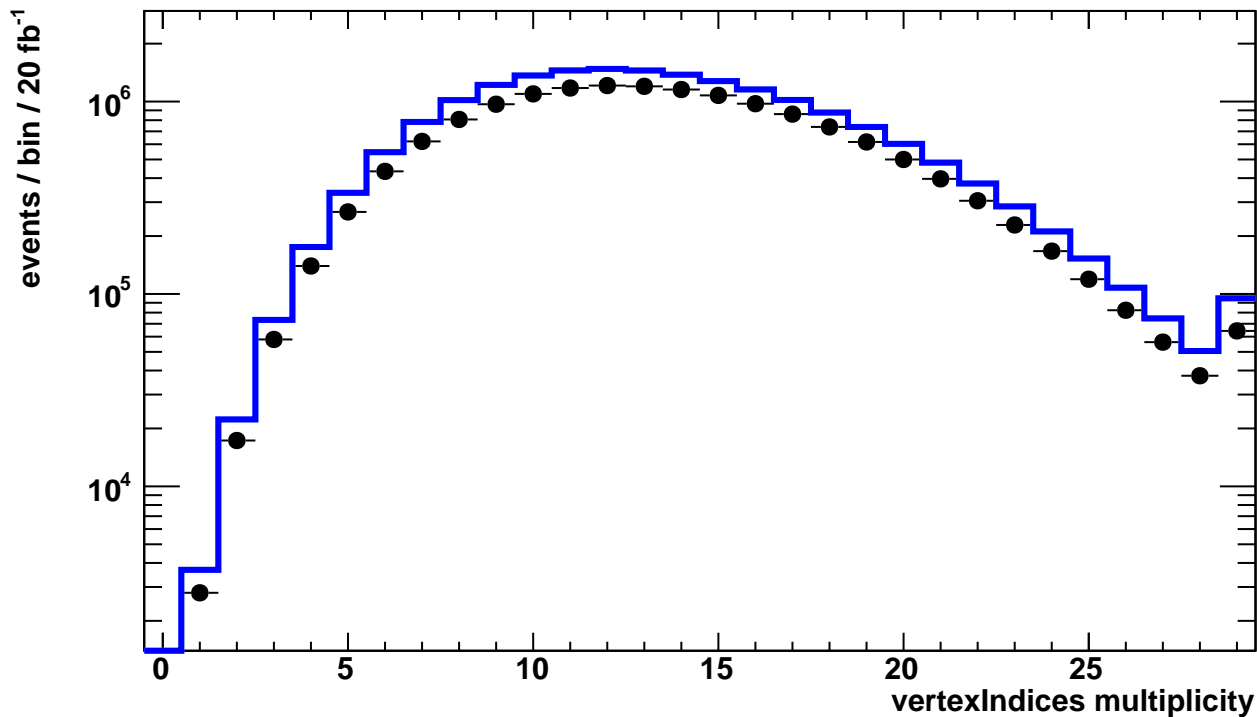
f: monster                             <=10 tracks or >0.25 good fraction
g: hbheNoise                           hbheNoise
h: value                                beamHaloCSCTightHaloId<=0.00
i: value                                1.00<=trackingFailureFilterFlag
j: value                            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

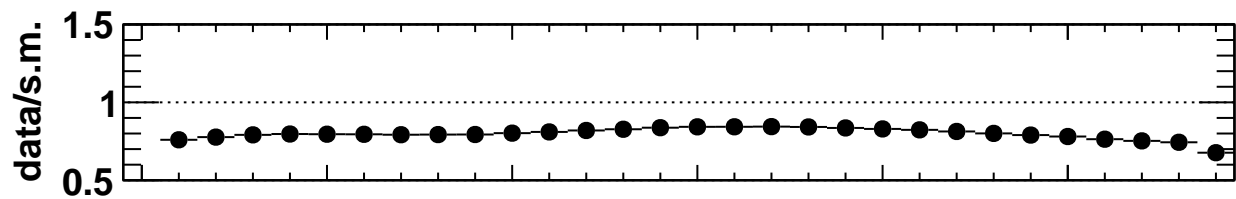
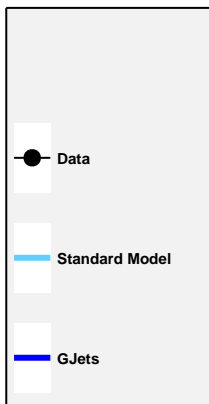
```

	Data	Standard Model	GJets	data/s.m.
a:	135218985	2.1684(3)e+7	2.1684(3)e+7	6.2360(10)
b:	135124590	-	-	
c:	135022364	-	-	
d:	135022364	-	-	
e:	17726400	-	-	
f:	17726400	2.1684(3)e+7	2.1684(3)e+7	0.8175(2)
g:	17697532	-	-	
h:	17588310	2.1680(3)e+7	2.1680(3)e+7	0.8113(2)
i:	17586994	2.1680(3)e+7	2.1680(3)e+7	0.8112(2)
j:	17586994	-	-	
k:	17570862	2.1654(3)e+7	2.1654(3)e+7	0.8114(2)
l:	17570800	2.1654(3)e+7	2.1654(3)e+7	0.8114(2)
m:	17569680	2.1654(3)e+7	2.1654(3)e+7	0.8114(2)
n:	17569161	2.1653(3)e+7	2.1653(3)e+7	0.8114(2)
o:	15375223	1.8805(3)e+7	1.8805(3)e+7	0.8176(2)





vertexIndicesMultiplicity	
Entries	1.537522e+07
Mean	13.64
RMS	4.964
Underflow	0
Overflow	0
Integral	1.538e+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

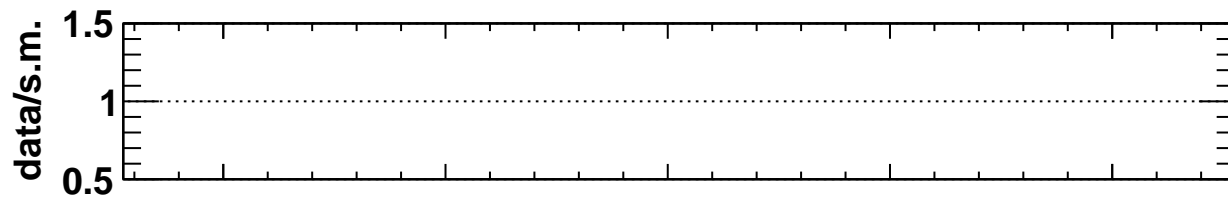
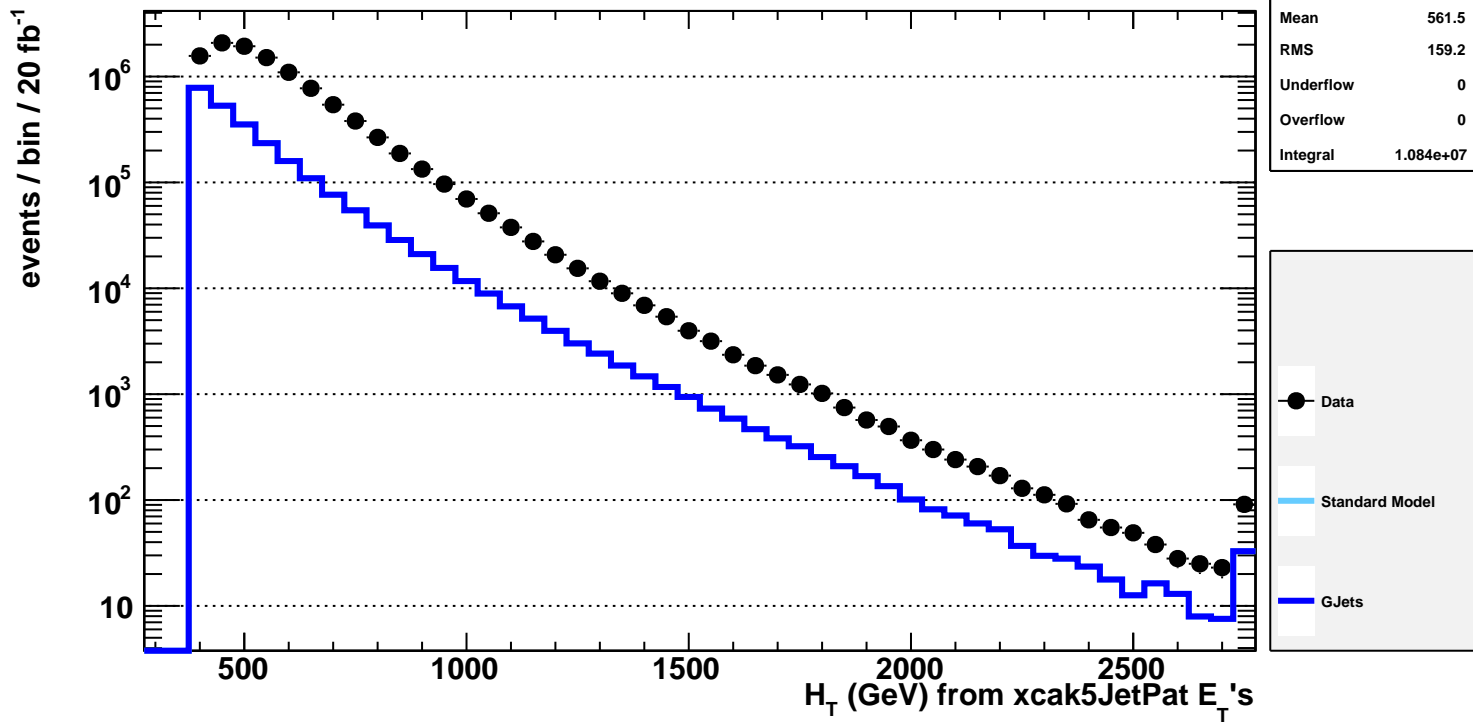
p: multiplicity 1 <= vertexIndices
q: jetPtSelector xcak5JetPat; pT[index[0]]>=100.0 GeV
r: jetPtSelector xcak5JetPat; pT[index[1]]>=100.0 GeV
s: jetEtaSelector xcak5JetPat; |eta[index[0]]|<=2.5
t: value 375.00<=xcak5JetSumEtPat

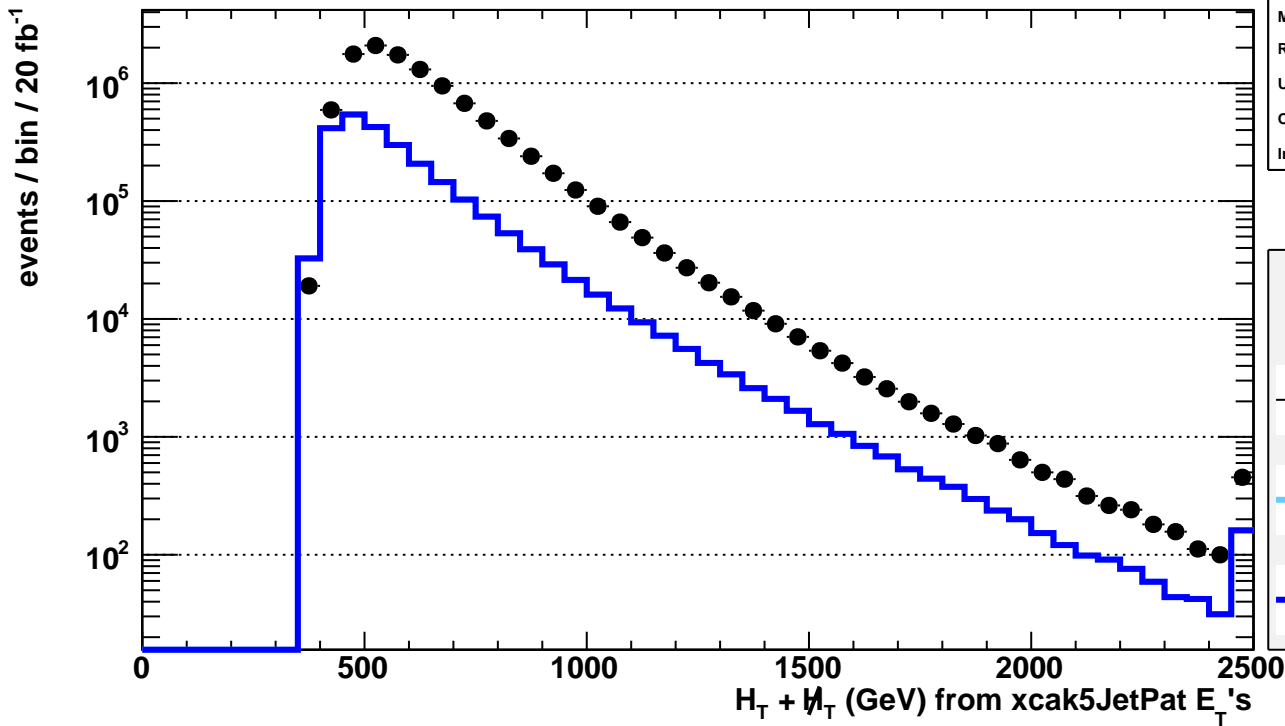
```

[ jetSumPlots ]

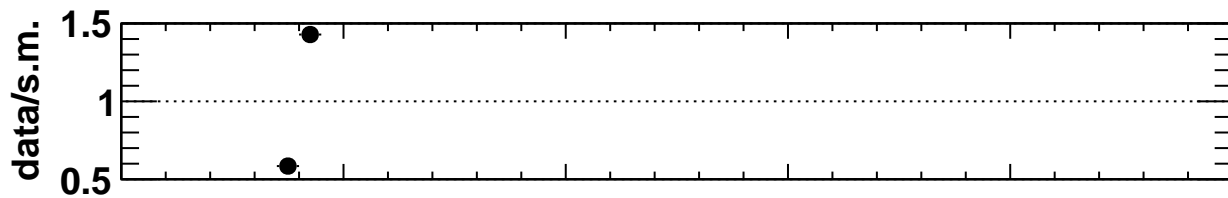
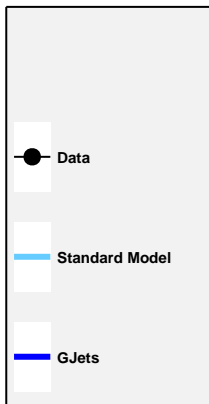
	Data	Standard Model	GJets	data/s.m.
d:	135022364	-	-	
e:	17726400	-	-	
f:	17726400	2.1684(3)e+7	2.1684(3)e+7	0.8175(2)
g:	17697532	-	-	
h:	17588310	2.1680(3)e+7	2.1680(3)e+7	0.8113(2)
i:	17586994	2.1680(3)e+7	2.1680(3)e+7	0.8112(2)
j:	17586994	-	-	
k:	17570862	2.1654(3)e+7	2.1654(3)e+7	0.8114(2)
l:	17570800	2.1654(3)e+7	2.1654(3)e+7	0.8114(2)
m:	17569680	2.1654(3)e+7	2.1654(3)e+7	0.8114(2)
n:	17569161	2.1653(3)e+7	2.1653(3)e+7	0.8114(2)
o:	15375223	1.8805(3)e+7	1.8805(3)e+7	0.8176(2)
p:	15375223	1.8805(3)e+7	1.8805(3)e+7	0.8176(2)
q:	14305602	1.4165(2)e+7	1.4165(2)e+7	1.0100(3)
r:	12080022	6.670(2)e+6	6.670(2)e+6	1.8111(7)
s:	11754756	6.471(2)e+6	6.471(2)e+6	1.8167(7)
t:	10840878	2.4566(9)e+6	2.4566(9)e+6	4.413(2)

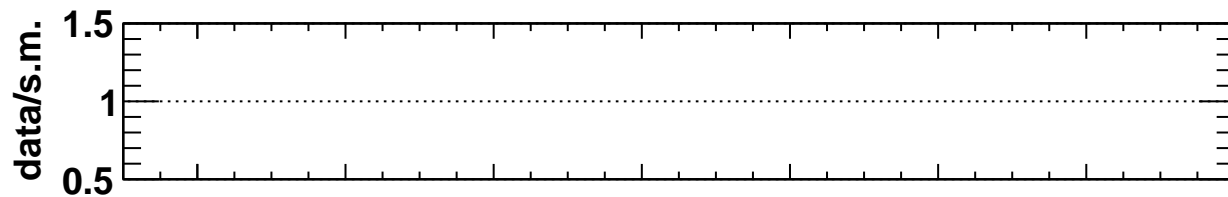
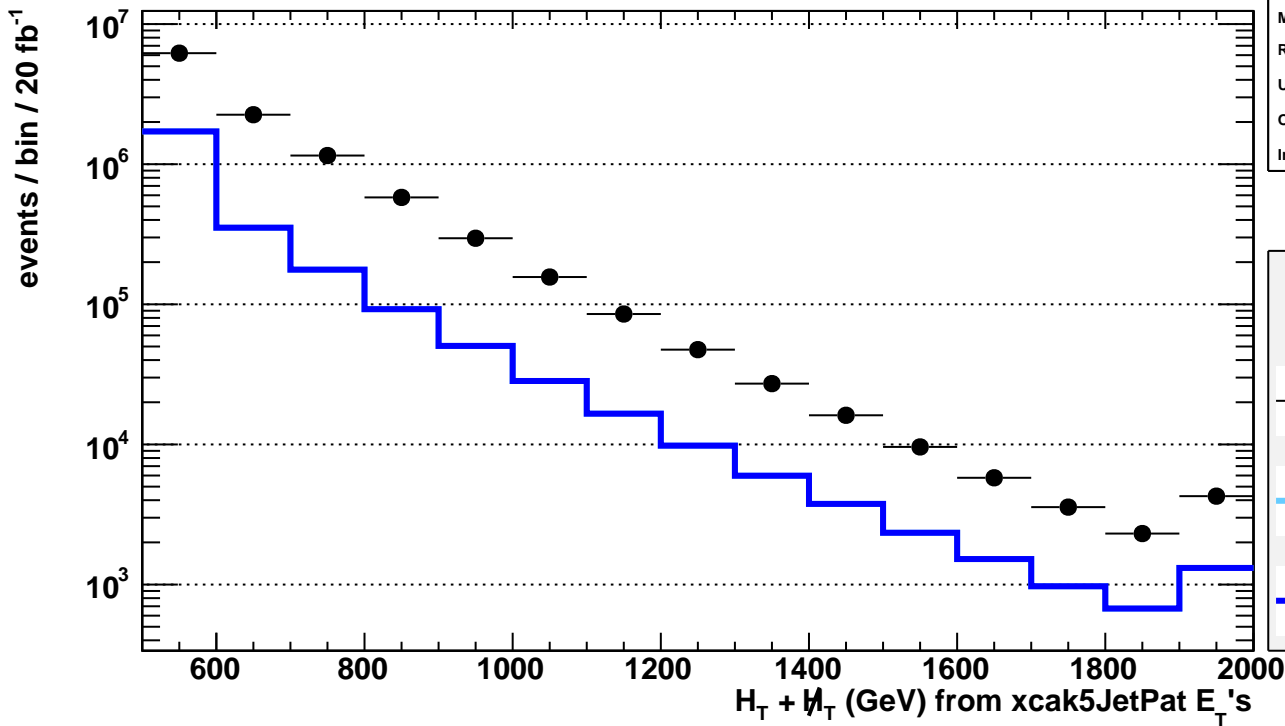
[ jetSumPlots ]

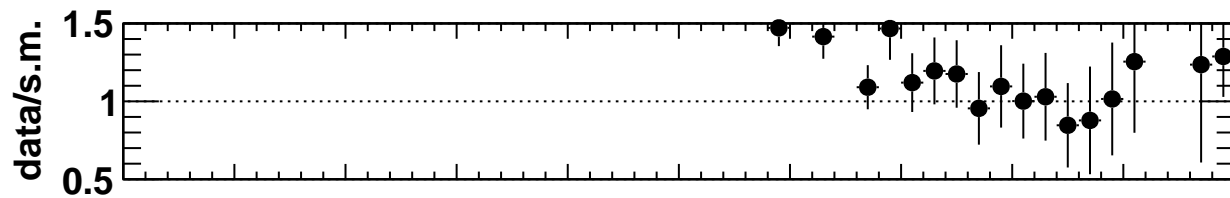
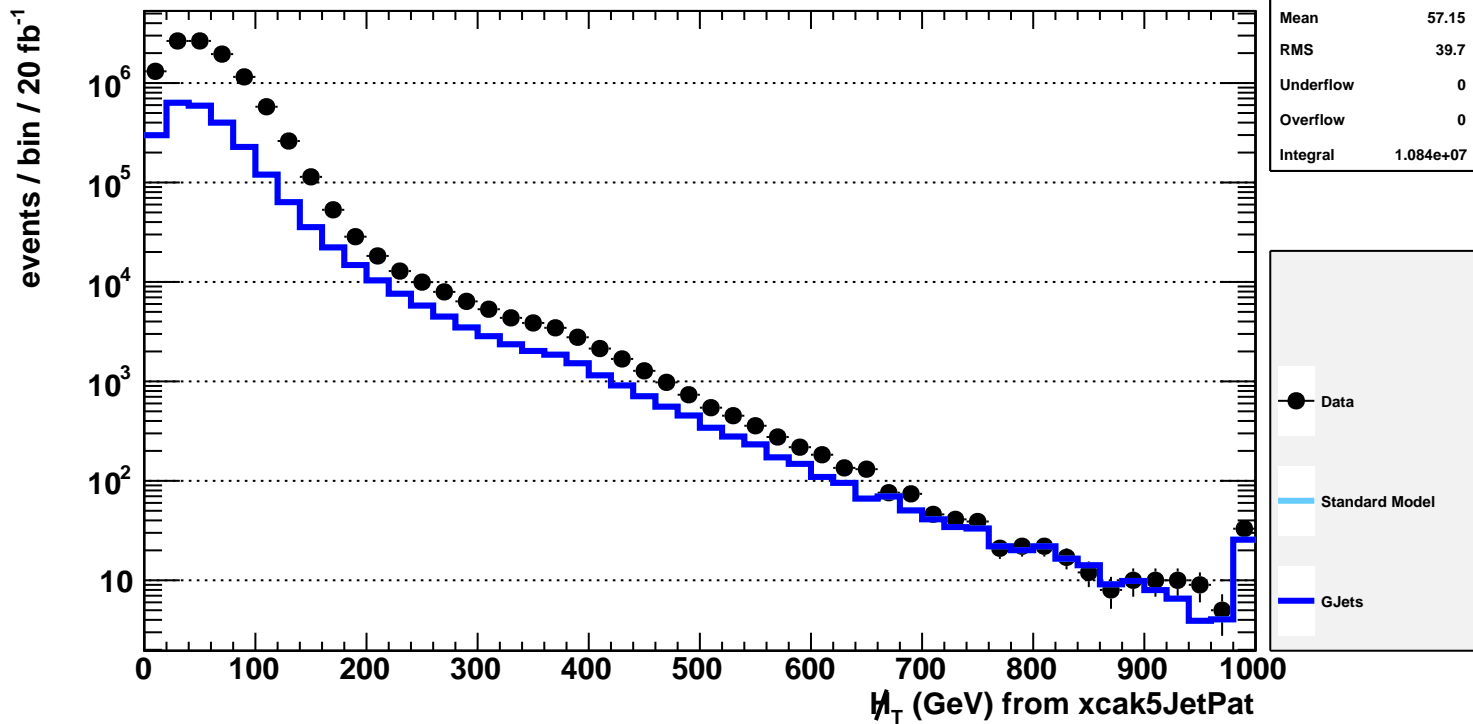


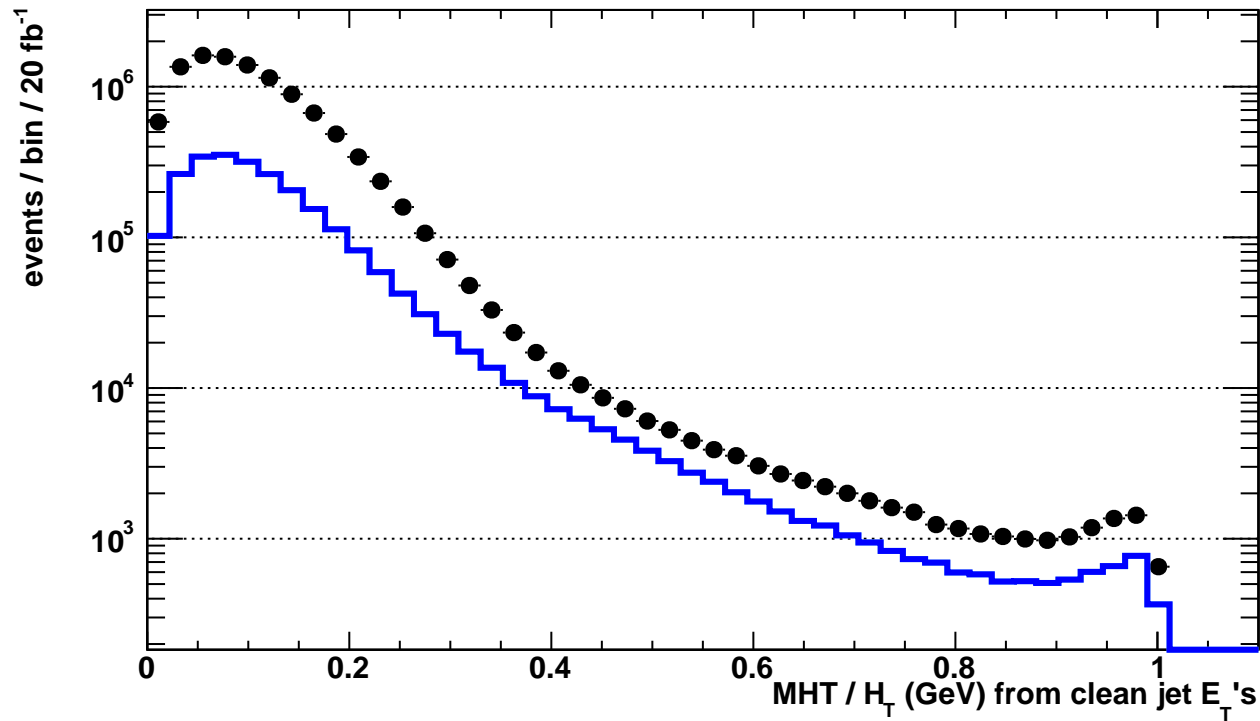


xcak5JetHtPlusMhtPat	
Entries	1.084088e+07
Mean	618.3
RMS	164.9
Underflow	0
Overflow	0
Integral	1.084e+07

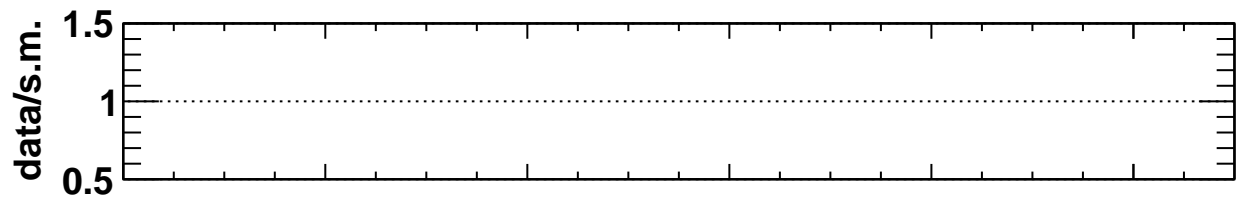
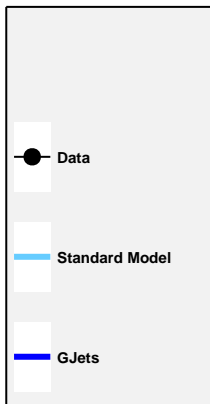


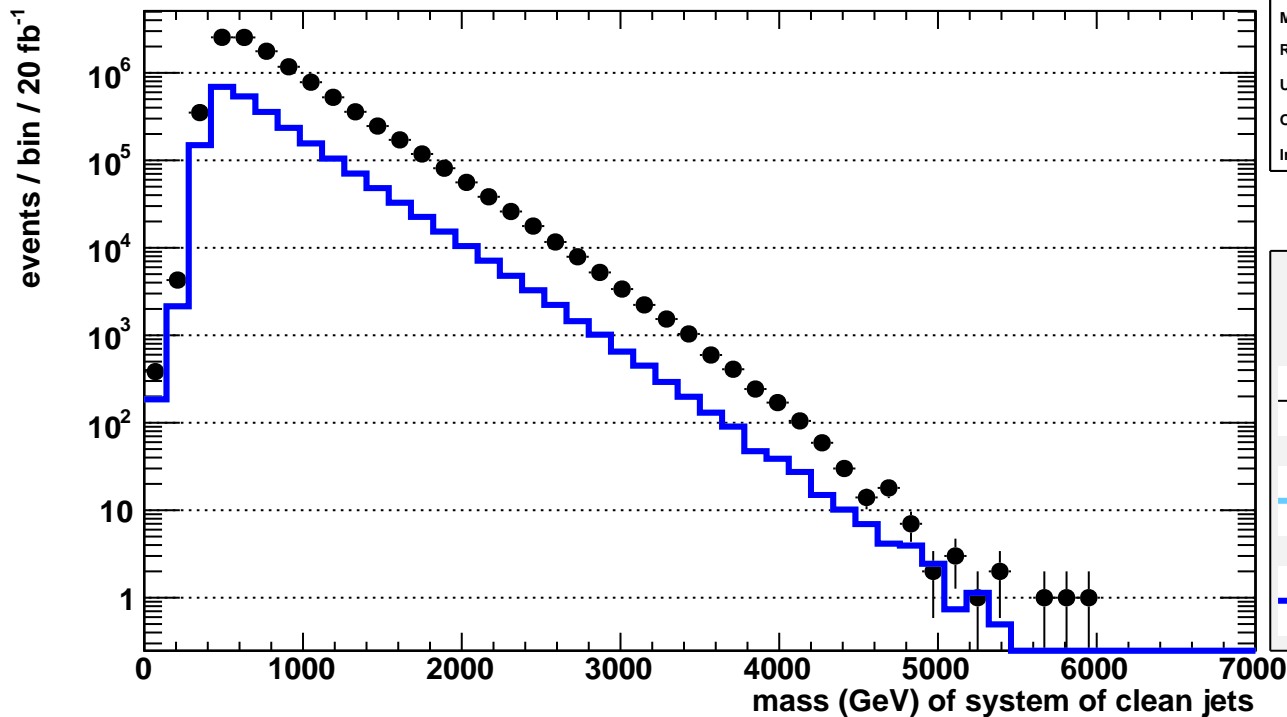




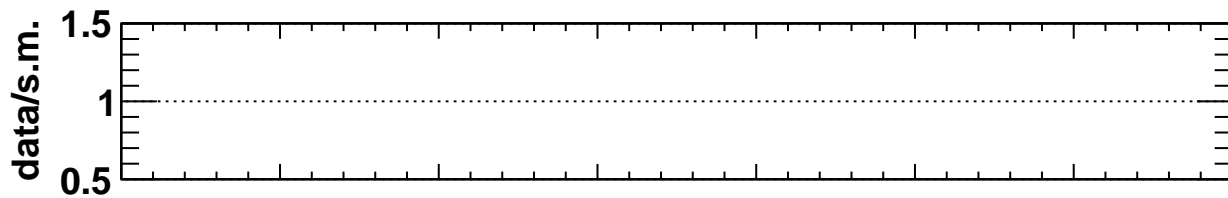
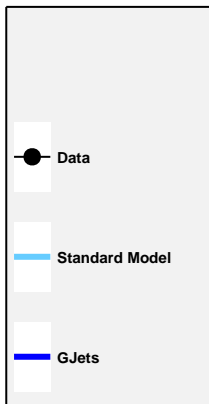


xcak5JetmHtOverHtPat	
Entries	1.084088e+07
Mean	0.1085
RMS	0.08002
Underflow	0
Overflow	0
Integral	1.084e+07

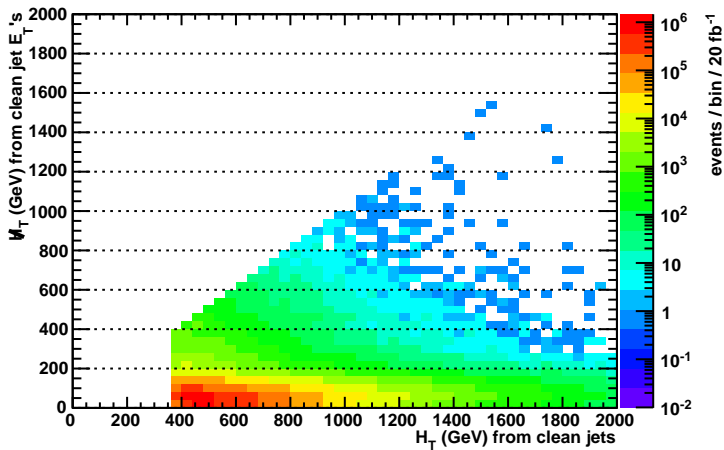
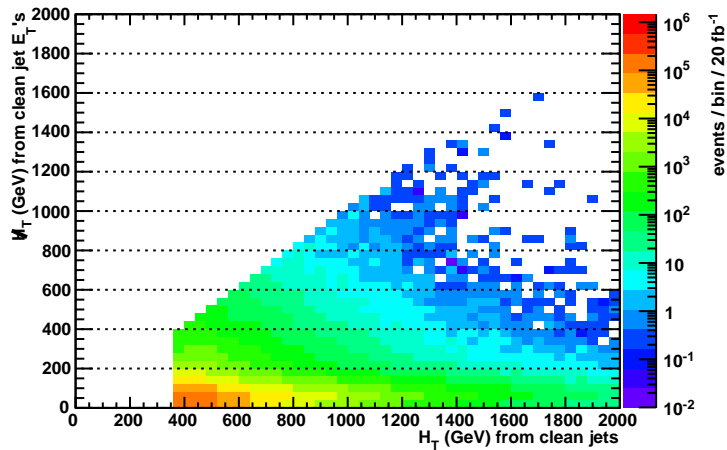
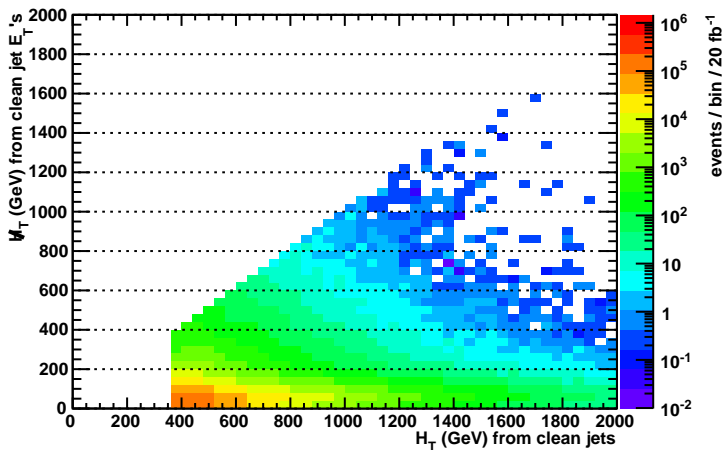


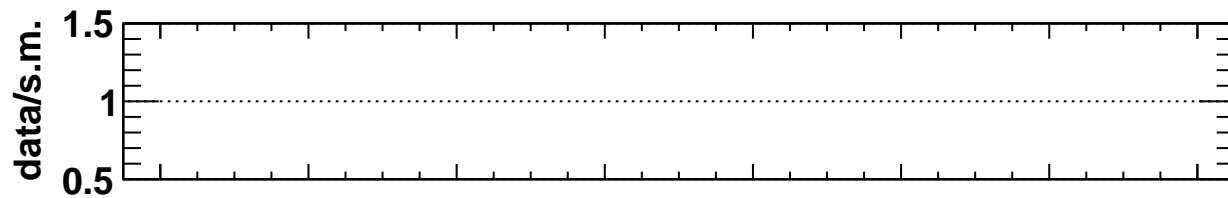
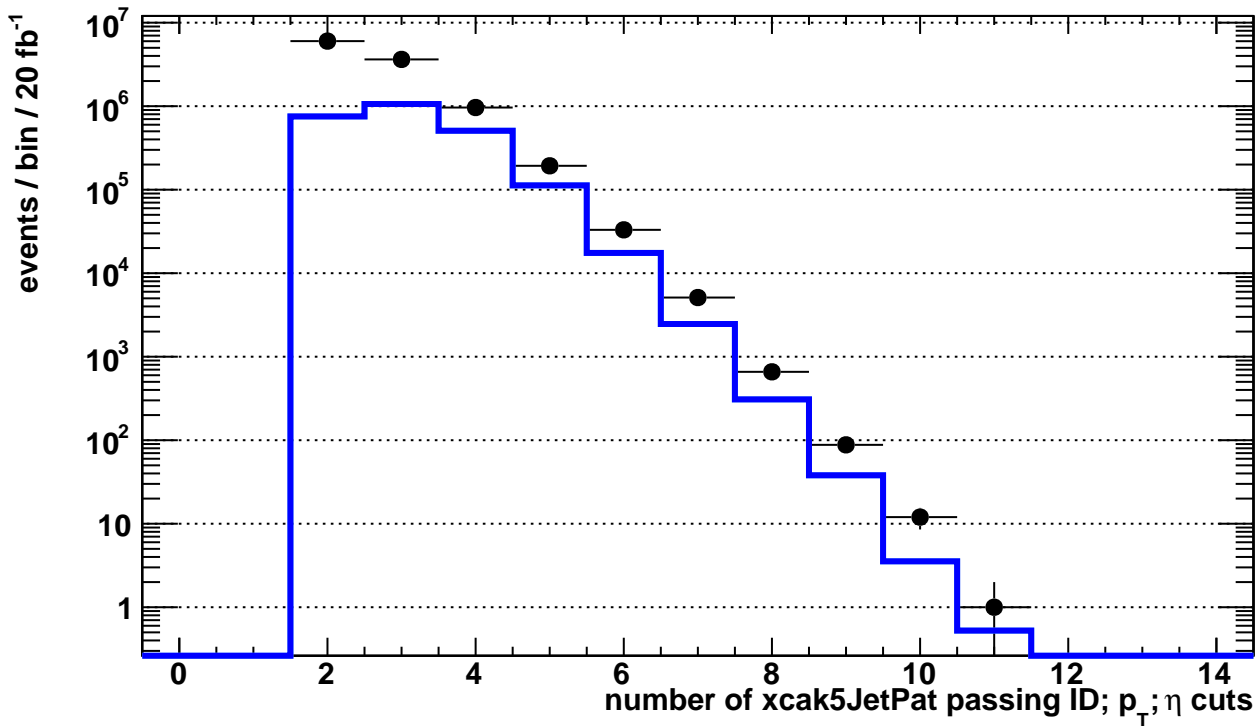


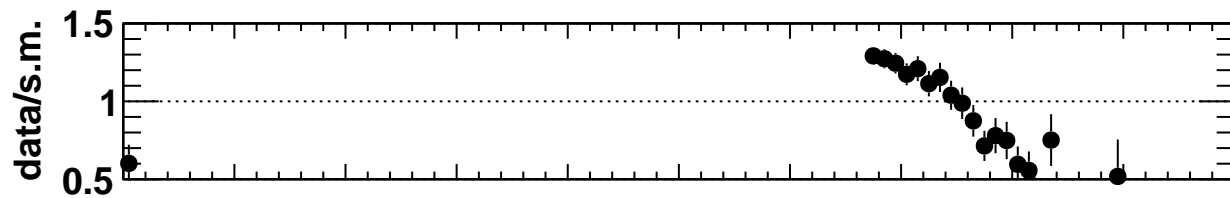
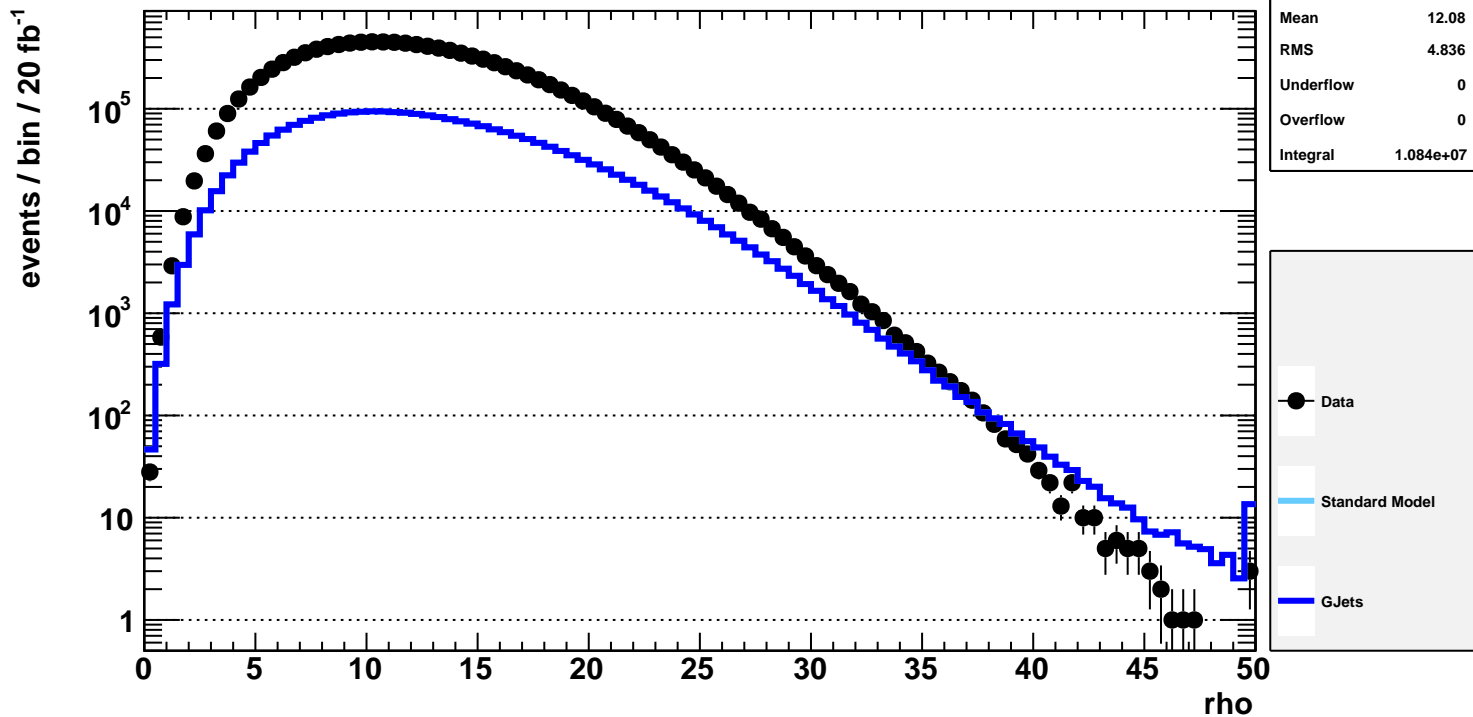
xcak5JetmPat	
Entries	1.084088e+07
Mean	804.4
RMS	367
Underflow	0
Overflow	0
Integral	1.084e+07





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





```

q: jetPtSelector          xcak5JetPat; pT[index[0]]>=100.0 GeV
r: jetPtSelector          xcak5JetPat; pT[index[1]]>=100.0 GeV
s: jetEtaSelector         xcak5JetPat; |eta[index[0]]|<=2.5
t: value                  375.00<=xcak5JetSumEtPat

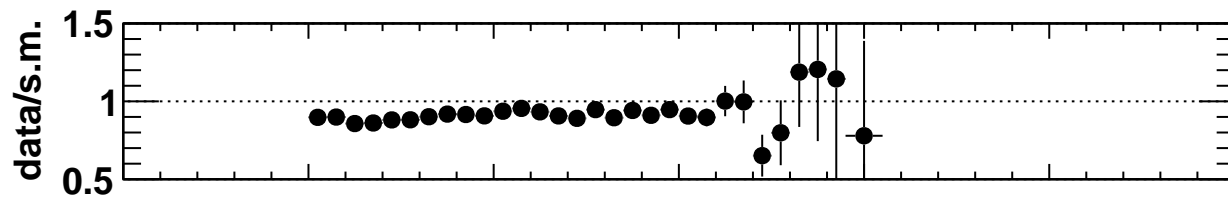
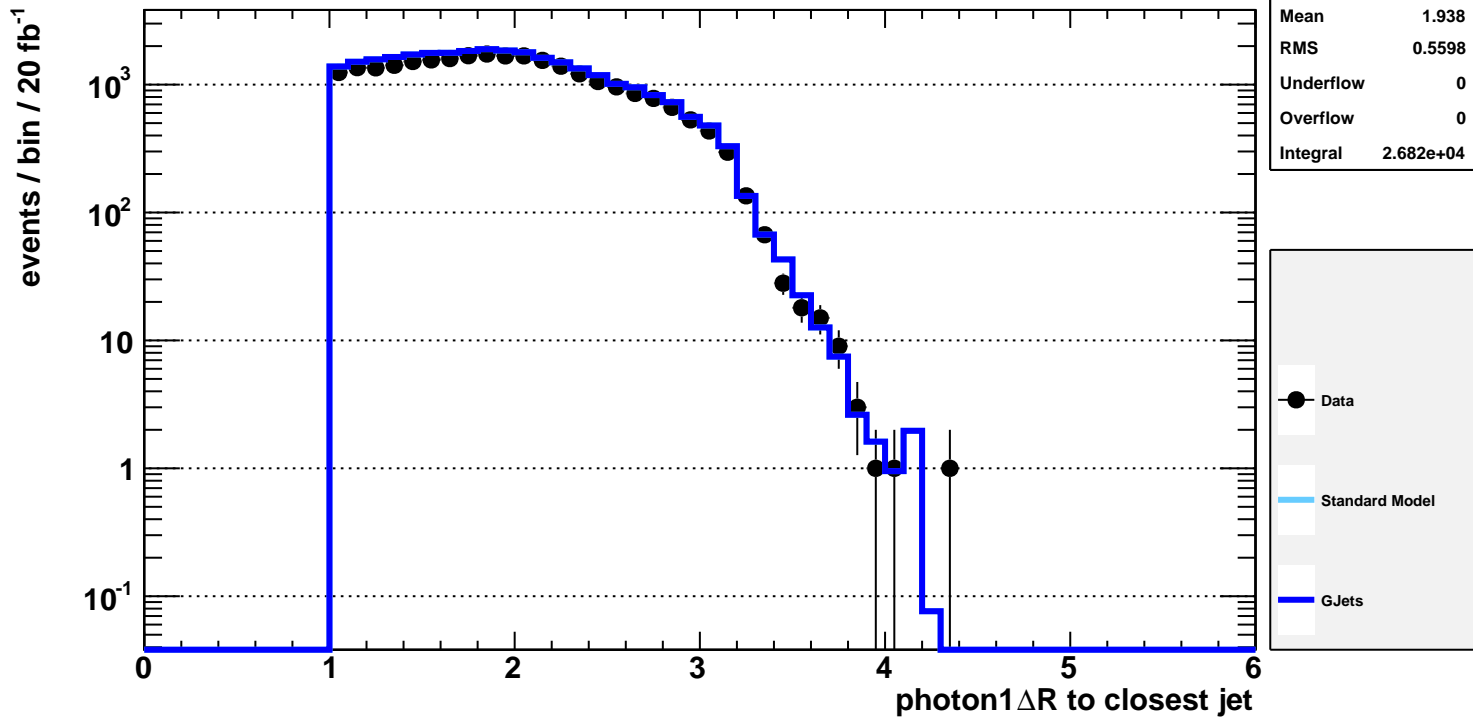
[ jetSumPlots ]
v: multiplicity           2 <= xcak5JetIndicesPat
w: multiplicity           0 <= xcak5JetIndicesOtherPat <= 0
x: multiplicity           0 <= xcak5JetIndicesWithOddMuonPat <= 0
y: uniquelyMatchedNonisoMuons xcak5JetPat

z: multiplicity           0 <= electronIndicesPat <= 0
A: multiplicity           0 <= muonIndicesPat <= 0
B: multiplicity           0 <= electronIndicesUnmatchedPat <= 0
C: multiplicity           0 <= photonIndicesUnmatchedPat <= 0
D: deadEcalFilter         xcak5JetPat; dR>0.300 when deltaPhiStar<0.500

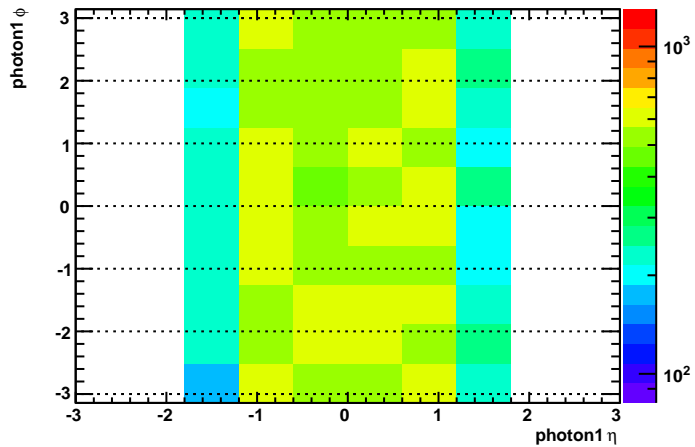
E: pt                     165.00<=photonP4Pat[i[0]].pt; photonIndicesPat
F: absEta                 0.00<=photonP4Pat[i[0]].absEta<=1.44; photonIndicesPat
G: DeltaRGreaterSelector  xcak5JetPat; DR(photonPat[i[0]], jet) > 1.00
H: multiplicity           1 <= photonIndicesPat <= 1

```

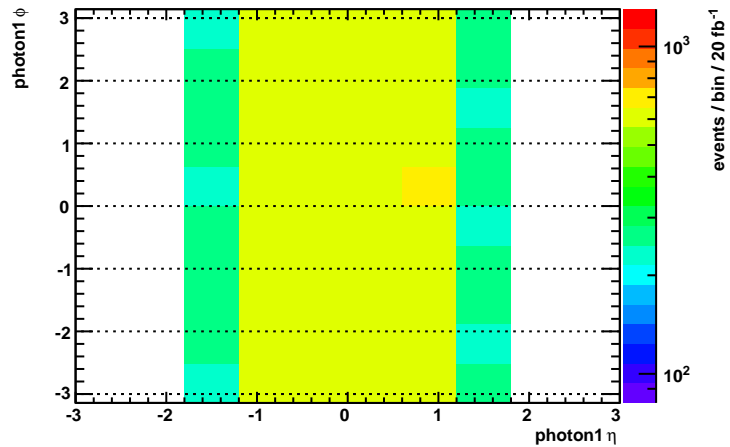
	Data	Standard Model	GJets	data/s.m.
q:	14305602	1.4165(2)e+7	1.4165(2)e+7	1.0100(3)
r:	12080022	6.670(2)e+6	6.670(2)e+6	1.8111(7)
s:	11754756	6.471(2)e+6	6.471(2)e+6	1.8167(7)
t:	10840878	2.4566(9)e+6	2.4566(9)e+6	4.413(2)
[ jetSumPlots ]				
v:	10840878	2.4566(9)e+6	2.4566(9)e+6	4.413(2)
w:	10695418	2.4235(9)e+6	2.4235(9)e+6	4.413(2)
x:	10689167	2.4222(9)e+6	2.4222(9)e+6	4.413(2)
y:	10679830	2.4204(9)e+6	2.4204(9)e+6	4.412(2)
z:	10621267	2.3371(8)e+6	2.3371(8)e+6	4.545(2)
A:	10615682	2.3369(8)e+6	2.3369(8)e+6	4.543(2)
B:	10606722	2.3334(8)e+6	2.3334(8)e+6	4.546(2)
C:	10606191	2.3331(8)e+6	2.3331(8)e+6	4.546(2)
D:	3373041	7.178(5)e+5	7.178(5)e+5	4.699(4)
E:	36160	3.93(1)e+4	3.93(1)e+4	0.921(5)
F:	31729	3.482(10)e+4	3.482(10)e+4	0.911(6)
G:	26920	2.959(9)e+4	2.959(9)e+4	0.910(6)
H:	26818	2.957(9)e+4	2.957(9)e+4	0.907(6)



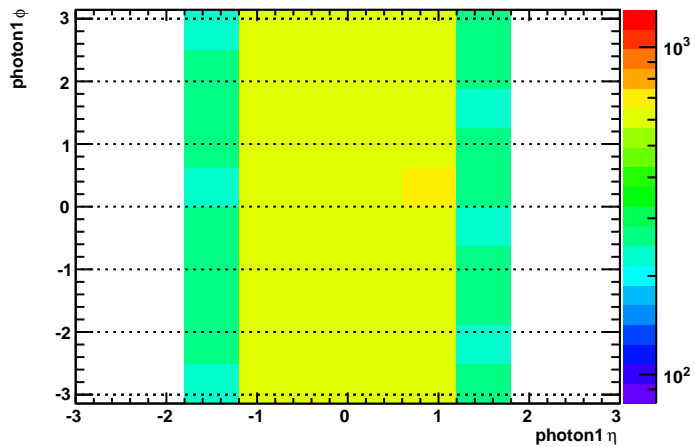
Data

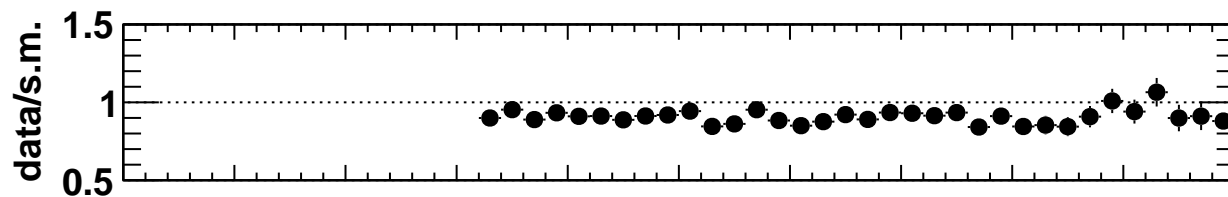
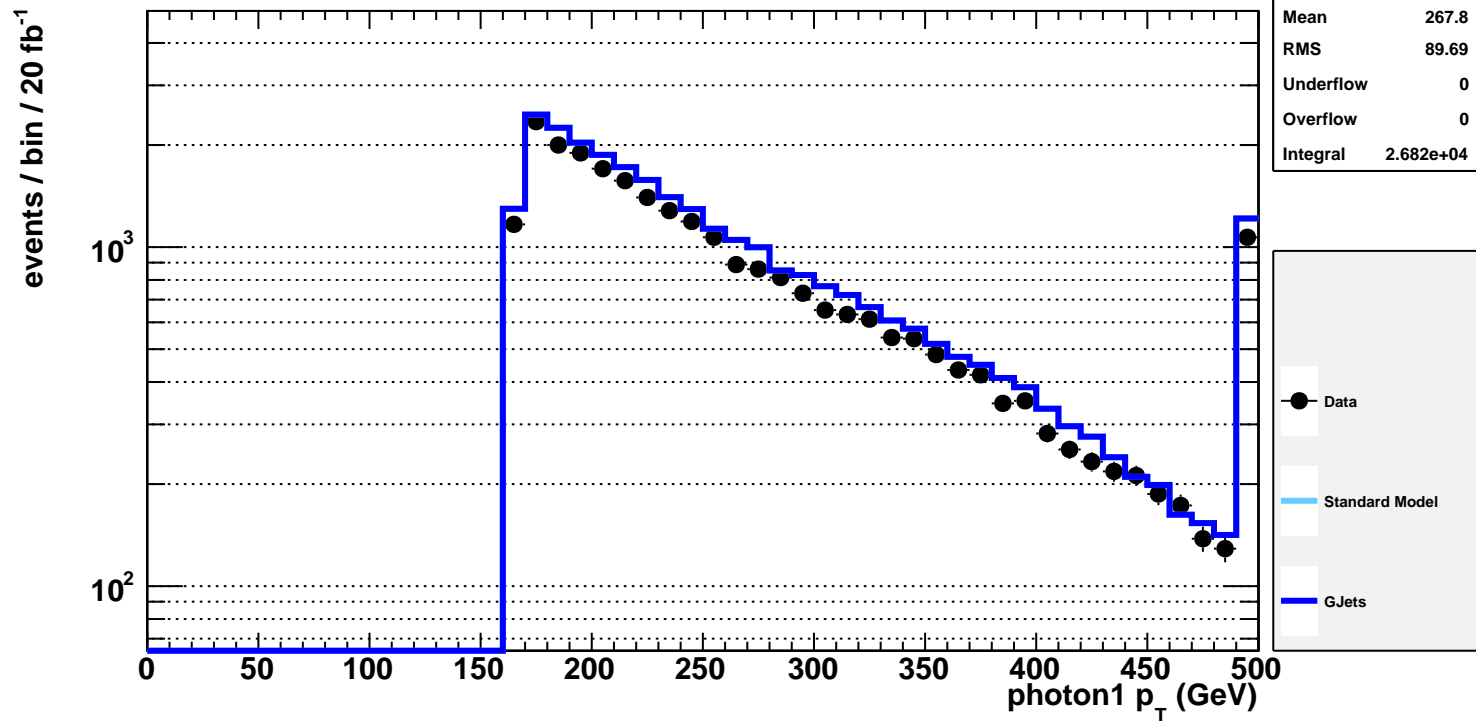


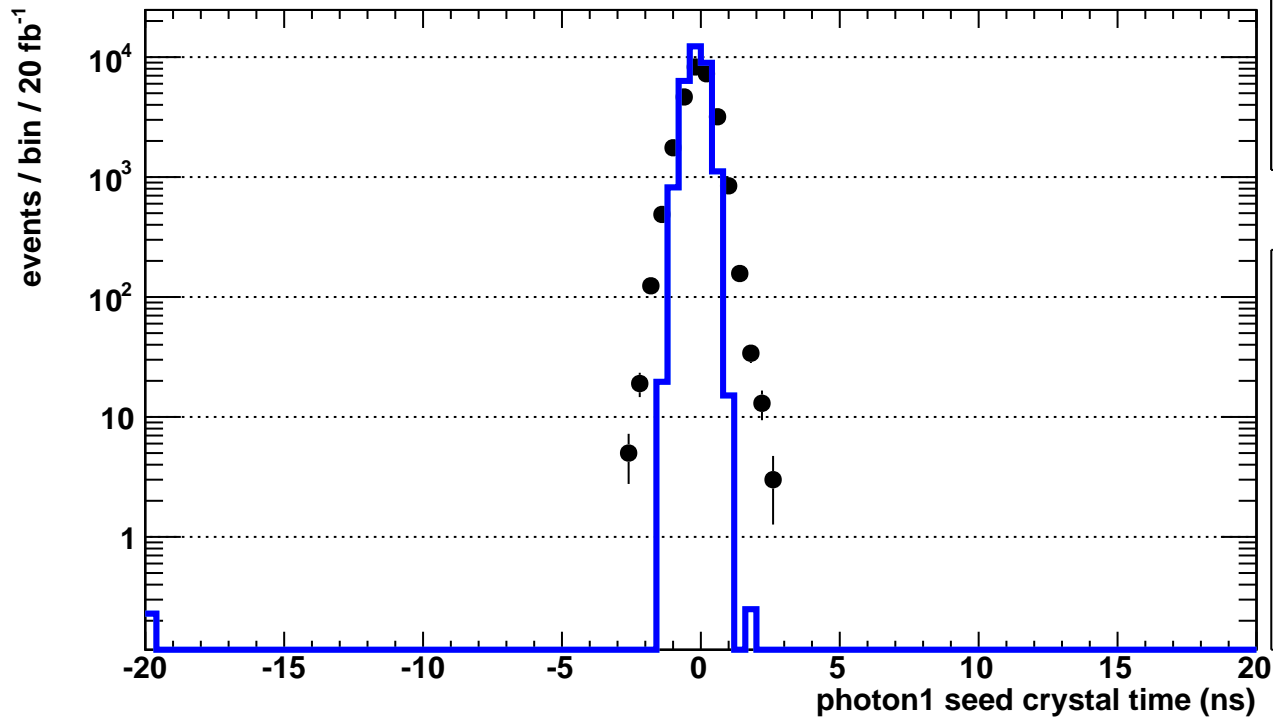
Standard Model



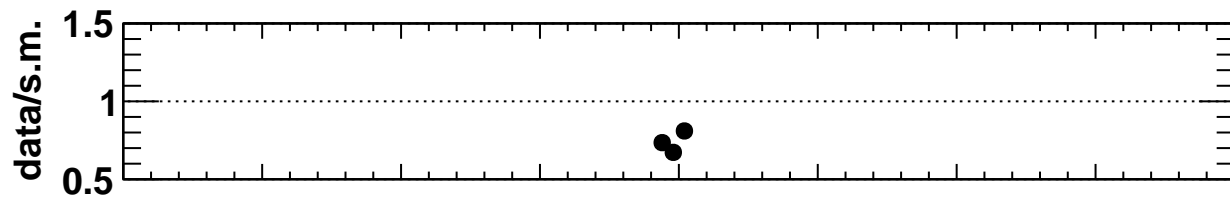
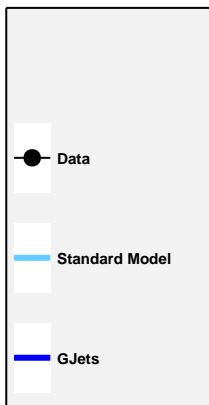
GJets



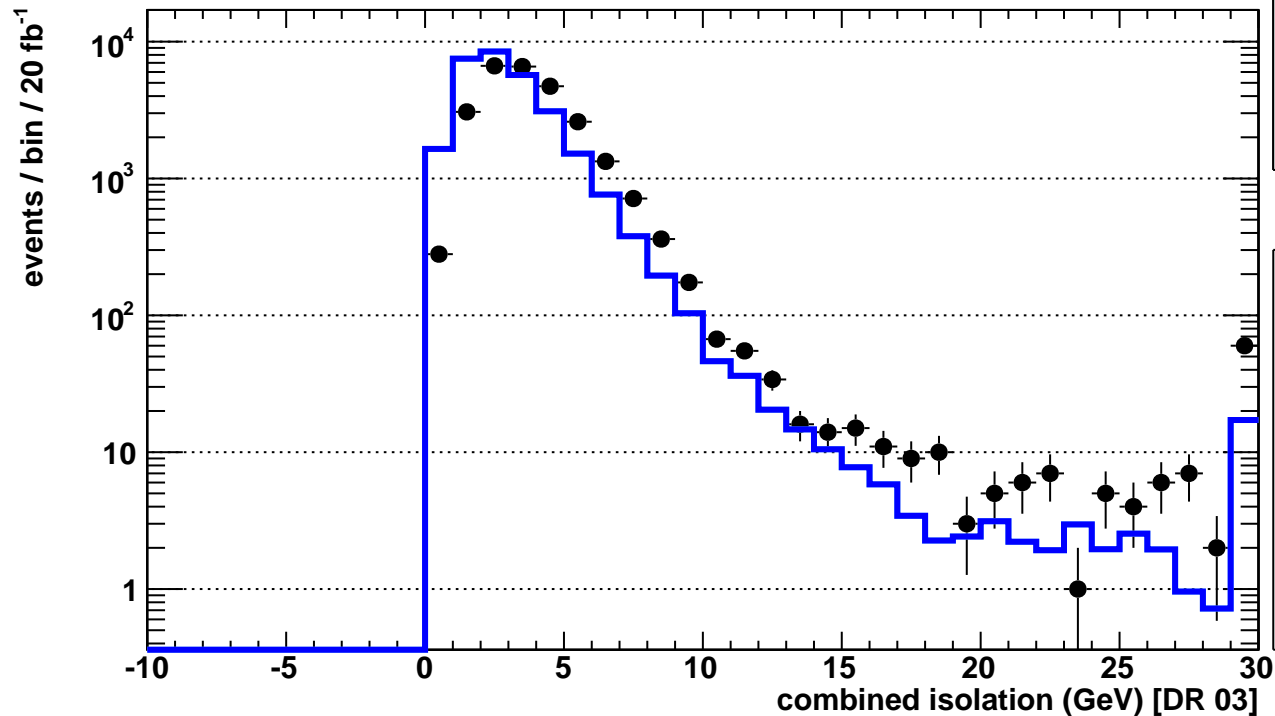




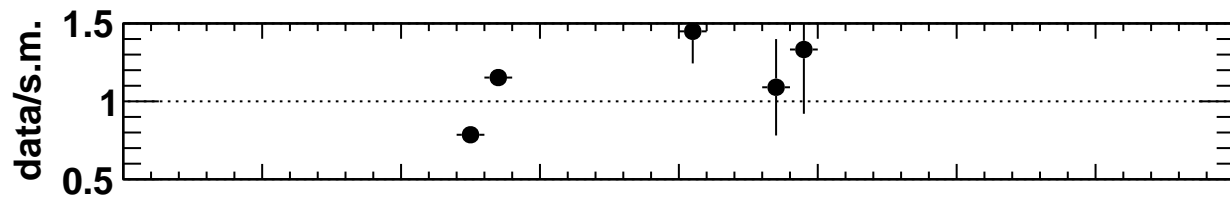
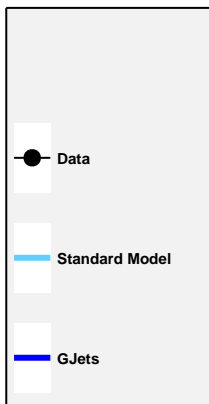
photonPat1SeedTime	
Entries	26818
Mean	-0.09927
RMS	0.5268
Underflow	0
Overflow	0
Integral	2.682e+04

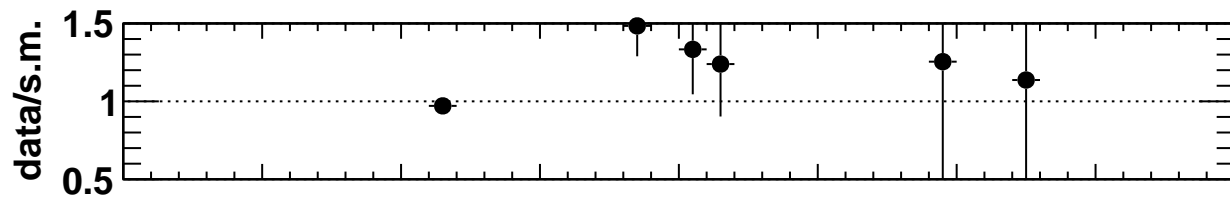
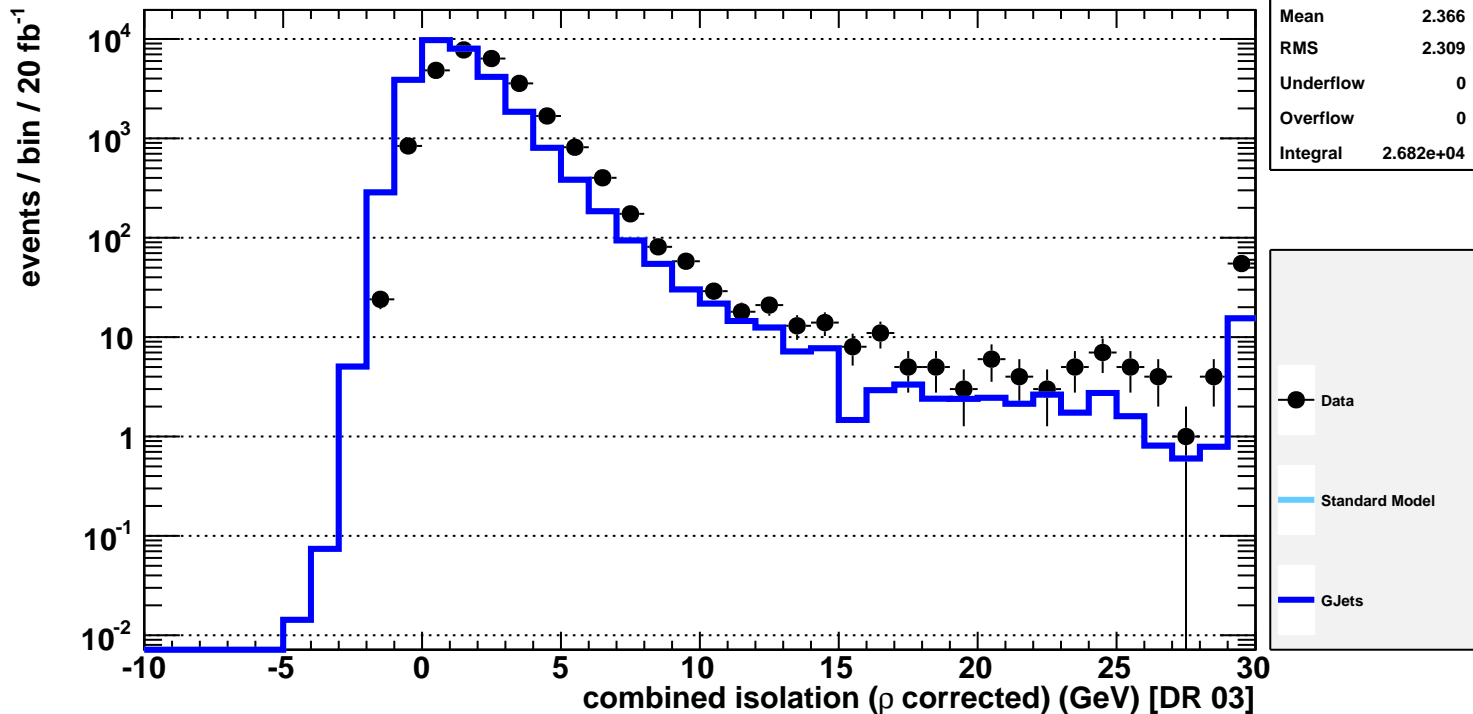




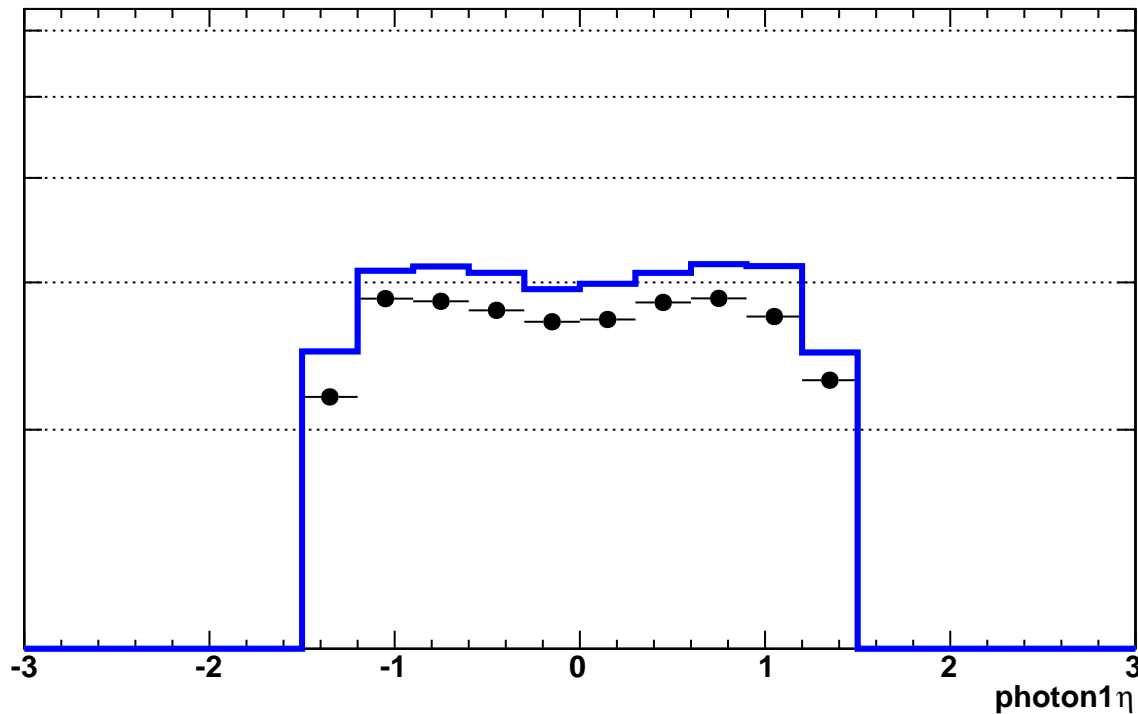


photonPat1combinedIsolation	
Entries	26818
Mean	3.896
RMS	2.382
Underflow	0
Overflow	0
Integral	2.682e+04

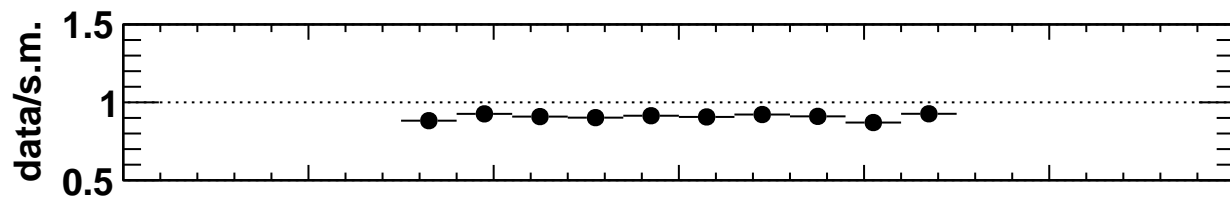
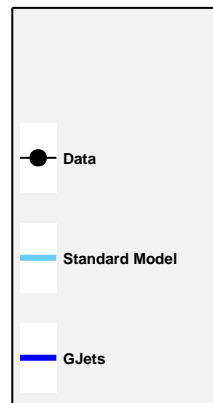


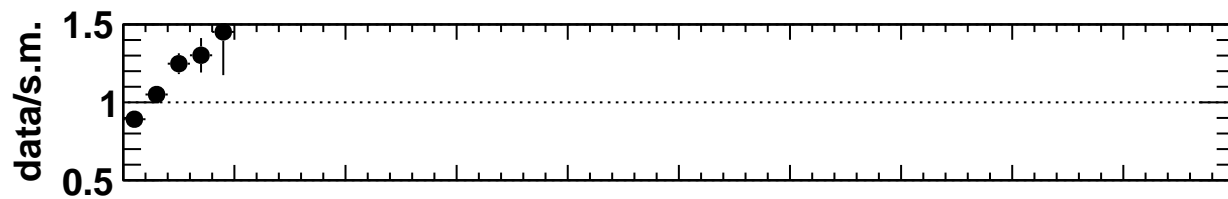
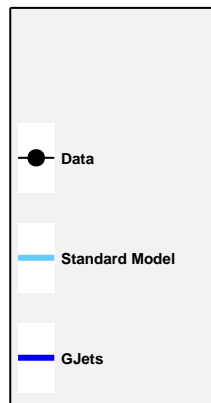
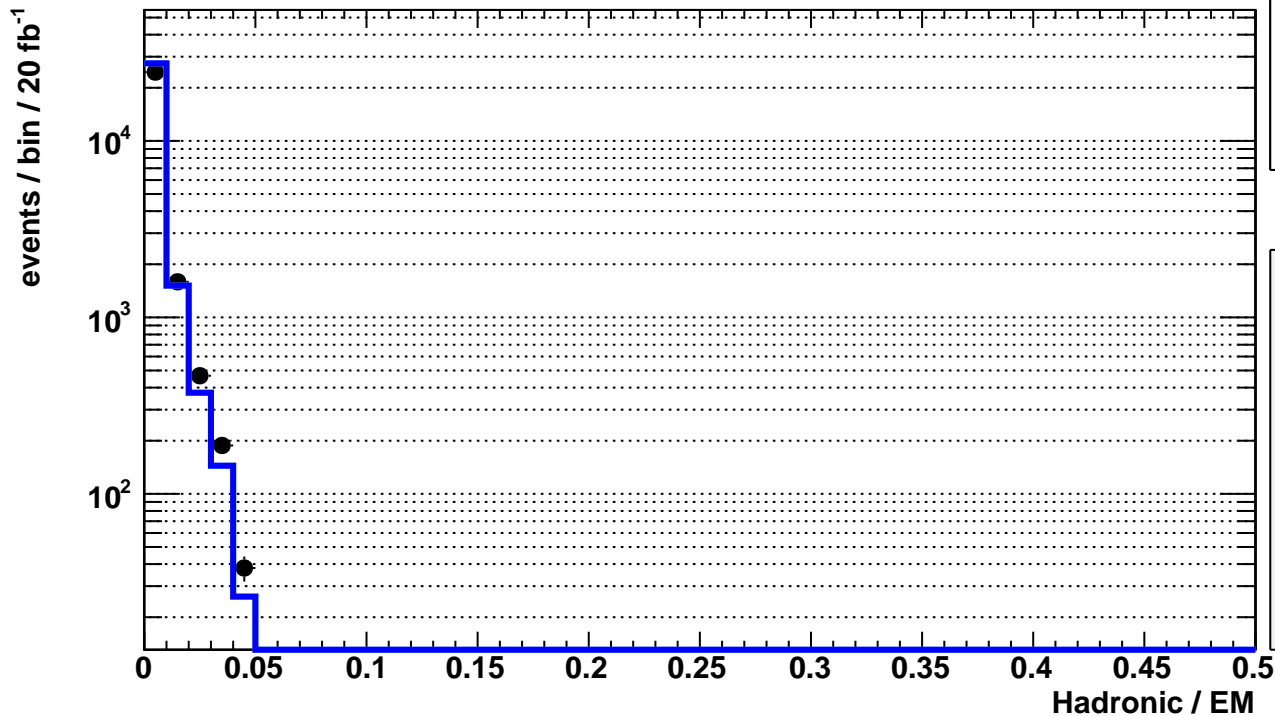


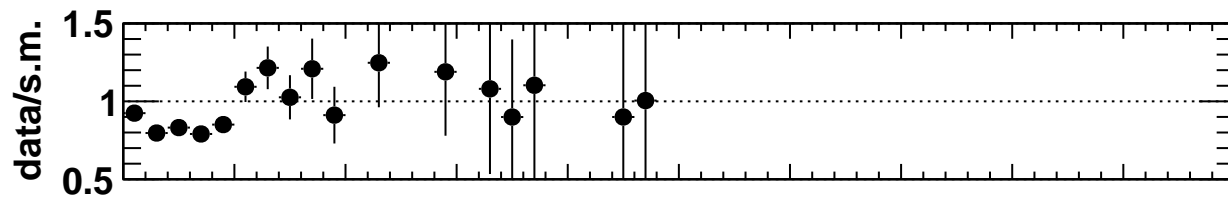
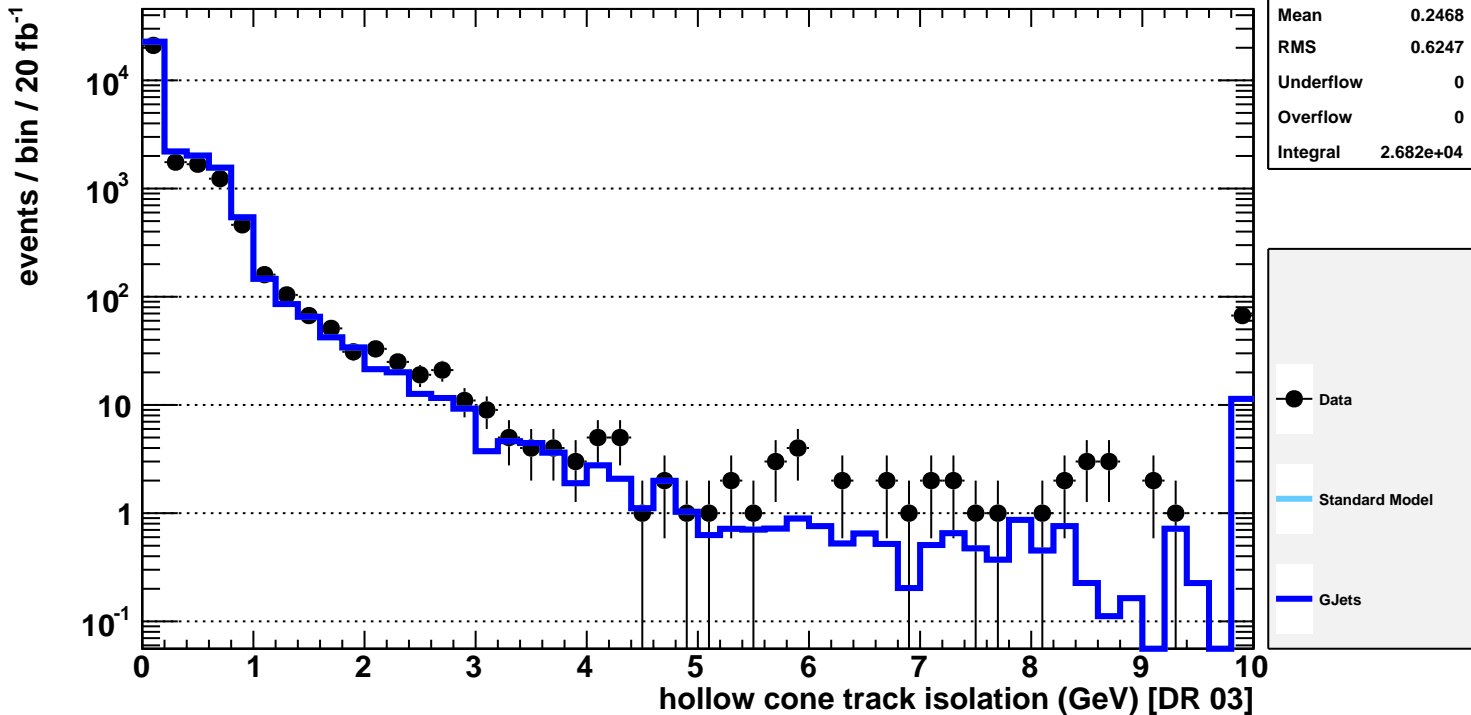
events / bin / 20 fb<sup>-1</sup>

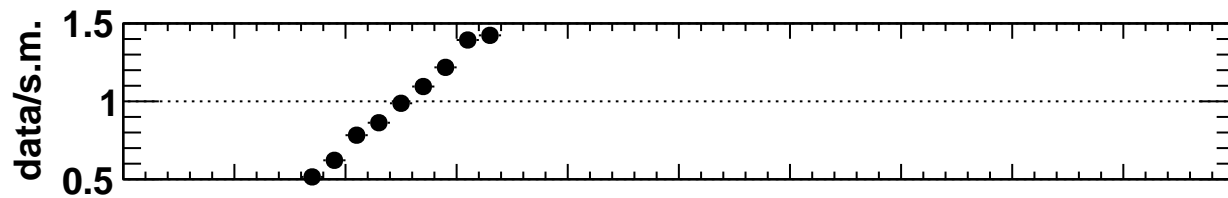
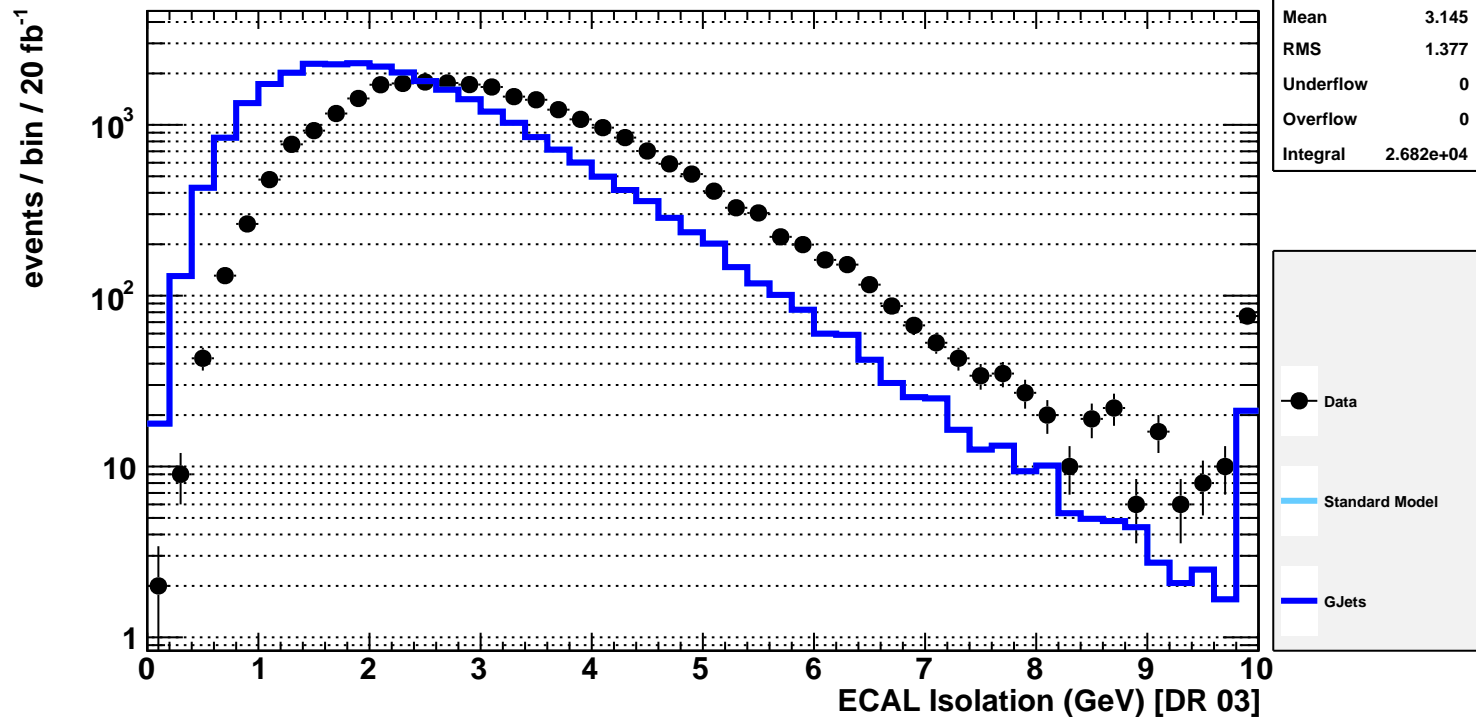


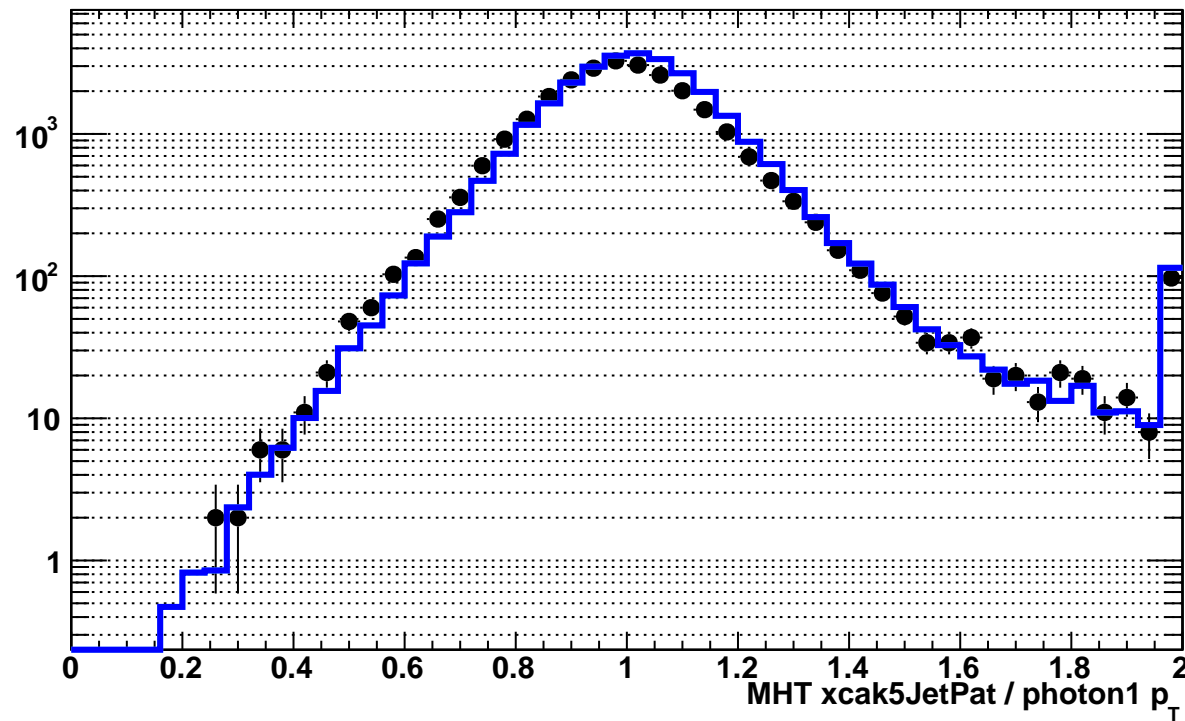
photonPat1eta	
Entries	26818
Mean	0.001532
RMS	0.8324
Underflow	0
Overflow	0
Integral	2.682e+04



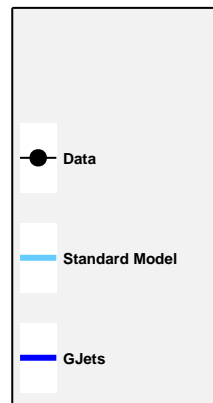




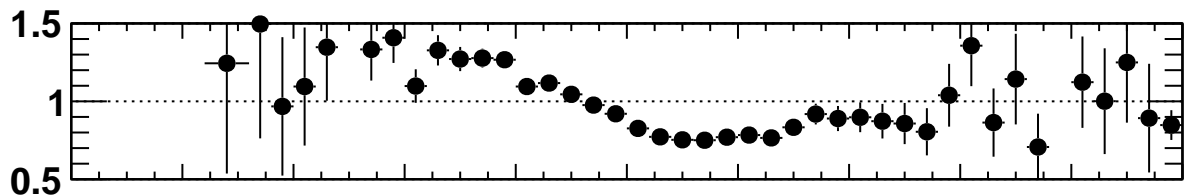


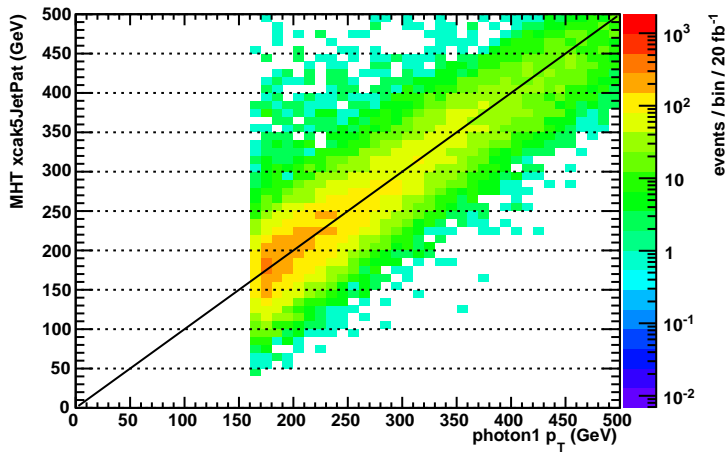
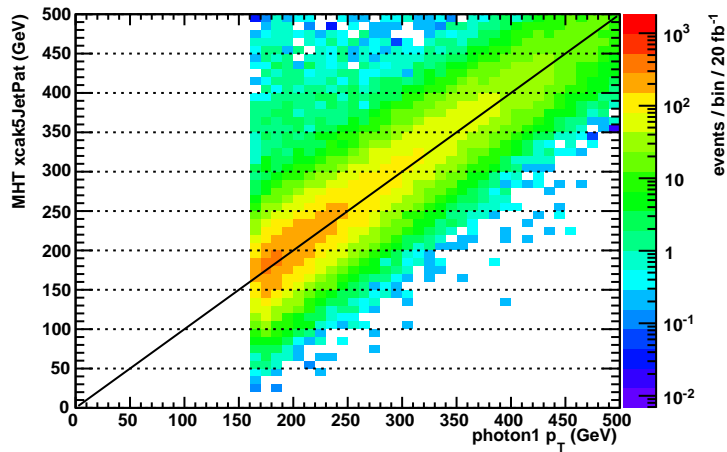
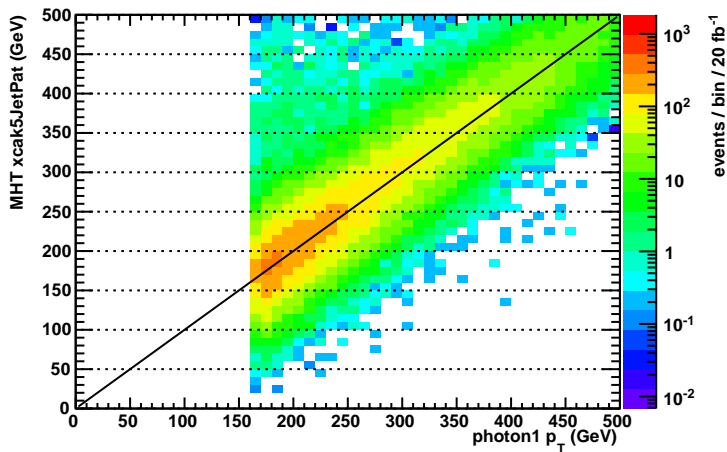
events / bin / 20 fb<sup>-1</sup>

photonPat1mhtOverPhotonPt	
Entries	26818
Mean	0.9999
RMS	0.176
Underflow	0
Overflow	0
Integral	2.682e+04



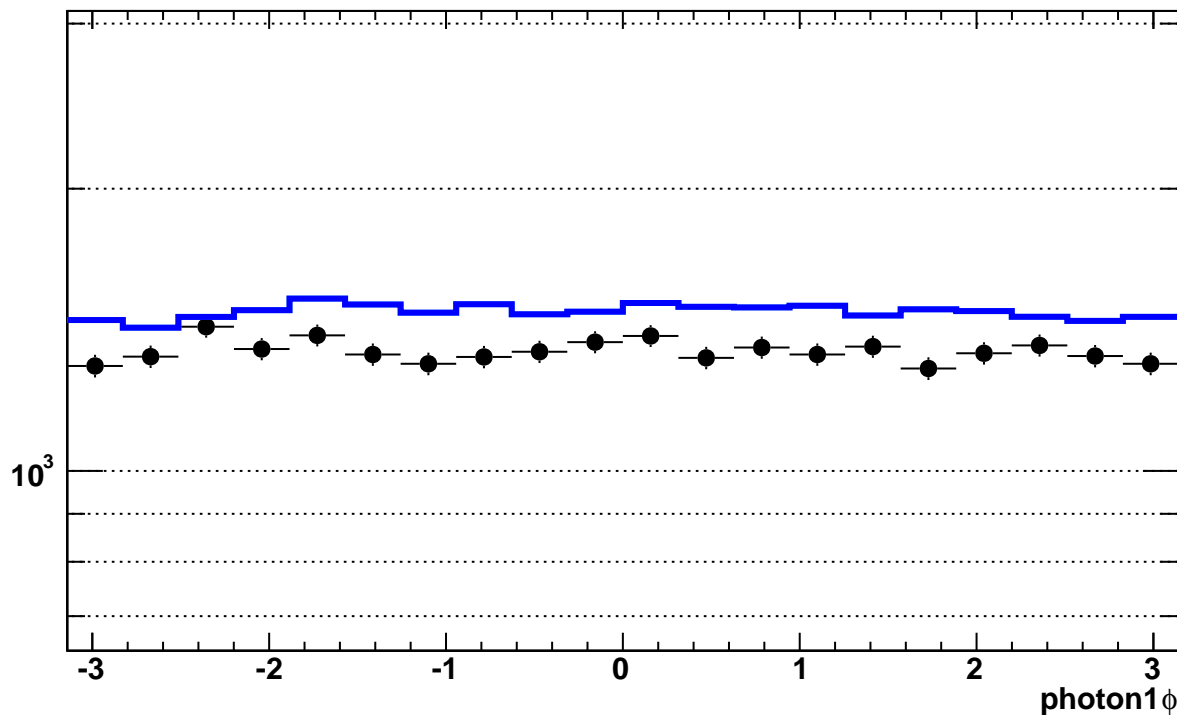
data/s.m.



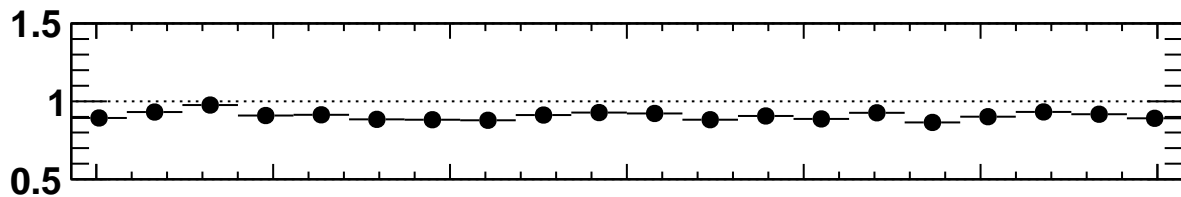
**Data****Standard Model****GJets**

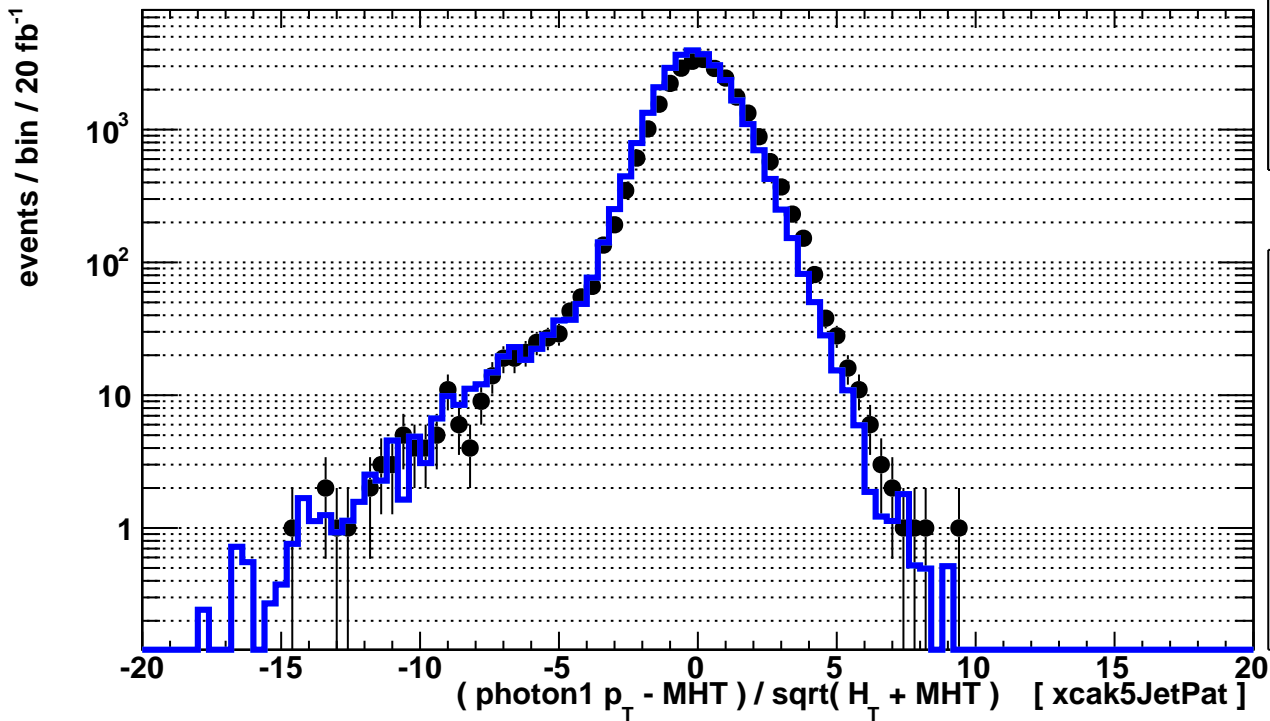


events / bin / 20 fb<sup>-1</sup>

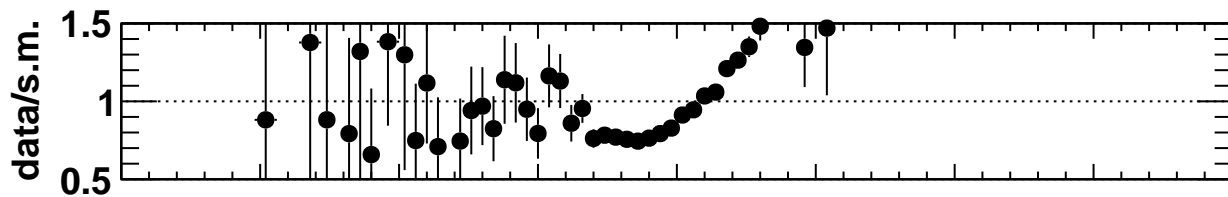
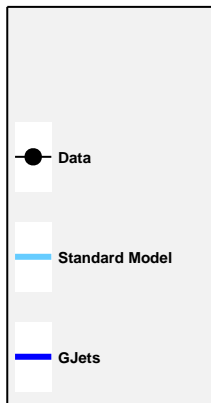


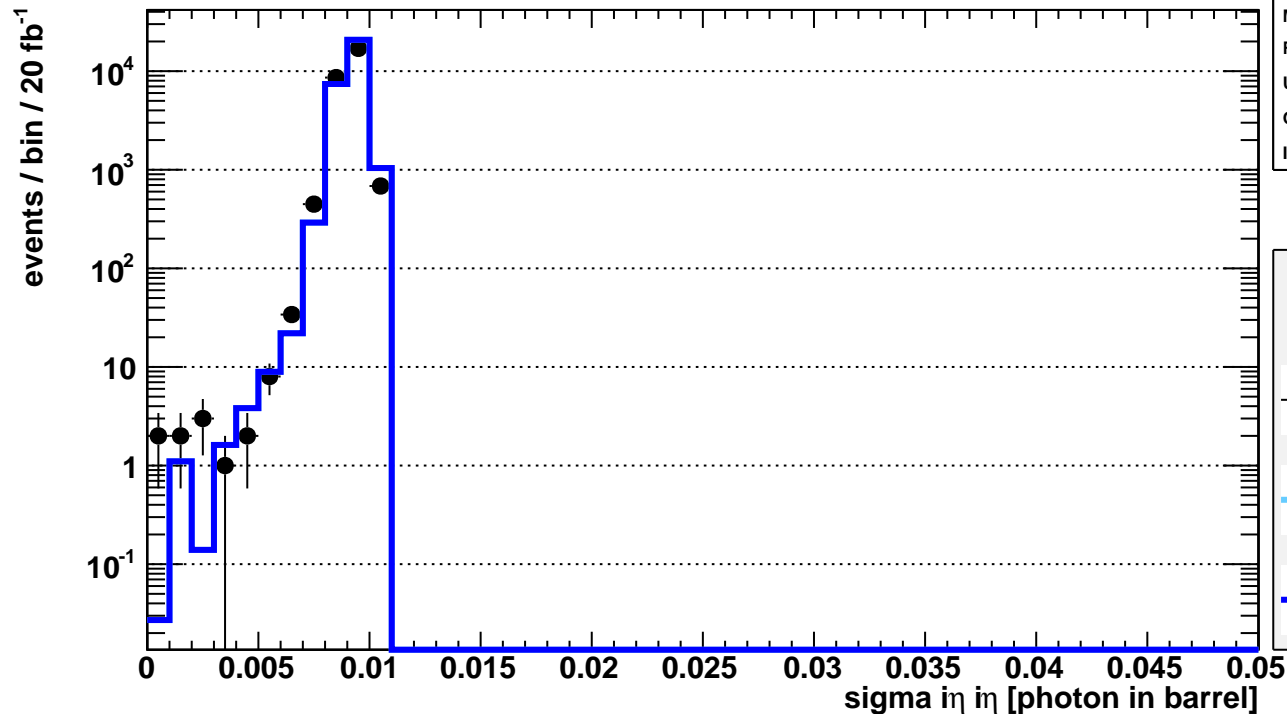
data/s.m.



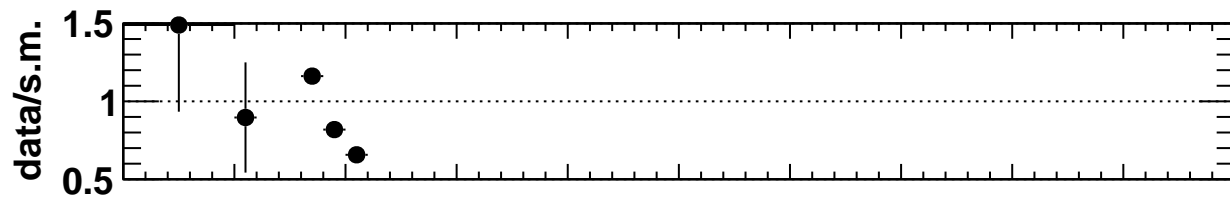
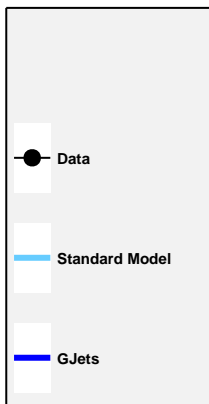


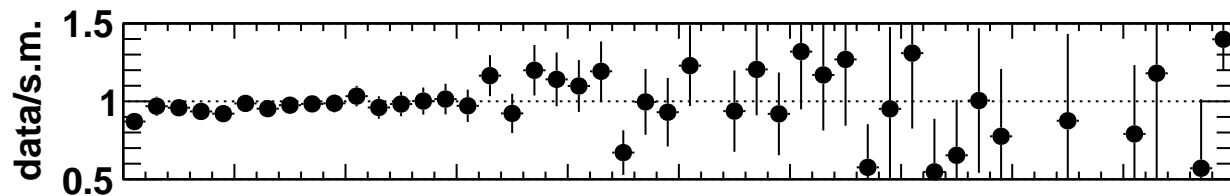
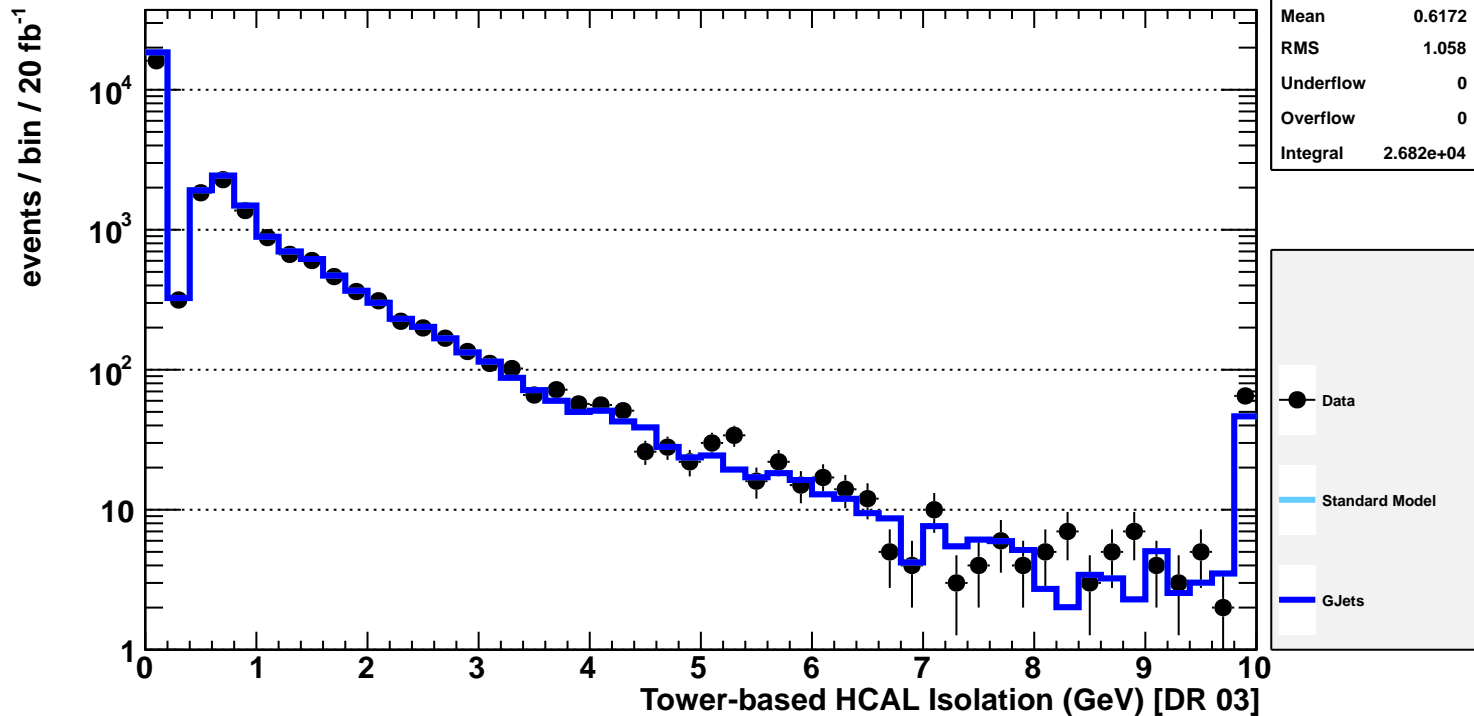
photonPat1photonPtMinusMhtOverMeff	
Entries	26818
Mean	0.08962
RMS	1.55
Underflow	0
Overflow	0
Integral	2.682e+04





photonPat1sigmaaletoBarrel	
Entries	26818
Mean	0.009141
RMS	0.0004722
Underflow	0
Overflow	0
Integral	2.682e+04





```

s: jetEtaSelector          xcak5JetPat; |eta[index[0]]|<=2.5
t: value                   375.00<=xcak5JetSumEtPat

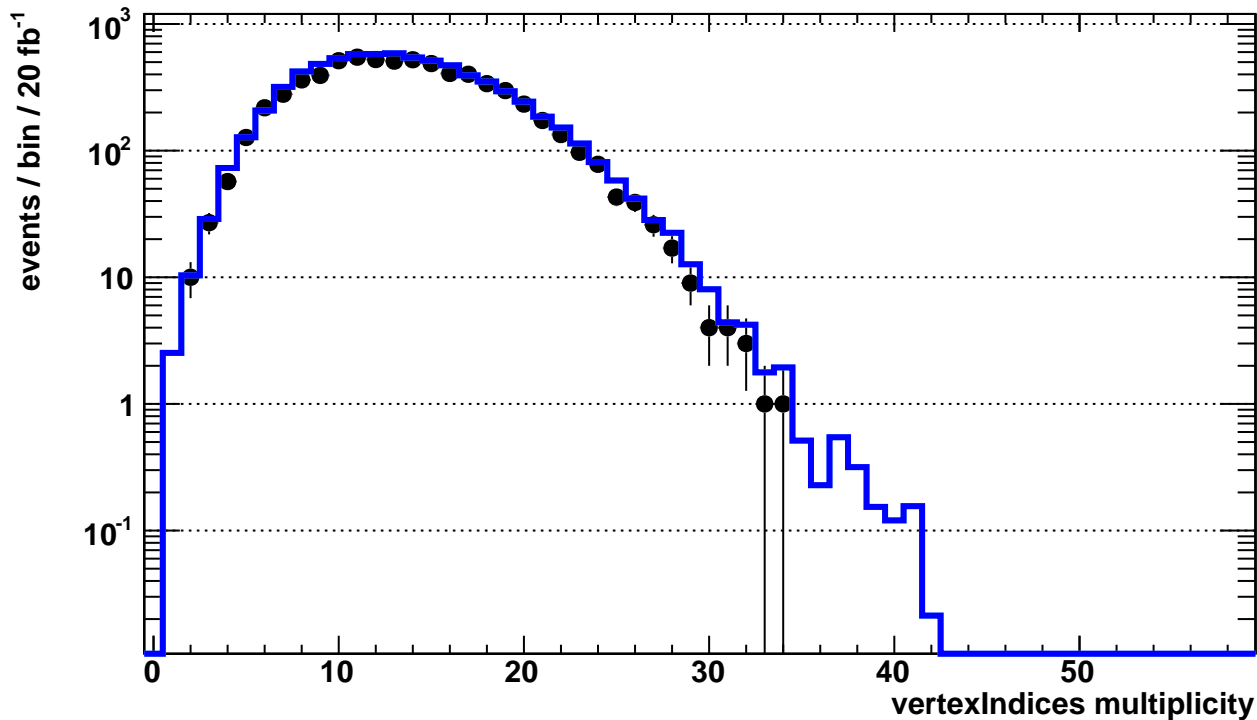
[ jetSumPlots ]
v: multiplicity           2 <= xcak5JetIndicesPat
w: multiplicity           0 <= xcak5JetIndicesOtherPat <= 0
x: multiplicity           0 <= xcak5JetIndicesWithOddMuonPat <= 0
y: uniquelyMatchedNonisoMuons xcak5JetPat

z: multiplicity           0 <= electronIndicesPat <= 0
A: multiplicity           0 <= muonIndicesPat <= 0
B: multiplicity           0 <= electronIndicesUnmatchedPat <= 0
C: multiplicity           0 <= photonIndicesUnmatchedPat <= 0
D: deadEcalFilter         xcak5JetPat; dR>0.300 when deltaPhiStar<0.500

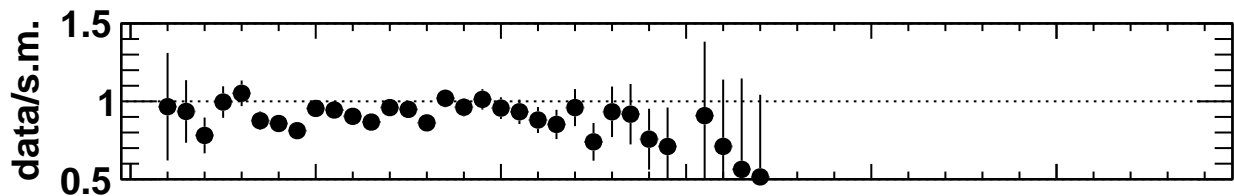
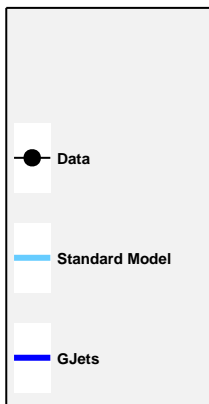
E: pt                     165.00<=photonP4Pat[i[0]].pt; photonIndicesPat
F: absEta                 0.00<=photonP4Pat[i[0]].absEta<=1.44; photonIndicesPat
G: DeltaRGreaterSelector  xcak5JetPat; DR(photonPat[i[0]], jet) > 1.00
H: multiplicity           1 <= photonIndicesPat <= 1
I: value                  xcak5JetMhthighPtPatOvermetP4TypeIPFPplusphotonIndicesPat<=1.25
J: value                  0.55<=xcak5JetAlphaTEtPat

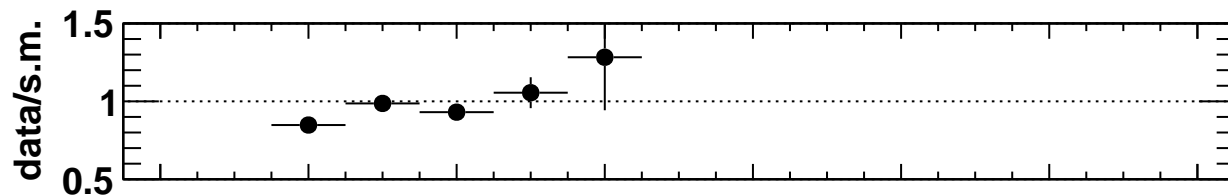
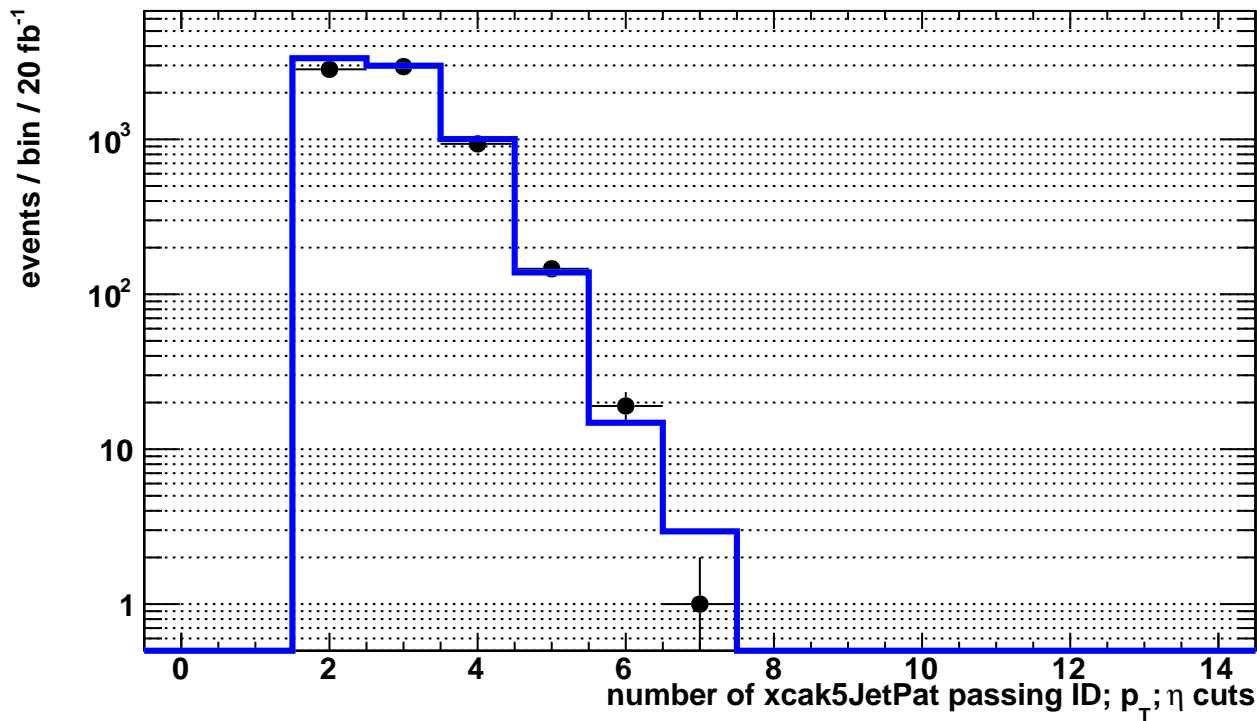
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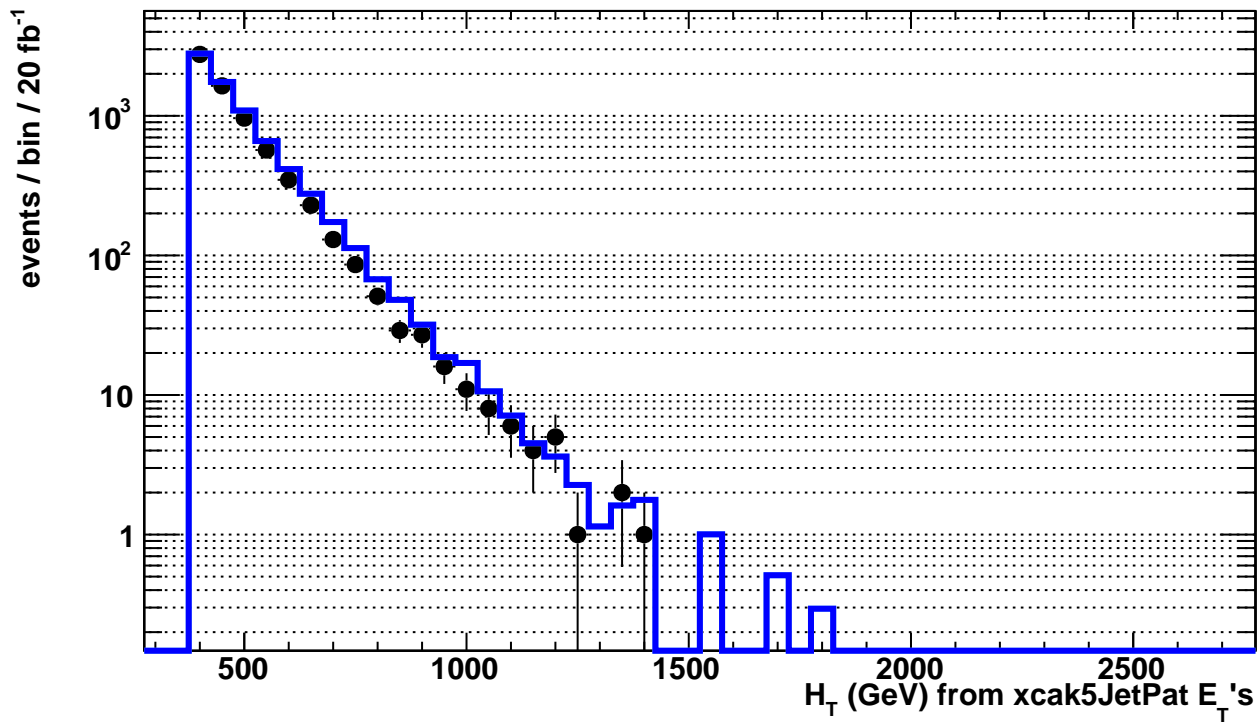
	Data	Standard Model	GJets	data/s.m.
s:	11754756	6.471(2)e+6	6.471(2)e+6	1.8167(7)
t:	10840878	2.4566(9)e+6	2.4566(9)e+6	4.413(2)
[ jetSumPlots ]				
v:	10840878	2.4566(9)e+6	2.4566(9)e+6	4.413(2)
w:	10695418	2.4235(9)e+6	2.4235(9)e+6	4.413(2)
x:	10689167	2.4222(9)e+6	2.4222(9)e+6	4.413(2)
y:	10679830	2.4204(9)e+6	2.4204(9)e+6	4.412(2)
z:	10621267	2.3371(8)e+6	2.3371(8)e+6	4.545(2)
A:	10615682	2.3369(8)e+6	2.3369(8)e+6	4.543(2)
B:	10606722	2.3334(8)e+6	2.3334(8)e+6	4.546(2)
C:	10606191	2.3331(8)e+6	2.3331(8)e+6	4.546(2)
D:	3373041	7.178(5)e+5	7.178(5)e+5	4.699(4)
E:	36160	3.93(1)e+4	3.93(1)e+4	0.921(5)
F:	31729	3.482(10)e+4	3.482(10)e+4	0.911(6)
G:	26920	2.959(9)e+4	2.959(9)e+4	0.910(6)
H:	26818	2.957(9)e+4	2.957(9)e+4	0.907(6)
I:	24999	2.772(9)e+4	2.772(9)e+4	0.902(6)
J:	6881	7.49(5)e+3	7.49(5)e+3	0.92(1)



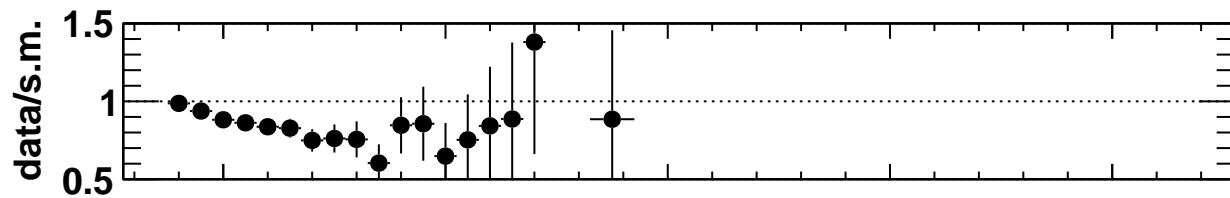
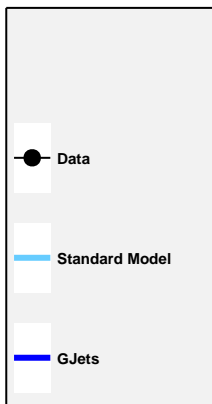
vertexIndicesMultiplicity	
Entries	6881
Mean	13.61
RMS	4.971
Underflow	0
Overflow	0
Integral	6881



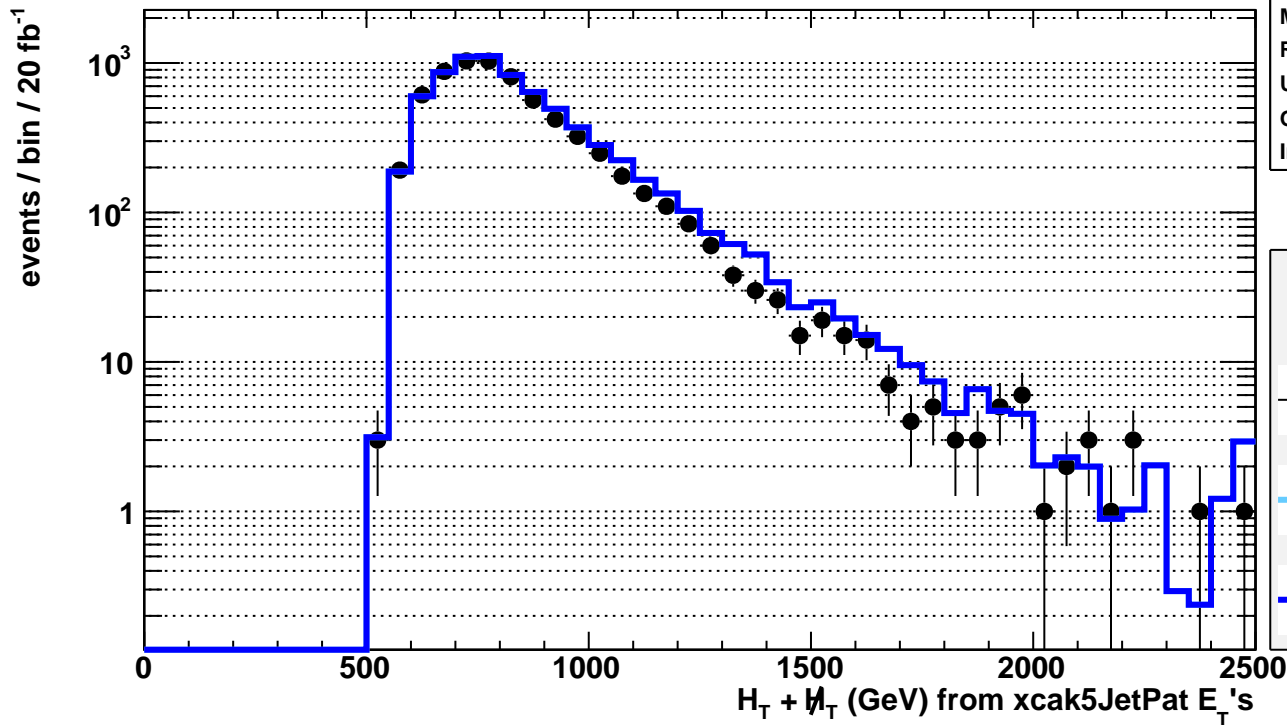




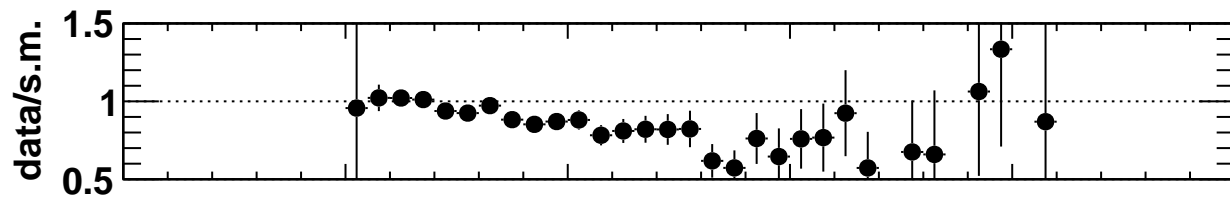
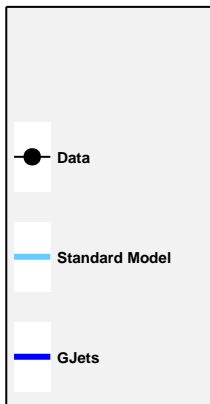
xcak5JetHtPat	
Entries	6881
Mean	476.7
RMS	108.7
Underflow	0
Overflow	0
Integral	6881

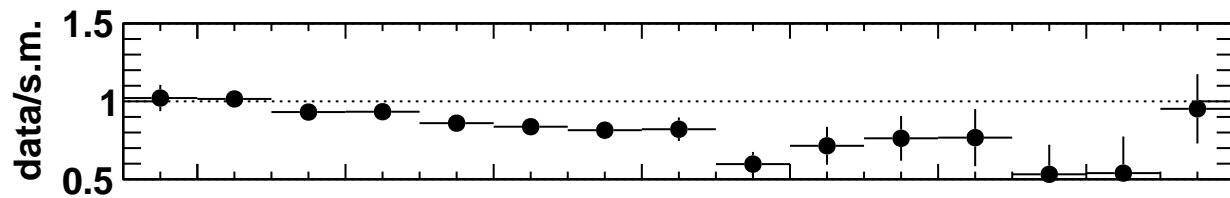
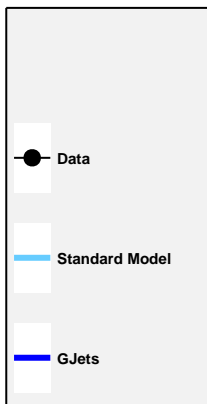
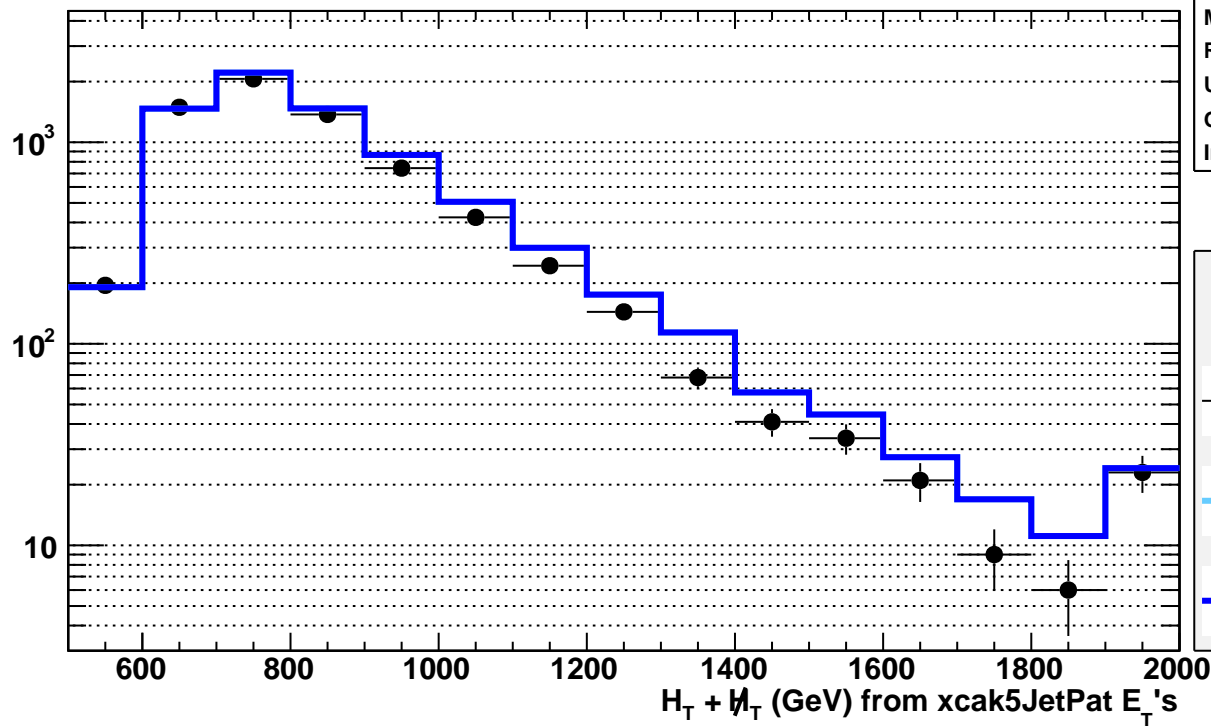


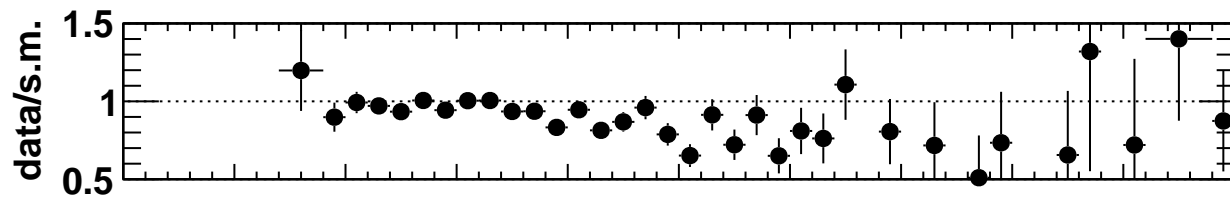
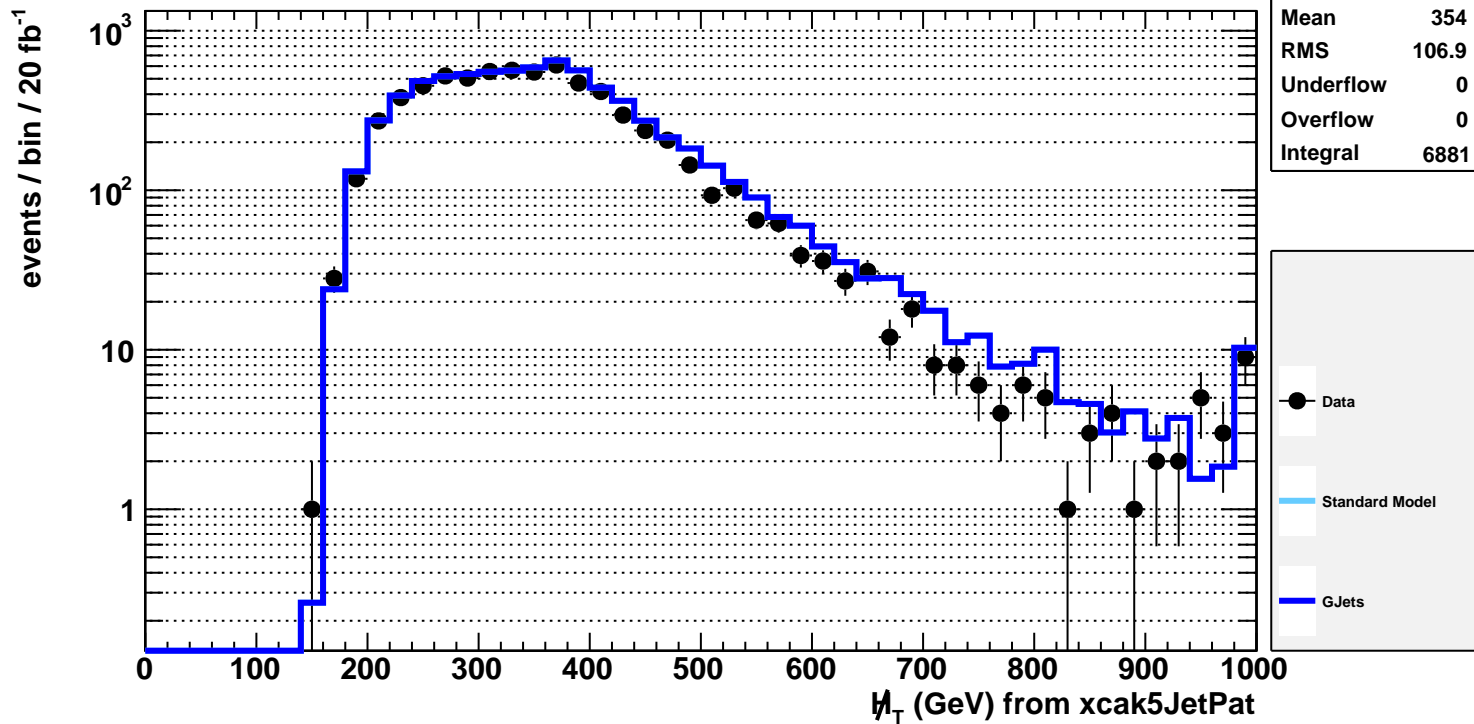




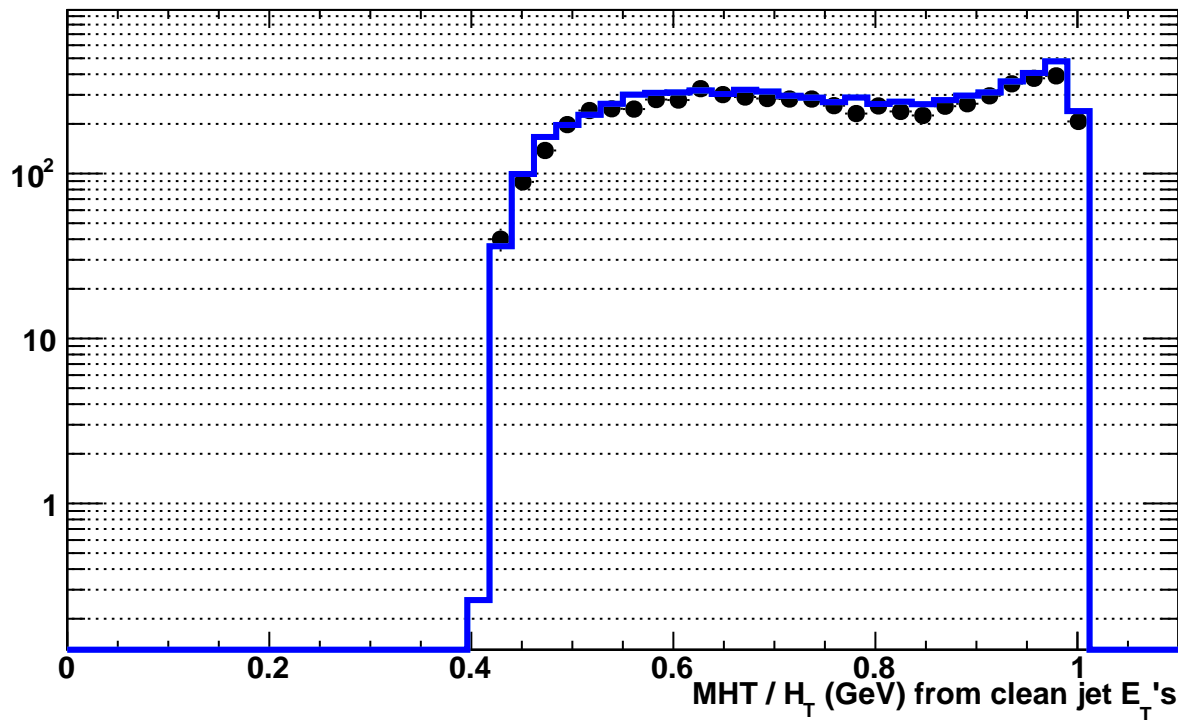
xcak5JetHtPlusMhtPat	
Entries	6881
Mean	830.7
RMS	198.3
Underflow	0
Overflow	0
Integral	6881



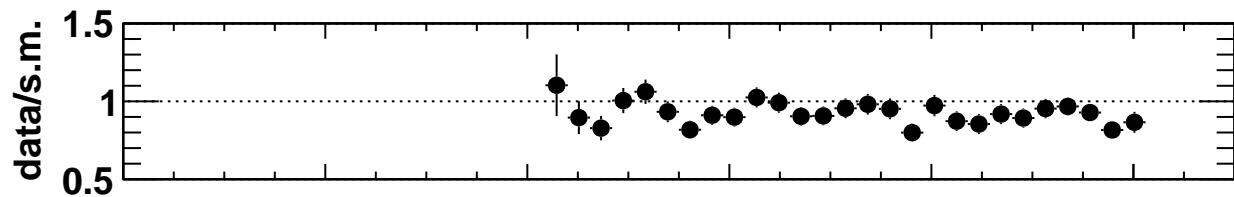
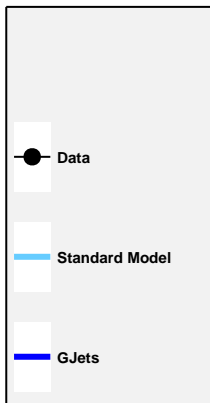
events / bin / 20 fb<sup>-1</sup>

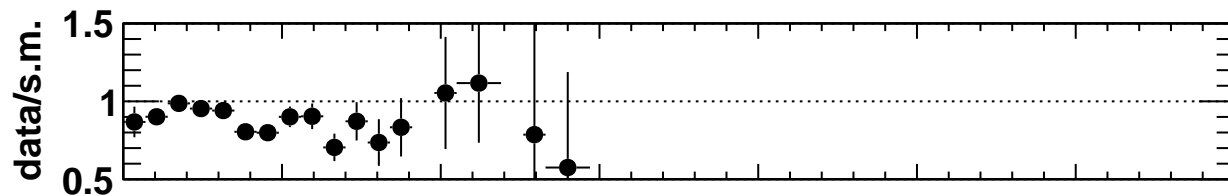
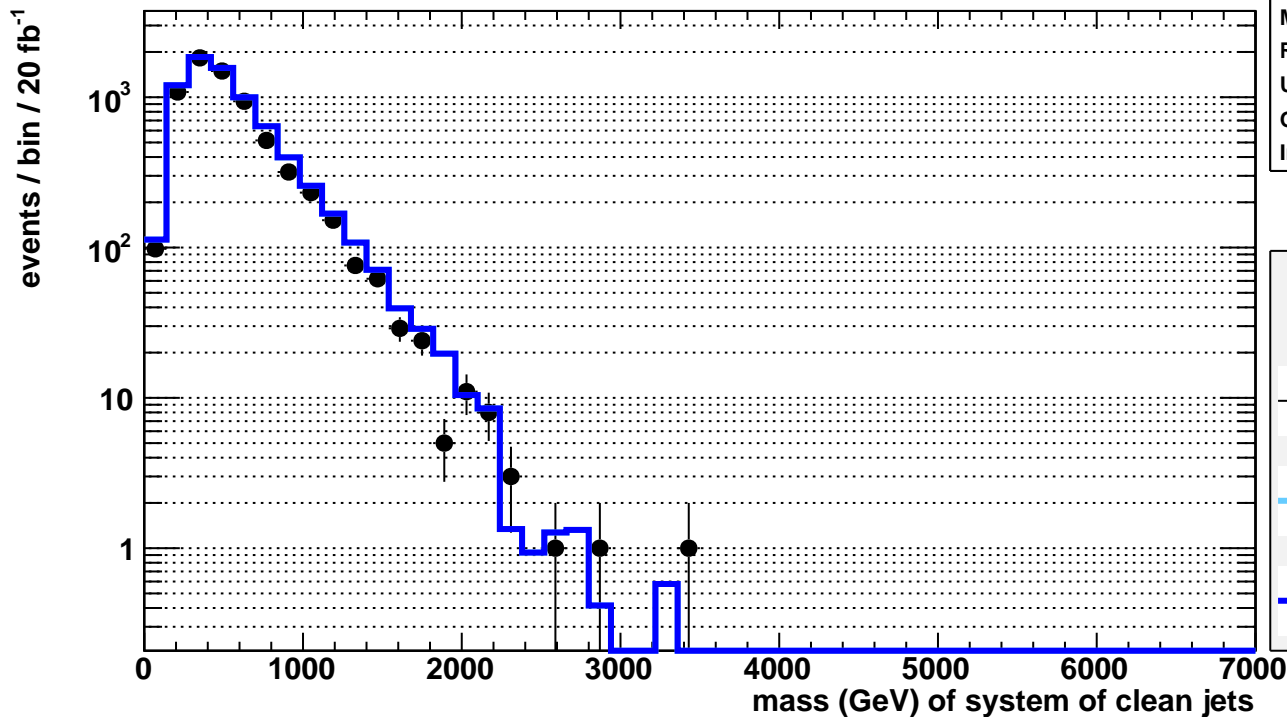


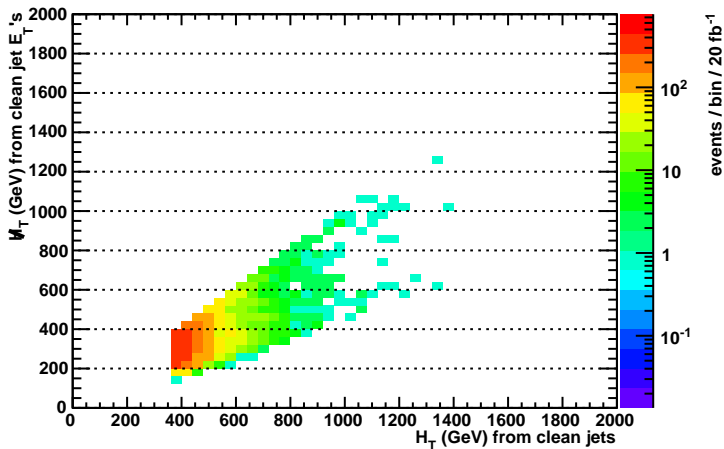
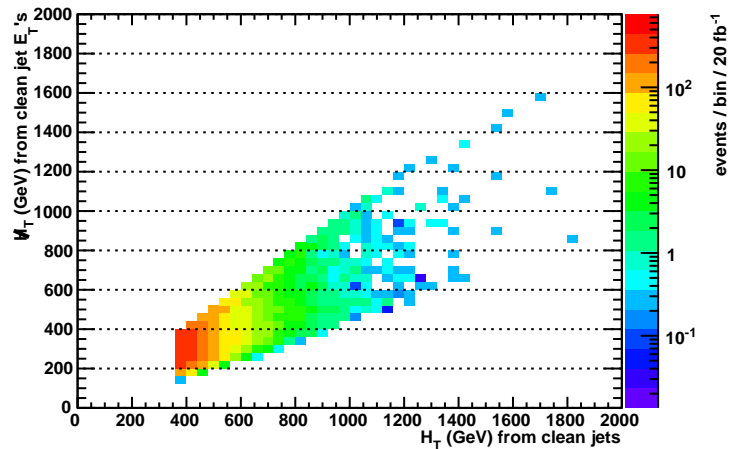
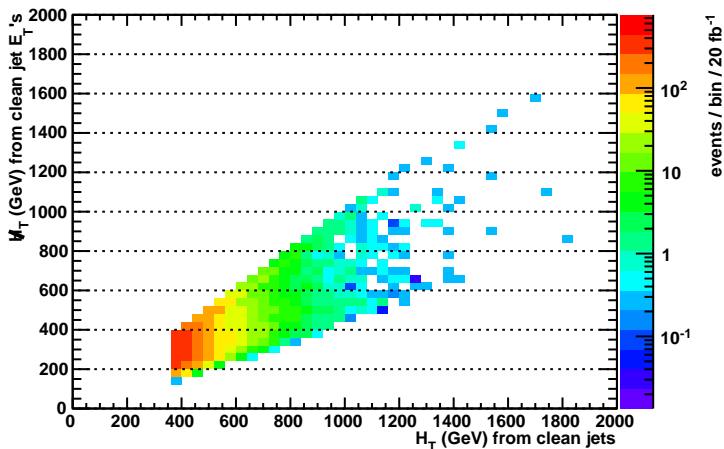
events / bin / 20 fb<sup>-1</sup>

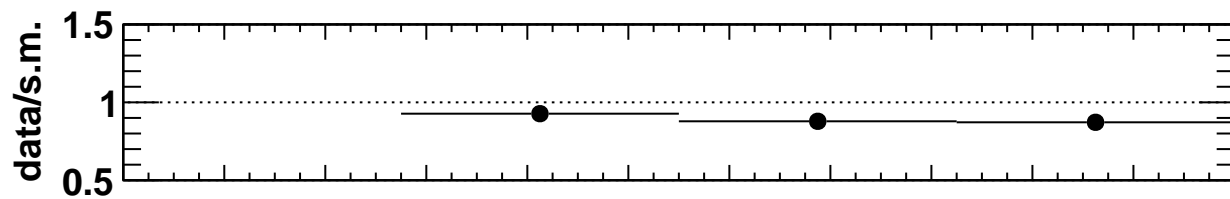
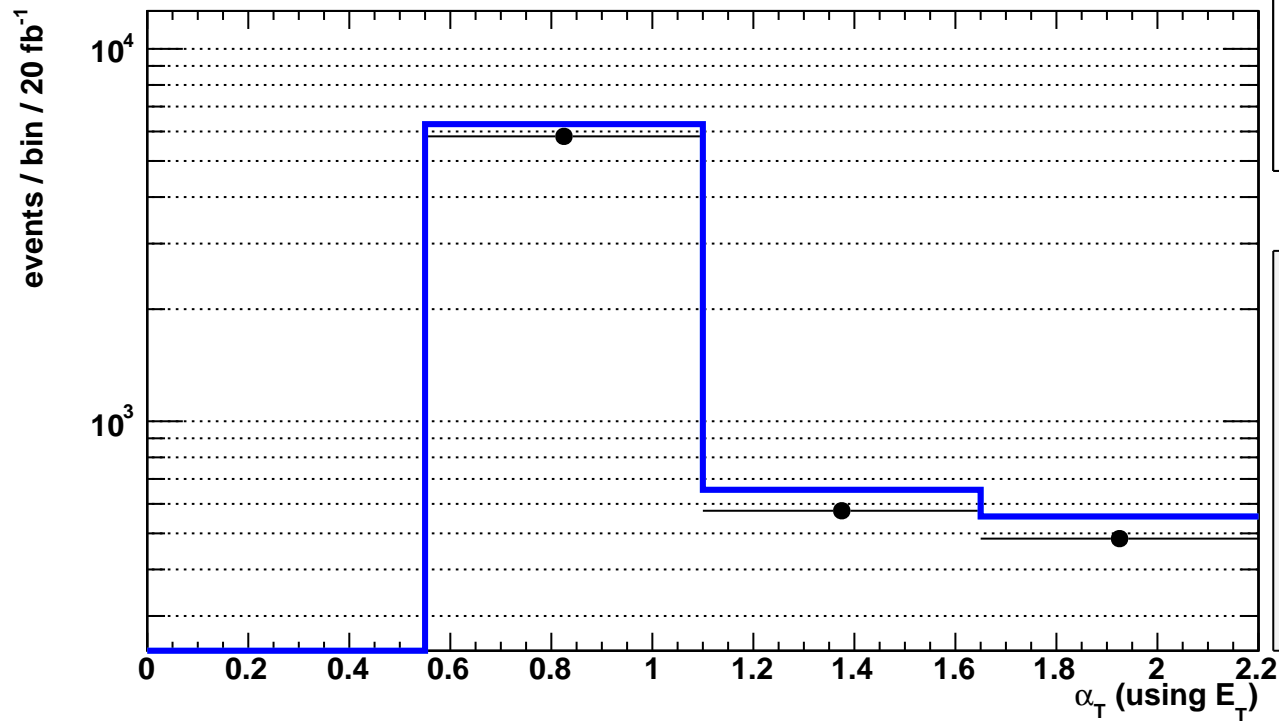


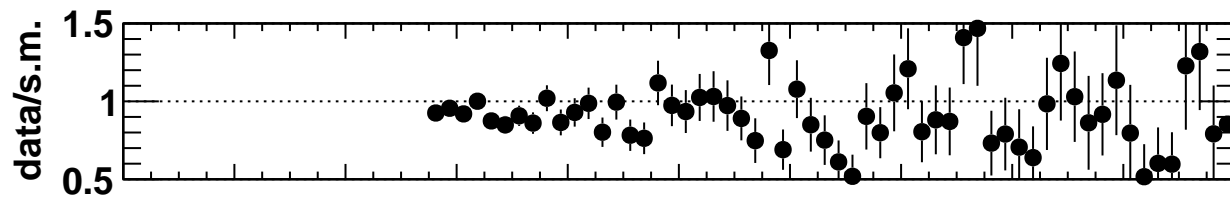
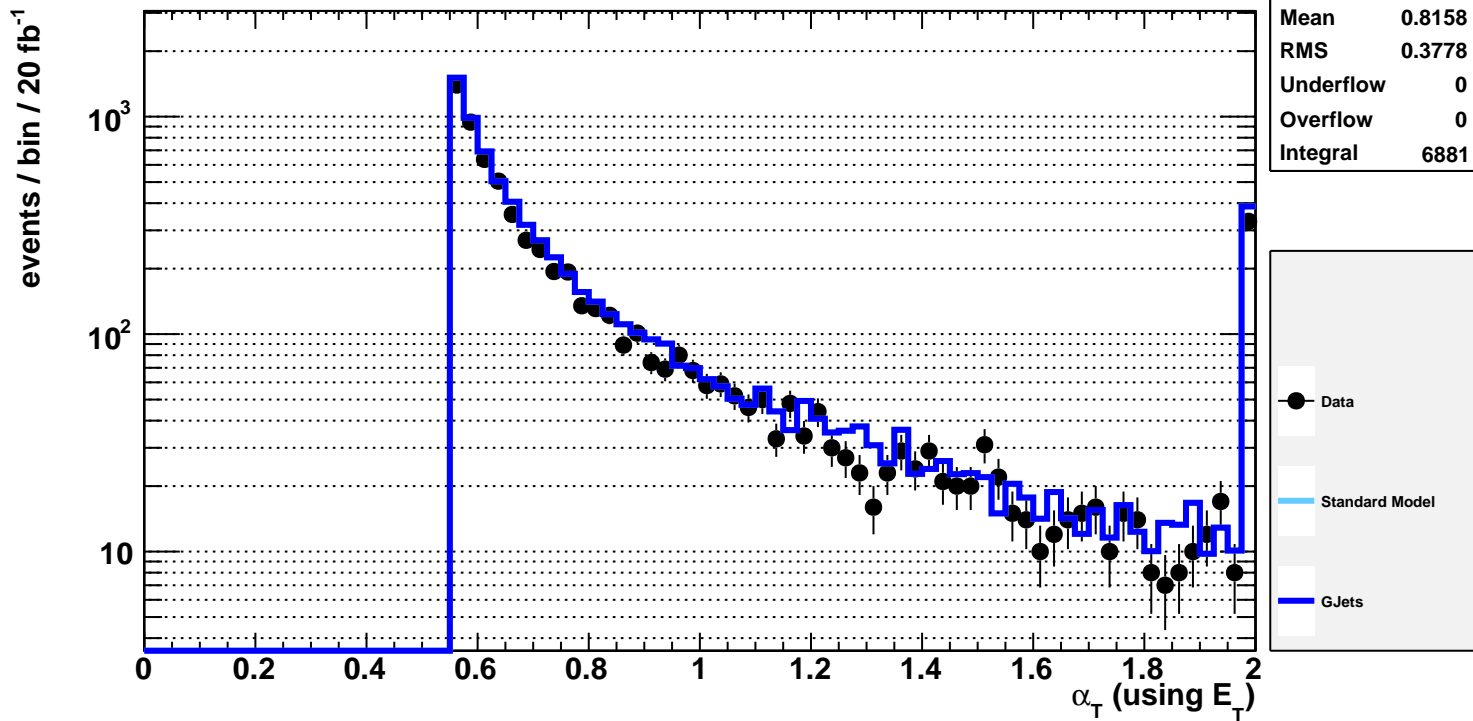
xcak5JetmHtOverHtPat	
Entries	6881
Mean	0.7455
RMS	0.1597
Underflow	0
Overflow	0
Integral	6881





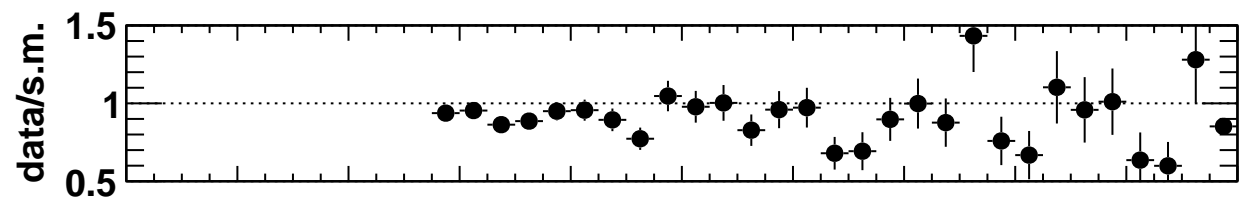
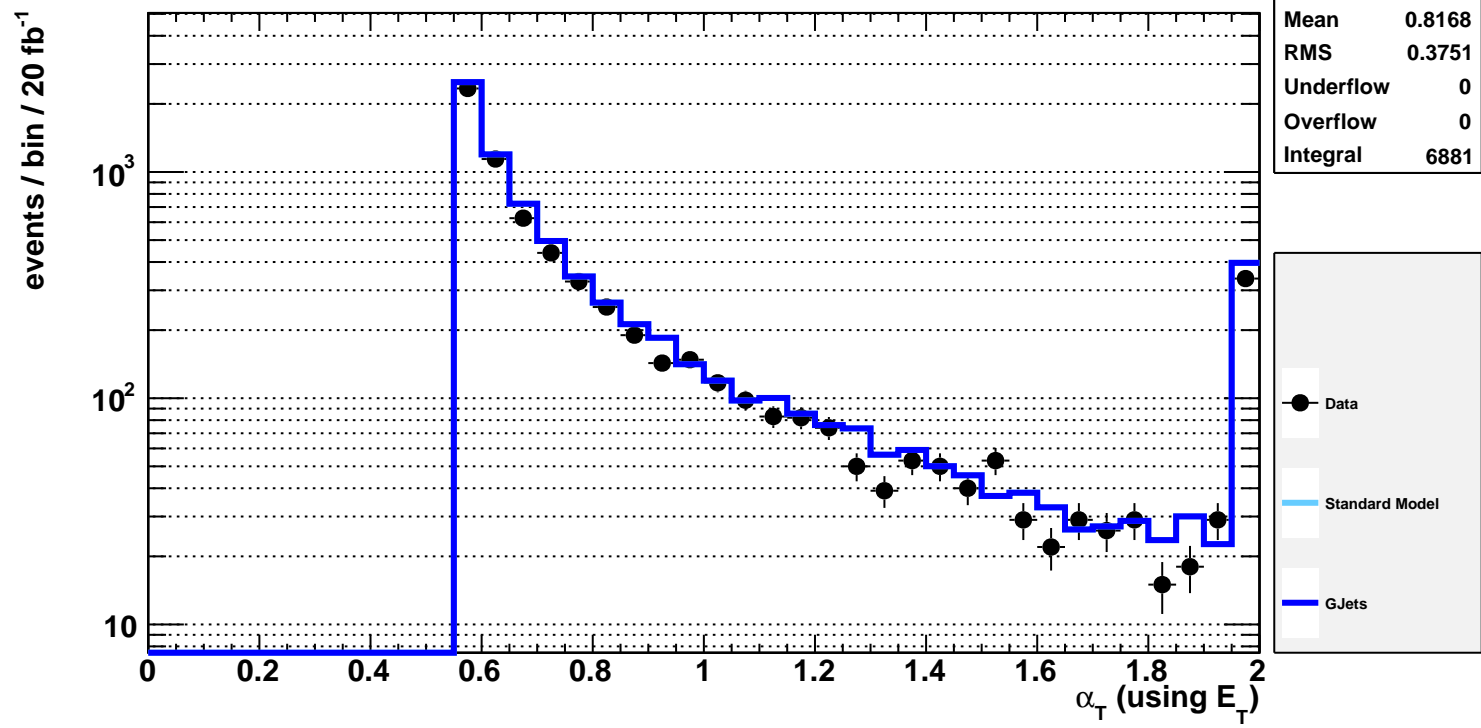
**Data****Standard Model****GJets**

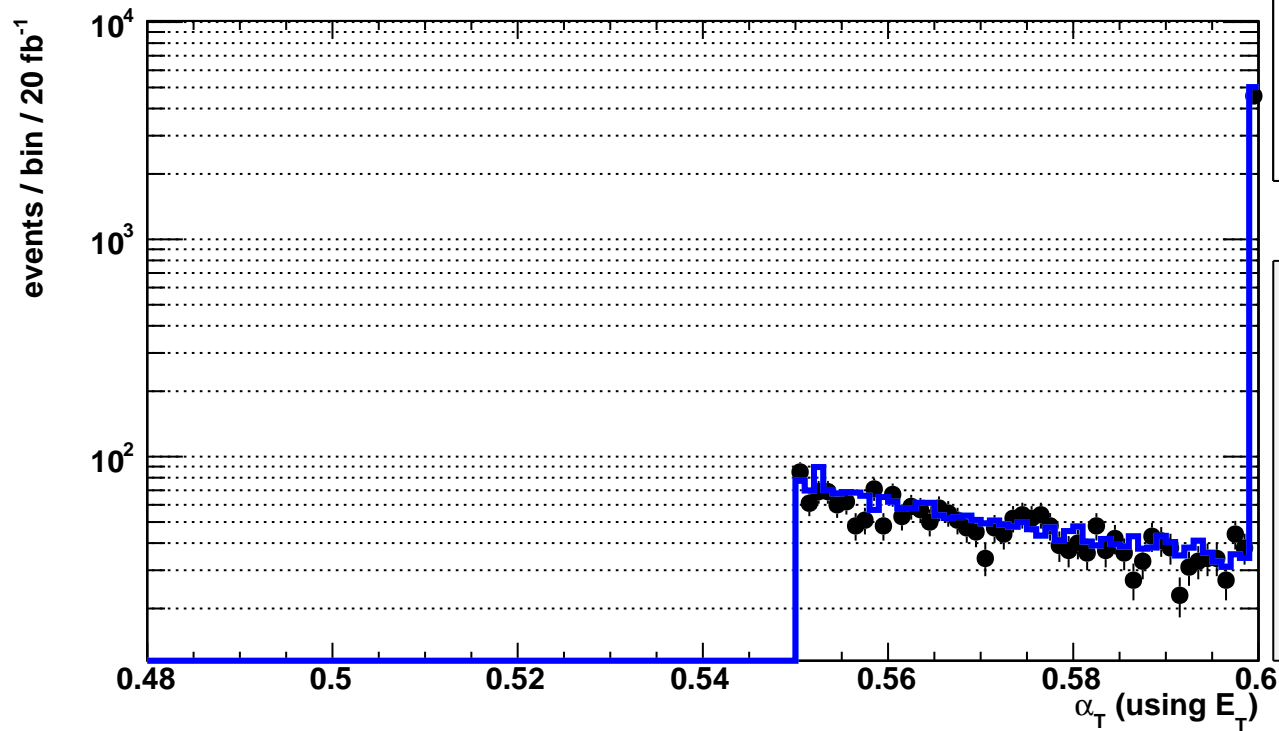




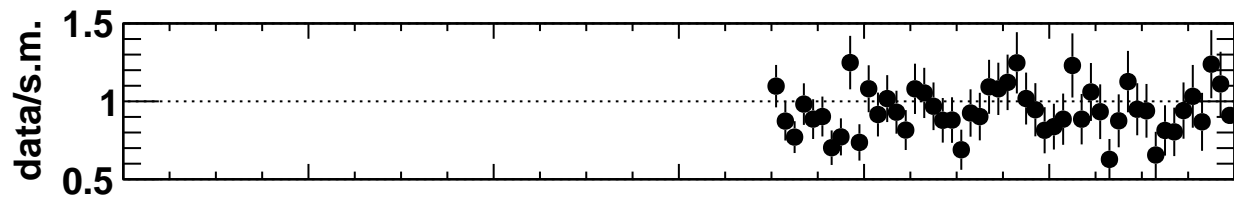
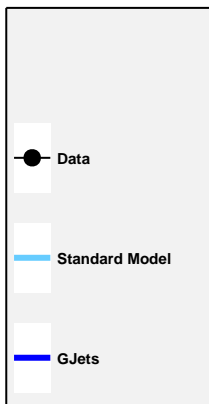


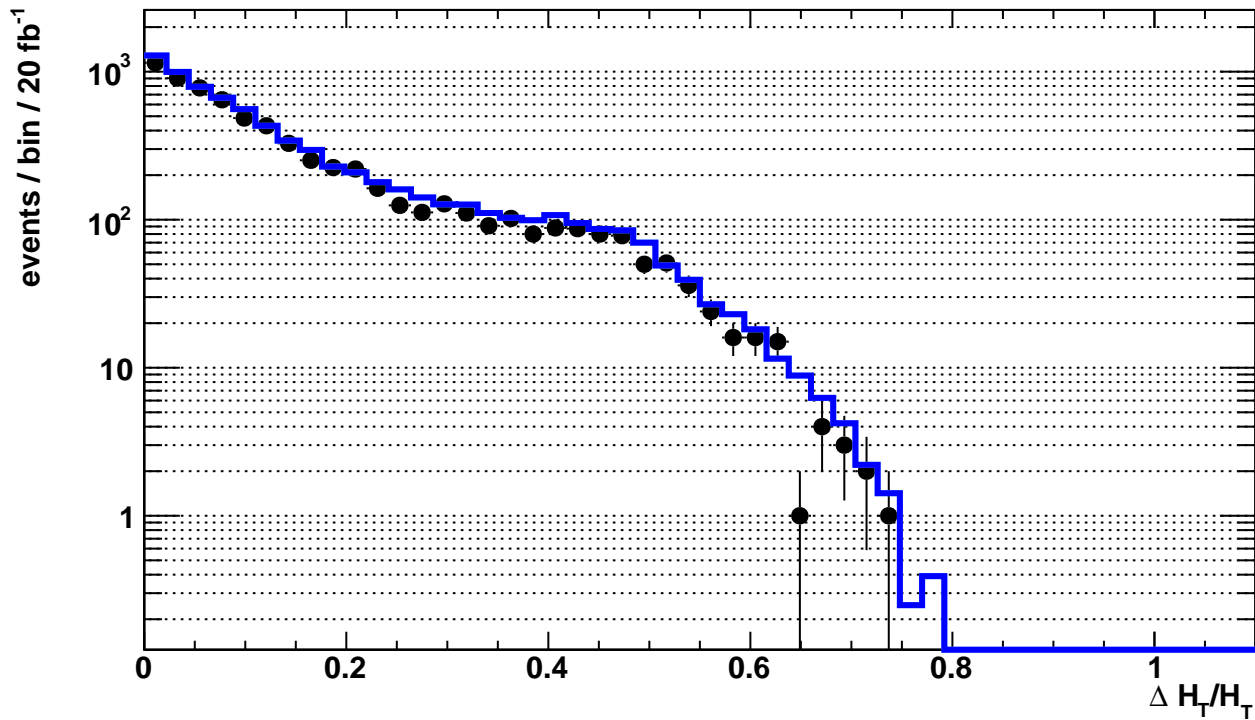
xcak5JetAlphaTRoughPat	
Entries	6881
Mean	0.8168
RMS	0.3751
Underflow	0
Overflow	0
Integral	6881



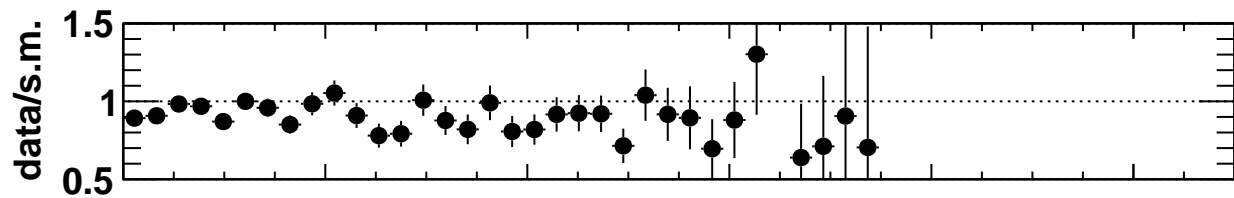
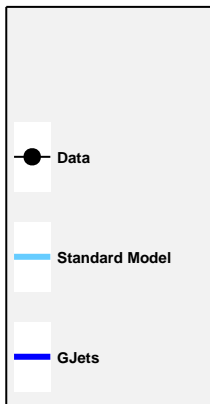


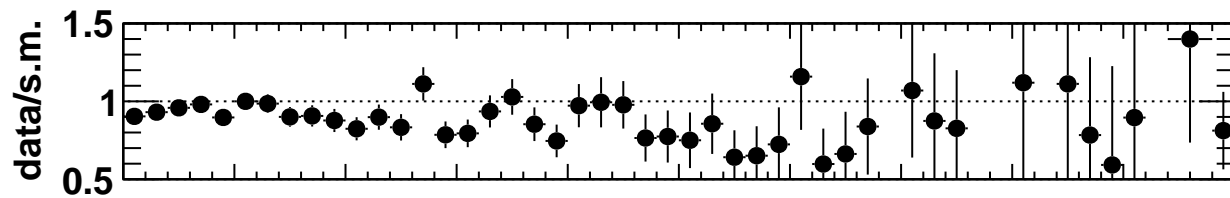
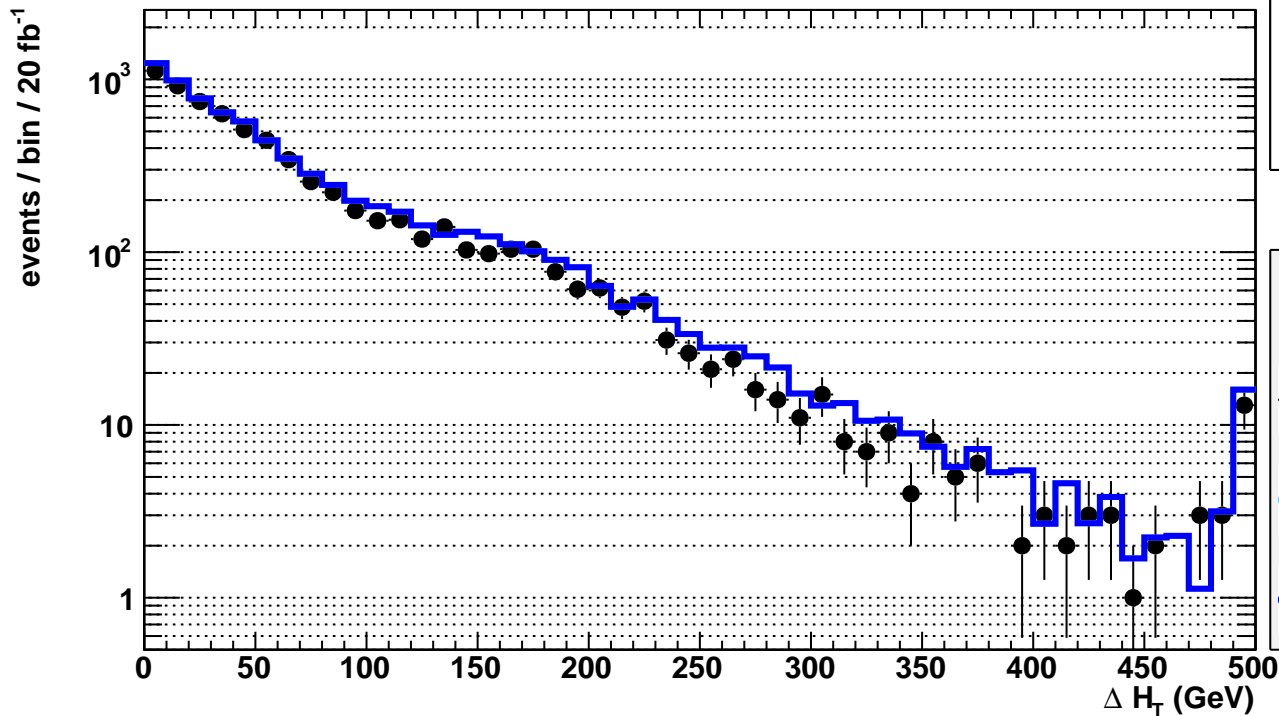
xcak5JetAlphaTZoomPat	
Entries	6881
Mean	0.59
RMS	0.01561
Underflow	0
Overflow	0
Integral	6881



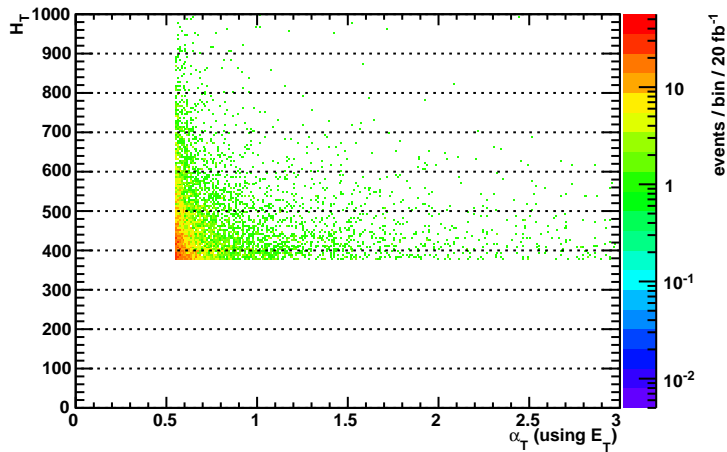


xcak5JetDeltaHTOverHTPat	
Entries	6881
Mean	0.1377
RMS	0.139
Underflow	0
Overflow	0
Integral	6881

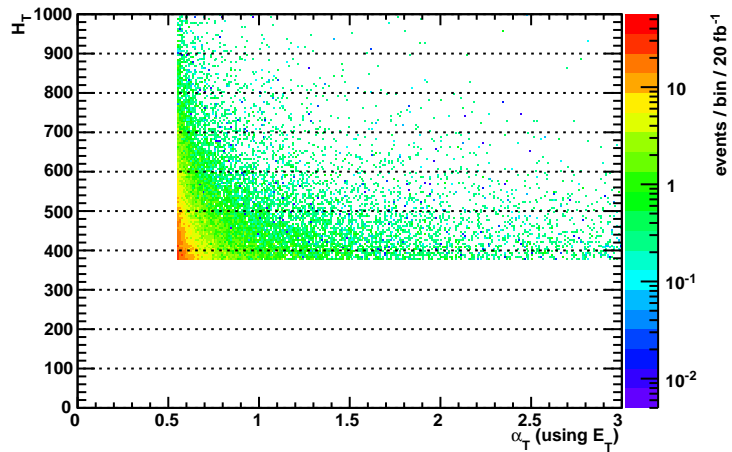




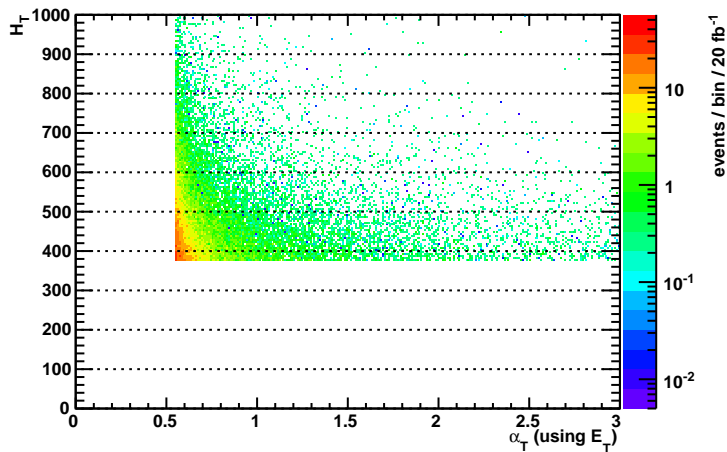
Data



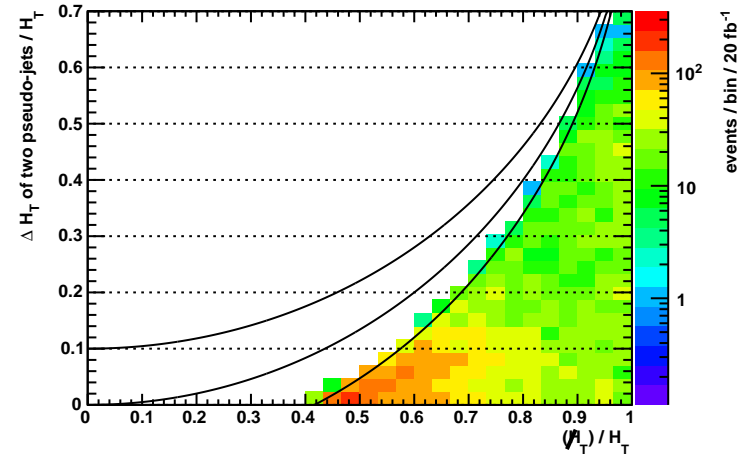
Standard Model



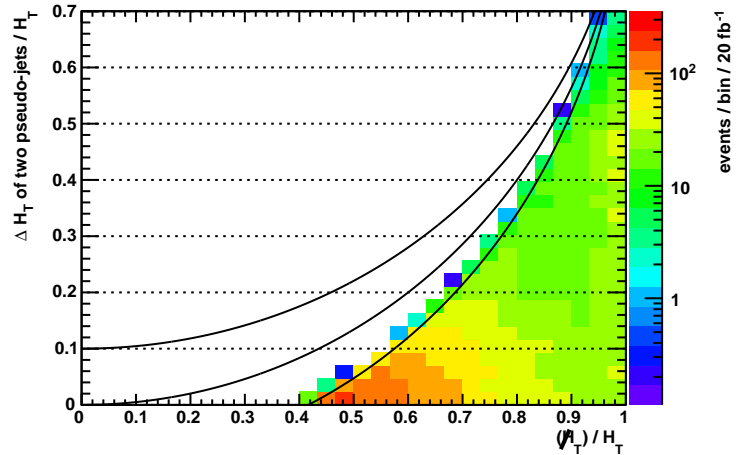
GJets



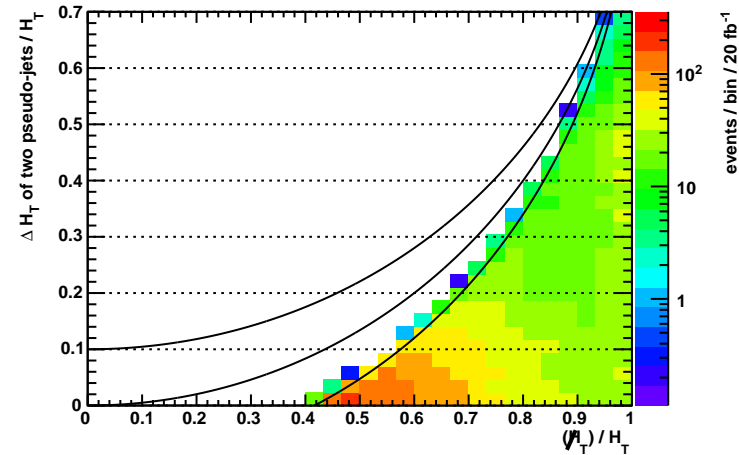
Data

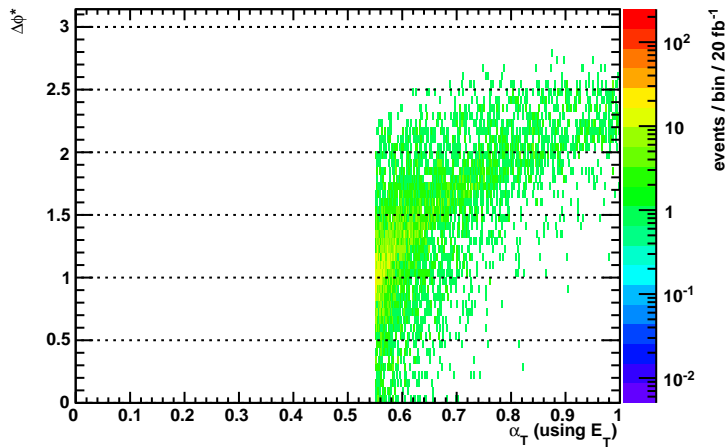
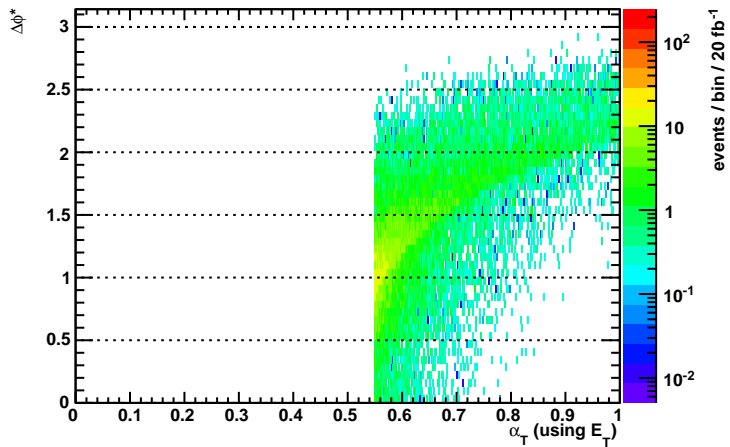
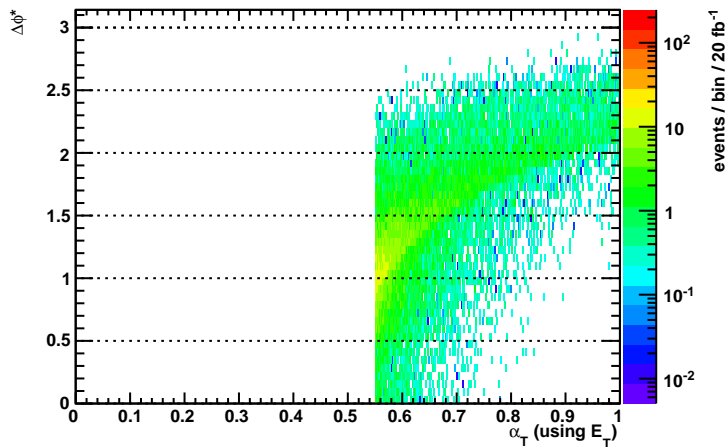


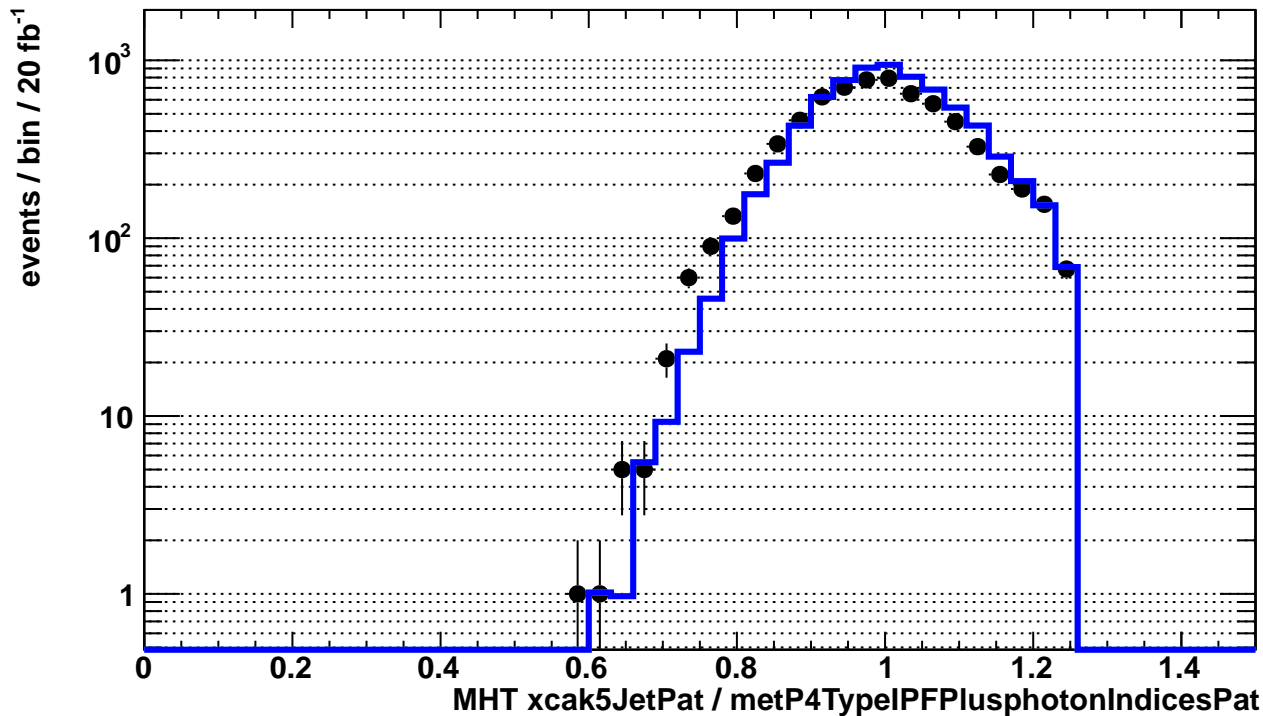
Standard Model



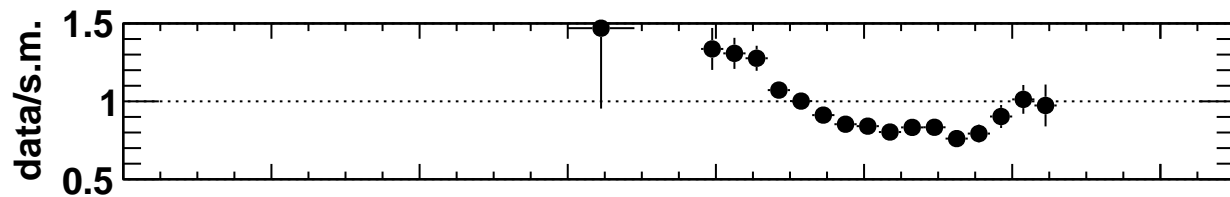
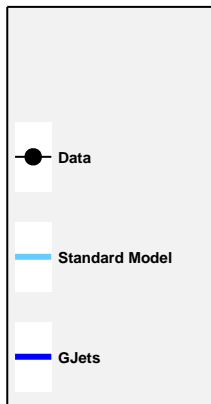
GJets



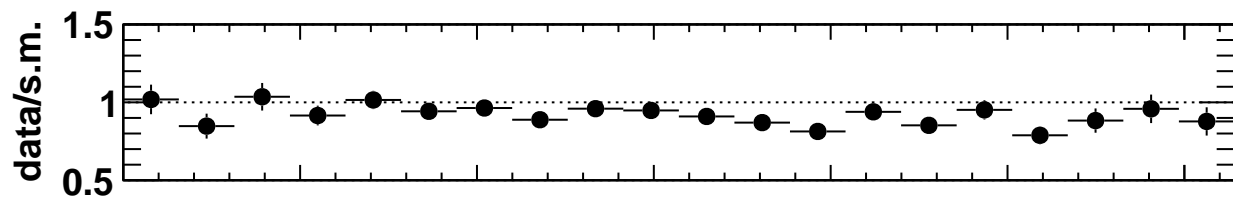
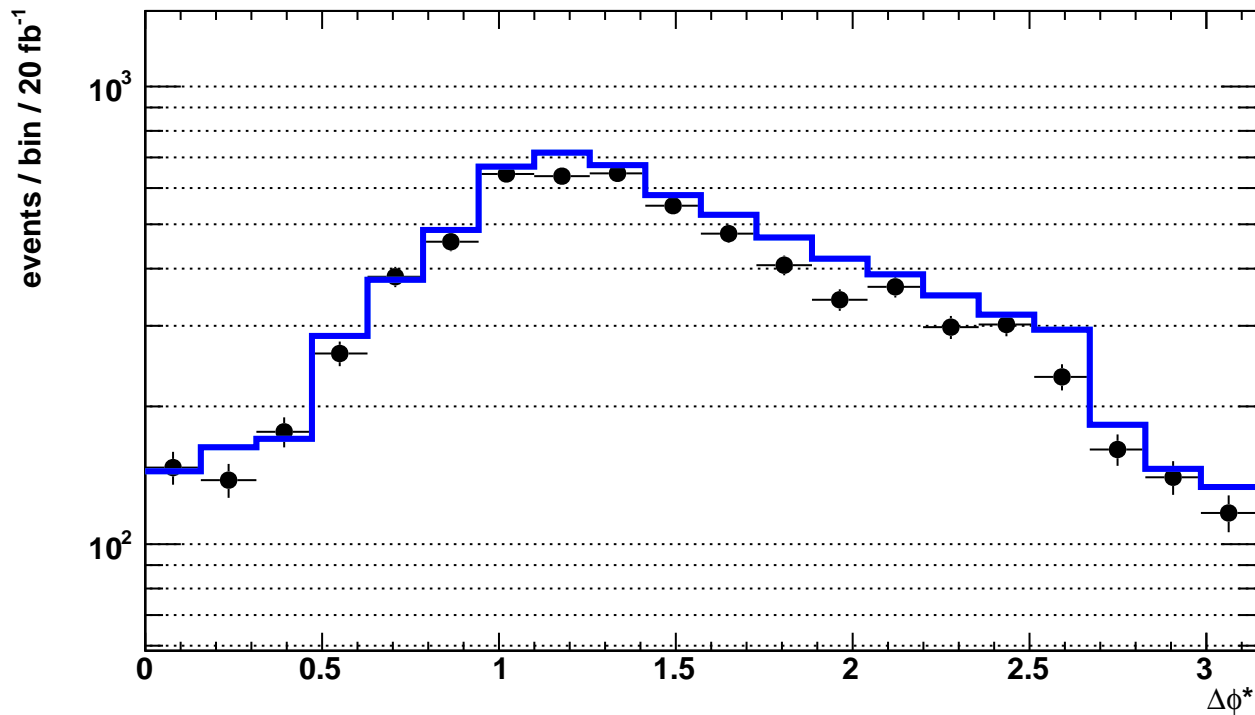
**Data****Standard Model****GJets**

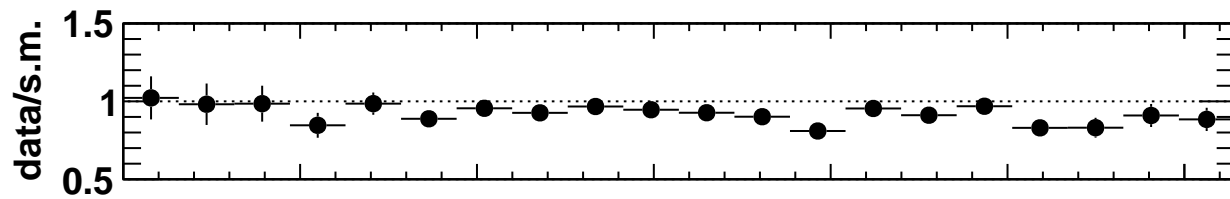
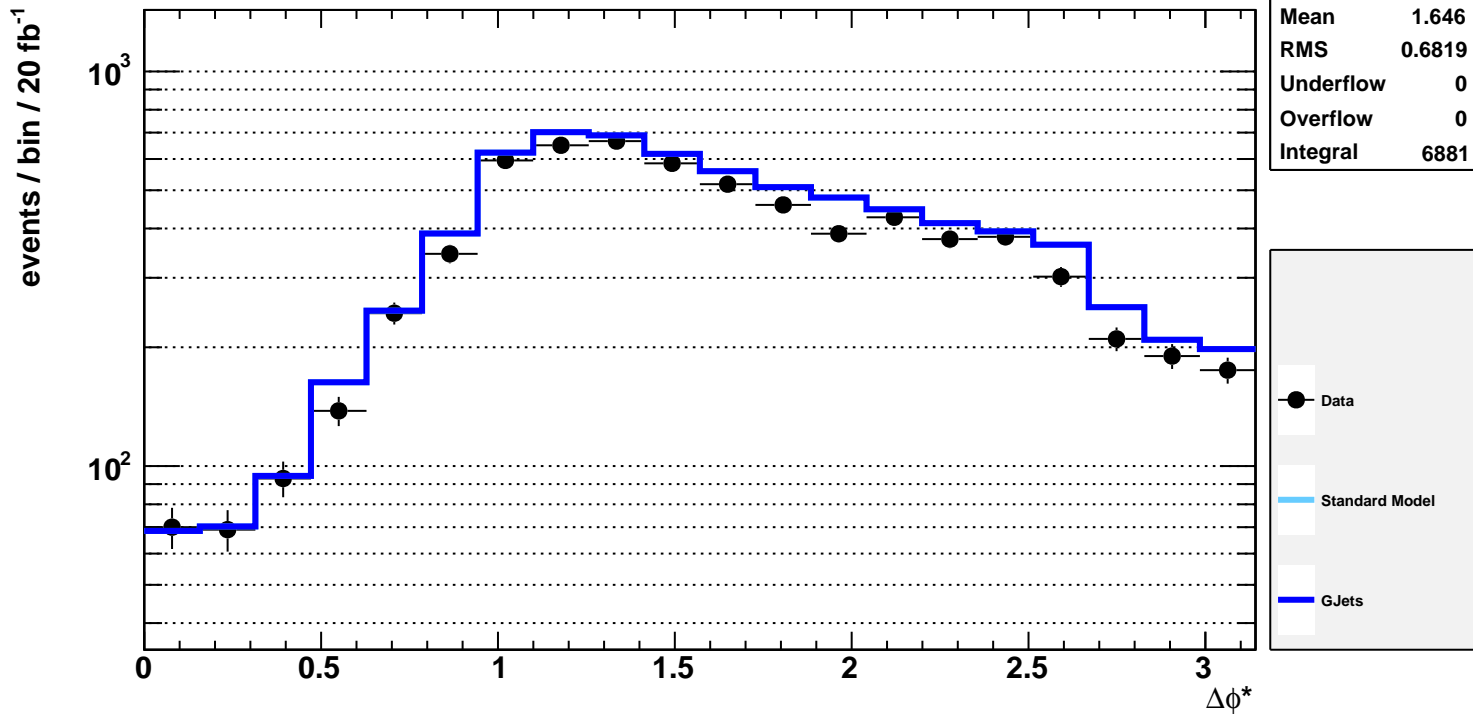


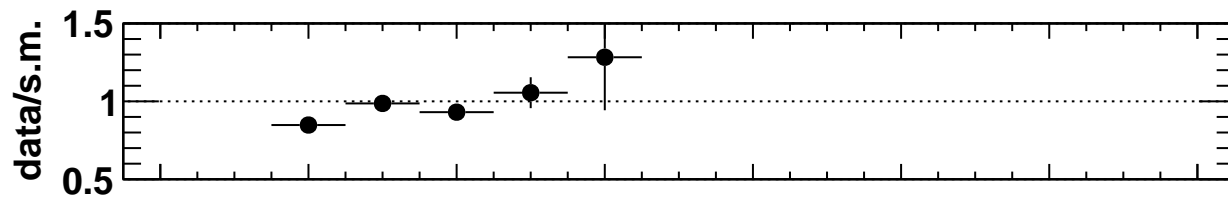
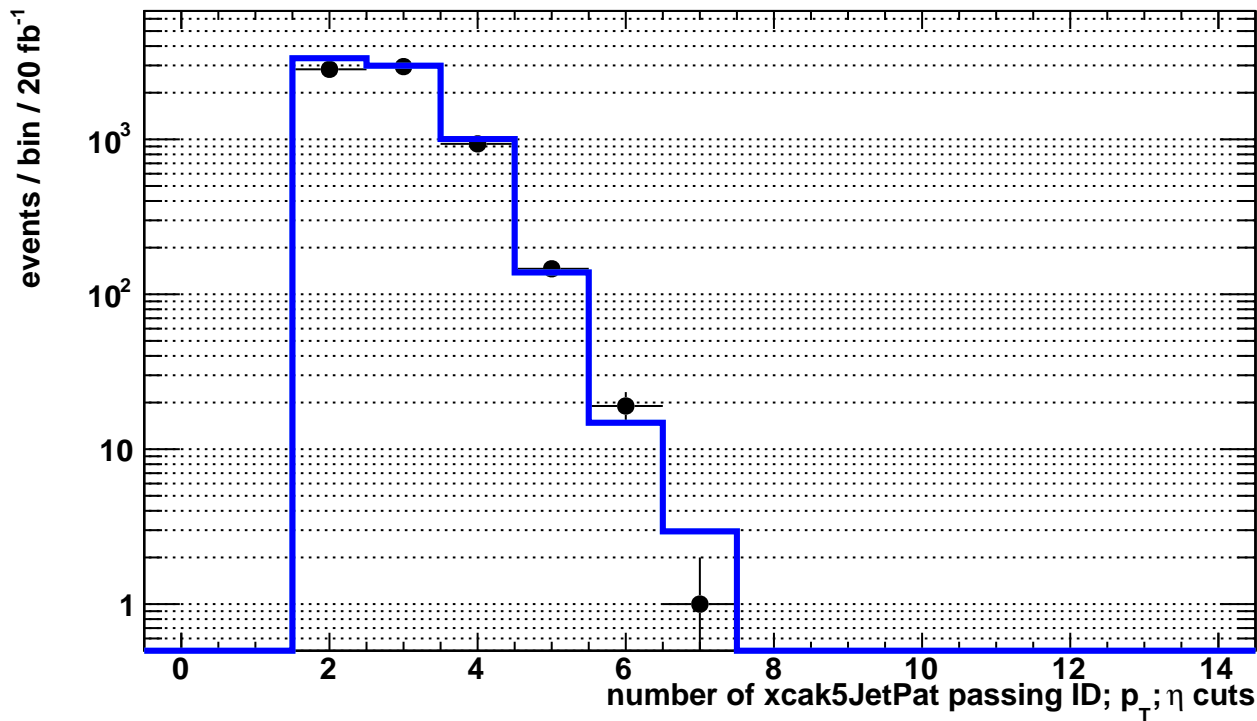
xcak5JetMhtHighP4PatOvermetP4TypePFPlusphotonIndicesPat	
Entries	6881
Mean	0.9911
RMS	0.1078
Underflow	0
Overflow	0
Integral	6881



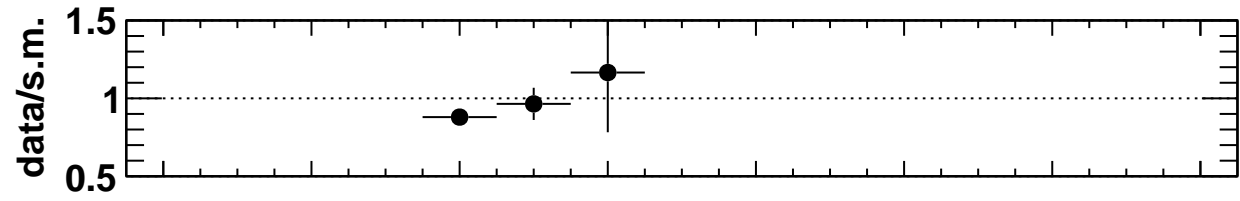
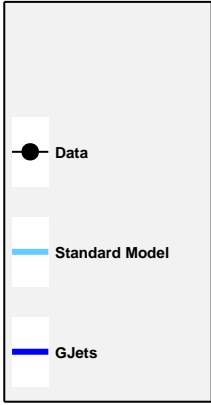
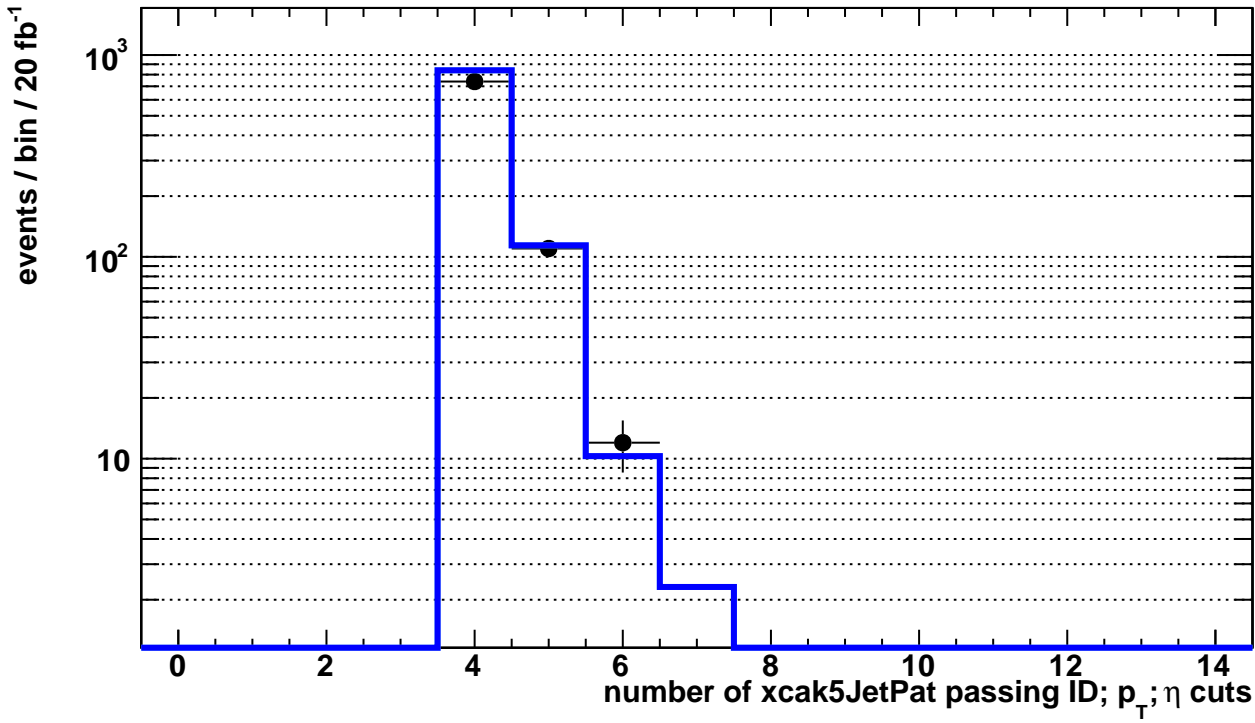


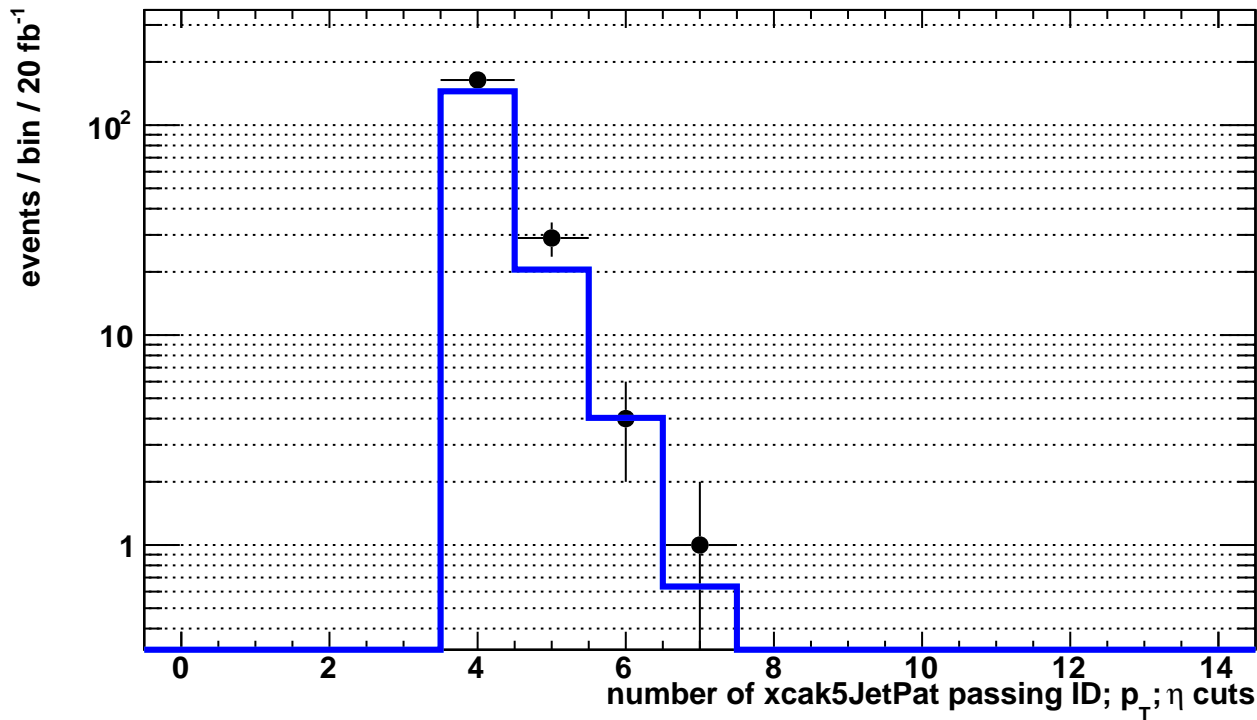






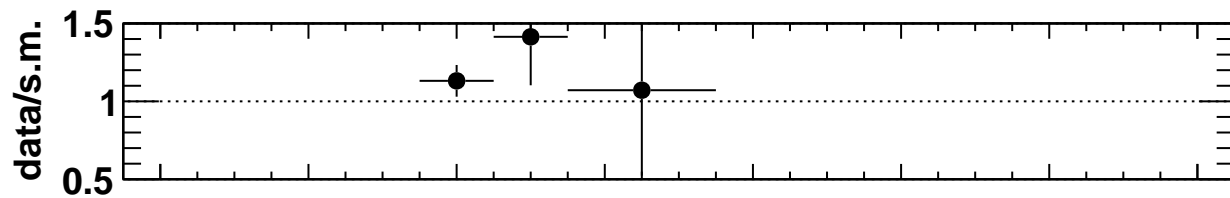
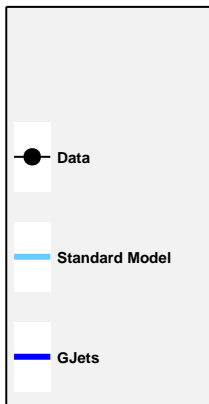
xcak5JetIndicesPat_ge4j_eq0b	
Entries	861
Mean	4.156
RMS	0.3991
Underflow	0
Overflow	0
Integral	861

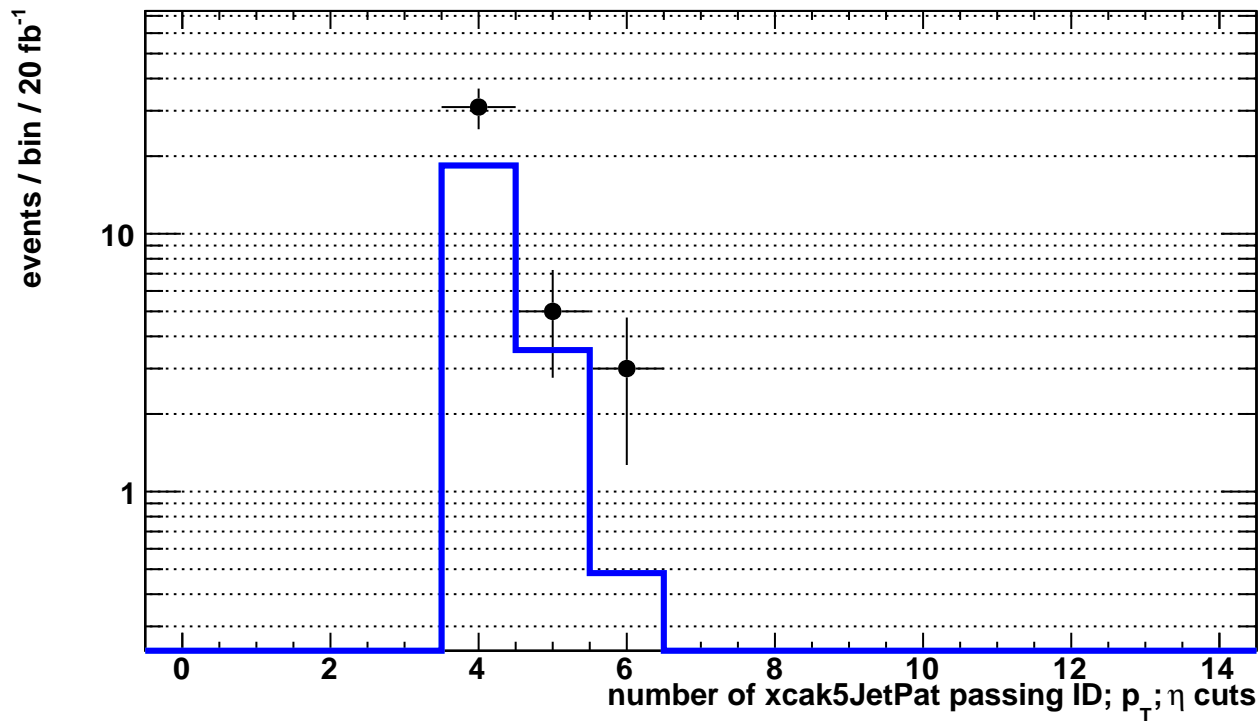




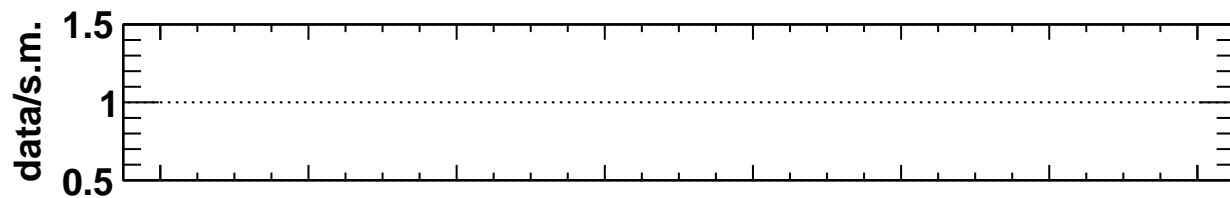
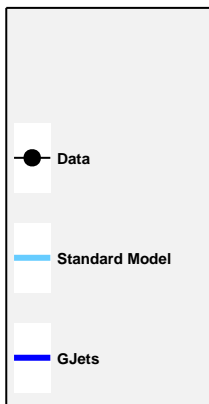
xcak5JetIndicesPat\_ge4j\_eq1b

Entries	198
Mean	4.202
RMS	0.4816
Underflow	0
Overflow	0
Integral	198

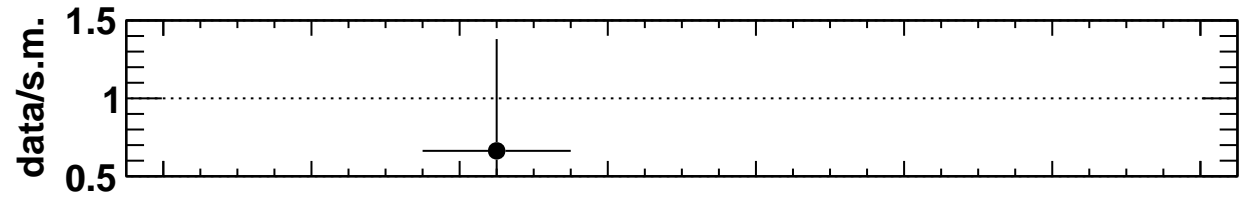
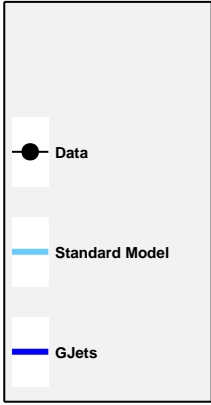
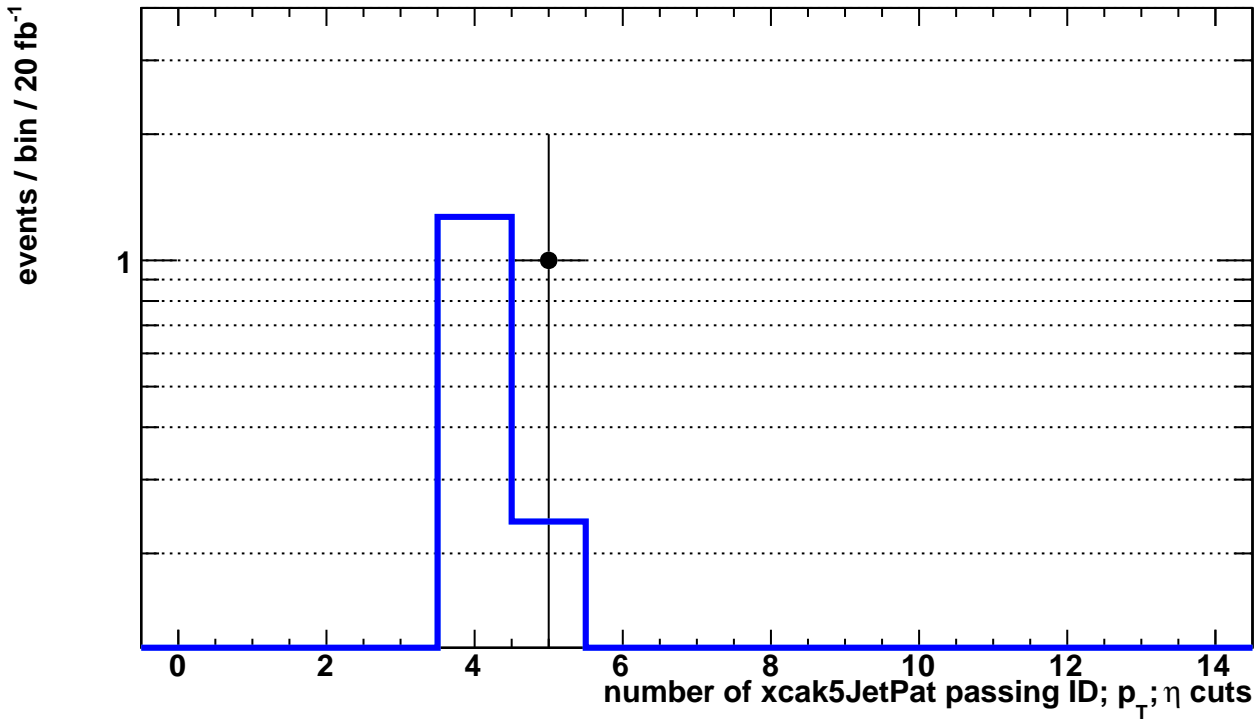




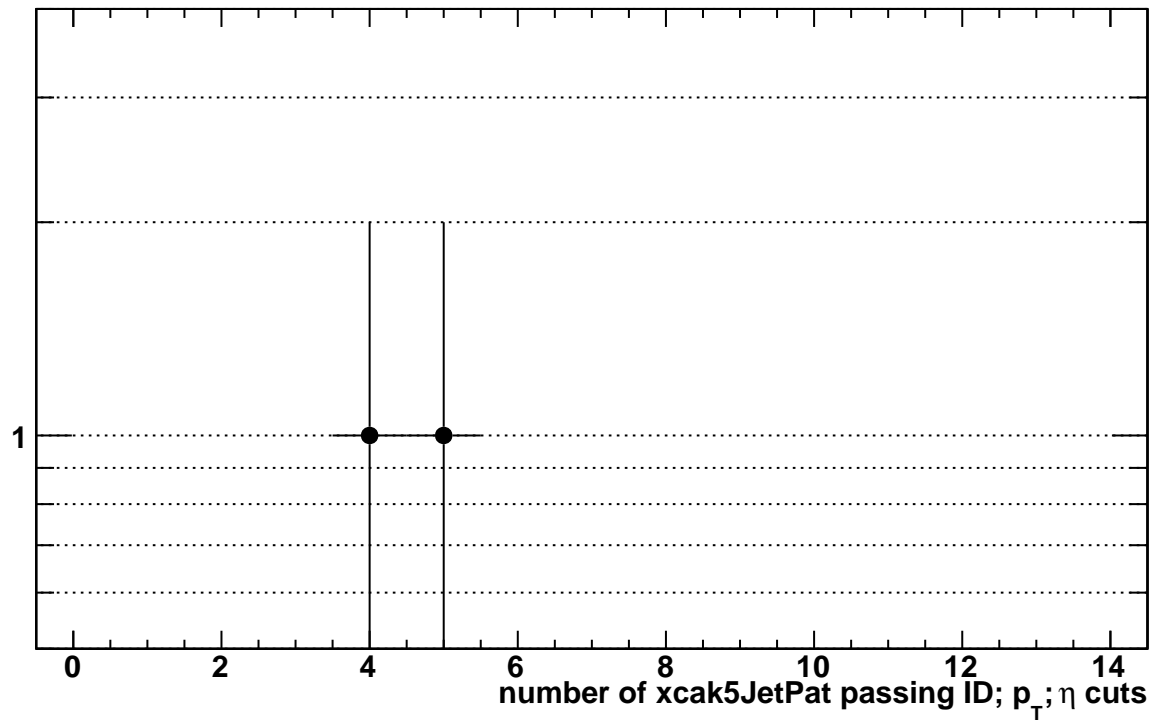
xcak5JetIndicesPat_ge4j_eq2b	
Entries	39
Mean	4.282
RMS	0.5969
Underflow	0
Overflow	0
Integral	39



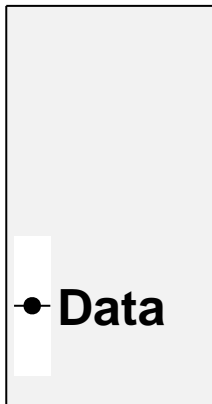
xcak5JetIndicesPat_ge4j_eq3b	
Entries	1
Mean	5
RMS	0
Underflow	0
Overflow	0
Integral	1



events / bin / 20 fb<sup>-1</sup>

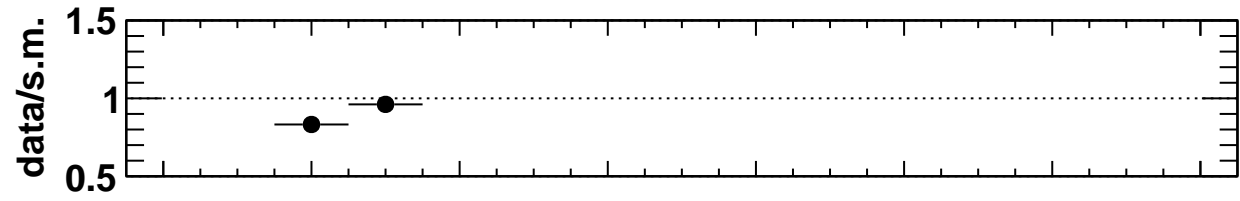
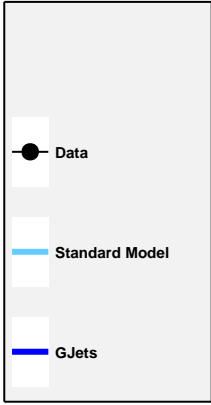
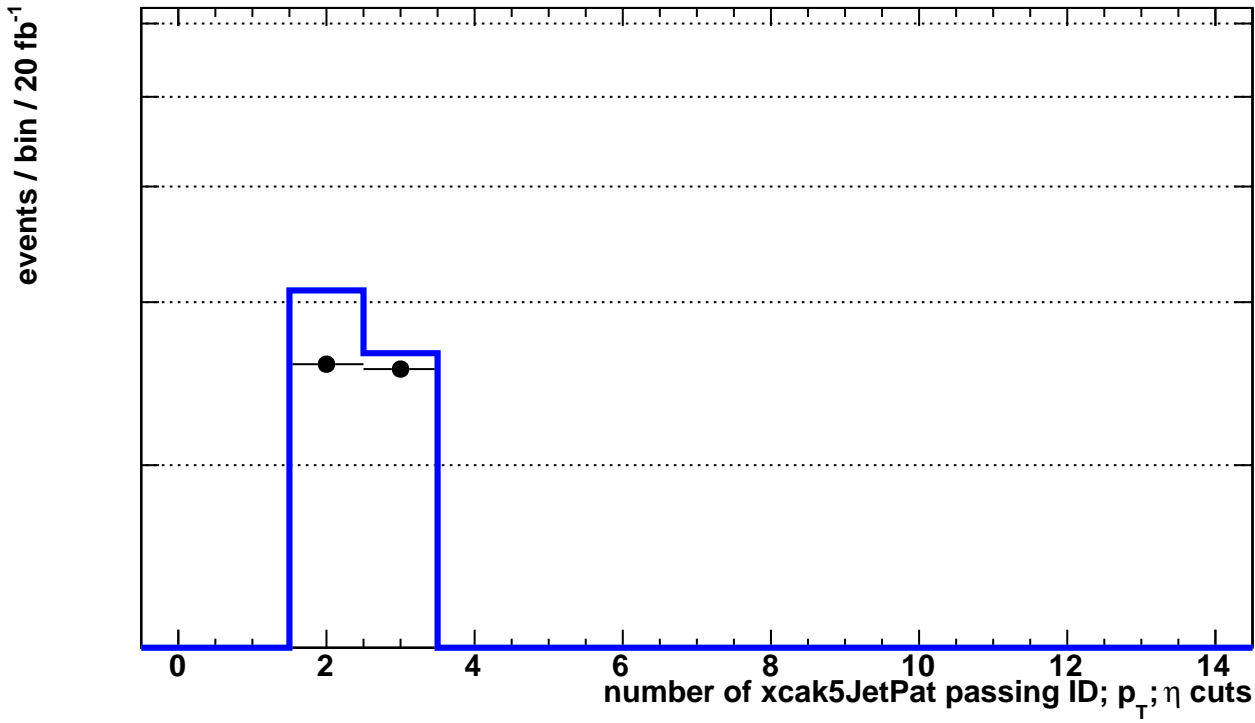


xcak5JetIndicesPat_ge4j_ge4b	
Entries	2
Mean	4.5
RMS	0.5
Underflow	0
Overflow	0
Integral	2

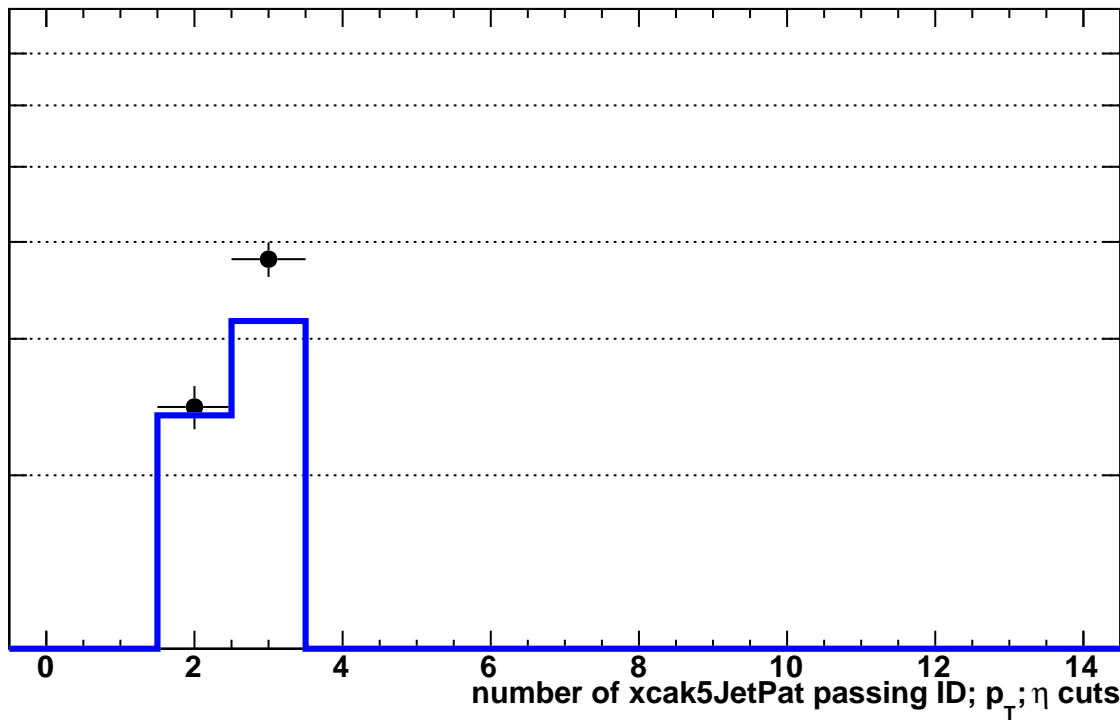




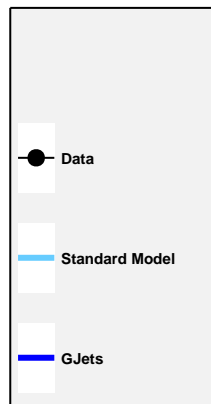
xcak5JetIndicesPat_le3l_eq0b	
Entries	5111
Mean	2.497
RMS	0.5
Underflow	0
Overflow	0
Integral	5111



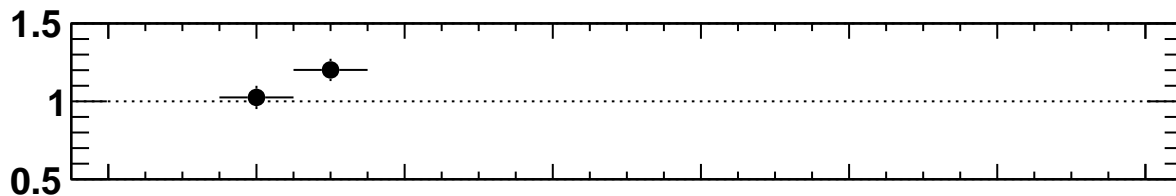
events / bin / 20 fb<sup>-1</sup>



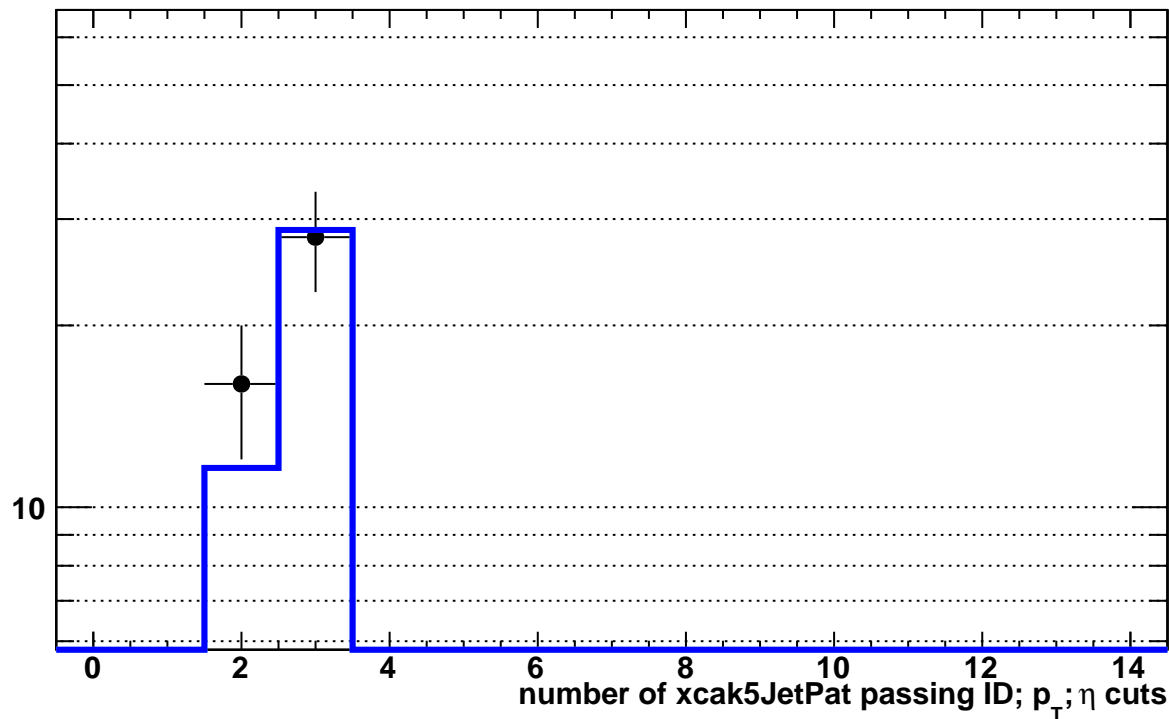
xcak5JetIndicesPat_le3j_eq1b	
Entries	625
Mean	2.608
RMS	0.4882
Underflow	0
Overflow	0
Integral	625



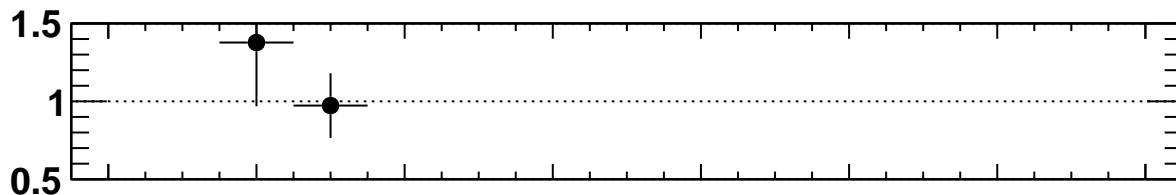
data/s.m.



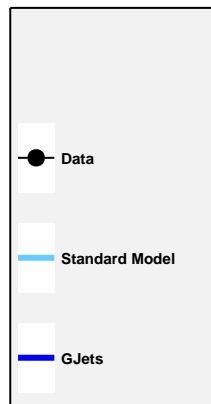
events / bin / 20 fb<sup>-1</sup>



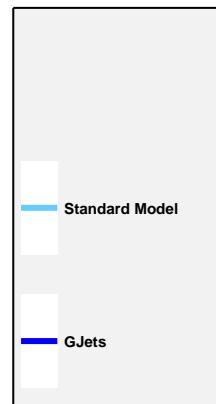
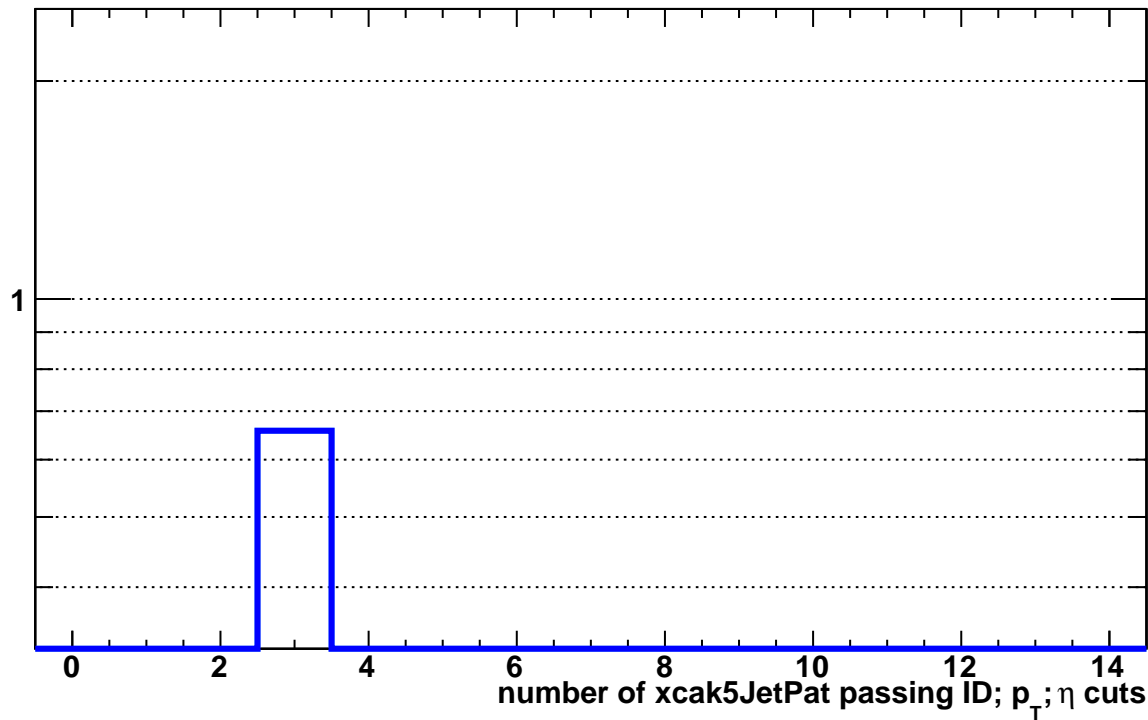
data/s.m.

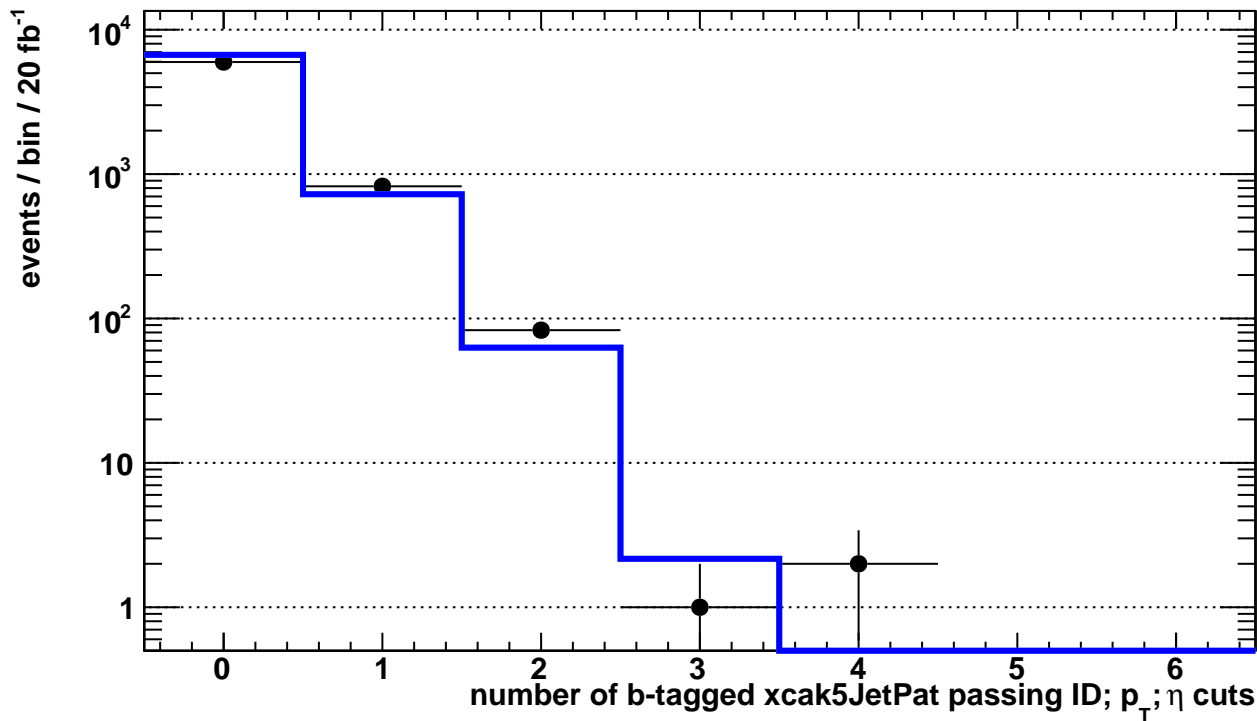


xcak5JetIndicesPat_le3l_eq2b	
Entries	44
Mean	2.636
RMS	0.481
Underflow	0
Overflow	0
Integral	44

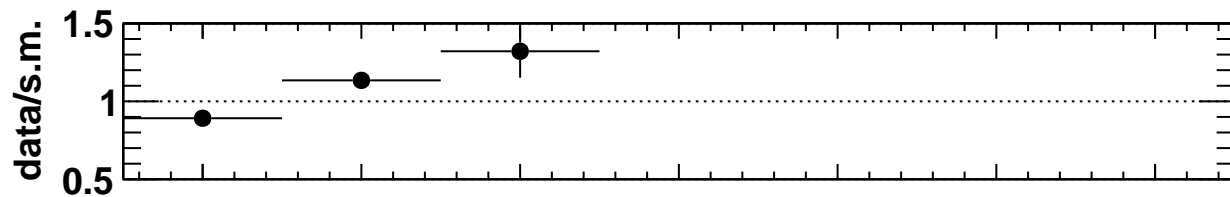
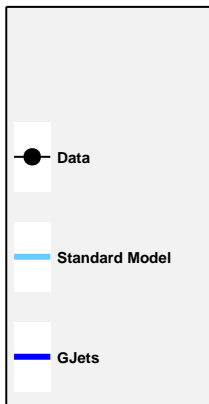


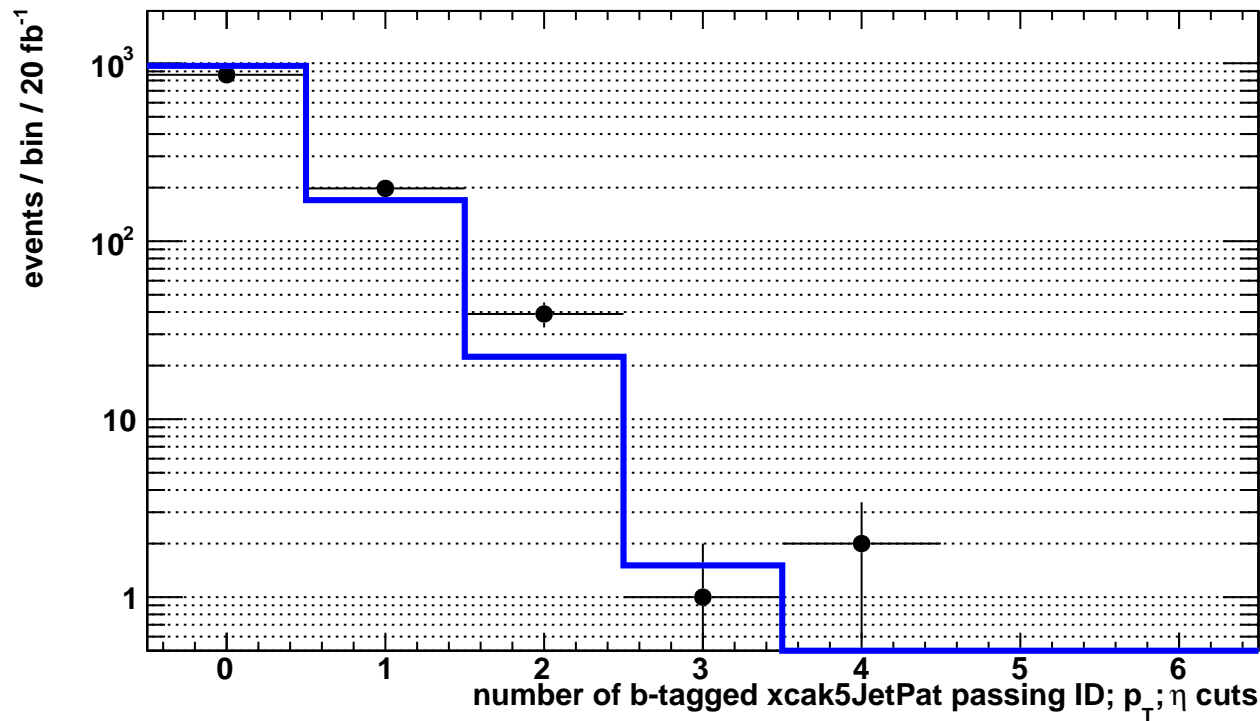
events / bin / 20 fb<sup>-1</sup>



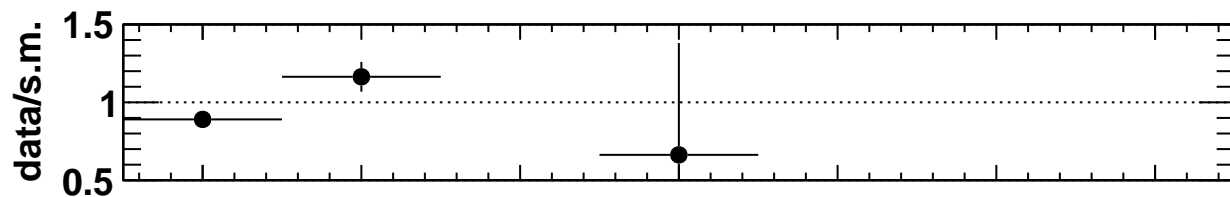
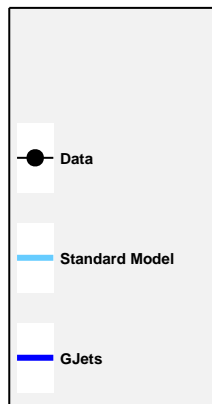


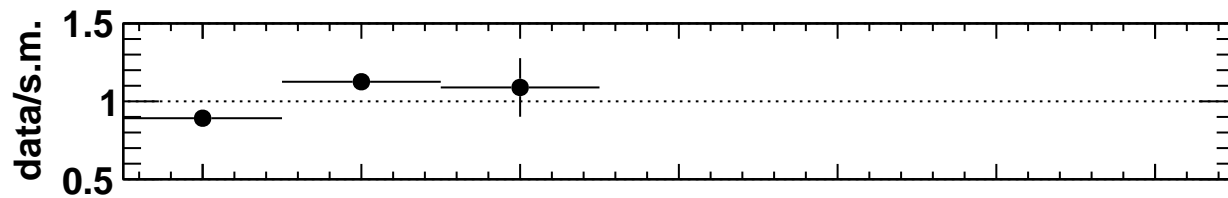
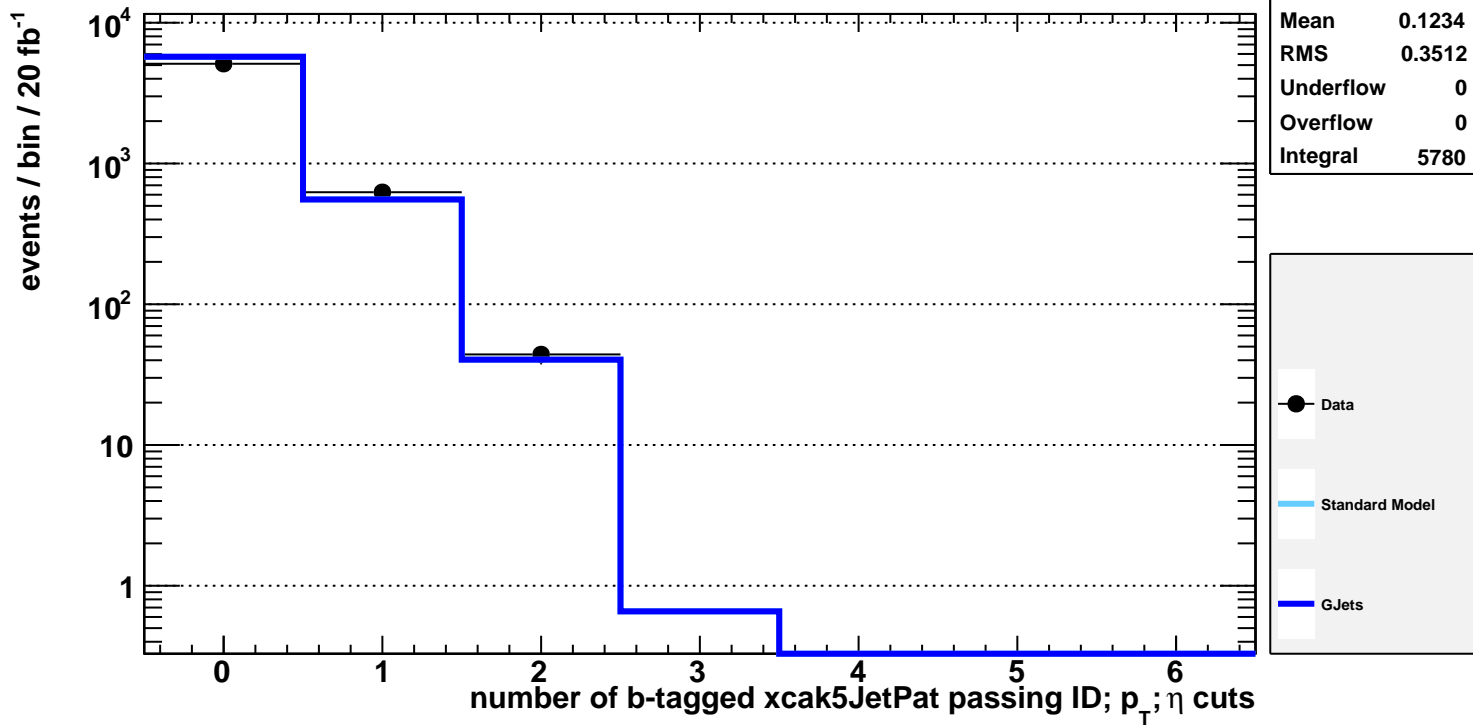
xcak5JetIndicesBtagged2Pat	
Entries	6881
Mean	0.1453
RMS	0.3908
Underflow	0
Overflow	0
Integral	6881



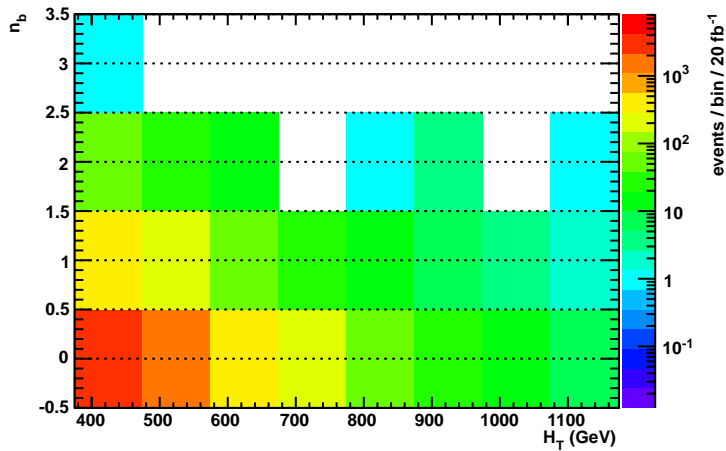


xcak5JetIndicesBtagged2Pat_ge4j	
Entries	1101
Mean	0.2607
RMS	0.5393
Underflow	0
Overflow	0
Integral	1101

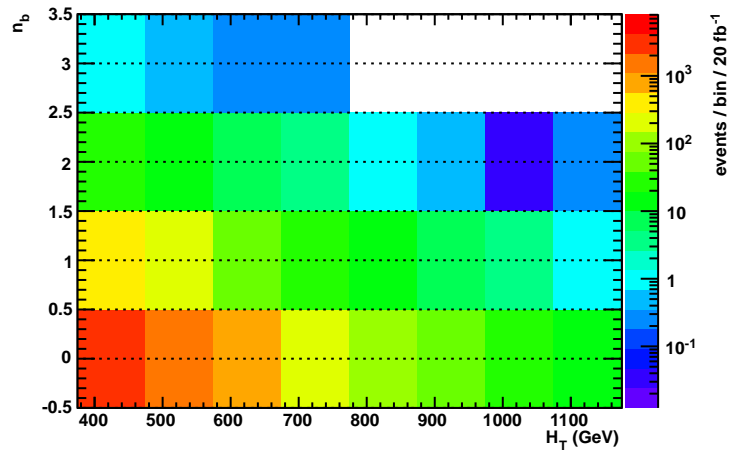




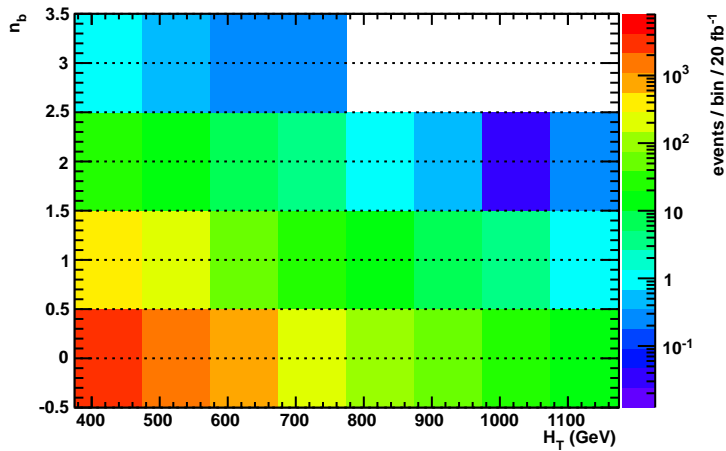
Data



Standard Model

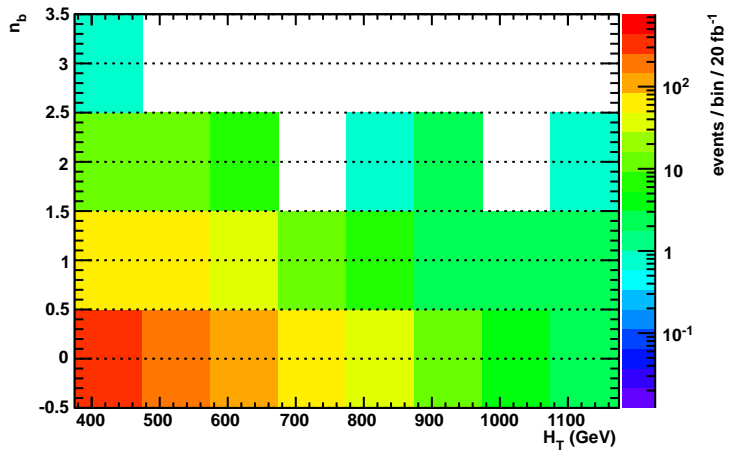


GJets

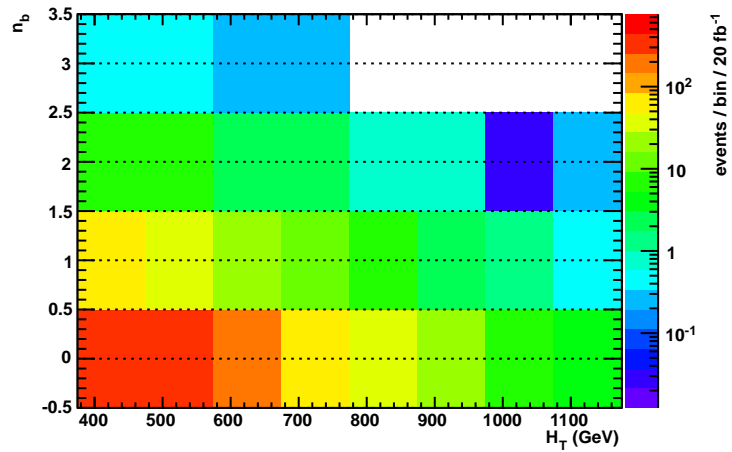




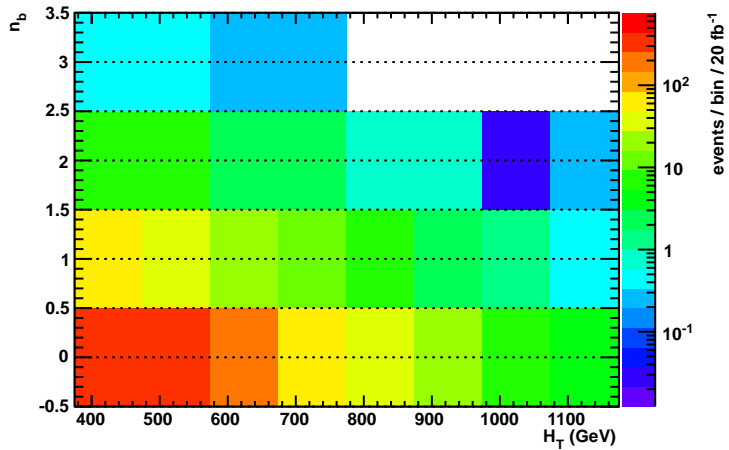
Data

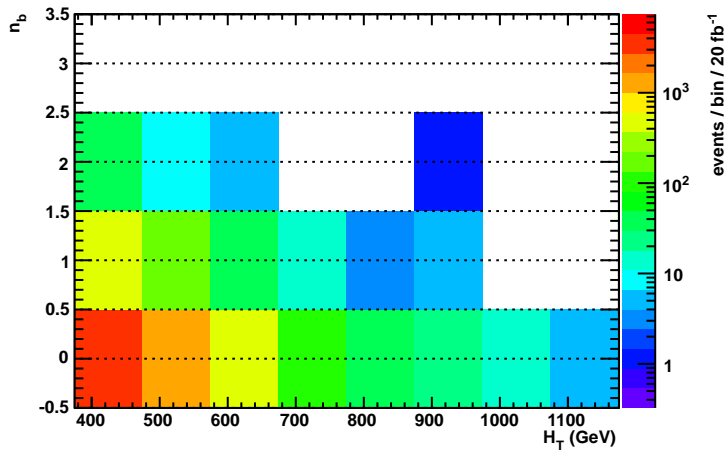
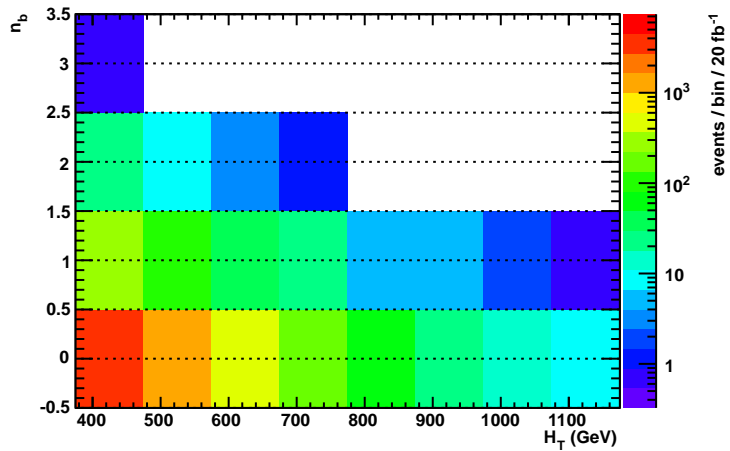
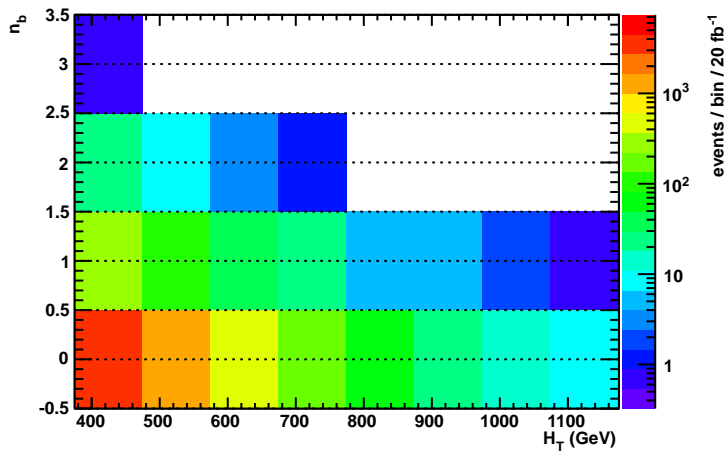


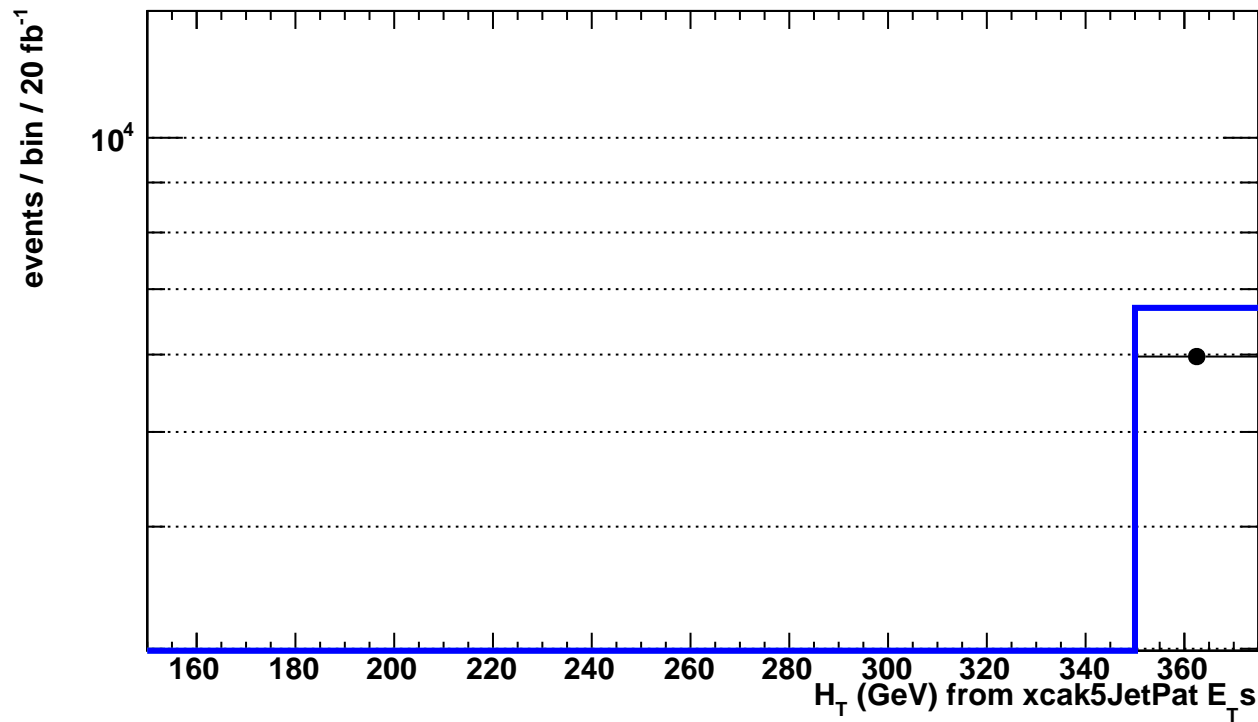
Standard Model



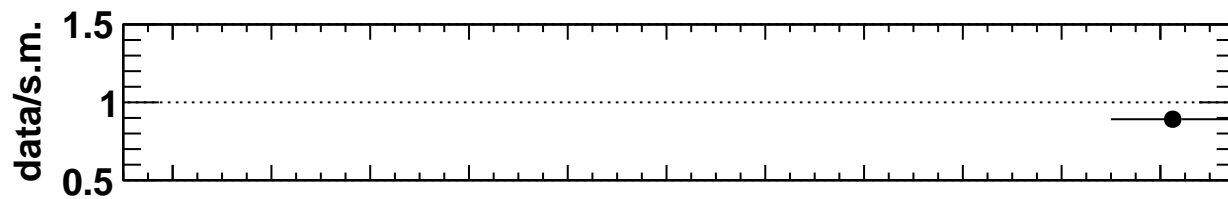
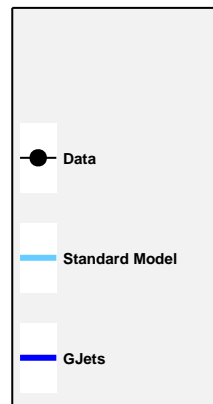
GJets

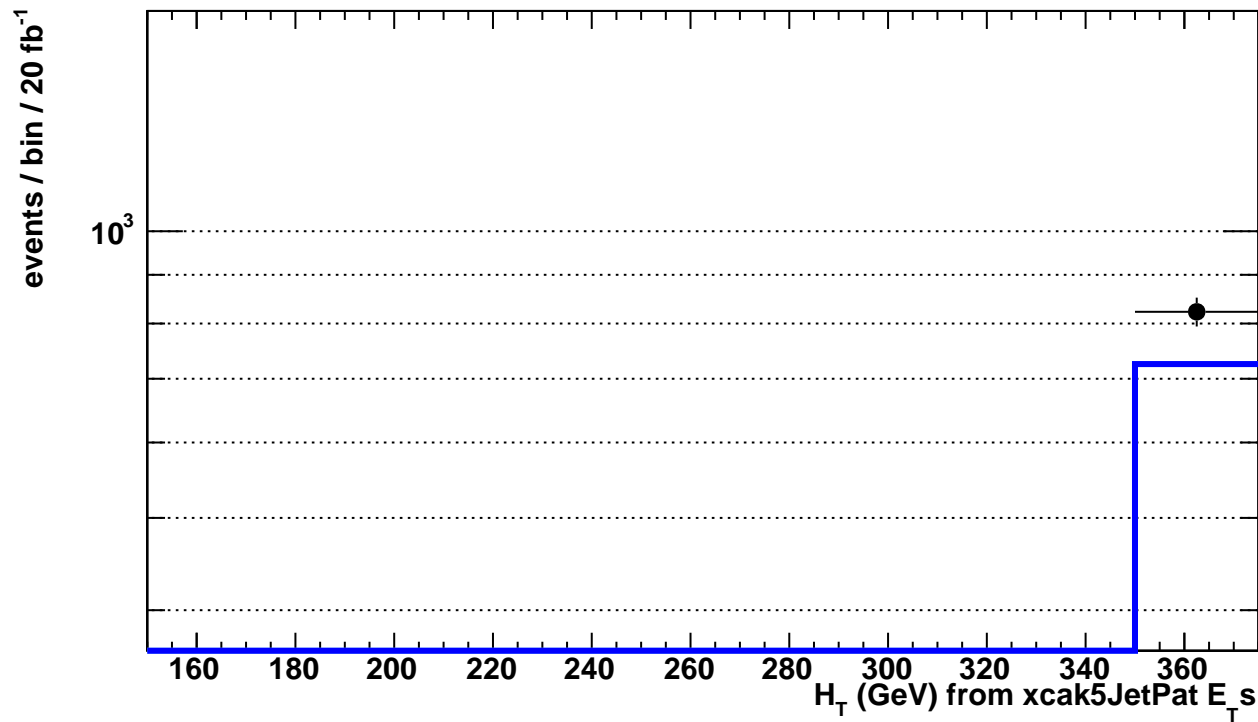


**Data****Standard Model****GJets**

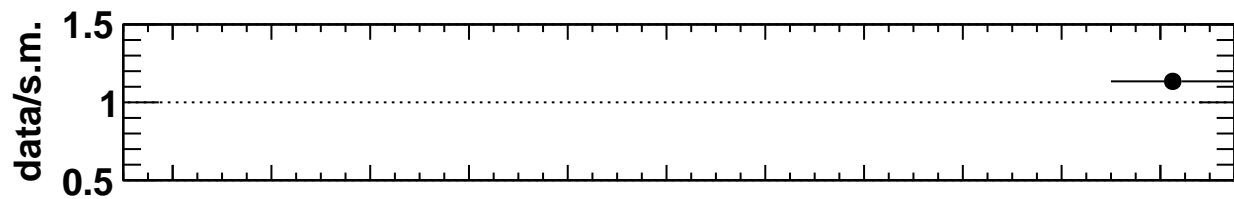
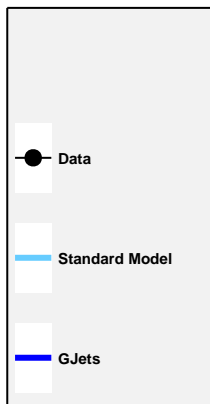


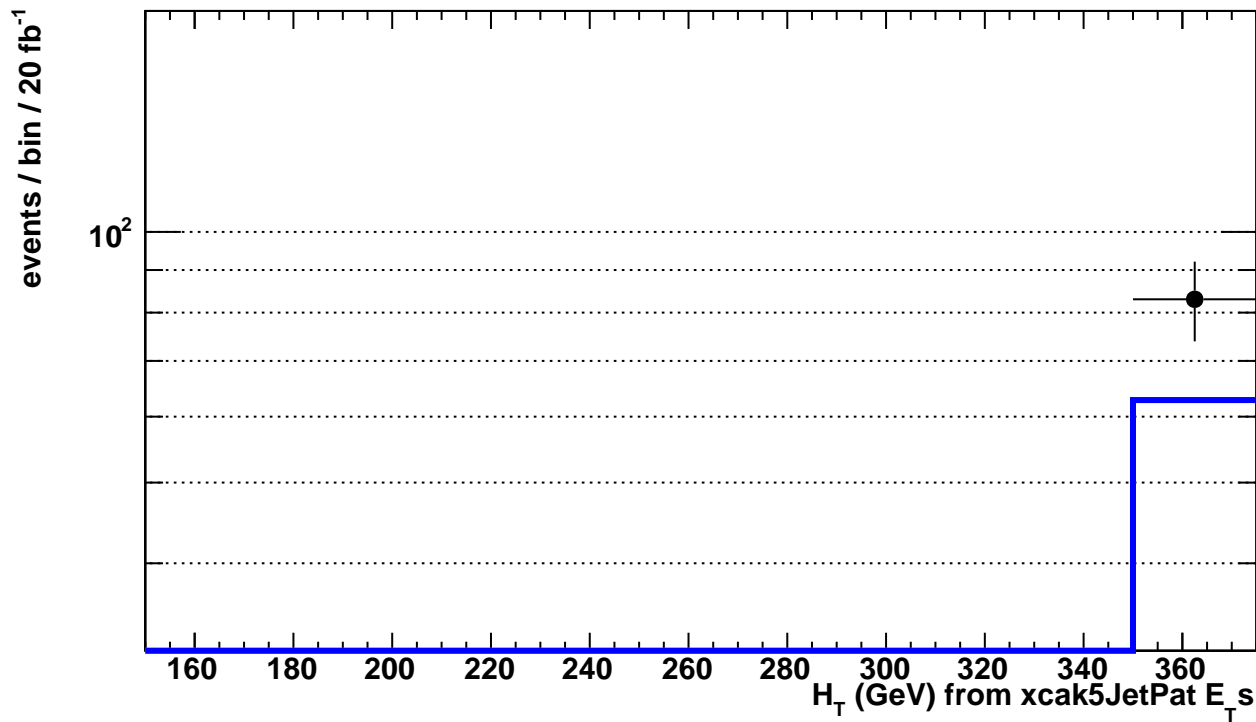
xcak5JetSumEtPat_eq0b	
Entries	5972
Mean	362.5
RMS	0
Underflow	0
Overflow	0
Integral	5972



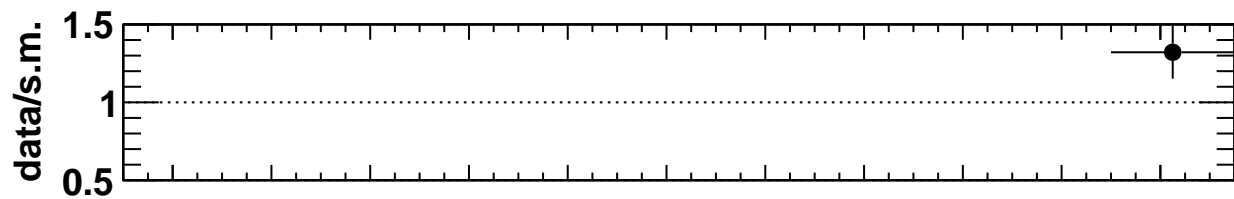
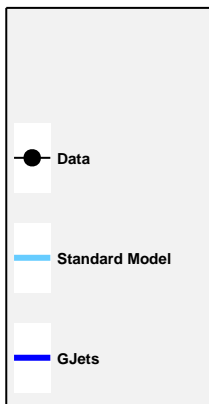


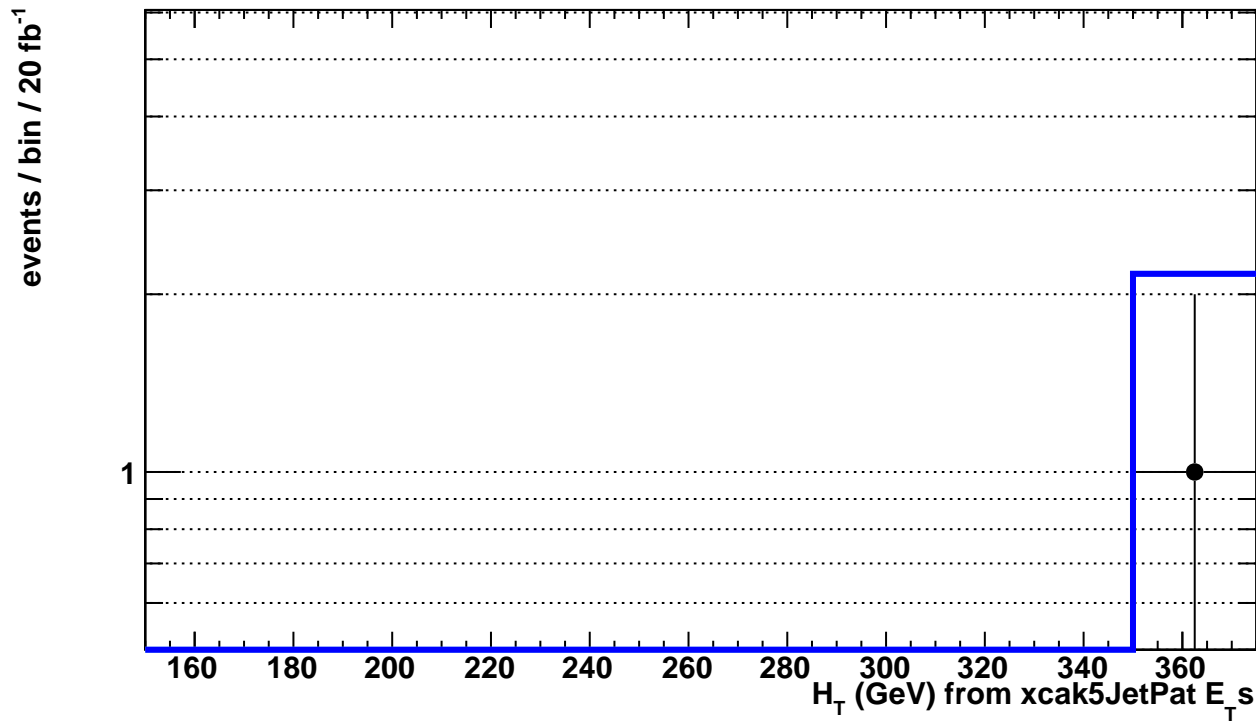
xcak5JetSumEtPat_eq1b	
Entries	823
Mean	362.5
RMS	0
Underflow	0
Overflow	0
Integral	823



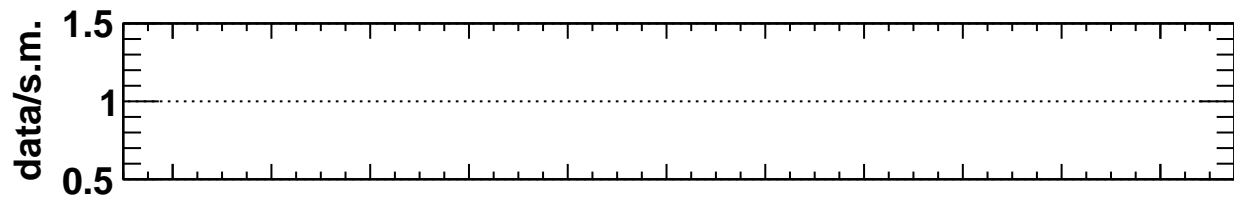
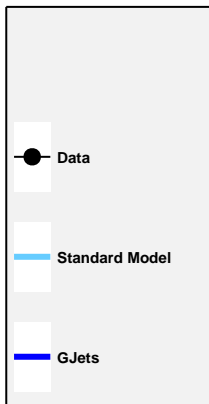


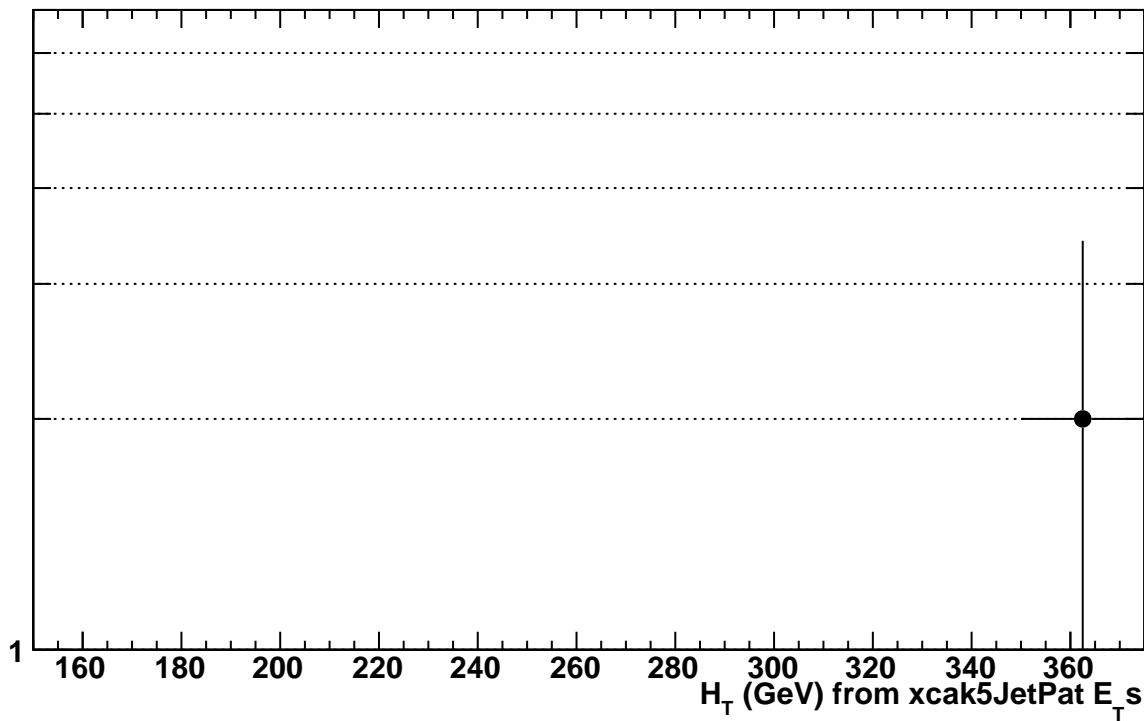
xcak5JetSumEtPat_eq2b	
Entries	83
Mean	362.5
RMS	0
Underflow	0
Overflow	0
Integral	83



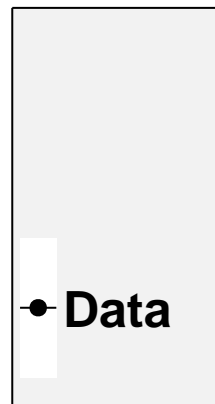


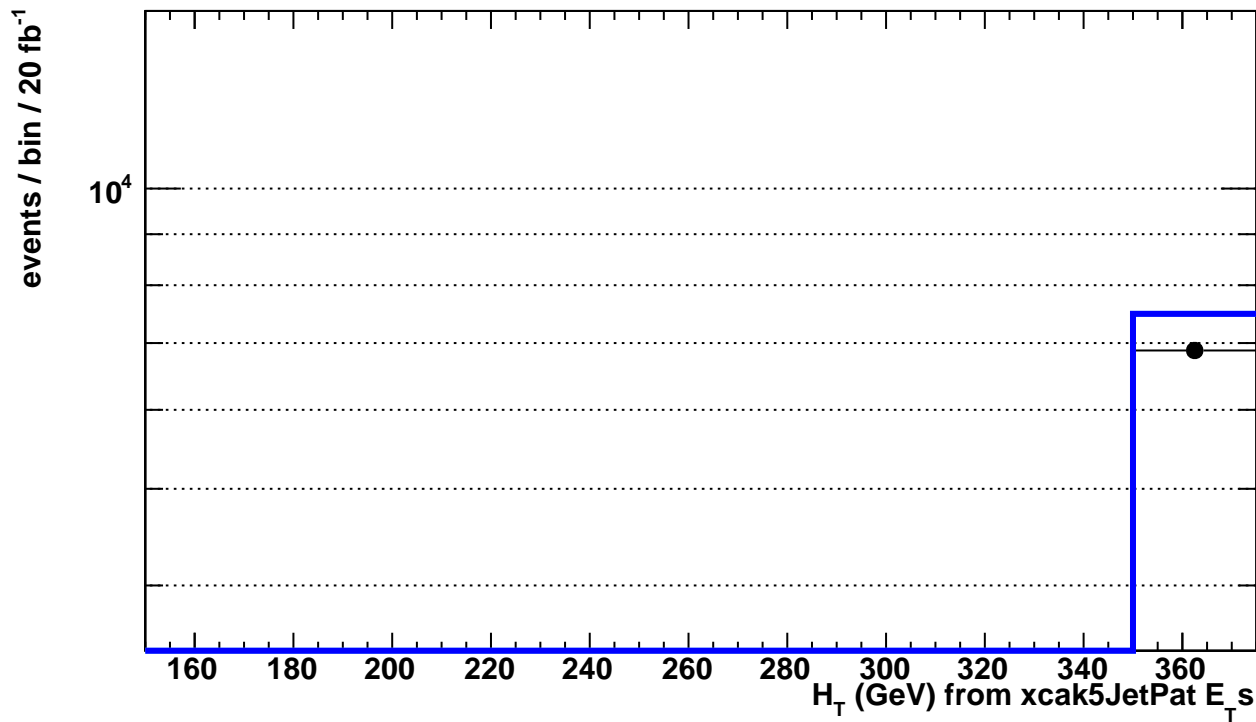
xcak5JetSumEtPat_eq3b	
Entries	1
Mean	362.5
RMS	0
Underflow	0
Overflow	0
Integral	1



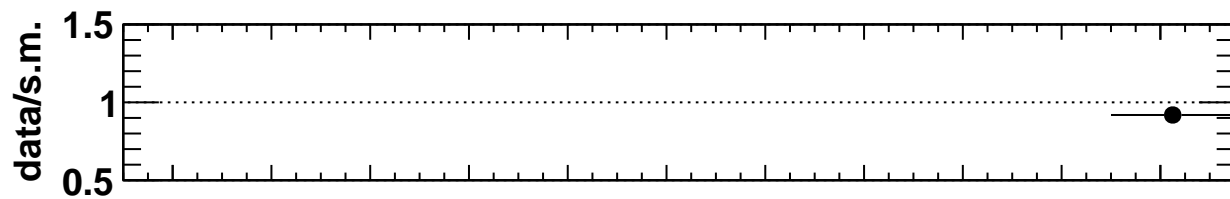
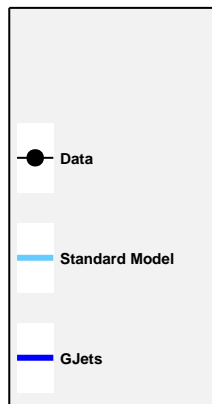


xcak5JetSumEtPat_ge4b	
Entries	2
Mean	362.5
RMS	0
Underflow	0
Overflow	0
Integral	2

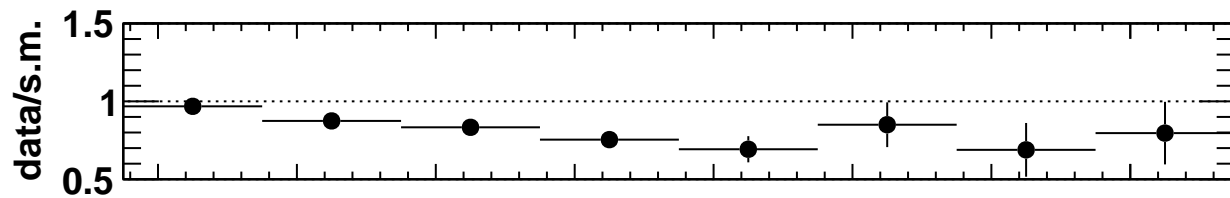
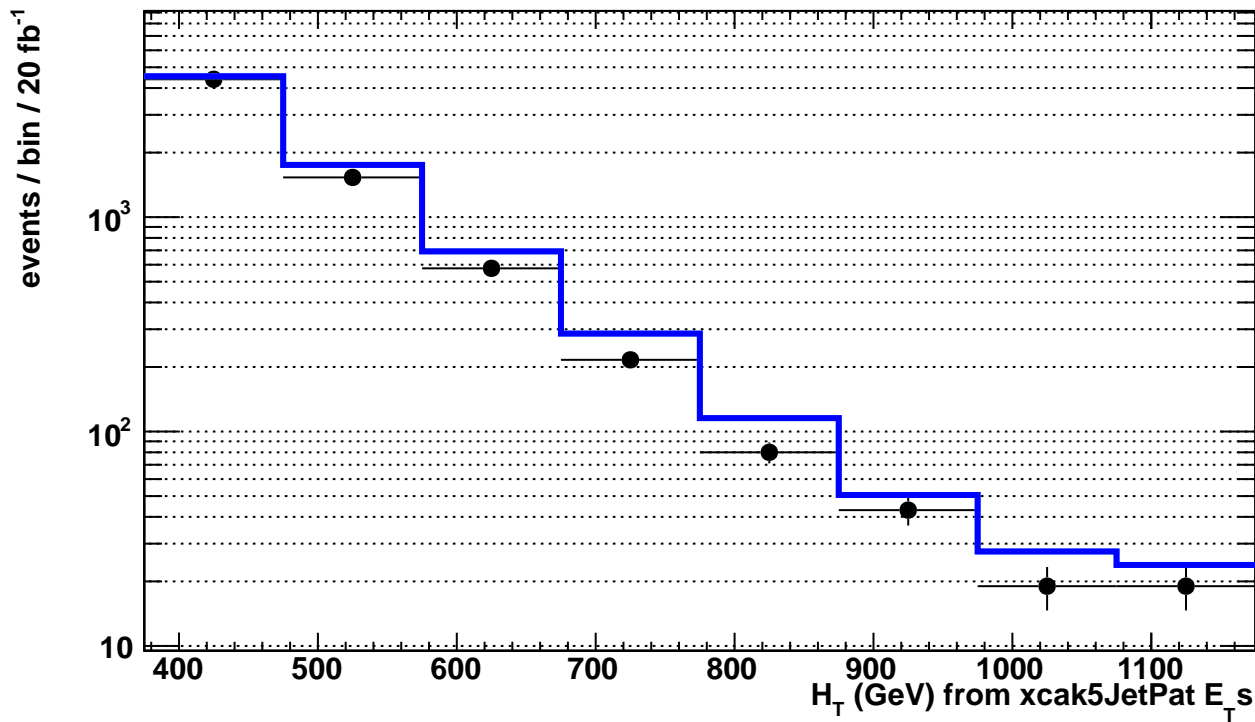




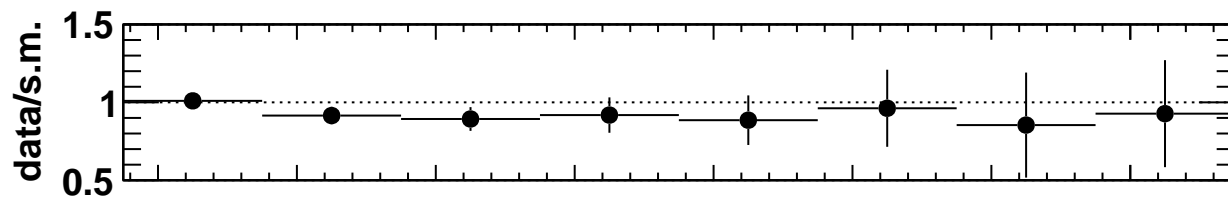
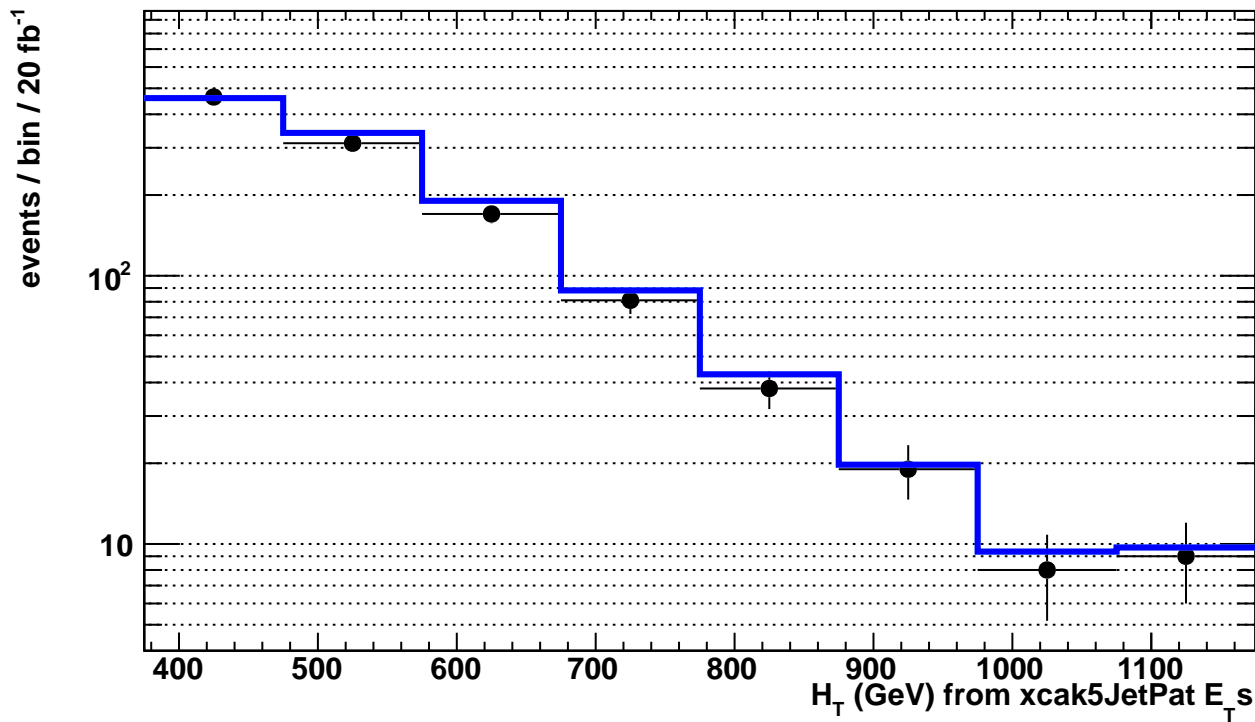
xcak5JetSumEtPat	
Entries	6881
Mean	362.5
RMS	0
Underflow	0
Overflow	0
Integral	6881



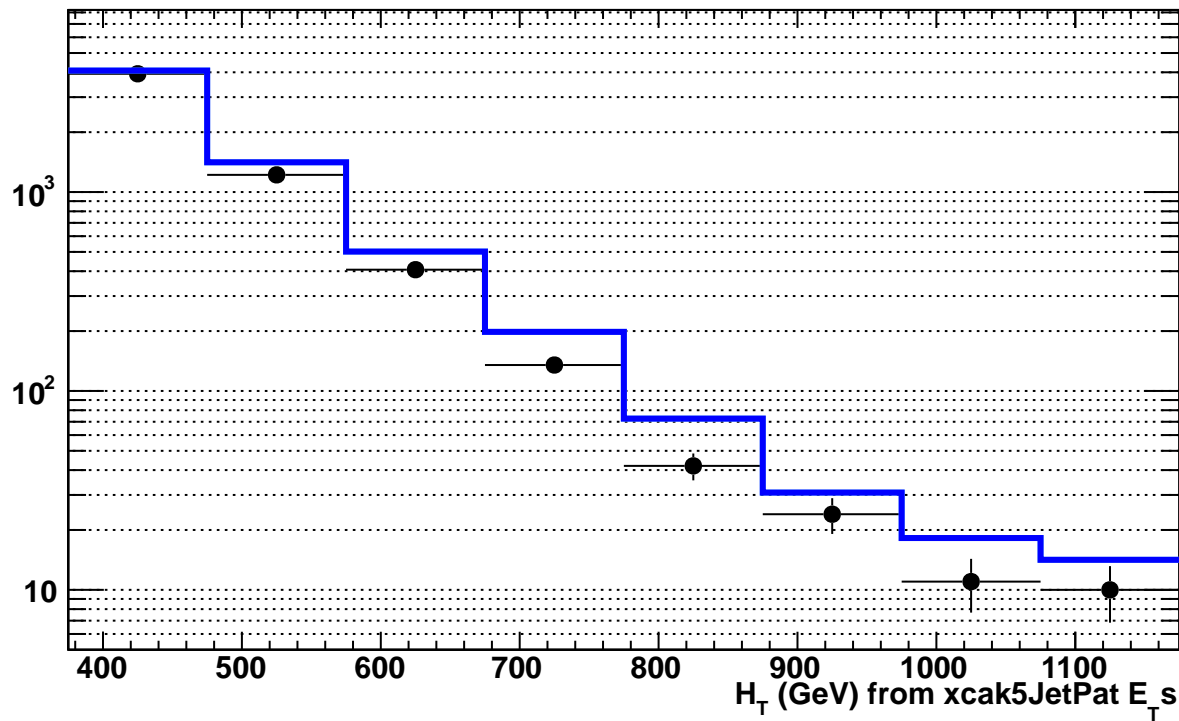




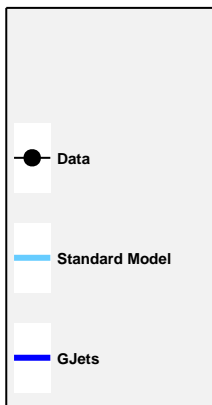
xcak5JetSumEtPat_ge4j_aTge55	
Entries	1101
Mean	538.8
RMS	138.3
Underflow	0
Overflow	0
Integral	1101



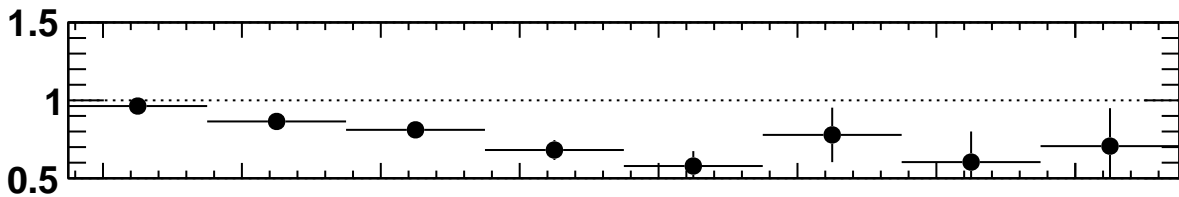
events / bin / 20 fb<sup>-1</sup>

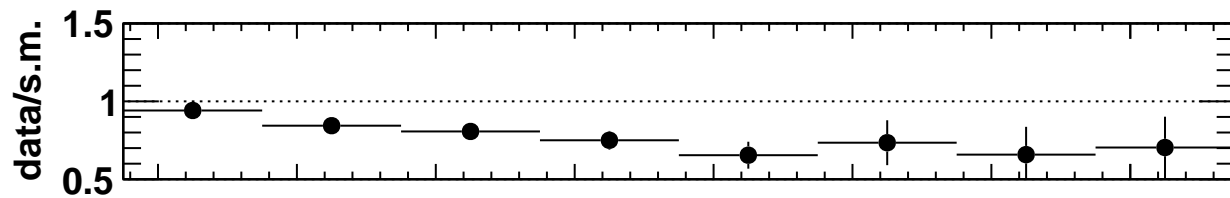
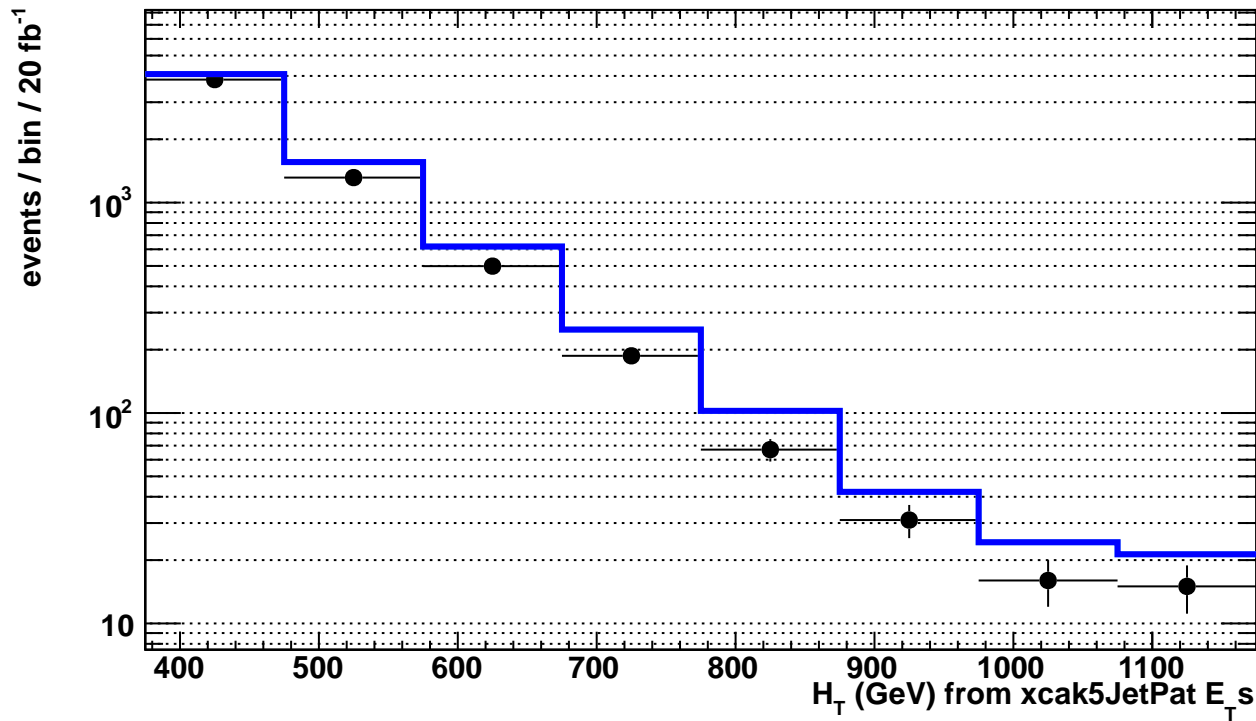


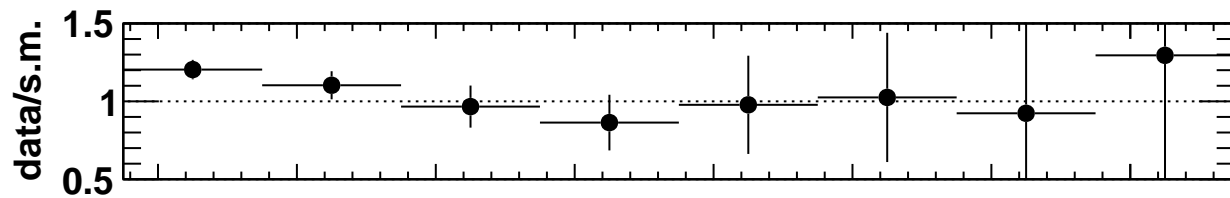
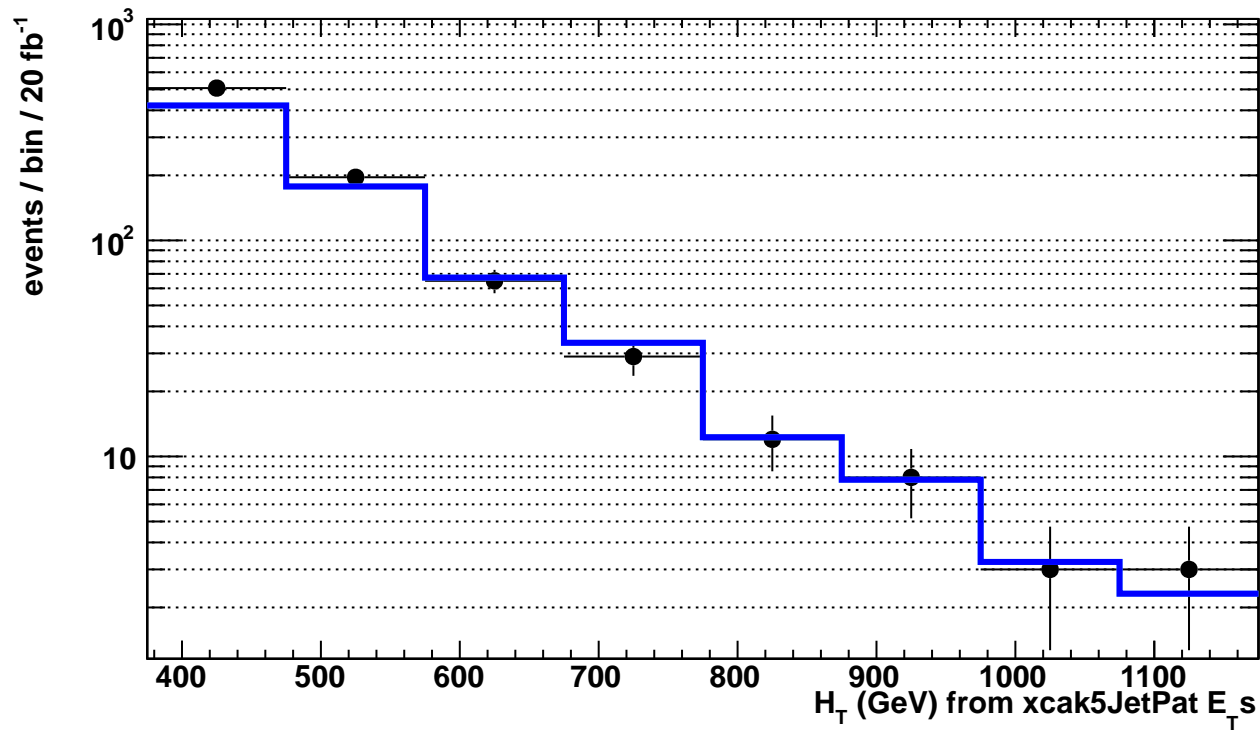
xcak5JetSumEtPat_le3j_aTge55	
Entries	5780
Mean	474.5
RMS	91.16
Underflow	0
Overflow	0
Integral	5780

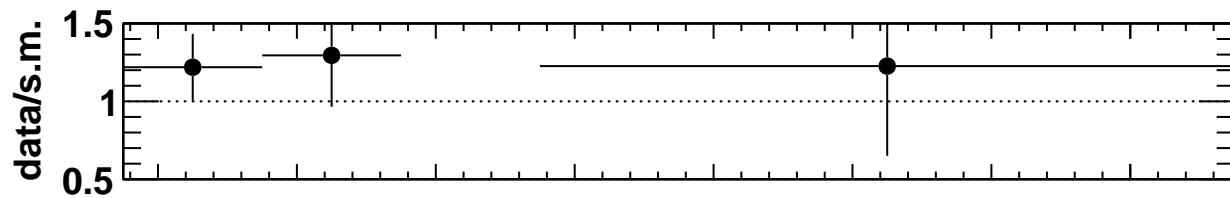
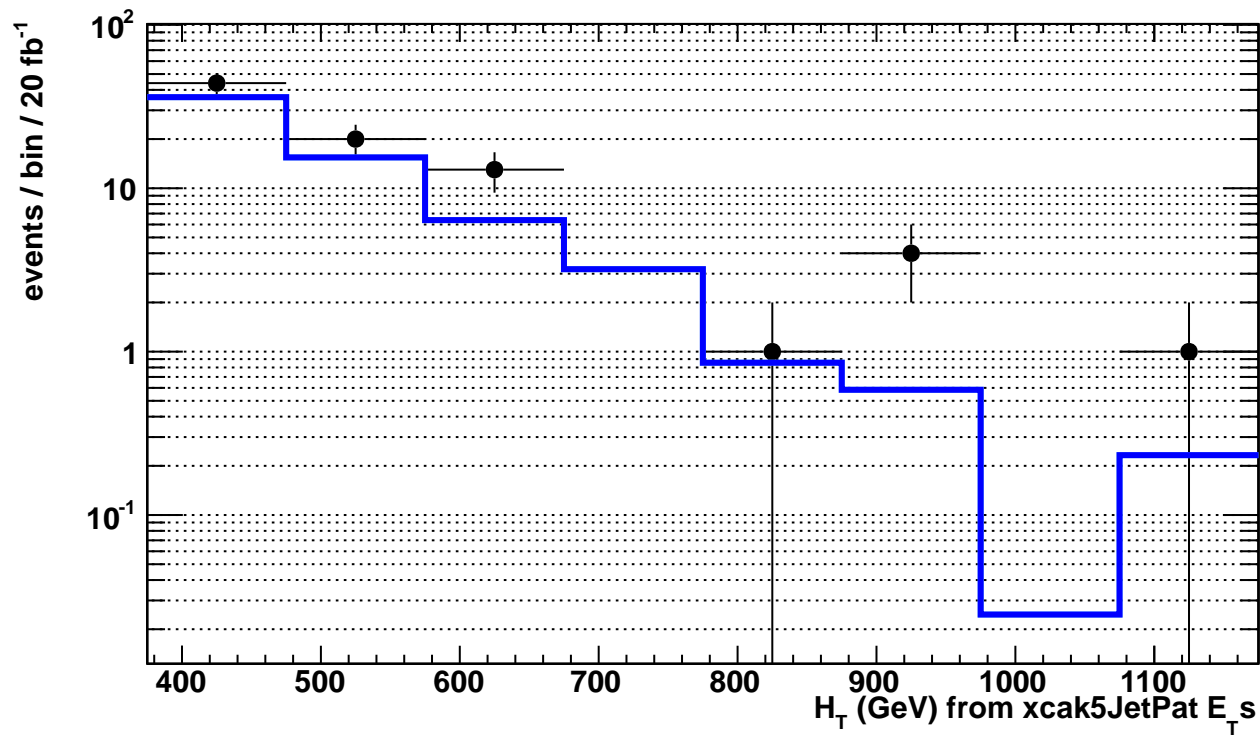


data/s.m.

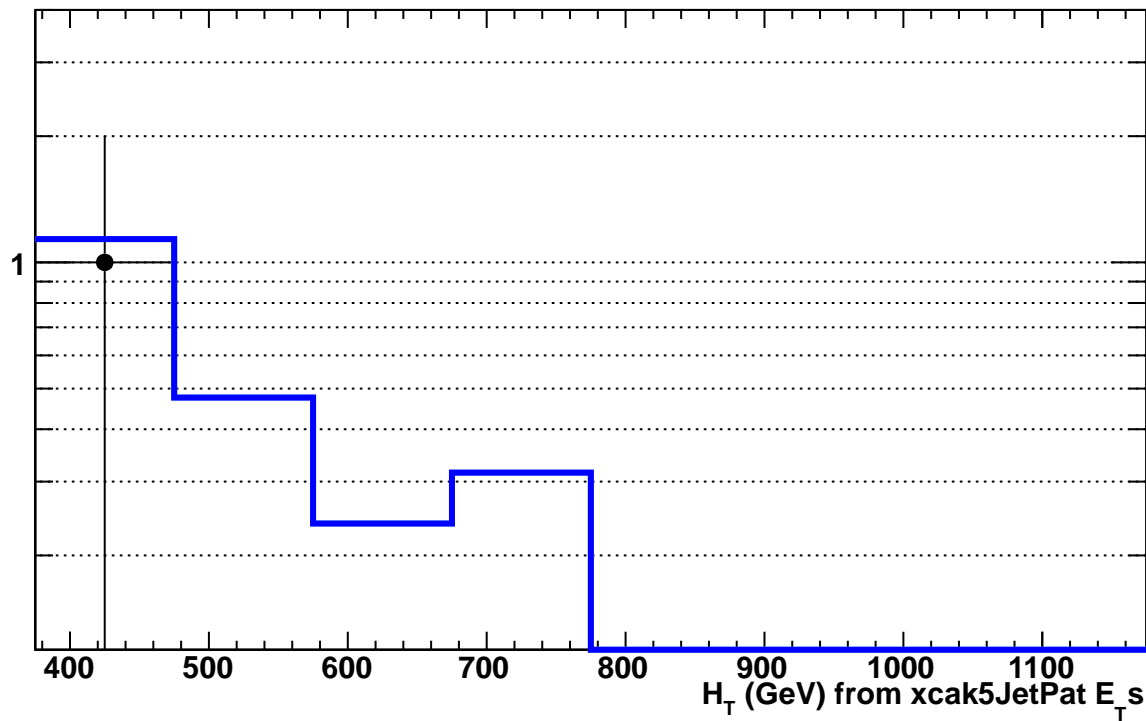




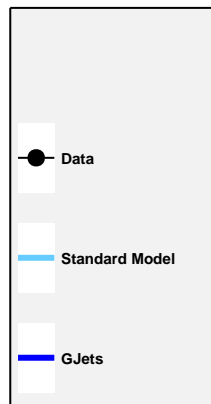




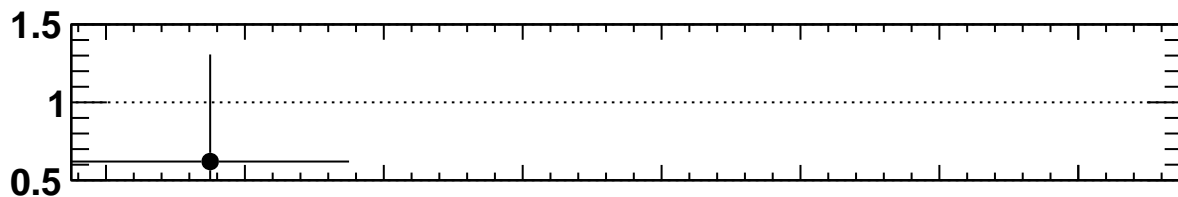
events / bin / 20 fb<sup>-1</sup>



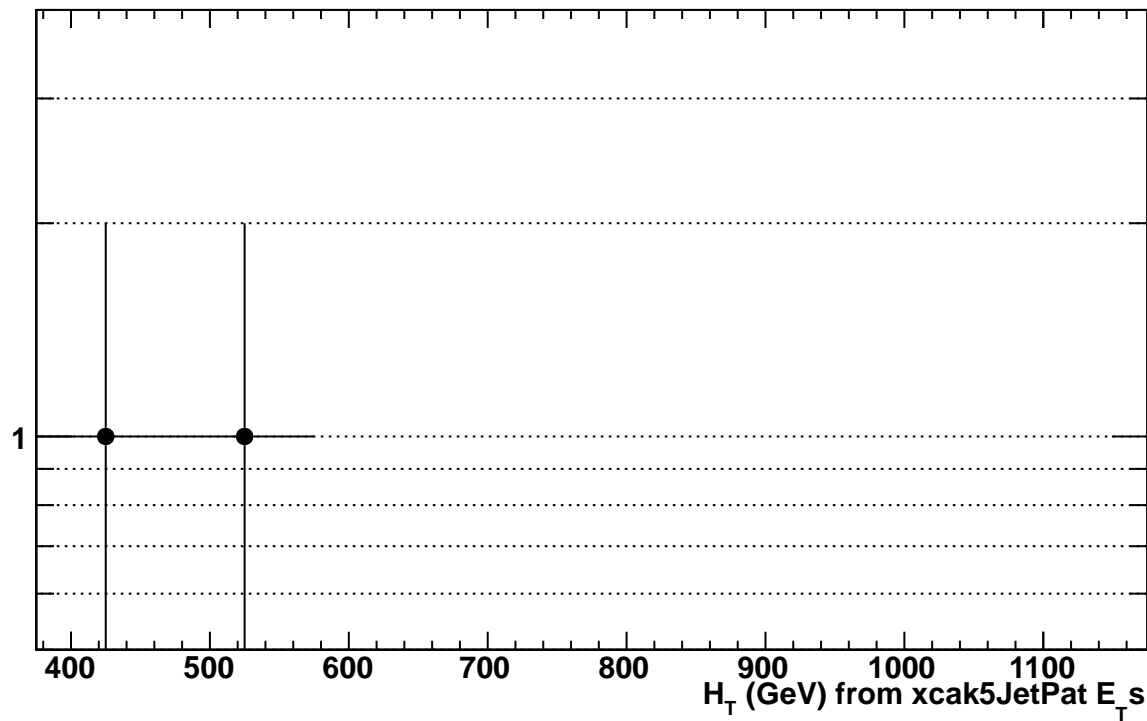
xcak5JetSumEtPat_eq3b	
Entries	1
Mean	471.9
RMS	0
Underflow	0
Overflow	0
Integral	1



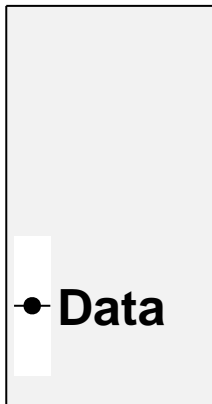
data/s.m.



events / bin / 20 fb<sup>-1</sup>

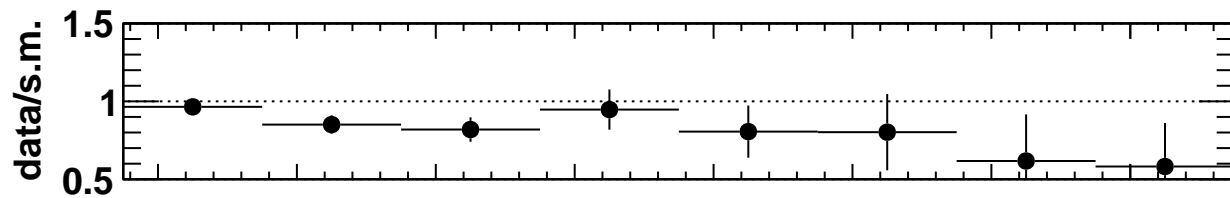
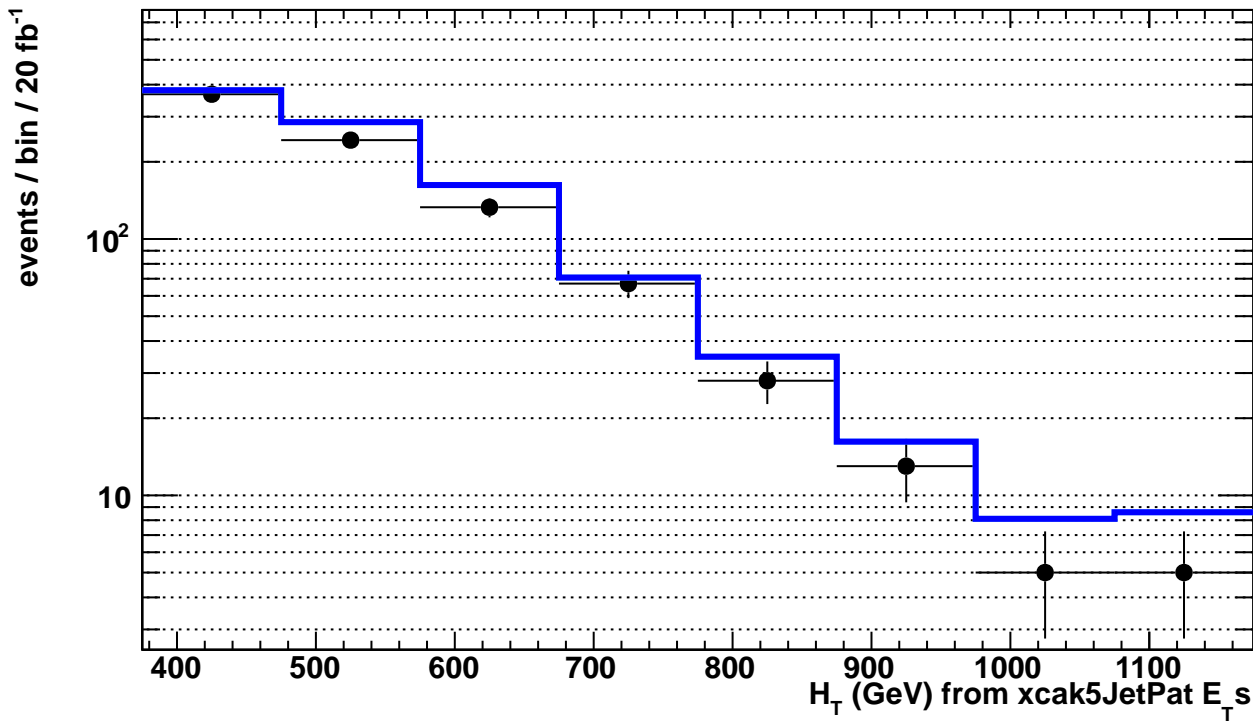


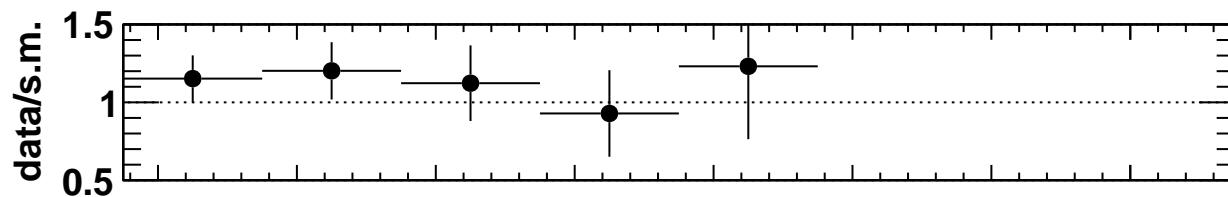
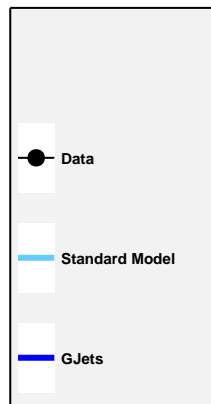
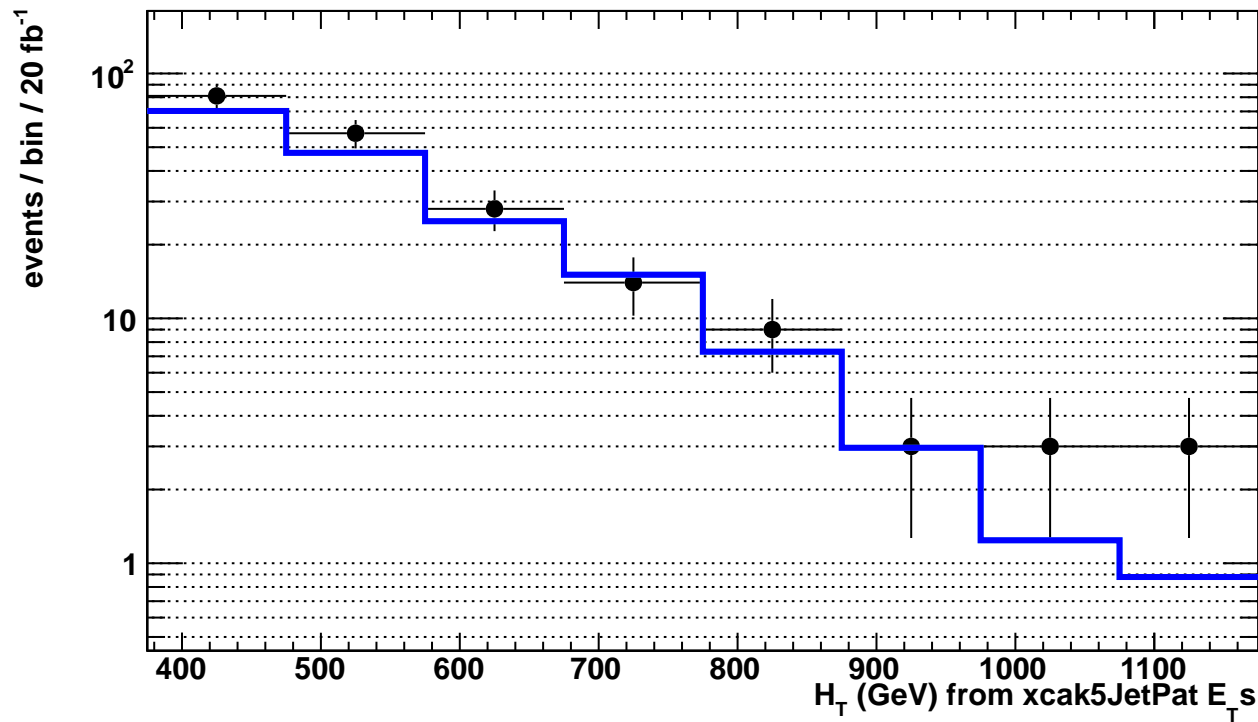
xcak5JetSumEtPat_ge4b	
Entries	2
Mean	461.2
RMS	84.21
Underflow	0
Overflow	0
Integral	2



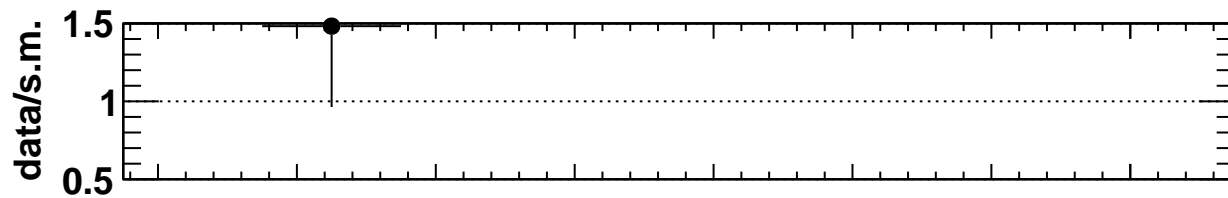
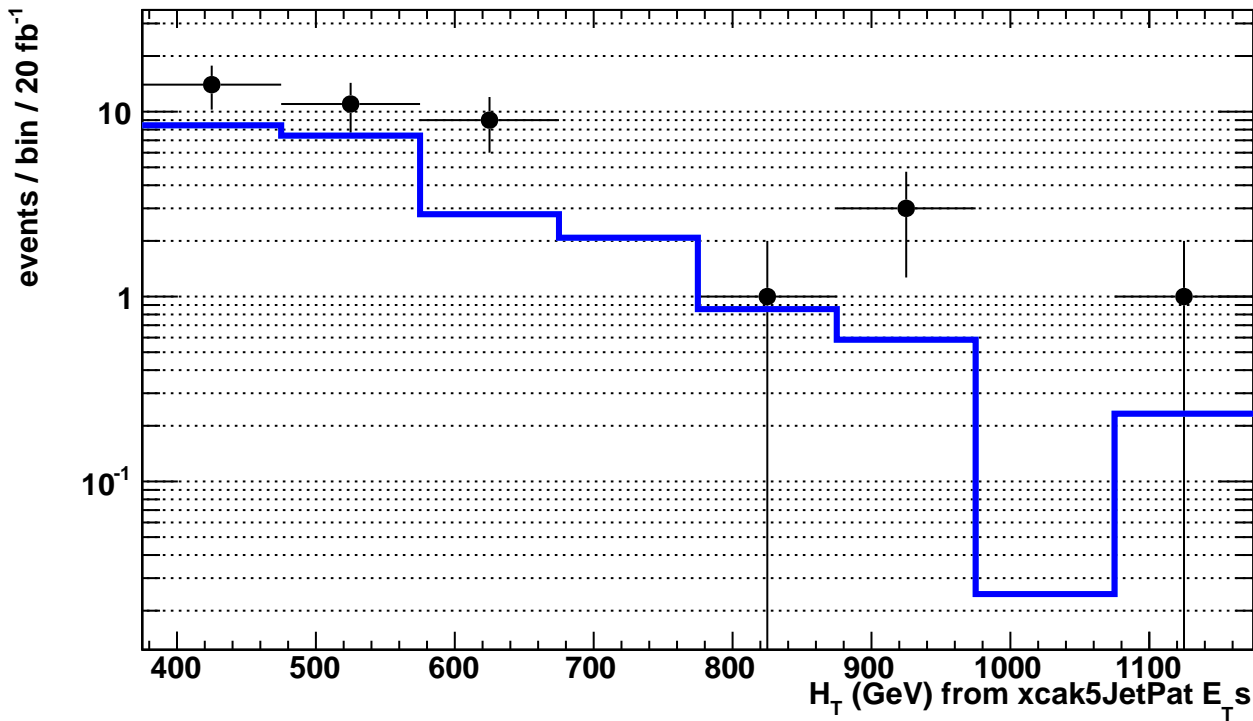


xcak5JetSumEtPat_ge4j_eq0b	
Entries	861
Mean	535.6
RMS	133
Underflow	0
Overflow	0
Integral	861

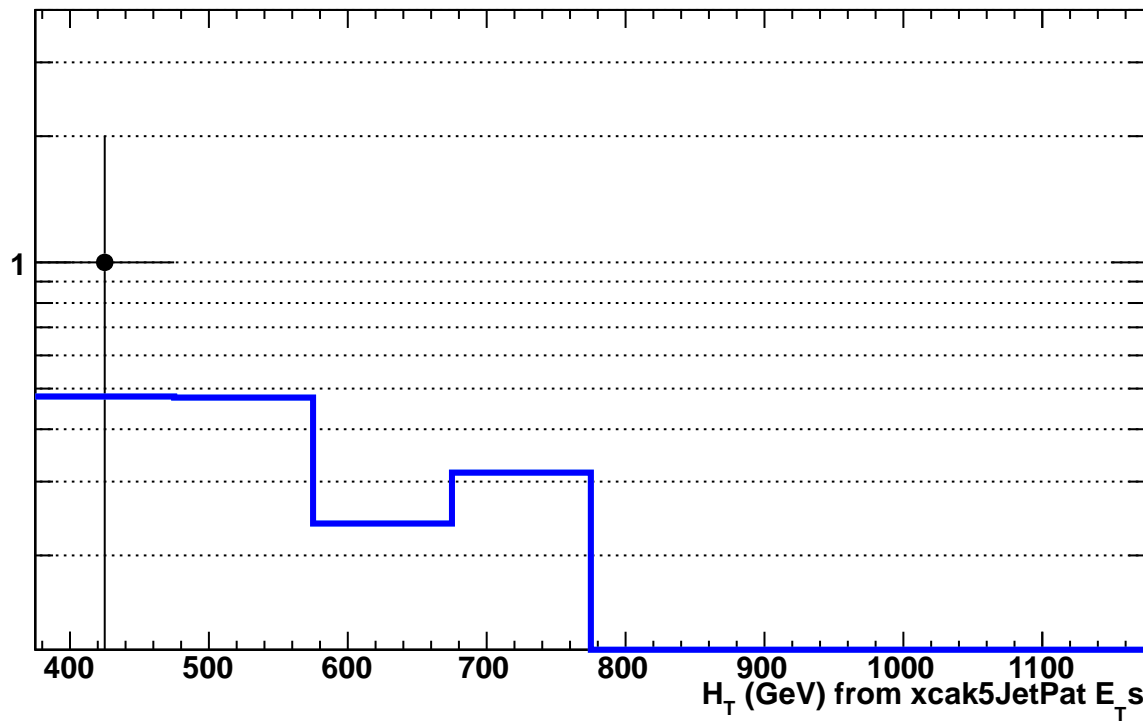




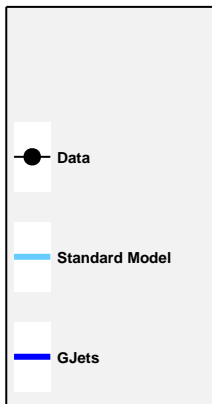
xcak5JetSumEtPat_ge4j_eq2b	
Entries	39
Mean	556.4
RMS	175.6
Underflow	0
Overflow	0
Integral	39



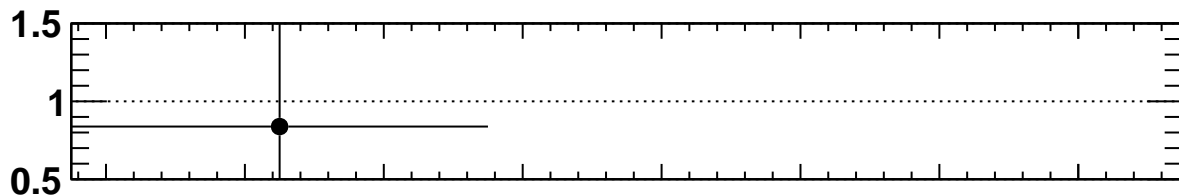
events / bin / 20 fb<sup>-1</sup>



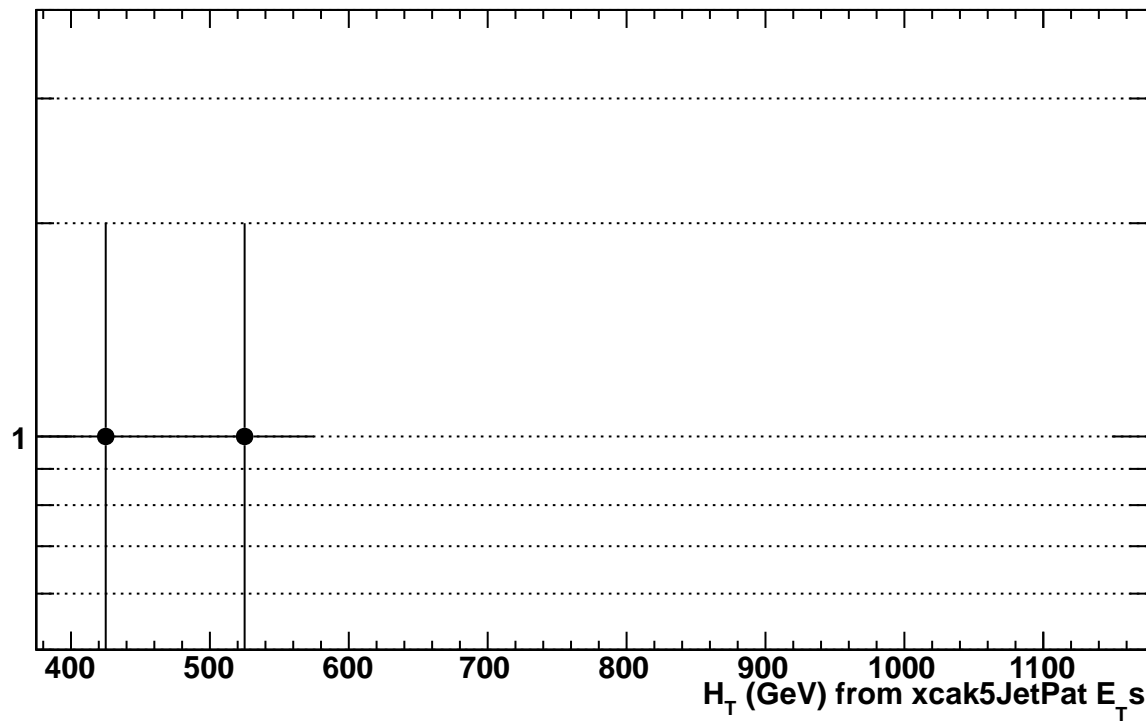
xcak5JetSumEtPat_ge4j_eq3b	
Entries	1
Mean	471.9
RMS	0
Underflow	0
Overflow	0
Integral	1



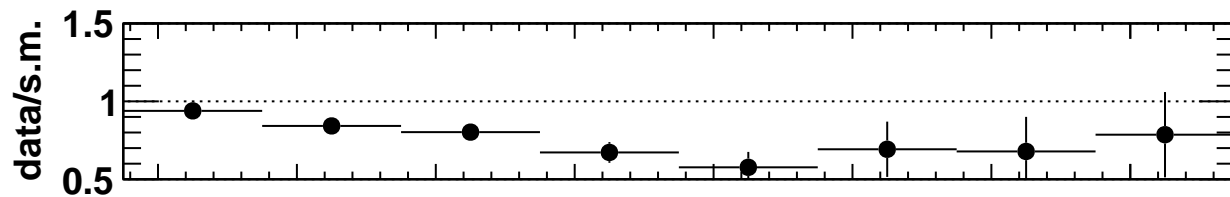
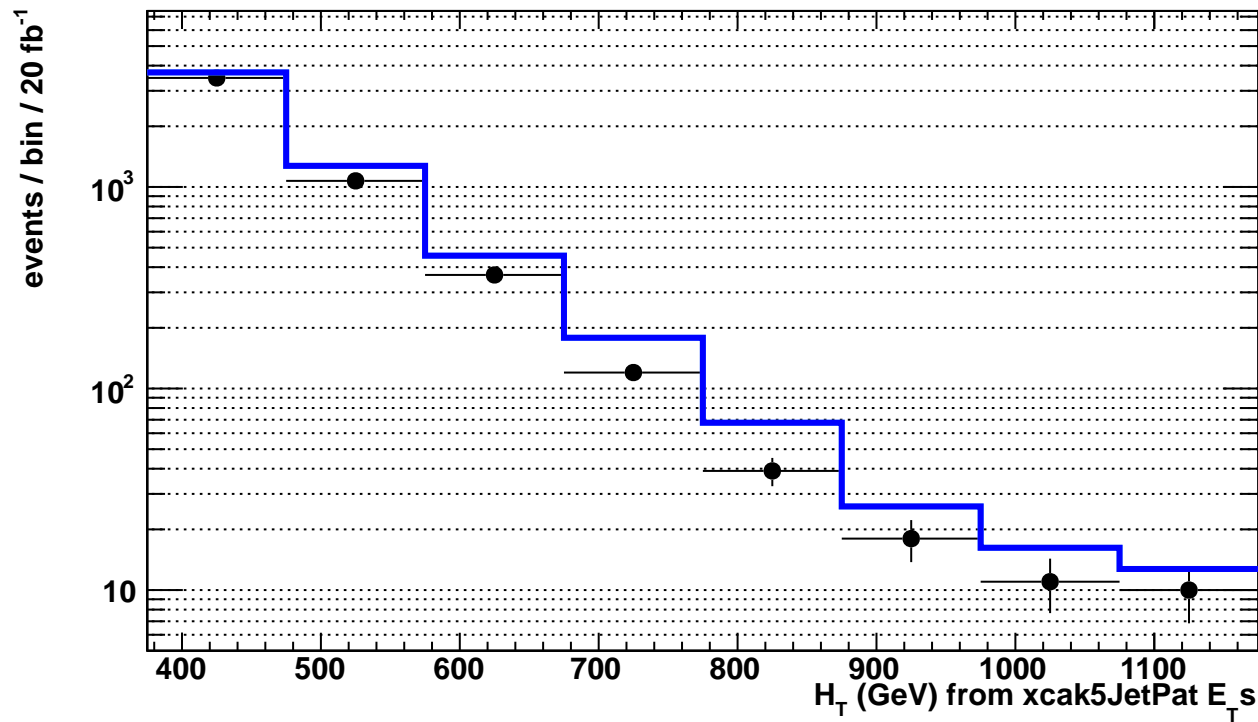
data/s.m.

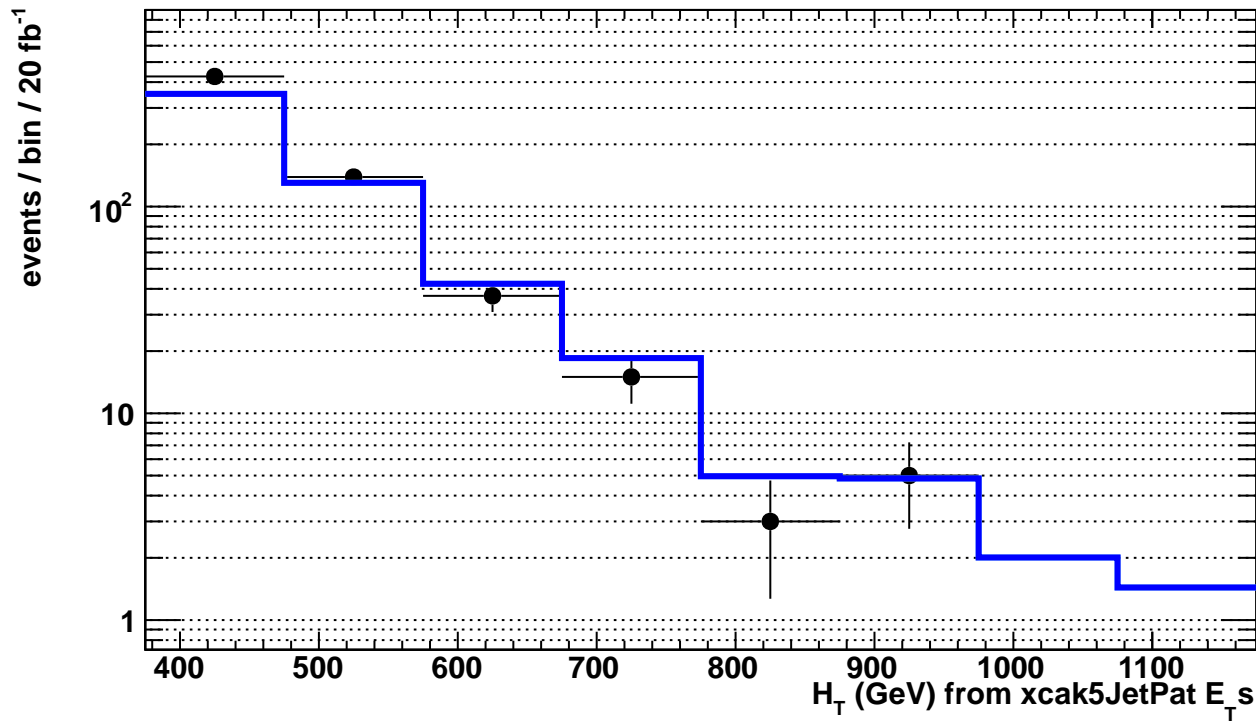


events / bin / 20 fb<sup>-1</sup>

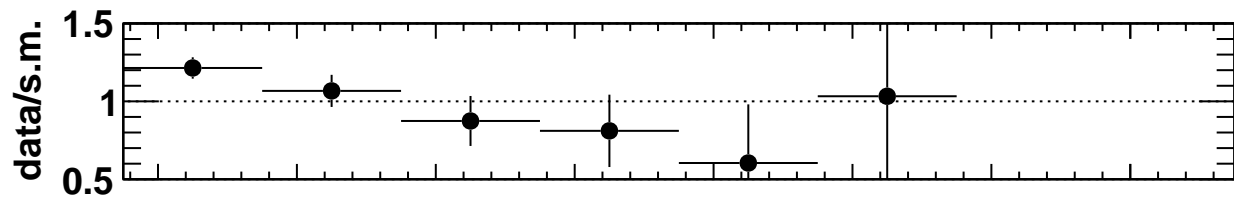
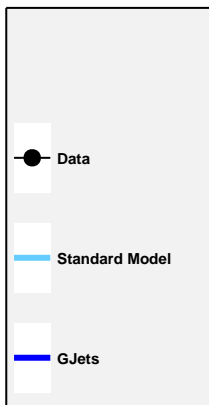


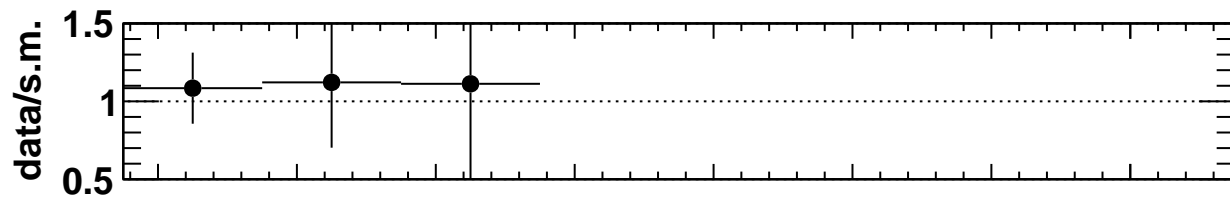
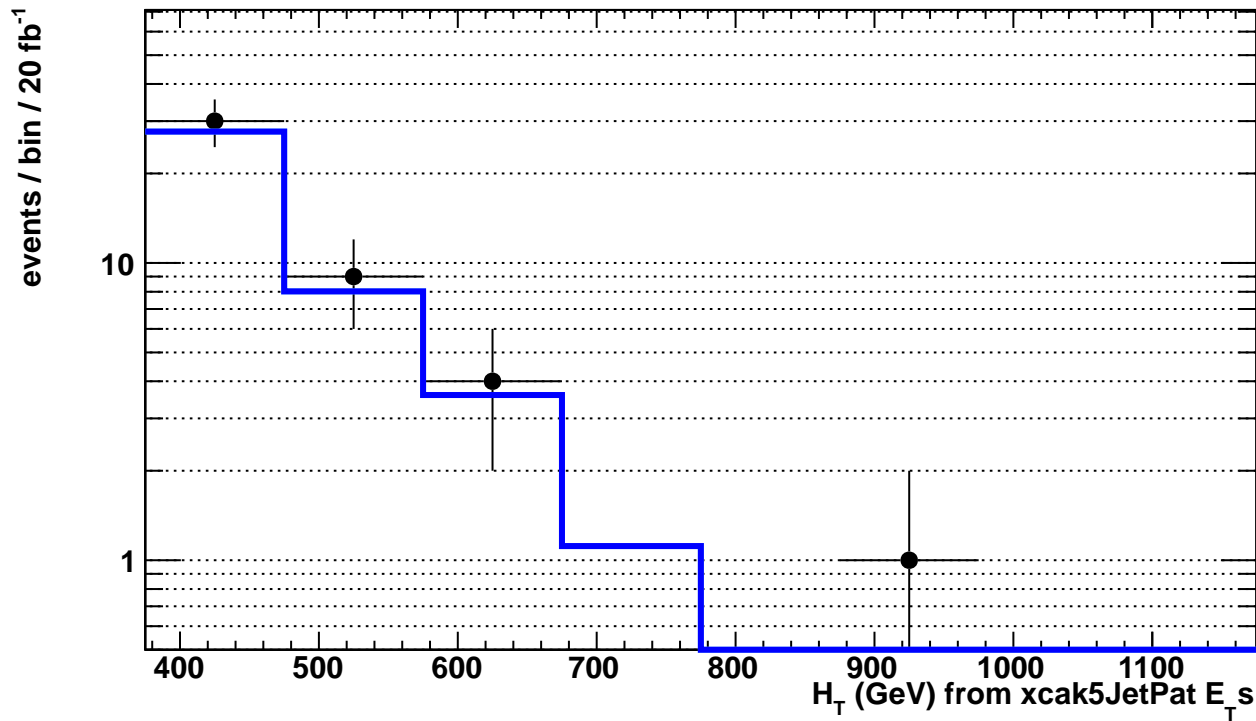
xcak5JetSumEtPat_ge4j_ge4b	
Entries	2
Mean	461.2
RMS	84.21
Underflow	0
Overflow	0
Integral	2





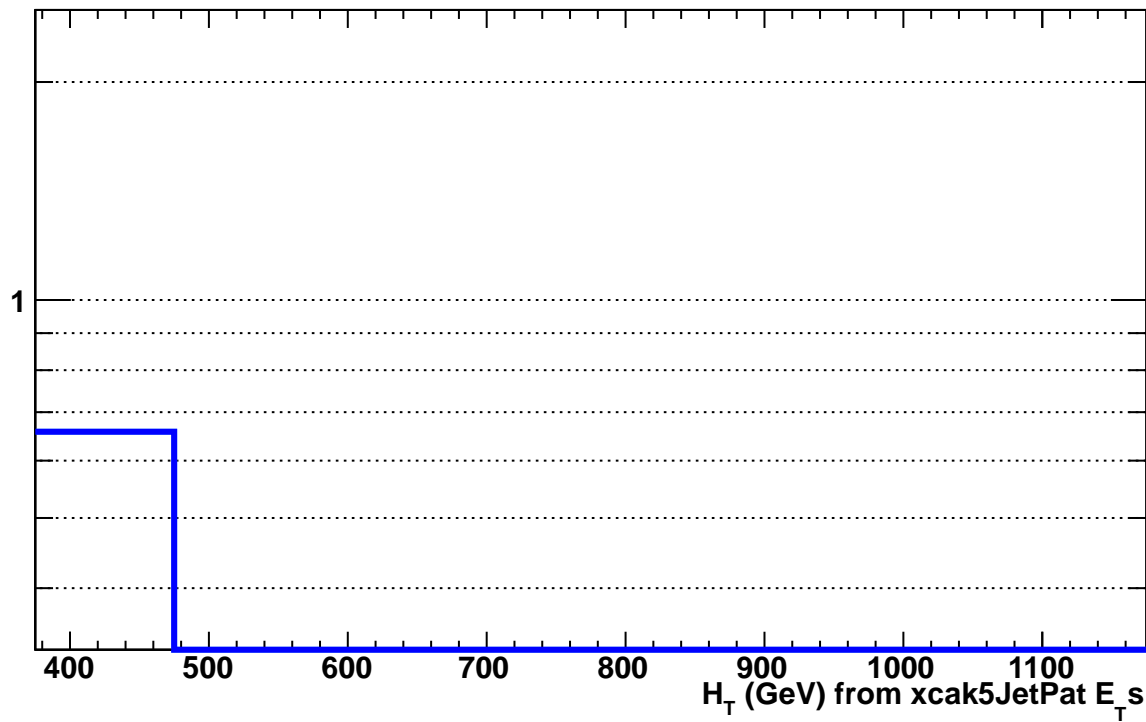
xcak5JetSumEtPat_le3j_eq1b	
Entries	625
Mean	462.6
RMS	93.21
Underflow	0
Overflow	0
Integral	625



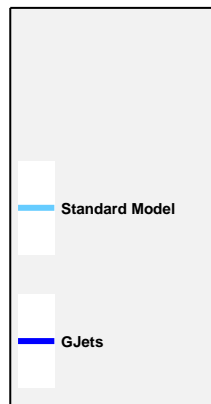


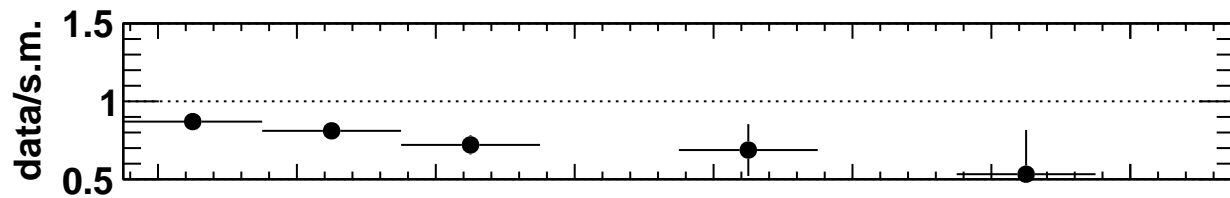
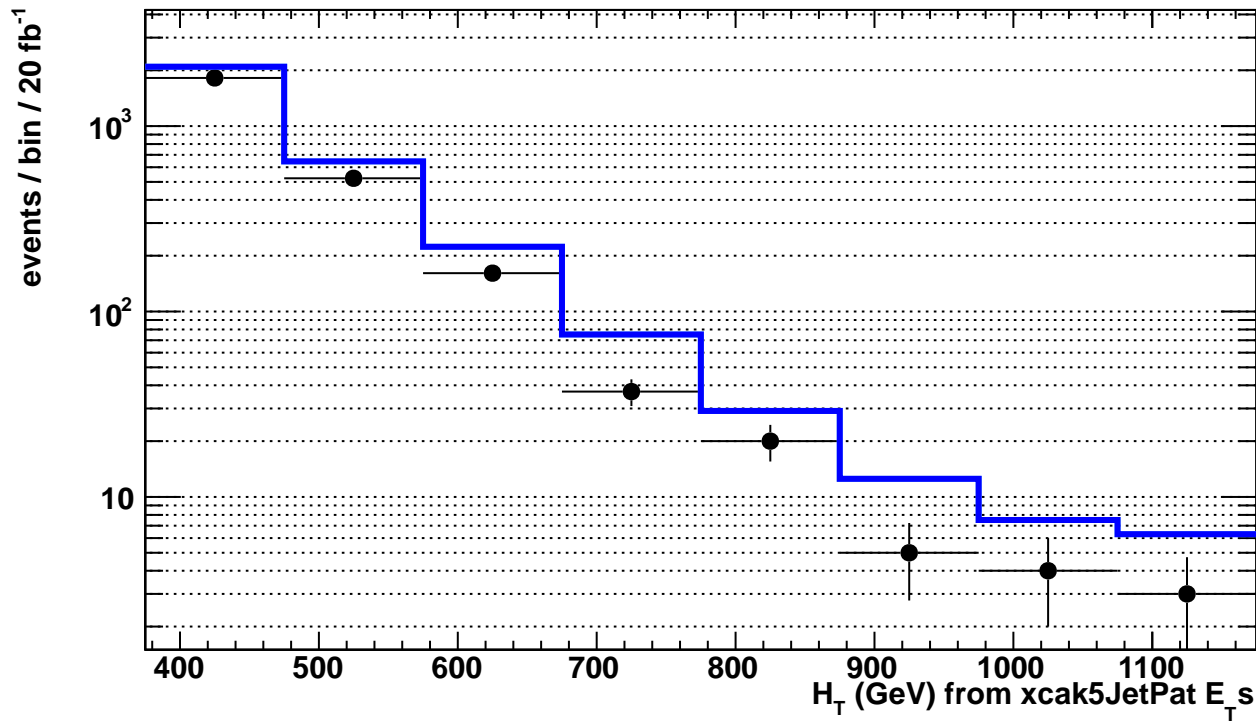


events / bin / 20 fb<sup>-1</sup>

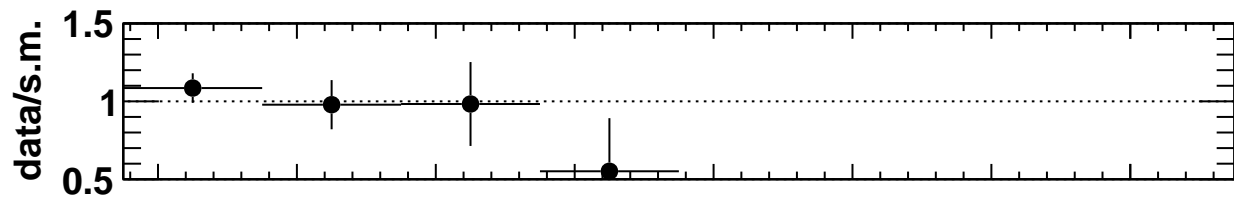
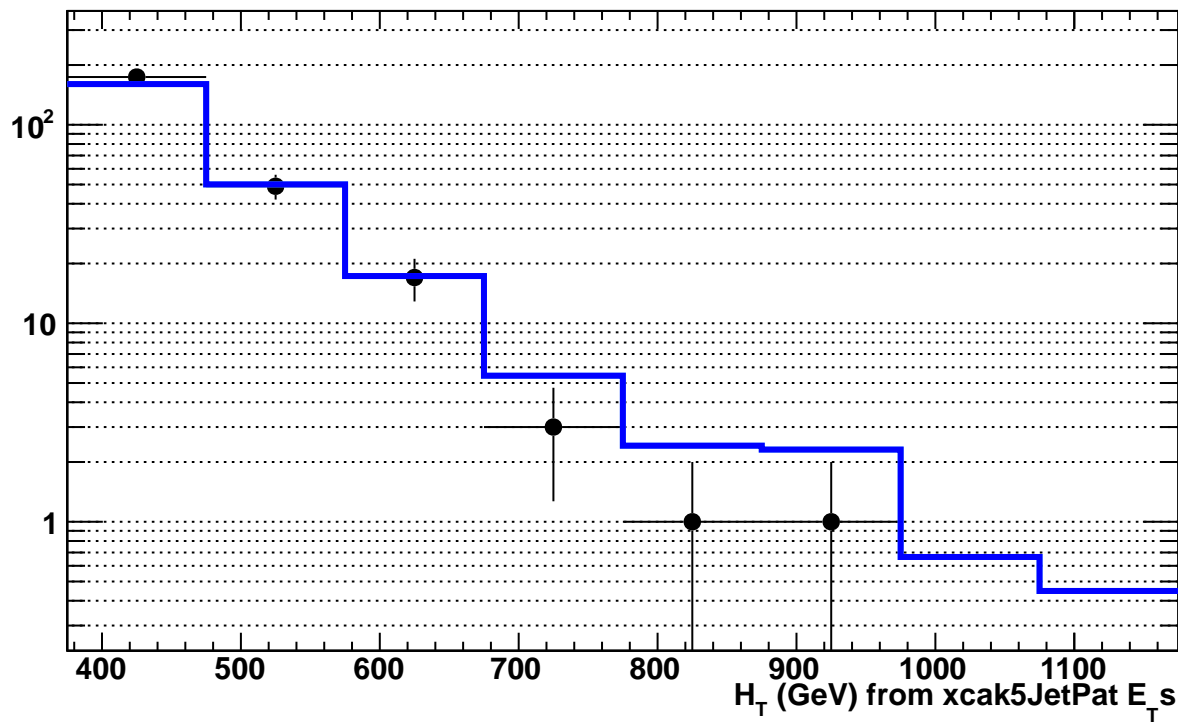


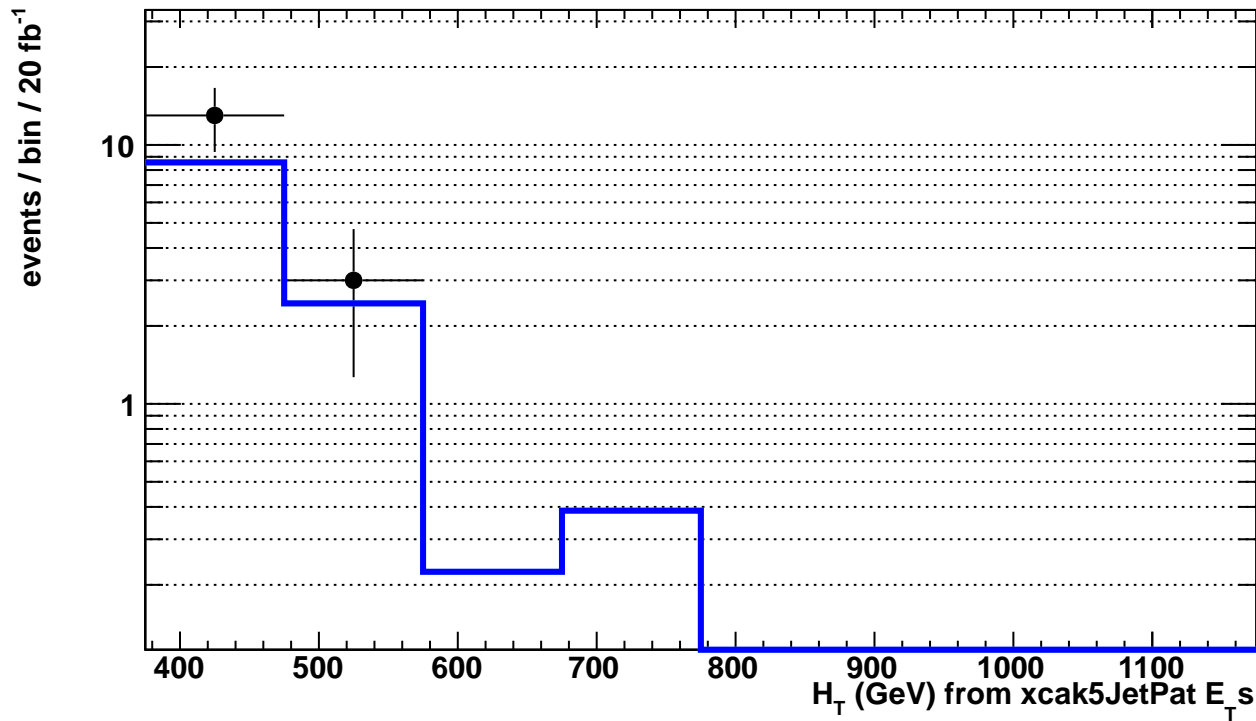
xcak5JetSumEtPat_le3j_eq3b	
Entries	2
Mean	389.8
RMS	16.62
Underflow	0
Overflow	0
Integral	0.6578



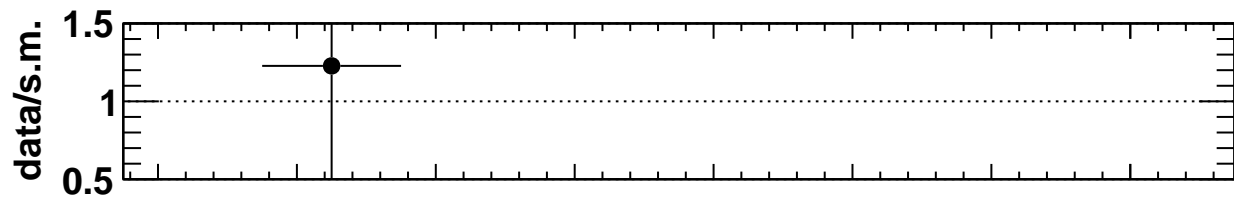
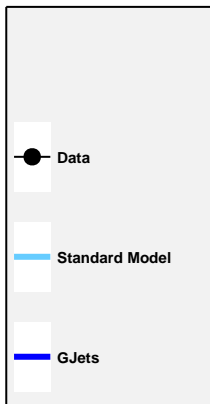


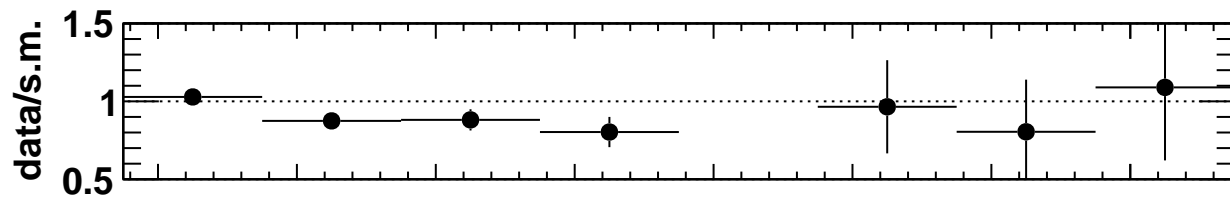
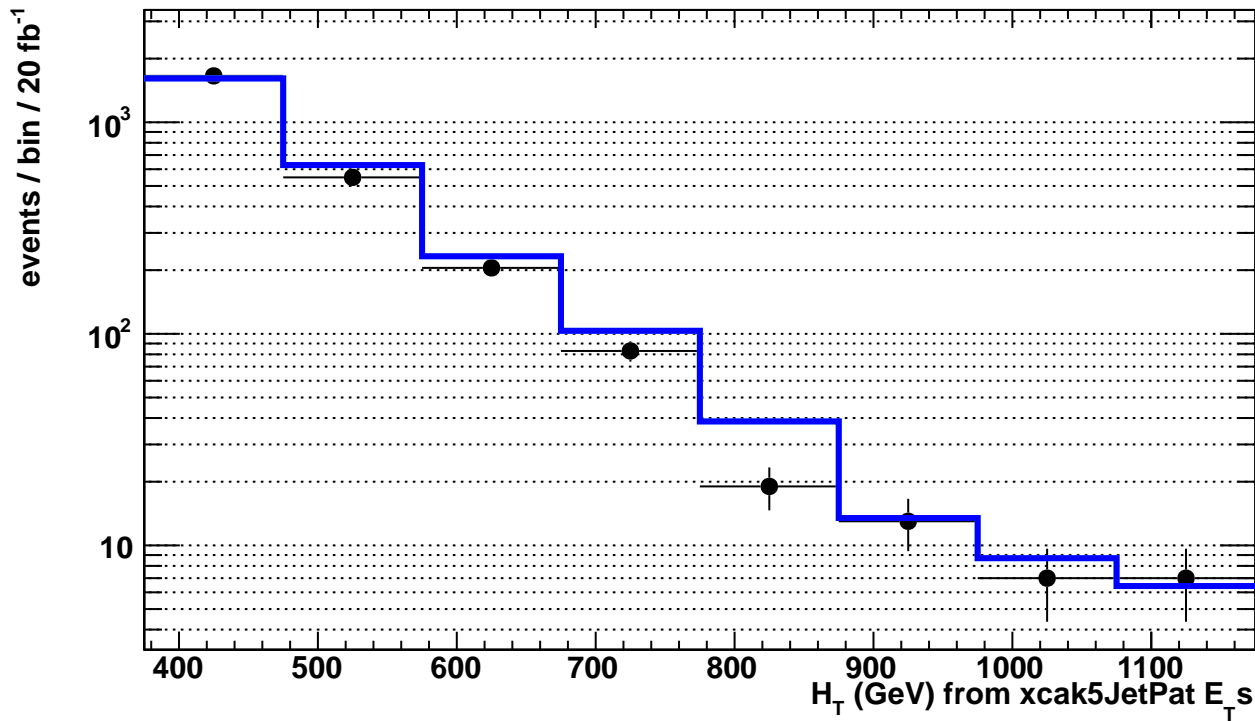
events / bin / 20 fb<sup>-1</sup>



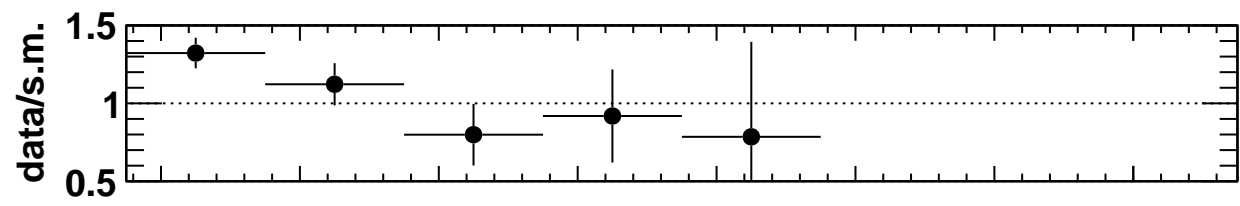
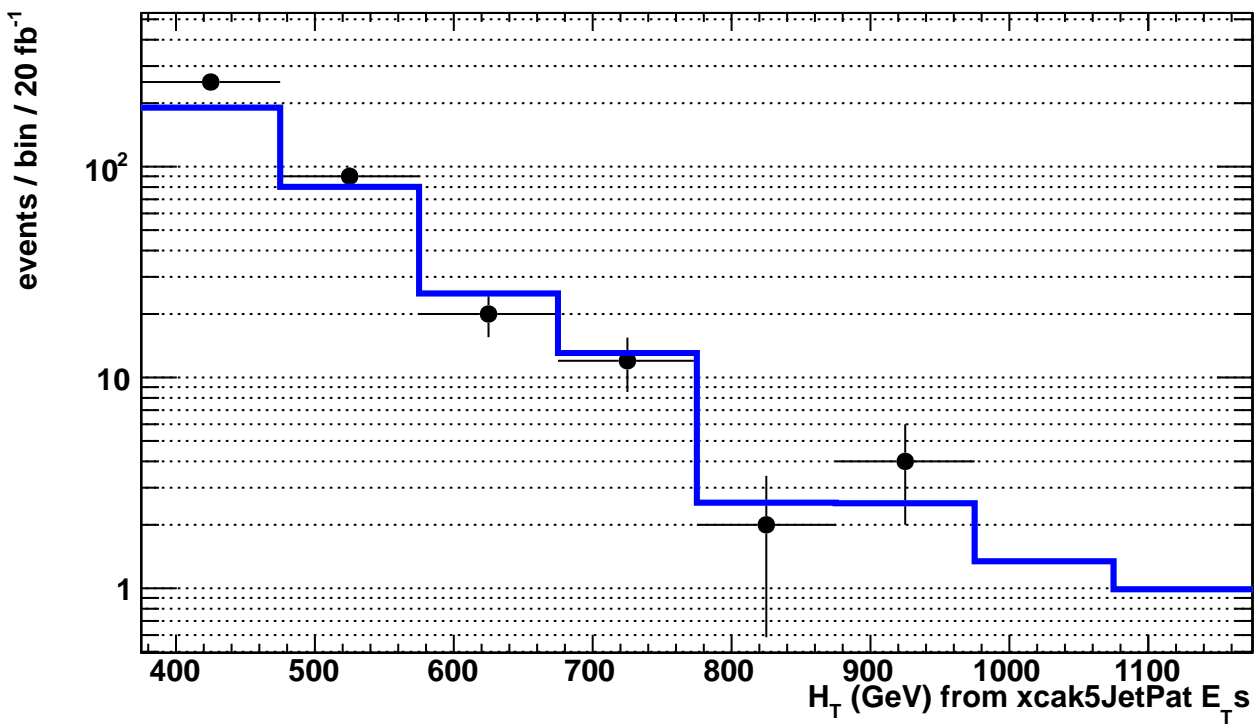


xcak5JetSumEtPat_eq2_eq2b	
Entries	16
Mean	433.6
RMS	51.34
Underflow	0
Overflow	0
Integral	16

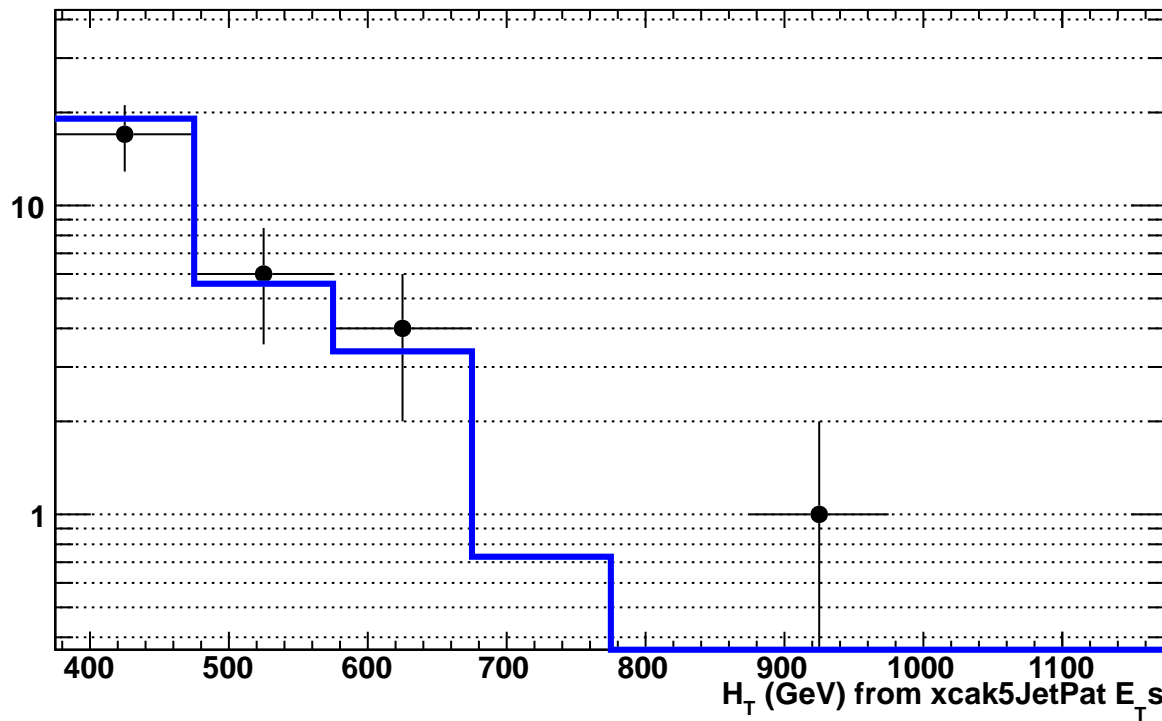




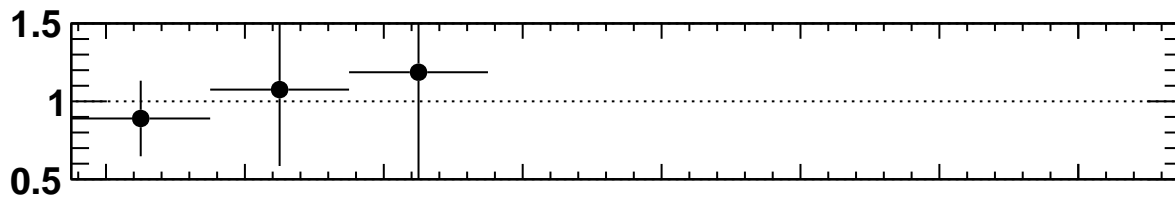
xcak5JetSumEtPat_eq3j_eq1b	
Entries	380
Mean	467.3
RMS	99.01
Underflow	0
Overflow	0
Integral	380



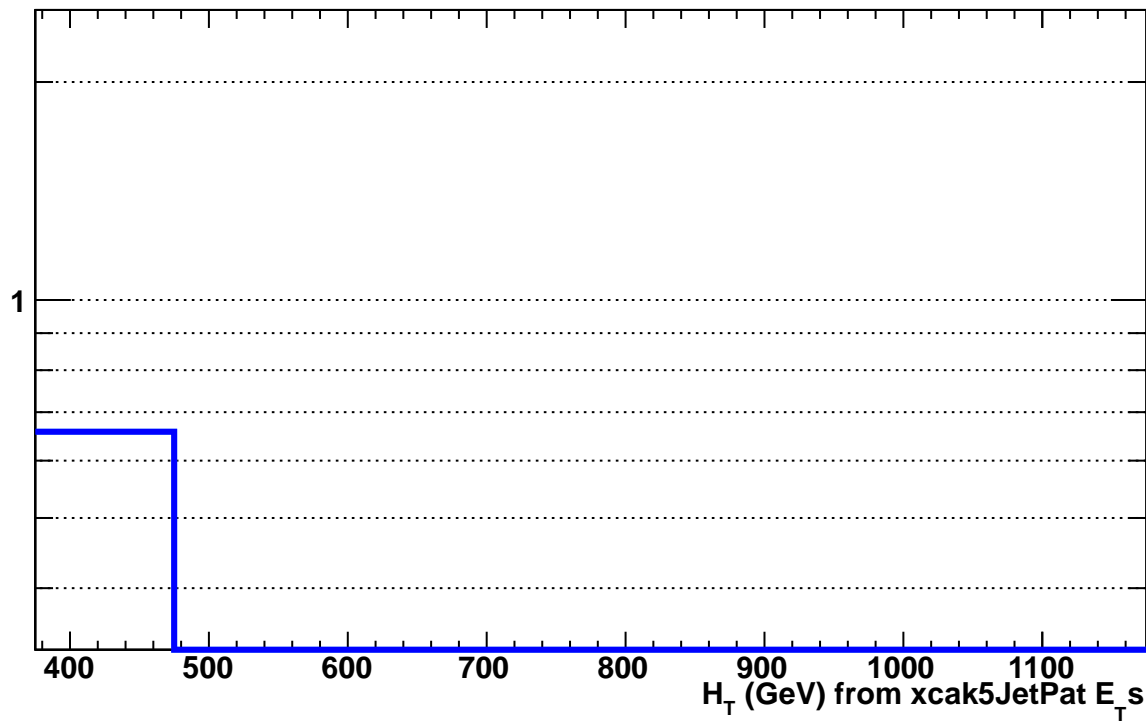
events / bin / 20 fb<sup>-1</sup>



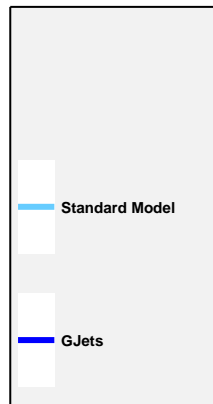
data/s.m.



events / bin / 20 fb<sup>-1</sup>

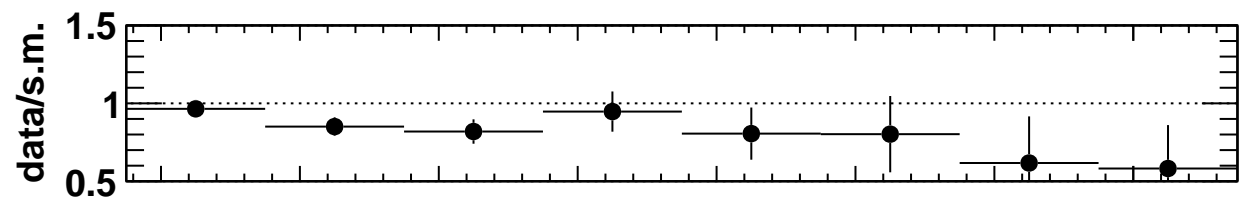
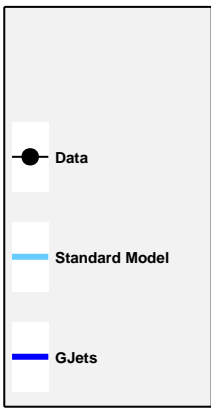
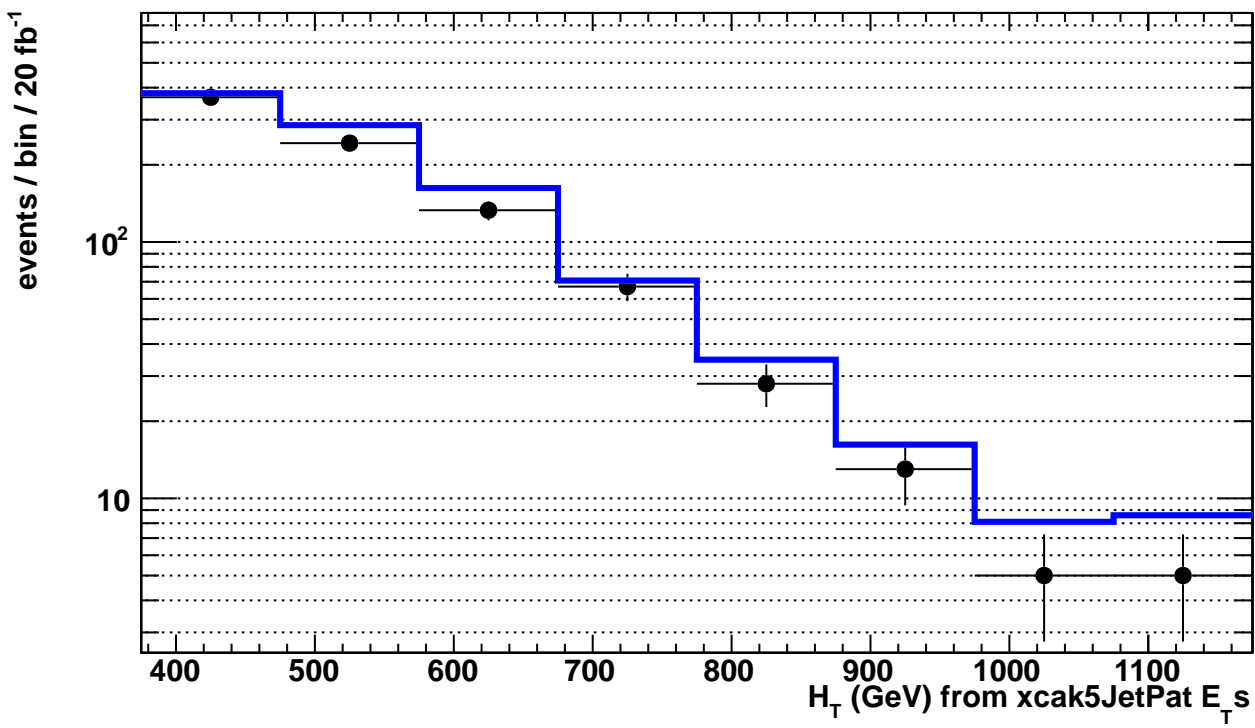


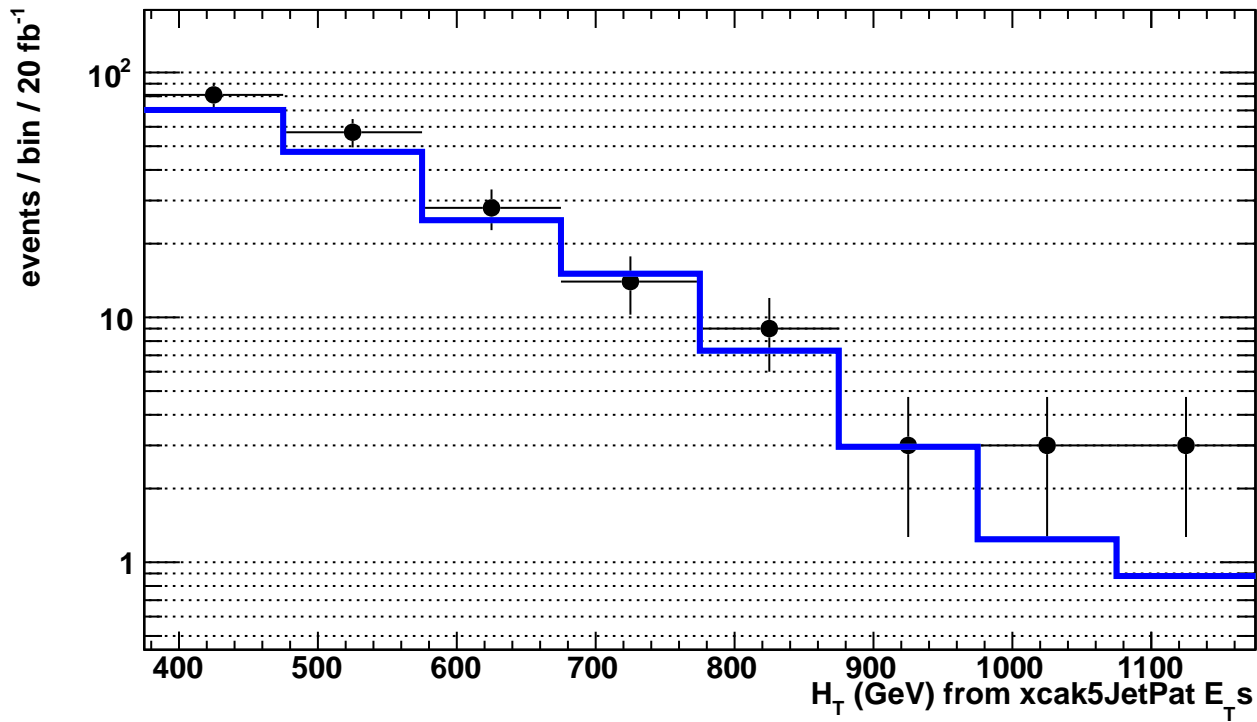
xcak5JetSumEtPat_eq3j_eq3b	
Entries	2
Mean	389.8
RMS	16.62
Underflow	0
Overflow	0
Integral	0.6578



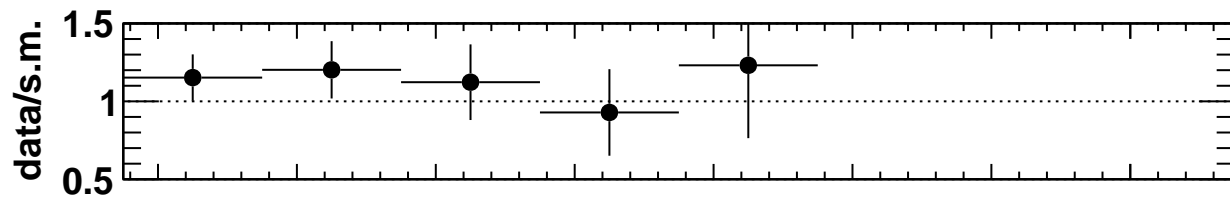
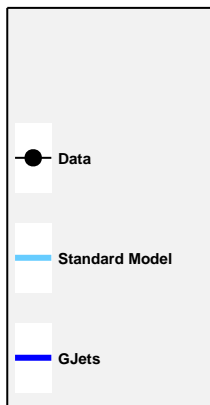


xcak5JetSumEtPat_ge4j_eq0b	
Entries	861
Mean	535.6
RMS	133
Underflow	0
Overflow	0
Integral	861

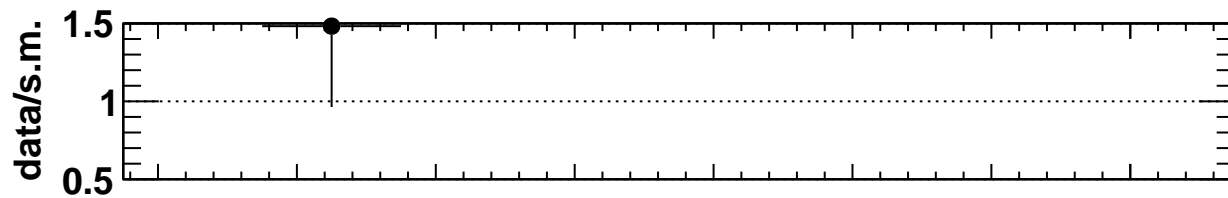
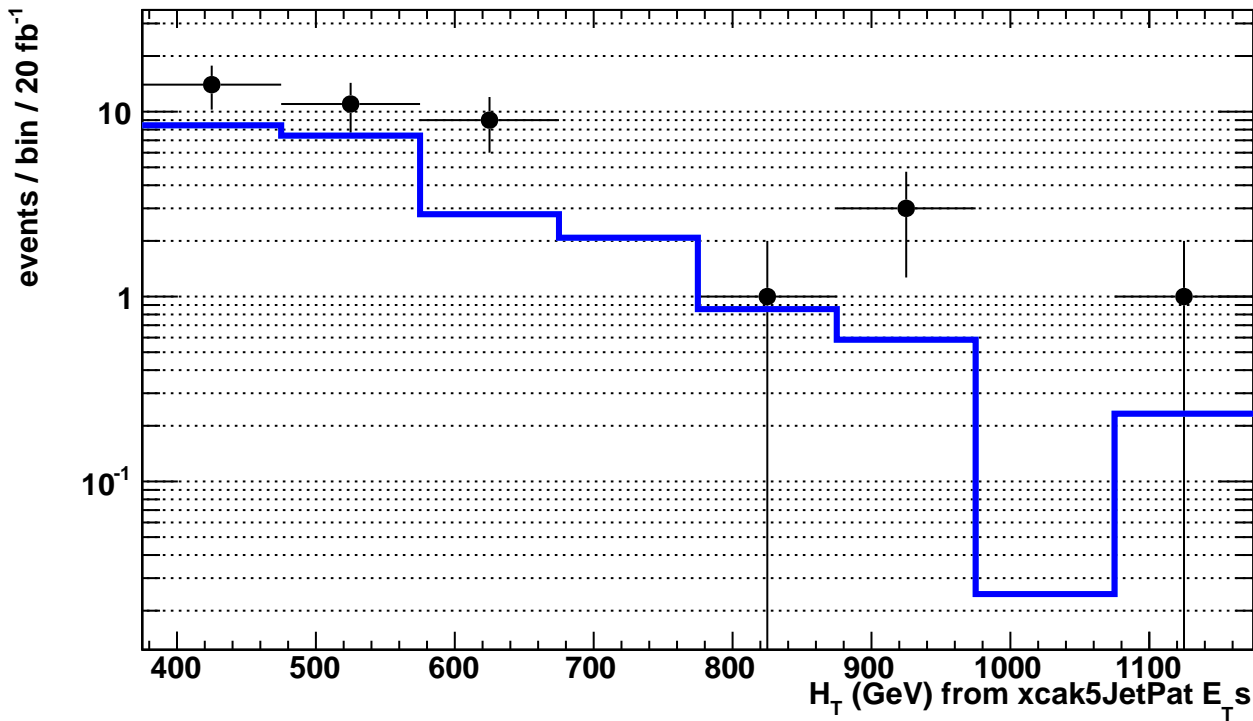




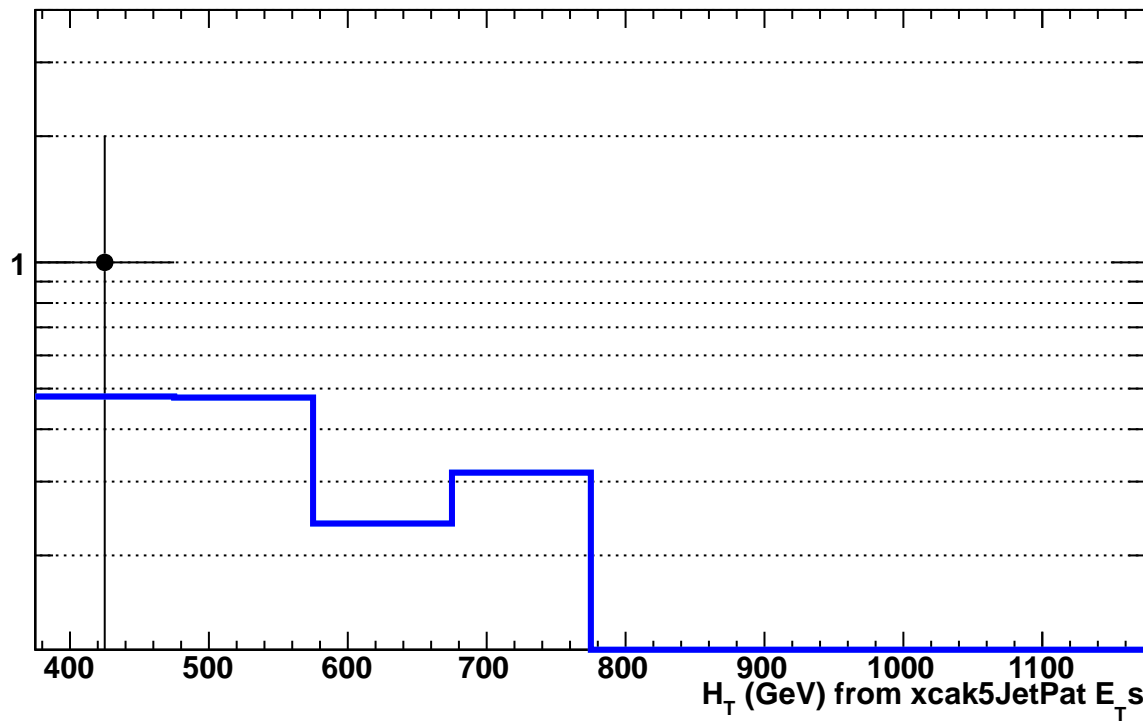
xcak5JetSumEtPat_ge4j_eq1b	
Entries	198
Mean	548.7
RMS	153.4
Underflow	0
Overflow	0
Integral	198



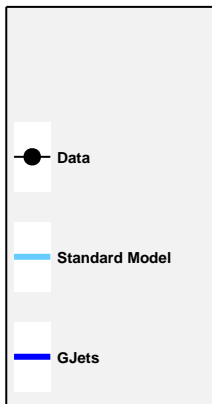
xcak5JetSumEtPat_ge4j_eq2b	
Entries	39
Mean	556.4
RMS	175.6
Underflow	0
Overflow	0
Integral	39



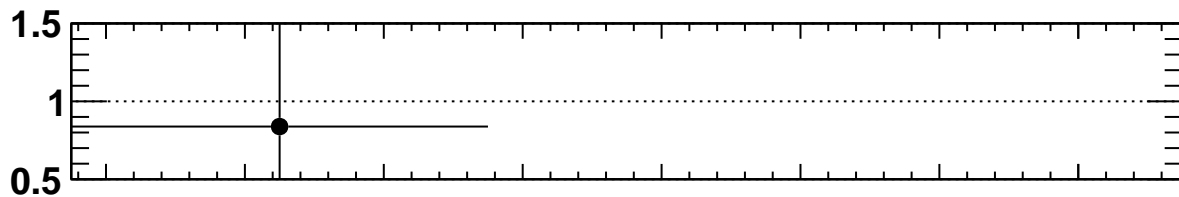
events / bin / 20 fb<sup>-1</sup>



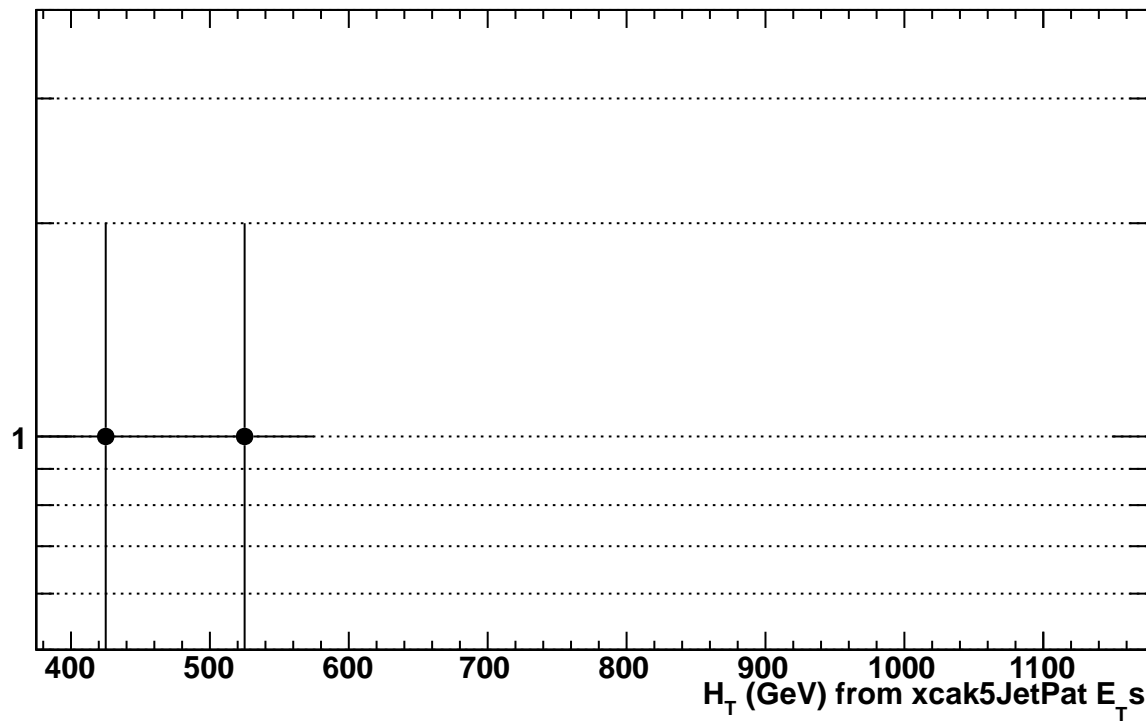
xcak5JetSumEtPat_ge4j_eq3b	
Entries	1
Mean	471.9
RMS	0
Underflow	0
Overflow	0
Integral	1



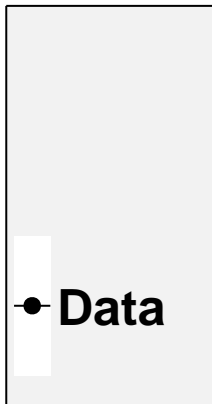
data/s.m.



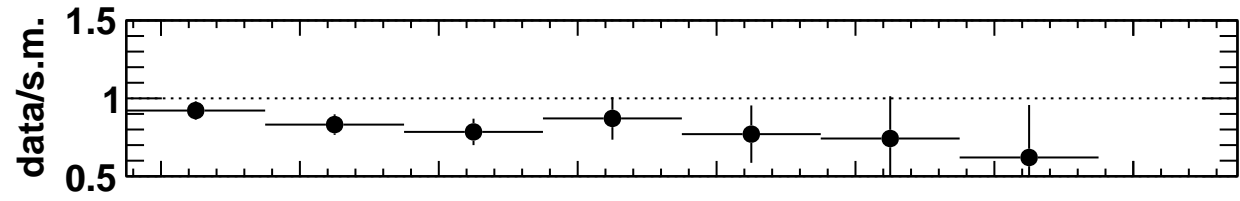
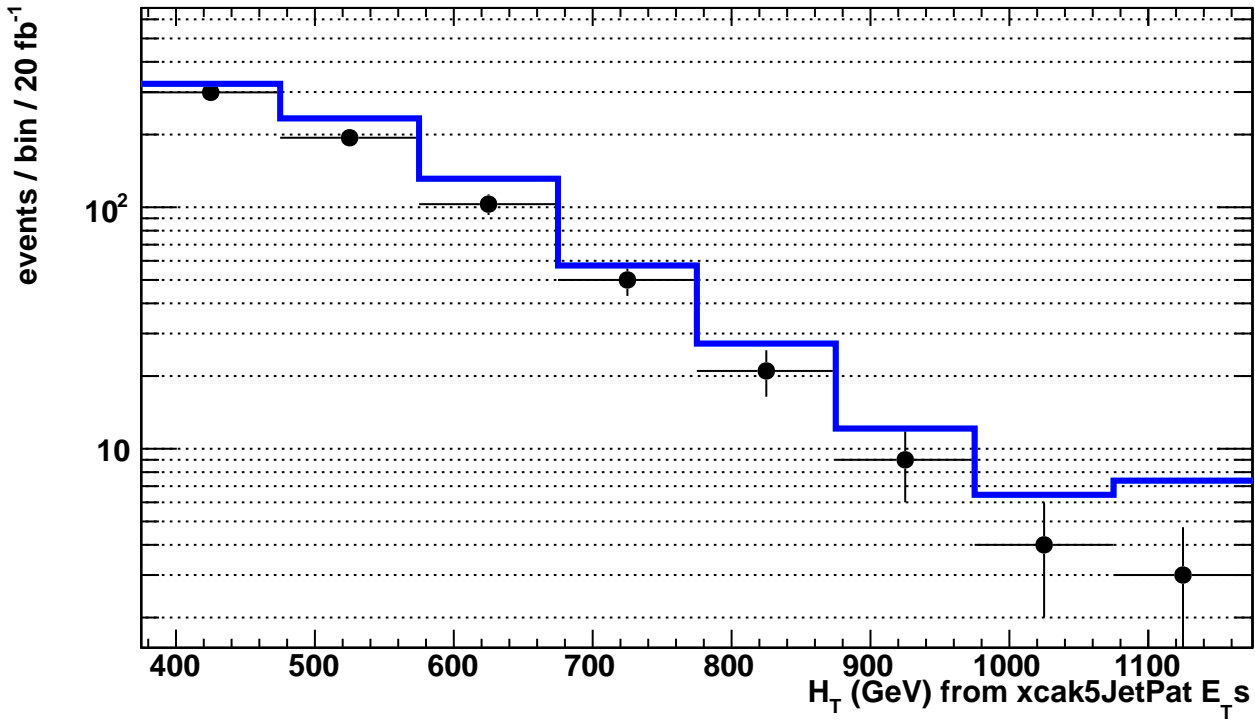
events / bin / 20 fb<sup>-1</sup>



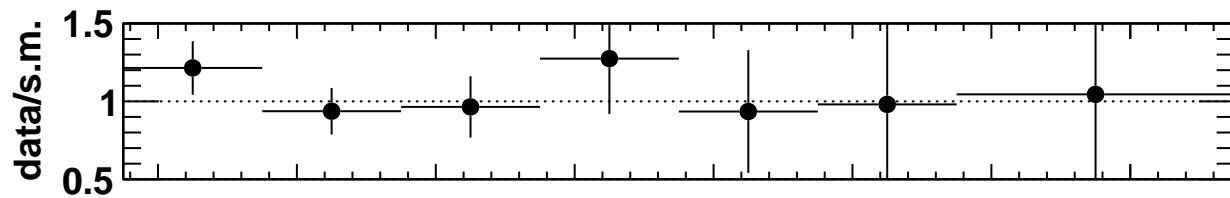
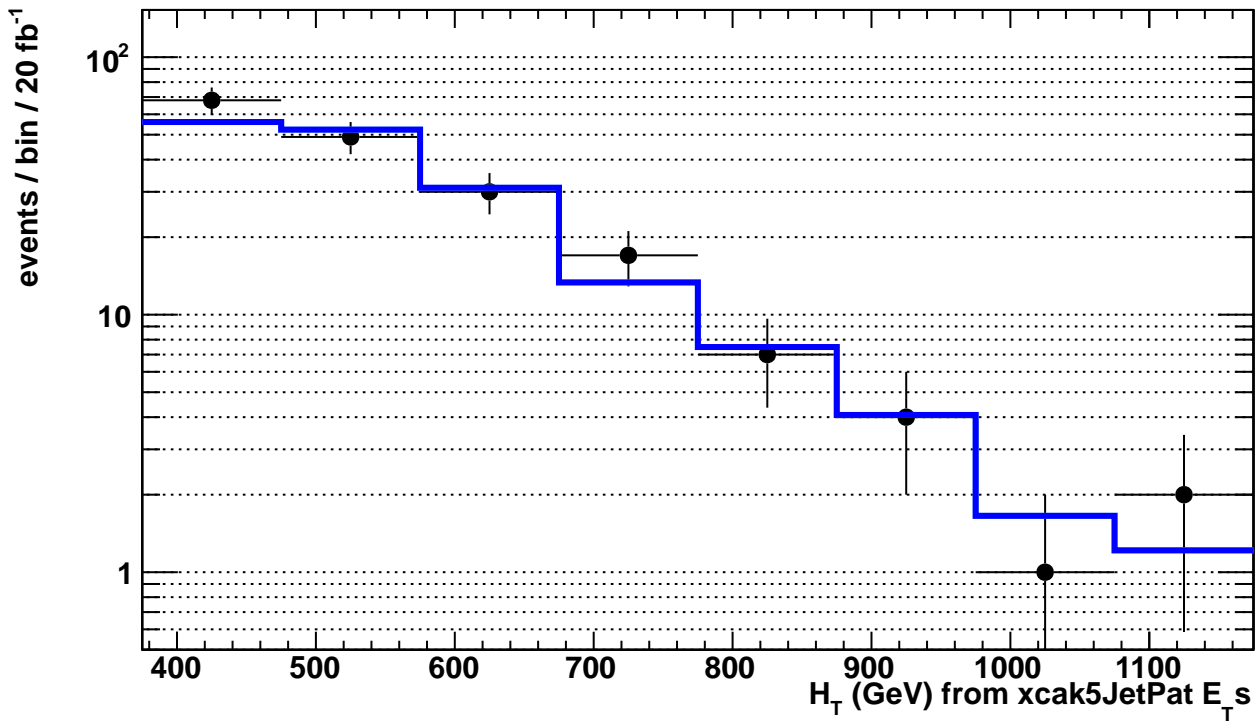
xcak5JetSumEtPat_ge4j_ge4b	
Entries	2
Mean	461.2
RMS	84.21
Underflow	0
Overflow	0
Integral	2



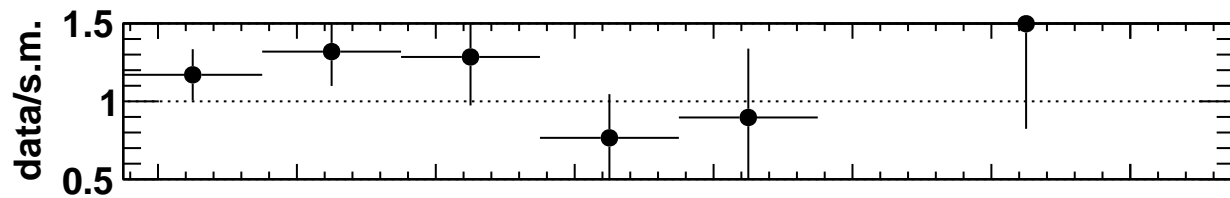
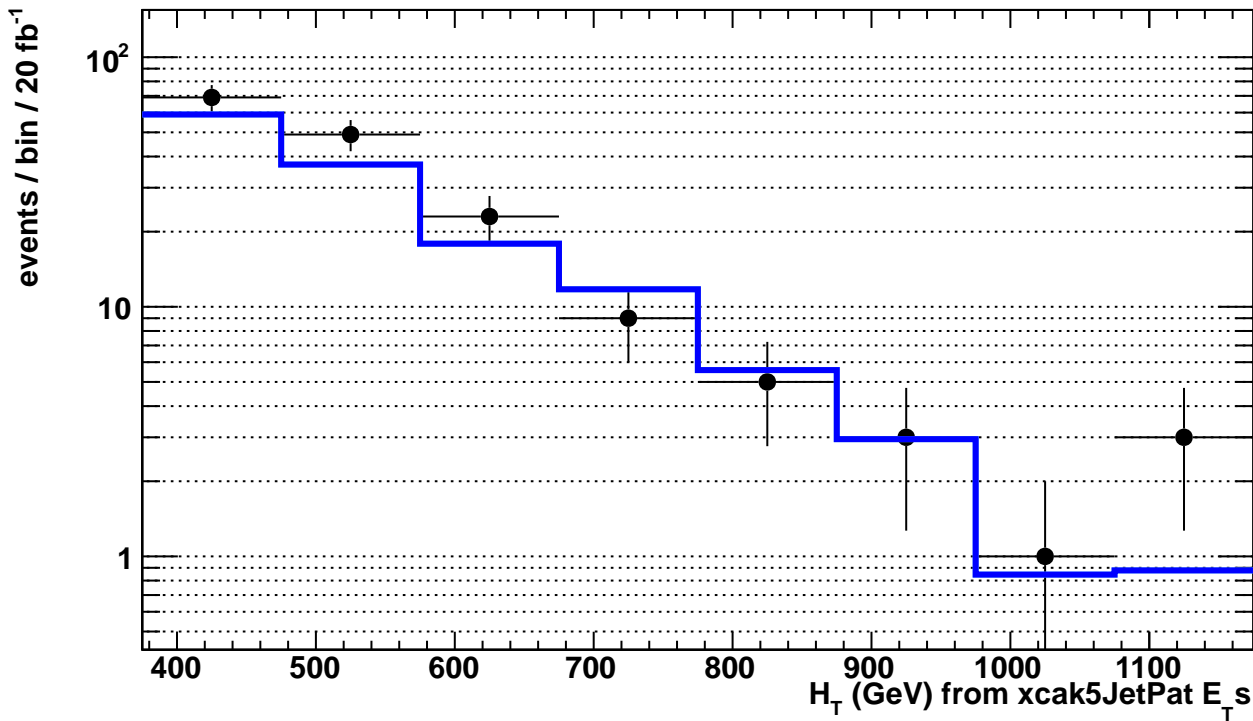
xcak5JetSumEtPat_ge4j_eq0b_dRge65	
Entries	683
Mean	531
RMS	129.2
Underflow	0
Overflow	0
Integral	683



xcak5JetSumEtPat_ge4j_eq0b_dR165	
Entries	178
Mean	550.3
RMS	144.2
Underflow	0
Overflow	0
Integral	178

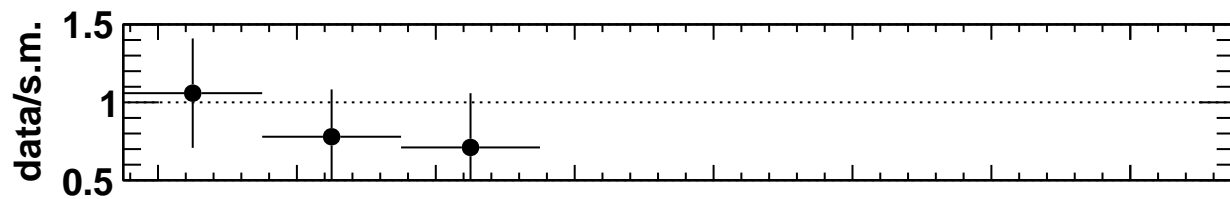
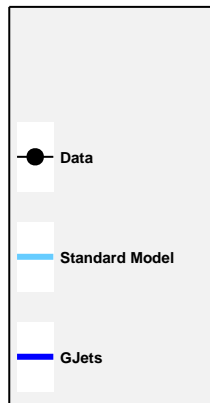
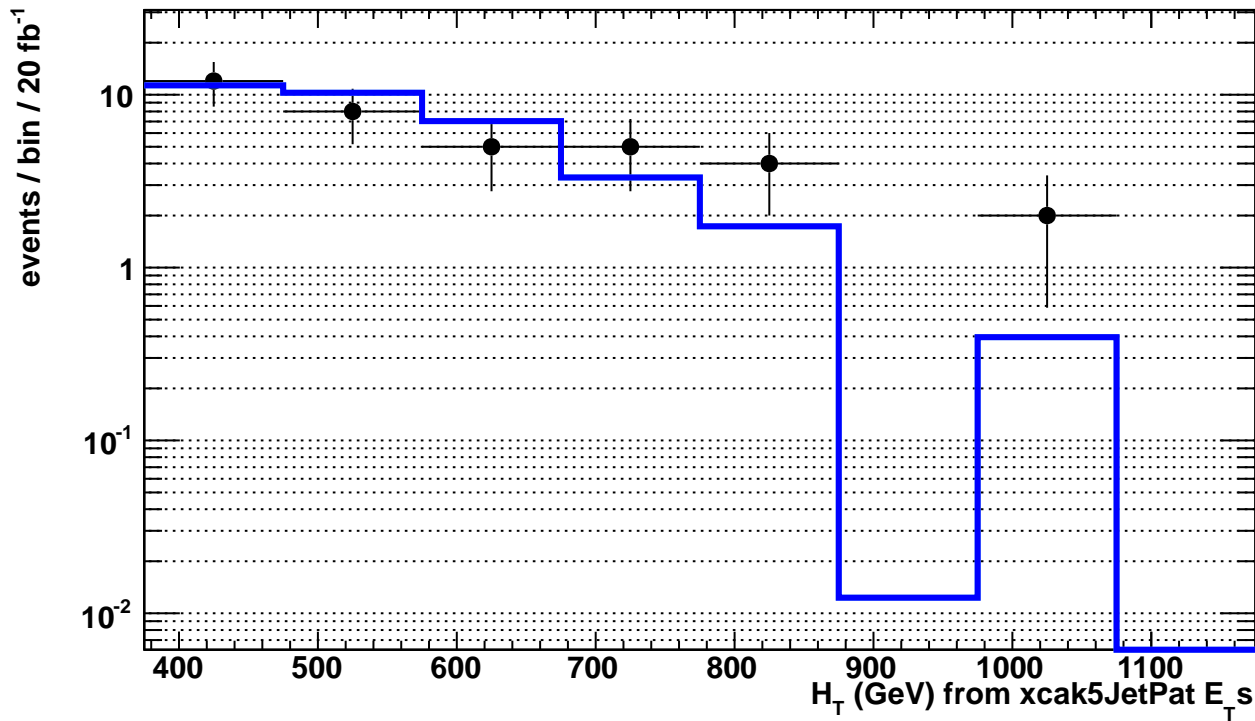


xcak5JetSumEtPat_ge4j_eq1b_dRge65	
Entries	162
Mean	538.6
RMS	147.2
Underflow	0
Overflow	0
Integral	162

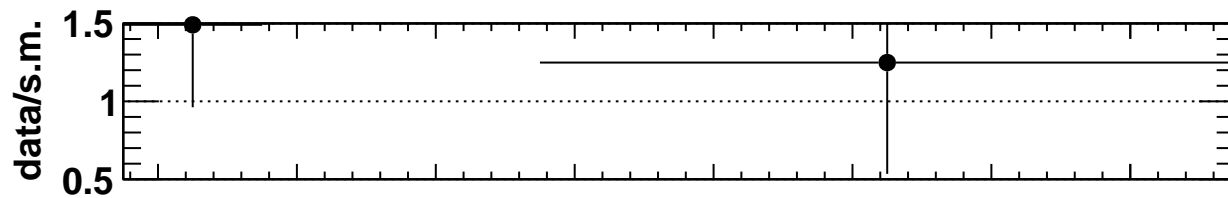
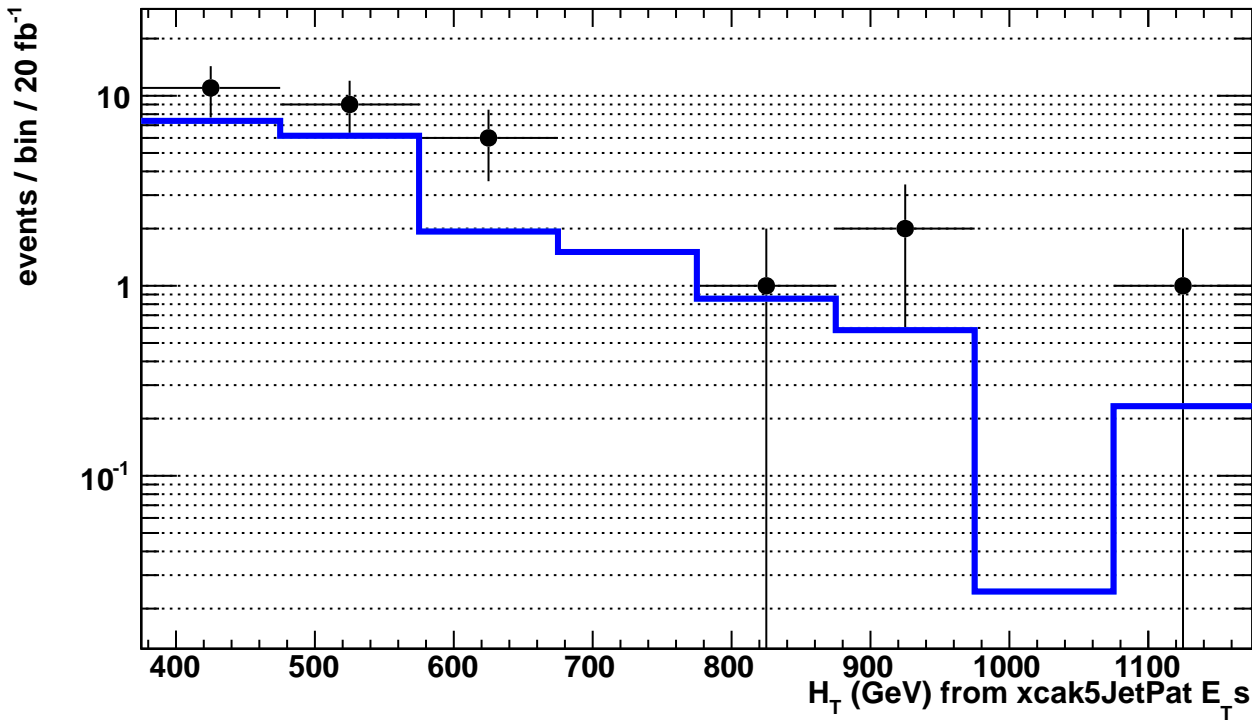




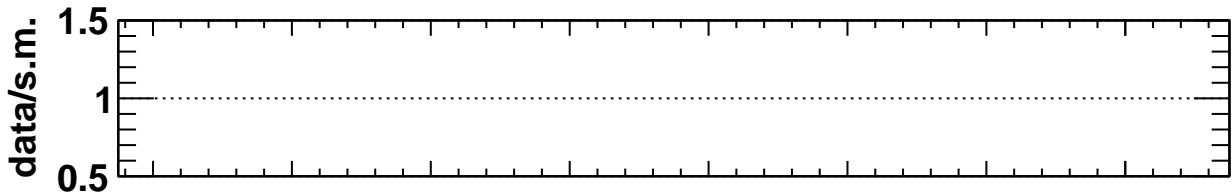
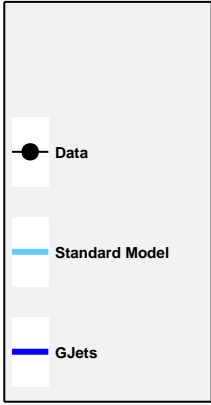
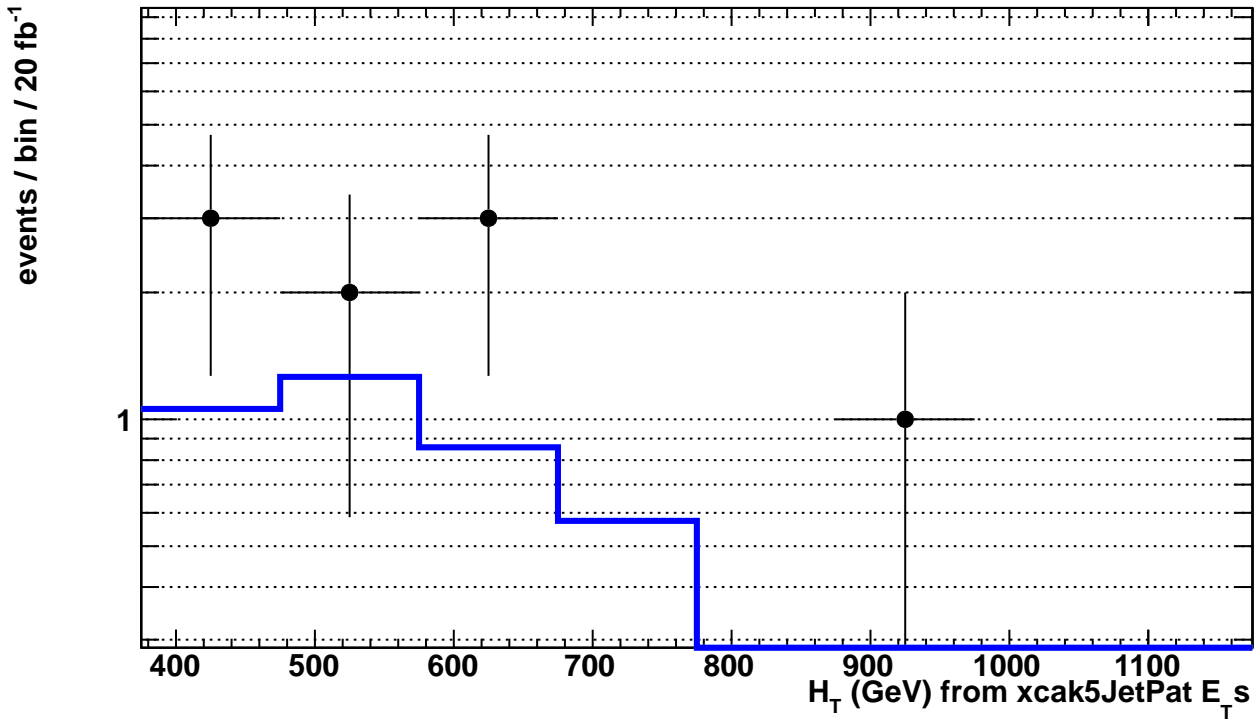
xcak5JetSumEPat_ge4j_eq1b_dR165	
Entries	36
Mean	588.7
RMS	166.2
Underflow	0
Overflow	0
Integral	36



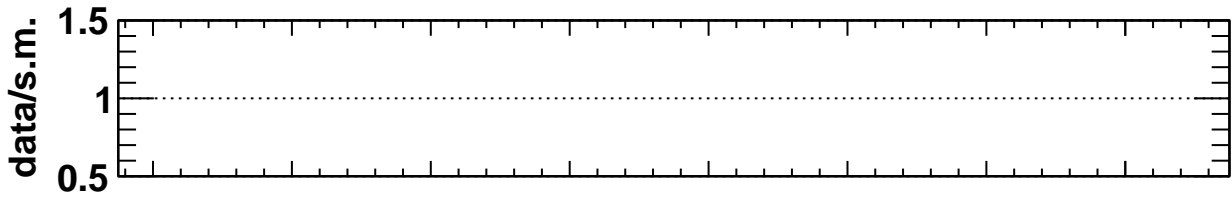
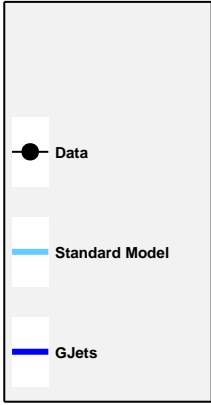
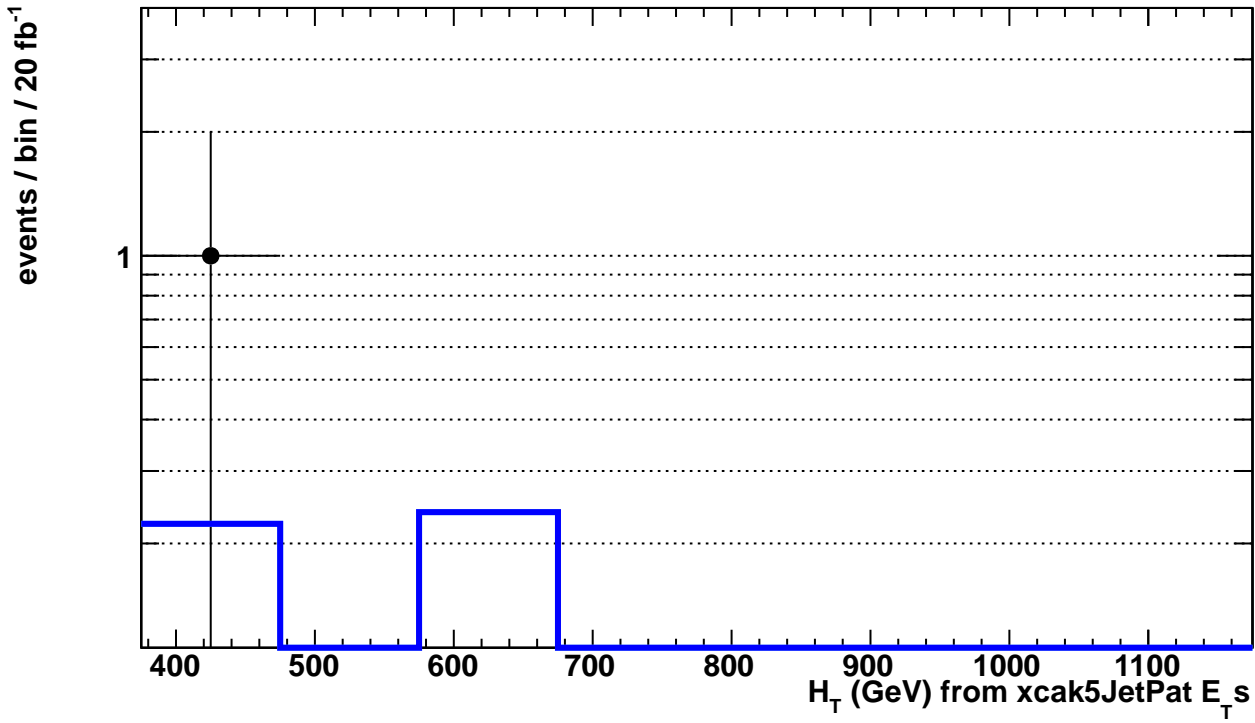
xcak5JetSumEtPat_ge4j_eq2b_dRge65	
Entries	30
Mean	555.9
RMS	178.8
Underflow	0
Overflow	0
Integral	30



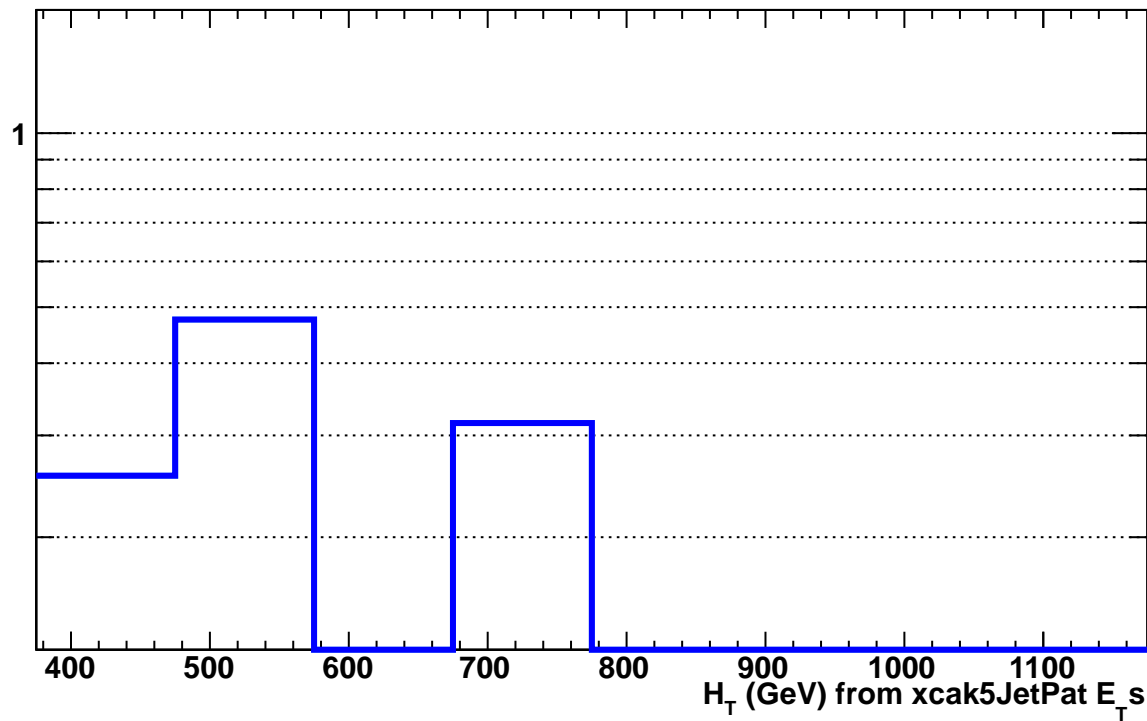
xcak5JetSumEtPat_ge4j_eq2b_dR165	
Entries	9
Mean	558.3
RMS	164.7
Underflow	0
Overflow	0
Integral	9



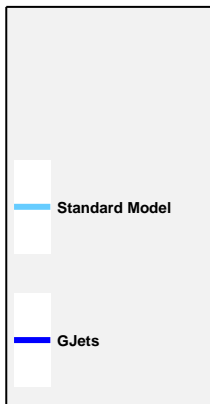
xcak5JetSumEtPat_ge4j_eq3b_dRge65	
Entries	1
Mean	471.9
RMS	0
Underflow	0
Overflow	0
Integral	1



events / bin / 20 fb<sup>-1</sup>

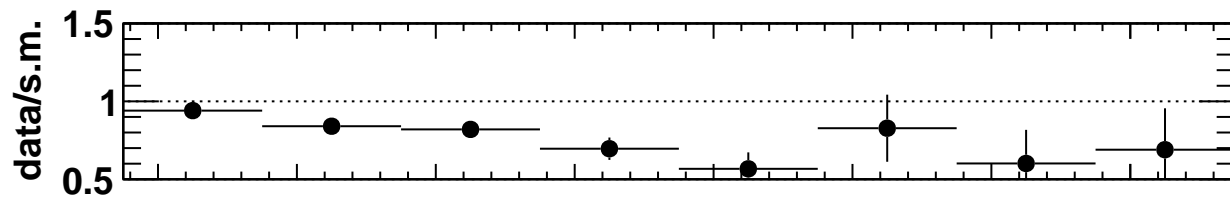
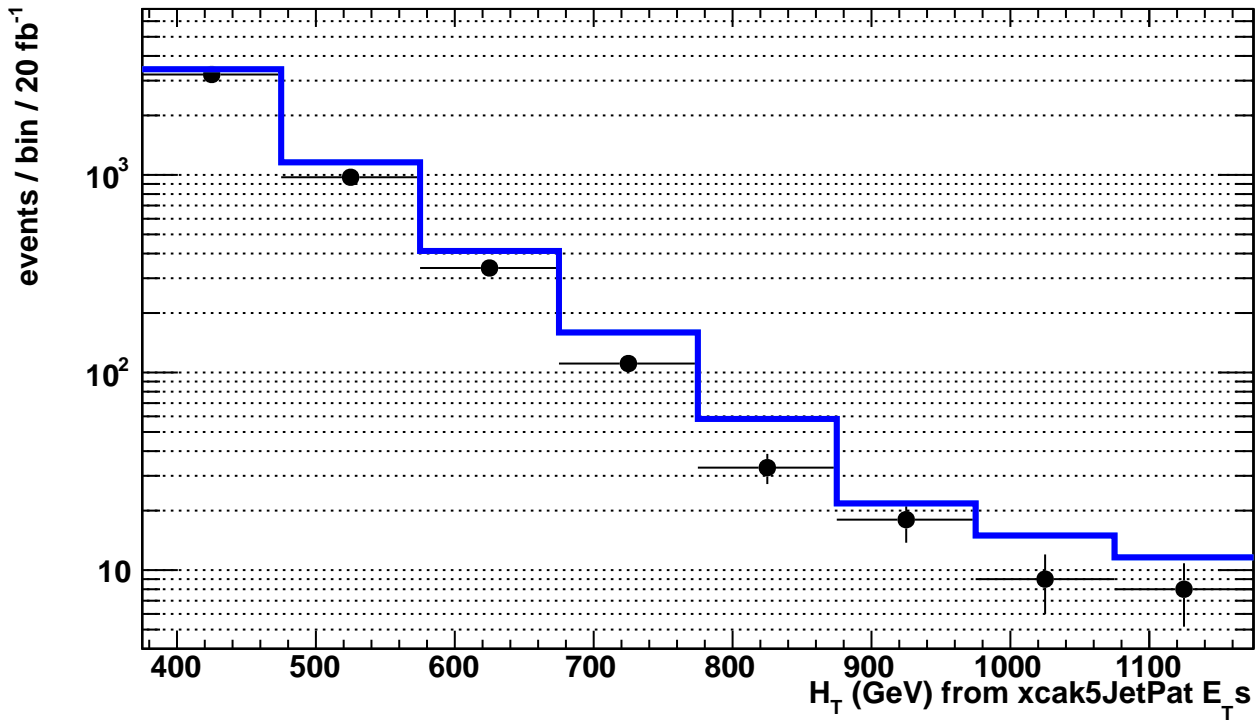


xcak5JetSumEtPat_ge4j_eq3b_dR165	
Entries	4
Mean	555.9
RMS	124.1
Underflow	0
Overflow	0
Integral	1.047

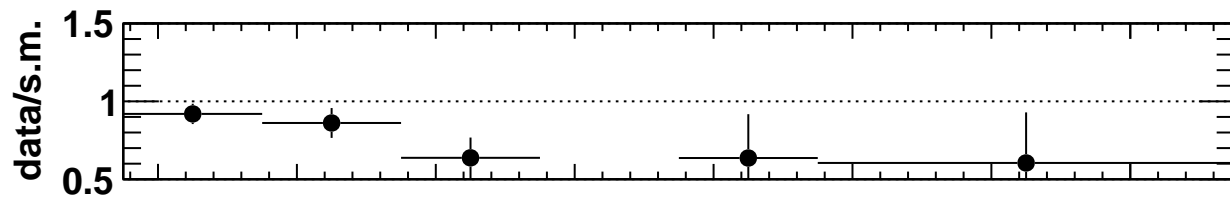
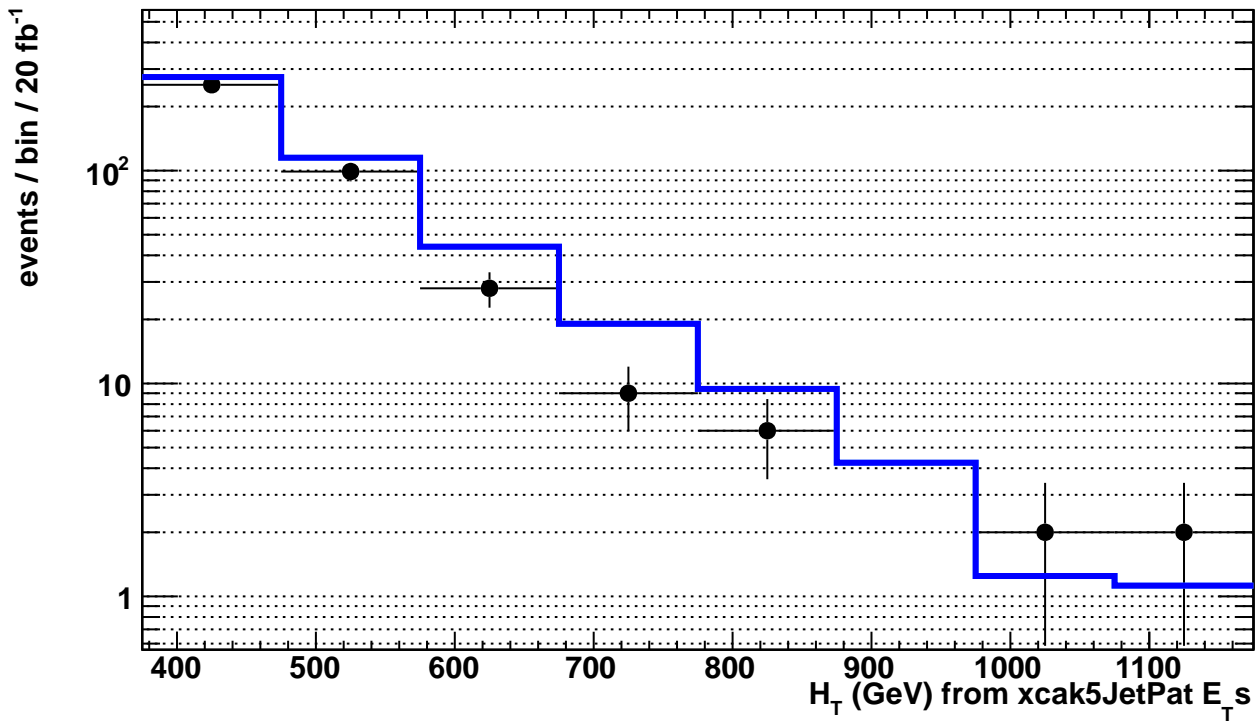




xcak5JetSumEtPat_le3_eq0b_dRge65	
Entries	4712
Mean	474.1
RMS	90.76
Underflow	0
Overflow	0
Integral	4712

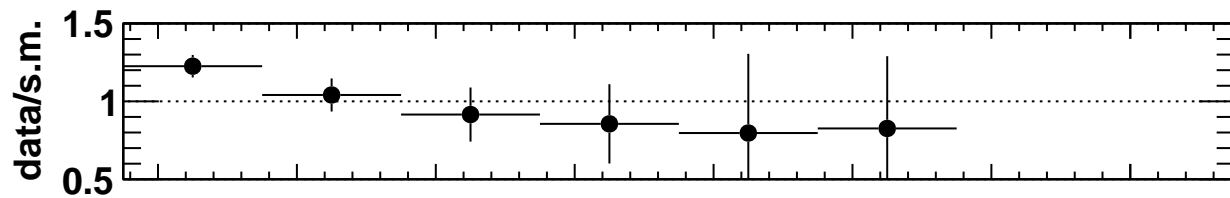
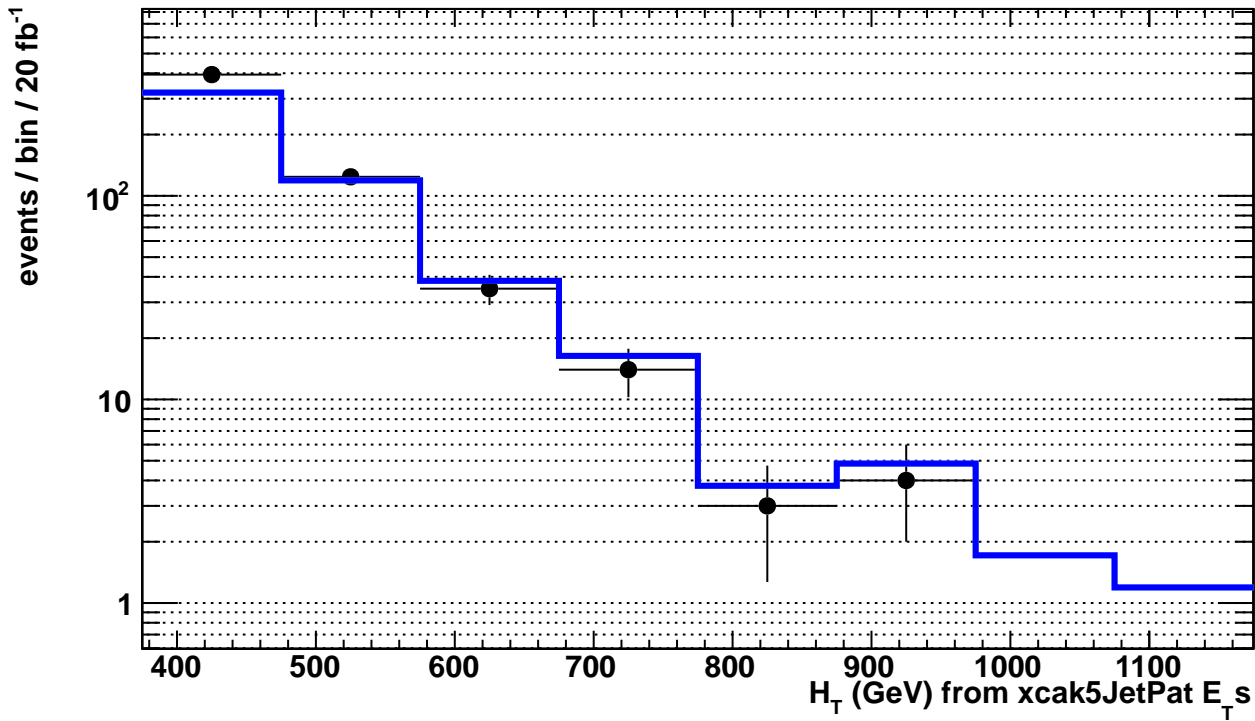


xcak5JetSumEtPat_le3j_eq0b_dRl65	
Entries	399
Mean	483.1
RMS	103
Underflow	0
Overflow	0
Integral	399

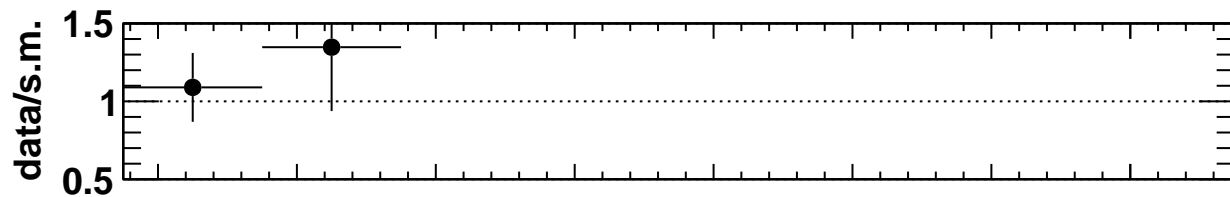
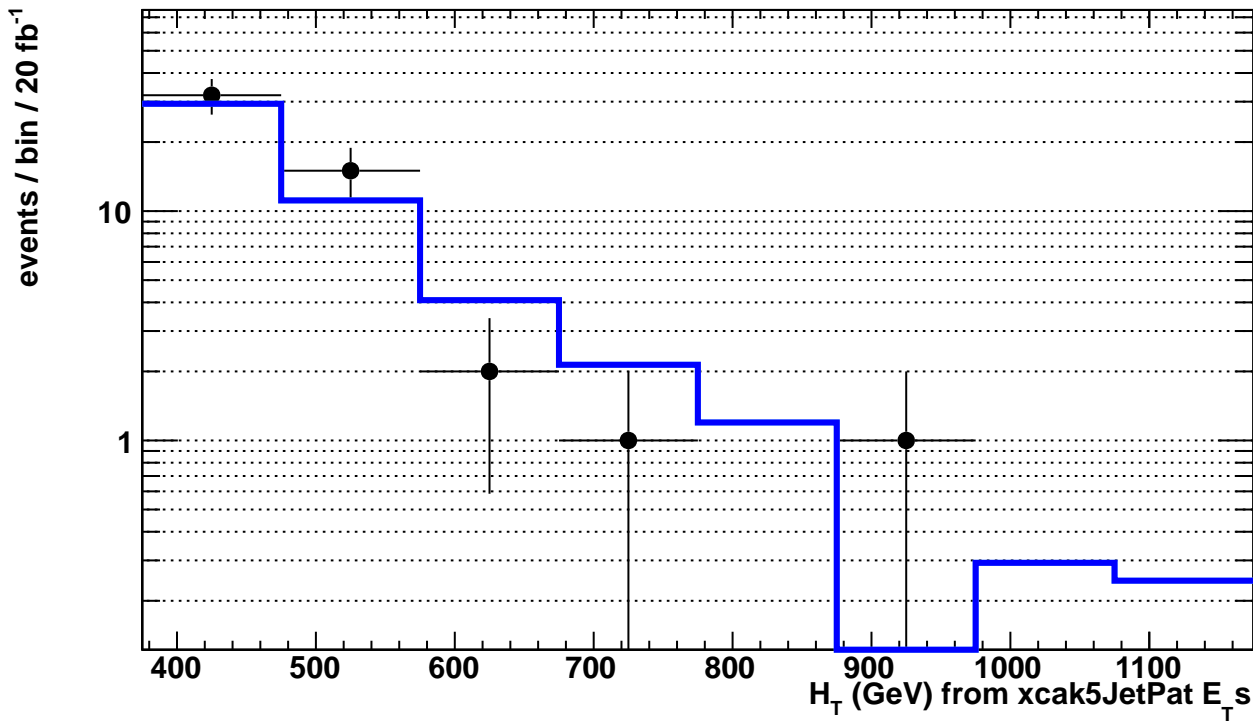




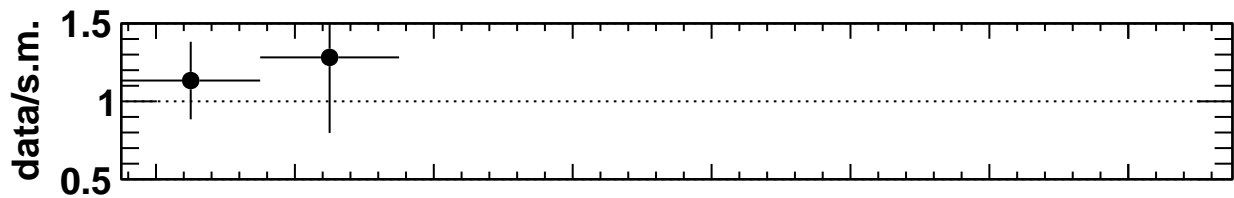
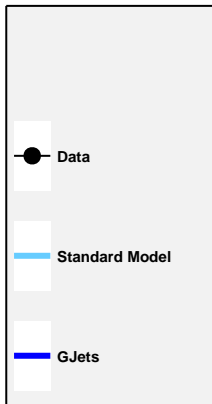
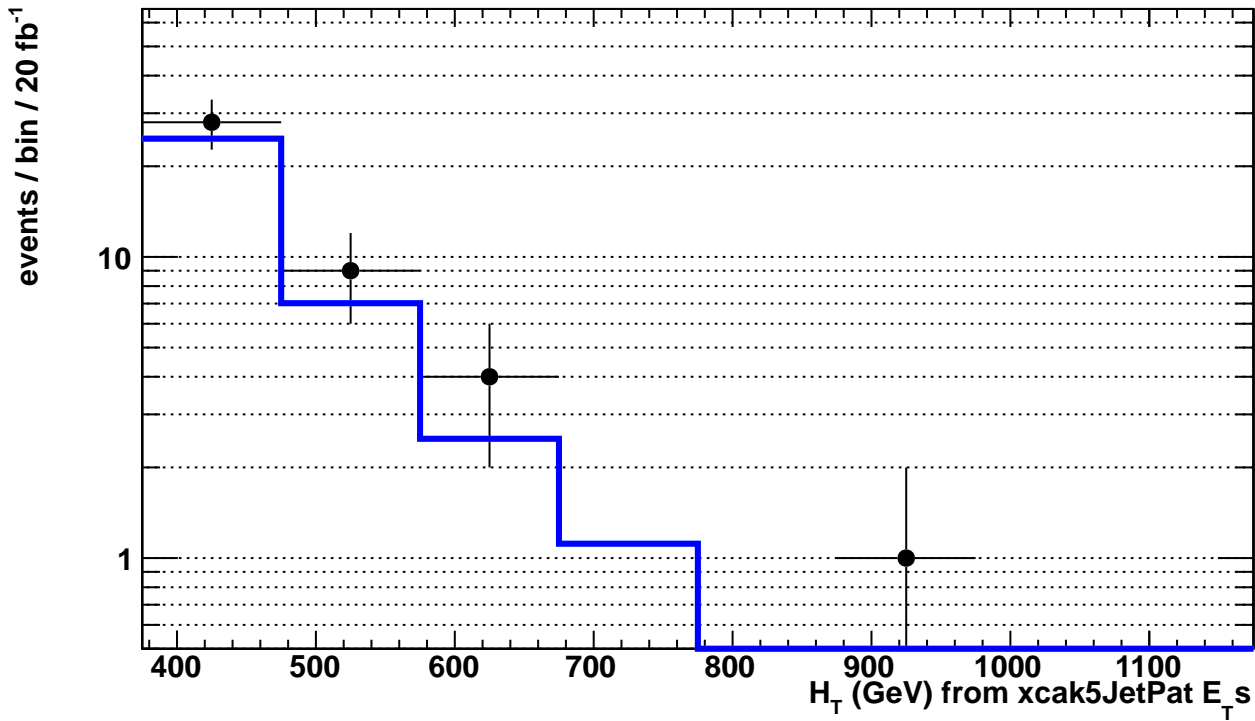
xcak5JetSumEtPat_le3_eq1b_dRge65	
Entries	574
Mean	462.3
RMS	92.76
Underflow	0
Overflow	0
Integral	574



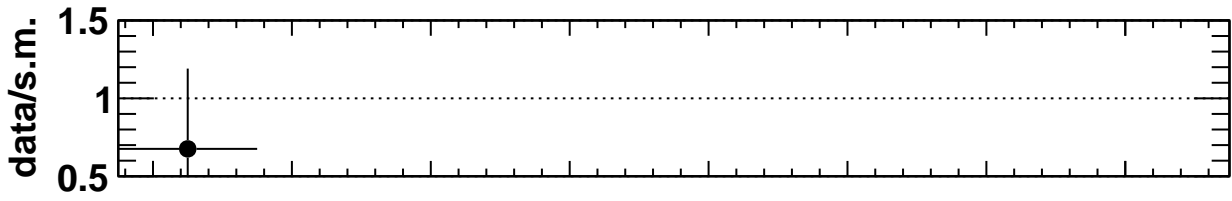
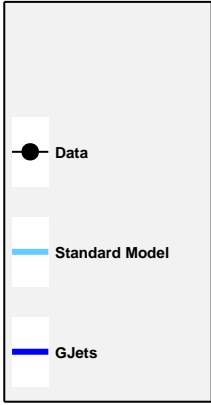
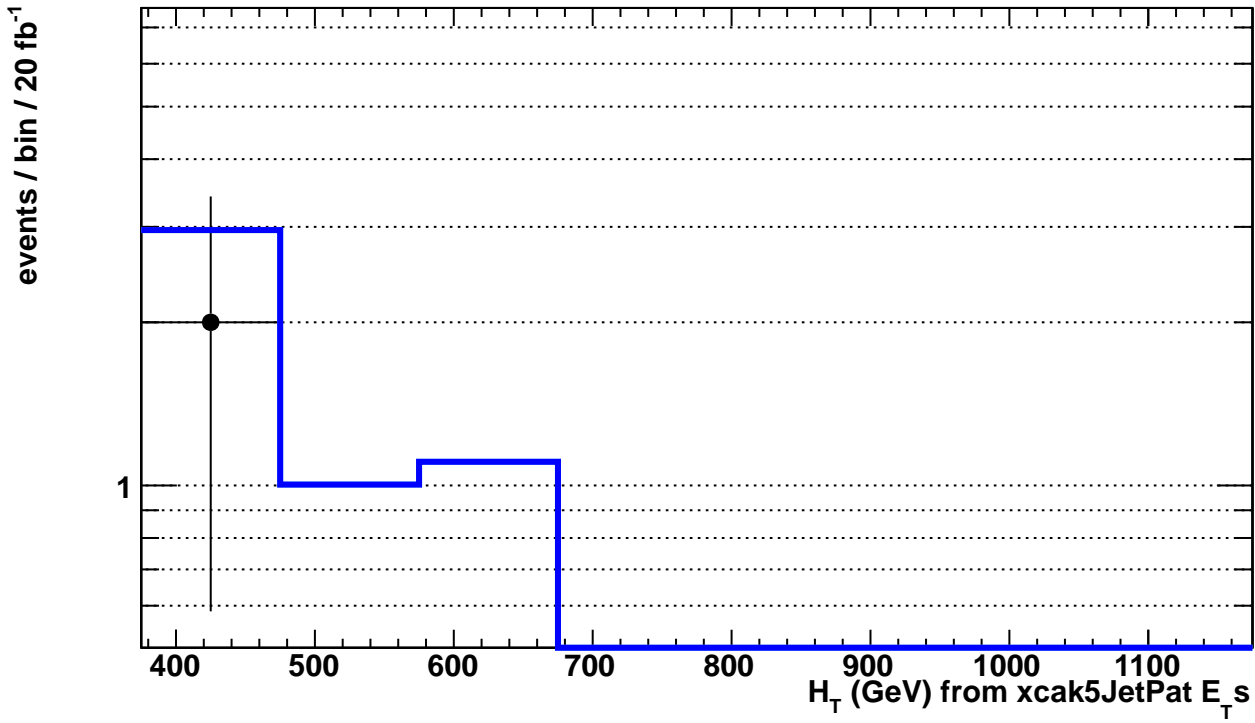
xcak5JetSumEtPat_le3j_eq1b_dRl65	
Entries	51
Mean	466.4
RMS	98.01
Underflow	0
Overflow	0
Integral	51



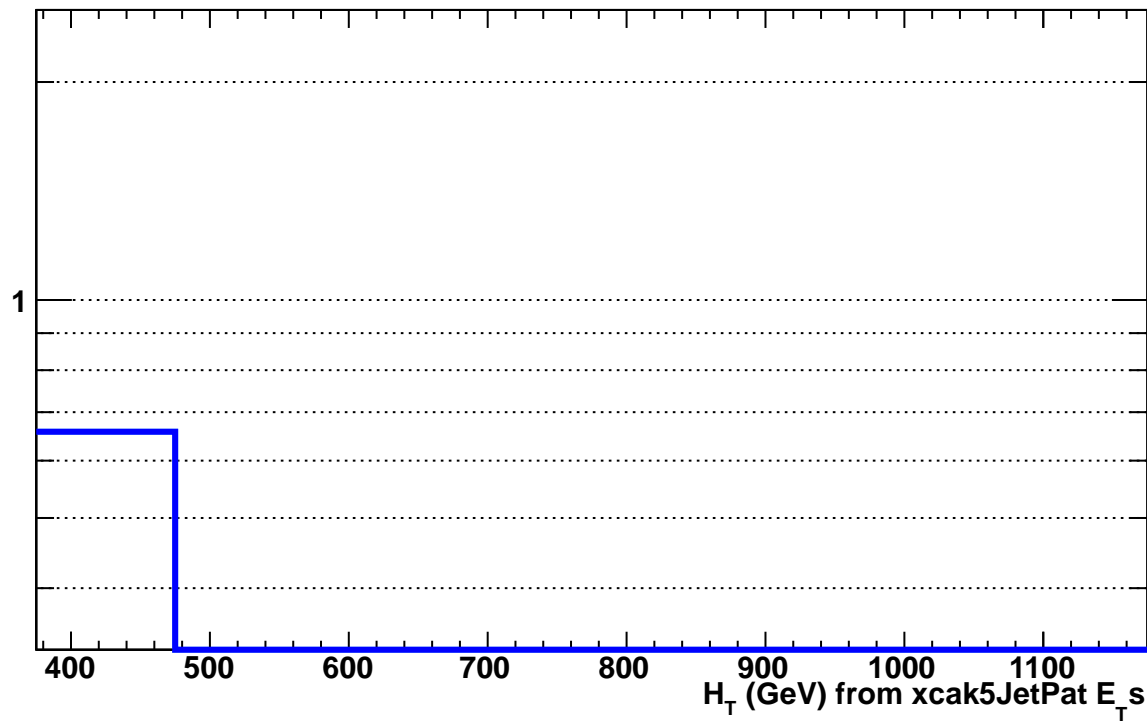
xcak5JetSumEtPat_le3_eq2b_dRge65	
Entries	42
Mean	471.2
RMS	101.3
Underflow	0
Overflow	0
Integral	42



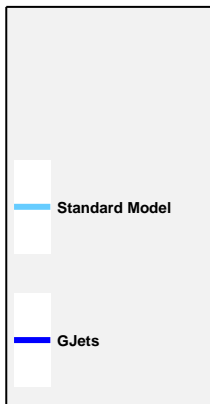
xcak5JetSumEtPat_l63j_eq2b_dRl65	
Entries	2
Mean	392.7
RMS	6.225
Underflow	0
Overflow	0
Integral	2

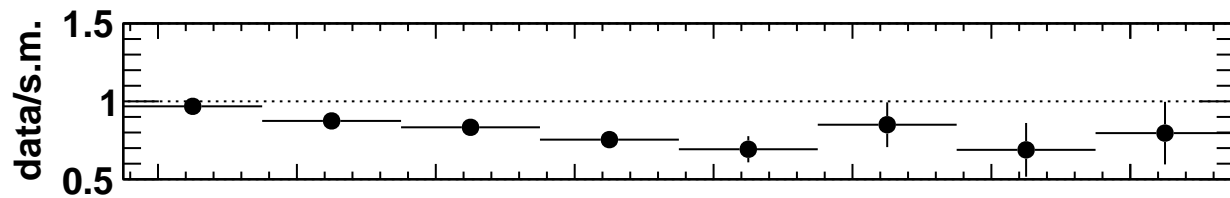
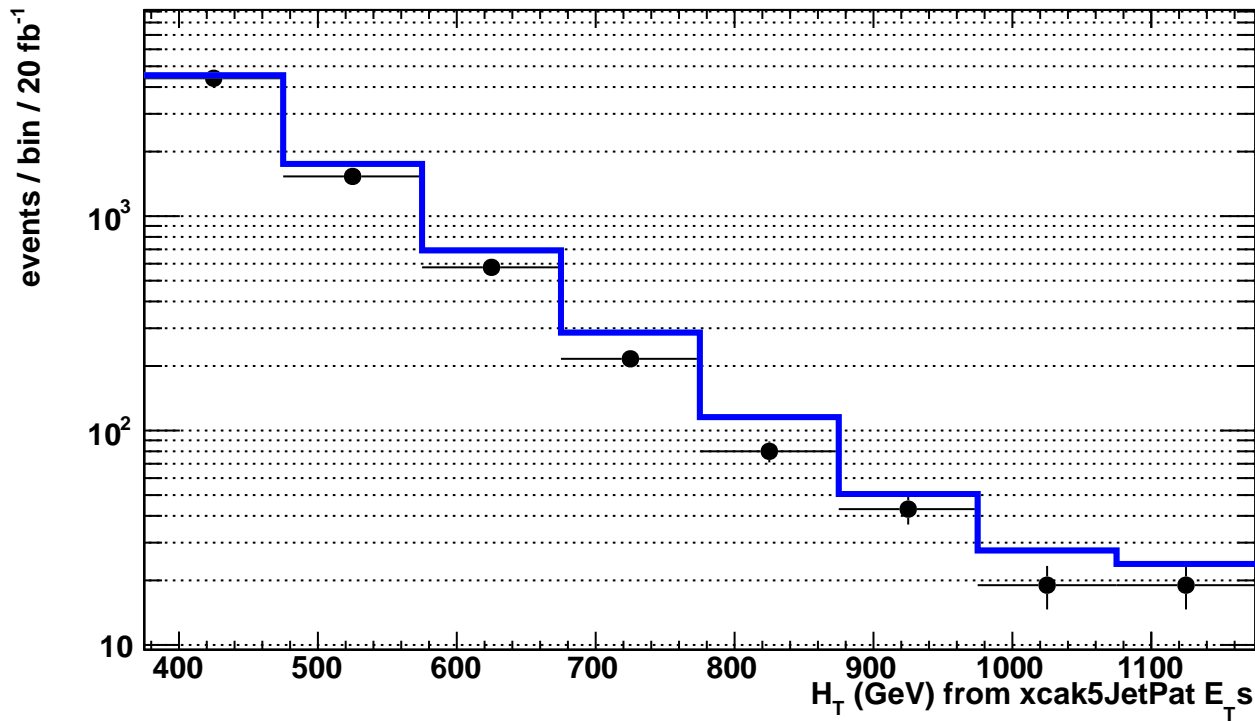


events / bin / 20 fb<sup>-1</sup>



xcak5JetSumEtPat_le3_eq3b_dRge65	
Entries	2
Mean	389.8
RMS	16.62
Underflow	0
Overflow	0
Integral	0.6578





```

Z: multiplicity          0 <= electronIndicesPat <= 0
A: multiplicity          0 <= muonIndicesPat <= 0
B: multiplicity          0 <= electronIndicesUnmatchedPat <= 0
C: multiplicity          0 <= photonIndicesUnmatchedPat <= 0
D: deadEcalFilter        xcak5JetPat; 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 xcak5JetPat; DR(photonPat[i[0]], jet) > 1.00
H: multiplicity          1 <= photonIndicesPat <= 1
I: value                 xcak5JetMhthighPtPatOvermetP4TypeIPFPlusphotonIndicesPat<=1.25

J: value                 0.55<=xcak5JetAlphaTEtPat
K: value                 475.00<=xcak5JetSumEtPat
L: value                 575.00<=xcak5JetSumEtPat
M: value                 675.00<=xcak5JetSumEtPat
N: value                 775.00<=xcak5JetSumEtPat

O: value                 875.00<=xcak5JetSumEtPat
P: value                 975.00<=xcak5JetSumEtPat
Q: value                 1075.00<=xcak5JetSumEtPat

```

	Data	Standard Model	GJets	data/s.m.
Z:	10621267	2.3371(8)e+6	2.3371(8)e+6	4.545(2)
A:	10615682	2.3369(8)e+6	2.3369(8)e+6	4.543(2)
B:	10606722	2.3334(8)e+6	2.3334(8)e+6	4.546(2)
C:	10606191	2.3331(8)e+6	2.3331(8)e+6	4.546(2)
D:	3373041	7.178(5)e+5	7.178(5)e+5	4.699(4)
E:	36160	3.93(1)e+4	3.93(1)e+4	0.921(5)
F:	31729	3.482(10)e+4	3.482(10)e+4	0.911(6)
G:	26920	2.959(9)e+4	2.959(9)e+4	0.910(6)
H:	26818	2.957(9)e+4	2.957(9)e+4	0.907(6)
I:	24999	2.772(9)e+4	2.772(9)e+4	0.902(6)
J:	6881	7.49(5)e+3	7.49(5)e+3	0.92(1)
K:	2486	2.95(3)e+3	2.95(3)e+3	0.84(2)
L:	954	1.20(2)e+3	1.20(2)e+3	0.80(3)
M:	377	5.0(1)e+2	5.0(1)e+2	0.75(4)
N:	161	218(8)	218(8)	0.74(6)
O:	81	102(5)	102(5)	0.79(10)
P:	38	51(4)	51(4)	0.7(1)
Q:	19	24(2)	24(2)	0.8(2)