SUSY SS UPDATE IN 22X

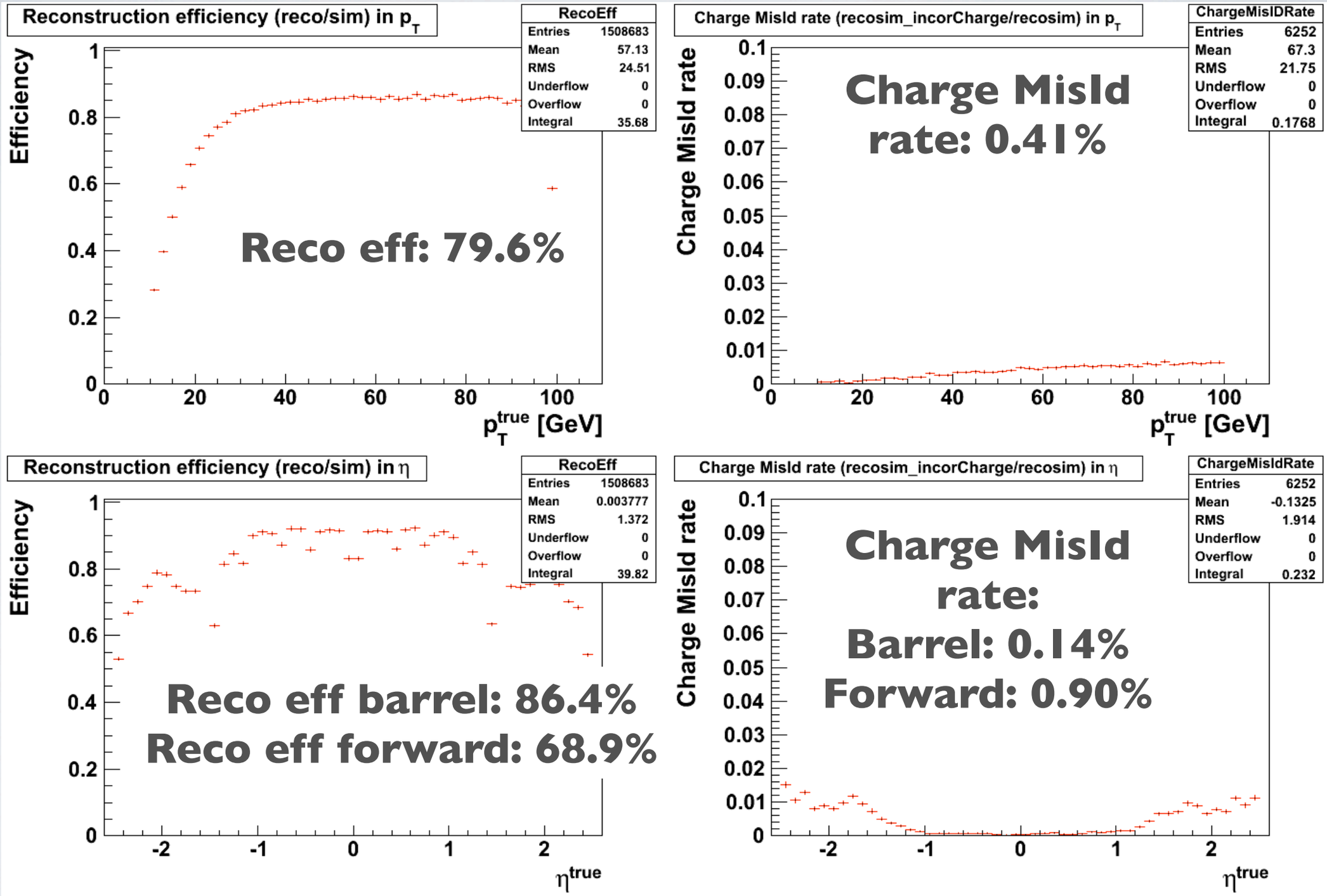
- Used tag fkw_ss_090721 for CMS2/NtupleMacros (esp. CORE)
- Replaced electron id cuts with functions from selection.cc
  - goodElectronIsolated(els,true) → GoodSusyLeptonID(11,els) && PassSusyLeptonIsolation(11,els)
- Used isChargeFlip(els) instead of own code

Comparison OLD vs. NEW

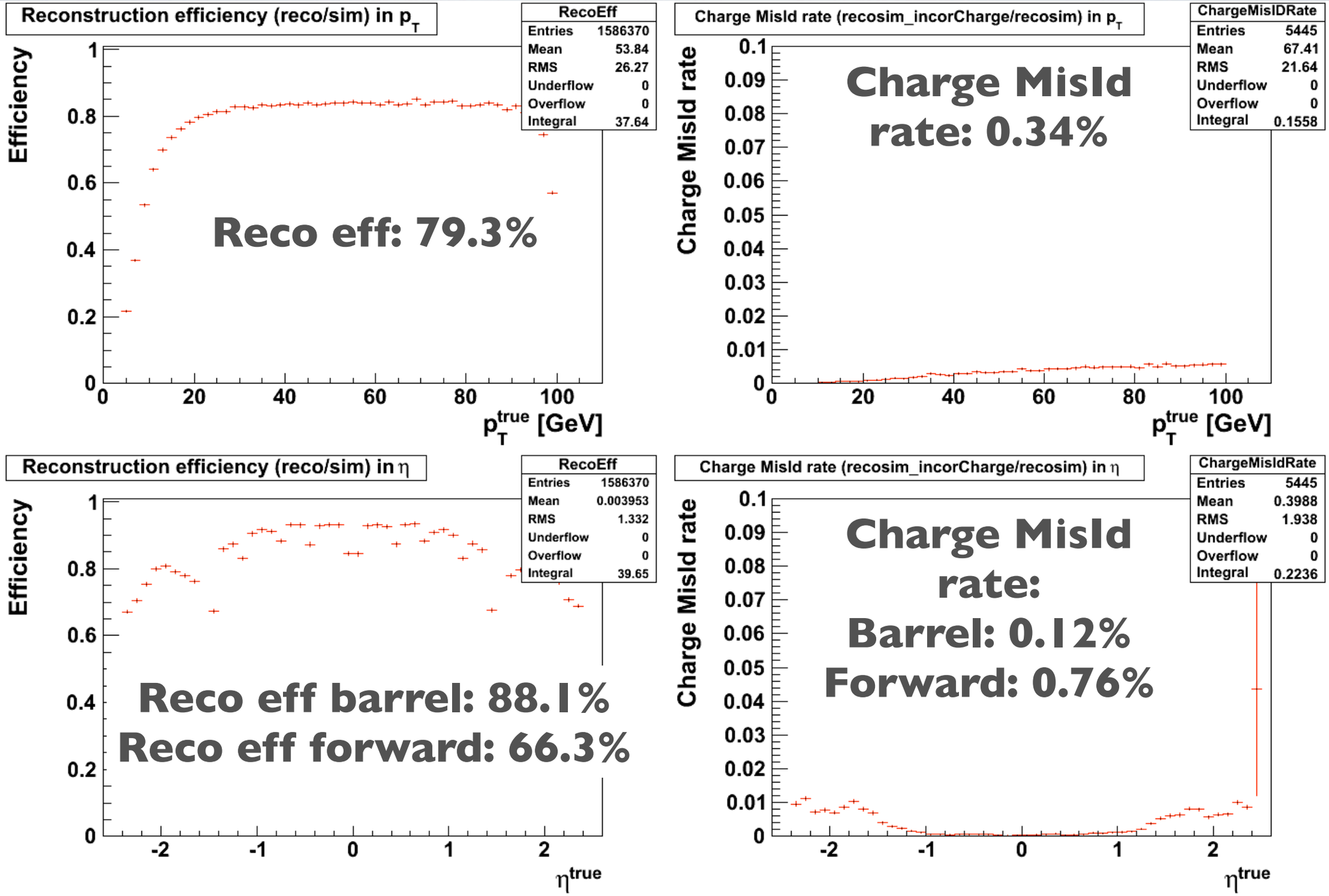
comment	reco efficiency [%]	barrel reco efficiency [%]	forward reco efficiency [%]	charge misidentification rate [%]	barrel charge misidentification rate [%]	forward charge misidentification rate [%]
OLD	79.643	86.434	68.898	0.414	0.138	0.901
NEW	79.318	88.113	66.252	0.343	0.118	0.763

- Observations:
  - Efficiency slightly lower (esp. In forward, but higher in barrel)
  - MisId rate slightly lower (esp. In forward)

OLD


Reconstruction efficiency (reco/sim) in p_T
RecoEff
Entries 1508683
Mean 57.13
RMS 24.51
Underflow 0
Overflow 0
Integral 35.68
Efficiency
Reco eff: 79.6%
p_T^{true} [GeV]
Charge MisId rate (recosim_incorCharge/recosim) in p_T
ChargeMisIDRate
Entries 6252
Mean 67.3
RMS 21.75
Underflow 0
Overflow 0
Integral 0.1768
Charge MisId rate
Charge MisId rate: 0.41%
p_T^{true} [GeV]
Reconstruction efficiency (reco/sim) in η
RecoEff
Entries 1508683
Mean 0.003777
RMS 1.372
Underflow 0
Overflow 0
Integral 39.82
Efficiency
Reco eff barrel: 86.4%
Reco eff forward: 68.9%
η^{true}
Charge MisId rate (recosim_incorCharge/recosim) in η
ChargeMisIDRate
Entries 6252
Mean -0.1325
RMS 1.914
Underflow 0
Overflow 0
Integral 0.232
Charge MisId rate
Charge MisId rate:
Barrel: 0.14%
Forward: 0.90%
η^{true}

NEW


Reconstruction efficiency (reco/sim) in p_T
RecoEff
Entries 1586370
Mean 53.84
RMS 26.27
Underflow 0
Overflow 0
Integral 37.64
Efficiency
Reco eff: 79.3%
p_T^{true} [GeV]
Charge MisId rate (recosim_incorCharge/recosim) in p_T
ChargeMisIDRate
Entries 5445
Mean 67.41
RMS 21.64
Underflow 0
Overflow 0
Integral 0.1558
Charge MisId rate
Charge MisId rate: 0.34%
p_T^{true} [GeV]
Reconstruction efficiency (reco/sim) in η
RecoEff
Entries 1586370
Mean 0.003953
RMS 1.332
Underflow 0
Overflow 0
Integral 39.65
Efficiency
Reco eff barrel: 88.1%
Reco eff forward: 66.3%
η^{true}
Charge MisId rate (recosim_incorCharge/recosim) in η
ChargeMisIDRate
Entries 5445
Mean 0.3988
RMS 1.938
Underflow 0
Overflow 0
Integral 0.2236
Charge MisId rate
Charge MisId rate:
Barrel: 0.12%
Forward: 0.76%
η^{true}