

Some work on Jet resolution and TKinFitter pull

Stefano Lacaprara

INFN Padova

PD meeting,
PD, 20 January 2014



Intro



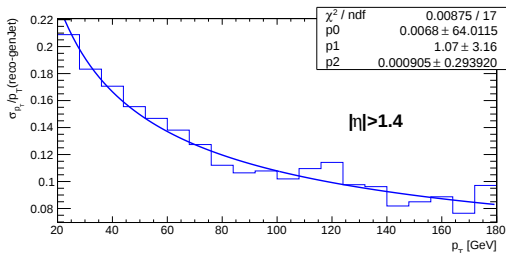
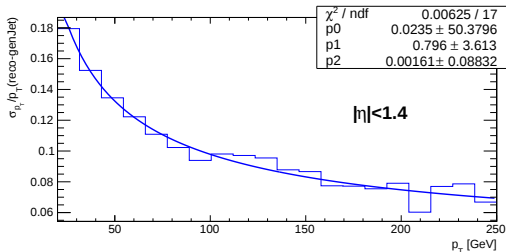
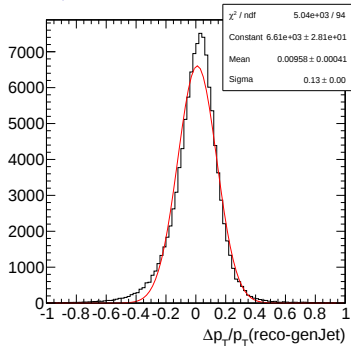
Intro

- Resolution for Jet p_T , η and ϕ
- χ^2 of TKinFitter
- Pull for Jets after TKinFitter
- ΔMET after TKinFitter



$\Delta p_T/p_T$: global resolution and vs p_T for $|\eta| \leq 1.4$

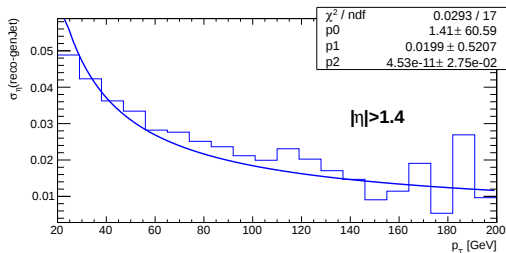
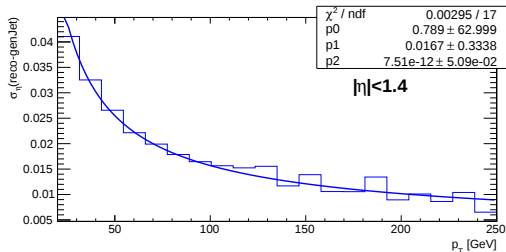
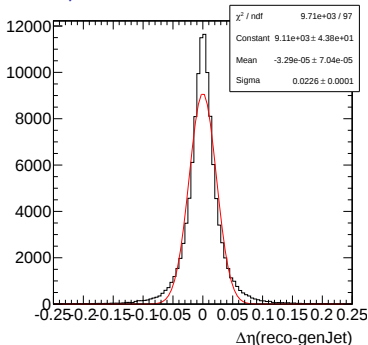
First and second jet, all p_T
and η





$\Delta\eta$: global resolution and vs p_T for $|\eta| \leq 1.4$

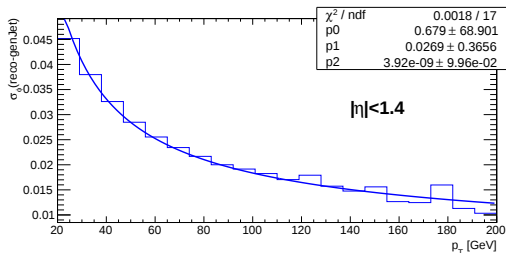
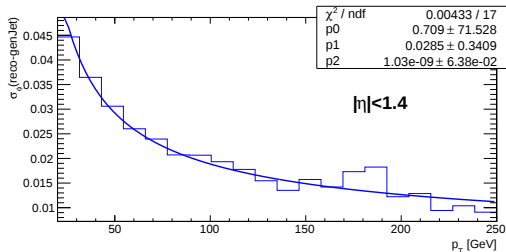
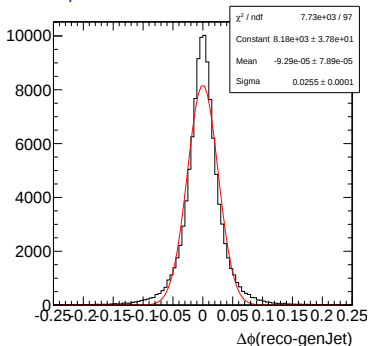
First and second jet, all p_T
and η





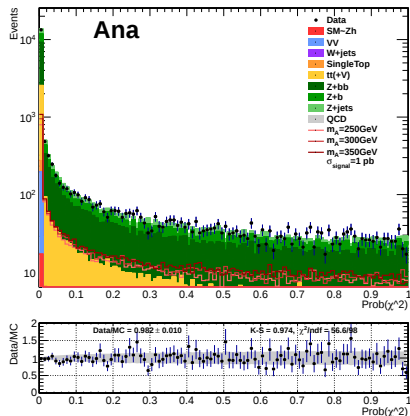
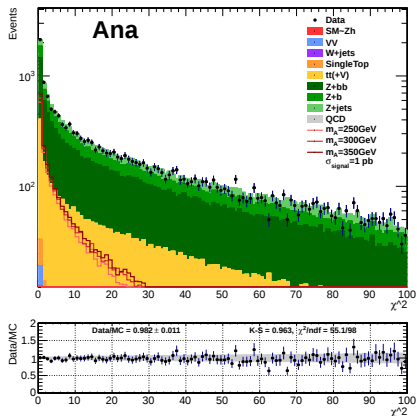
$\Delta\phi$: global resolution and vs p_T for $|\eta| \leq 1.4$

First and second jet, all p_T
and η





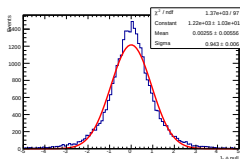
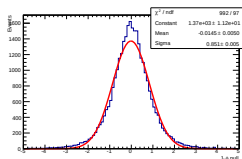
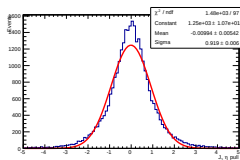
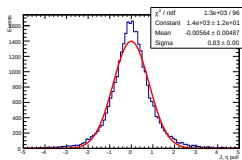
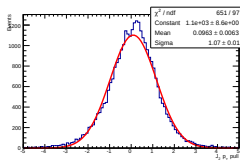
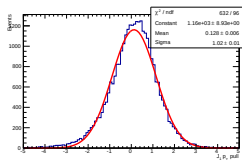
χ^2 and $Prob(\chi^2)$ after TKinFitter



The Prob for signal not as flat as it should be



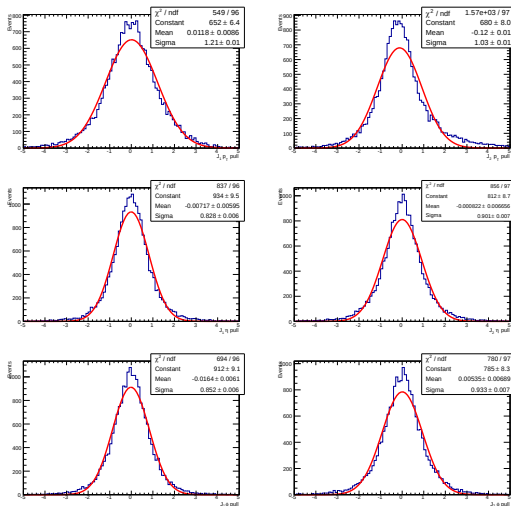
Pull w/o TKinFitter



Not too bad on p_T
(dominant for χ^2 , errors
a bit overestimated on η
and ϕ)



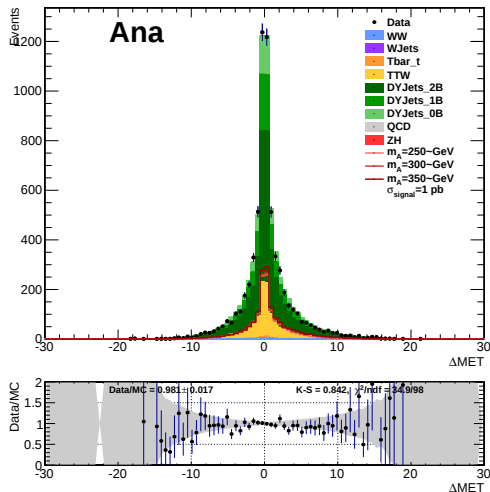
Pull w/ TKinFitter



Error on p_T
underestimated on first
Jet, good on second
one. Errors a bit
overestimated on η and
 ϕ



ΔMET w/o and w/ TKinFitter



A constraint on MET seems worthless