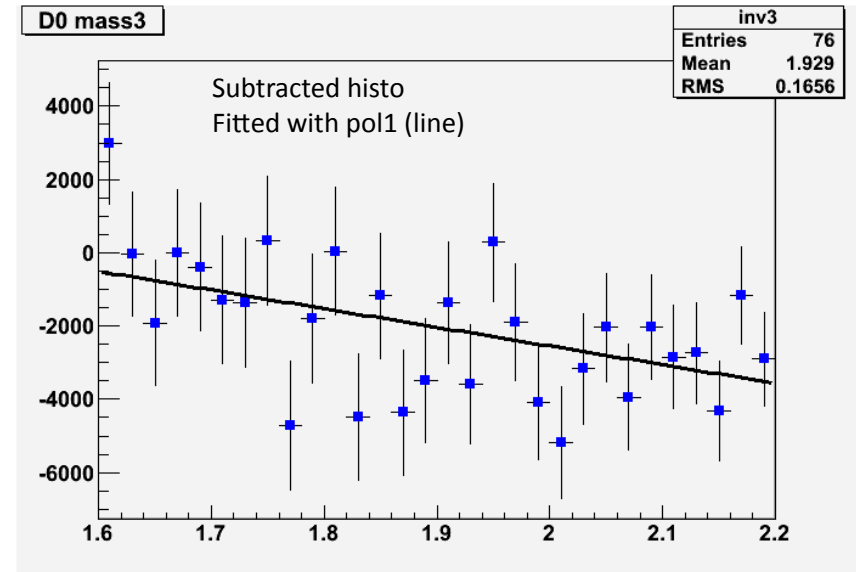
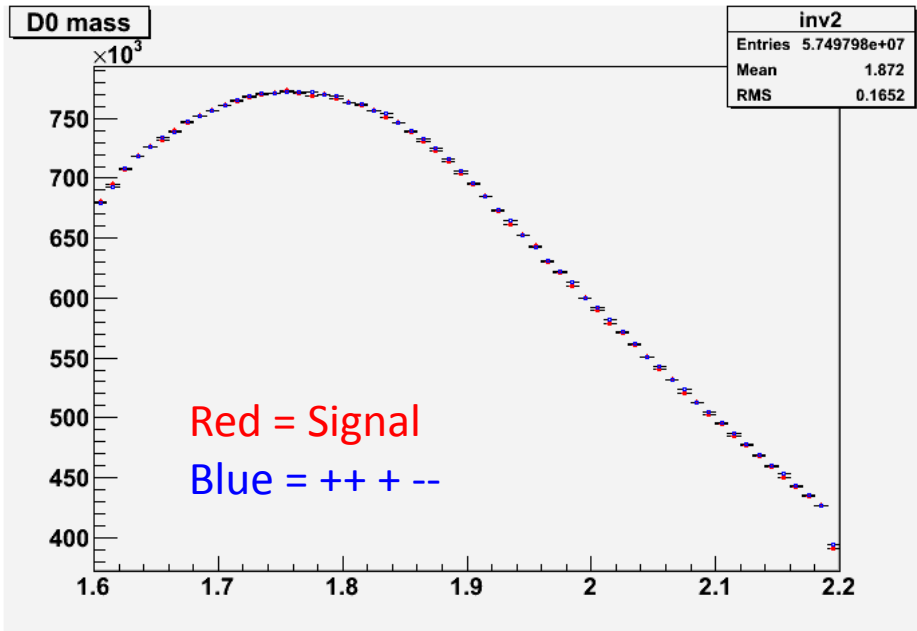


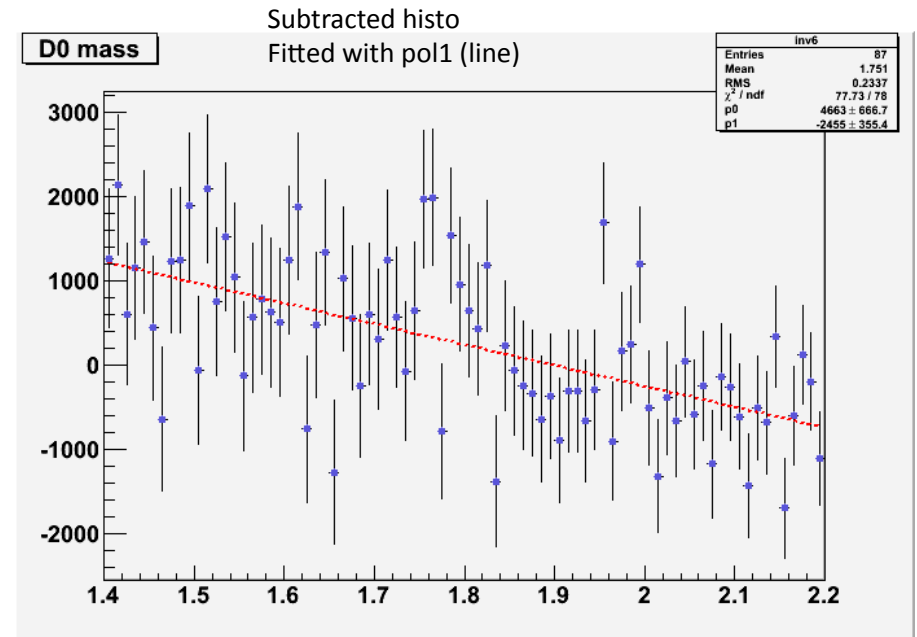
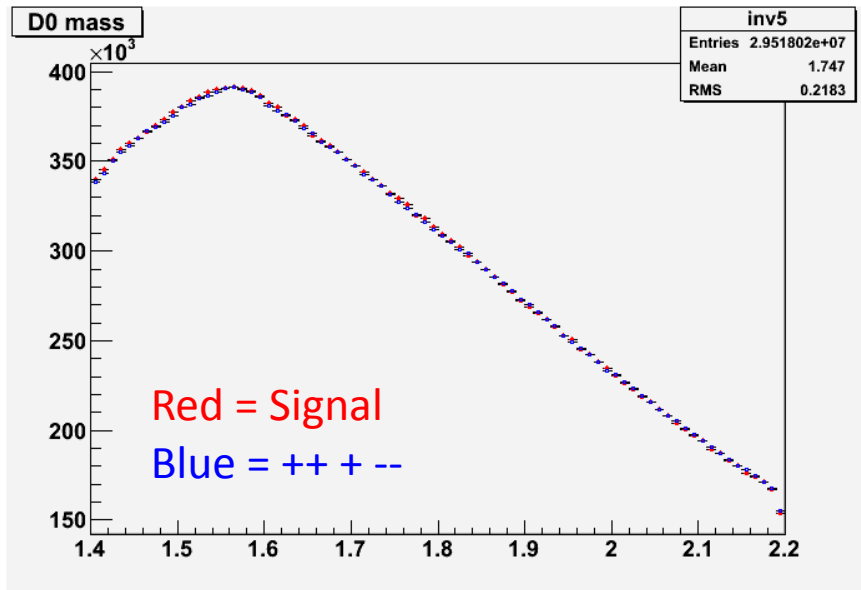
3rd Production with defaults cuts (Jaiby's cuts for 1st production)



```
.L Chain.C
Chain("D0Tree")
TH1D *inv = new TH1D("inv","D0 mass",60,1.6,2.2)
D0Tree->Draw("MassD0>>inv","ChargeKaon*ChargePion<0&&slength>-0.02&&slength<0.04&&
abs(slength*SinPointing)<0.02&&TMath::Sqrt((DcaTrackTXY*DcaTrackTXY)+(DcaTrackTZ*DcaTrackTZ))<0.02&&PKaon>0.7&&PPion>0.7&&PtD0>0.3")

TH1D *inv2 = new TH1D("inv2","D0 mass2",60,1.6,2.2)
D0Tree->Draw("MassD0>>inv2","ChargeKaon*ChargePion>0&&slength>-0.02&&slength<0.04&&
abs(slength*SinPointing)<0.02&&TMath::Sqrt((DcaTrackTXY*DcaTrackTXY)+(DcaTrackTZ*DcaTrackTZ))<0.02&&PKaon>0.7&&PPion>0.7&&PtD0>0.3")

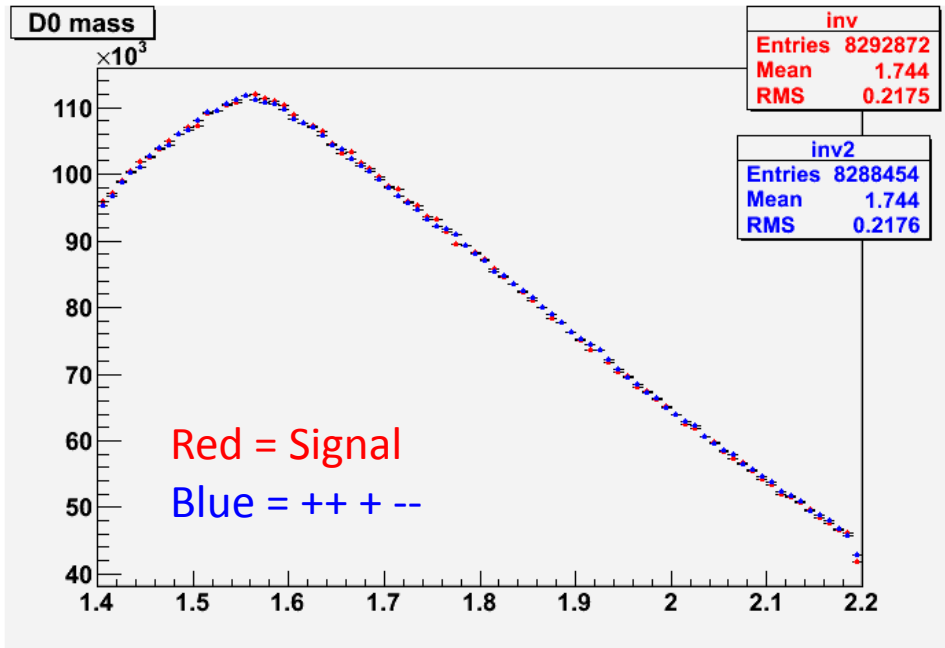
TH1D *inv3 = new TH1D("inv3","D0 mass3",60,1.6,2.2)
inv->Sumw2()
inv2->Sumw2()
inv3->Add(inv,inv2,1,-1)
inv3->Draw()
```



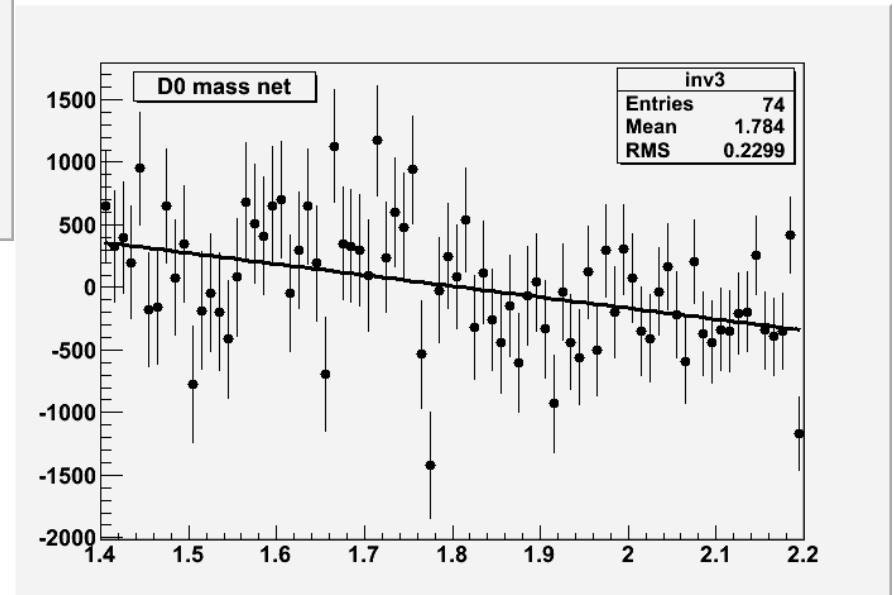
```
.L Chain.C
Chain("D0Tree")
TH1D *inv4 = new TH1D("inv4", "D0 mass", 80, 1.4, 2.2)
chain->Draw("MassD0>>inv4", "ChargeKaon*ChargePion<0&&slength>0.0050&&slength<0.04&&abs(slength*SinPointing)<0.02&&TMath::Sqrt((DcaTrackTXY*DcaTrackTXY)+(DcaTrackTZ*DcaTrackTZ))<0.02&&PKaon>0.5&&PPion>0.5&&PtD0>0.5")

TH1D *inv5 = new TH1D("inv5", "D0 mass", 80, 1.4, 2.2)
chain->Draw("MassD0>>inv5", "ChargeKaon*ChargePion>0&&slength>0.0050&&slength<0.04&&abs(slength*SinPointing)<0.02&&TMath::Sqrt((DcaTrackTXY*DcaTrackTXY)+(DcaTrackTZ*DcaTrackTZ))<0.02&&PKaon>0.5&&PPion>0.5&&PtD0>0.5")

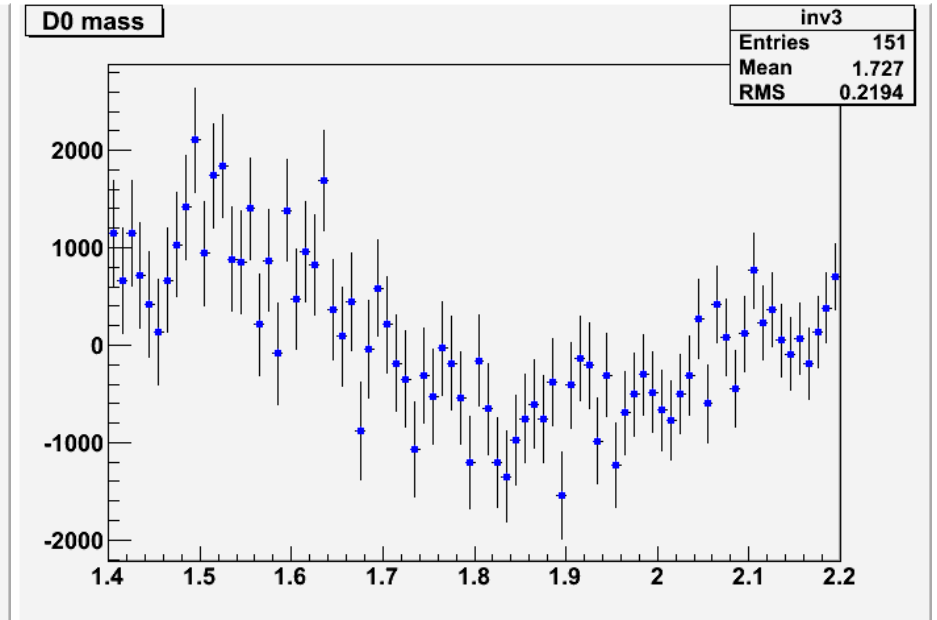
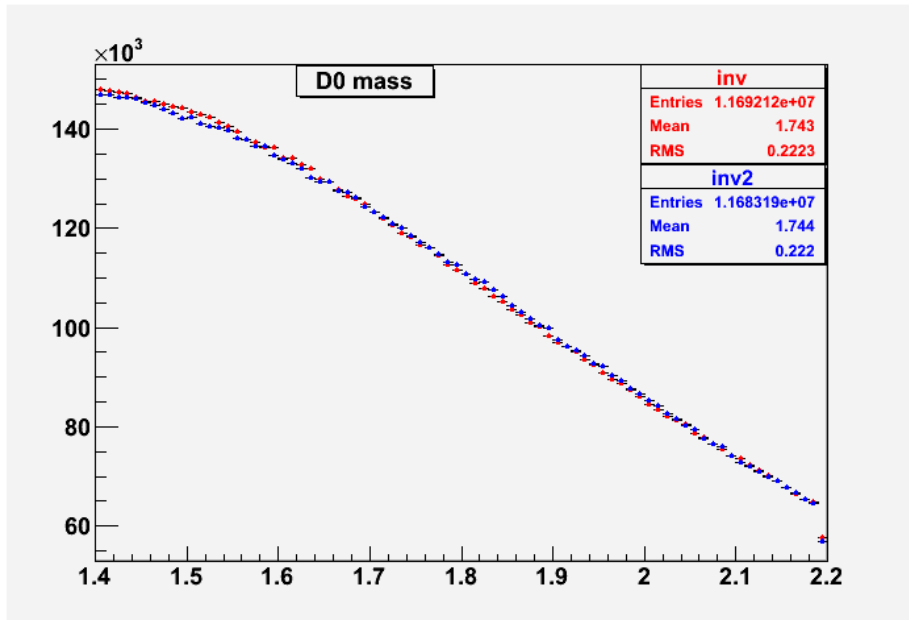
TH1D *inv6 = new TH1D("inv6", "D0 mass", 80, 1.4, 2.2)
inv4->Sumw2()
inv5->Sumw2()
inv6->Add(inv4, inv5, 1, -1)
inv6->Draw()
```



Subtracted histo
Fitted with pol1 (line)



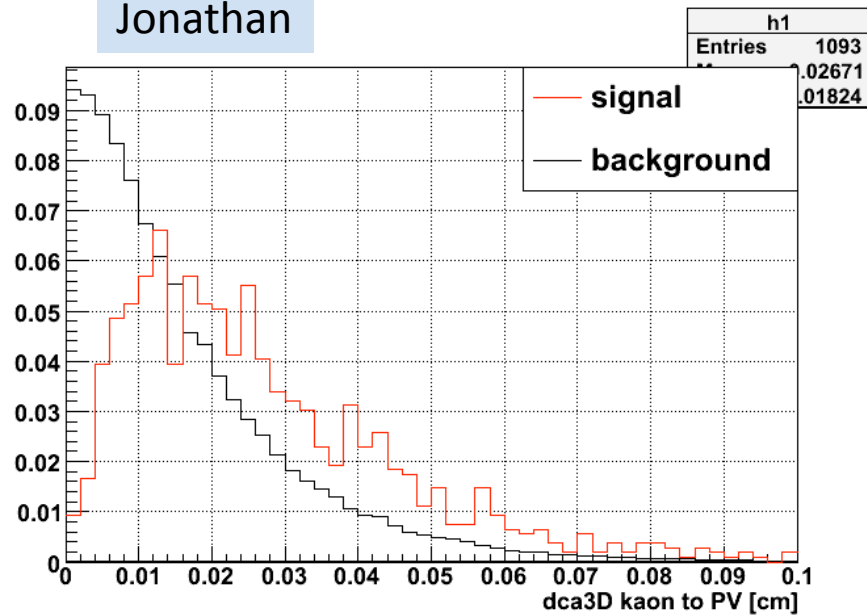
```
chain->Draw("MassD0>>inv", "ChargeKaon*ChargePion<0&&slength>0.0050&&slength<0.04&&TMath::Sqrt((dcaXYPion*dcaXYPion)+
(dcaZPion*dcaZPion))>0.005&&TMath::Sqrt((dcaXYKaon*dcaXYKaon)+(dcaZKaon*dcaZKaon))>0.005&&TMath::Sqrt
((DcaTrackTXY*DcaTrackTXY)+(DcaTrackTZ*DcaTrackTZ))<0.005&&PKaon>0.5&&PPion>0.5&&PtD0>0.5")
```



```
TH1D *inv = new TH1D("inv","D0 mass",80,1.4,2.2)
```

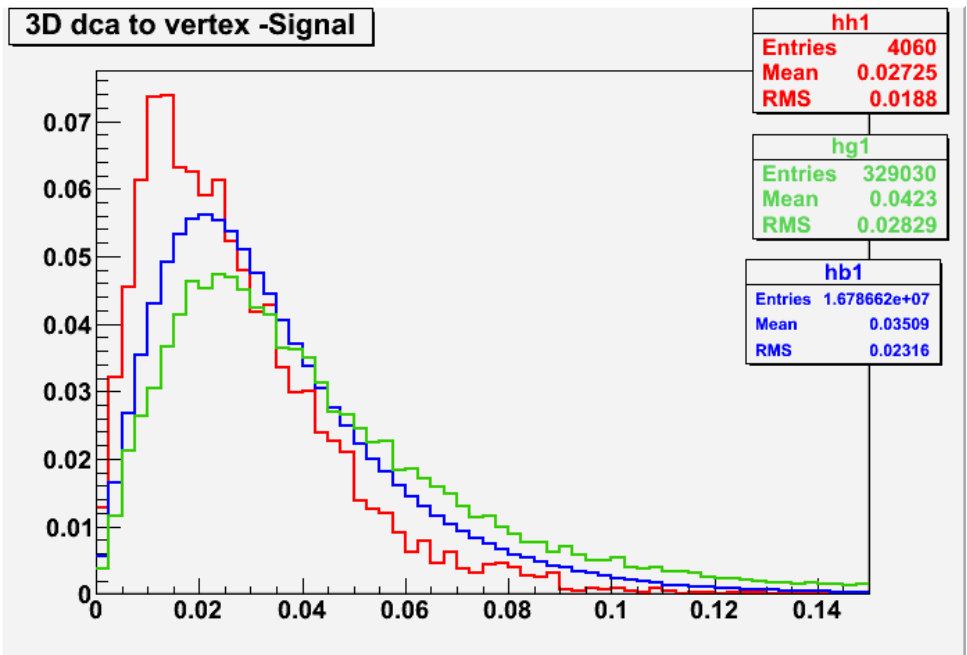
```
chain->Draw("MassD0>>inv","ChargeKaon*ChargePion<0&&slength>=0.0050&&slength<=0.05&&slength/dslength>=0.5&&TMath::Sqrt  
((dcaXYPion*dcaXYPion)+(dcaZPion*dcaZPion))/SigmaDcaXYPion>0.8&&TMath::Sqrt((dcaXYKaon*dcaXYKaon)+(dcaZKaon*dcaZKaon))/  
SigmaDcaXYKaon>0.8&&TMath::Sqrt((DcaTrackTXY*DcaTrackTXY)+(DcaTrackTZ*DcaTrackTZ)<0.05&&PtD0>1.5")
```

Jonathan



Red –Signal
Blue – from 3rd pico files
Green – from MuKpi output

Me



```
chain->Draw("TMath::Sqrt((dcaXYPion*dcaXYPion)+(dcaZPion*dcaZPion))>>hb1", "", "")
```