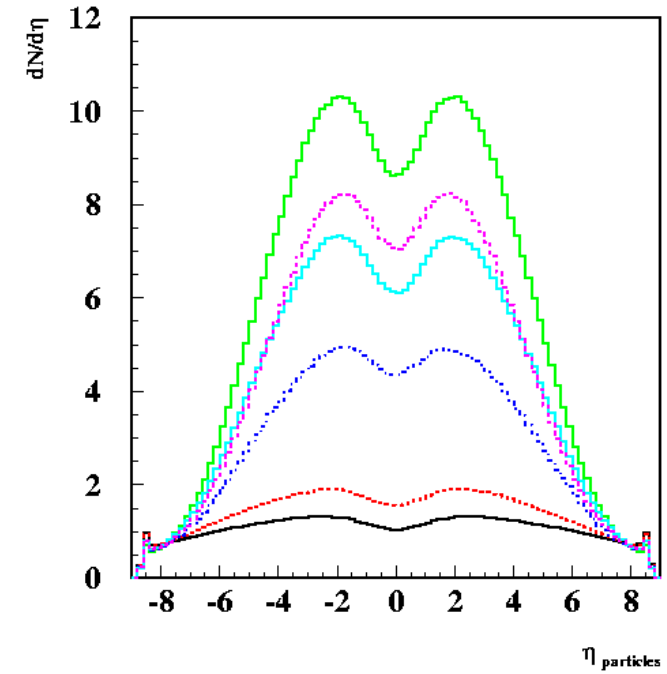
with PYTHIA 6.414 compare different options:

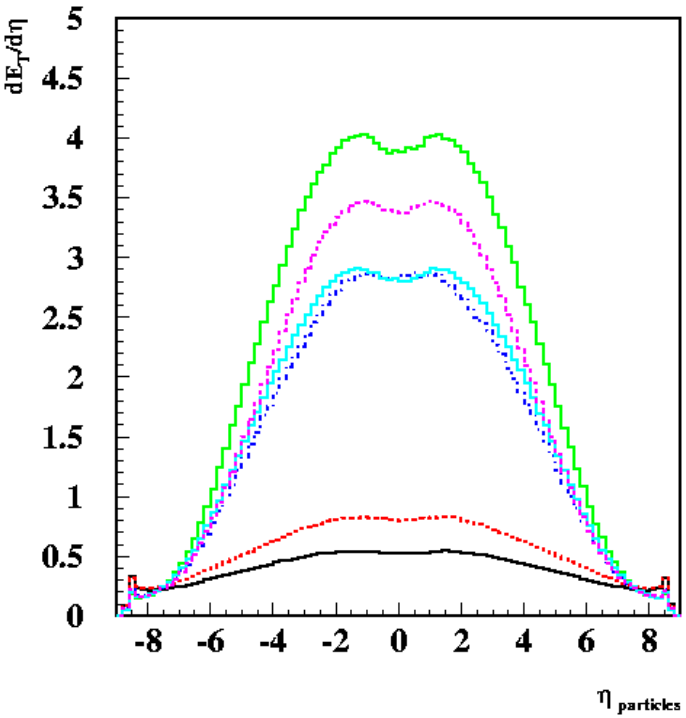
- no parton showers, no MI MSTP(61)=0, MSTP(71)=0, MSTP(81)=0
- parton showers, no MI MSTP(81)=0
- parton showers, MI -MSTP(5)=100 →R.Field CDF tune *A*
  -MSTP(5)=300 →Sandhoff-Skands tune 0
  -MSTP(5)=402 → *GAL1*
  -pythia default

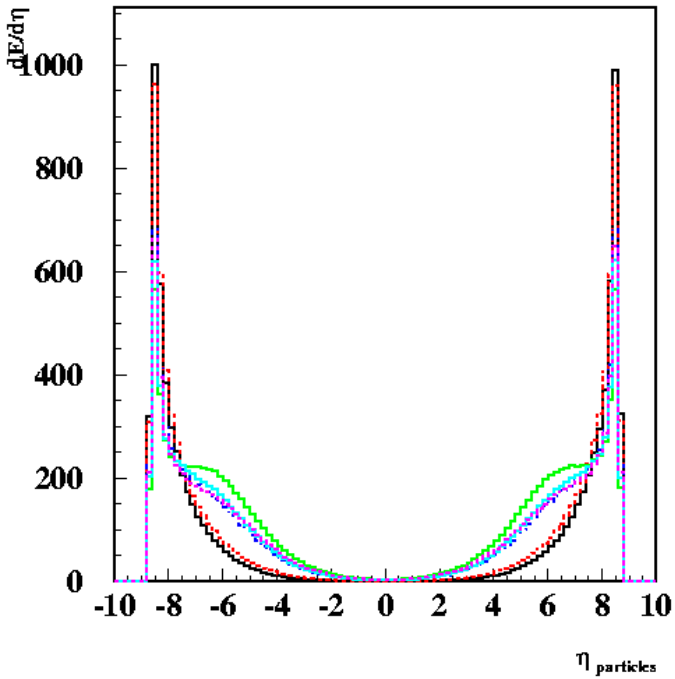
try CKIN(3)=5, 10,15,20

E, Et , N flow vs eta

CKIN(3)=5



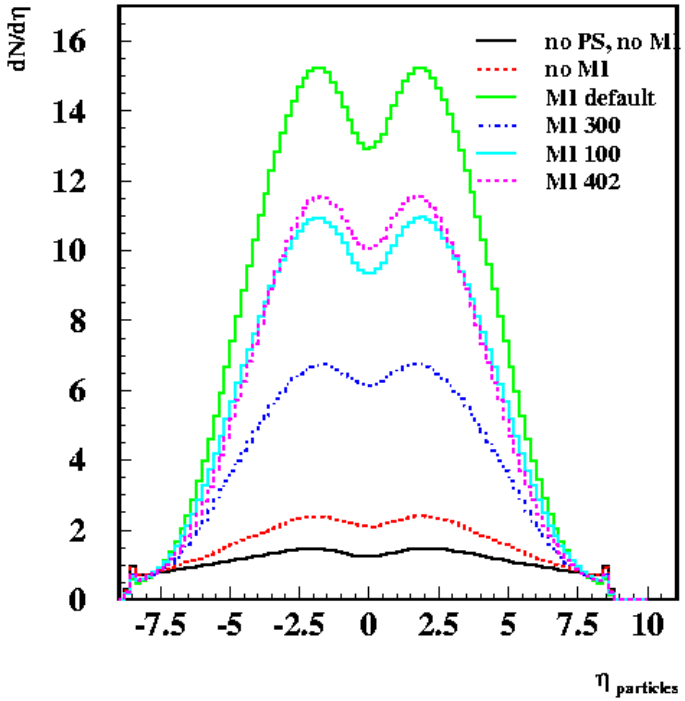


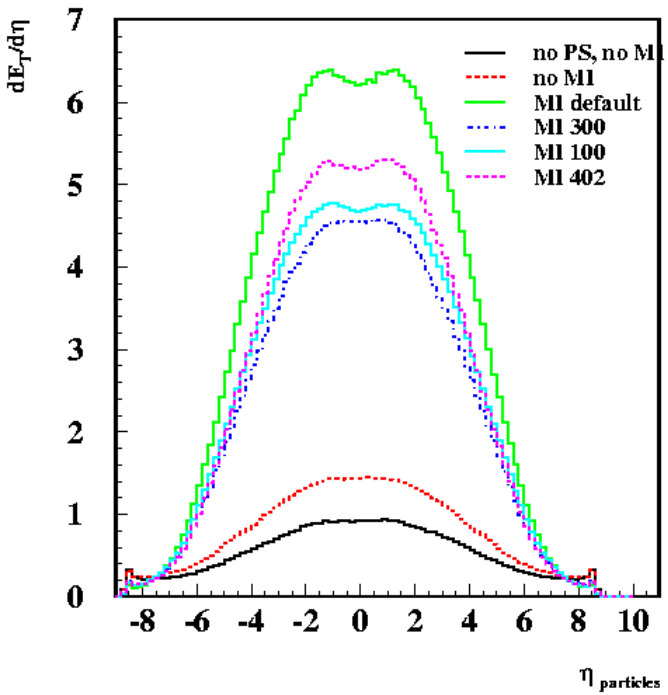


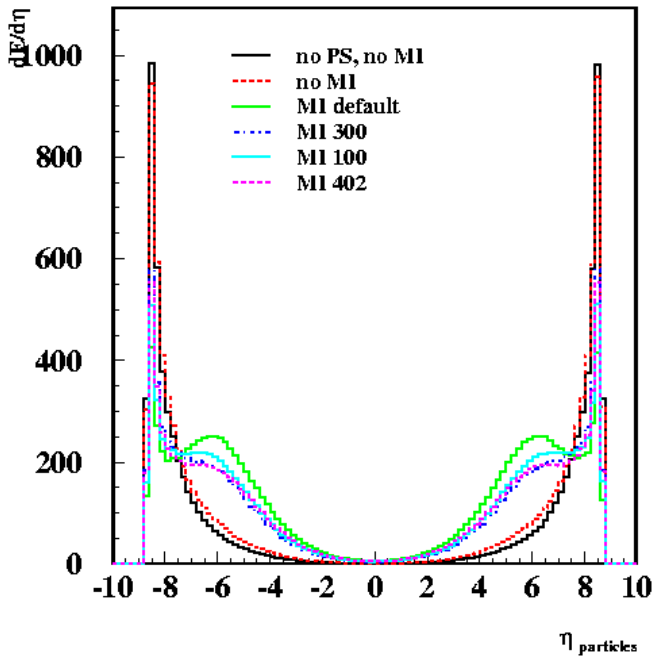
no PS, no MI
no MI
MI default
MI 300
MI 100
MI 402

E, Et , N flow vs eta

CKIN(3)=10

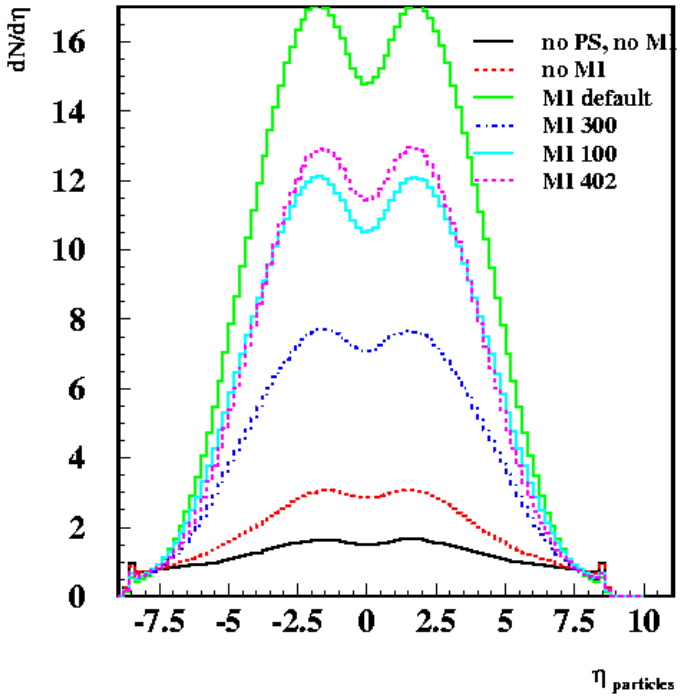


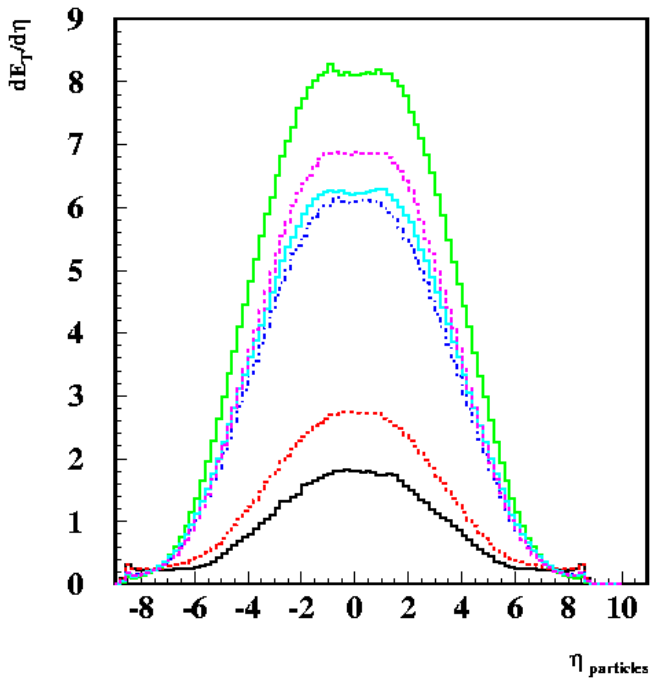


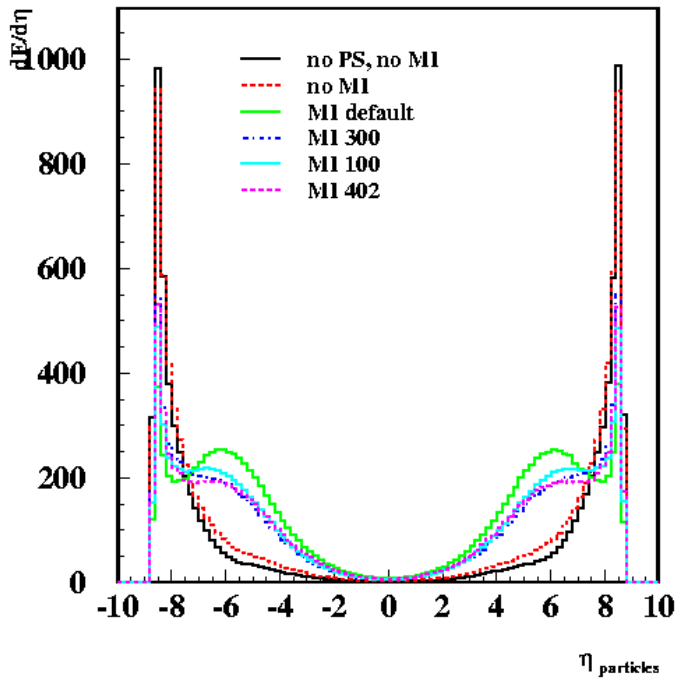


E, Et , N flow vs eta

CKIN(3)=20



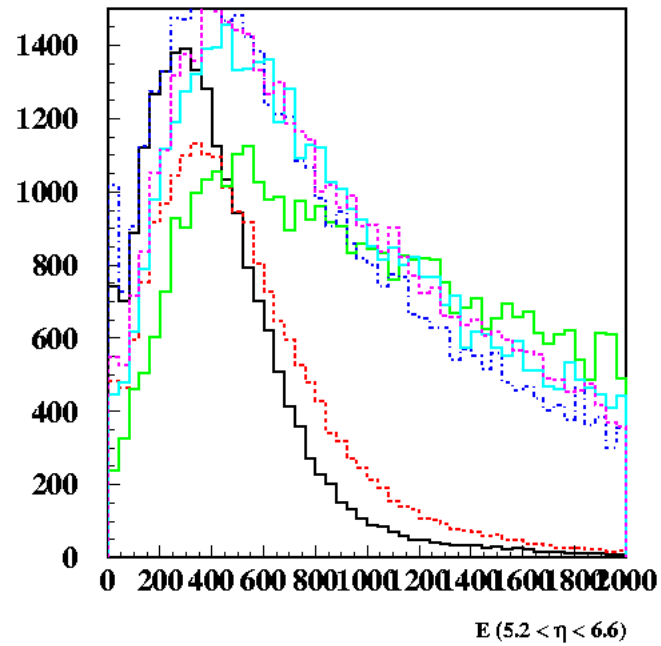


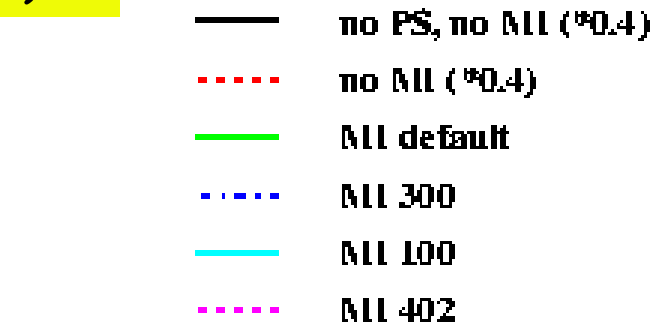


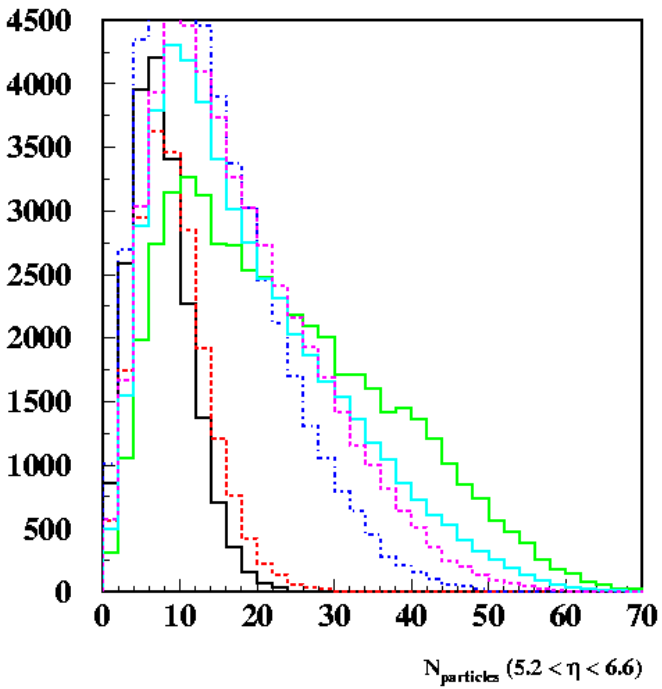
no PS, no M1
no M1
M1 default
M1 300
M1 100
M1 402

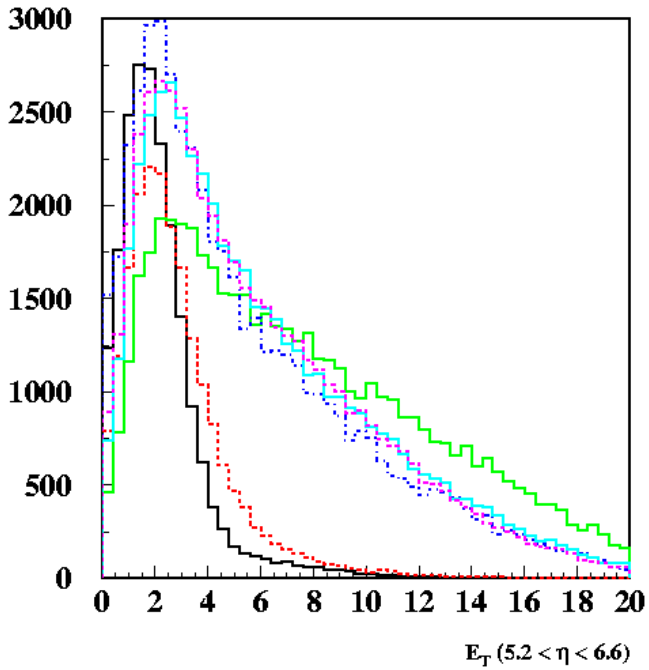
E, Et , N distributions (5.2<η<6.6)

CKIN(3)=5



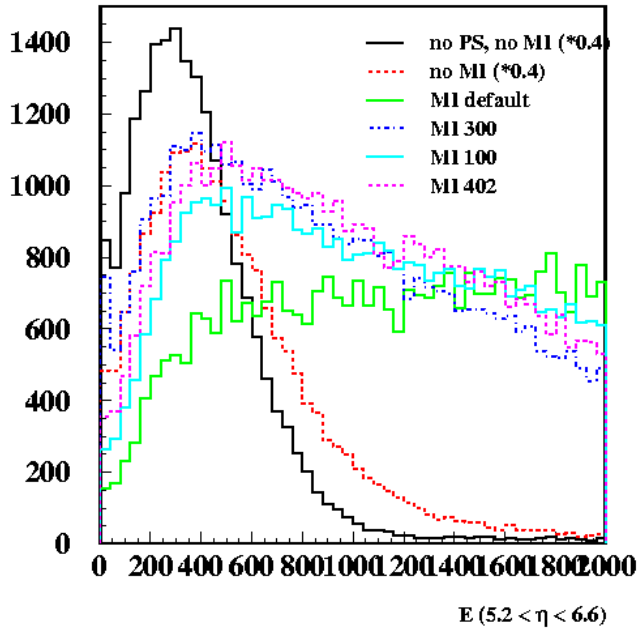


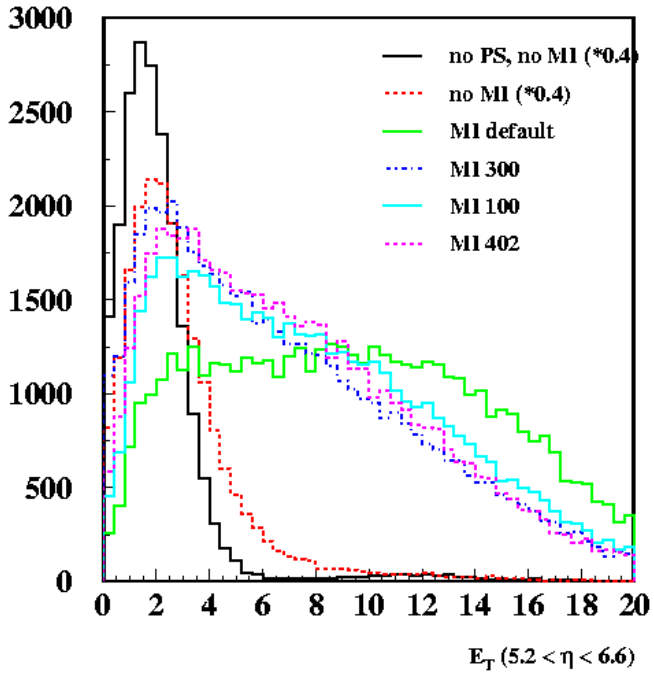


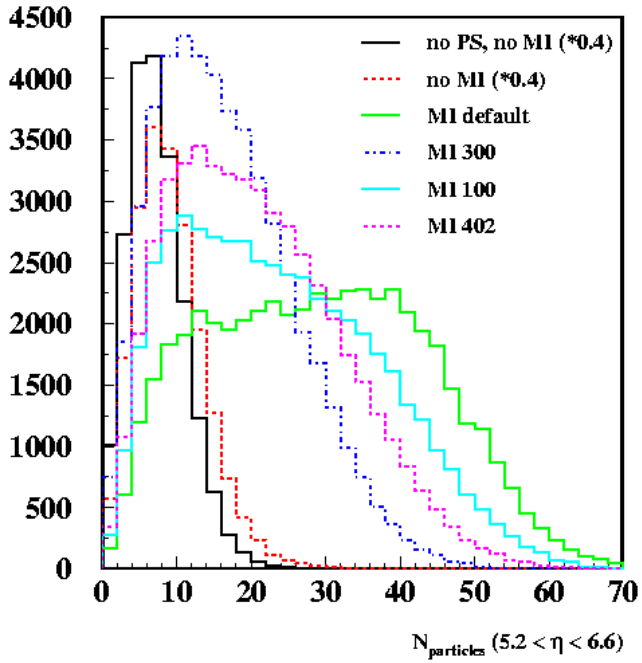


∑Et, E and N of hadrons for 5.2<eta<6.6 (~ CASTOR)

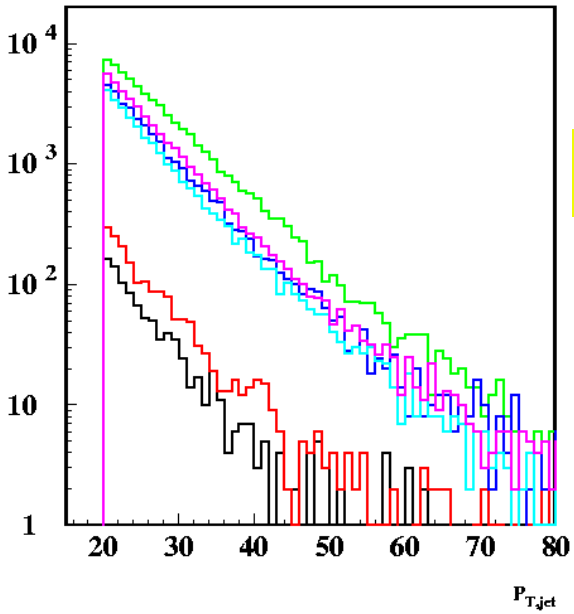
CKIN(3)=10



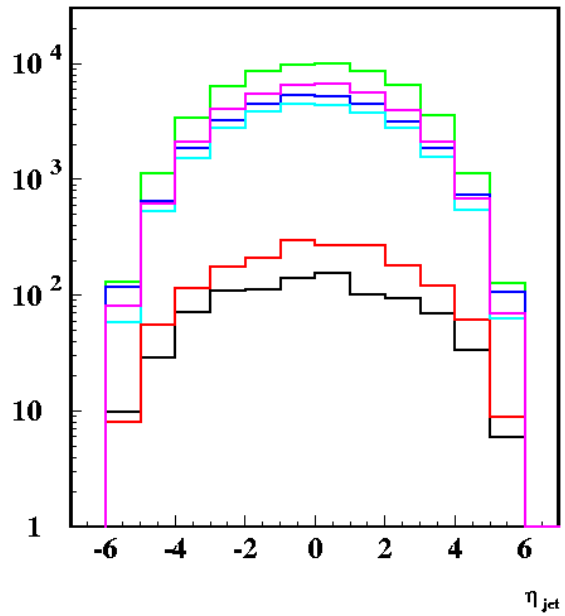


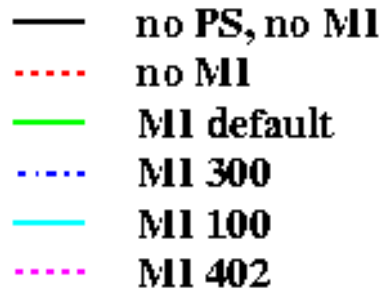


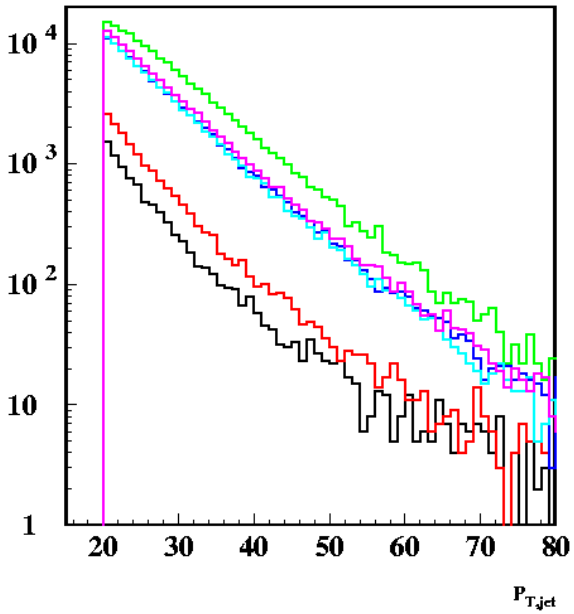
Hadron jets, Pt and eta (Pt_jet>20 GeV)



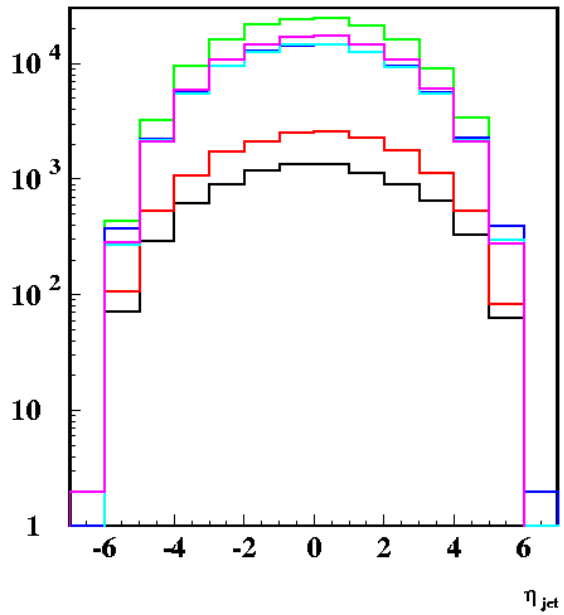
CKIN(3)=5



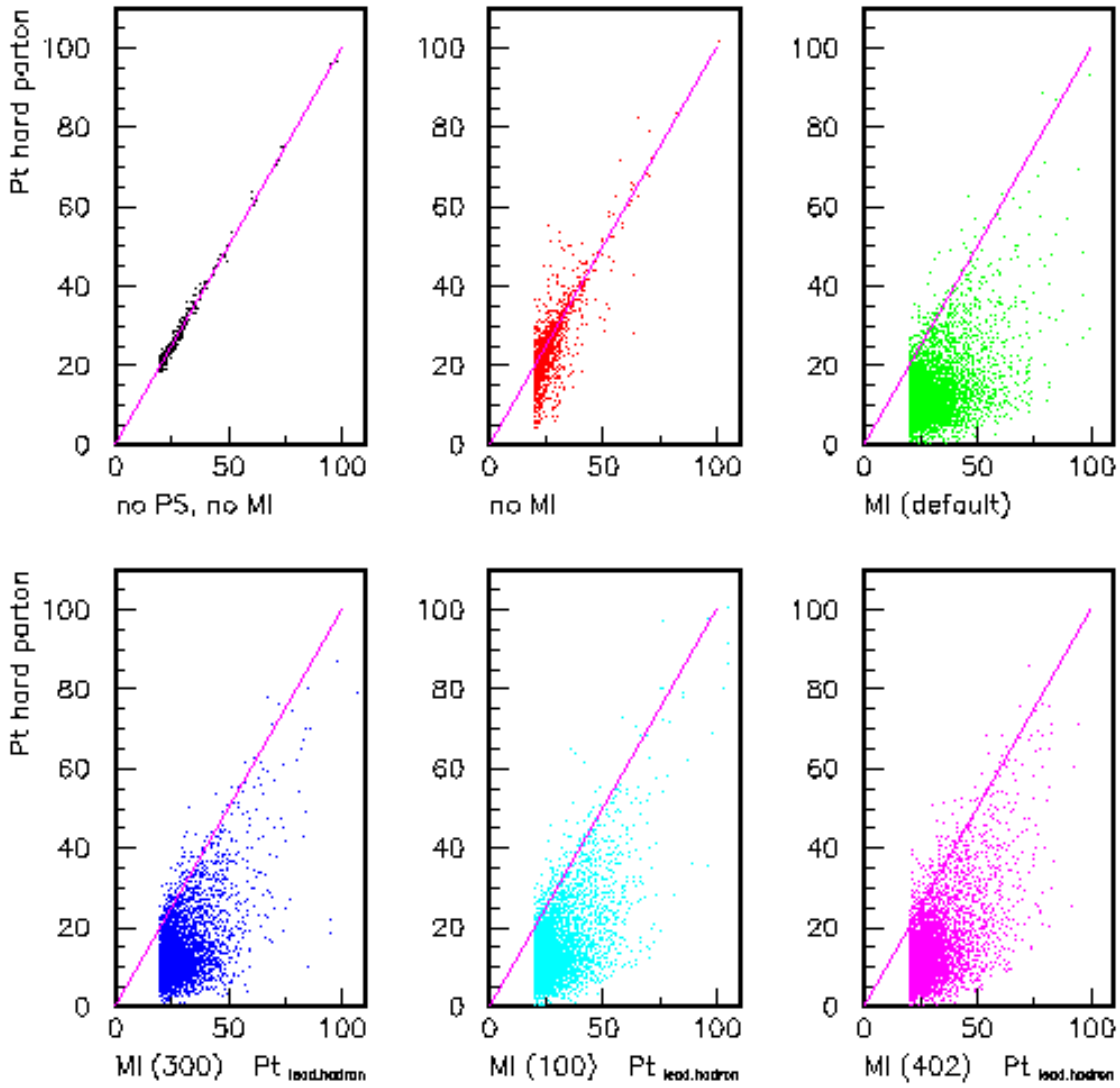




CKIN(3)=10



Pt_leading_hadron jet vs parton
(parton is the one from 2→2 hard scattering)



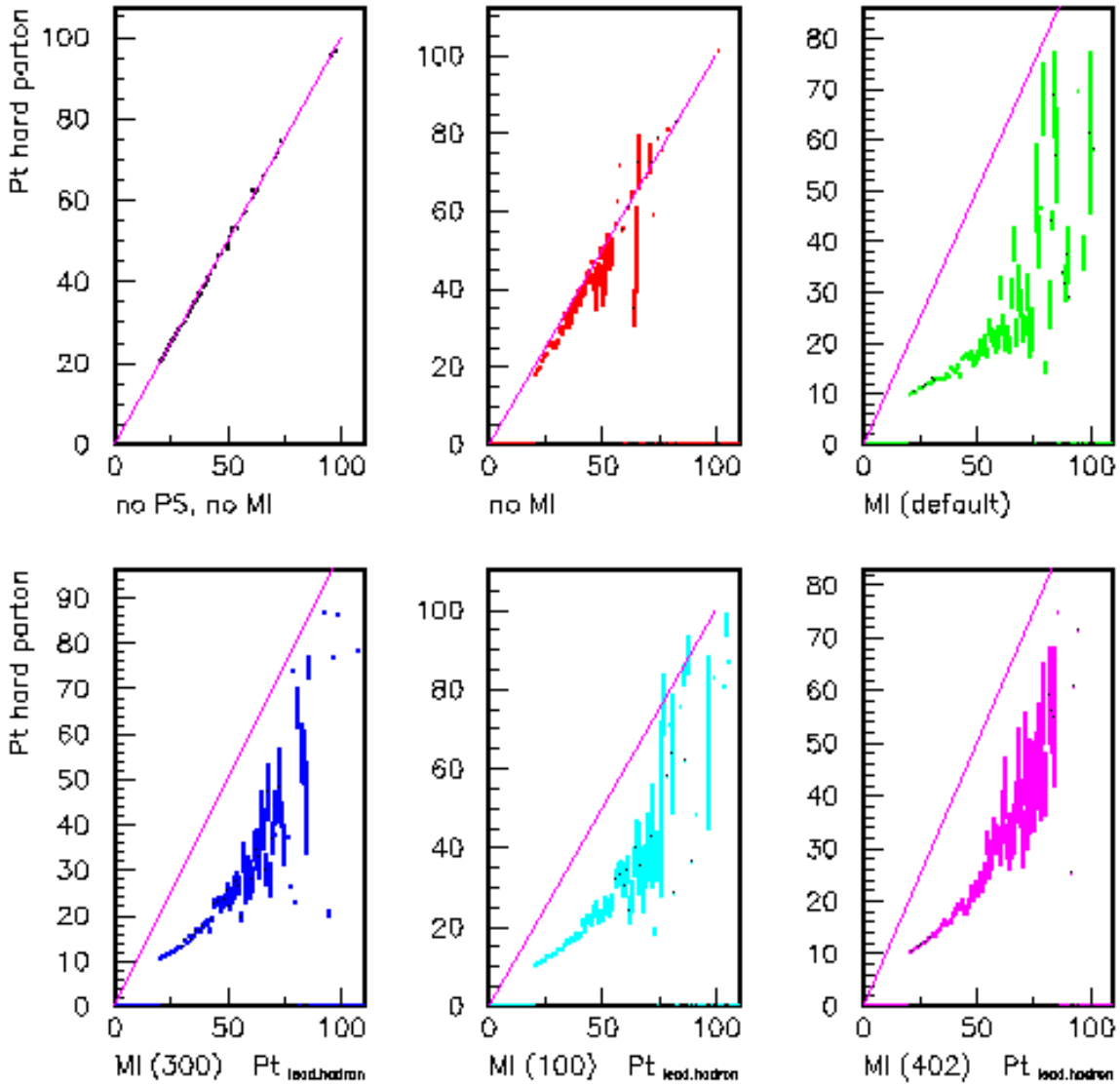
CKIN(3)=5

Can we get 'true' jets from the measured 'hadron' jets ?

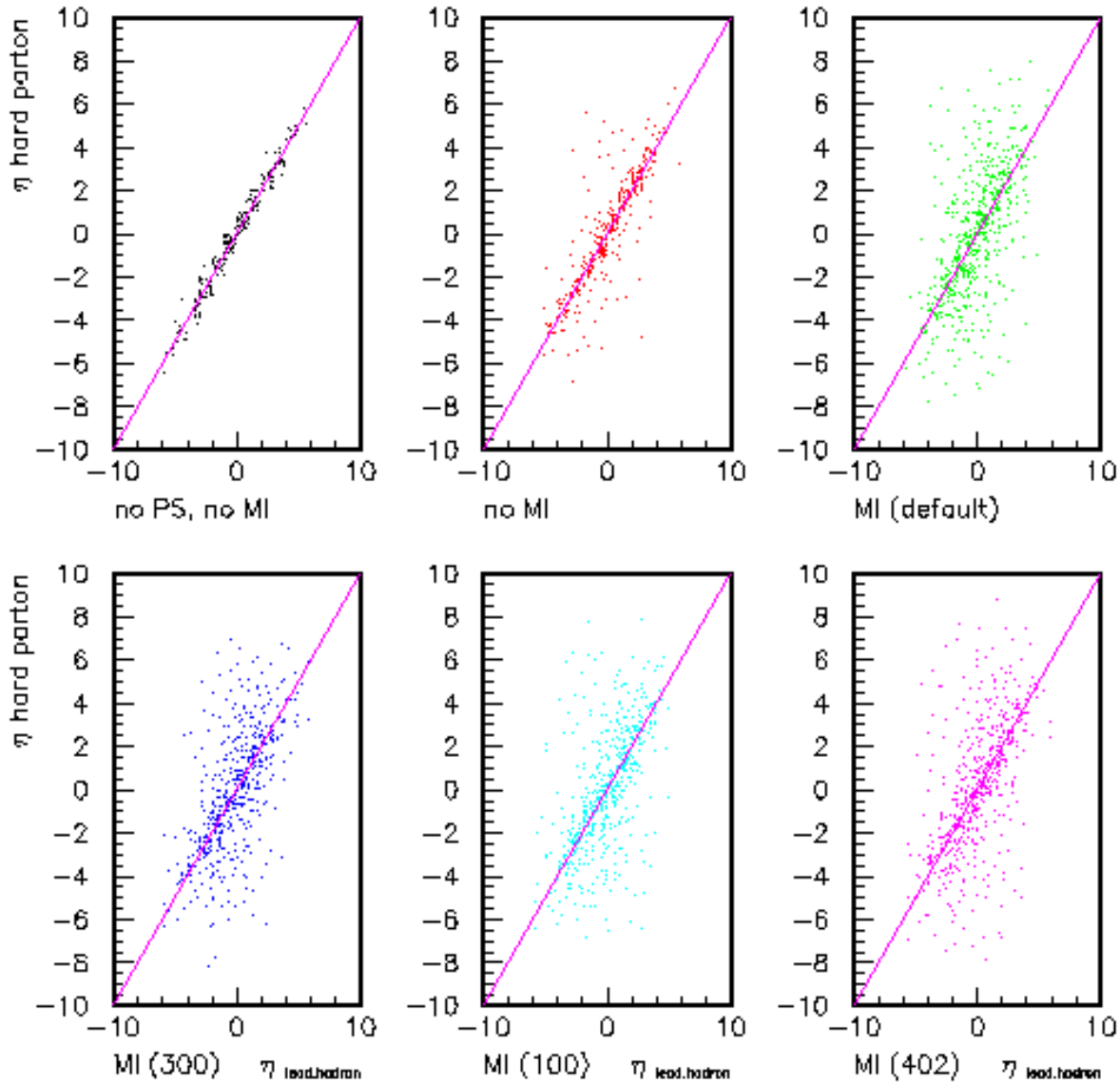
good correlations between 'leading' jets and partons

Pt_leading_hadron jet vs parton
(parton is the one from 2→2 hard scattering)

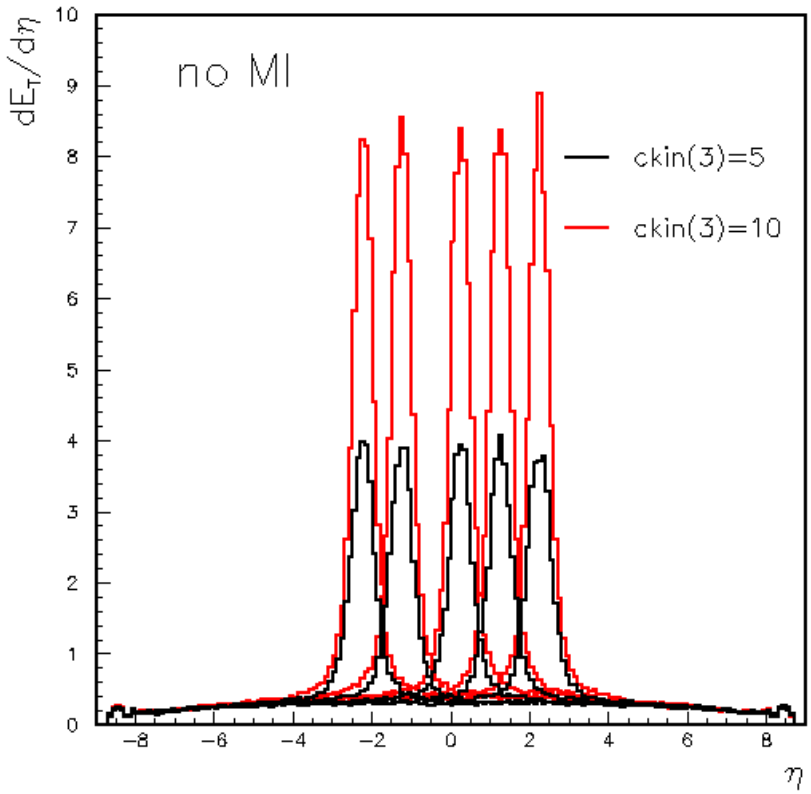
CKIN(3)=5

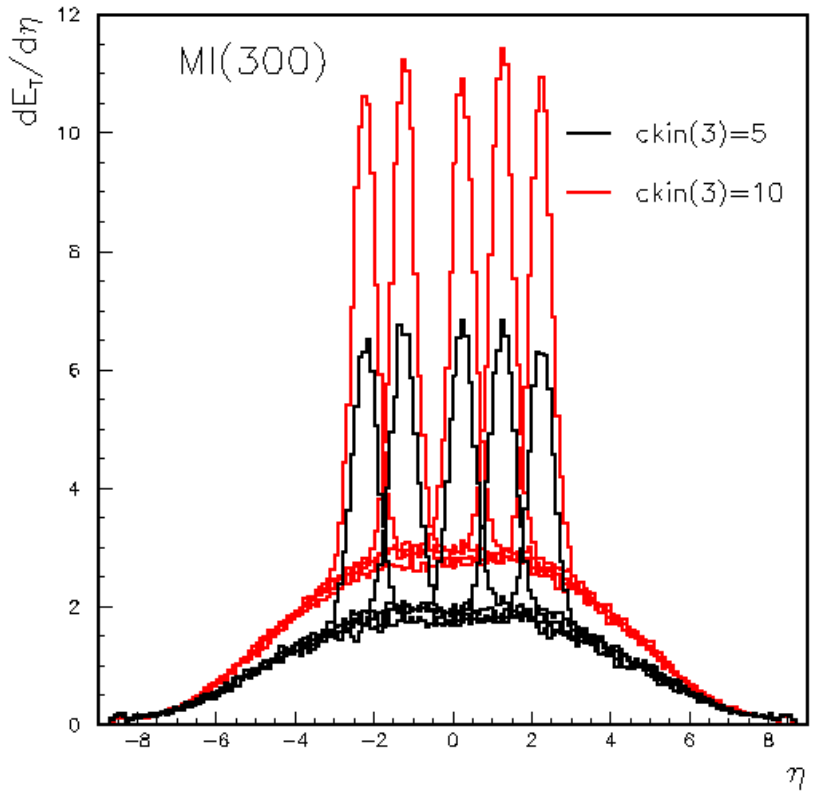


eta_leading_hadron jet vs parton
(parton is the one from 2→2 hard scattering)



Jet profiles: different η_{jets}

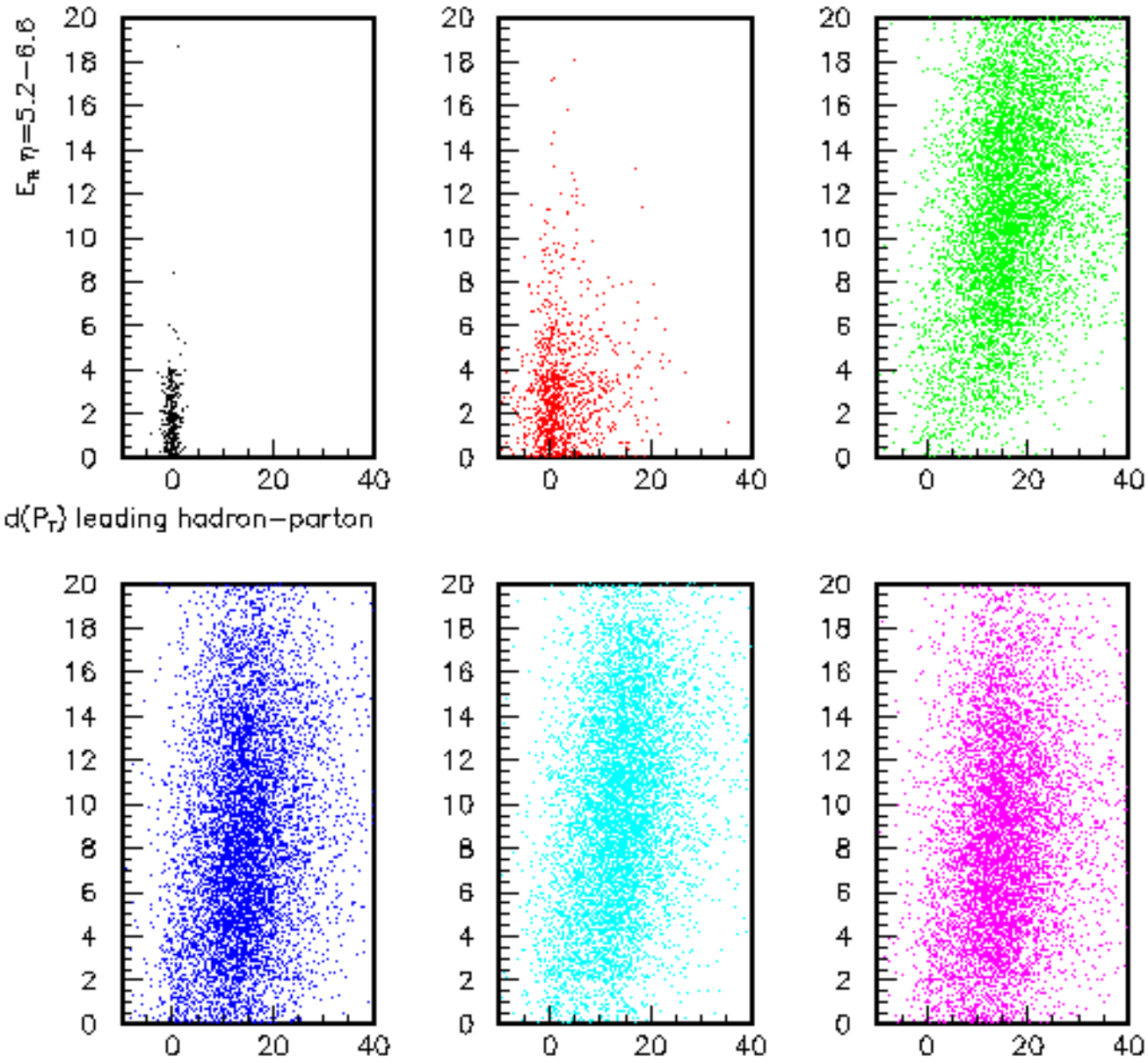




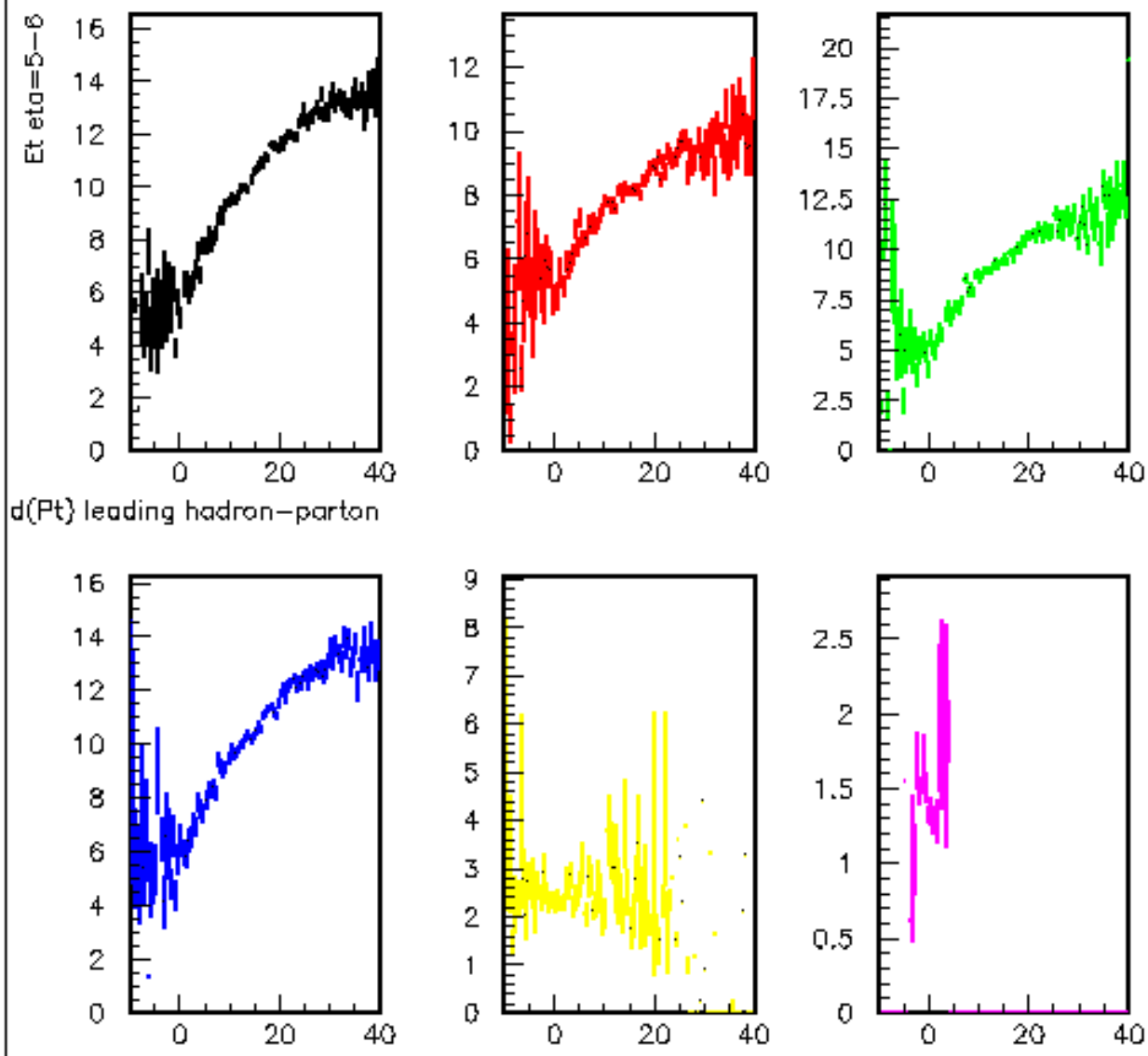
no MI → no pedestals

MI → pedestal independent on η_{jets} ➔ measurements in CASTOR region may help tp subtract pedestal

Pt (leading_jet_hadron- parton) vs ∑Et (5.2<eta<6.6)



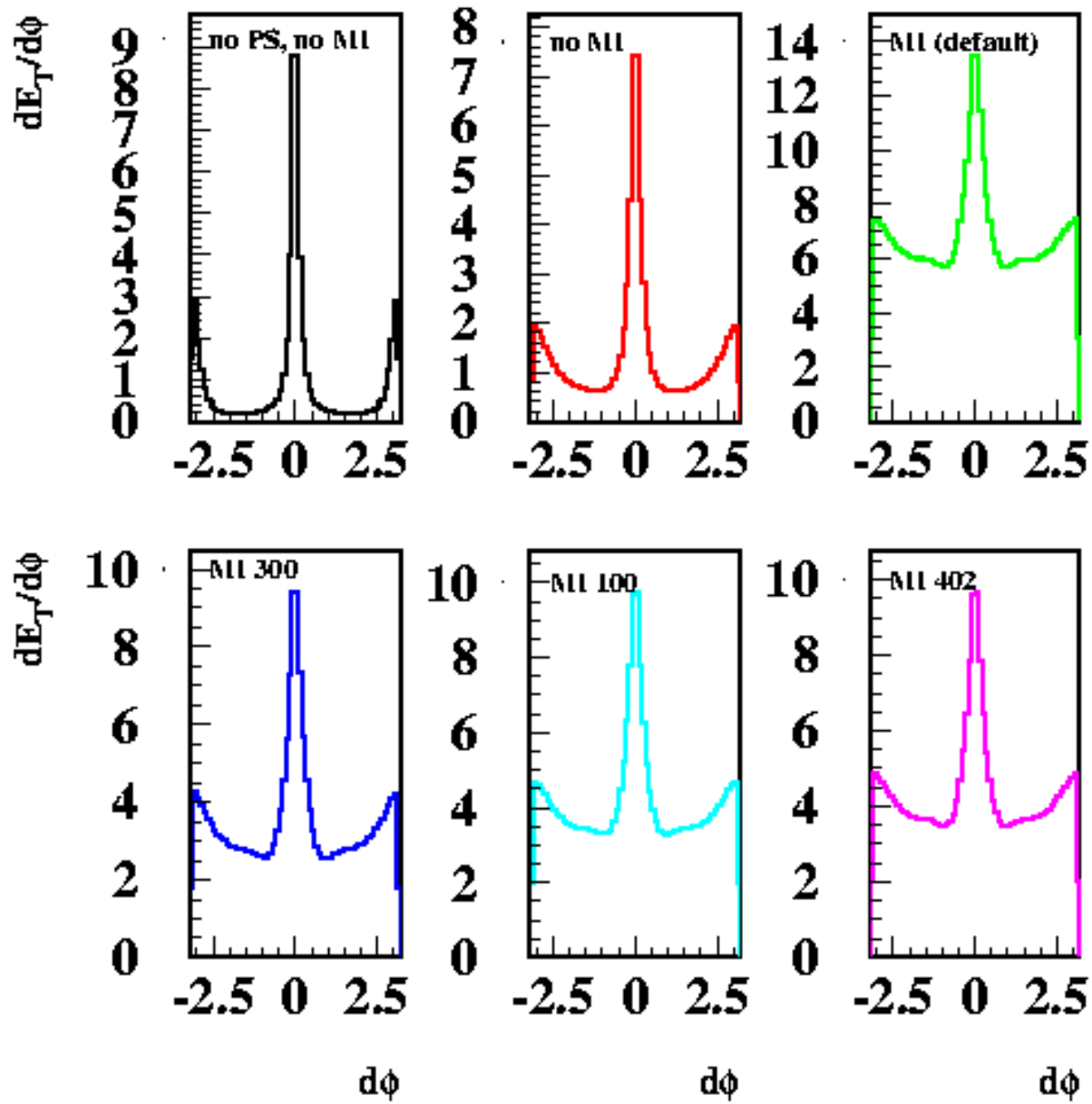
Pt (leading_jet_hadron- parton) vs ∑E (5.2<eta<6.6)



MI 300
MI 402
MI 100
MI def
no MI
noPS,no MI

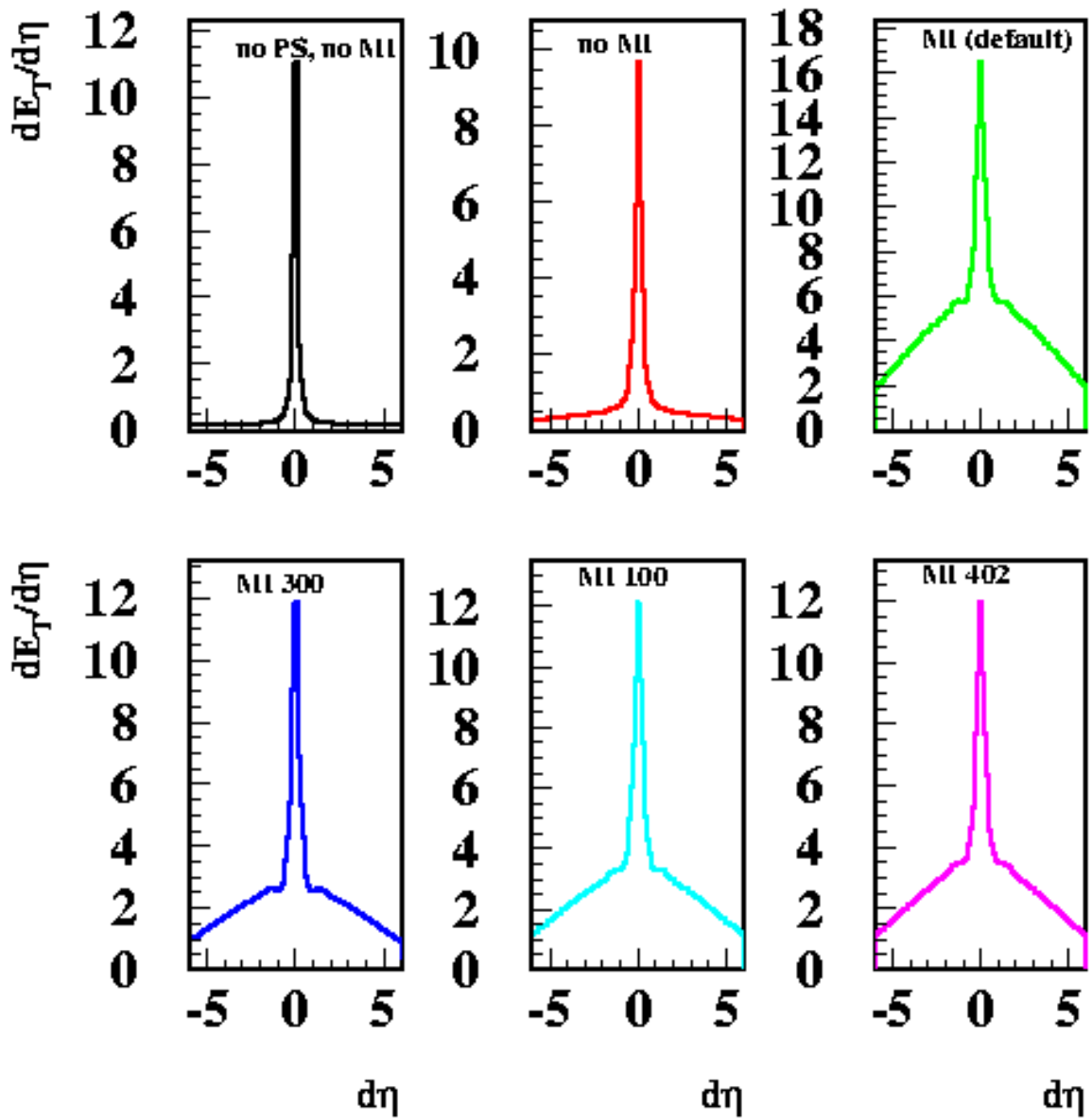
Jet profiles vs phi ($\Delta\eta$<2)

CKIN(3)=10



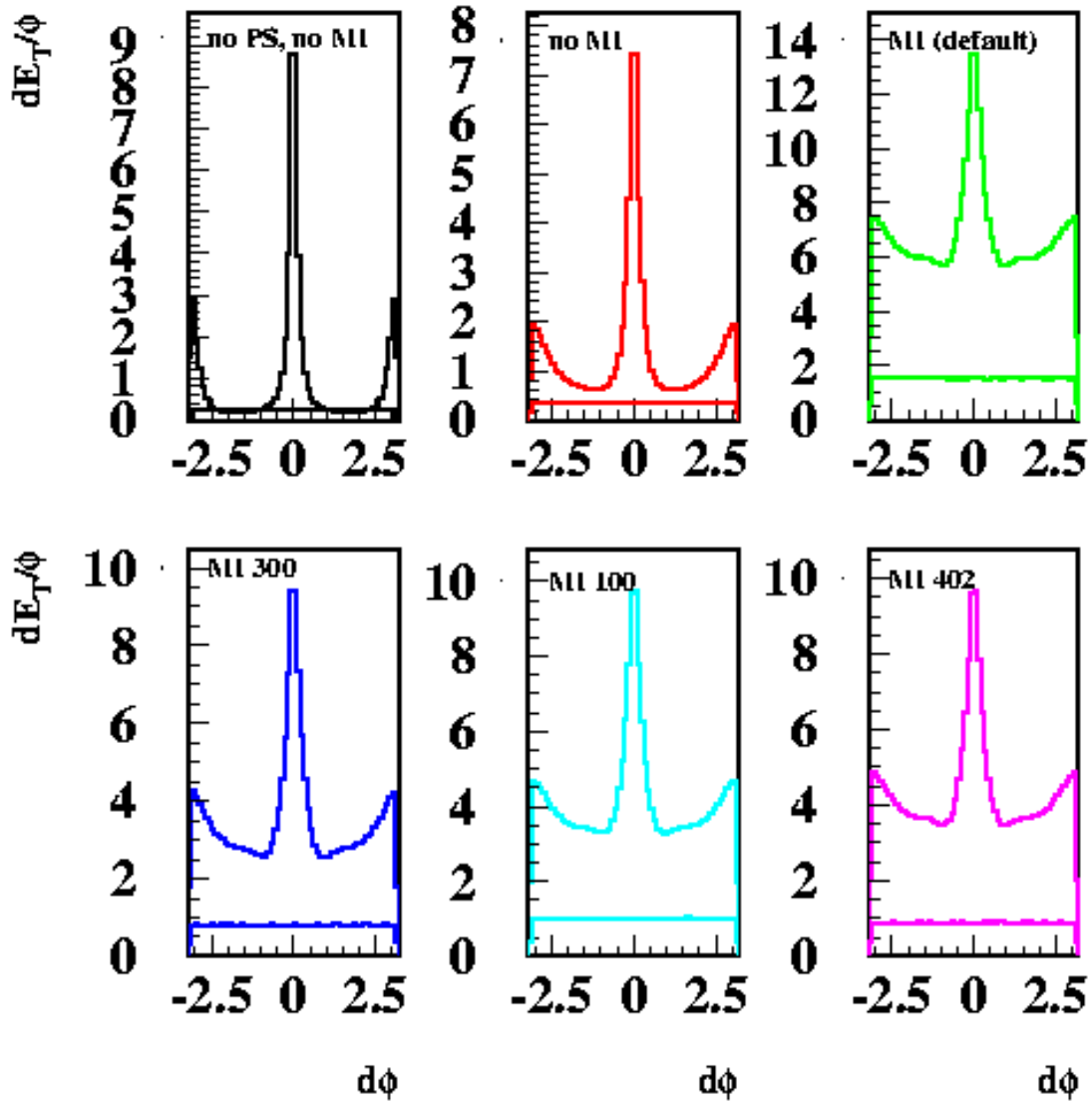
Jet profiles vs eta ($\Delta\phi$<1.5)

CKIN(3)=10

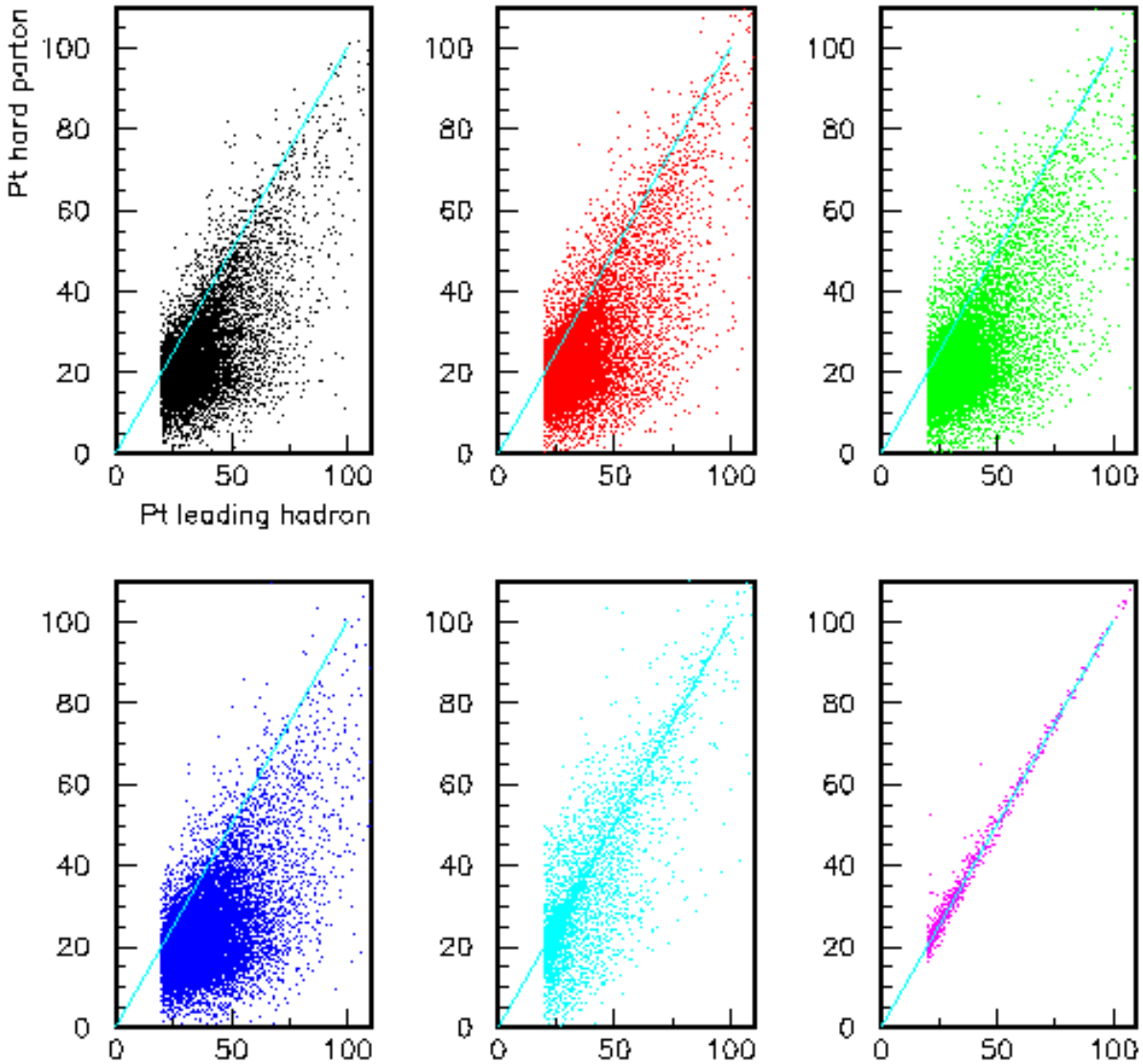


Jet profiles vs phi ($\Delta\eta<2$) and
Et 'profile' for $3.5<eta<7.5$

CKIN(3)=10



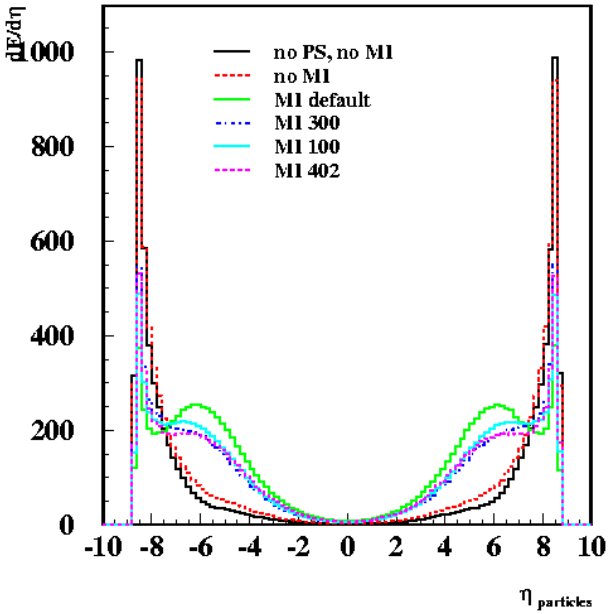
Pt_leading_hadron jet vs parton
(parton is the one from 2→2 hard scattering)



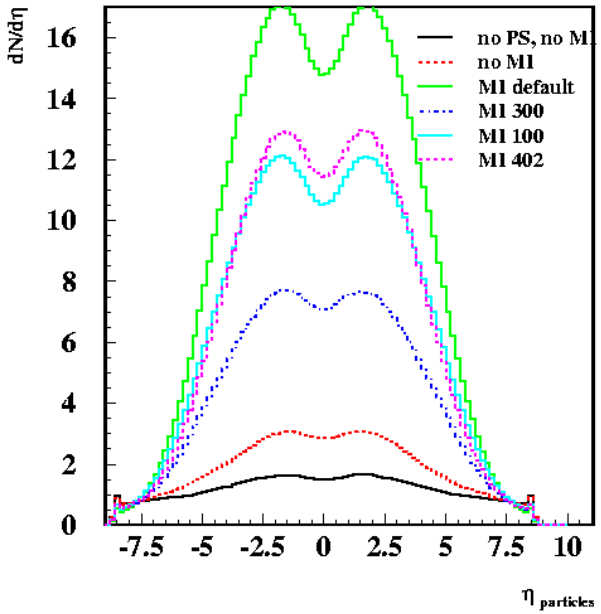
MI 300
MI 402
MI 100
MI def
no MI
noPS,no MI

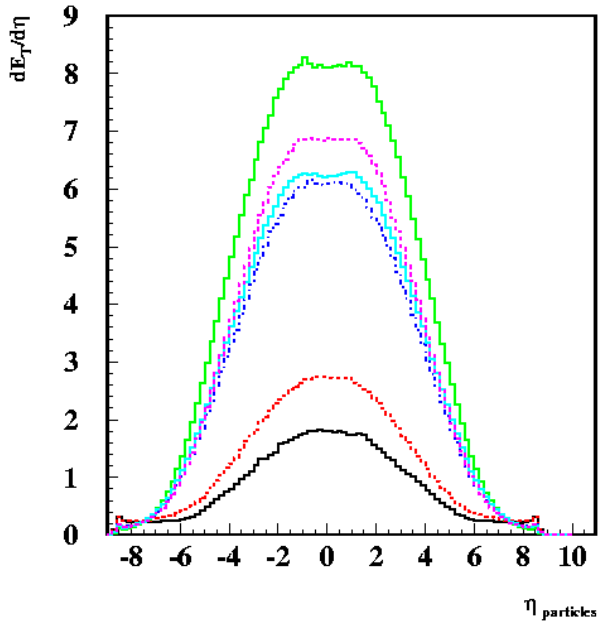
increase Ptcut
CKIN(3) to 20

E, Et , N flow vs eta

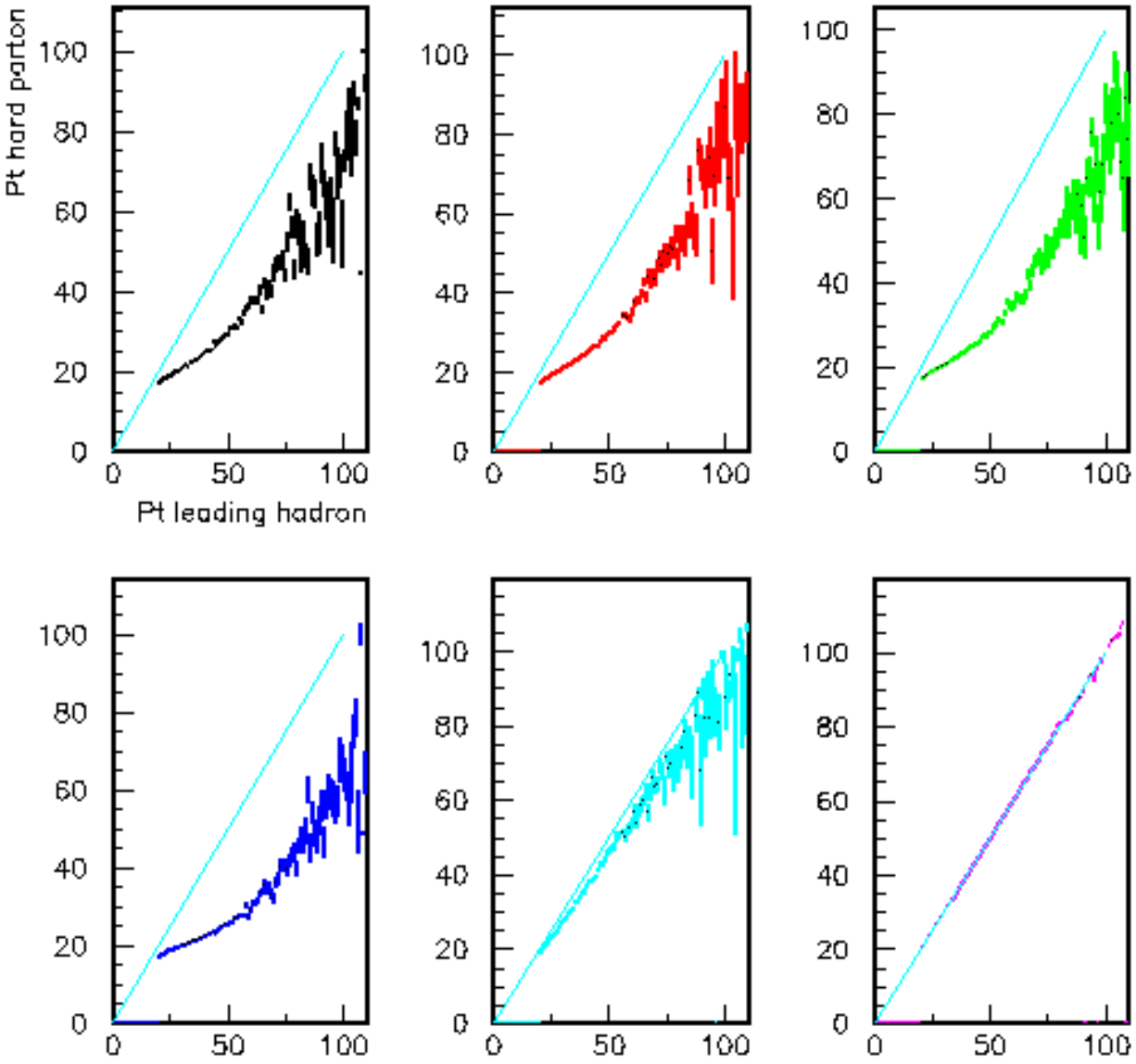


increase Ptcut
CKIN(3) to 20



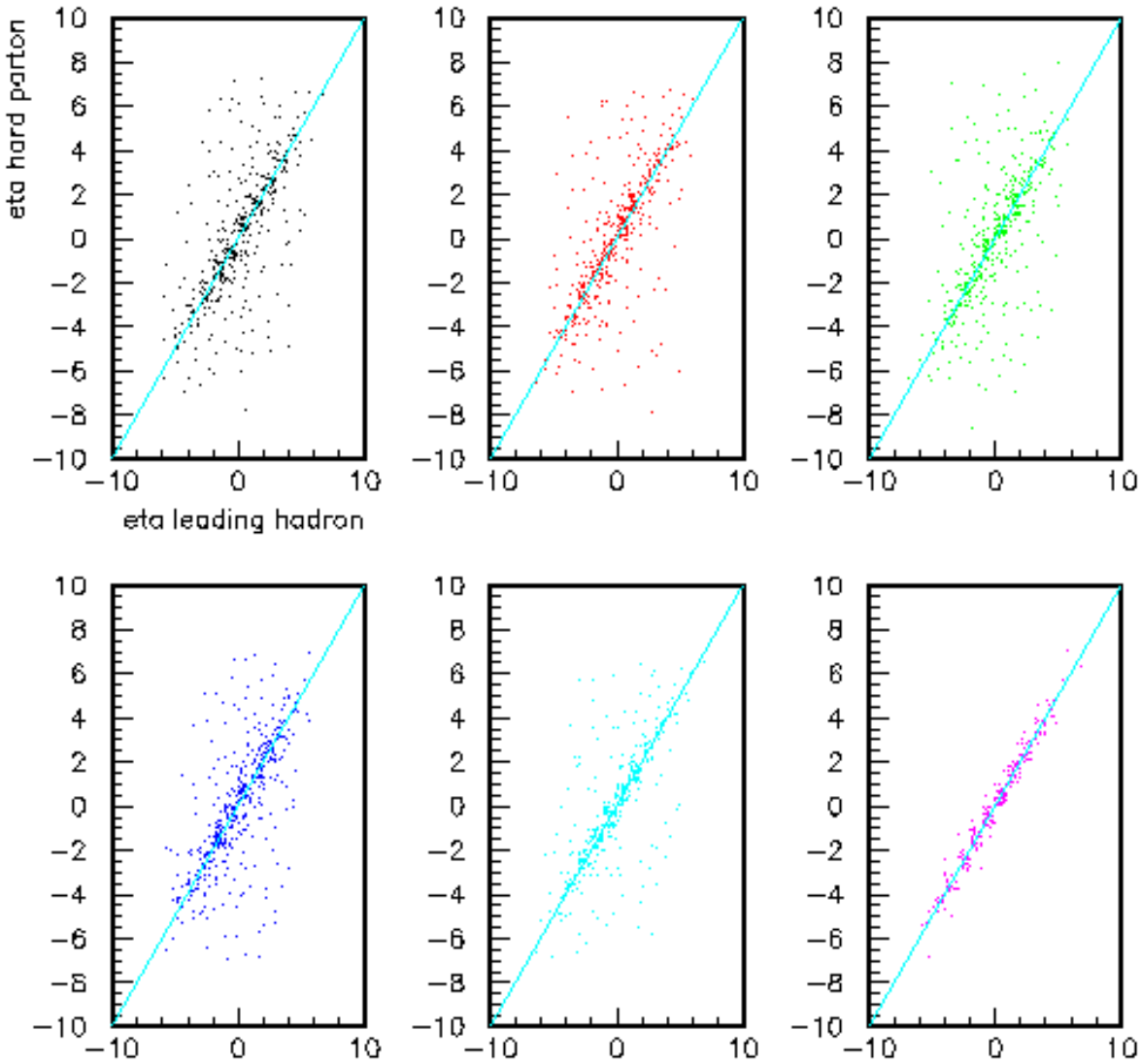


Pt_leading_hadron jet vs parton
(parton is the one from 2→2 hard scattering)



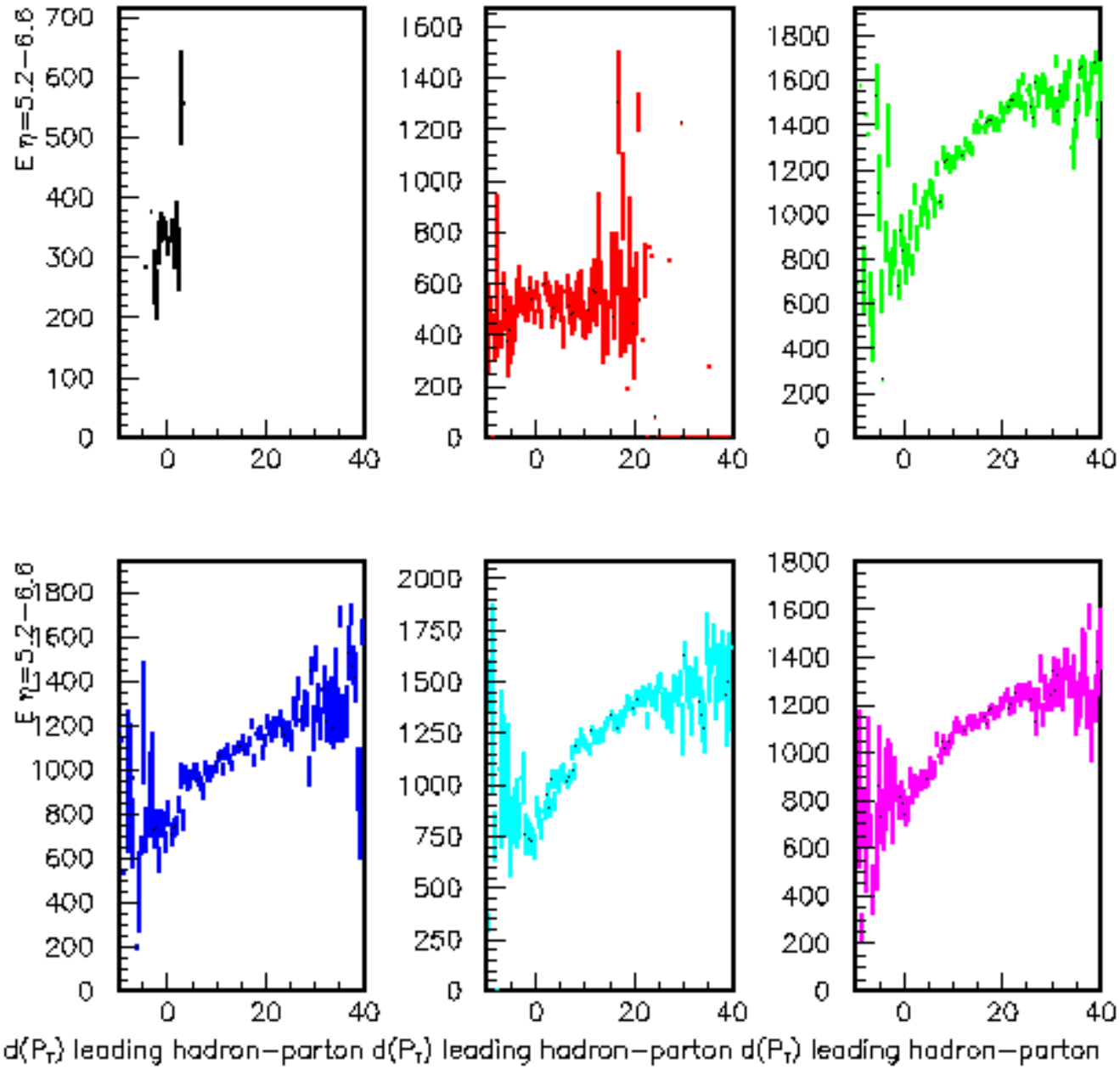
MI 300
MI 402
MI 100
MI def
no MI
noPS,no MI

eta_leading_hadron jet vs parton
(parton is the one from 2→2 hard scattering)

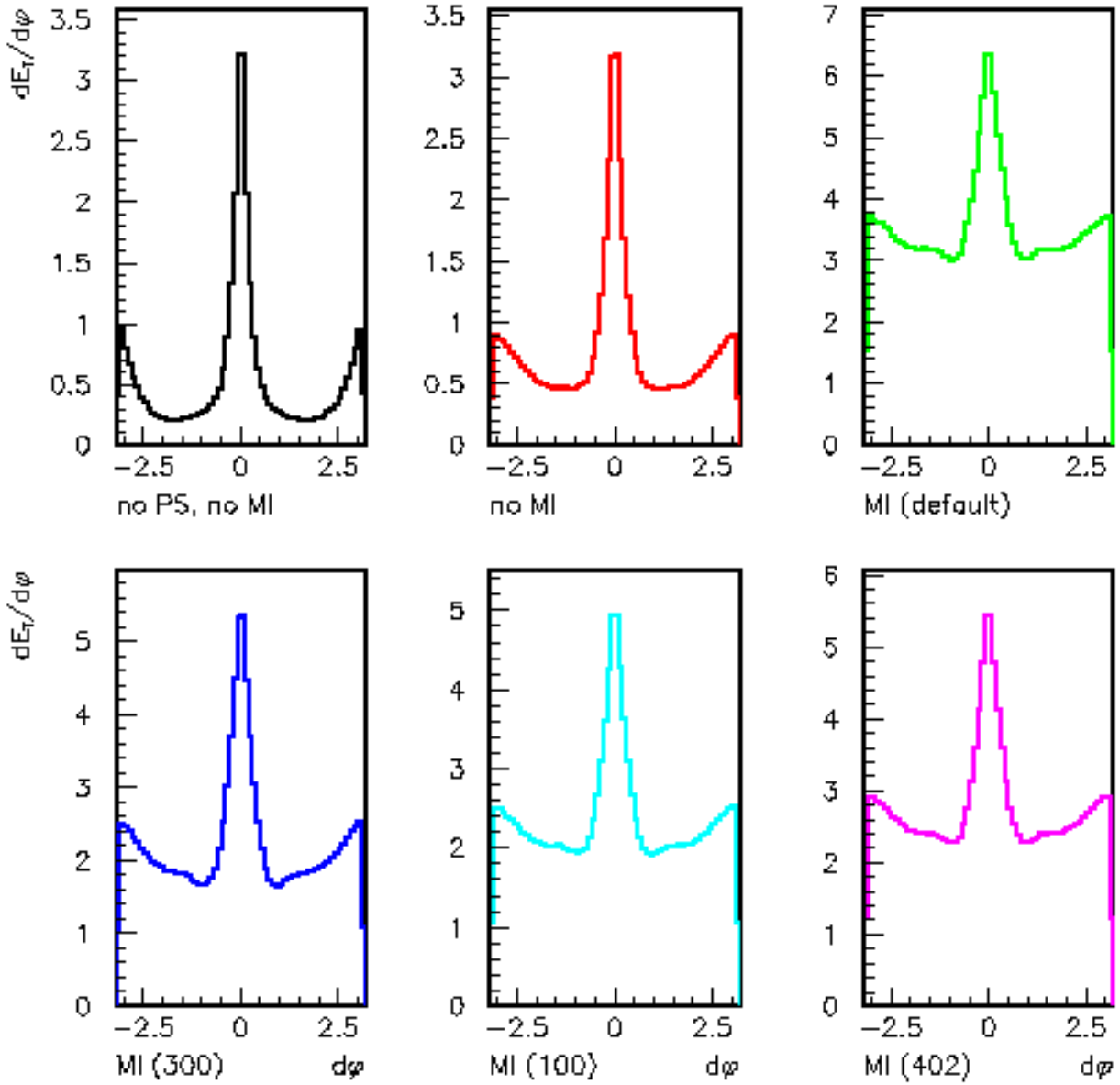


MI 300
MI 402
MI 100
MI def
no MI
noPS,no MI

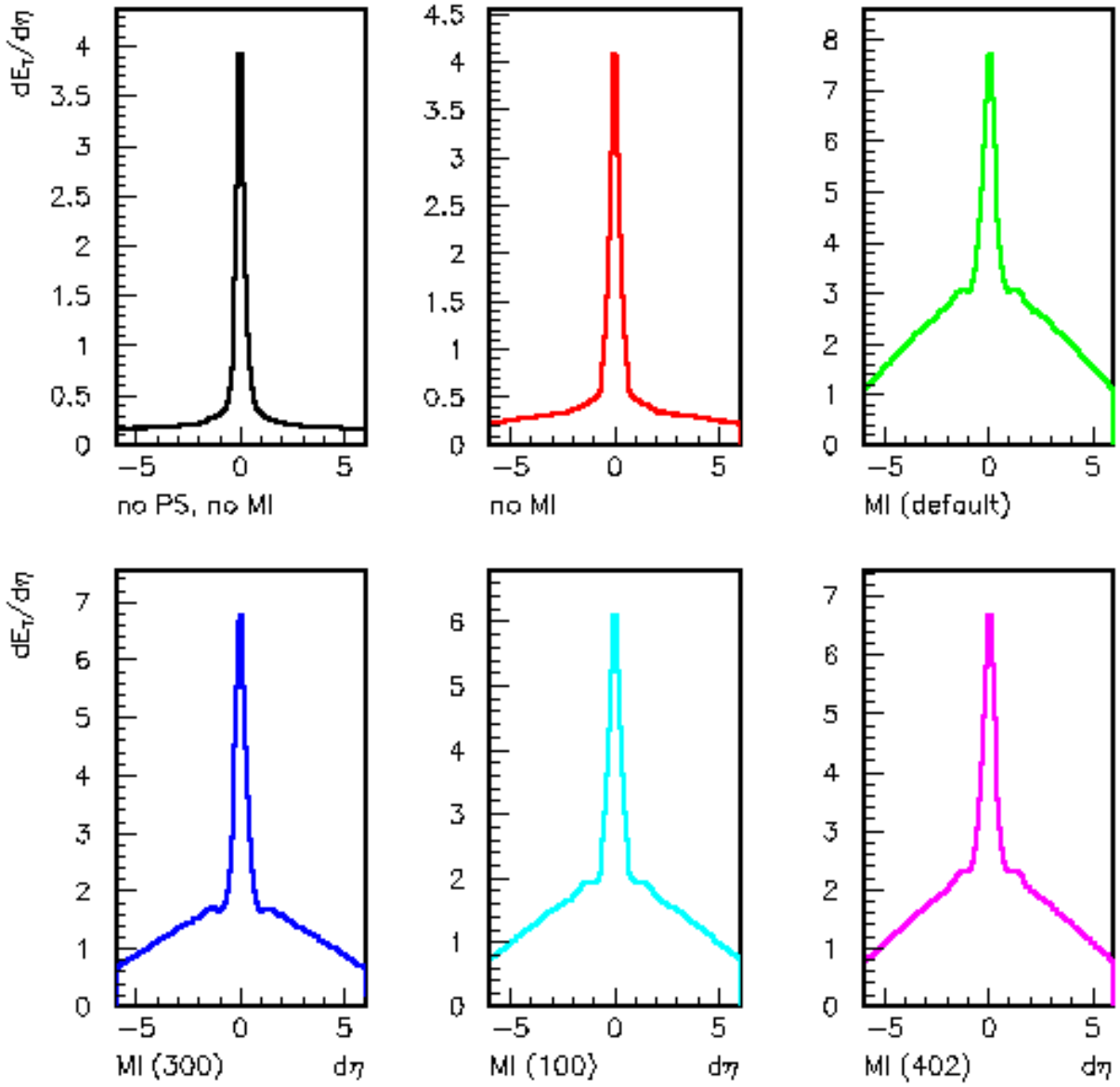
Pt (leading_jet_hadron- parton) vs ∑E (5.2<eta<6.6)



Jet profiles vs phi ($\Delta\eta$<2)



Jet profiles vs eta ($\Delta\phi$<1.5)



Jet profiles vs phi ($\Delta\eta$<2) and Et 'profile' for 3.5<eta<7.5