Recent Results

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With the help of Qiang Li,

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Electron Efficiency (repeating Yiwen's Work)

MadGraph 5 + Pythia 6 + Delphes 3 with Snowmass and 140PU card

100 TeV: p p > z > e+ e –

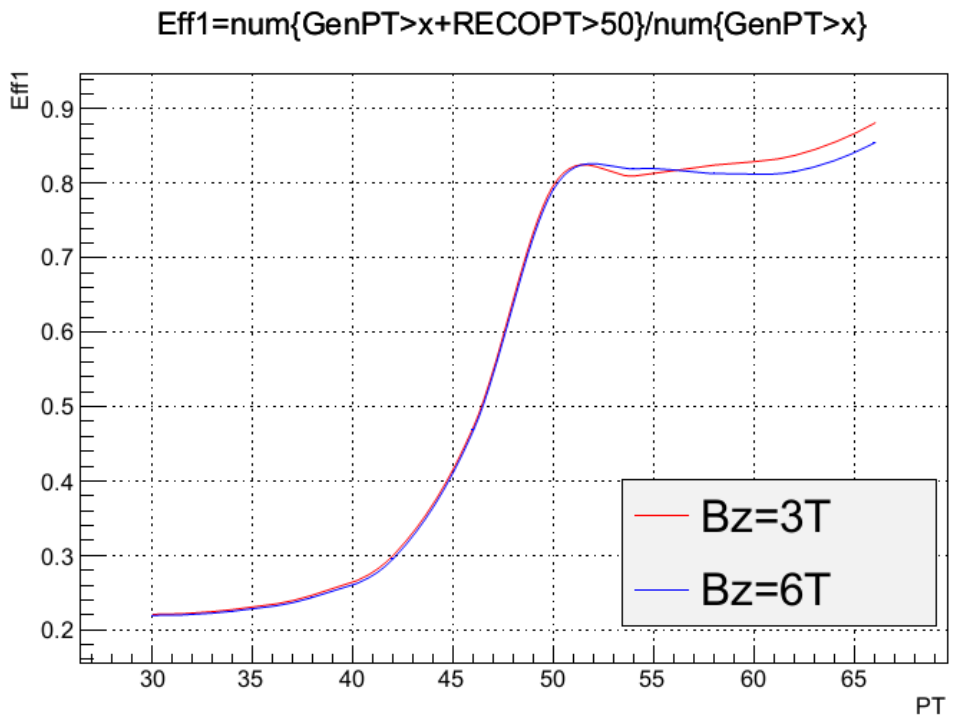
Define:

Eff1=num{GenPT>x+RECOPT>50}/num{GenPT>x}

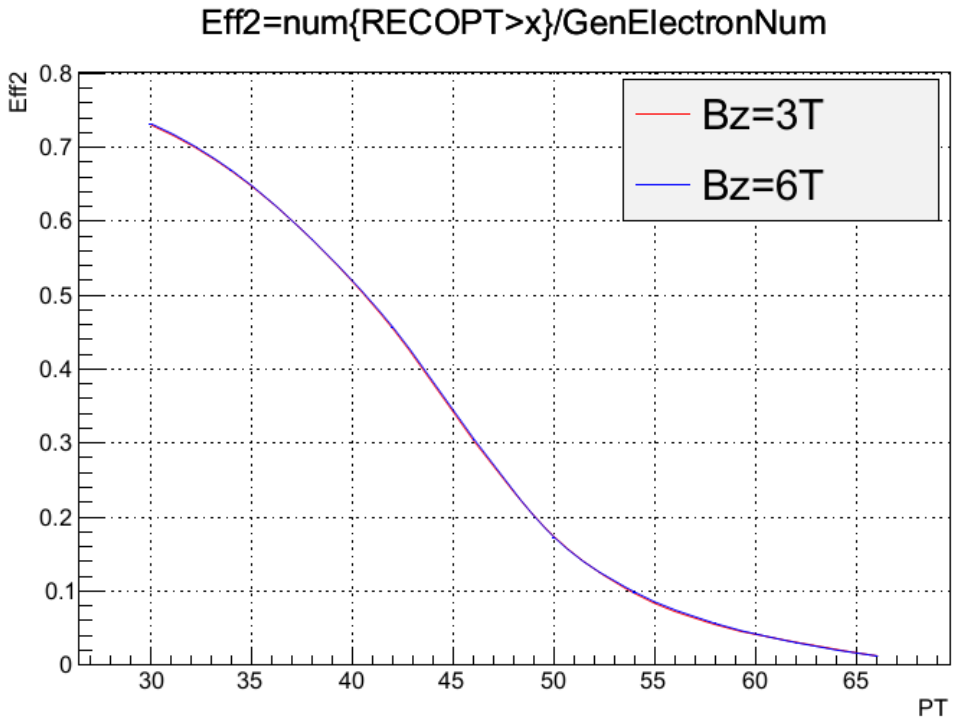
Eff2=num{RECOPT>x}/GenElectronNum

In different magnetic fields

Eff1

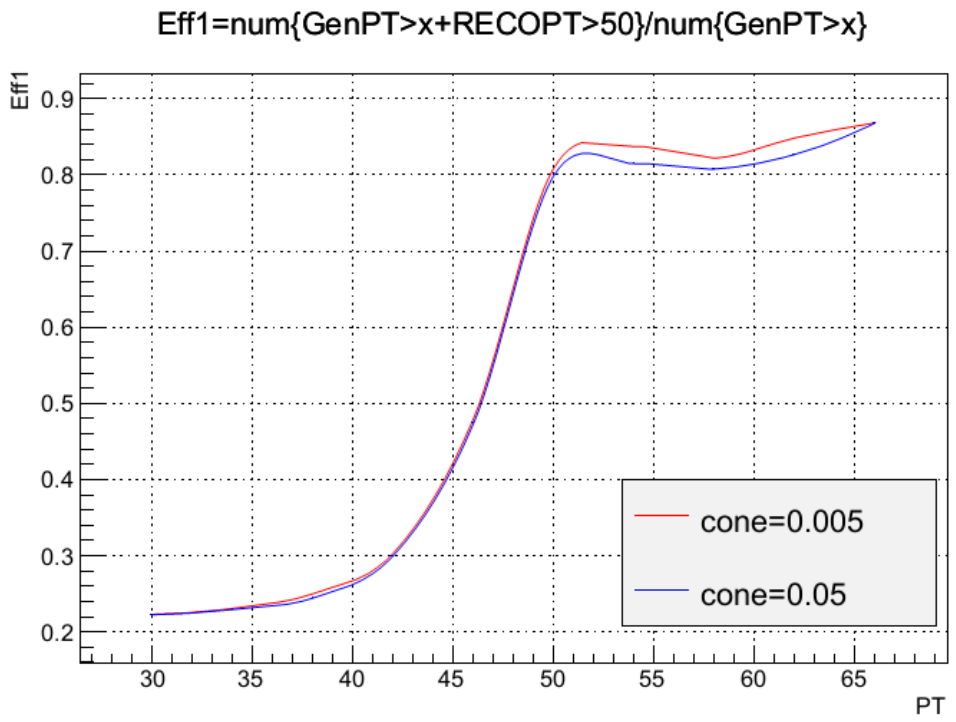


Eff2

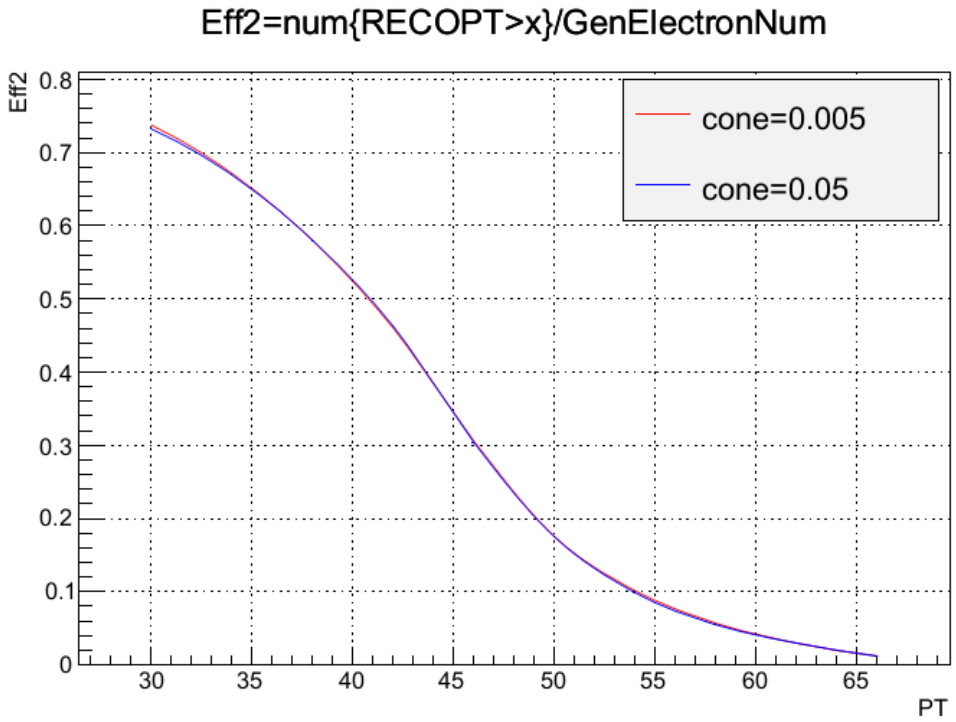


Different cone (Eff1)

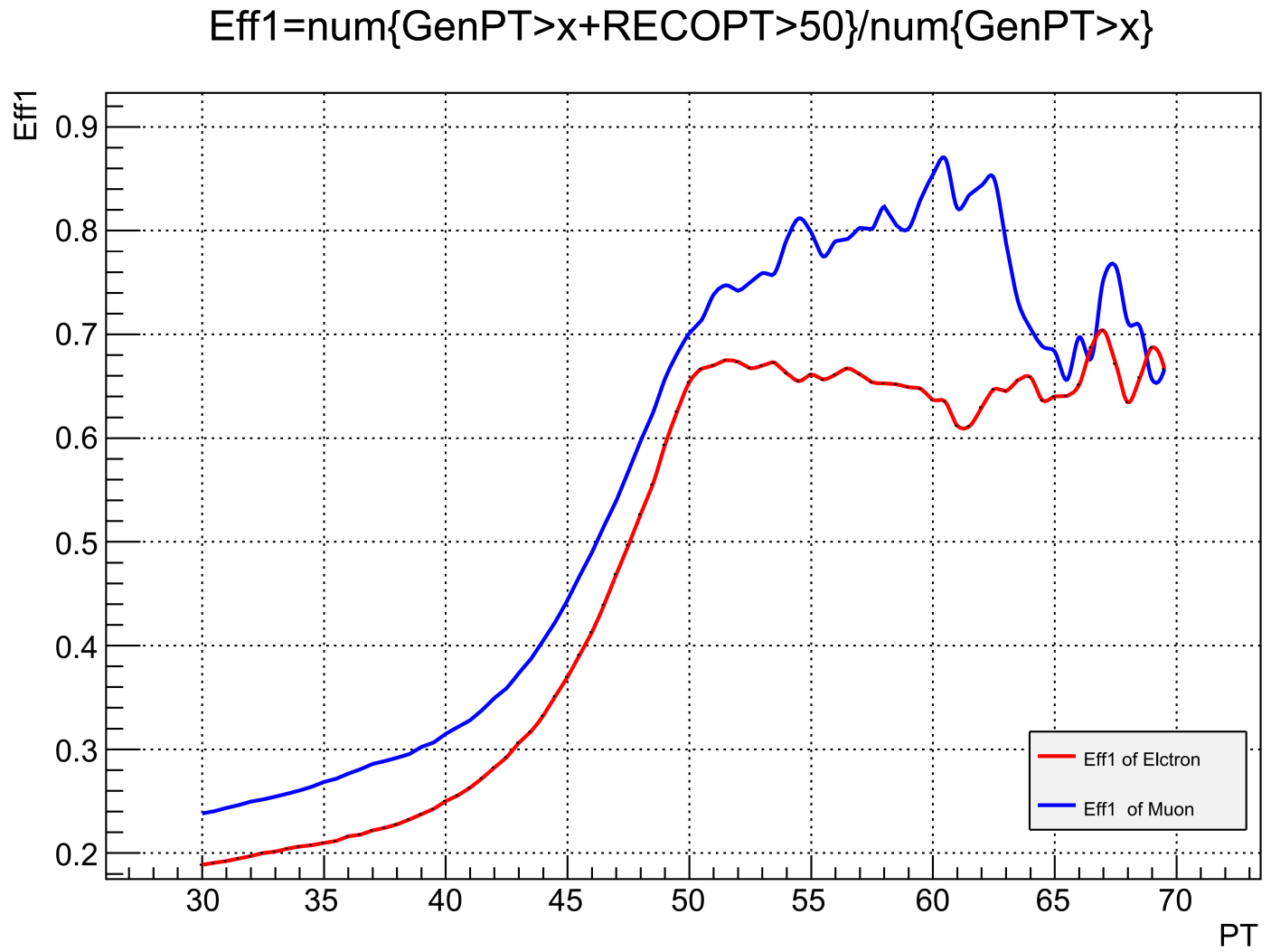
Eff1



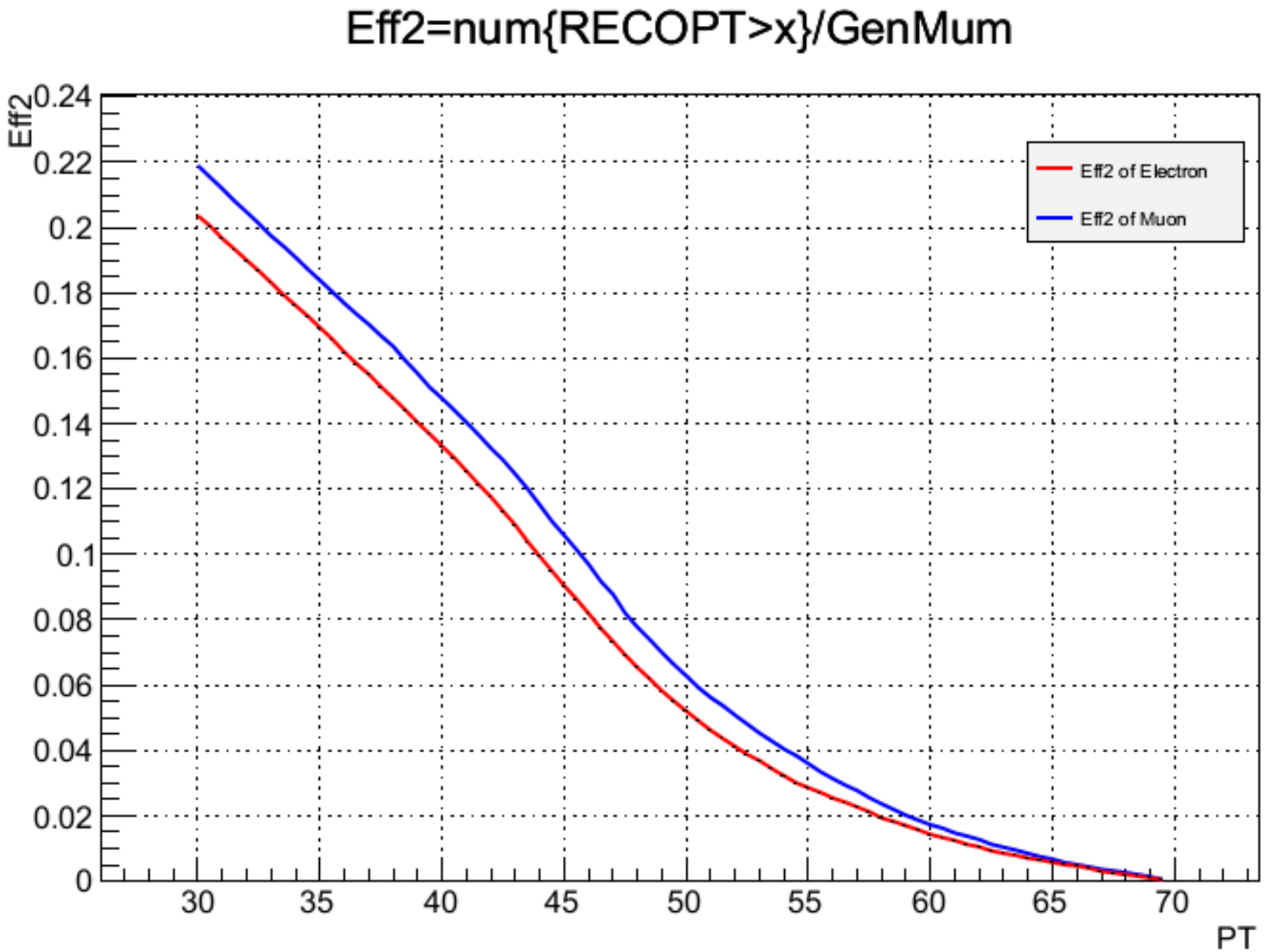
Eff2



Efficiency of electron and muon in DY (Sanjay's sample)



Eff2


Eff2=num{RECOPT>x}/GenMum
Eff2
0.24
0.22
0.2
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
30
35
40
45
50
55
60
65
70
PT
Eff2 of Electron
Eff2 of Muon

The next work

Repeat CMS 8TeV results with the default Delphes Card

Research the possible improvements of detector at 100TeV, and their effects