TFile \*A =new TFile("TeLoadedTe130\_0n2b\_TeDiol\_rat-6.1.2\_merged.ntuple.root");

TFile \*B =new TFile("TeLoadedTe130\_0n2b\_TeDiol\_rat-6.1.2\_merged.ntuple.root");

TFile \*C =new TFile("TeLoadedTe130\_0n2b\_TeDiol\_rat-6.1.2\_merged.ntuple.root");

TFile \*D =new TFile("TeLoadedTe130\_0n2b\_TeDiol\_rat-6.1.2\_merged.ntuple.root");

TTree \*output0 = (TTree\*)A->Get("output");

TTree \*output1 = (TTree\*)B->Get("output");

TTree \*output2 = (TTree\*)C->Get("output");

TTree \*output3 = (TTree\*)D->Get("output");

TH1F\* Range0 = new TH1F("Range0","-0.5->0.5 200bins;Energy;Probability",200,-0.5,0.5);

TH1F\* Range1 = new TH1F("Range1","-0.5->-0.2 200bins;Energy;Probability",200,-0.5,-0.2);

TH1F\* Range2 = new TH1F("Range2","-0.2->0.2 200bins;Energy;Probability",200,-0.2,0.2);

TH1F\* Range3 = new TH1F("Range3","0.2->0.5 200bins;Energy;Probability",200,0.2,0.5);

output0->Draw("energy-mcEdepQuenched>>Range0","fitValid==1");

output1->Draw("energy-mcEdepQuenched>>Range1","fitValid==1");

output2->Draw("energy-mcEdepQuenched>>Range2","fitValid==1");

output3->Draw("energy-mcEdepQuenched>>Range3","fitValid==1");

float hits = Range0->GetEntries();

Range1->Scale(1./hits);

Range2->Scale(1./hits);

Range3->Scale(1./hits);

Range1->Integral();

Range2->Integral();

Range3->Integral();

13/11/17

TFile \*A = new TFile("TeLoadedTe130\_0n2b\_TeDiol\_rat-6.1.2\_merged.ntuple.root")

TFile \*B = new TFile("TeLoadedTe130\_0n2b\_TeDiol\_rat-6.1.2\_merged.ntuple.root")

TFile \*C = new TFile("TeLoadedTe130\_0n2b\_TeDiol\_rat-6.1.2\_merged.ntuple.root")

TFile \*D = new TFile("TeLoadedTe130\_0n2b\_TeDiol\_rat-6.1.2\_merged.ntuple.root")

TTree \*output1 = (TTree\*)A->Get("output")

TTree \*output2 = (TTree\*)B->Get("output")

TTree \*output3 = (TTree\*)C->Get("output")

TTree \*output4 = (TTree\*)D->Get("output")

TF1 \*fit1 = new TF1("fit1","gaus",-0.5,-0.25)

TF1 \*fit2 = new TF1("fit2","gaus",-0.25,0)

TF1 \*fit3 = new TF1("fit3","gaus",0,0.25)

TF1 \*fit4 = new TF1("fit4","gaus",0.25,0.5)

output1->Draw("energy-mcEdep>>hist1","fitValid==1&&mcPosz<5500")

output2->Draw("energy-mcEdep>>hist2","fitValid==1&&mcPosz<5500")

output3->Draw("energy-mcEdep>>hist3","fitValid==1&&mcPosz<5500")

output4->Draw("energy-mcEdep>>hist4","fitValid==1&&mcPosz<5500")

hist1->Fit("fit1")

hist2->Fit("fit2")

hist3->Fit("fit3")

hist4->Fit("fit4")

Gives a constant histogram over the full range, cannot change range even with hist1->Fit("fit1",”-0.5,-0.25”)