

# Jet Gen Match

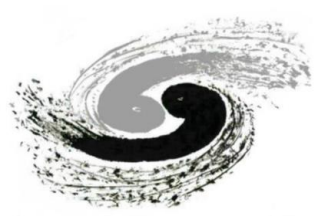
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2024. 12. 4



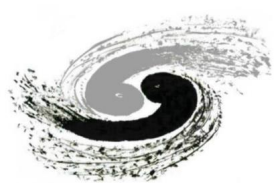


**Motivation:** Aim to match the discrepancy from truth to reconstruction.

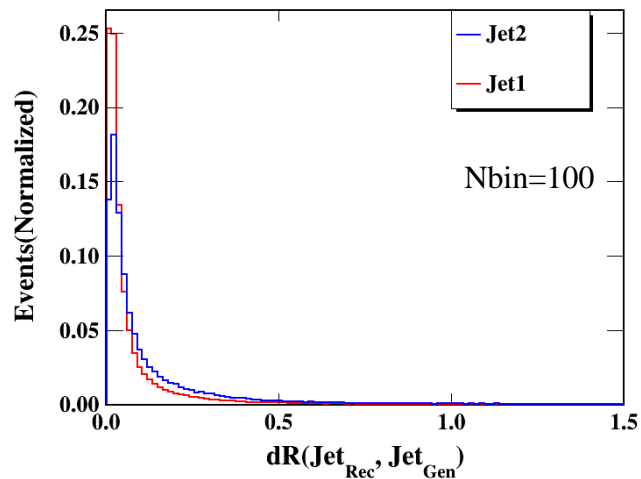
**Release:** CEPCSW TDR 24.10.0, CEPCSW TDR 24.9.1

$$d_{ij} = \min(E_i^{2p}, E_j^{2p}) \frac{(1 - \cos \theta_{ij})}{(1 - \cos R)}$$
$$d_{iB} = E_i^{2p} ,$$



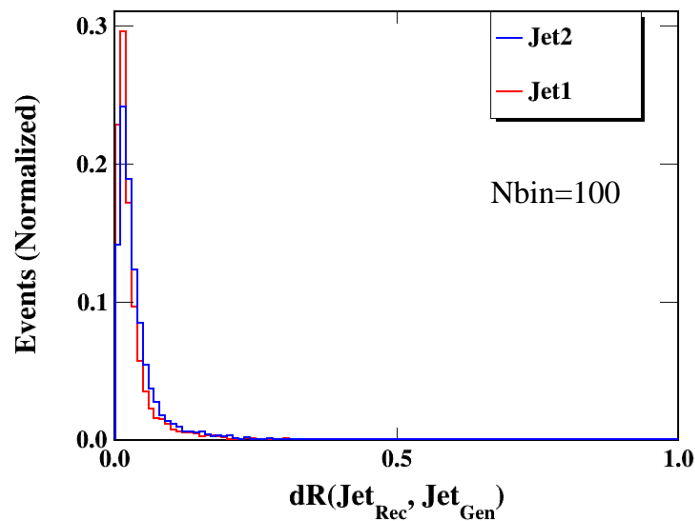


All Events: 179161



/cefs/higgs/zhangkl/Production/

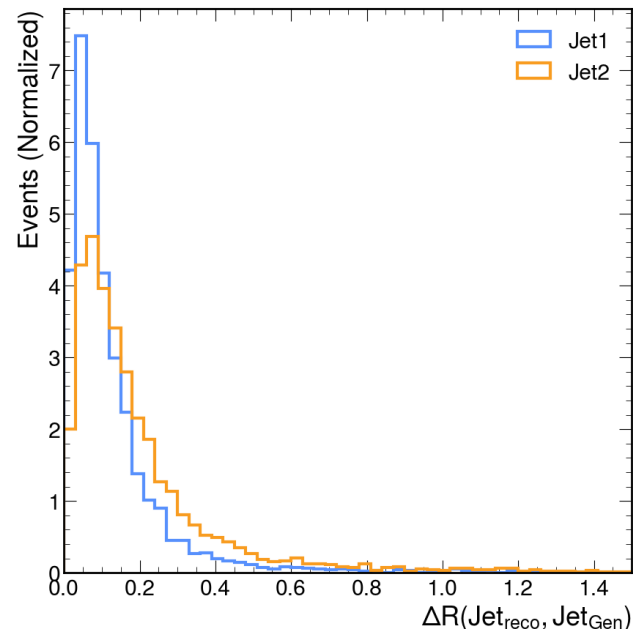
tdr24.10.0



All Events: 7647

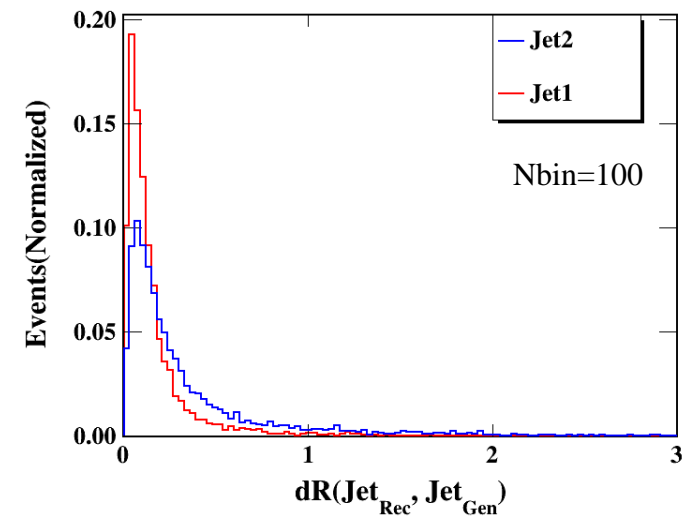
Rec Jet & Gen Jet:  $80^\circ < \theta < 100^\circ$

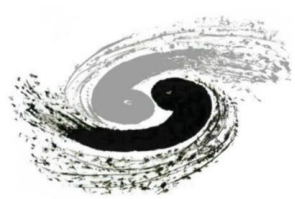
$ee \rightarrow ZH \rightarrow nnH(gg)$  240 GeV



/publicfs/cms/user/wangzebing/CEPC/CEPCSW\_tdr24.9.1/CEPCSW/Full  
Sim\_samples/Rec\_TDR\_o1\_v01\_E240\_nnh\_gg.root

All Events: 4612



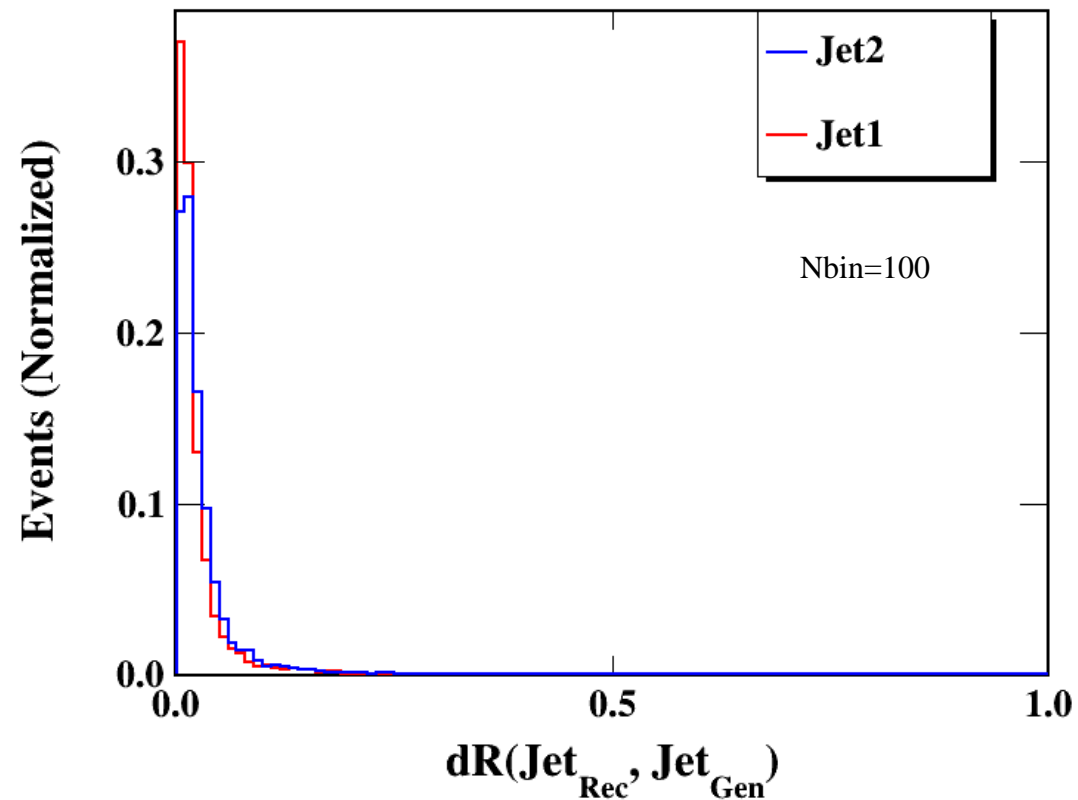
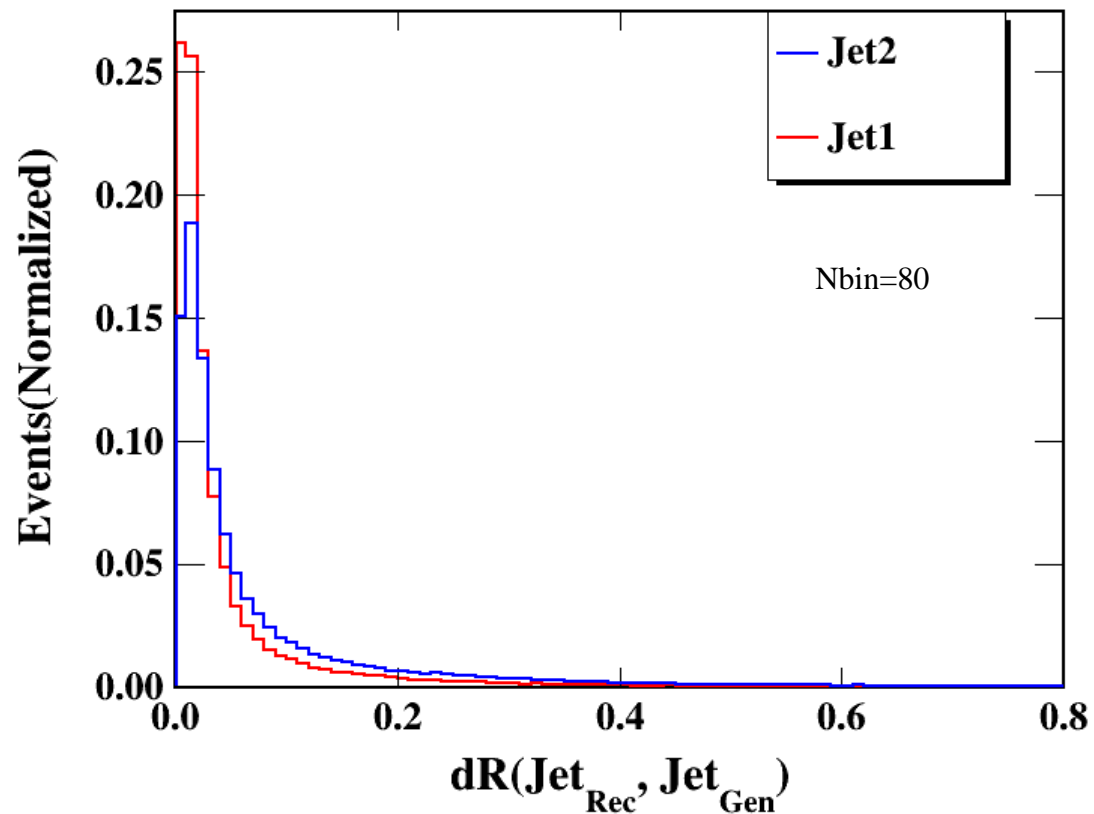


/cefs/higgs/zhangkl/Production/

All Events: 121600

tdr24.10.0

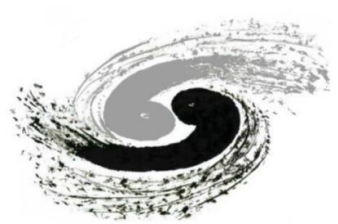
All Events: 5715



Rec Jet & Gen Jet:  $80^\circ < \theta < 100^\circ$

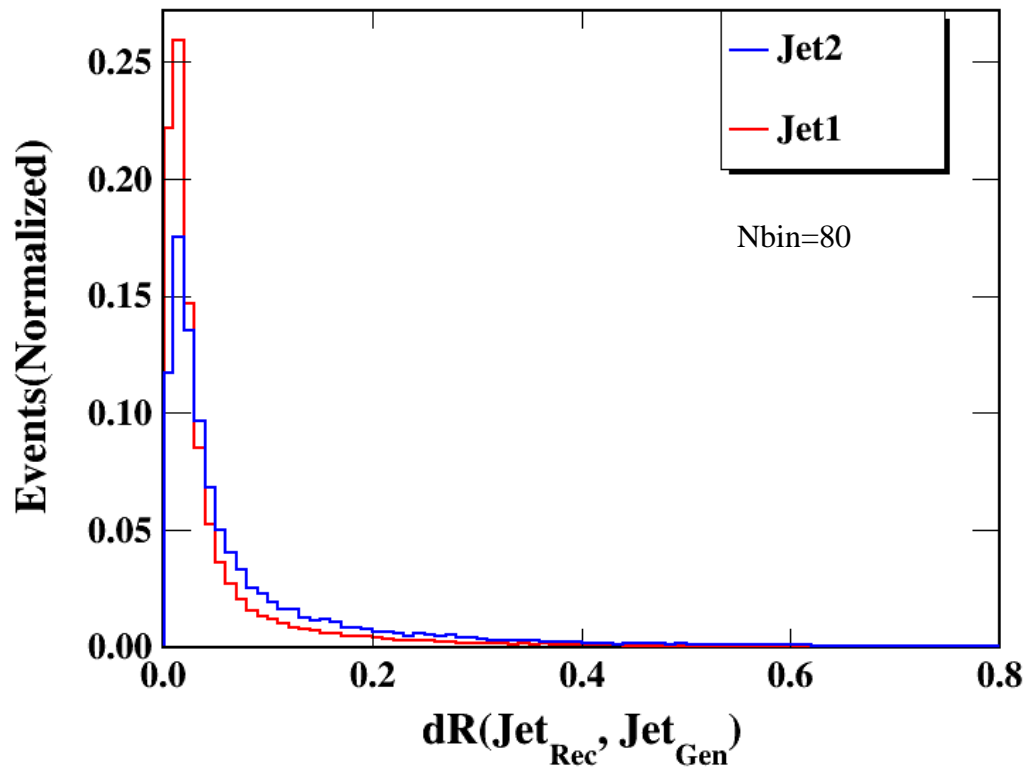
$ee \rightarrow ZH \rightarrow nnH(uu)$  240 GeV



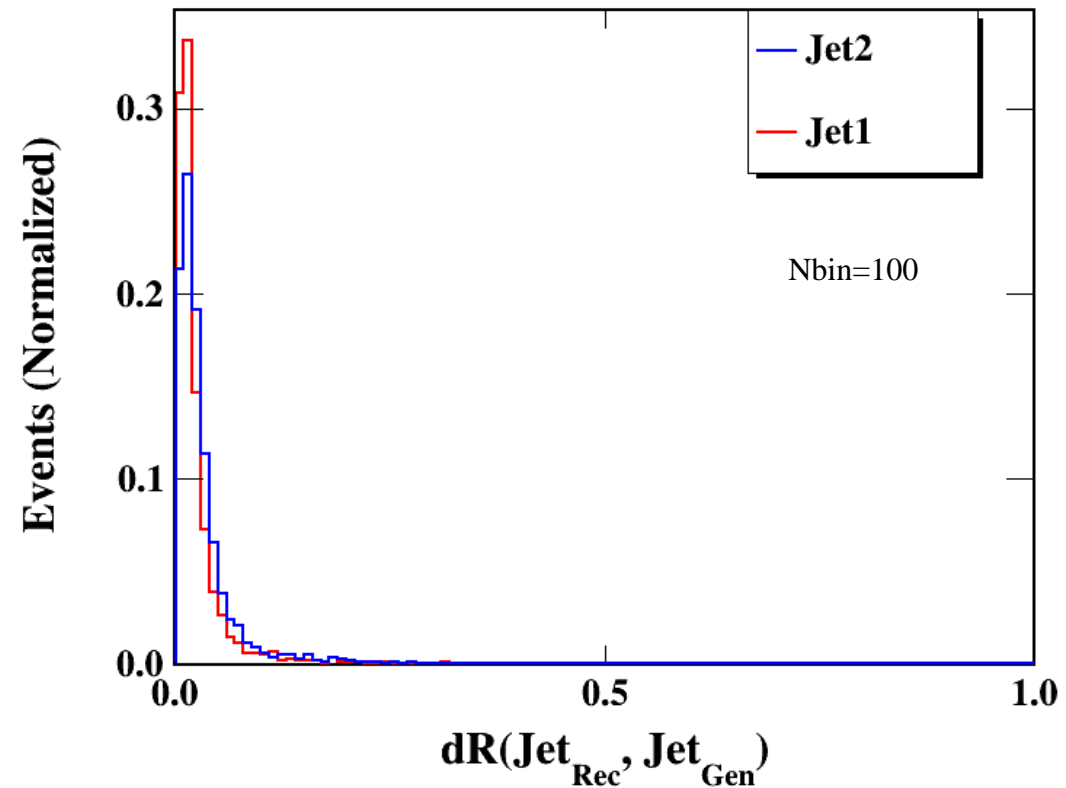


/cefs/higgs/zhangkl/Production/  
tdr24.10.0

All Events: 50400



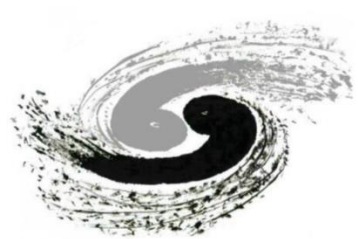
All Events: 2139



Rec Jet & Gen Jet:  $80^\circ < \theta < 100^\circ$

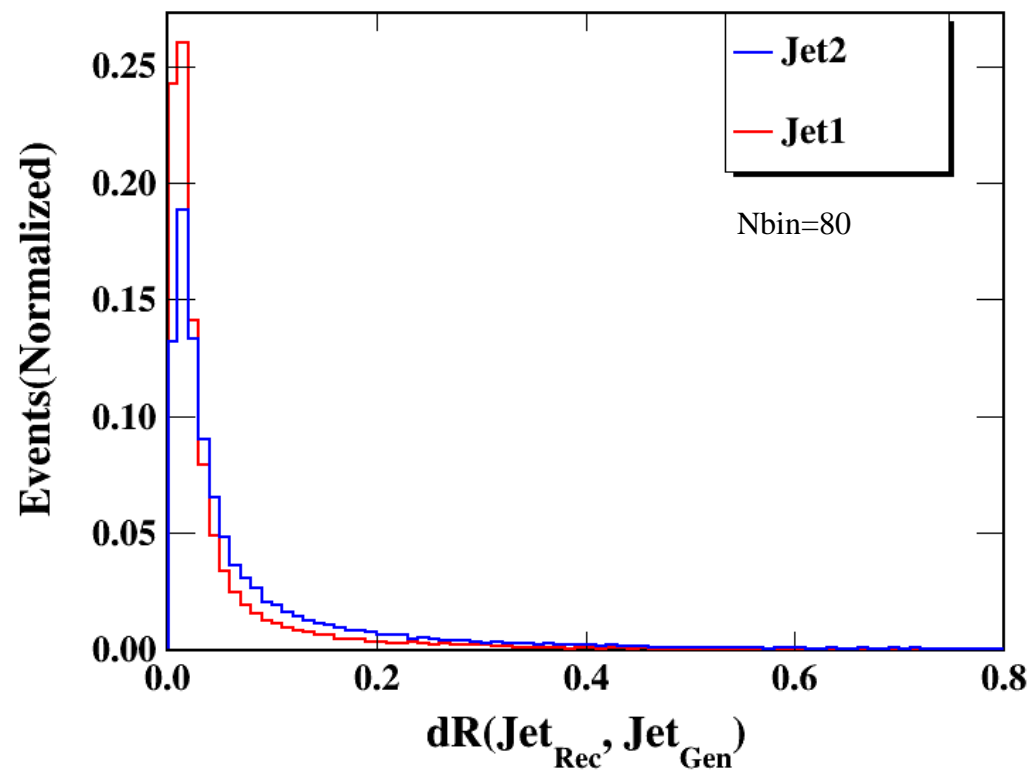
$ee \rightarrow ZH \rightarrow nnH(bb)$  240 GeV



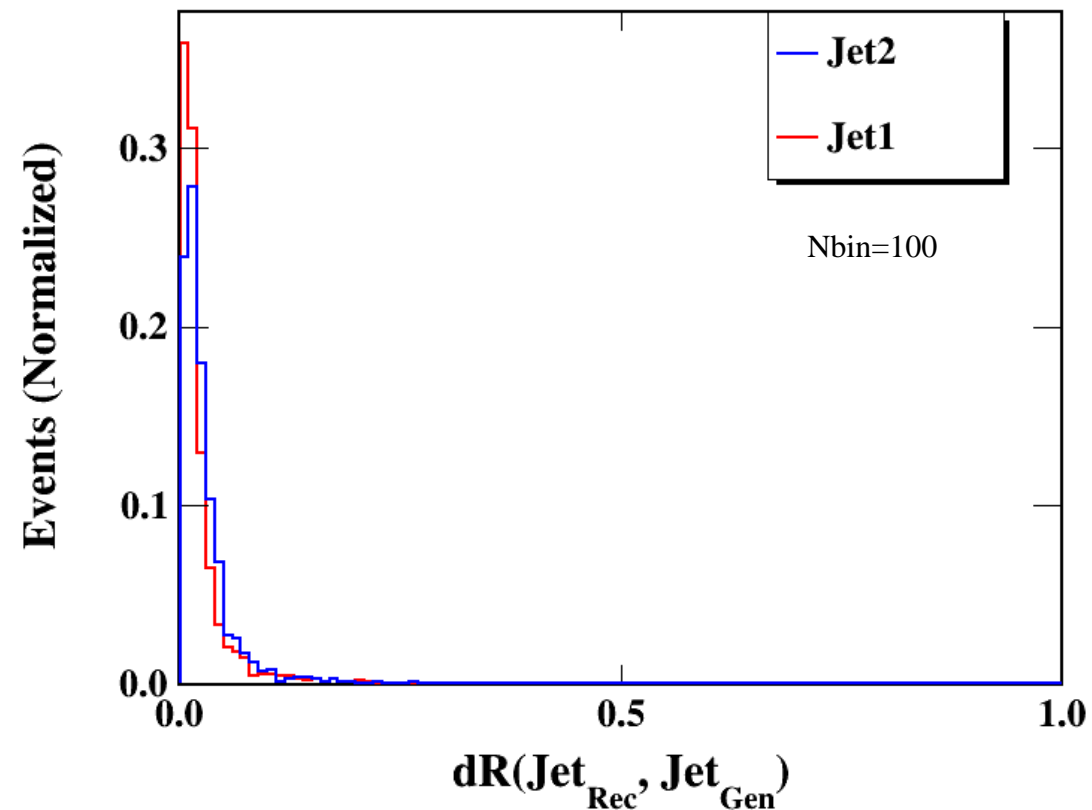


/cefs/higgs/zhangkl/Production/  
tdr24.10.0

All Events: 48400



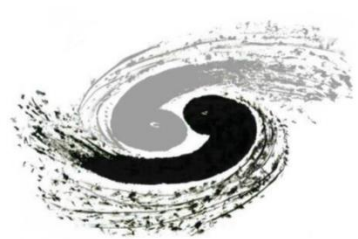
All Events: 2238



Rec Jet & Gen Jet:  $80^\circ < \theta < 100^\circ$

$ee \rightarrow ZH \rightarrow nnH(cc)$  240 GeV



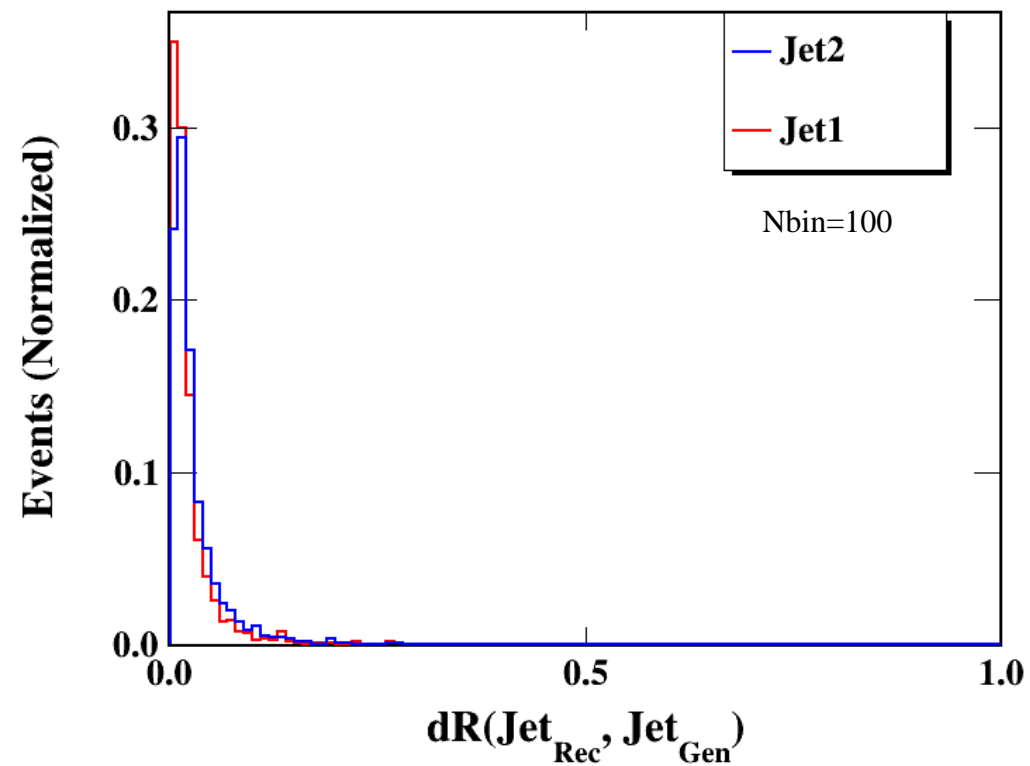
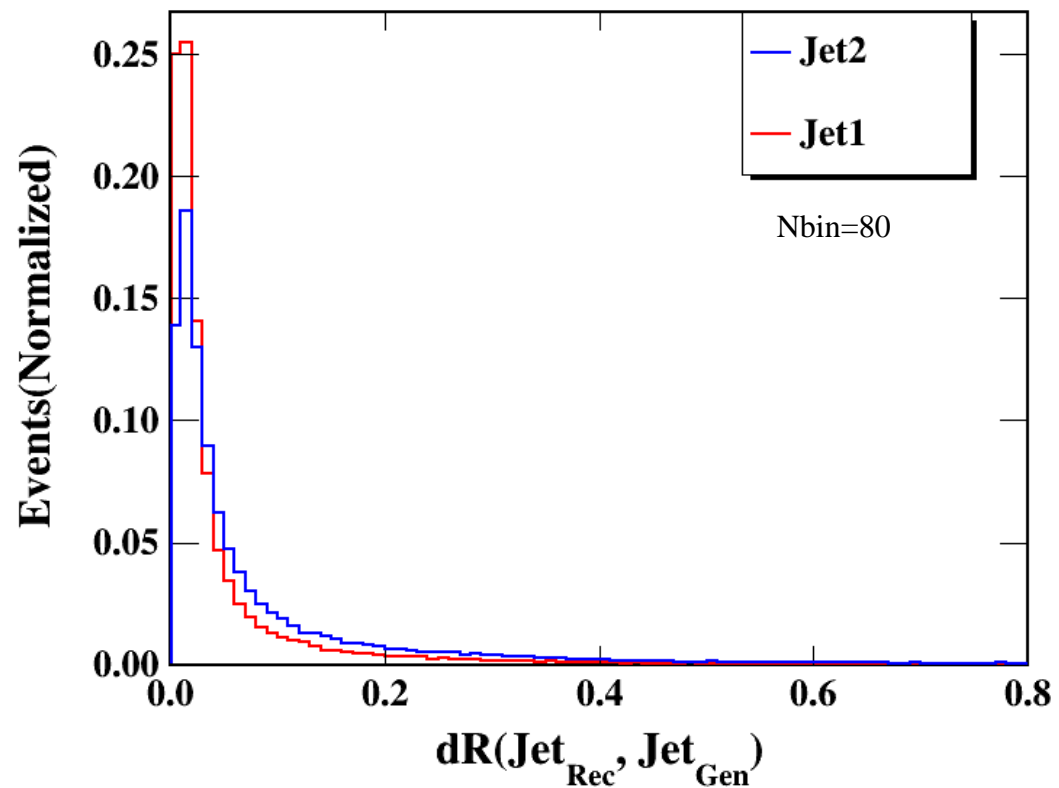


/cefs/higgs/zhangkl/Production/

tdr24.10.0

All Events: 55400

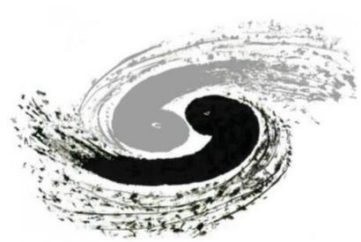
All Events: 2503



Rec Jet & Gen Jet:  $80^\circ < \theta < 100^\circ$

$ee \rightarrow ZH \rightarrow nnH(ss)$  240 GeV

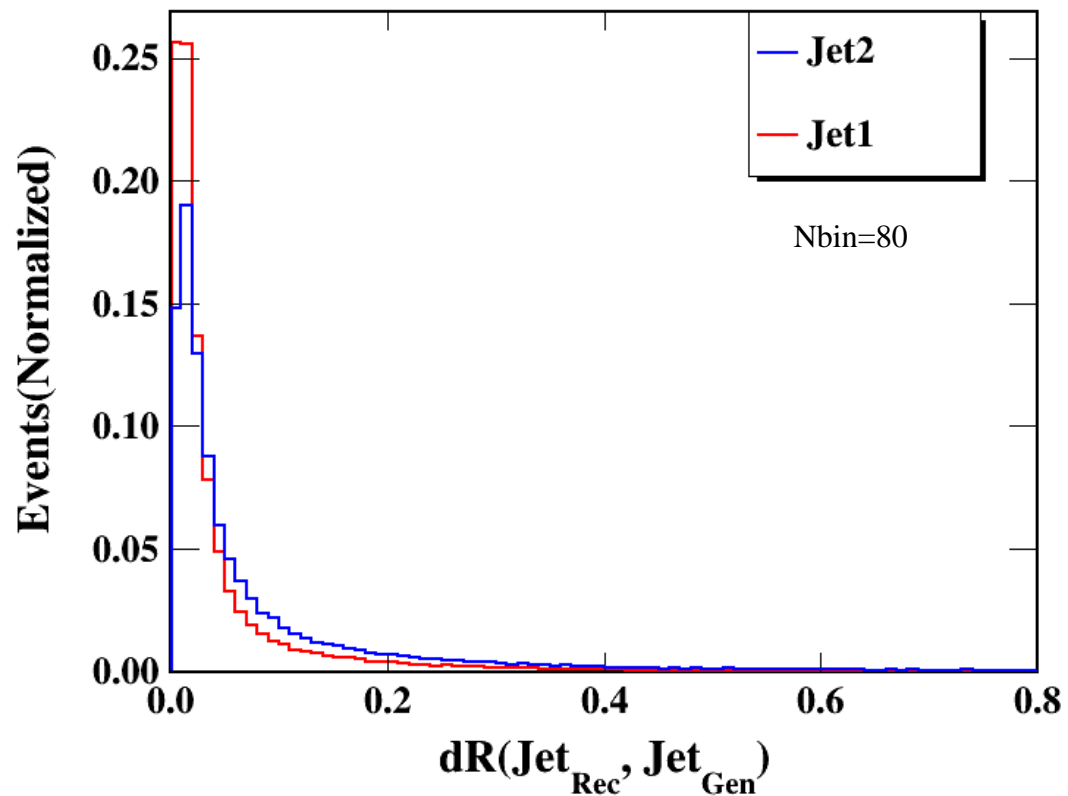




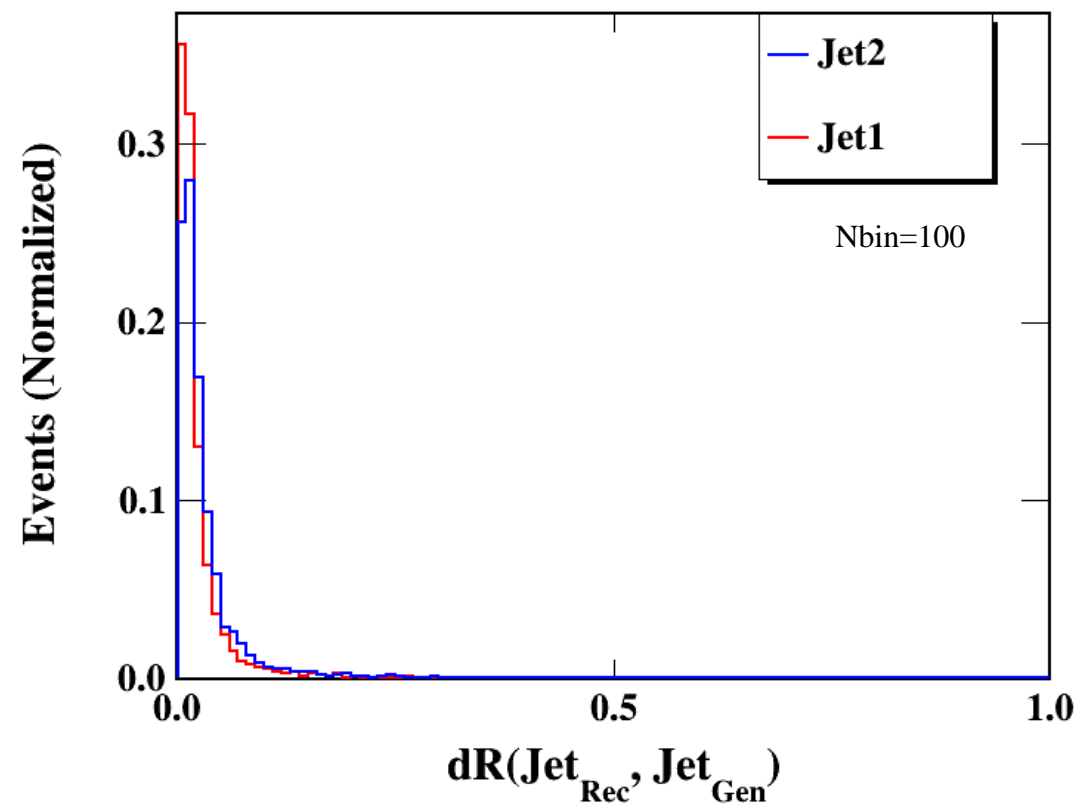
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tdr24.10.0

All Events: 57600



All Events: 2591



Rec Jet & Gen Jet:  $80^\circ < \theta < 100^\circ$

$ee \rightarrow ZH \rightarrow nnH(dd)$  240 GeV

