

$$Ds \rightarrow \eta\mu\nu$$

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Geo efficiency in new model staided the same:  $eff = 0.183 + /0.010$   
This is from 900k events. Waiting for gibbef background sample to give better fits.  
For our standard bins there were to fiew events to performe a realible fit(see the zip file) New bins:

<b>PID</b>	<b>Geo</b>
-0.03	-1.0
0.03	0.44
1	1.0

# CUTS

I used standard cuts:

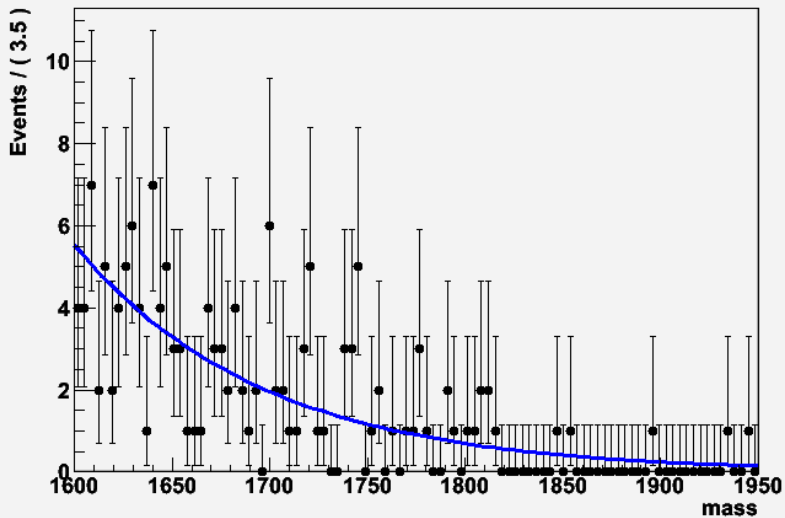
- $mass(p_0p_1) > 250MeV$
- $abs(mass(p_0p_2 - 1020MeV)) > 20MeV$
- $abs(mass(p_1p_2 - 1020MeV)) > 20MeV$

$\tau$  mass cut:

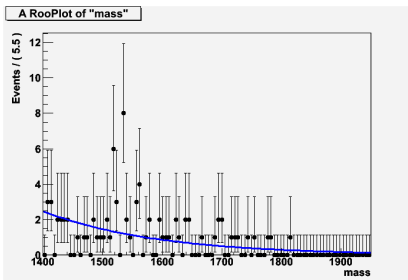
- $mass(\tau) \in (1600 - 1950)MeV$

## ONE BIN

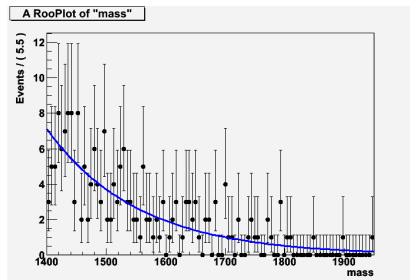
A RooPlot of "mass"



## FITS

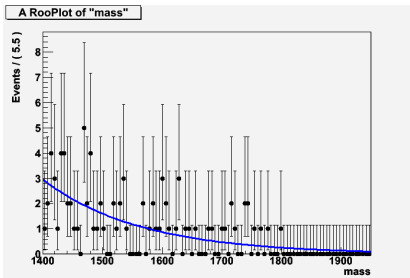


$Pid \in (0.03, 1), Geo \in (0.44, 1)$

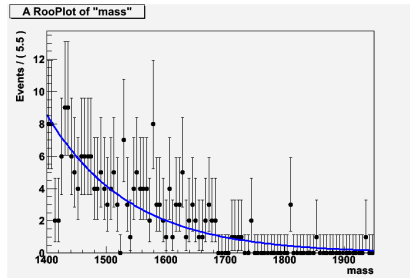


$Pid \in (0.03, 1), Geo \in (-1.0, 0.44)$

## FITS

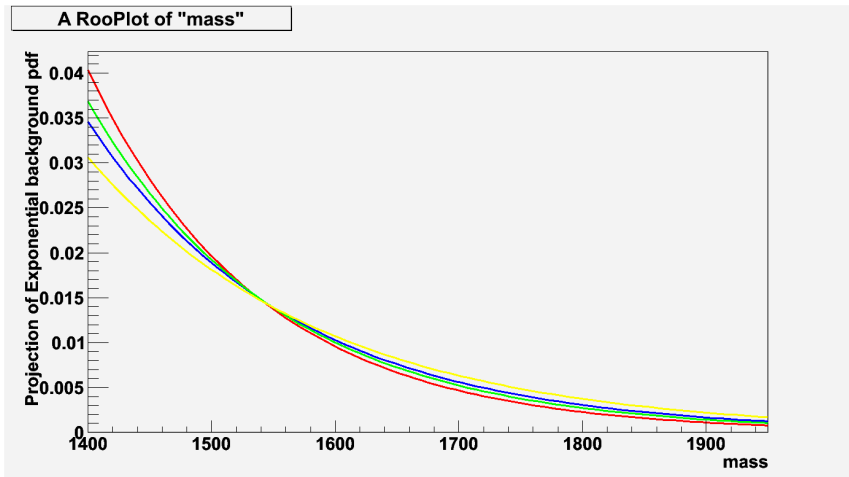


$Pid \in (-0.03, 0.03)$ ,  $Geo \in (0.44, 1)$



$Pid \in (-0.03, 0.03)$ ,  
 $Geo \in (-1.0, 0.44)$

# Why is 4 bins enough



In the relevant mass region very small difference.