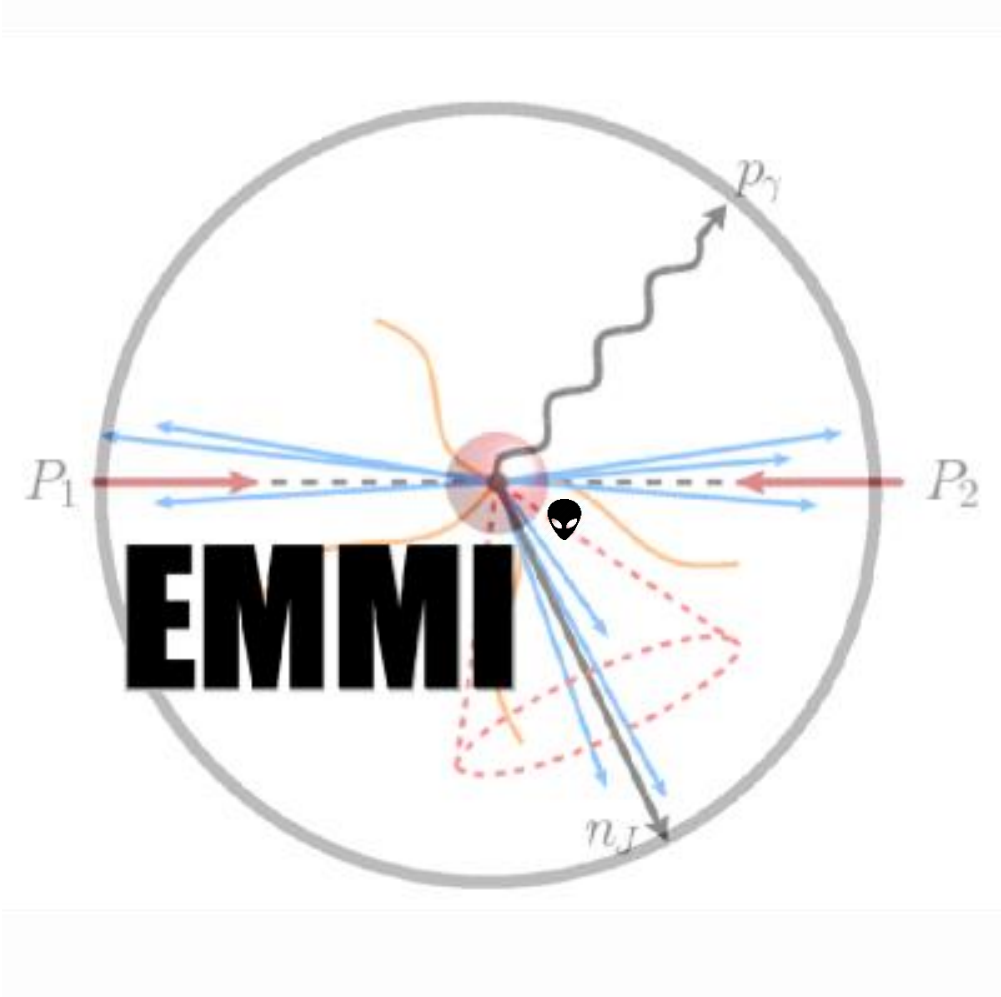
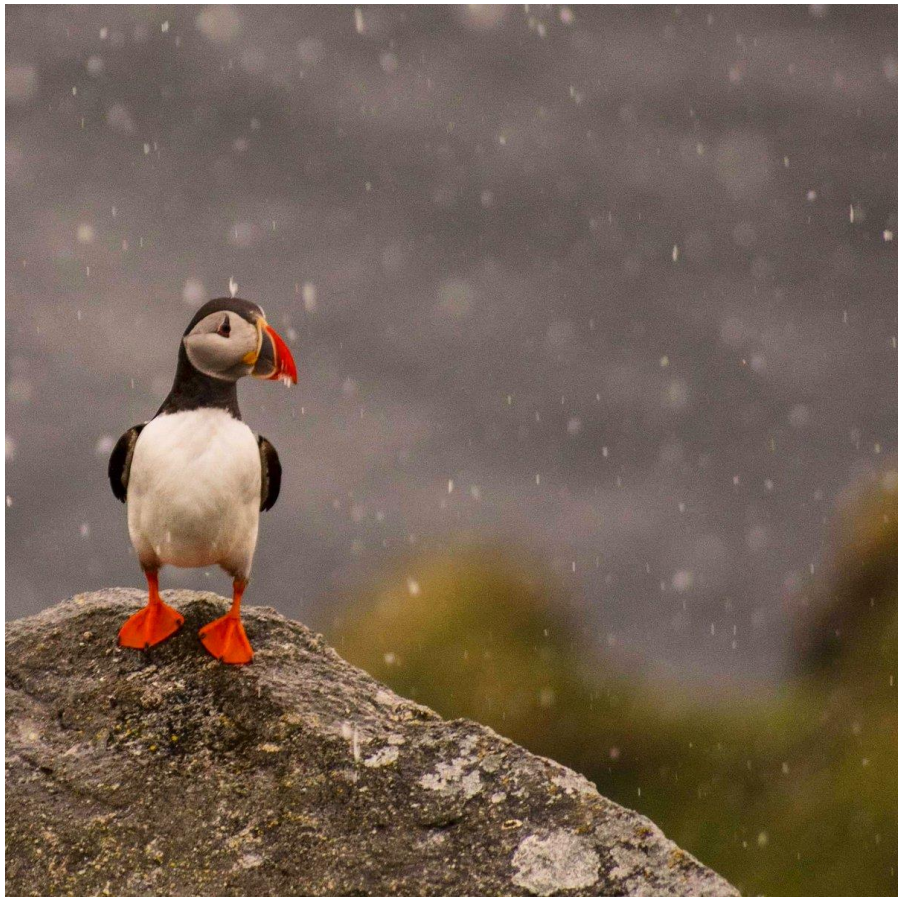
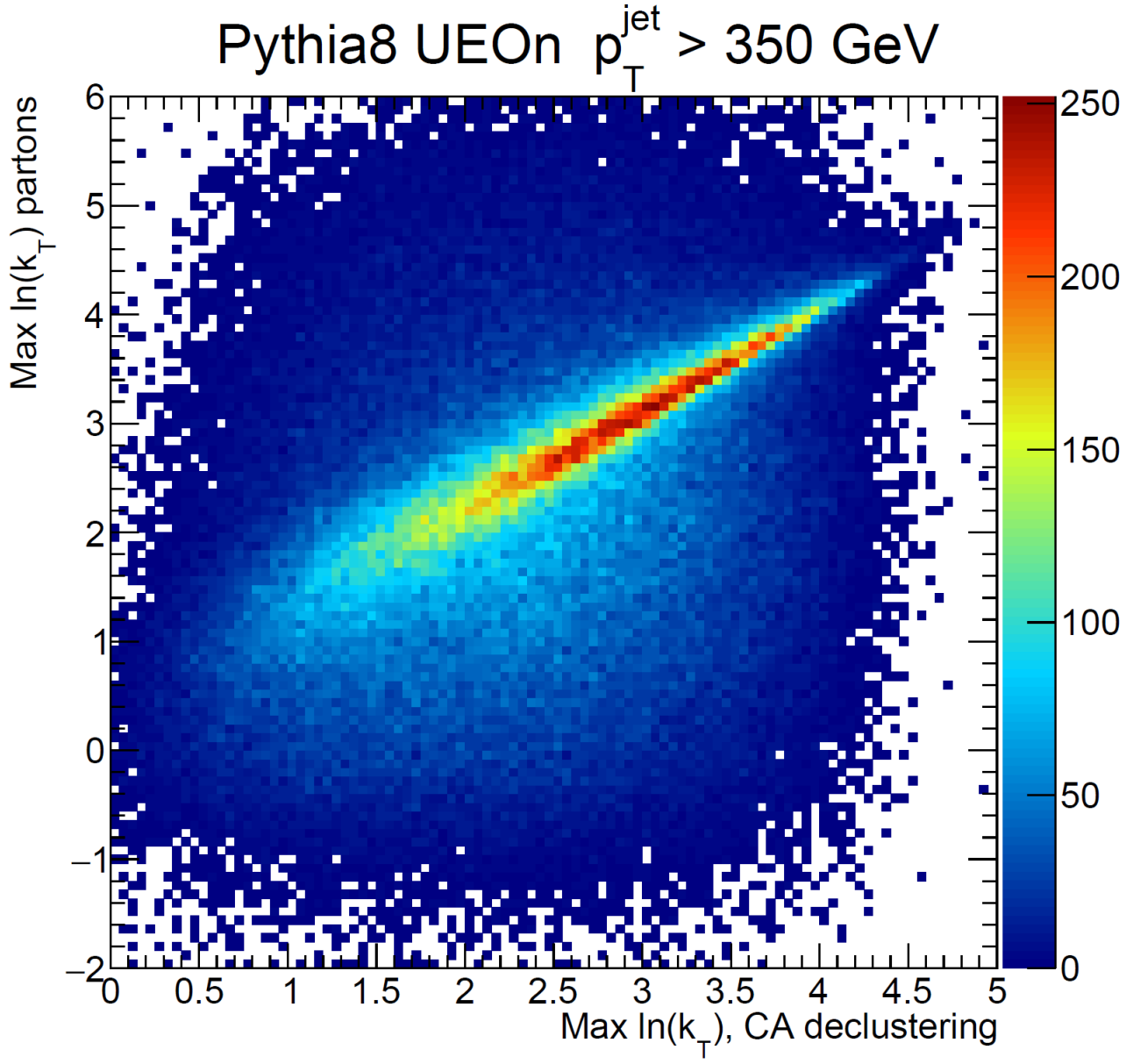
Status Report





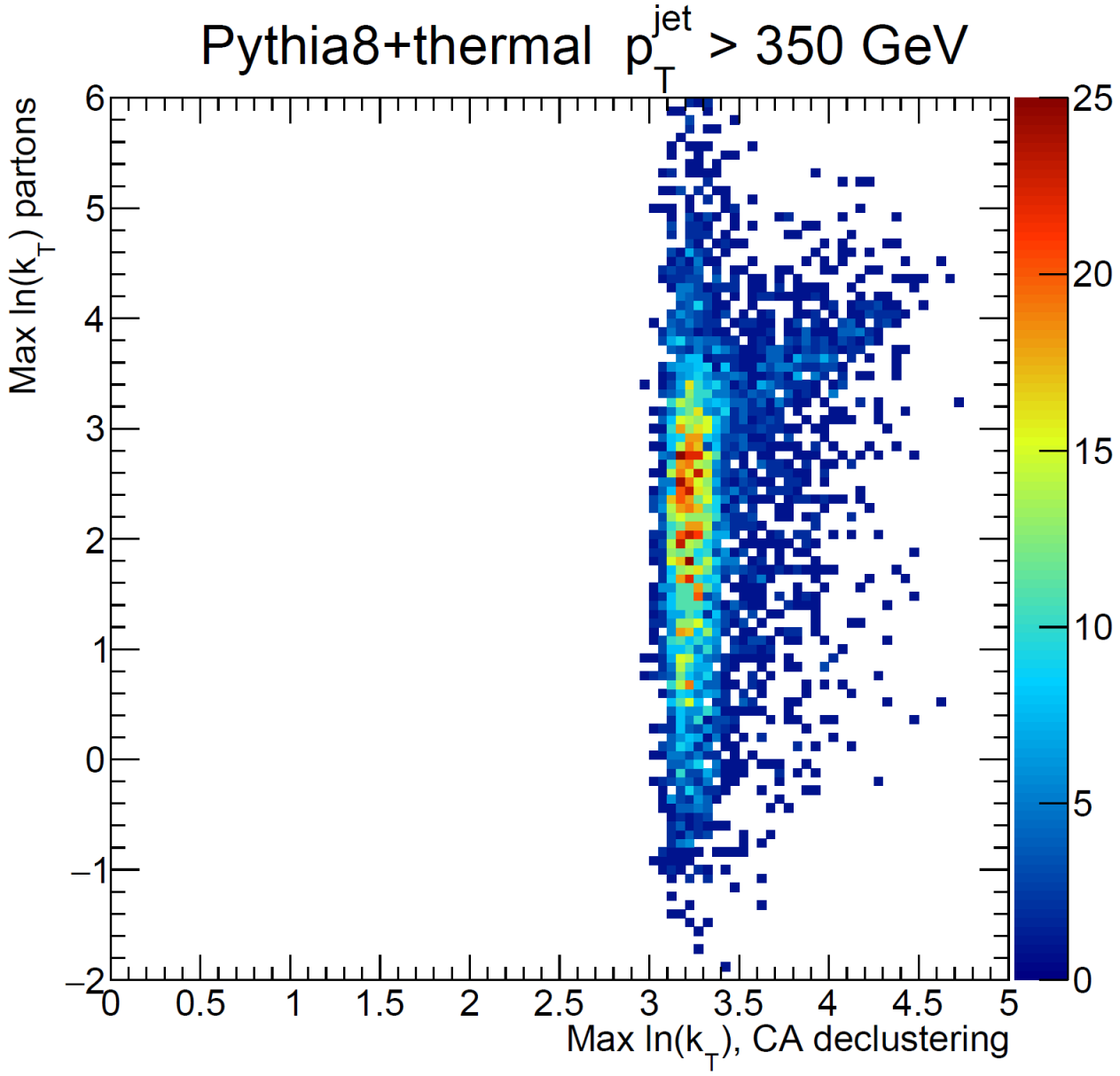
Let’s go Lunni!

Jet (CA) PYTHIA8 pThat300



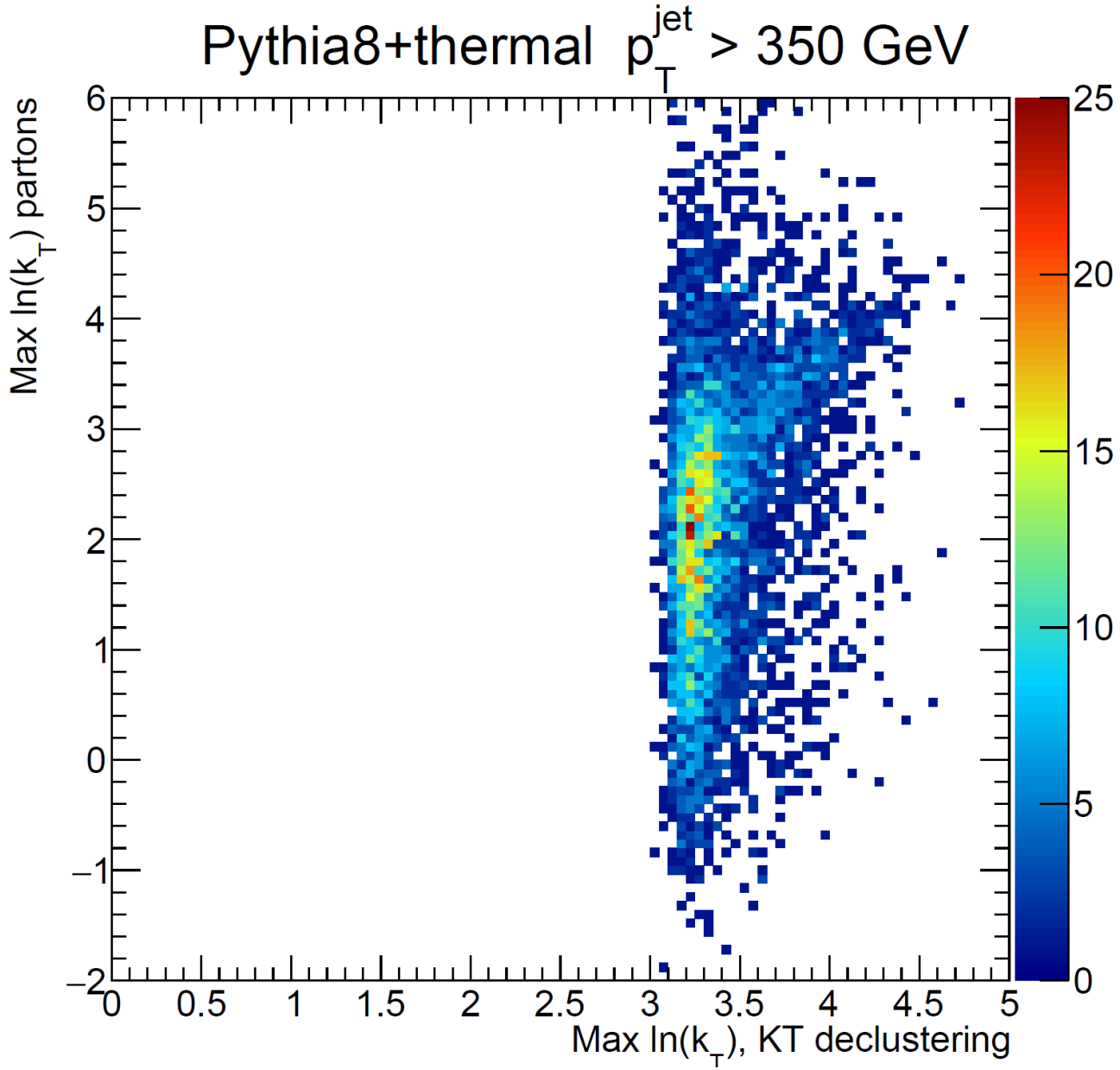
Jet (CA) PYTHIA+Termal Background (PbPb 5 TeV 0-10%)

Without background sub



Jet (KT) PYTHIA+Termal Background (PbPb 5 TeV 0-10%)

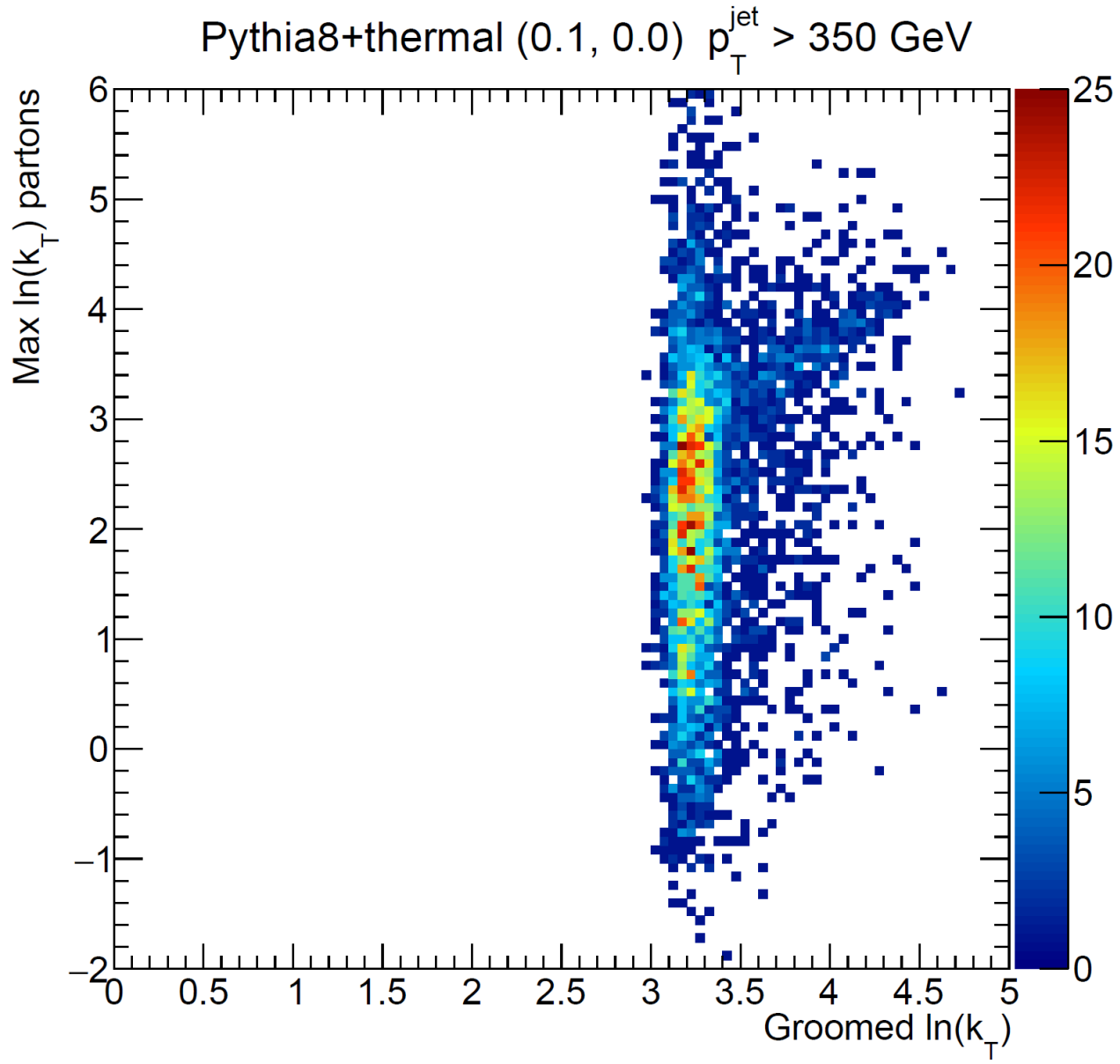
Without background sub



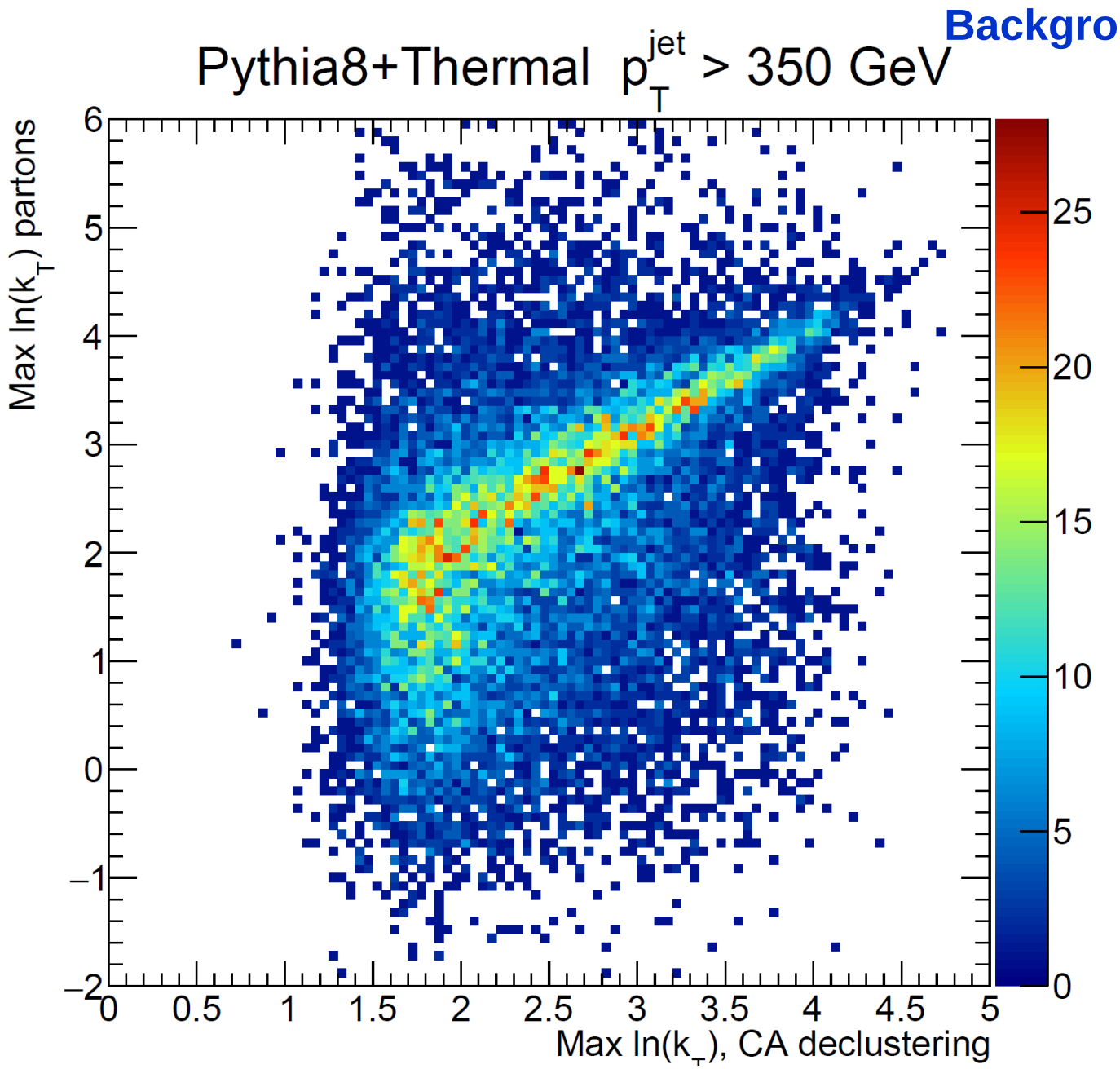
Groomed Jet (CA) PYTHIA+Termal Background (PbPb 5 TeV 0-10%)

Zcut (0.1,0)

Without background sub

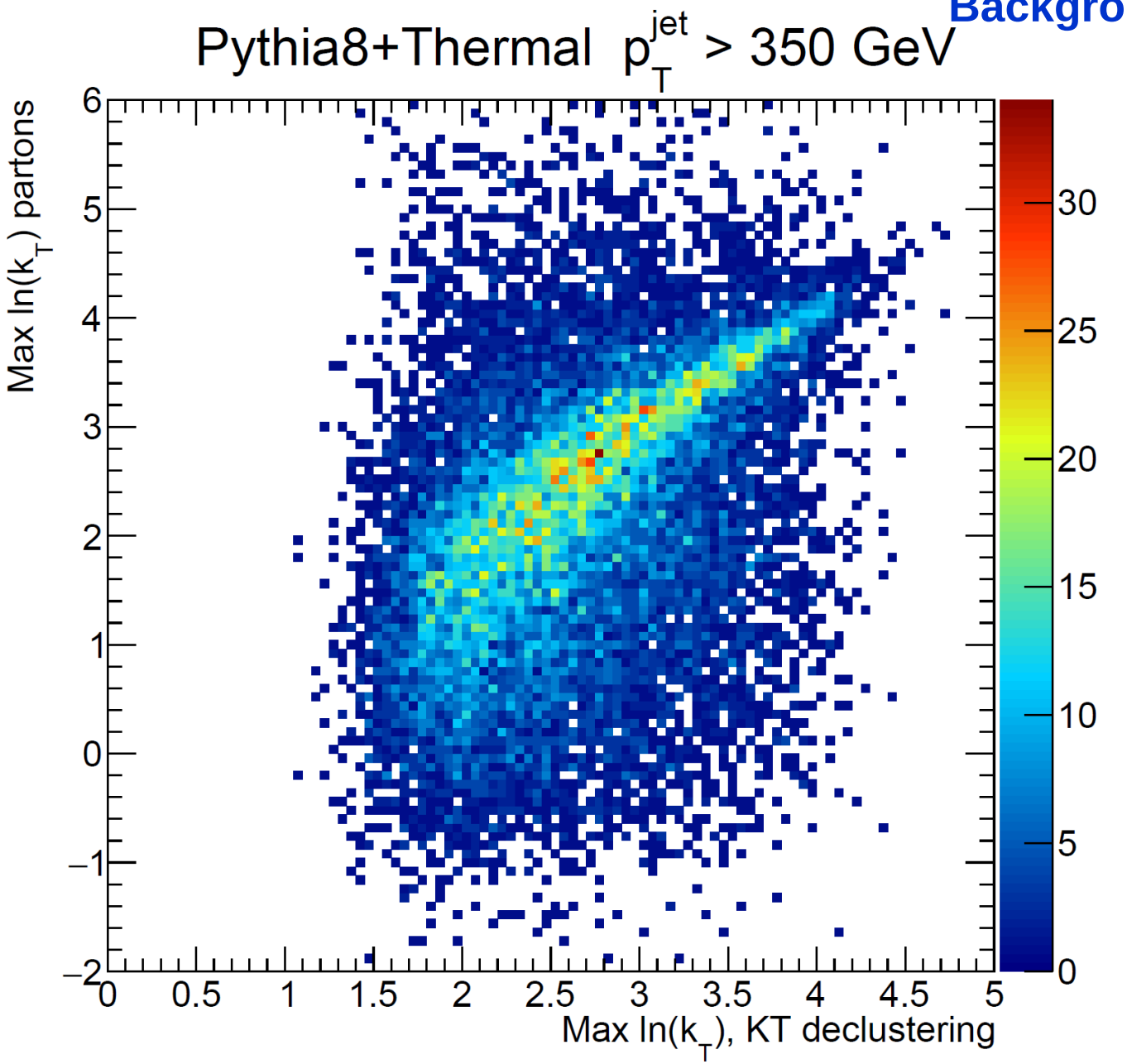


Jet (CA) PYTHIA+Termal Background (PbPb 5 TeV 0-10%)



Jet (KT) PYTHIA+Termal Background (PbPb 5 TeV 0-10%)

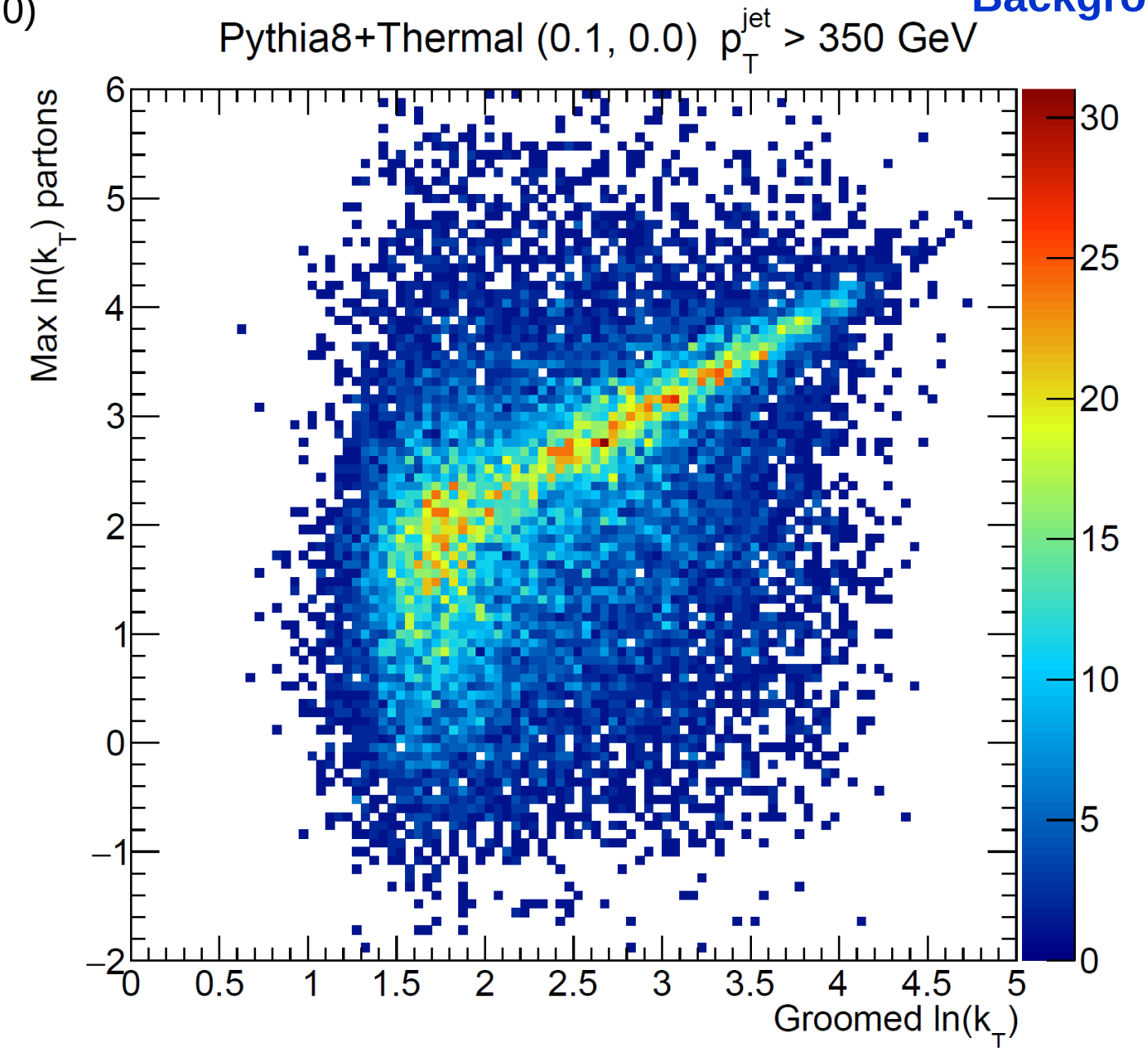
Background sub



Groomed Jet (CA) PYTHIA+Termal Background (PbPb 5 TeV 0-10%)

Zcut (0.1,0)

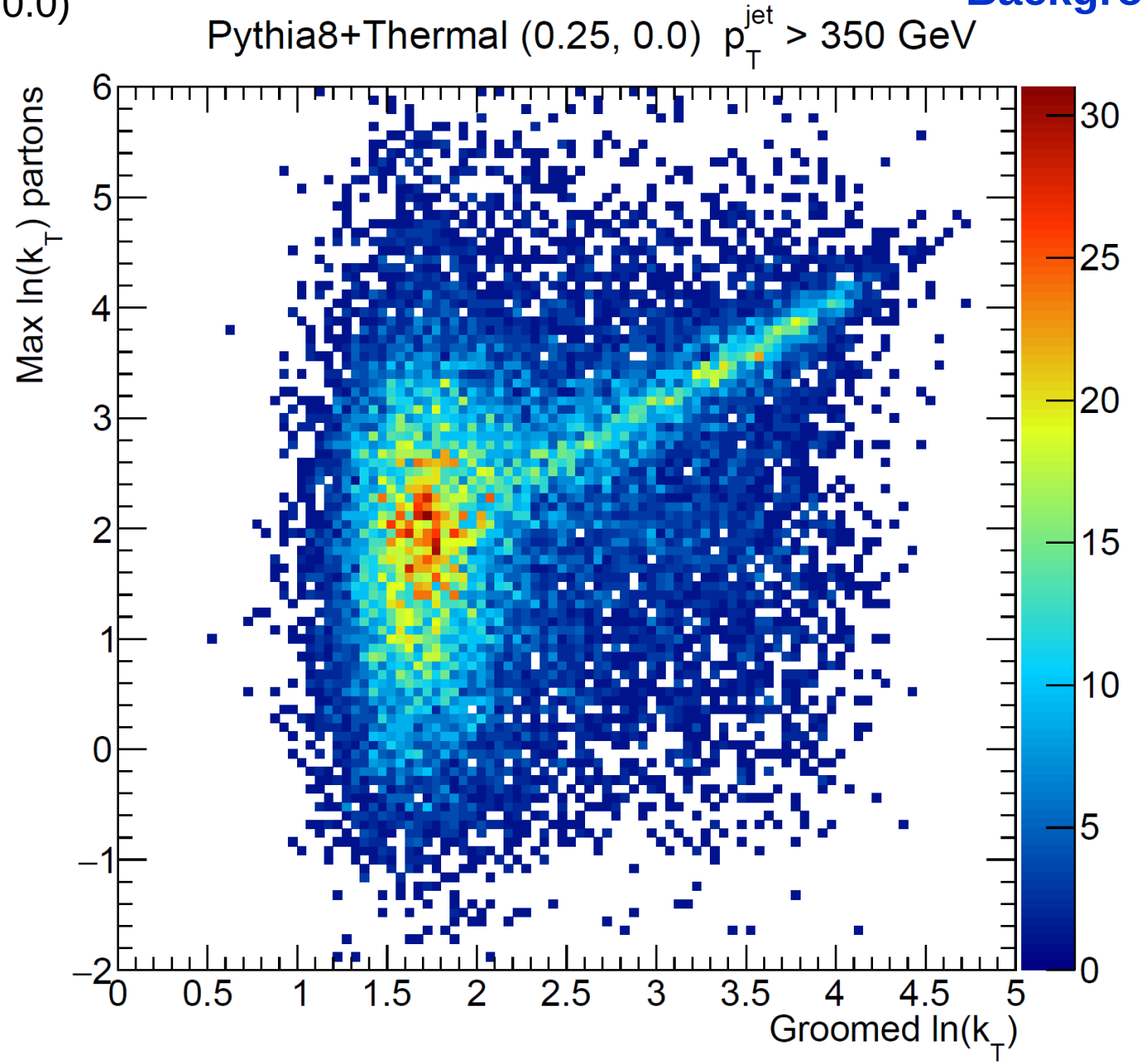
Background sub



Groomed Jet (CA) PYTHIA+Termal Background (PbPb 5 TeV 0-10%)

Zcut (0.25,0.0)

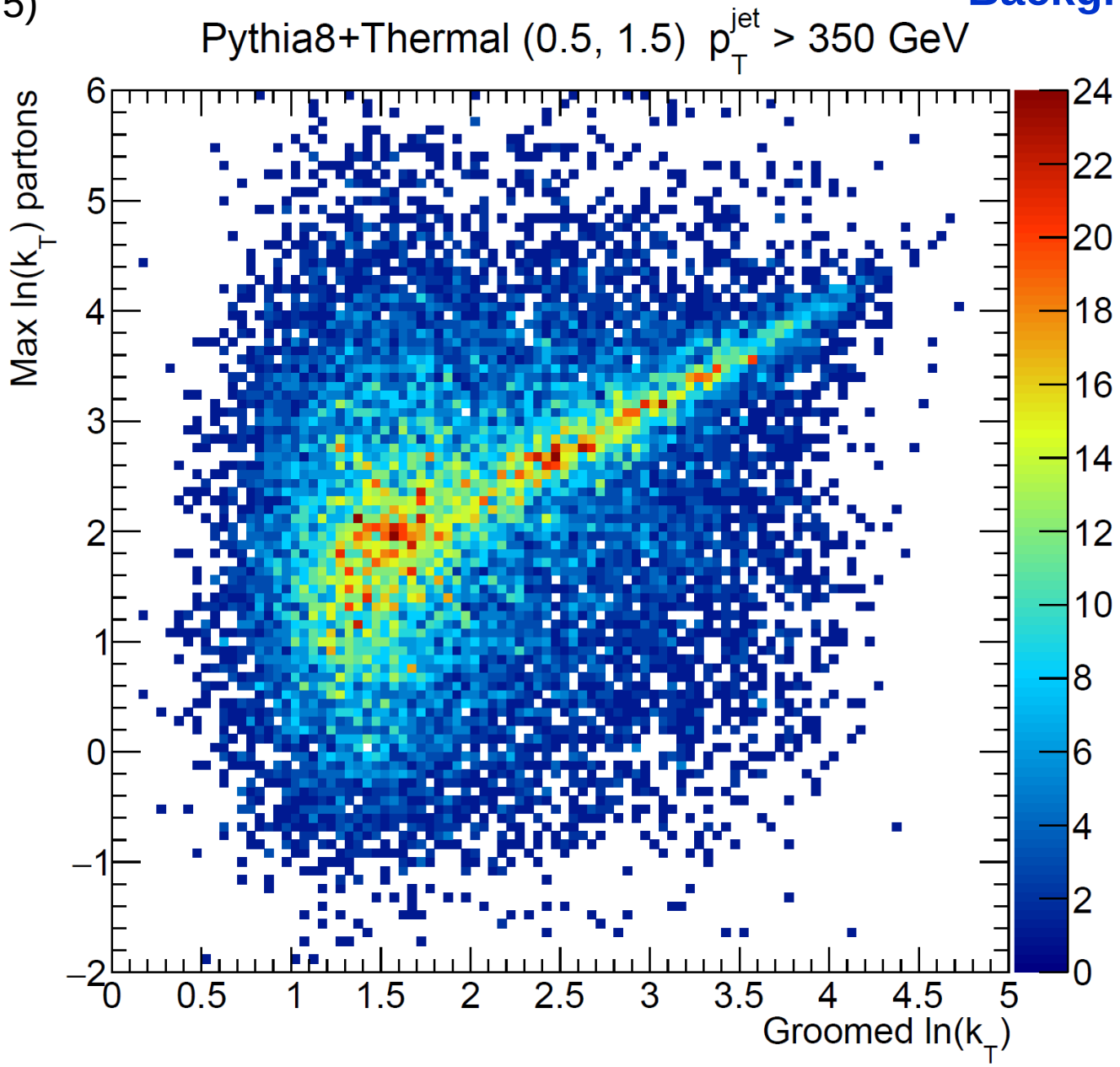
Background sub



Groomed Jet (CA) PYTHIA+Termal Background (PbPb 5 TeV 0-10%)

Zcut (0.5,1.5)

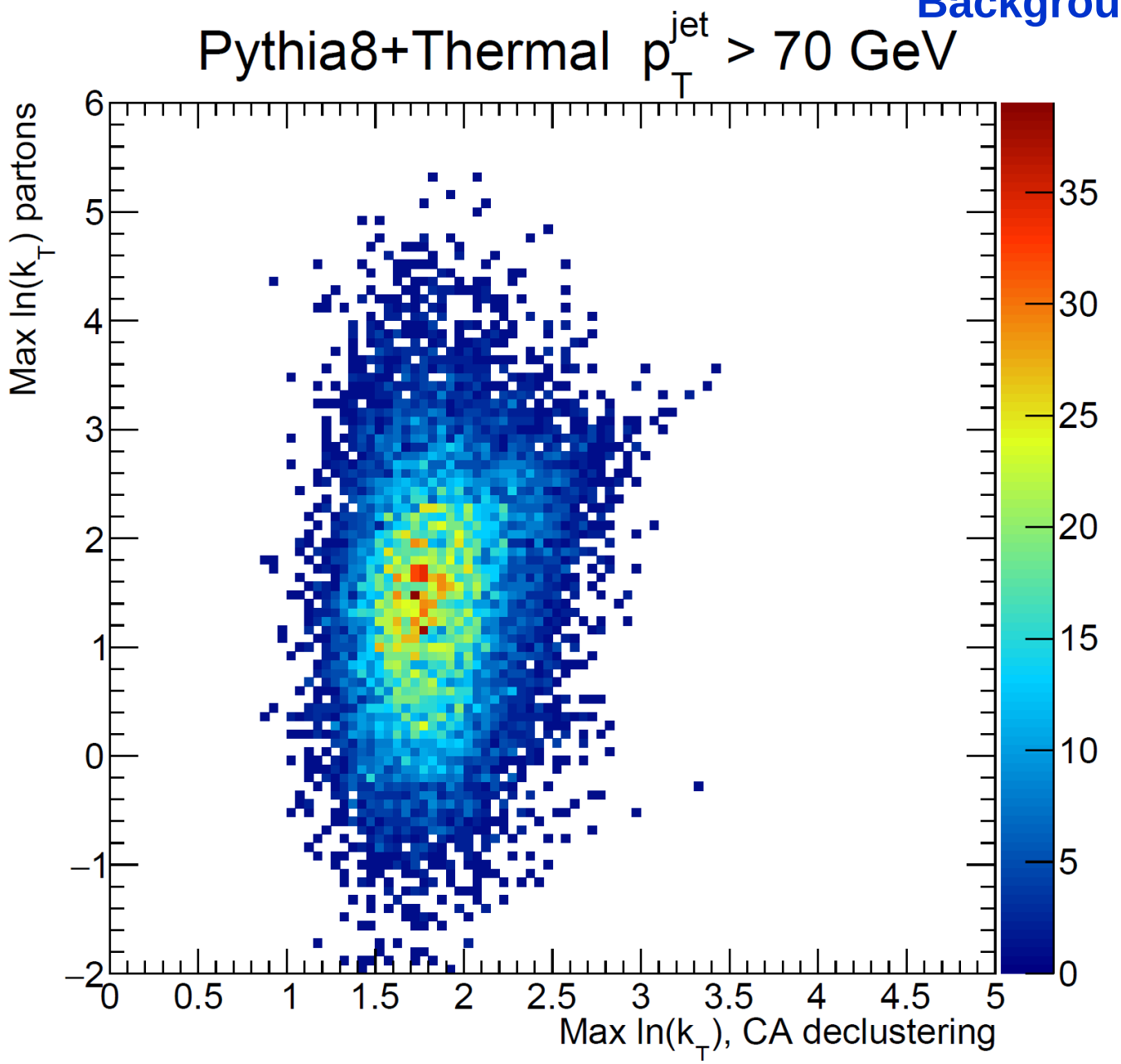
Background sub



Low pT Jet in thermal background

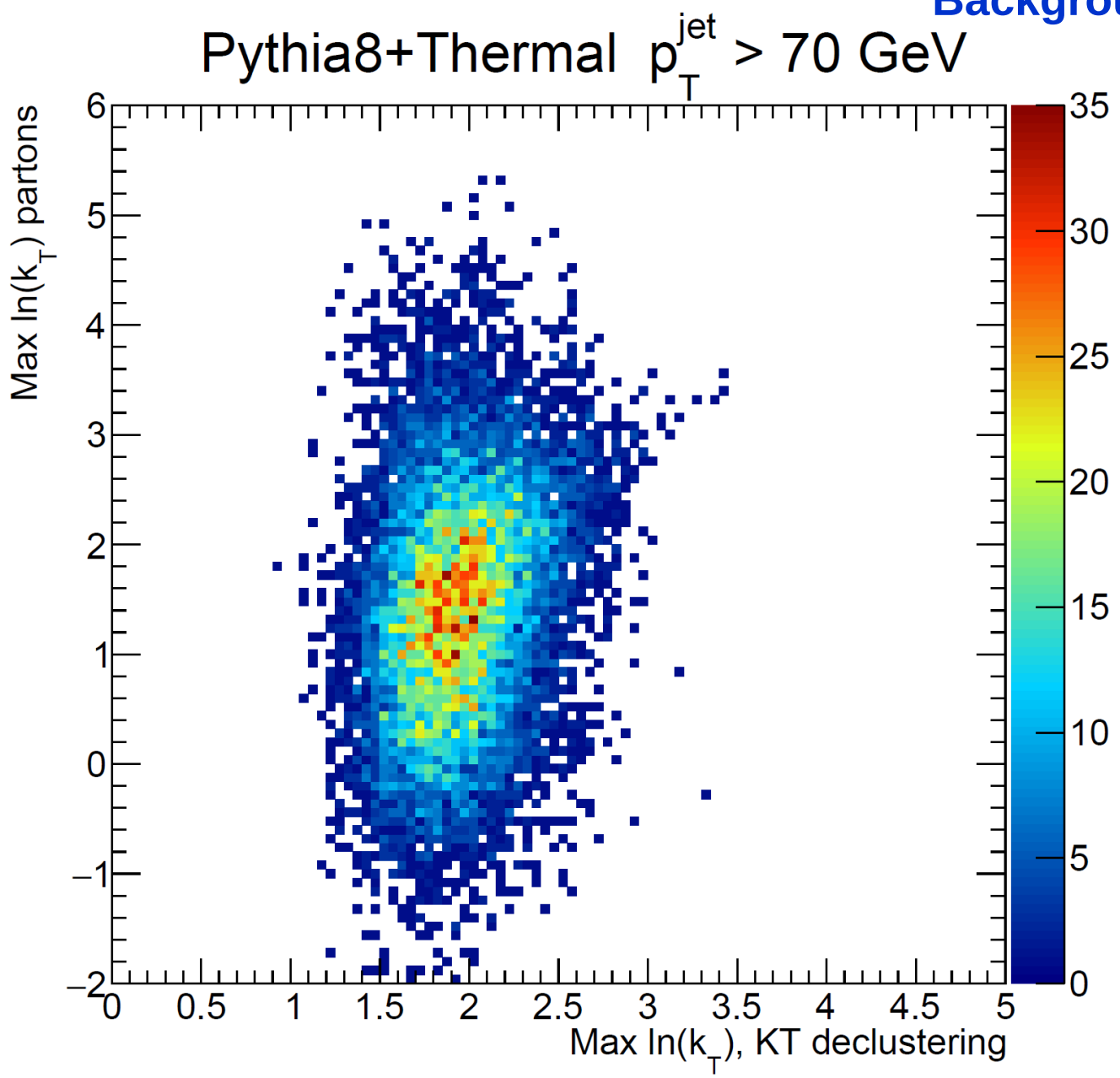
Jet (CA) PYTHIA+Termal Background (PbPb 5 TeV 0-10%) Low pT jet

Background sub



Jet (KT) PYTHIA+Termal Background (PbPb 5 TeV 0-10%) Low pT Jet

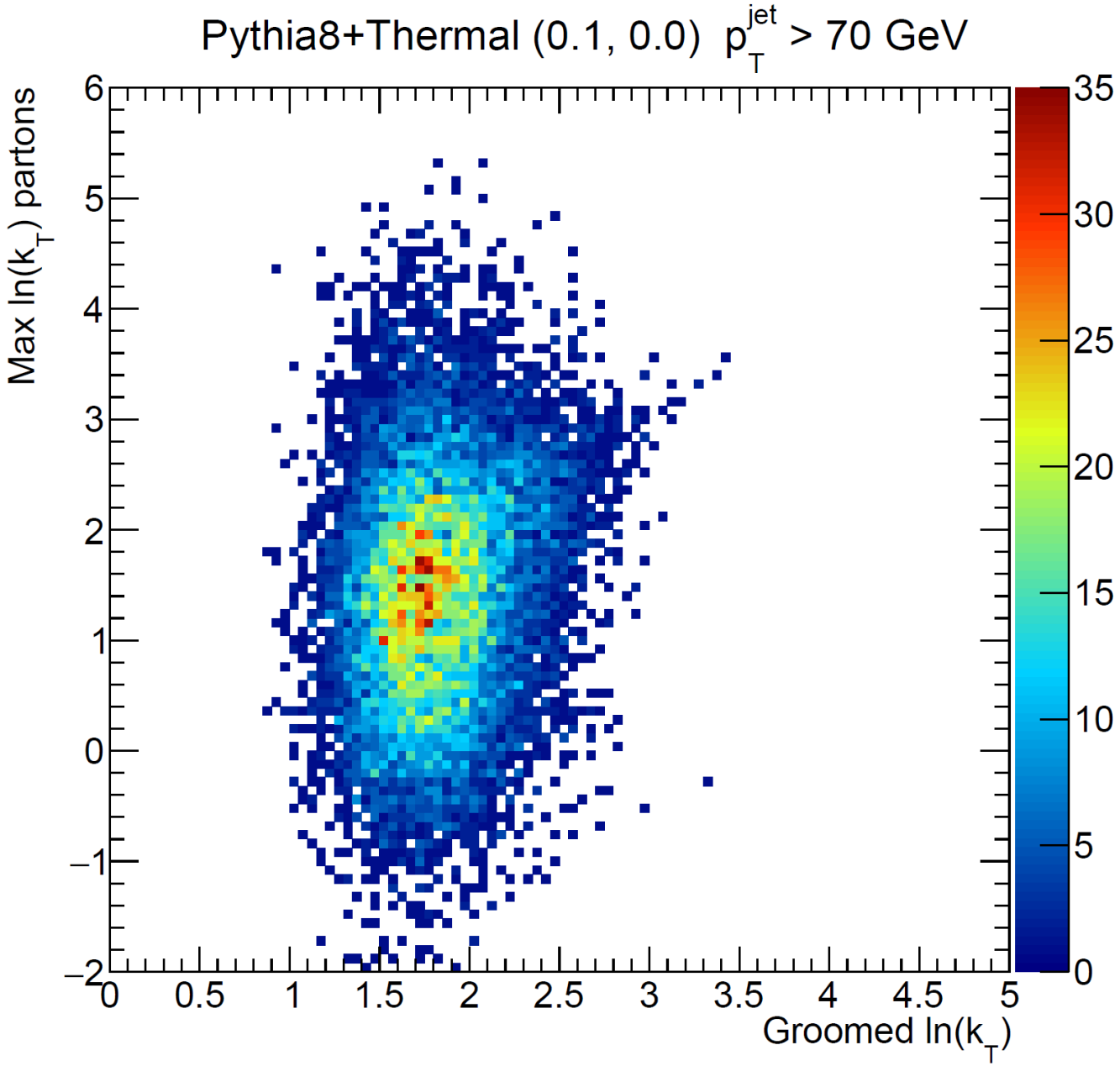
Background sub



Groomed Jet (CA) PYTHIA+Termal Background (PbPb 5 TeV 0-10%)

Zcut (0.1,0)

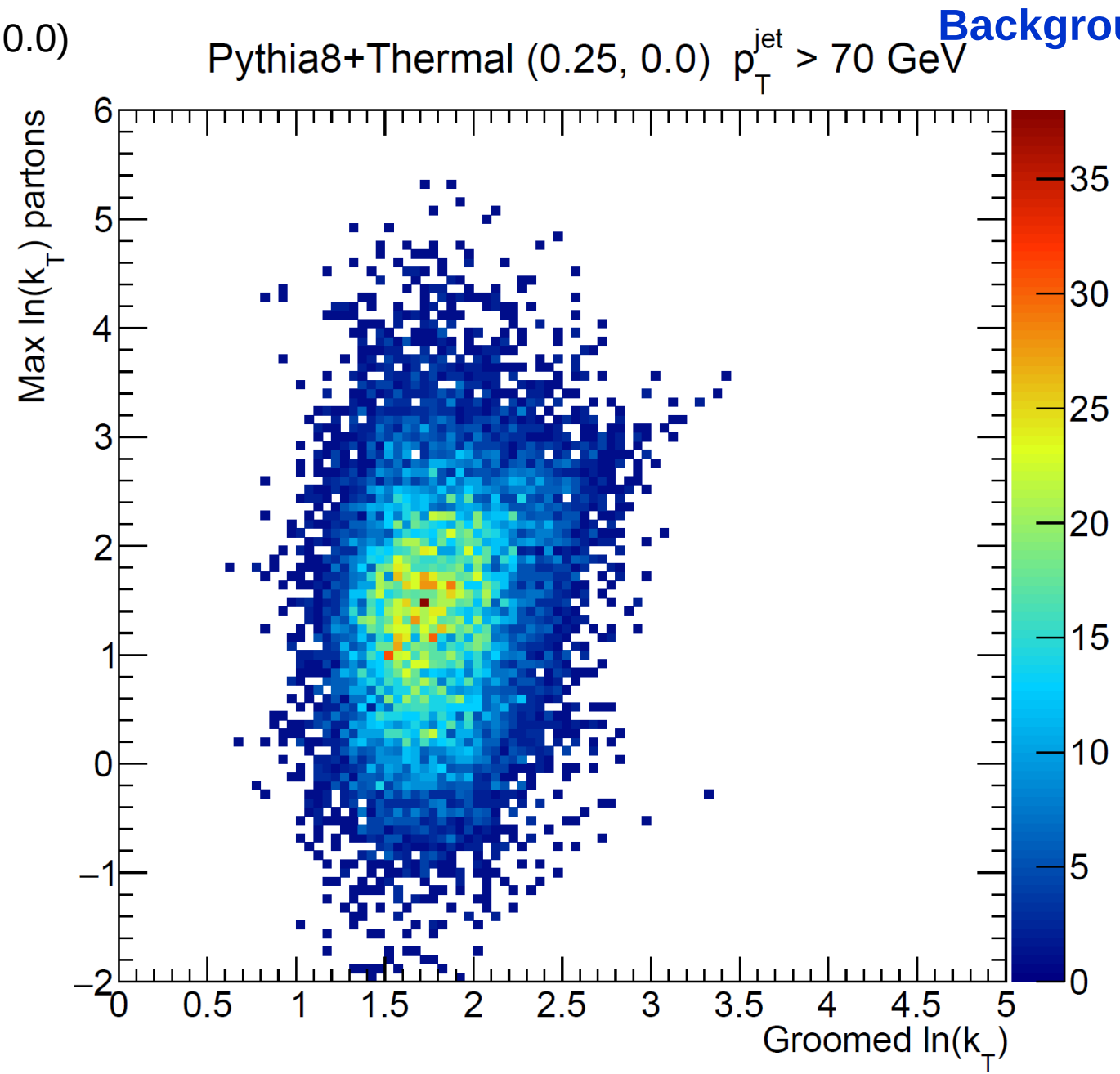
Background sub



Groomed Jet (CA) PYTHIA+Termal Background (PbPb 5 TeV 0-10%) Low pT Jet

Zcut (0.25, 0.0)

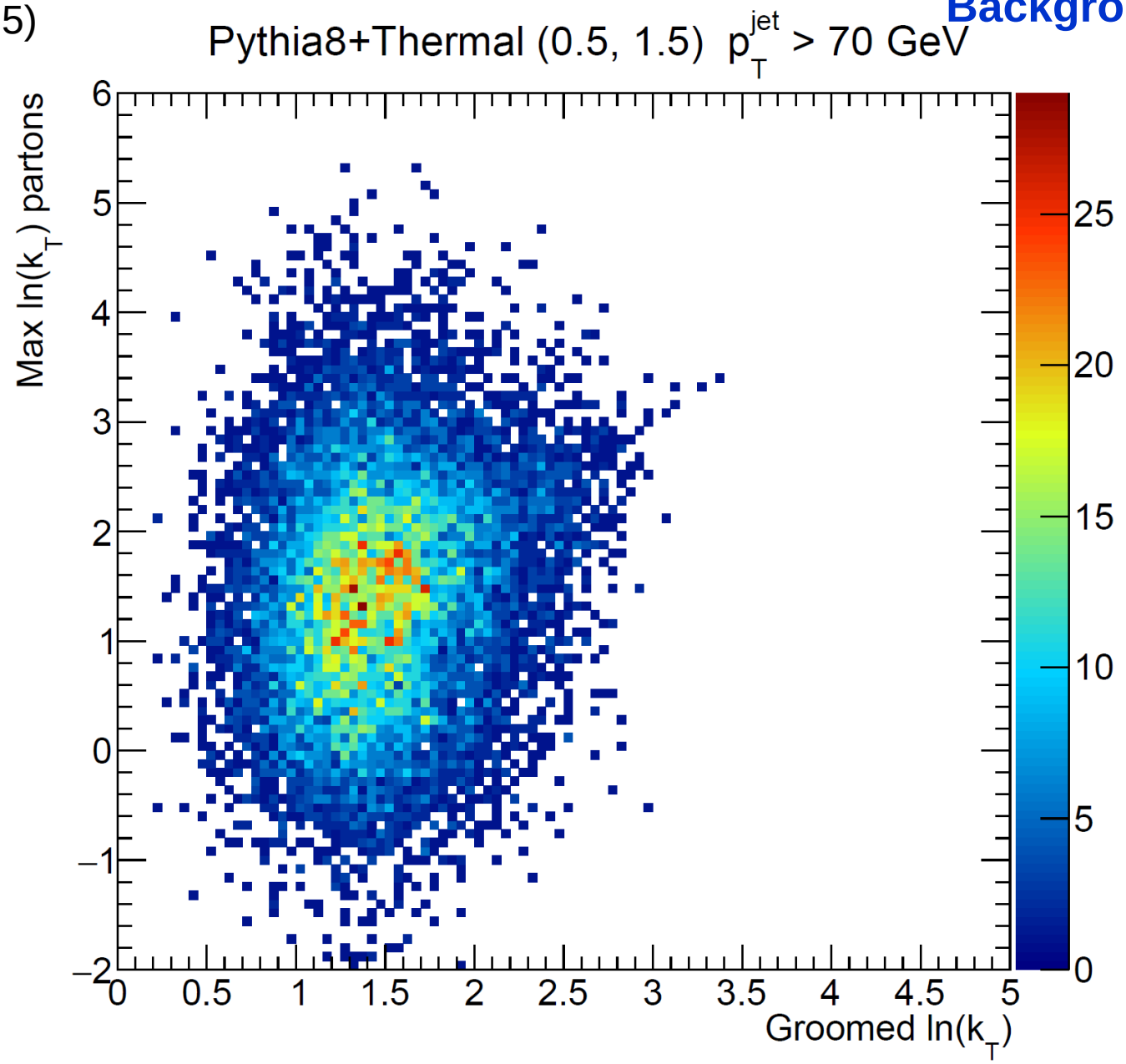
Background sub



Groomed Jet (CA) PYTHIA+Termal Background (PbPb 5 TeV 0-10%)

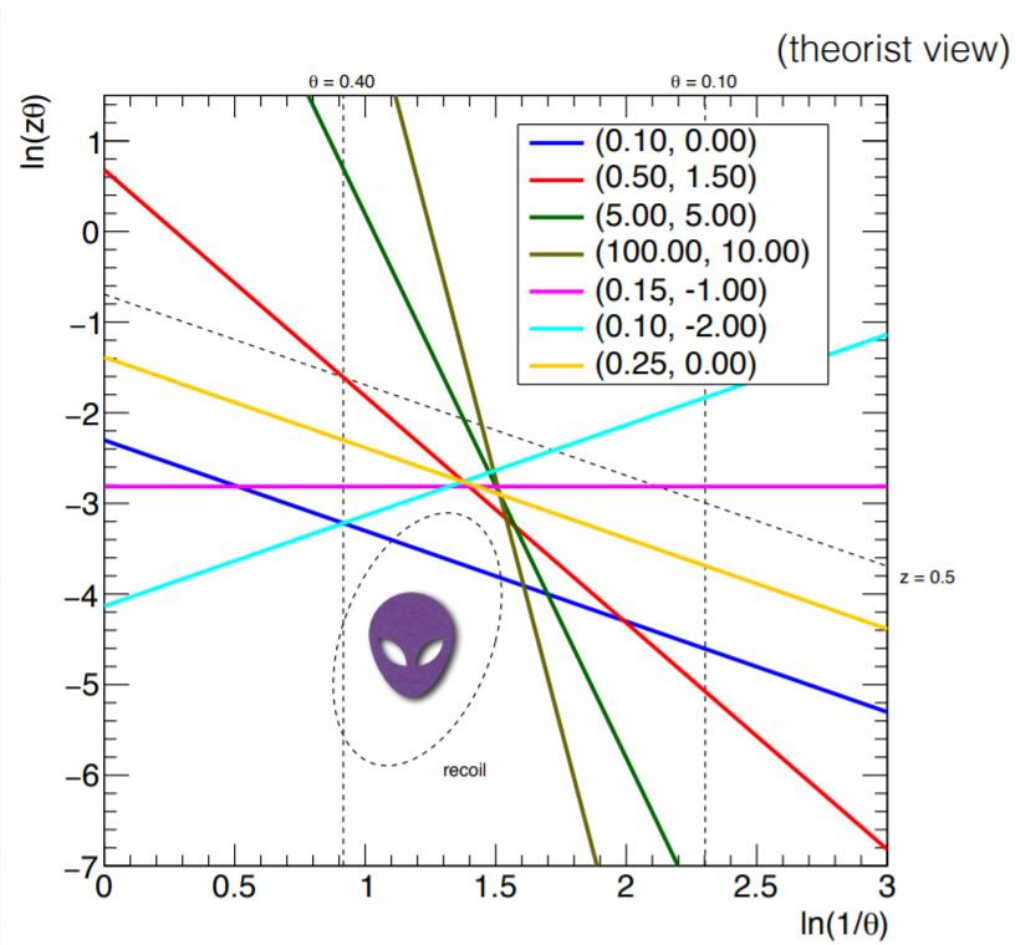
Zcut (0.5, 1.5)

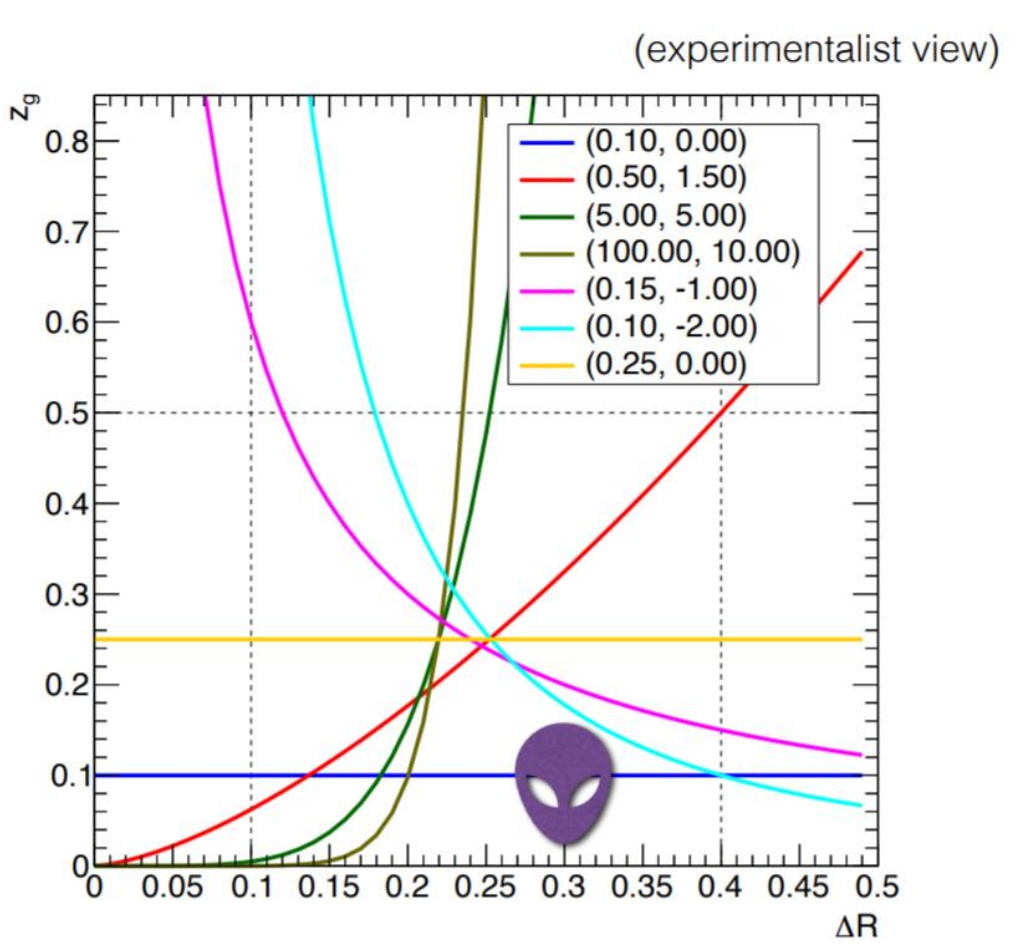
Background sub



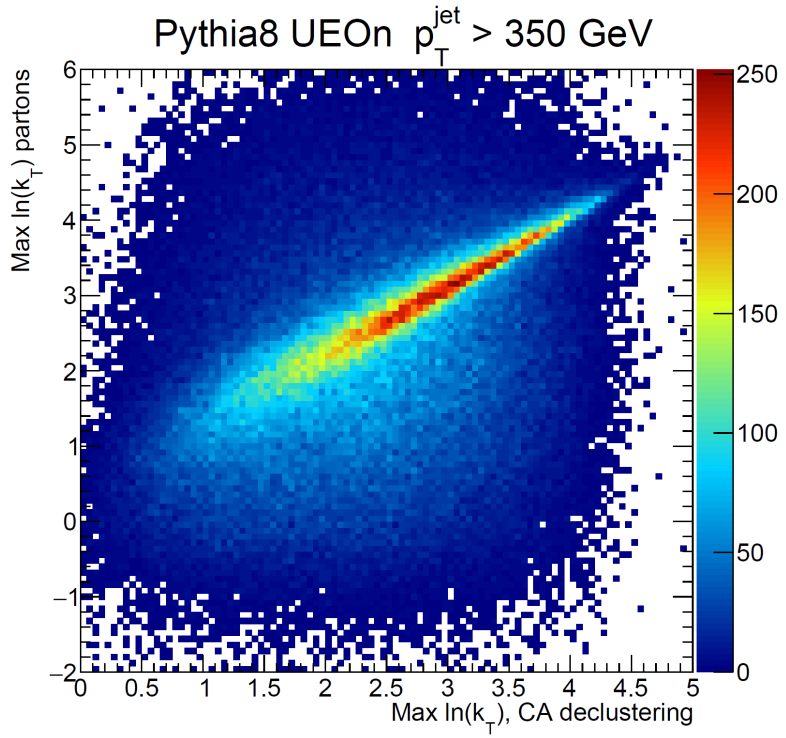
Previous Report

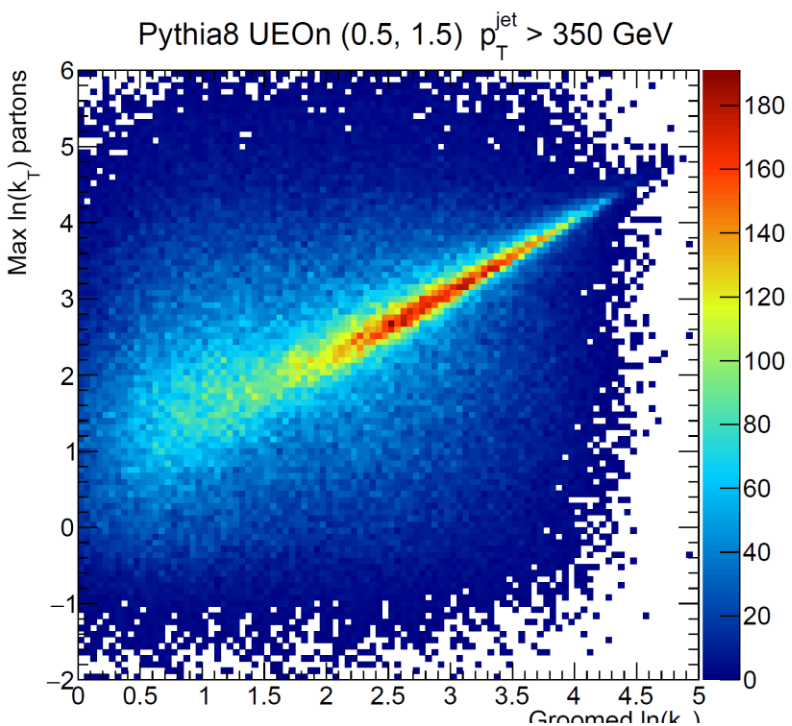
Softdrop

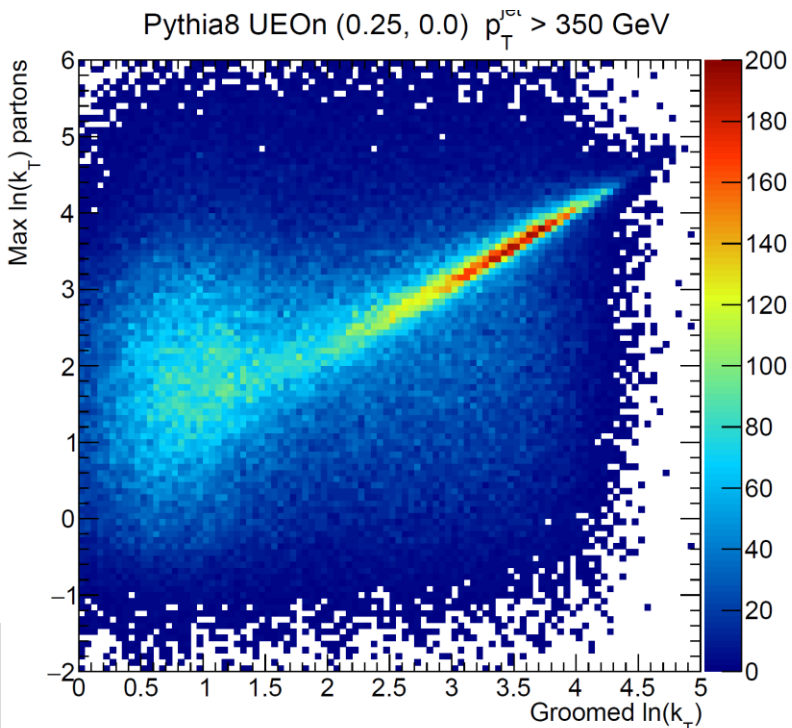

(theorist view)
θ = 0.40
θ = 0.10
ln(zθ)
ln(1/θ)
z = 0.5
recoil
(0.10, 0.00)
(0.50, 1.50)
(5.00, 5.00)
(100.00, 10.00)
(0.15, -1.00)
(0.10, -2.00)
(0.25, 0.00)

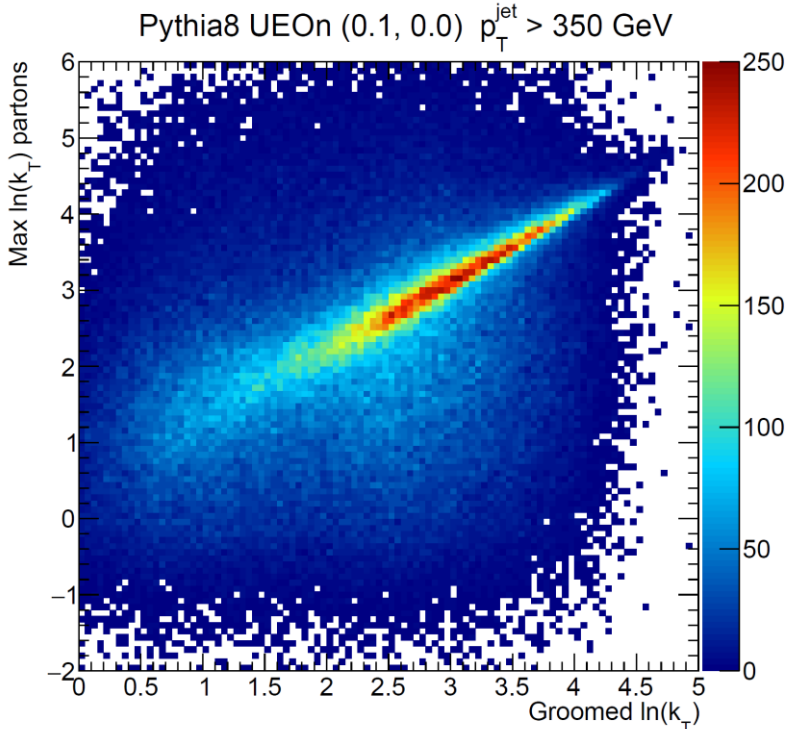

(experimentalist view)
z_g
ΔR
(0.10, 0.00)
(0.50, 1.50)
(5.00, 5.00)
(100.00, 10.00)
(0.15, -1.00)
(0.10, -2.00)
(0.25, 0.00)

Performance with $\hat{p}_T$ >300 GeV

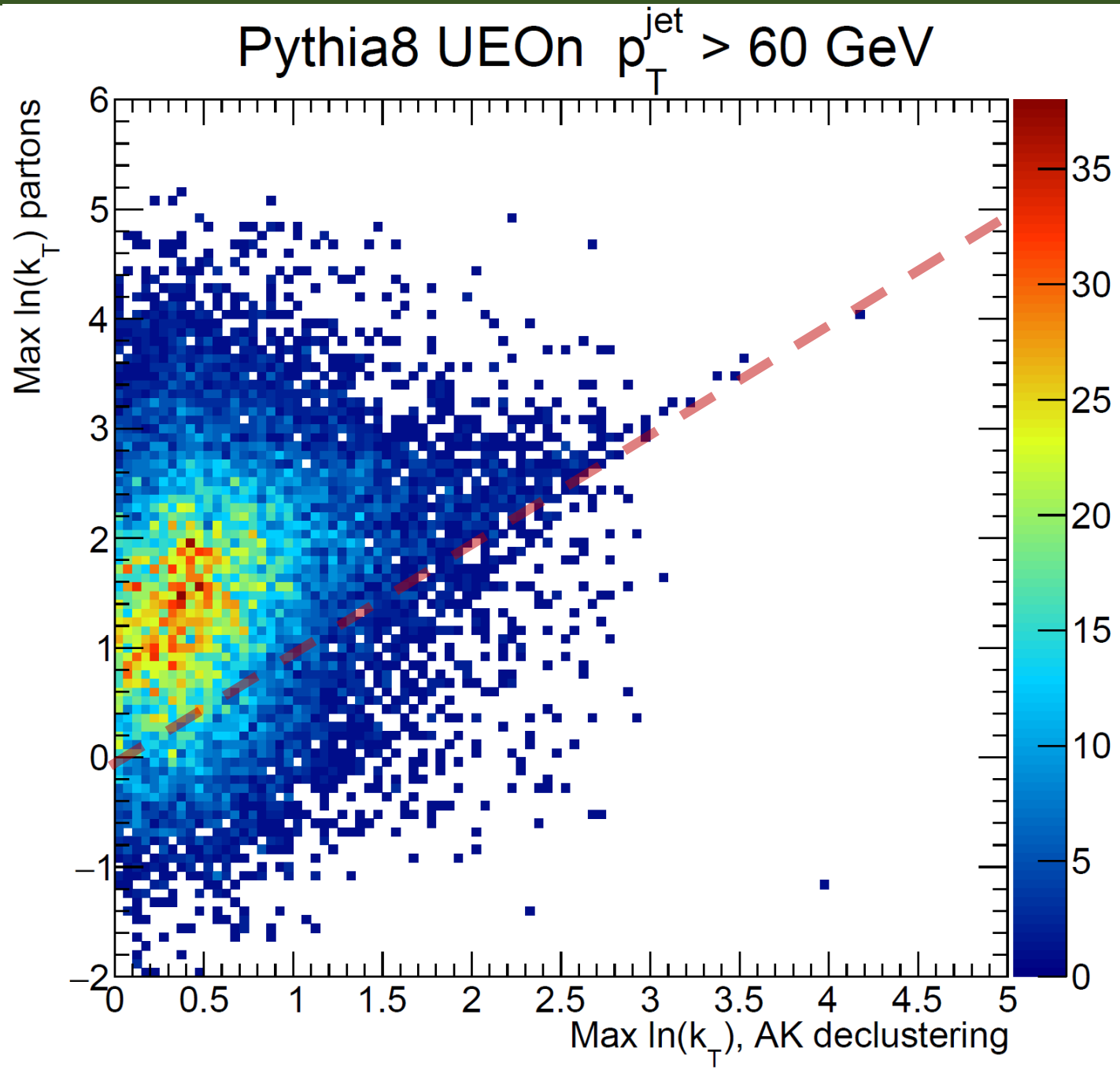




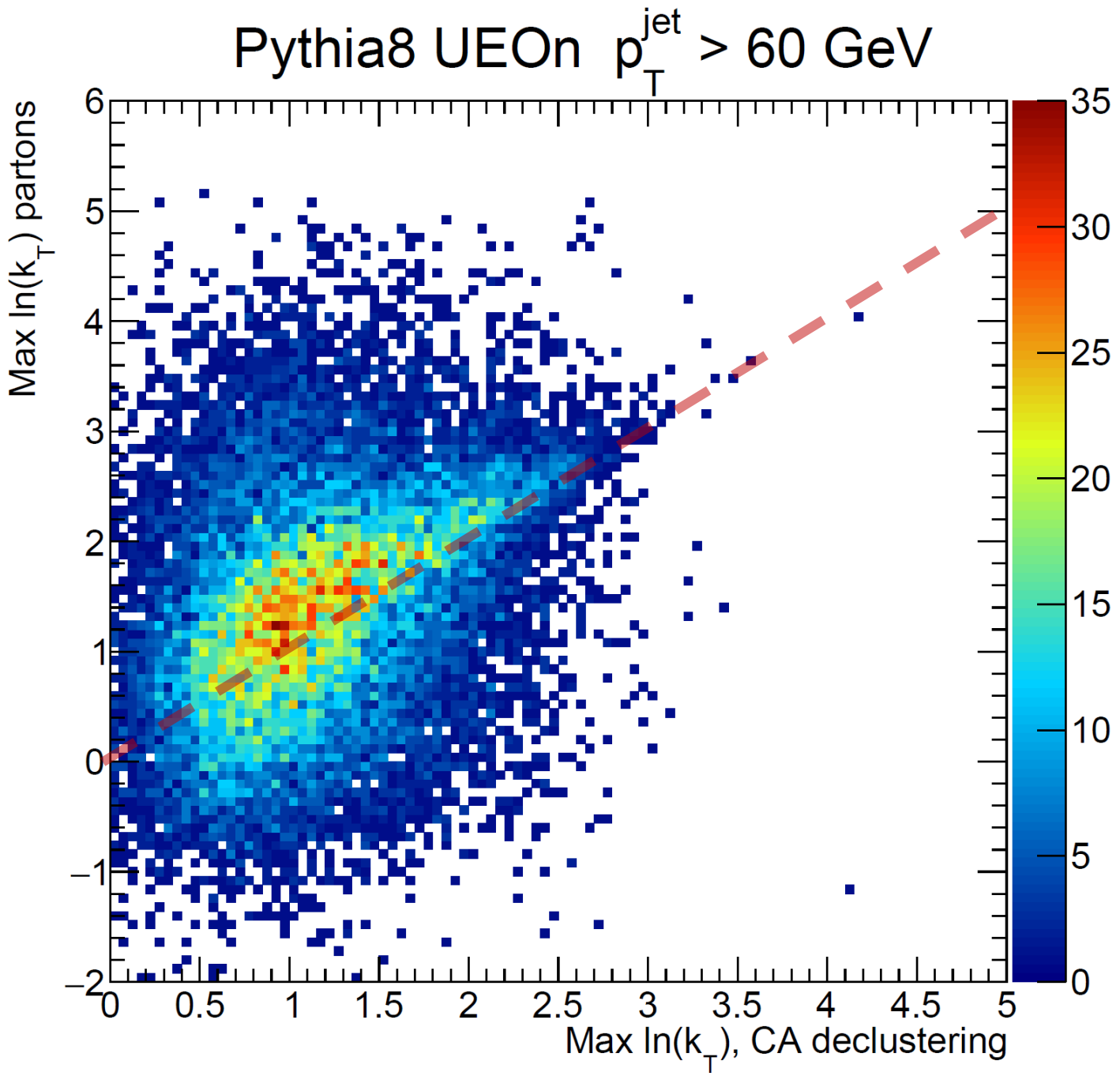




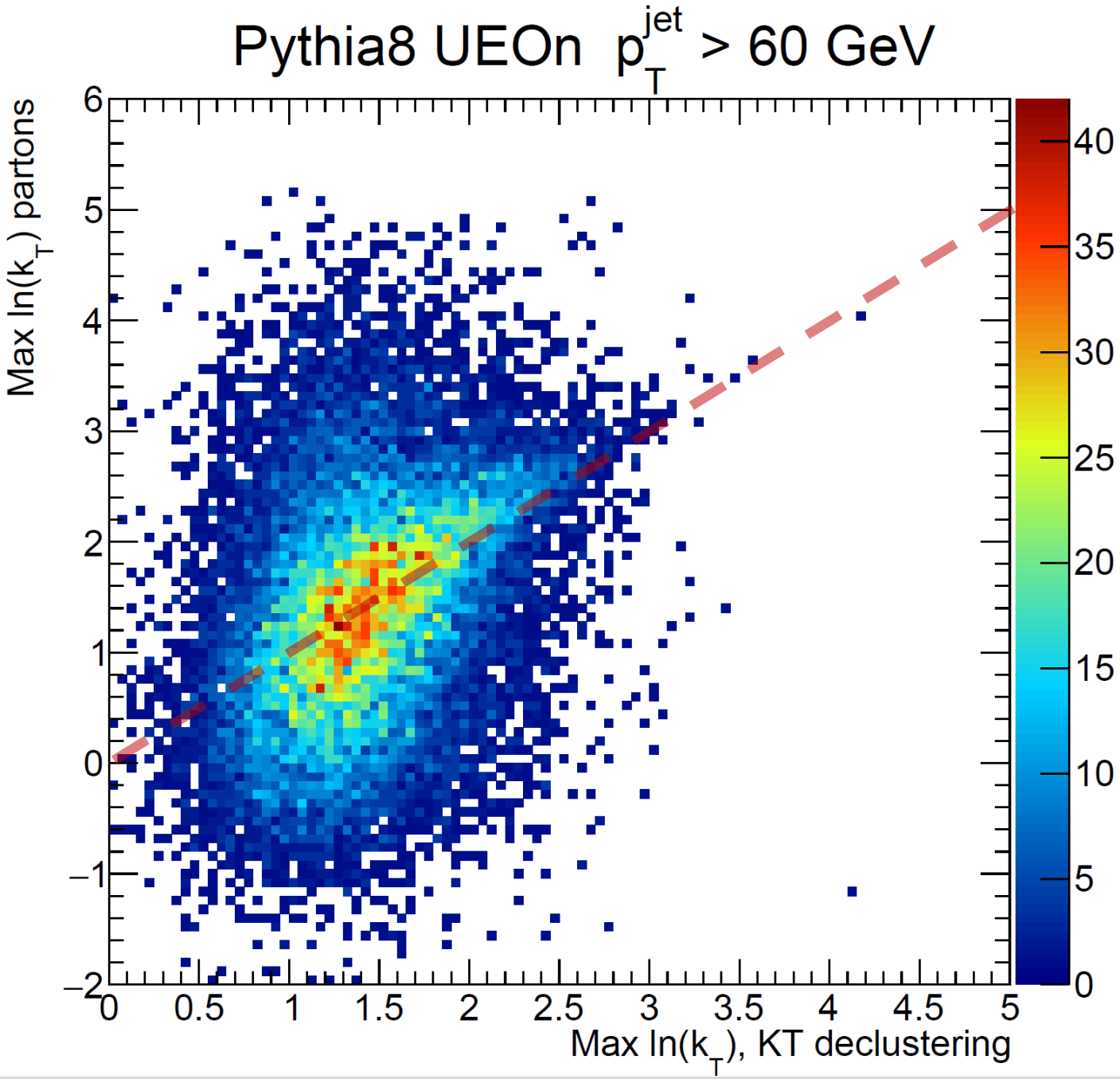
Performance with $\hat{p}_T$ >50 GeV, Anti-KT



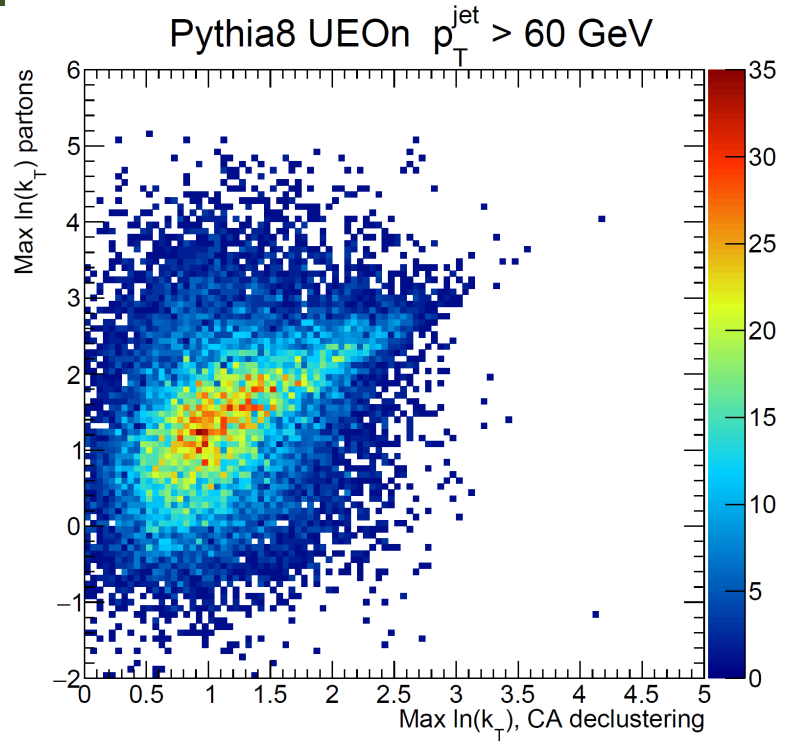
Performance with $\hat{p}_T$ >50 GeV, CA

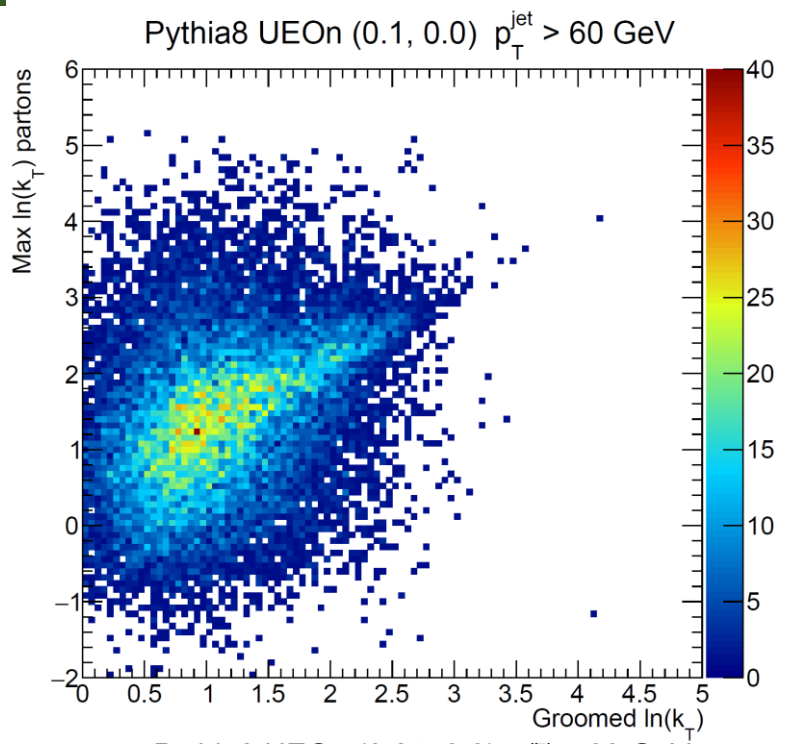


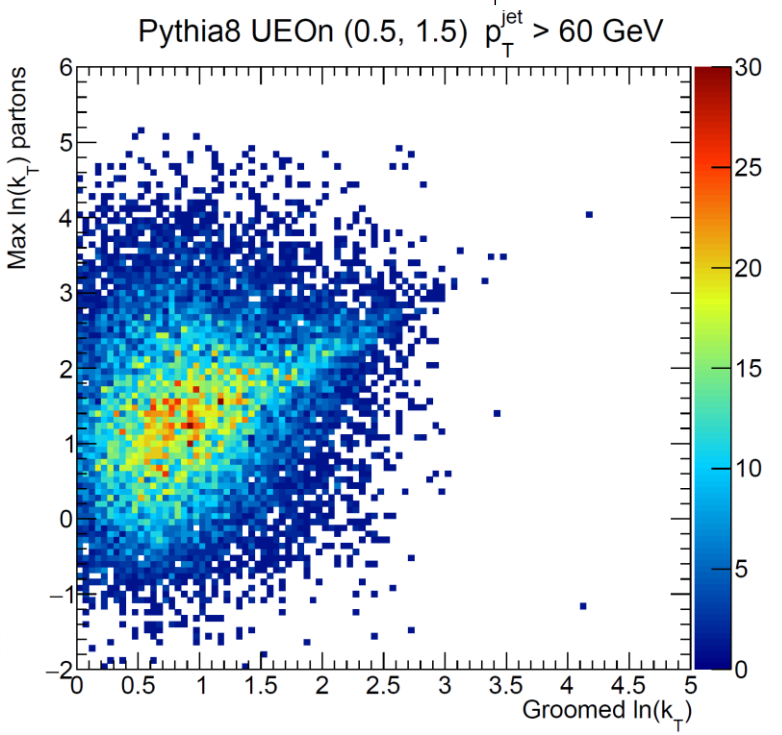
Performance with $\hat{p}_T$ >50 GeV, KT

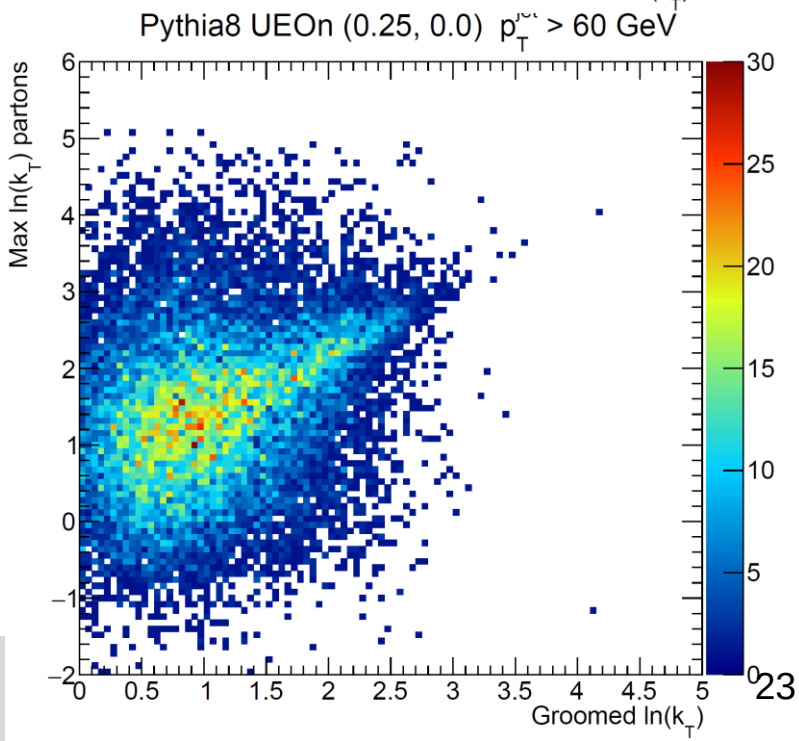


Performance with $\hat{p}_T$ >50 GeV, CA

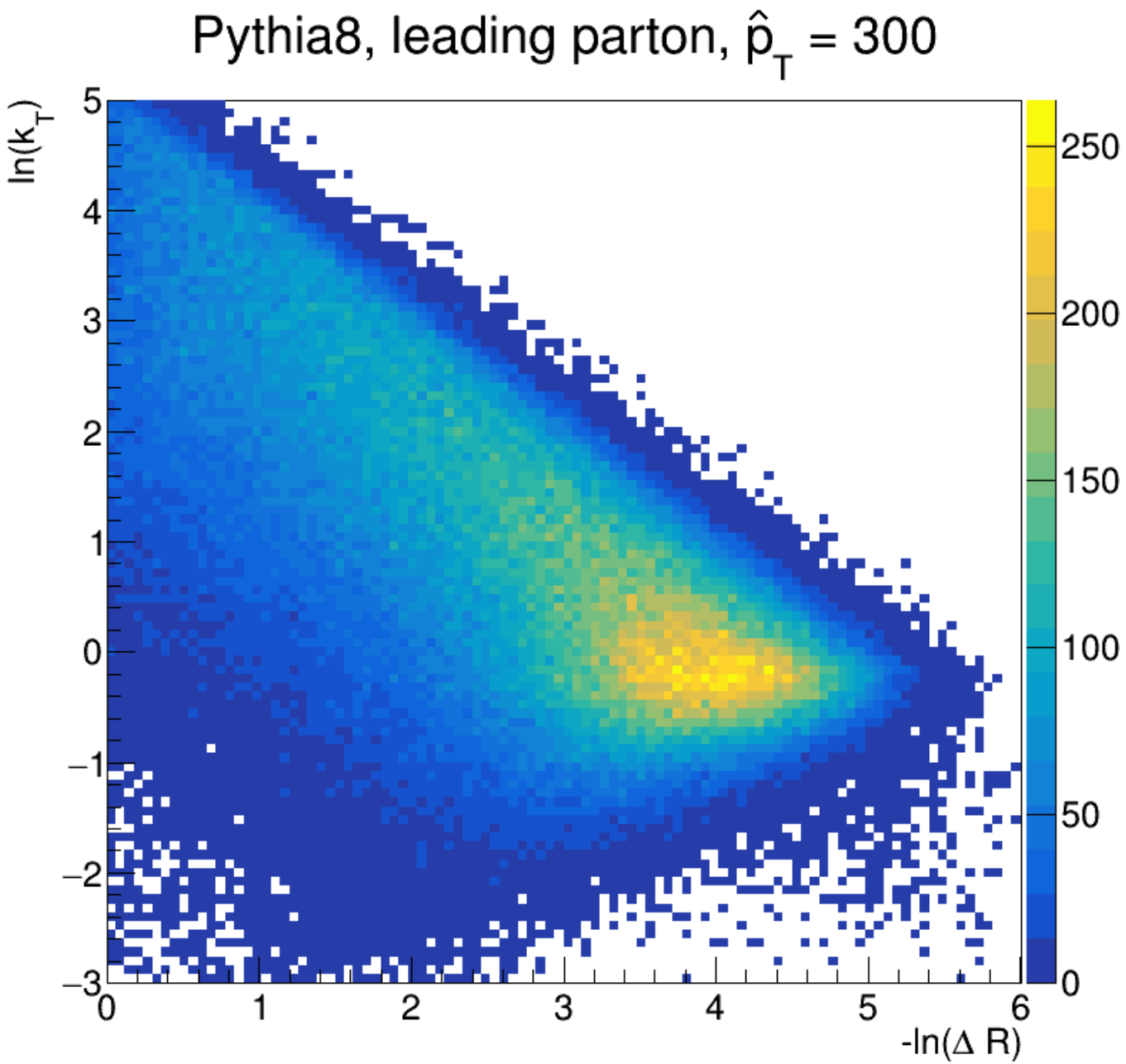




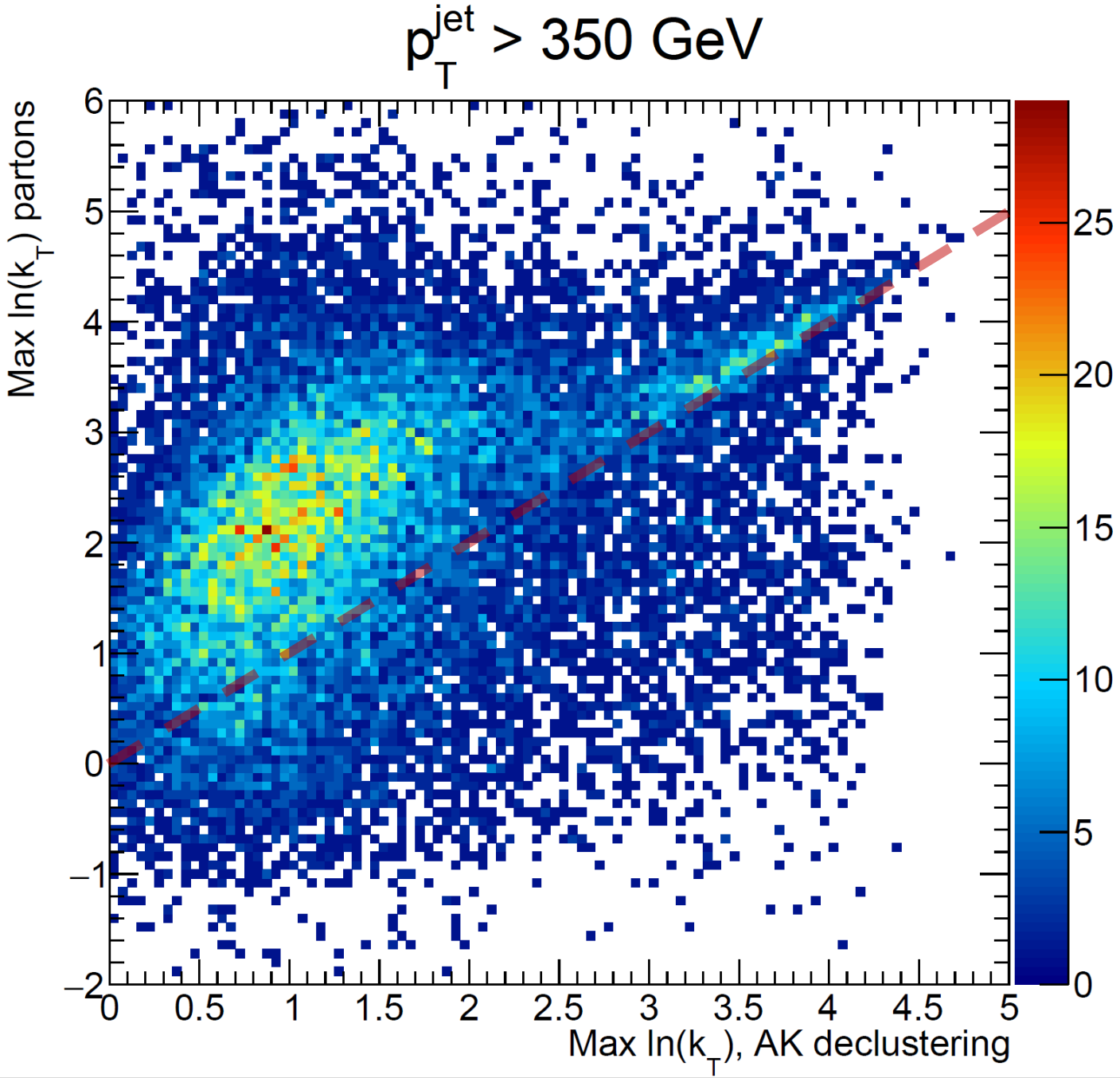




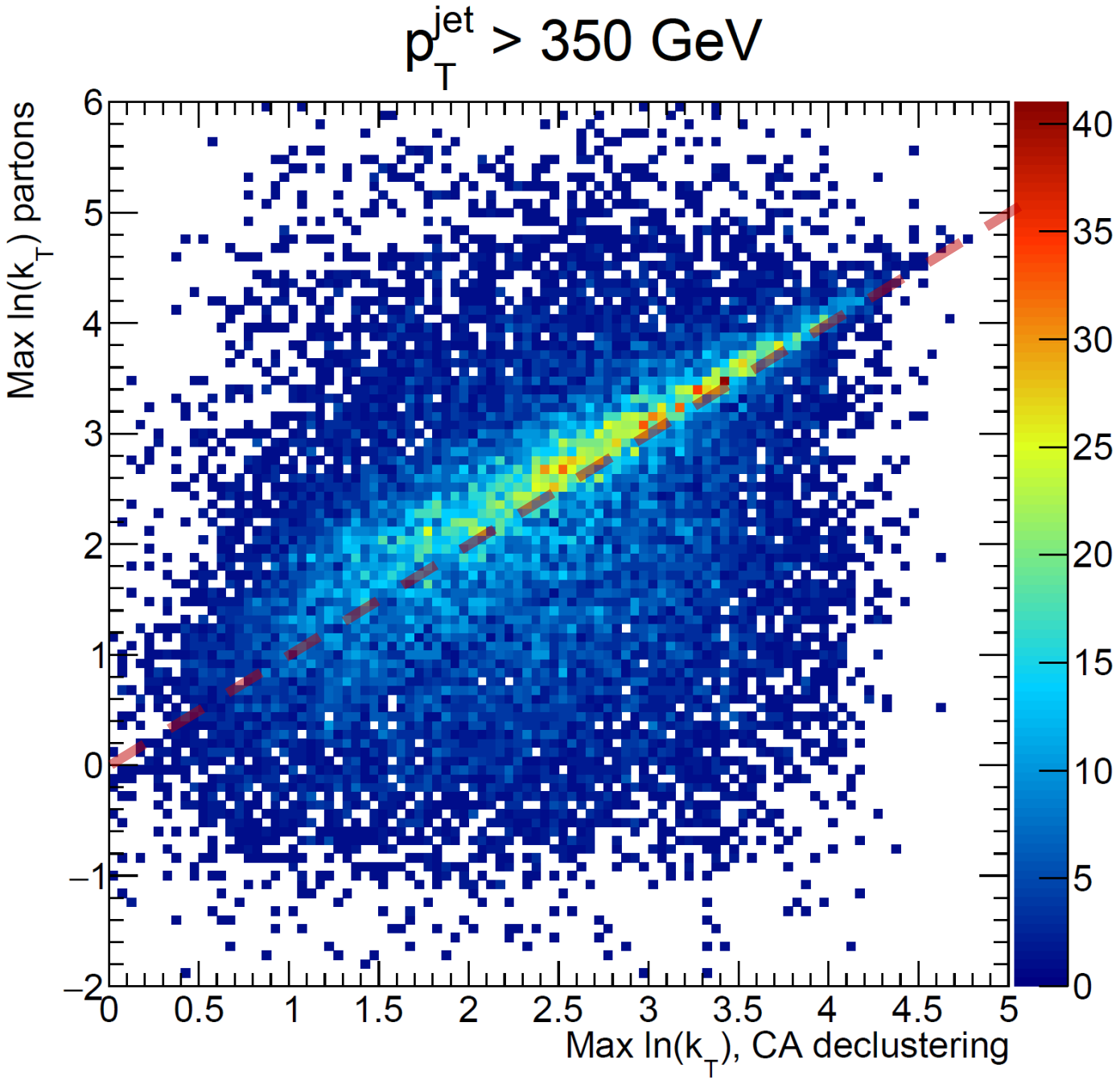
Lund Diagram from Parton Shower



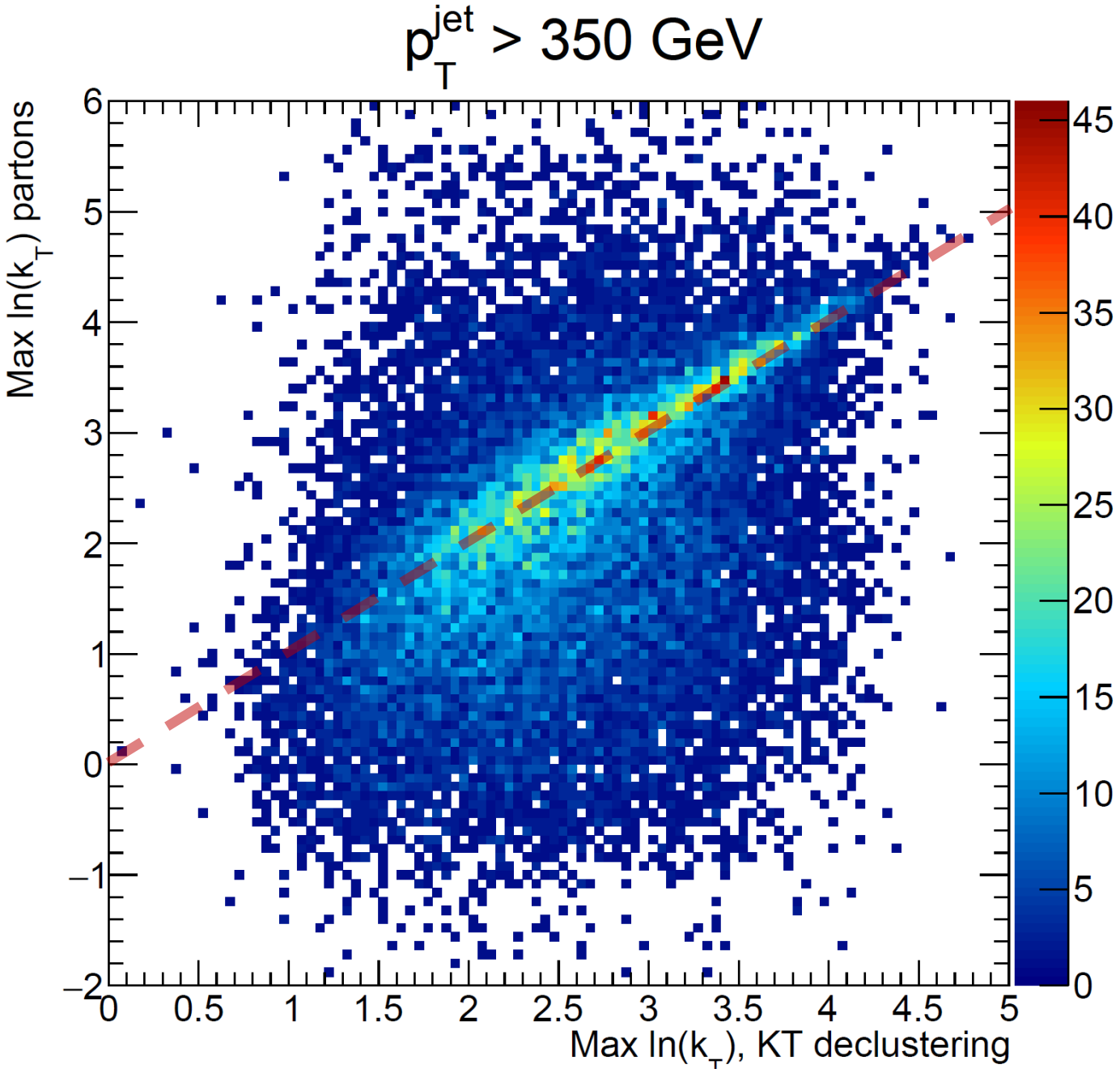
PYTHIA $\hat{p}_T$ >300 GeV, Anti-KT



PYTHIA $\hat{p}_T$ >300 GeV, CA

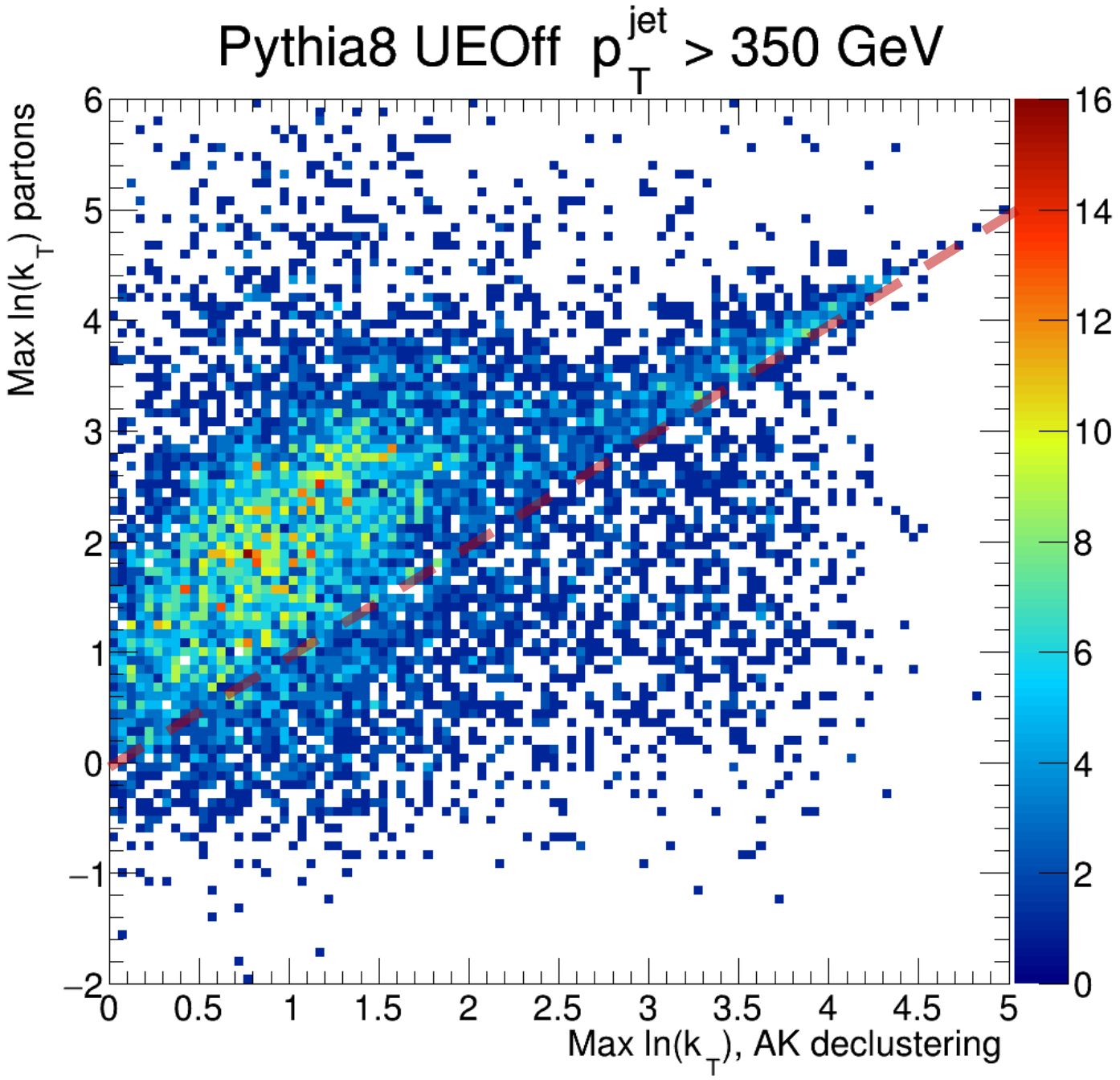


PYTHIA $\hat{p}_T$ >300 GeV, KT

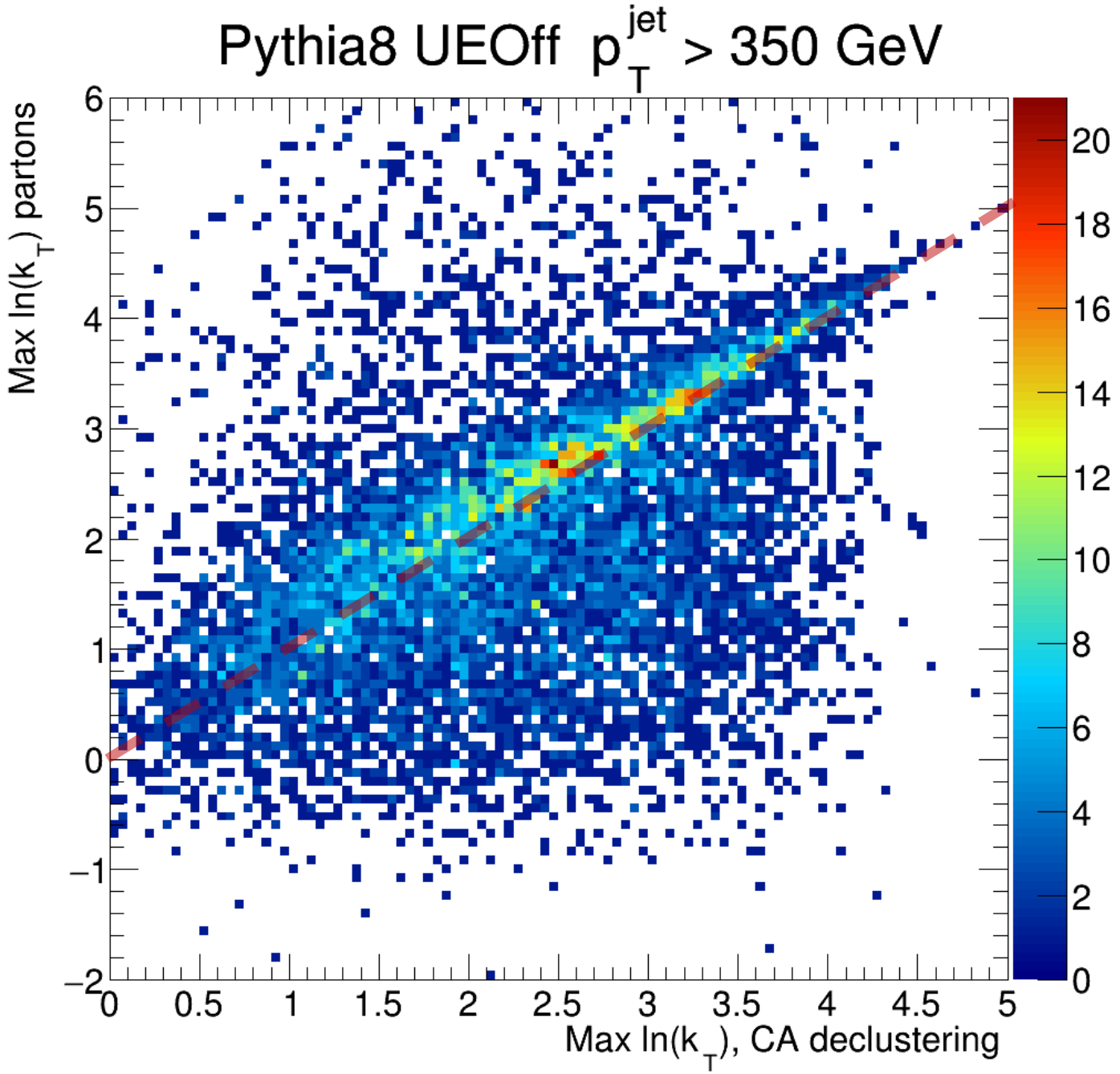


UE Off

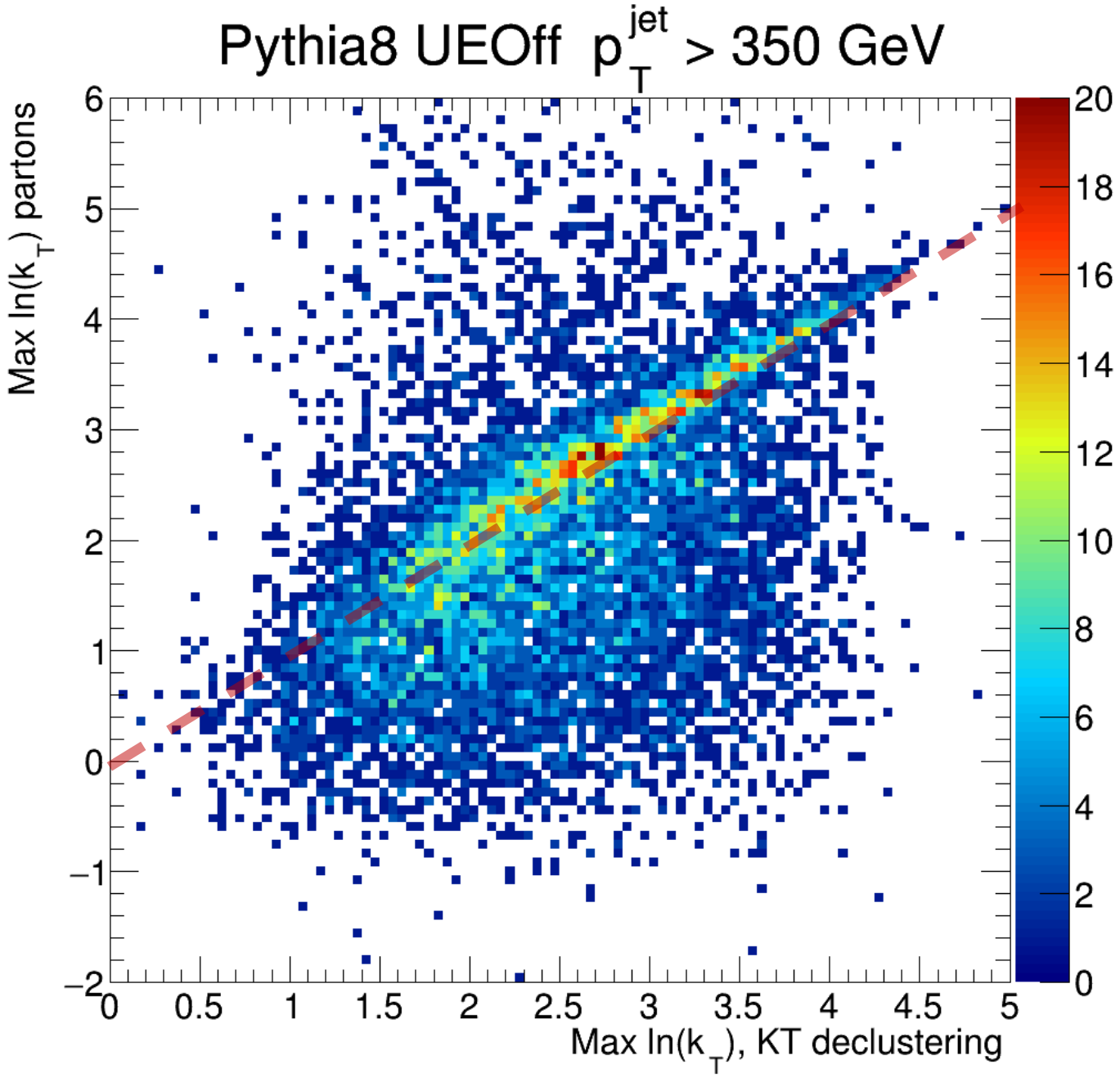
PYTHIA $\hat{p}_T$ >300 GeV, Anti-KT



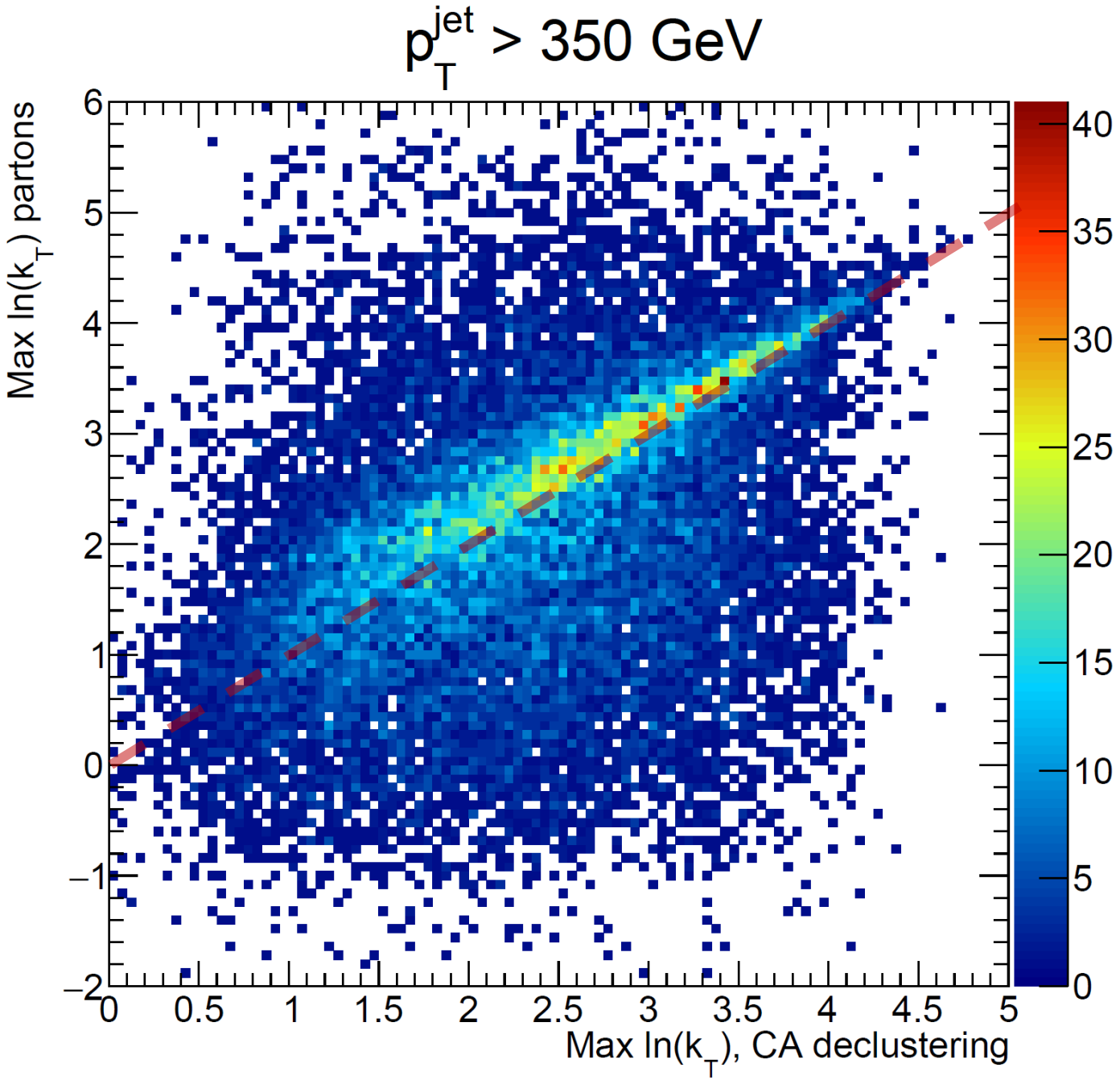
PYTHIA $\hat{p}_T$ >300 GeV, CA



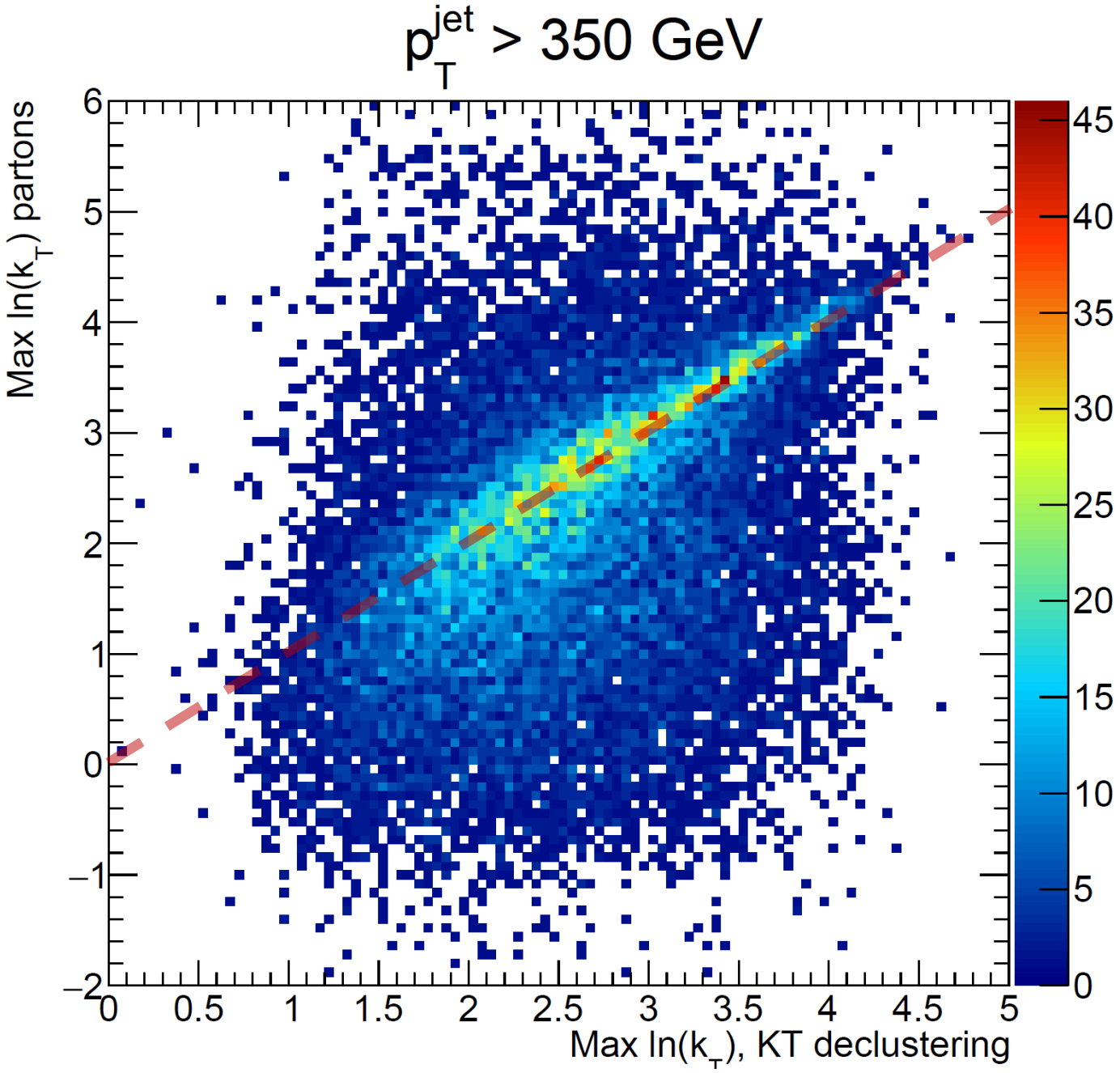
PYTHIA $\hat{p}_T$ >300 GeV, KT



PYTHIA $\hat{p}_T$ >300 GeV, CA



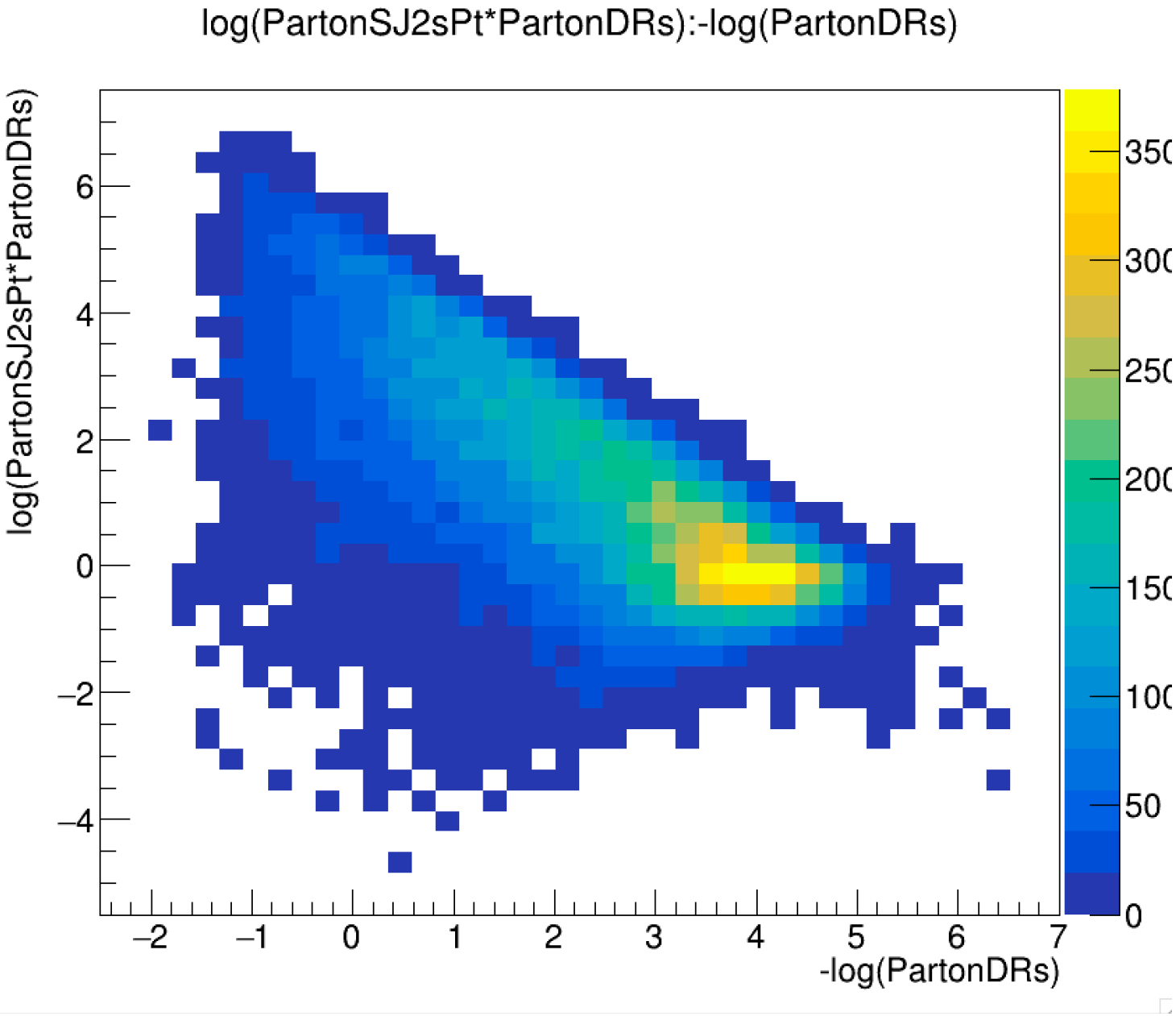
PYTHIA $\hat{p}_T$ >300 GeV, KT



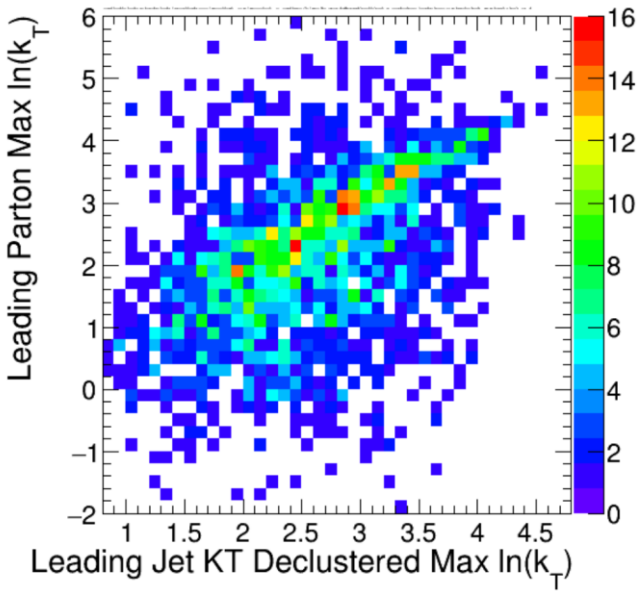
Backup slides

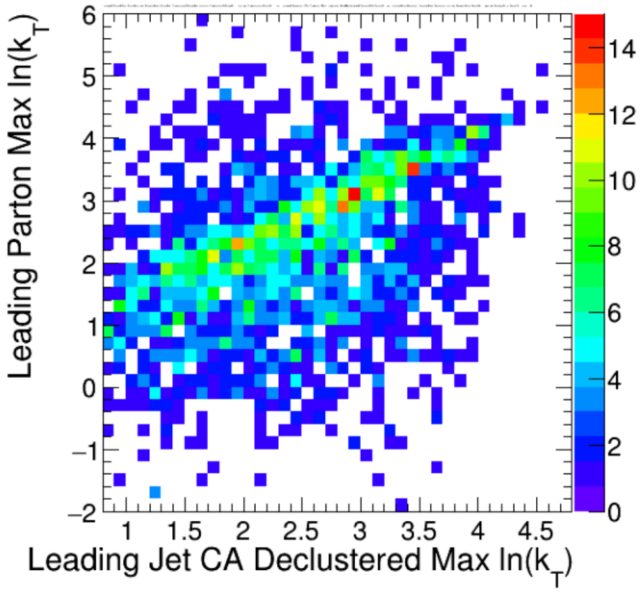
Unbeautified plots

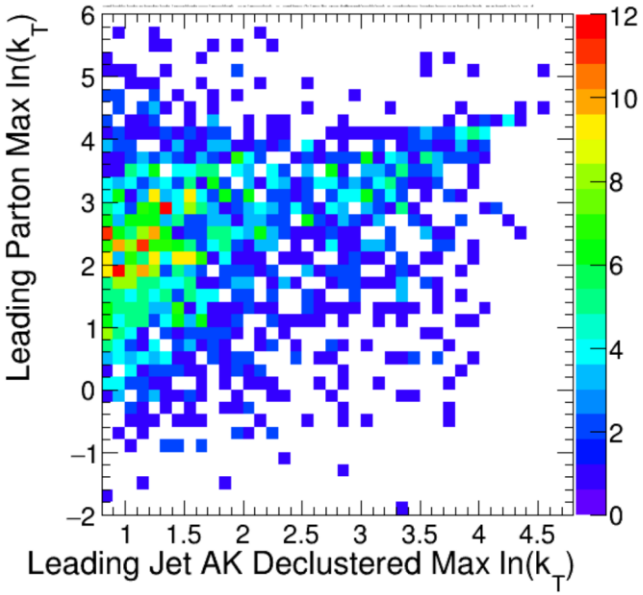
Unbeautified Parton Level Lund Diagram



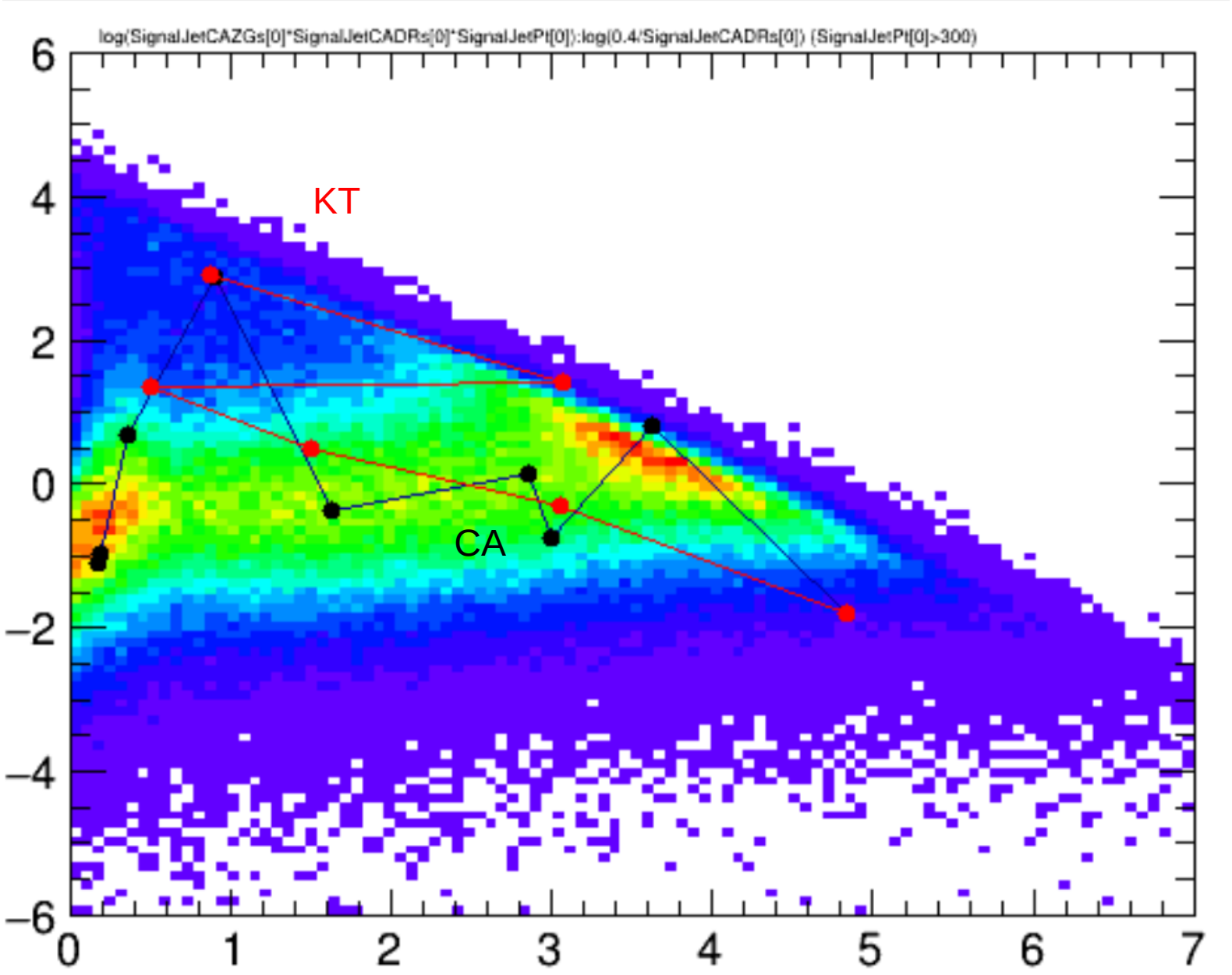
With lower statistics in cross-check macro



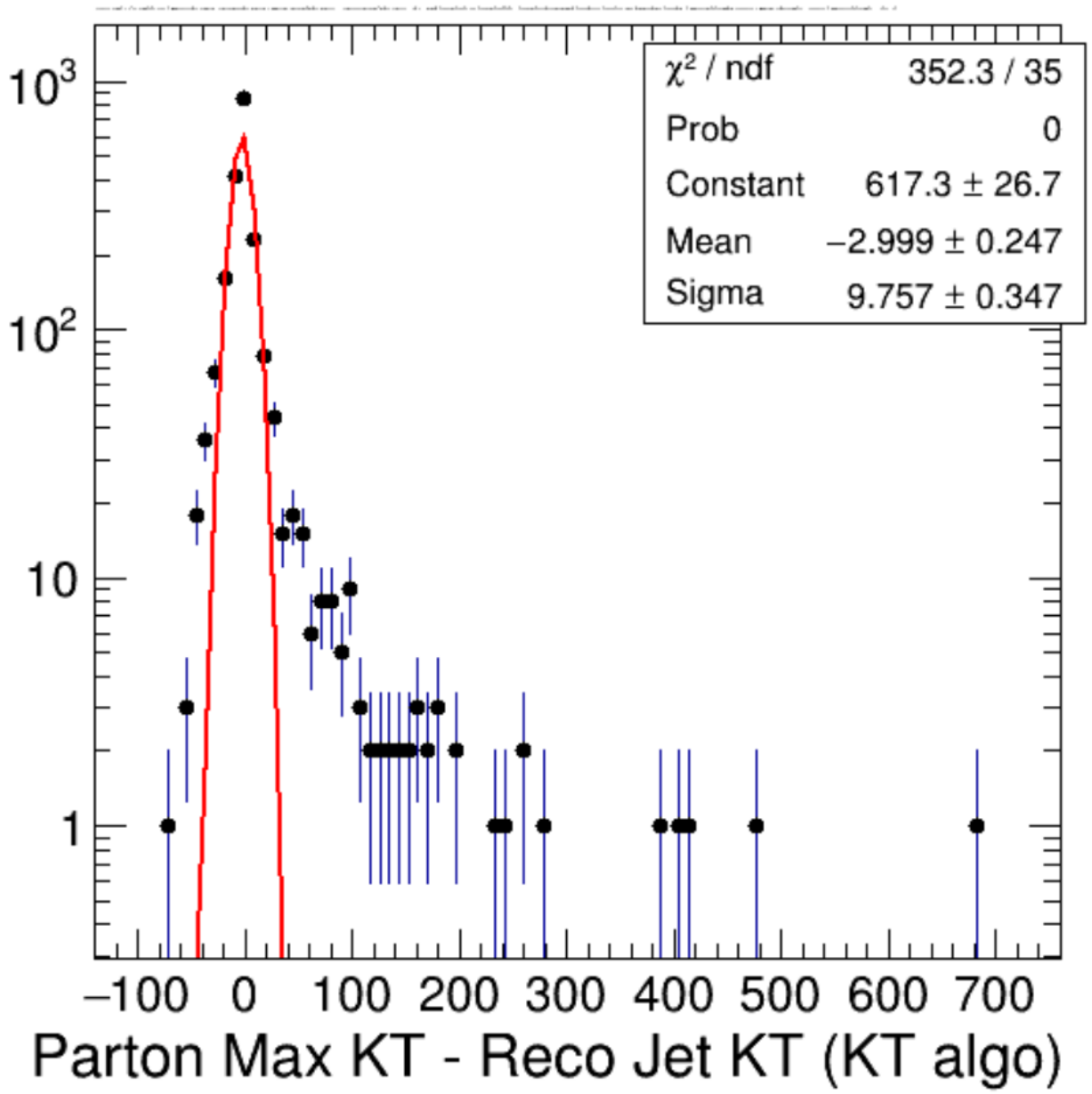




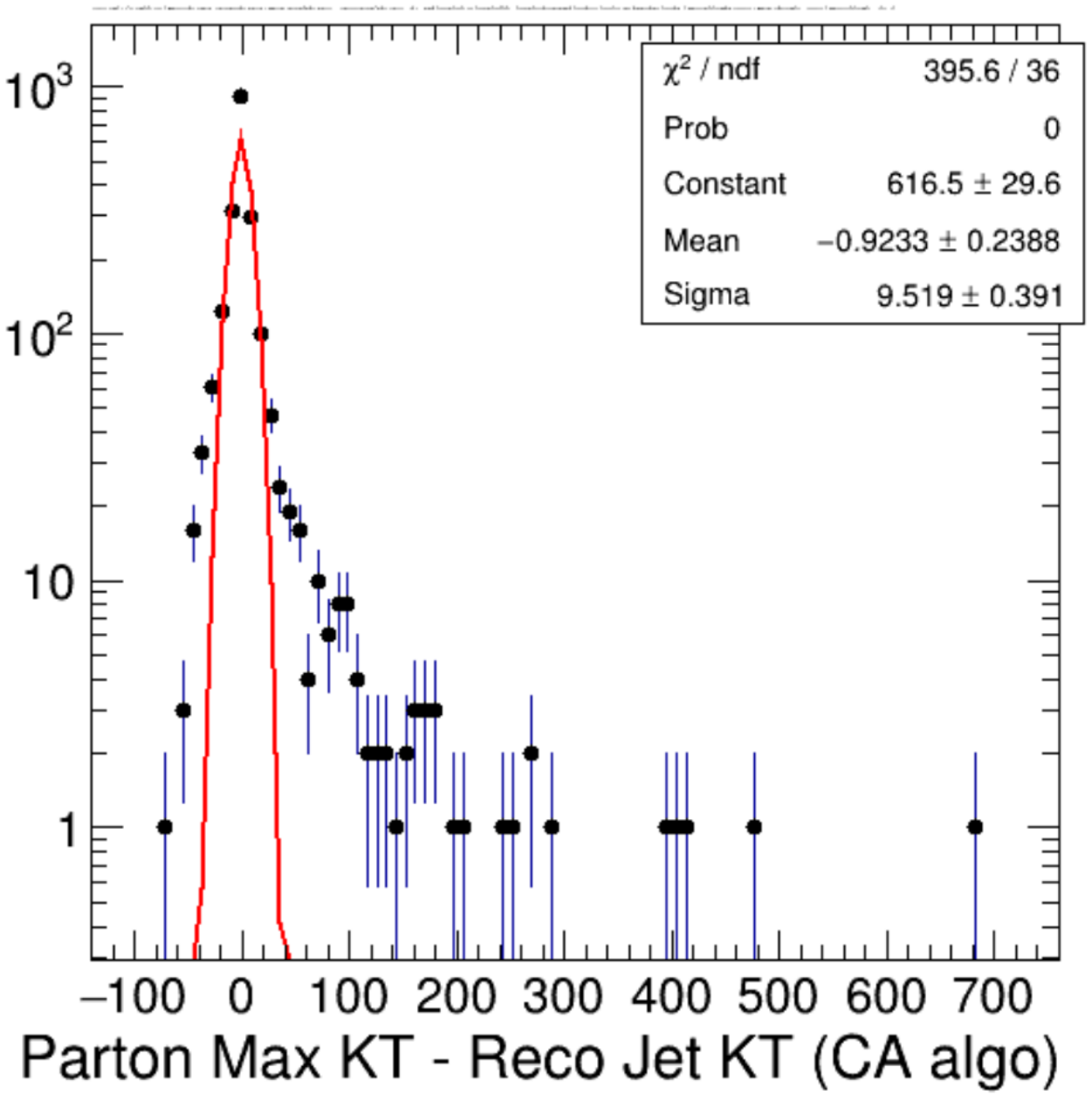
Unbeautified bad plot



Unbeautified resolution function



Unbeautified resolution function



Unbeautified resolution function