

Higgs to b - b bar NNLO/NLO Comparison Plots



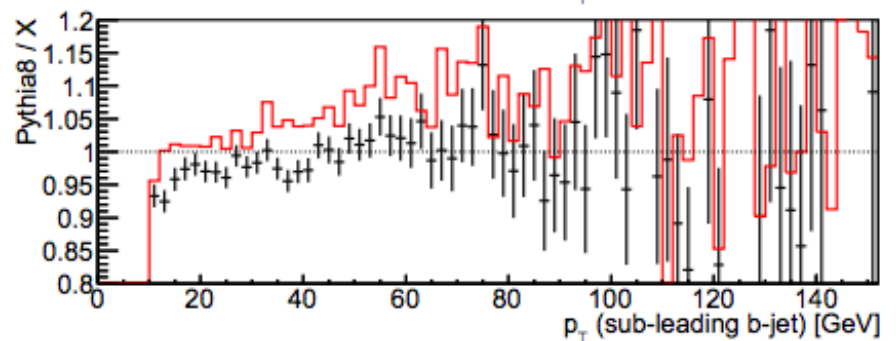
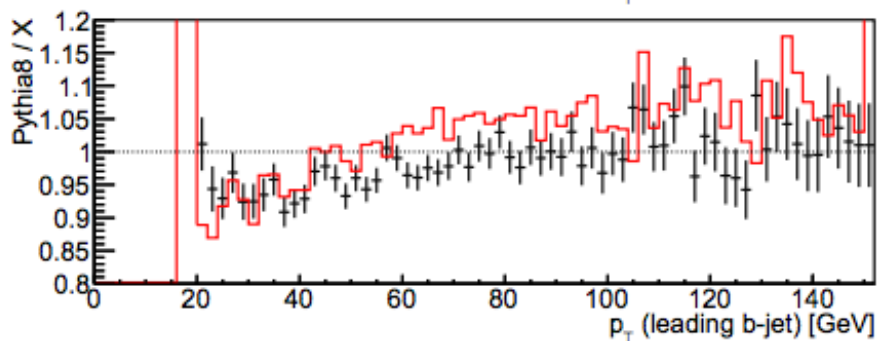
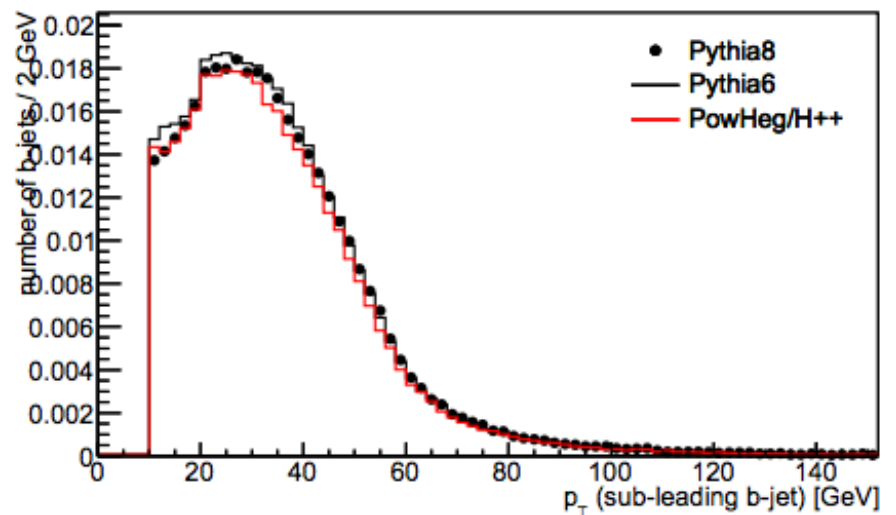
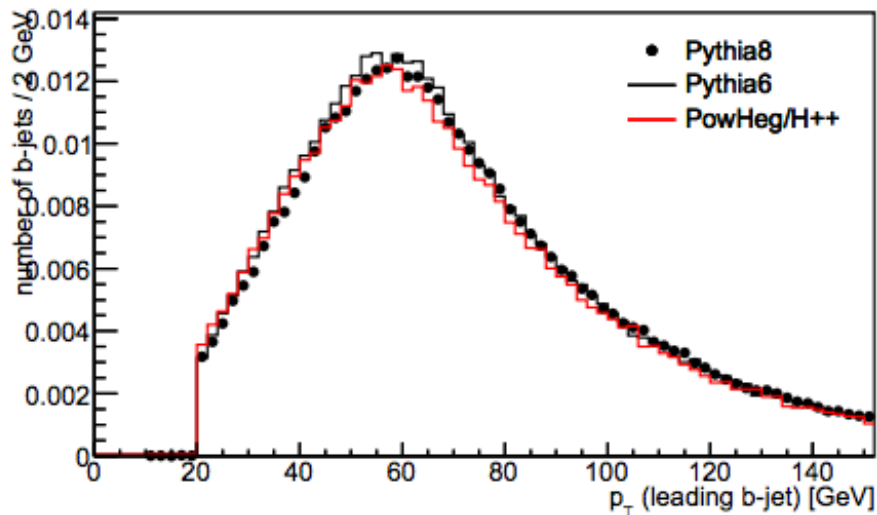
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DAVID LOPEZ MATEOS
JOHN HUTH
MICHIEL SANDERS

Data Cuts

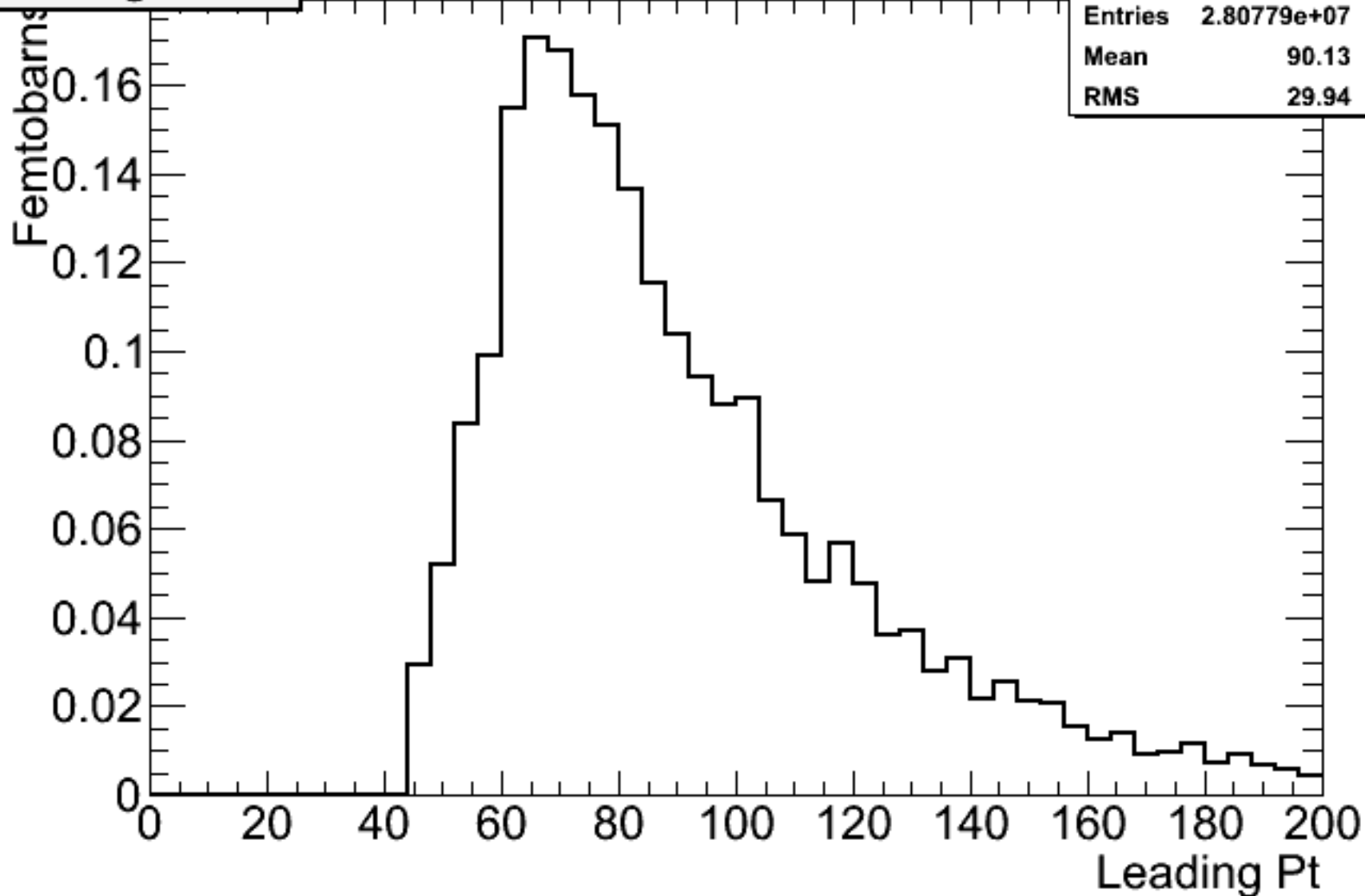
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- Global cuts:
 - Throw away event if b-jet is < 20 GeV
 - Throw away event if there are not 2 b-jets
 - Throw away event if merged bs are present
 - Electron $|\text{pseudorapidity}| < 2.5$
 - Neutrino $p_T > 25$ GeV
 - Z:
 - ✦ Require lepton $p_T > 25$ GeV
 - ✦ Invariant mass between 83 and 99 GeV
 - ✦ $|\text{Pseudorapidity}| < 2.5$
 - W:
 - ✦ Require lepton $p_T > 25$ GeV
 - ✦ $M_T > 40$ GeV (first two p_T bins) and $M_T < 120$ GeV

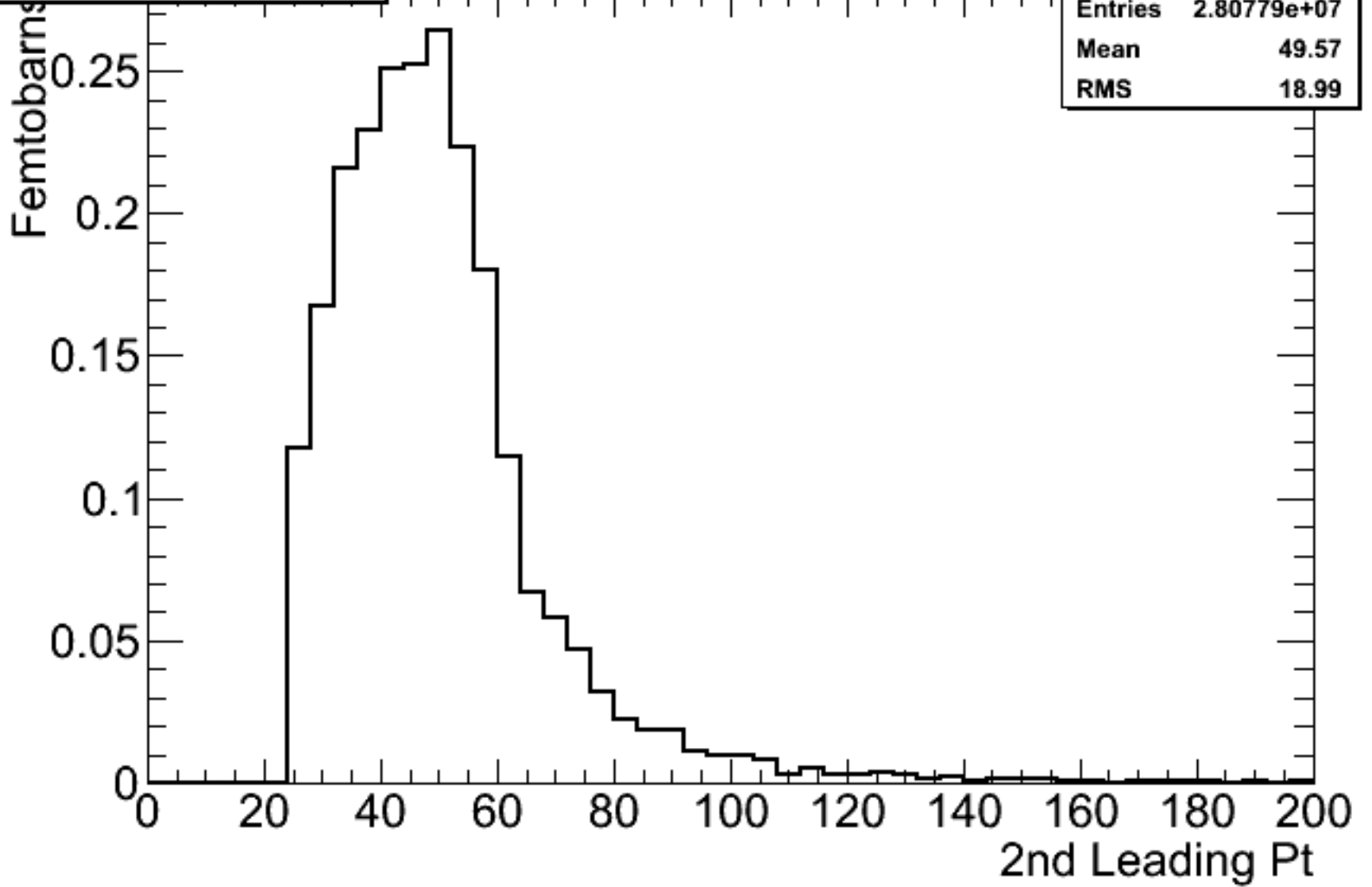
(Sub-)Leading B-Jet p_T



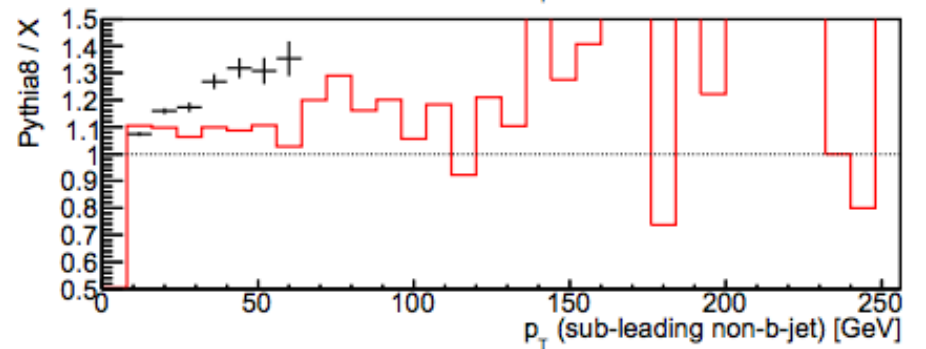
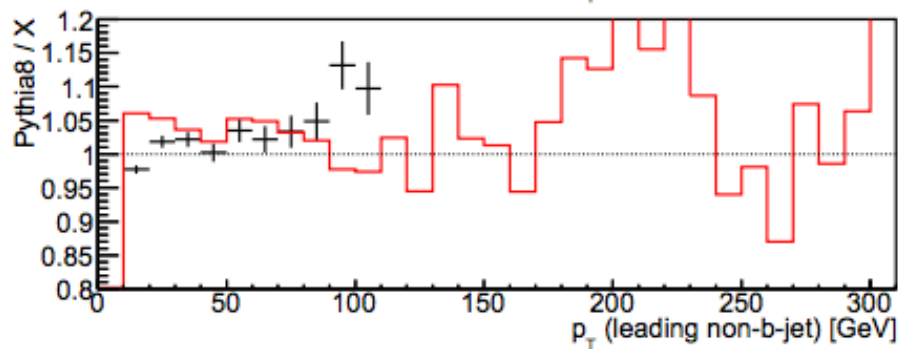
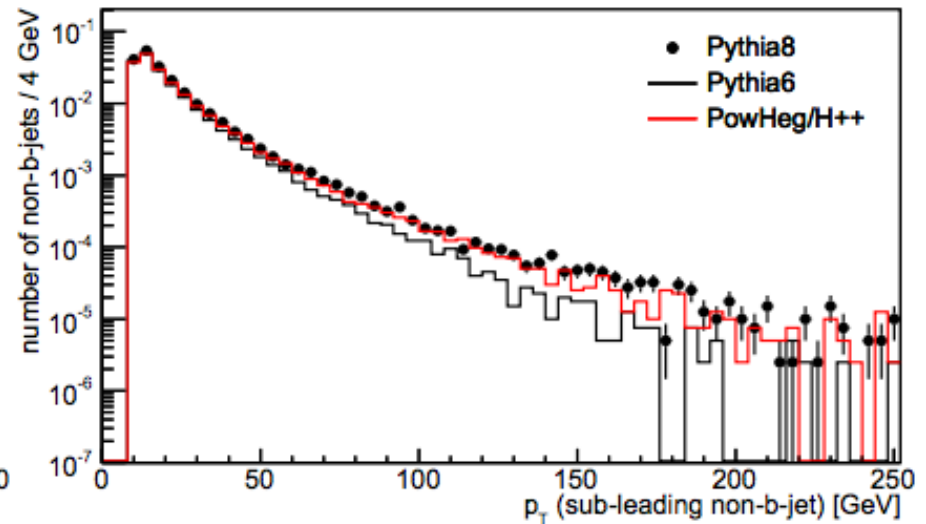
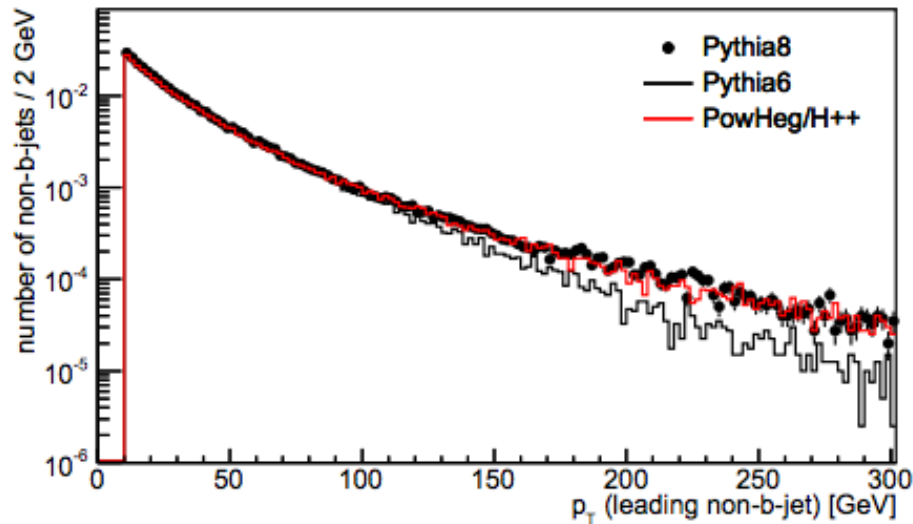
Z Leading Jet Pt



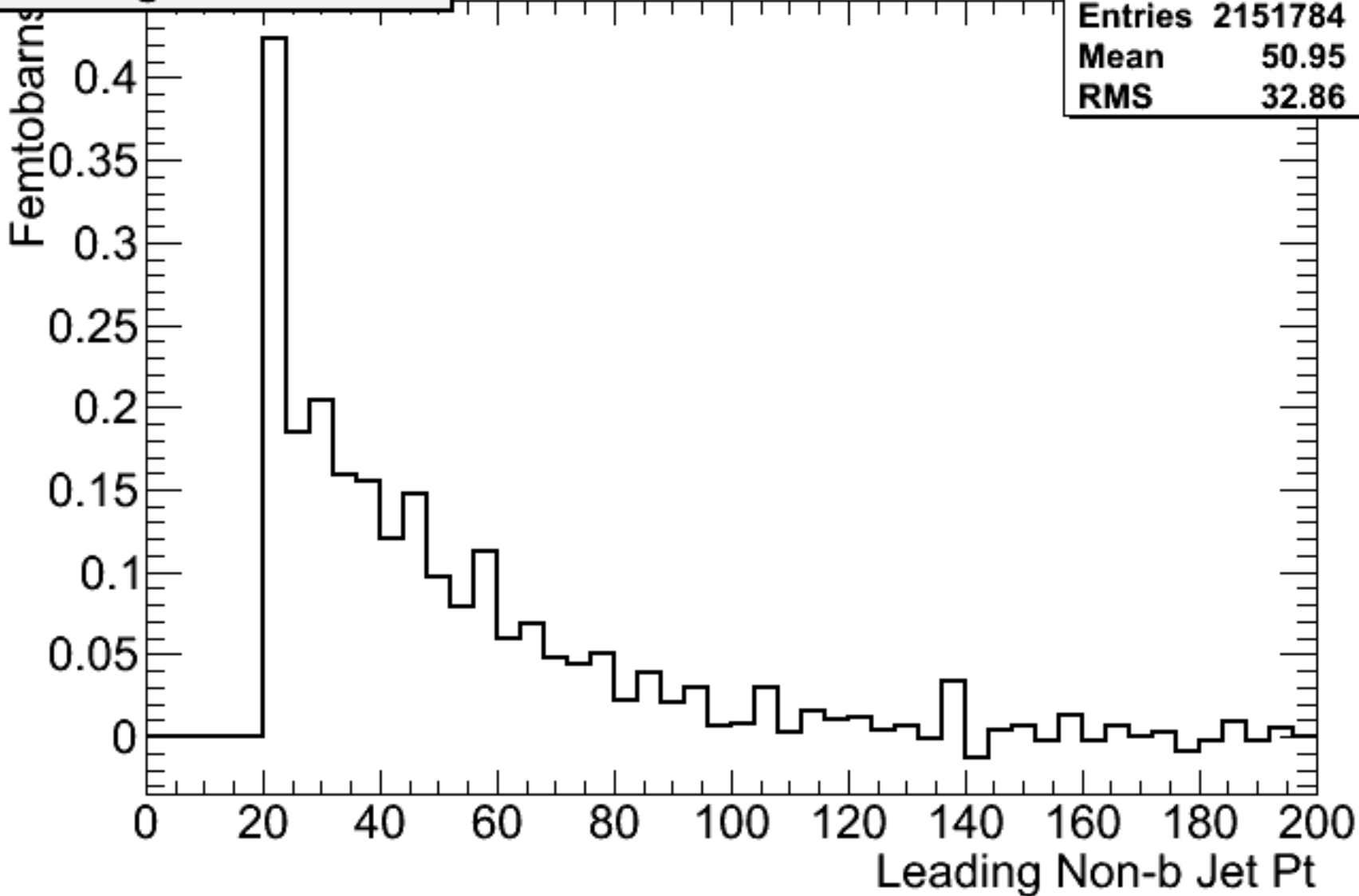
Z 2nd Leading Jet Pt



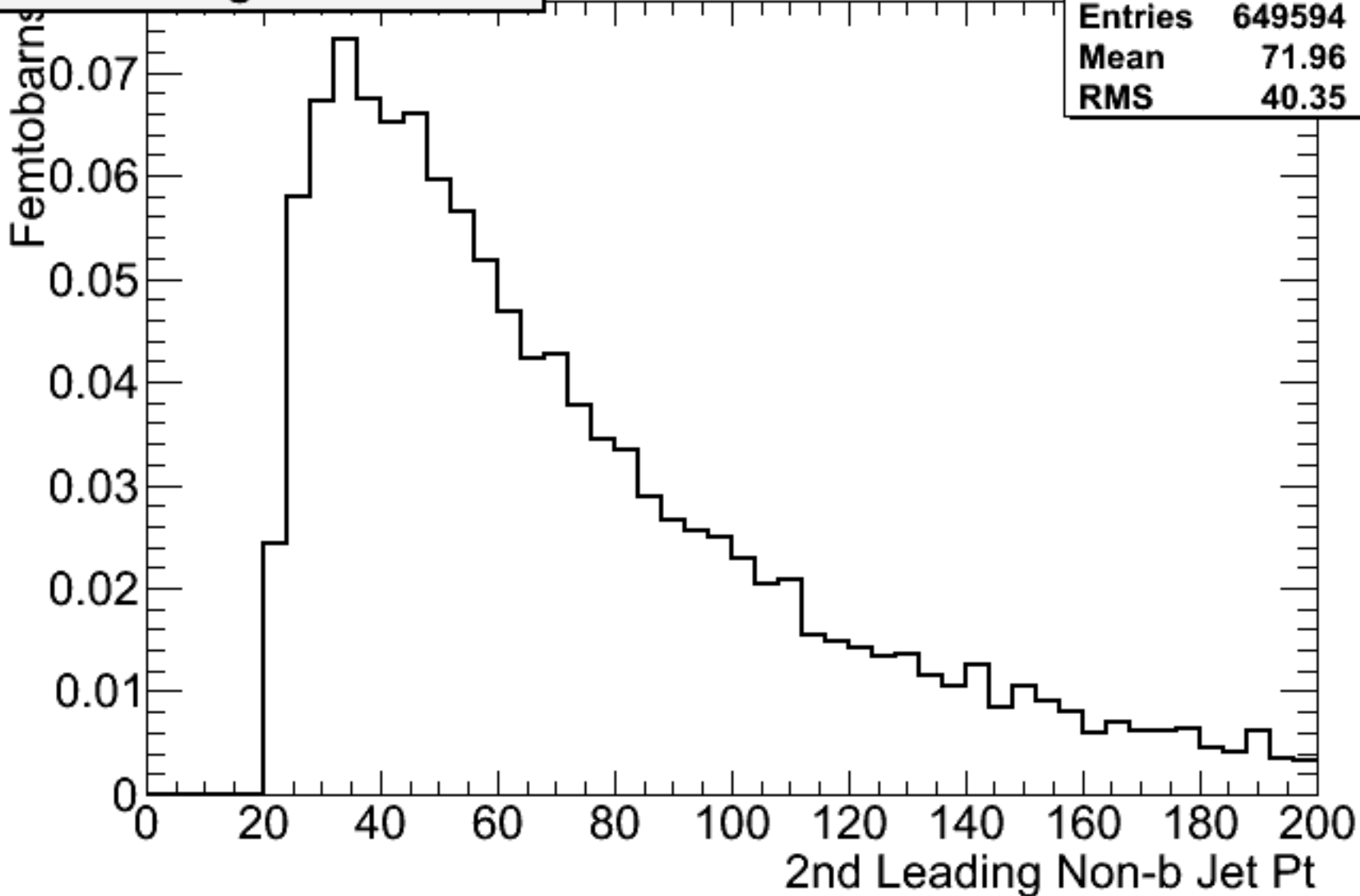
(Sub-)Leading Radiated Jet



W Leading Non-b Jet Pt

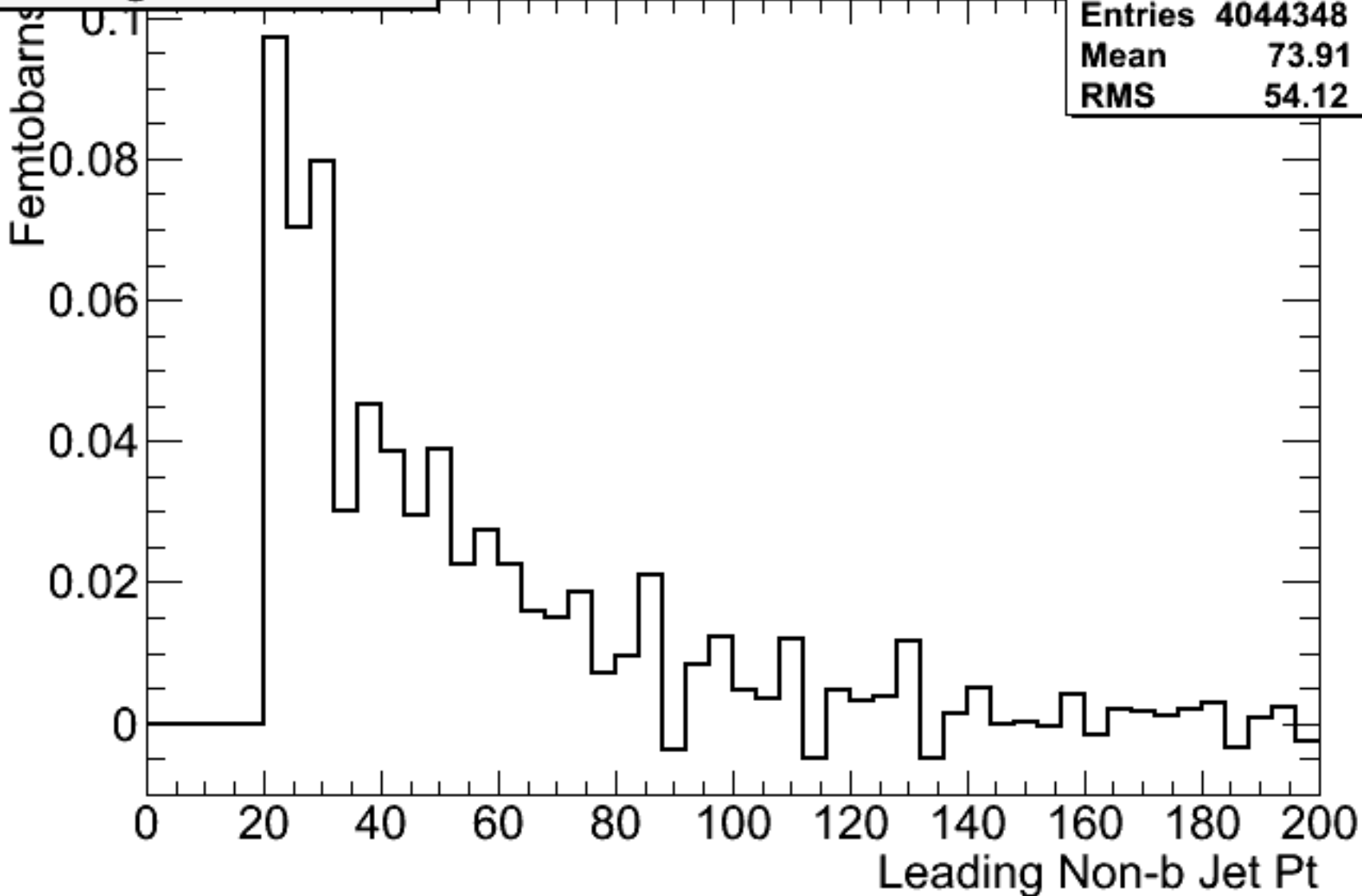


W 2nd Leading Non-b Jet Pt



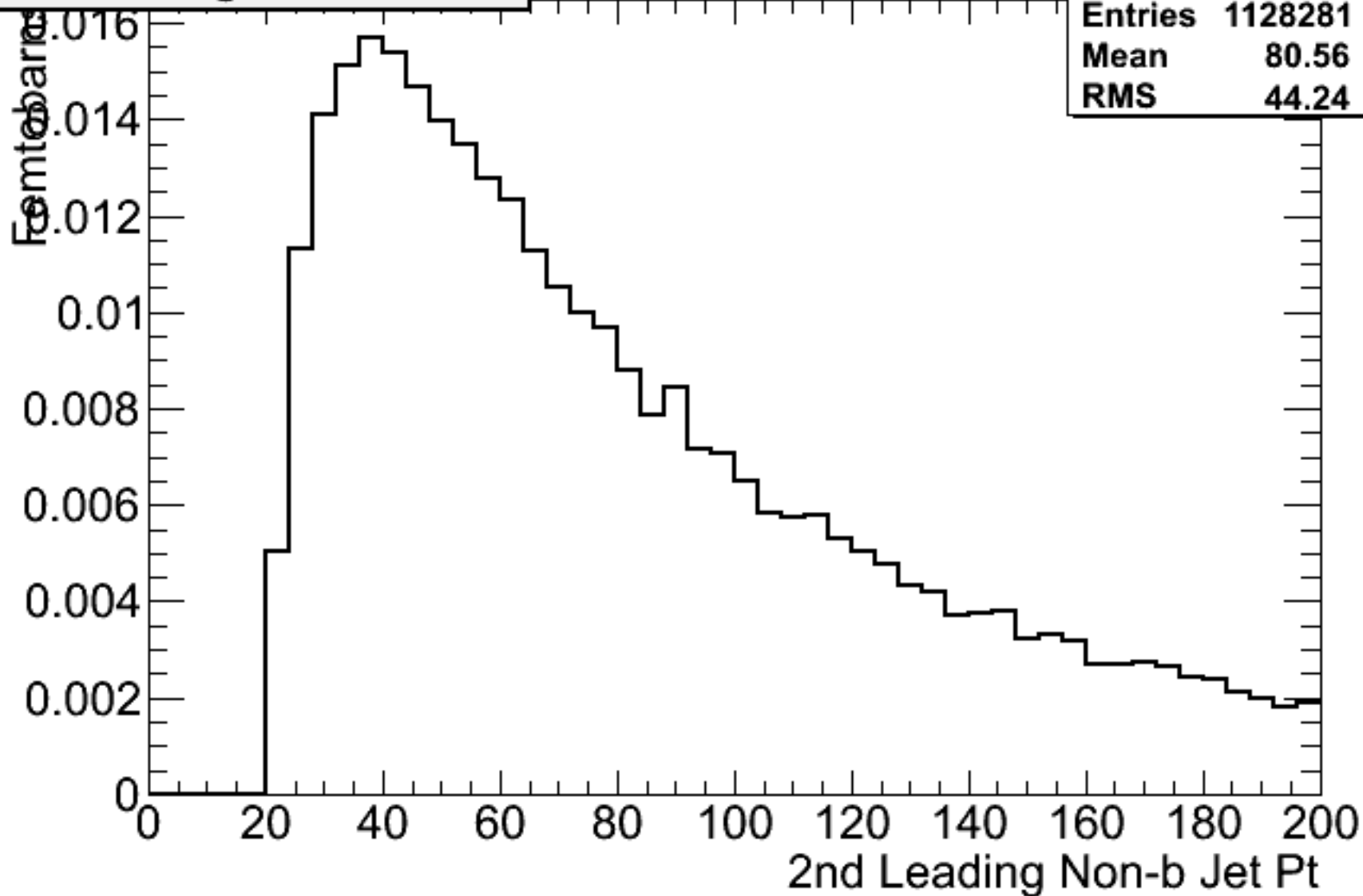
jetPtLrad2	
Entries	649594
Mean	71.96
RMS	40.35

Z Leading Non-b Jet Pt

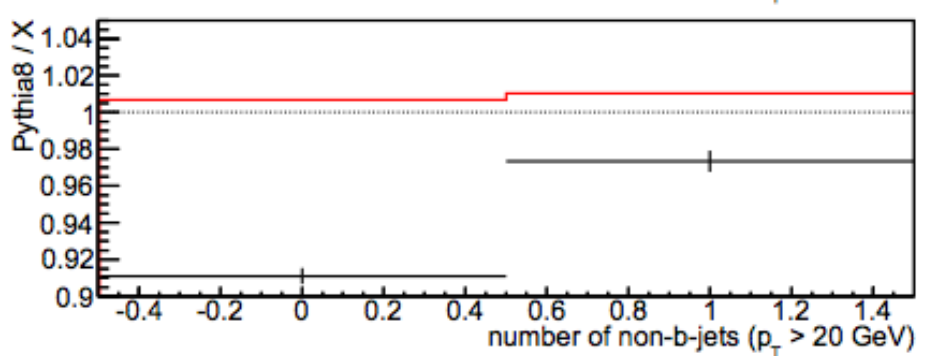
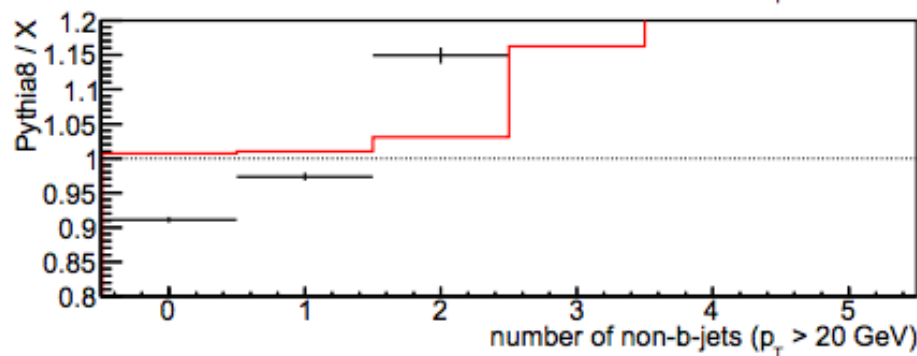
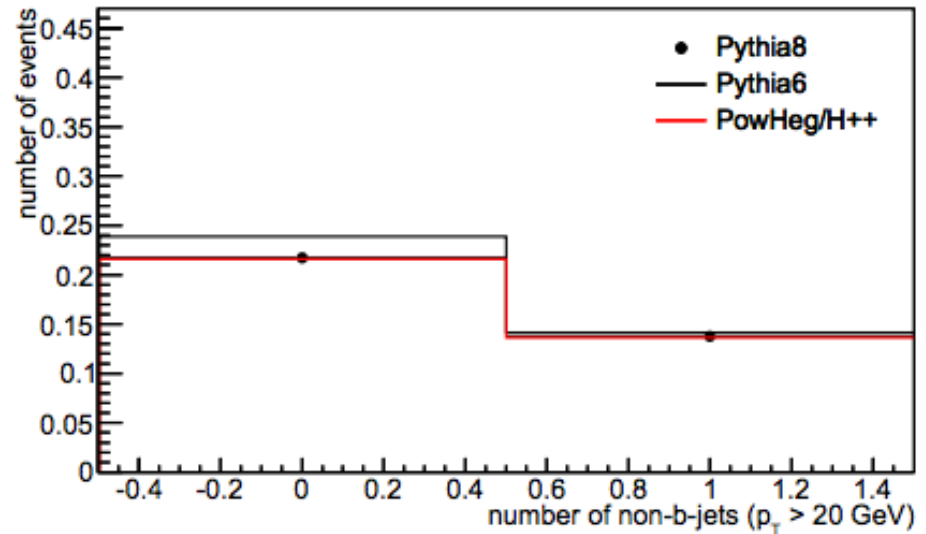
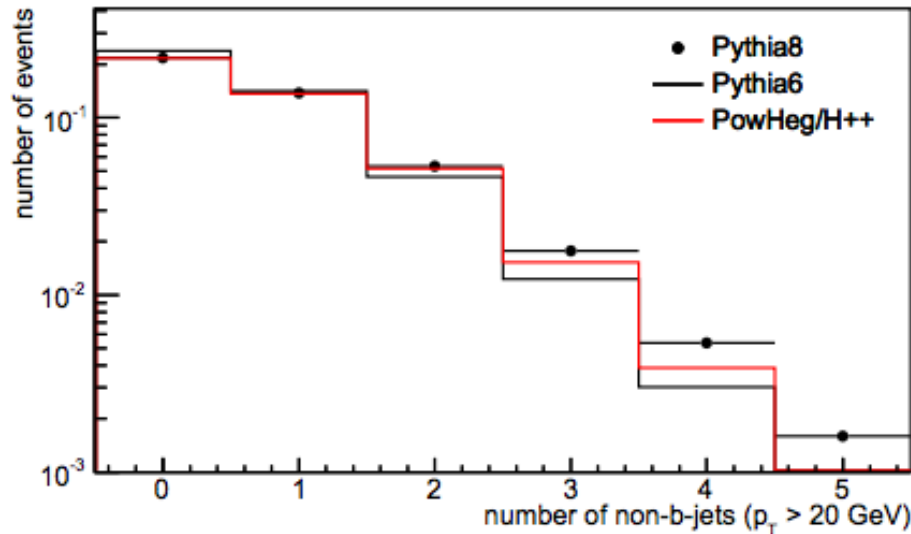


Z 2nd Leading Non-b Jet Pt

jetPtLrad2	
Entries	1128281
Mean	80.56
RMS	44.24

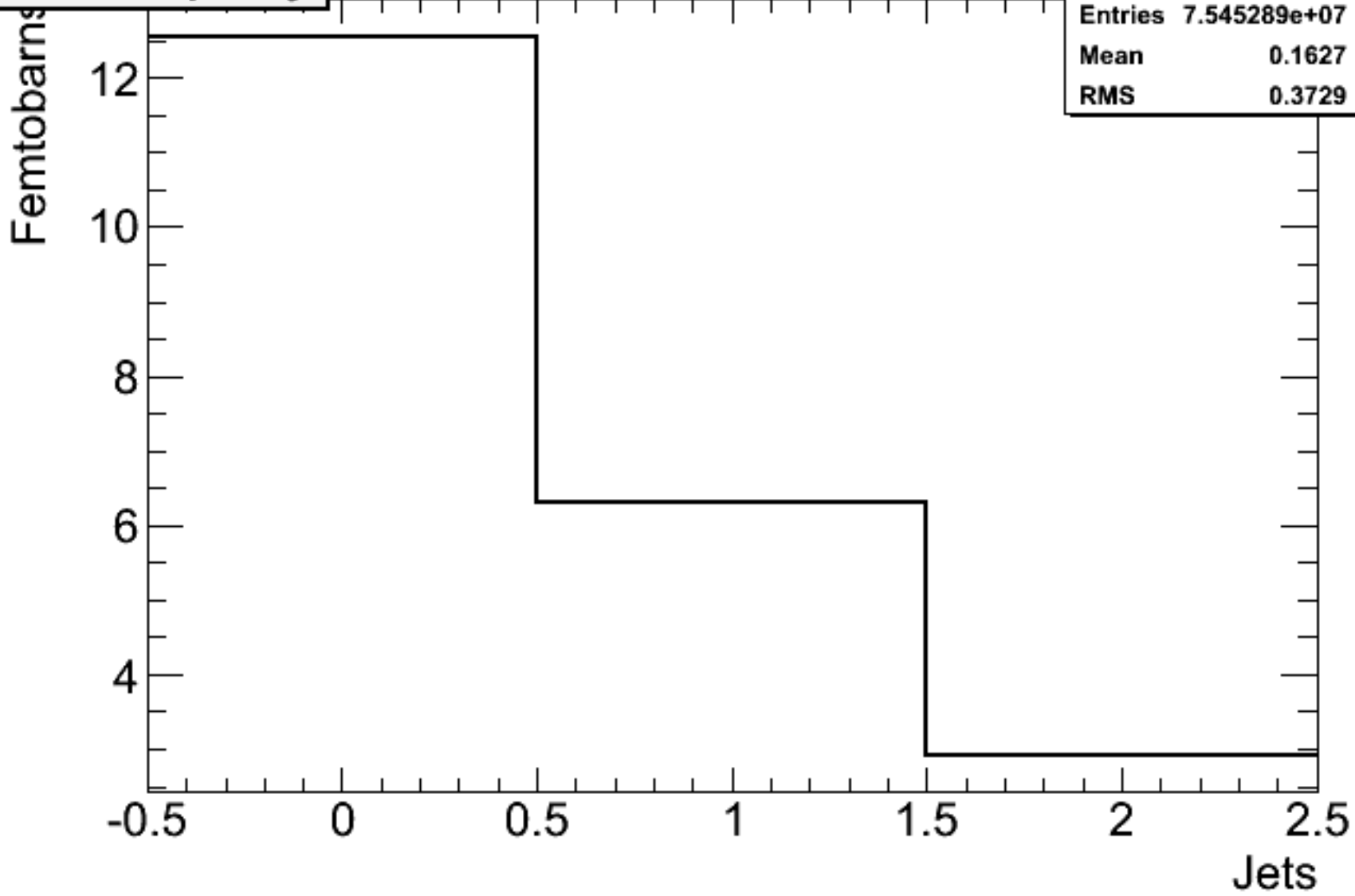


Number of Non-B Jets



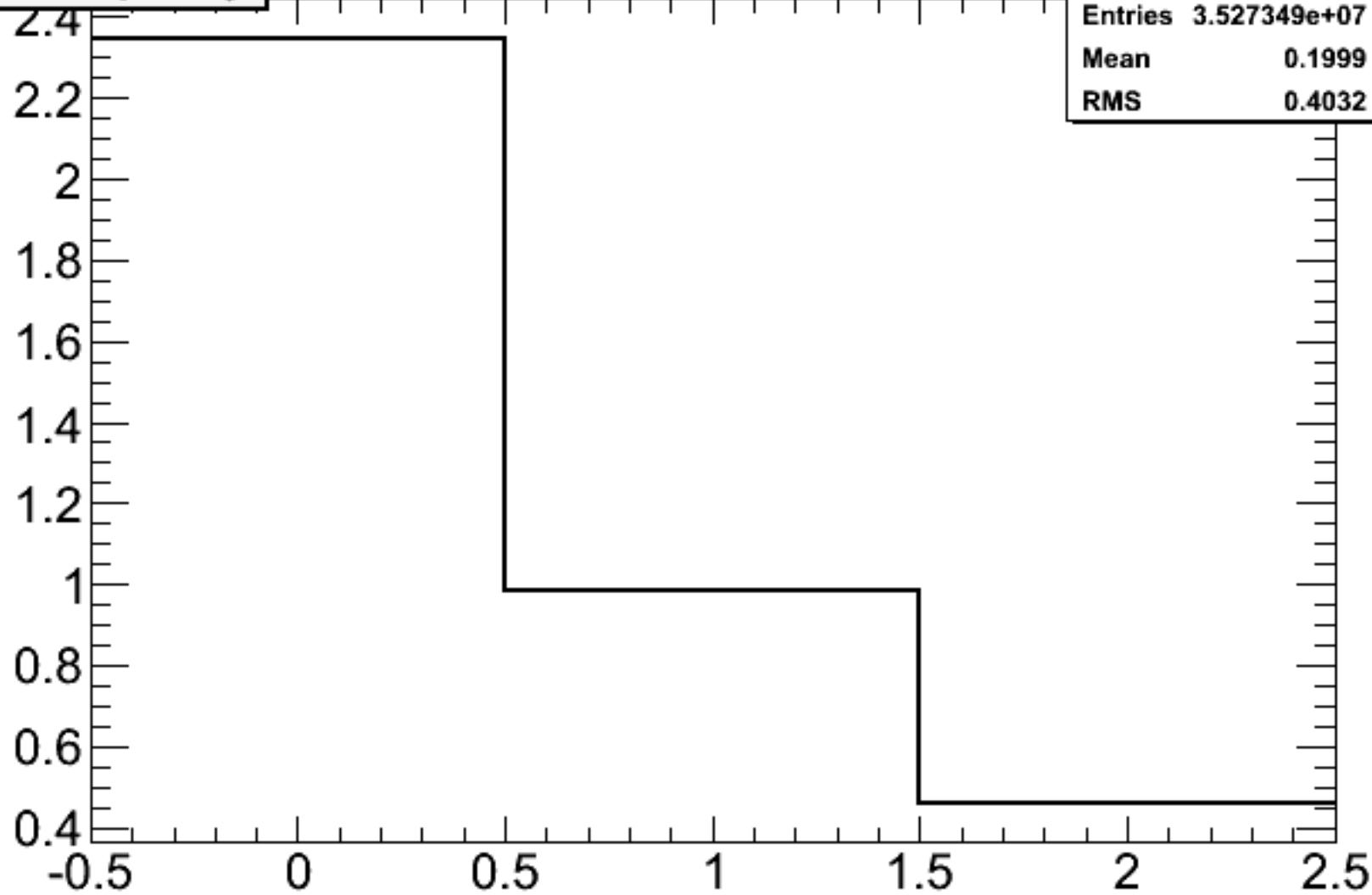
W Jets Multiplicity

jetMult	
Entries	7.545289e+07
Mean	0.1627
RMS	0.3729



Z Jets Multiplicity

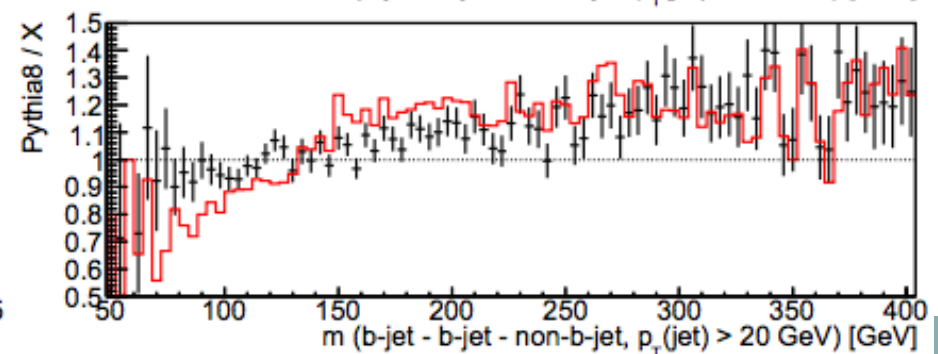
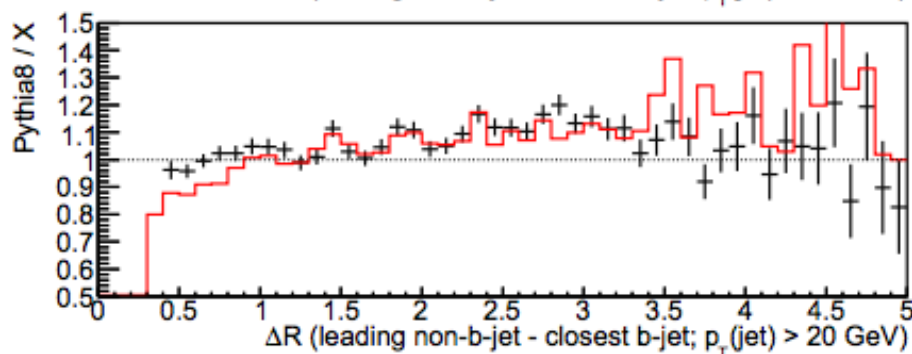
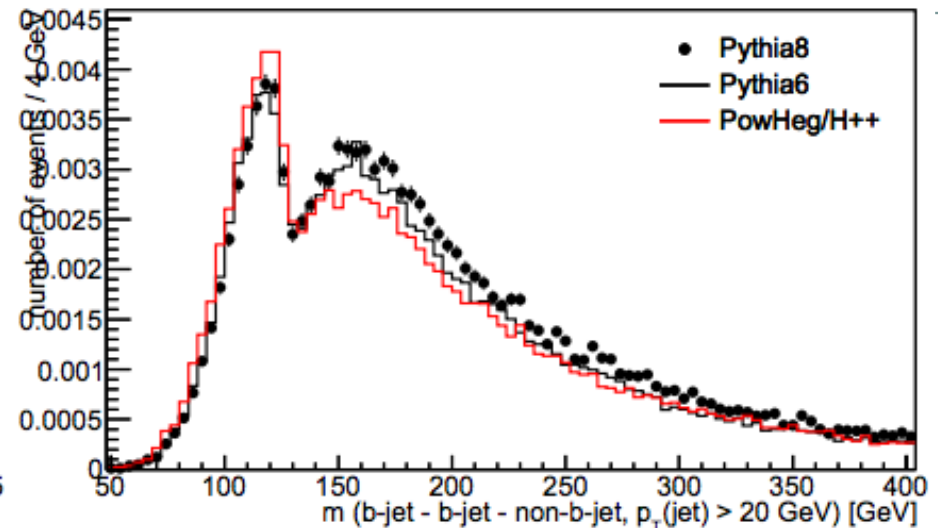
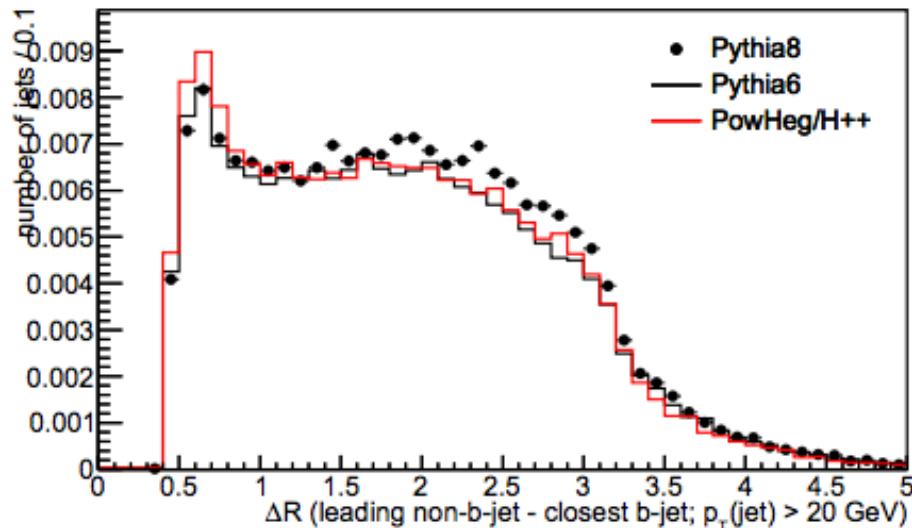
Femtobarns



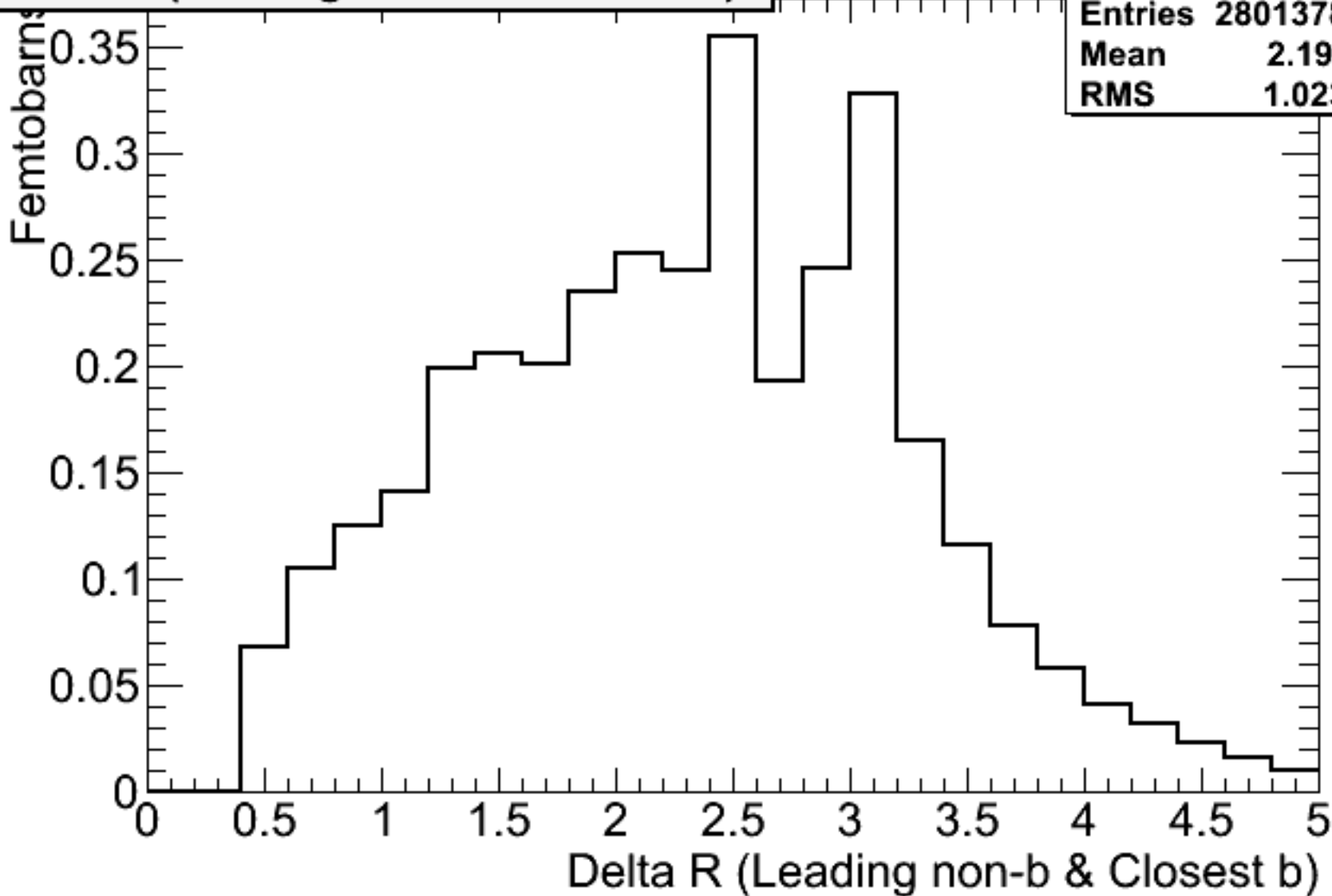
jetMult	
Entries	3.527349e+07
Mean	0.1999
RMS	0.4032

Jets

Delta-R (Leading non-B and Closest B)



W Delta R (Leading Non-b & Closest b)



Z Delta R (Leading Non-b & Closest b)

