

Cross Cleaning: MET resolution

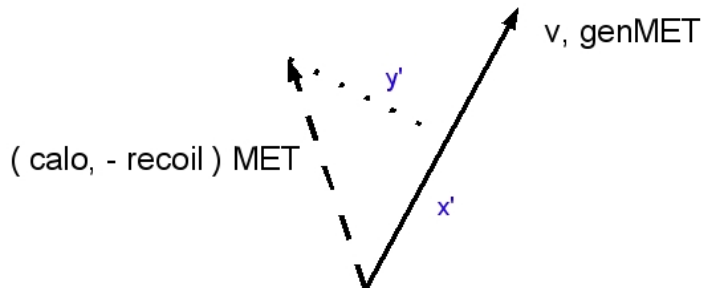
Friederike Nowak

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16. June 2010



Reco MET Projection on True MET



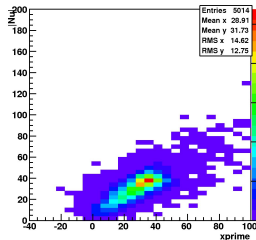
x' : parallel projection of reco MET to true MET

y' : transverse part of reco MET to true MET

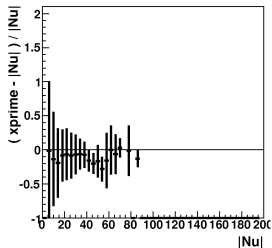
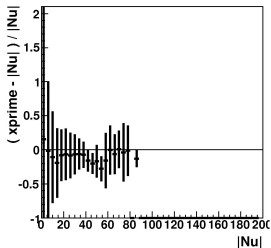
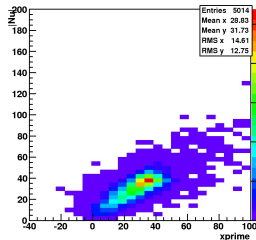
$(W^- \rightarrow e\nu) + \text{Jets}$

xprime (caloMET) fit

Reco, emf cut on jets



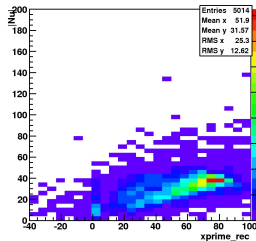
CC, integrated emf cut on jets



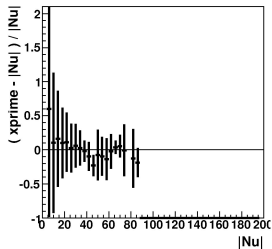
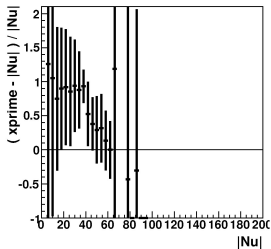
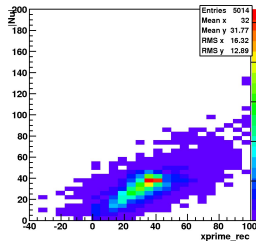
$(W^- \rightarrow e\nu) + \text{Jets}$

xprime (recoilMET) fit

Reco, emf cut on jets



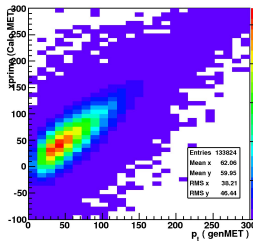
CC, integrated emf cut on jets



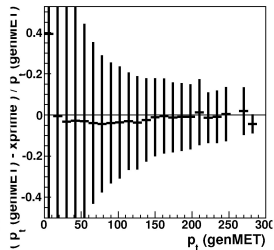
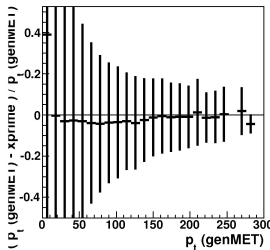
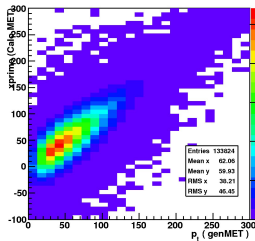
Semileptonic $t\bar{t}$

xprime (caloMET) fit

Reco, emf cut on jets



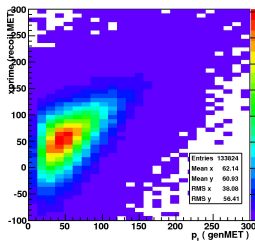
CC, integrated emf cut on jets



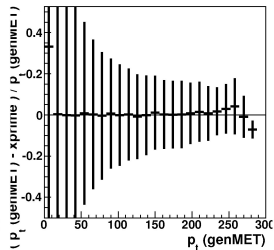
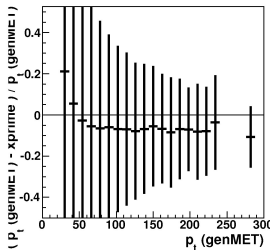
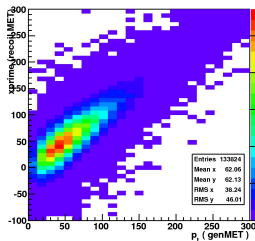
Semileptonic $t\bar{t}$

xprime (recoilMET) fit

Reco, emf cut on jets

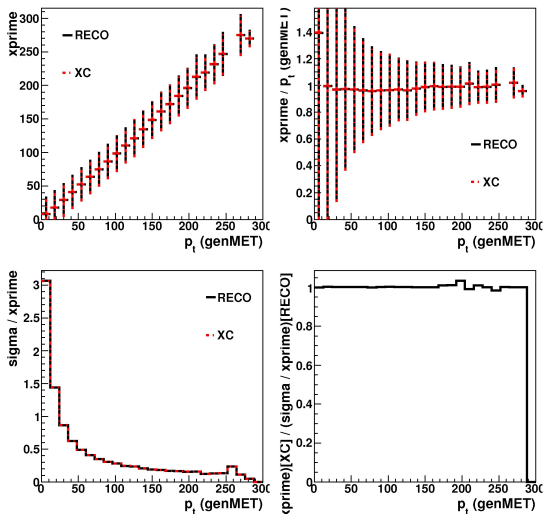


CC, integrated emf cut on jets



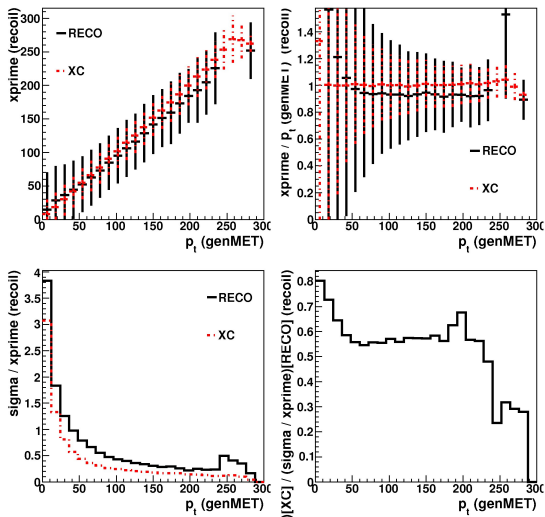
Semileptonic $t\bar{t}$

xprime (caloMET) fit, ii



Semileptonic $t\bar{t}$

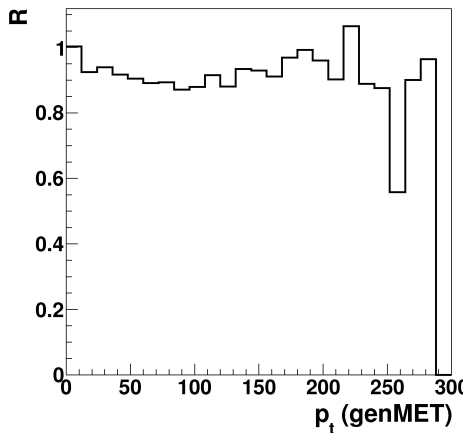
xprime (recoilMET) fit, ii



Semileptonic $t\bar{t}$

Ratio of Resolutions

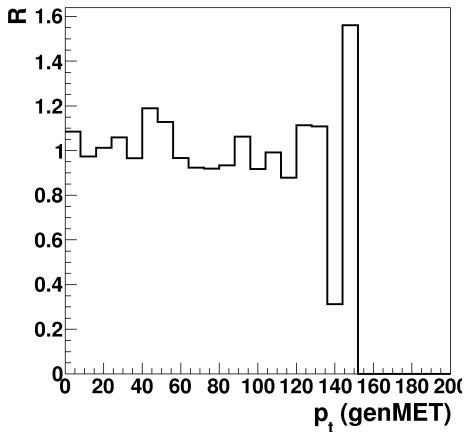
$$R = (\sigma / x_{\text{prime}}) [\text{XC, recoil}] / (\sigma / x_{\text{prime}}) [\text{RECO, calo}]$$



$(W^- \rightarrow e\nu) + \text{Jets}$

Ratio of Resolutions

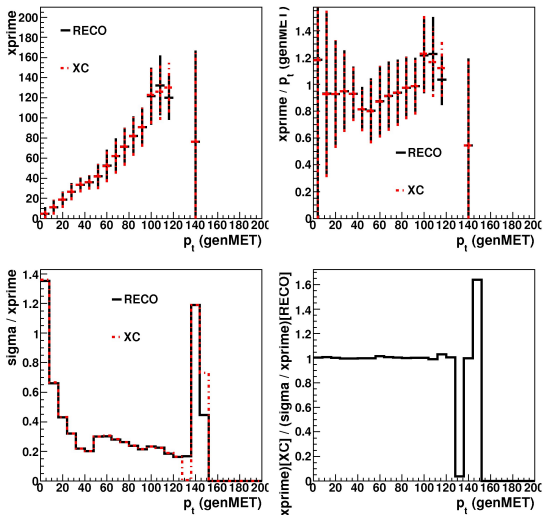
$$R = (\sigma / x_{\text{prime}}) [\text{XC, recoil}] / (\sigma / x_{\text{prime}}) [\text{RECO, calo}]$$



Backup

$(W^- \rightarrow e\nu) + \text{Jets}$

xprime (caloMET) fit, ii



$(W^- \rightarrow e\nu) + \text{Jets}$

xprime (recoilMET) fit, ii

