

GEANT4 Simulation Report

Riccardo Nicolaidis²

August 17, 2023

²riccardo.nicolaidis@unitn.it

GDML File Name : **LEM_Plastic_Mirion_Ametek-worldVOL_DummyMaterials_Parsed.gdml**

NTuple Info:

- Ntuple ID: 0 Ntuple Name: Edep
- Ntuple ID: 0 Ntuple Column ID: 0 Ntuple Column Name: RandEnergy
- Ntuple ID: 0 Ntuple Column ID: 1 Ntuple Column Name: Xgen
- Ntuple ID: 0 Ntuple Column ID: 2 Ntuple Column Name: Ygen
- Ntuple ID: 0 Ntuple Column ID: 3 Ntuple Column Name: Zgen
- Ntuple ID: 0 Ntuple Column ID: 4 Ntuple Column Name: pDirX
- Ntuple ID: 0 Ntuple Column ID: 5 Ntuple Column Name: pDirY
- Ntuple ID: 0 Ntuple Column ID: 6 Ntuple Column Name: pDirZ
- Ntuple ID: 0 Ntuple Column ID: 7 Ntuple Column Name: Ed_LV_Calo
- Ntuple ID: 0 Ntuple Column ID: 8 Ntuple Column Name: Ed_LV_PlasticVetoTop
- Ntuple ID: 0 Ntuple Column ID: 9 Ntuple Column Name: Ed_LV_SiliconDetector_Thin_4
- Ntuple ID: 0 Ntuple Column ID: 10 Ntuple Column Name: Ed_LV_SiliconDetector_Thin_1
- Ntuple ID: 0 Ntuple Column ID: 11 Ntuple Column Name: Ed_LV_SiliconDetector_Thin_2
- Ntuple ID: 0 Ntuple Column ID: 12 Ntuple Column Name: Ed_LV_SiliconDetector_Thin_0
- Ntuple ID: 0 Ntuple Column ID: 13 Ntuple Column Name: Ed_LV_SiliconDetector_Thin_3
- Ntuple ID: 0 Ntuple Column ID: 14 Ntuple Column Name: Ed_LV_SiliconDetector_Thick_3
- Ntuple ID: 0 Ntuple Column ID: 15 Ntuple Column Name: Ed_LV_SiliconDetector_Thick_1
- Ntuple ID: 0 Ntuple Column ID: 16 Ntuple Column Name: Ed_LV_SiliconDetector_Thick_2
- Ntuple ID: 0 Ntuple Column ID: 17 Ntuple Column Name: Ed_LV_PlasticVetoBottom
- Ntuple ID: 0 Ntuple Column ID: 18 Ntuple Column Name: Ed_LV_SiliconDetector_Thick_4
- Ntuple ID: 0 Ntuple Column ID: 19 Ntuple Column Name: Ed_LV_SiliconDetector_Thick_0

Volume	Material	Mass (g)
LV_AITop	G4_Galactic	1.97275e-23
LV_BakeliteCable_1	G4_Galactic	2.61684e-26
LV_BakeliteCable_3	G4_Galactic	2.61684e-26
LV_AlFrame_Thick_3	G4_Galactic	1.10354e-25
LV_BakeliteCable	G4_Galactic	1.94114e-26
LV_BakeliteCable_4	G4_Galactic	2.61684e-26
LV_AlFrame_Thick_1	G4_Galactic	1.10354e-25
LV_AlFrame_Thick_2	G4_Galactic	1.10354e-25
LV_AIScrew_Thick_2	G4_Galactic	9.05215e-26
LV_AIScrew_Thick_3	G4_Galactic	9.05215e-26
LV_BakeliteBoardMiddleUpper	G4_Galactic	1.51833e-24
LV_BakeliteBoardCalo	G4_Galactic	6.393e-25
LV_AICoverLower	G4_Galactic	8.3961e-25
LV_Calo	G4_PLASTIC_SC_VINYLTOLUENE	74.304
LV_PlasticVetoTop	G4_PLASTIC_SC_VINYLTOLUENE	235.225
LV_BakeliteBoardBottom	G4_Galactic	1.52827e-24
LV_AlFrame_Thin_2	G4_Galactic	8.49576e-26
LV_SiliconDetector_Thin_4	G4_Si	0.0325397
LV_AlFrame_Thin_3	G4_Galactic	8.49576e-26
LV_AlFrame_Thin_4	G4_Galactic	8.49576e-26
LV_AICoverUpper	G4_Galactic	8.13683e-25
LV_SiliconDetector_Thin_1	G4_Si	0.0325397
LV_SiliconDetector_Thin_2	G4_Si	0.0325397
LV_AlFrame_Thin_0	G4_Galactic	4.81911e-26
LV_SiliconDetector_Thin_0	G4_Si	0.0104495
LV_AlFrame_Thin_1	G4_Galactic	8.49576e-26
LV_SiliconDetector_Thin_3	G4_Si	0.0325397
LV_BakeliteCable_2	G4_Galactic	2.61684e-26
LV_SiliconDetector_Thick_3	G4_Si	0.135903
LV_SiliconDetector_Thick_1	G4_Si	0.135903
LV_SiliconDetector_Thick_2	G4_Si	0.135903
LV_AlBottom	G4_Galactic	1.56411e-23
LV_BakeliteBoardMiddleLower	G4_Galactic	1.20638e-24
LV_PlasticVetoBottom	G4_PLASTIC_SC_VINYLTOLUENE	128.504
LV_AIScrew_1	G4_Galactic	2.0382e-25
LV_AIScrew	G4_Galactic	2.0382e-25
LV_AIScrew_2	G4_Galactic	2.0382e-25
LV_AIScrew_3	G4_Galactic	2.0382e-25
LV_AIScrew_Thick_1	G4_Galactic	9.05215e-26
LV_AlFrame_Thick_4	G4_Galactic	1.10354e-25
LV_AIScrew_Thick_0	G4_Galactic	5.42892e-26
LV_SiliconDetector_Thick_4	G4_Si	0.135903
LV_AlFrame_Thick_0	G4_Galactic	8.11217e-26
LV_SiliconDetector_Thick_0	G4_Si	0.0439621
LV_AIScrew_Thick_4	G4_Galactic	9.05215e-26

hPID_1

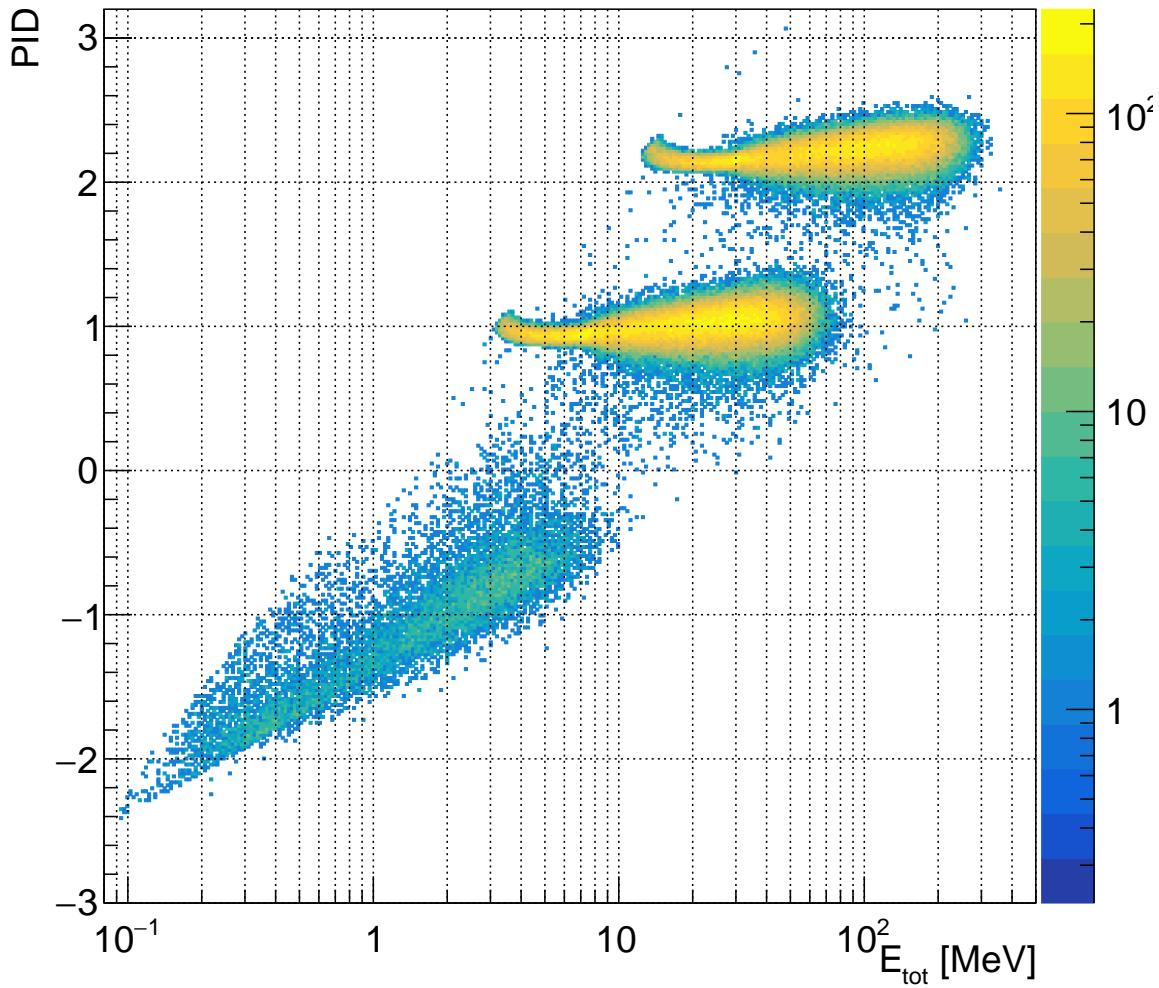


Figure: PID, No Gaussian Smearing, Total Energy is the Energy reconstructed.

hPID_2

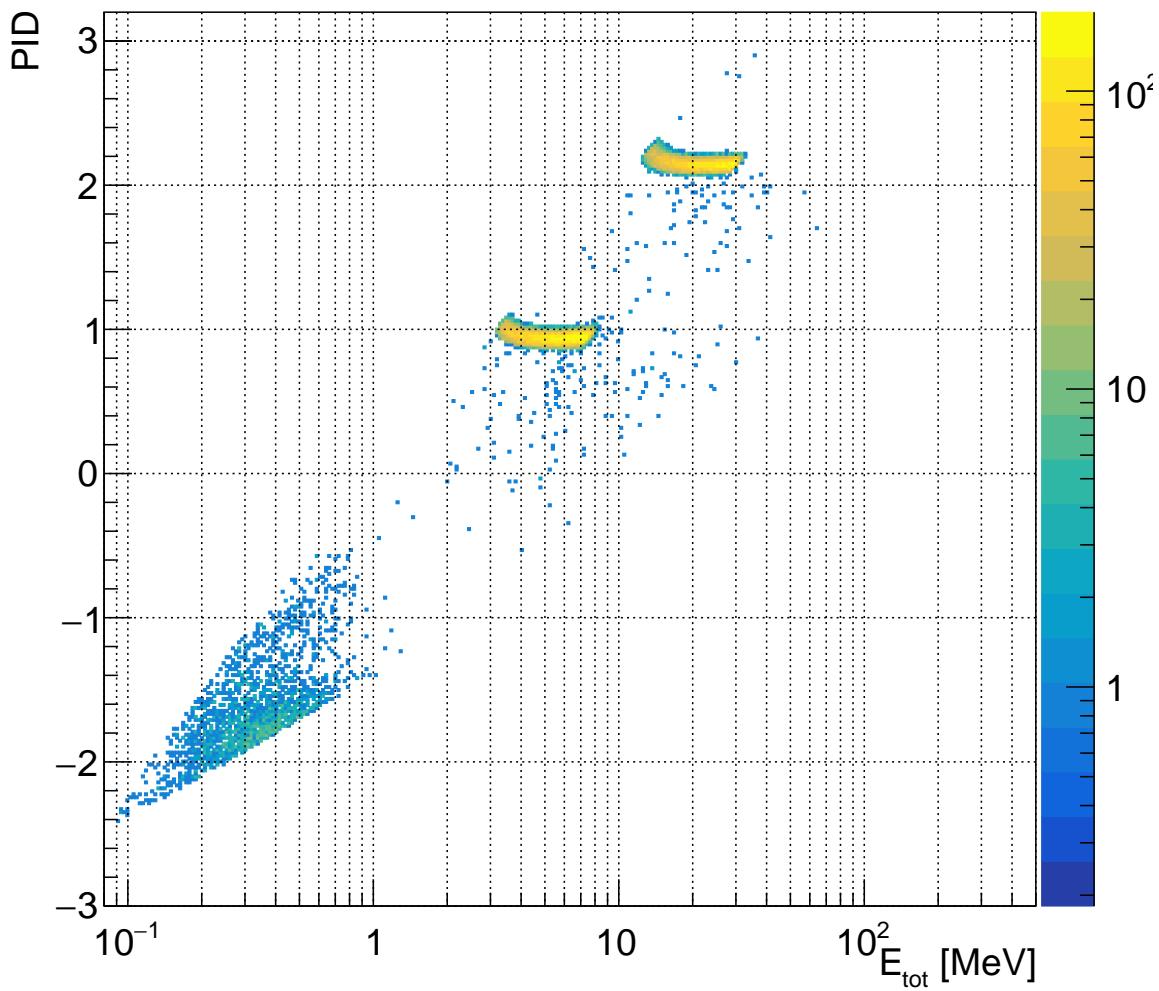


Figure: PID, No Gaussian Smearing, Total Energy is the Energy reconstructed, No Calorimeter.

hPID2_1

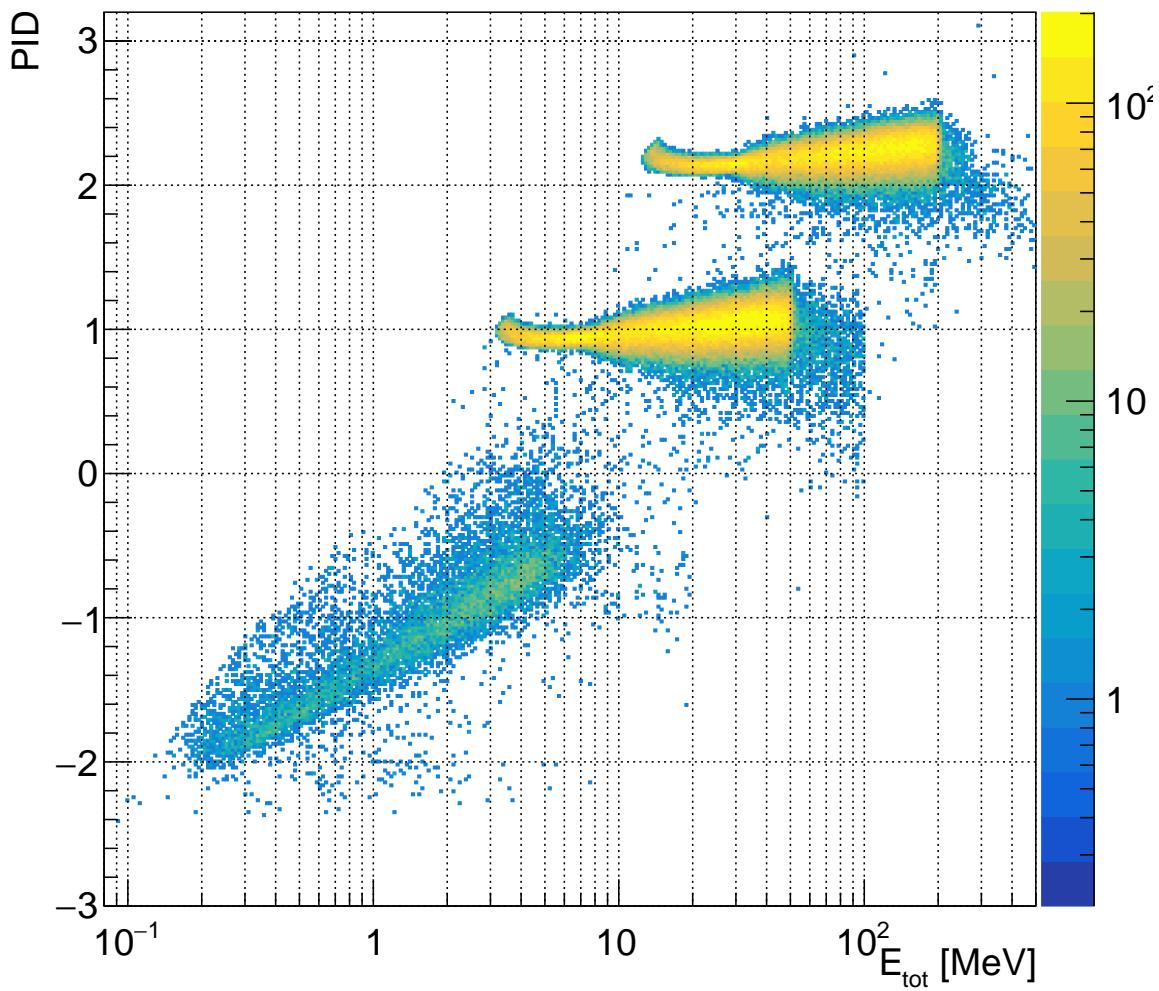


Figure: PID, No Gaussian Smearing, Total Energy is the MC Energy.

hPID2_2

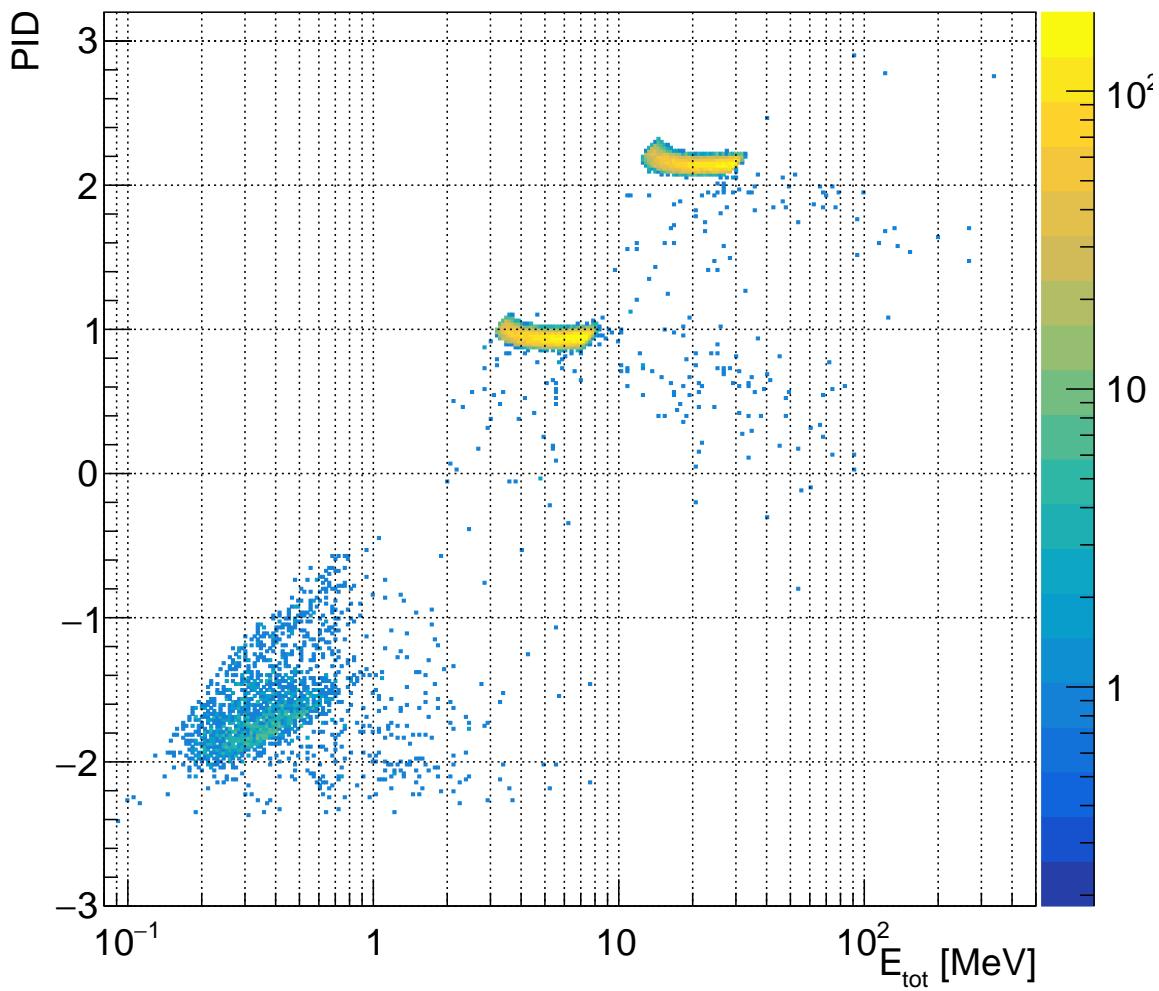


Figure: PID, No Gaussian Smearing, Total Energy is the MC Energy, No Calorimeter.

hPID_1

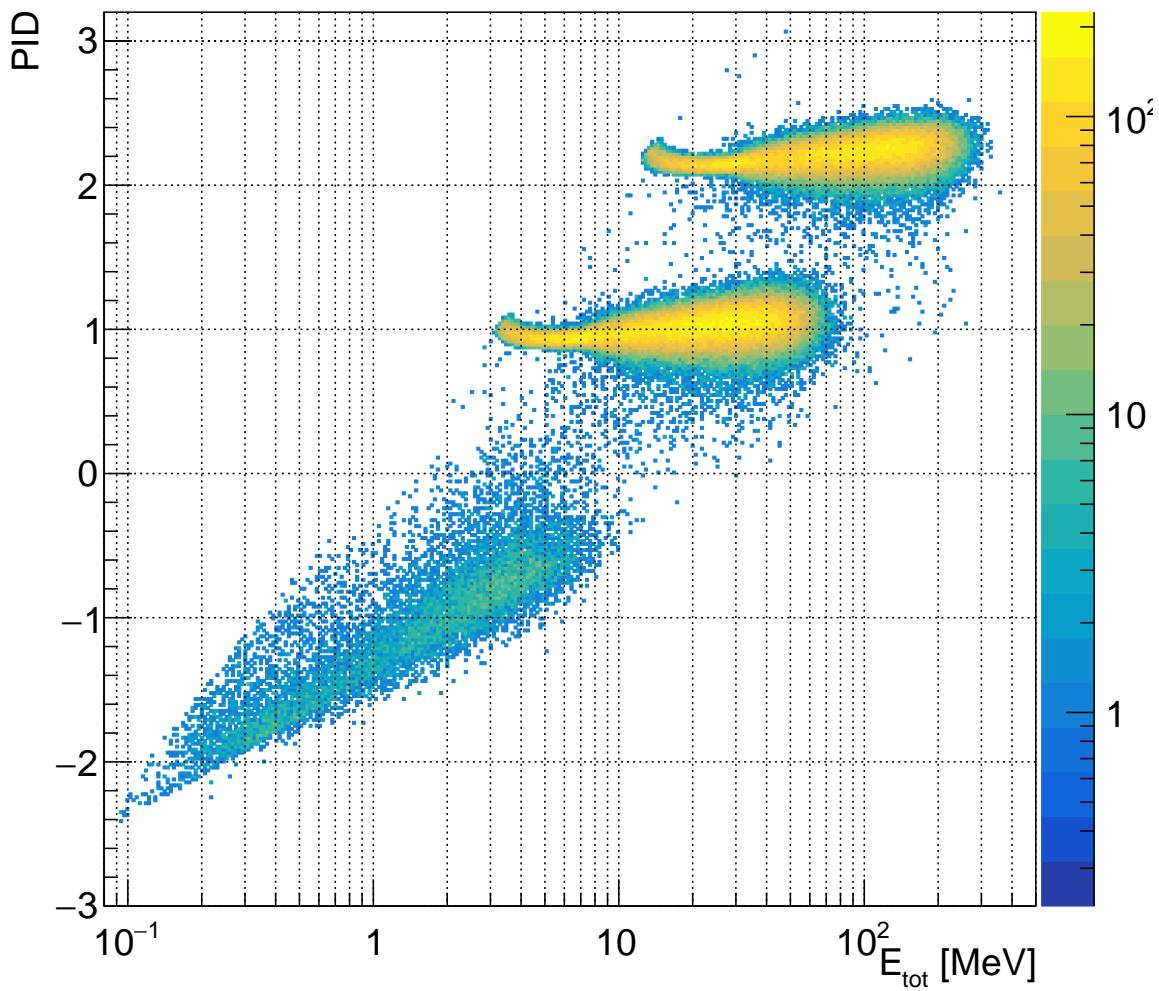


Figure: PID, Gaussian Smearing, Total Energy is the Energy reconstructed.

hPID_3

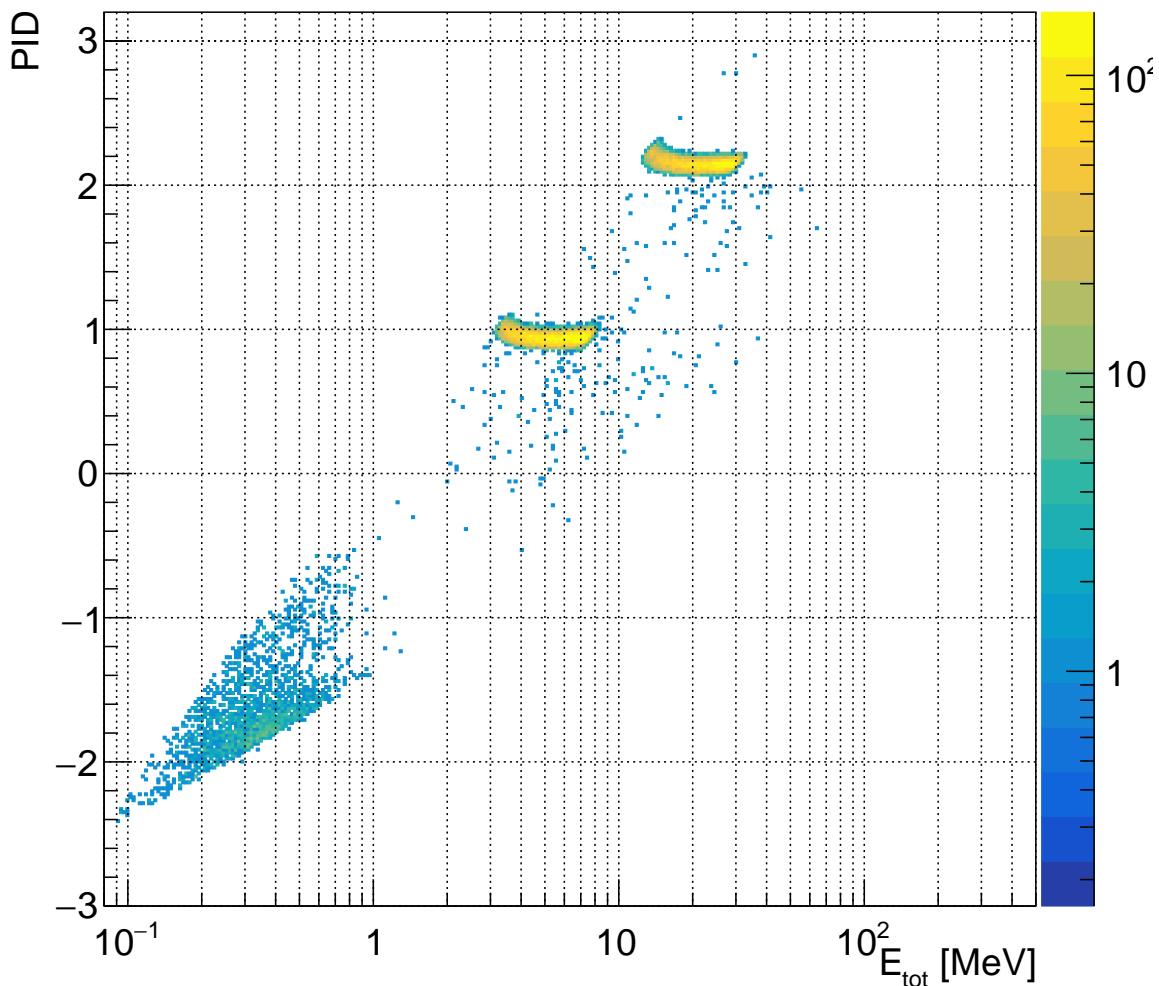


Figure: PID, Gaussian Smearing, Total Energy is the Energy reconstructed, No Calorimeter.

hPID2_1

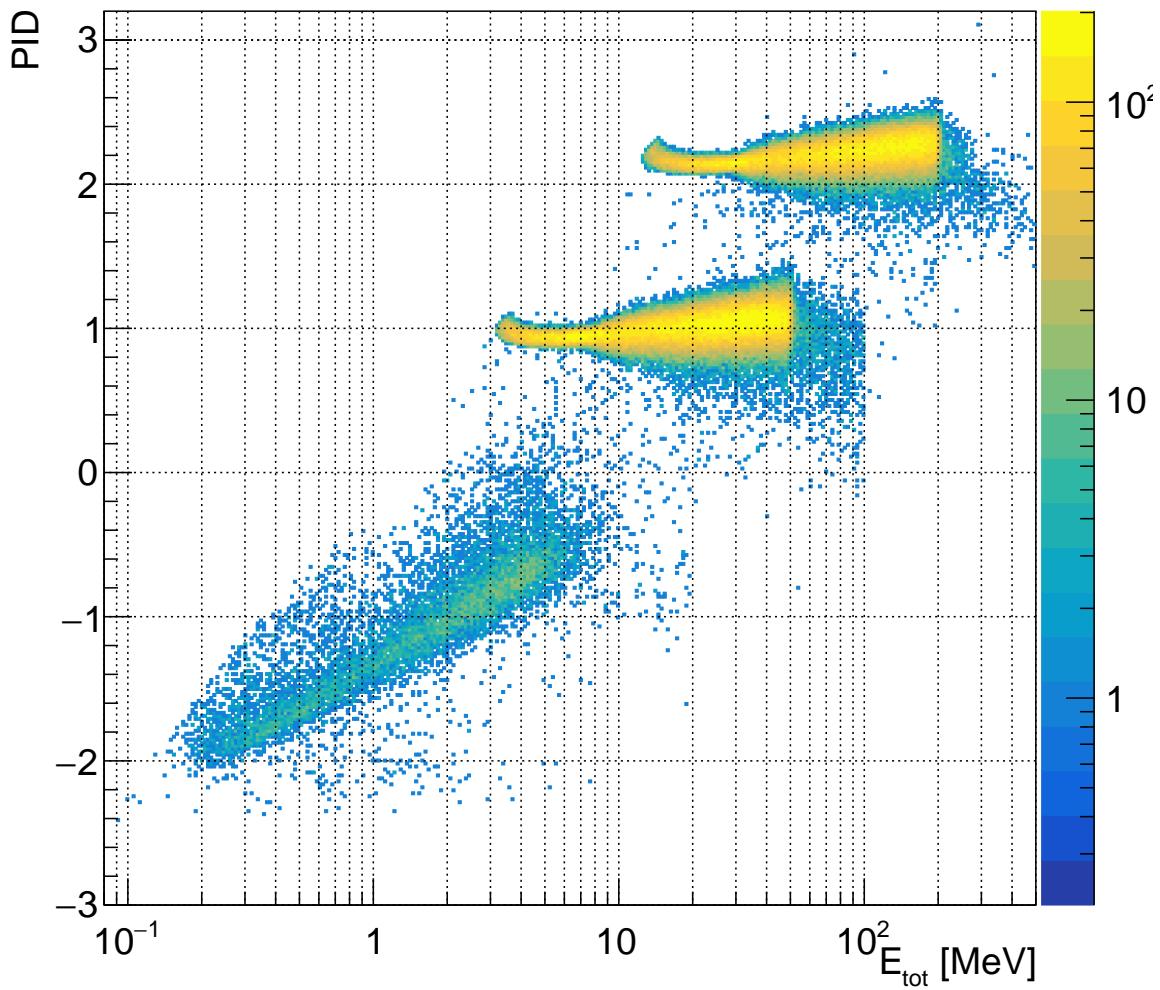


Figure: PID, Gaussian Smearing, Total Energy is the MC Energy.

hPID2_3

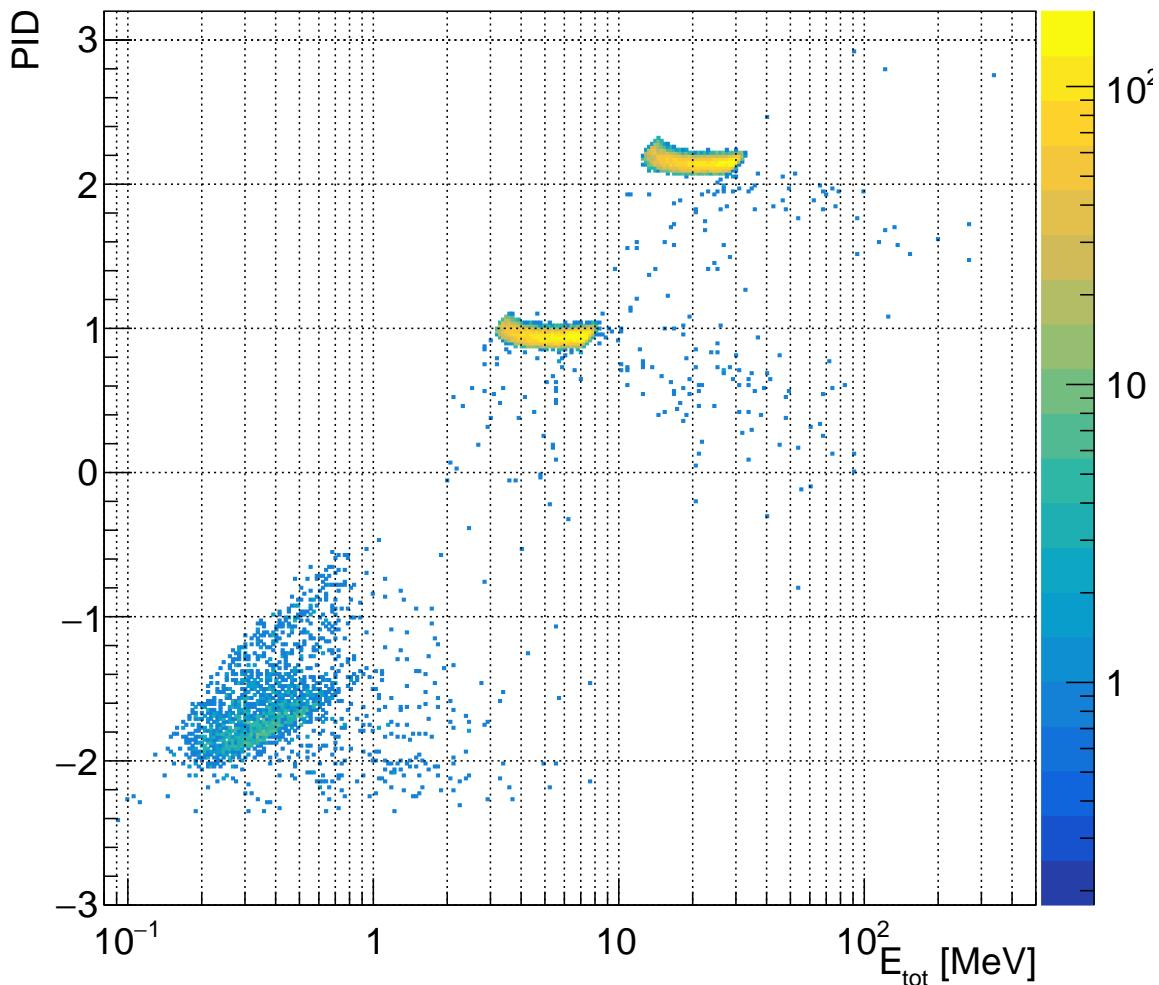


Figure: PID, Gaussian Smearing, Total Energy is the MC Energy, No Calorimeter.

mgrPID

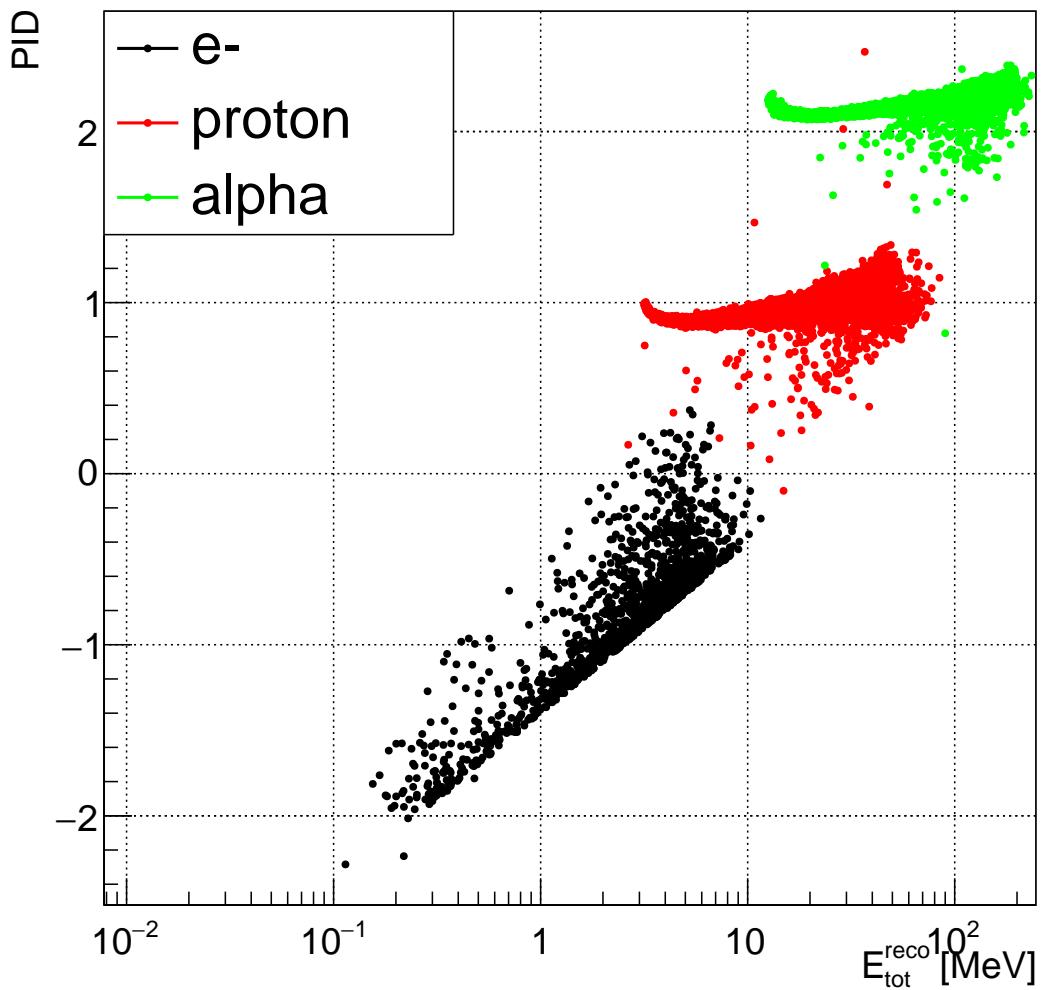


Figure: PID, Gaussian Smearing, Total Energy is the Energy reconstructed, No Calorimeter.

MC quantities for e-_t0

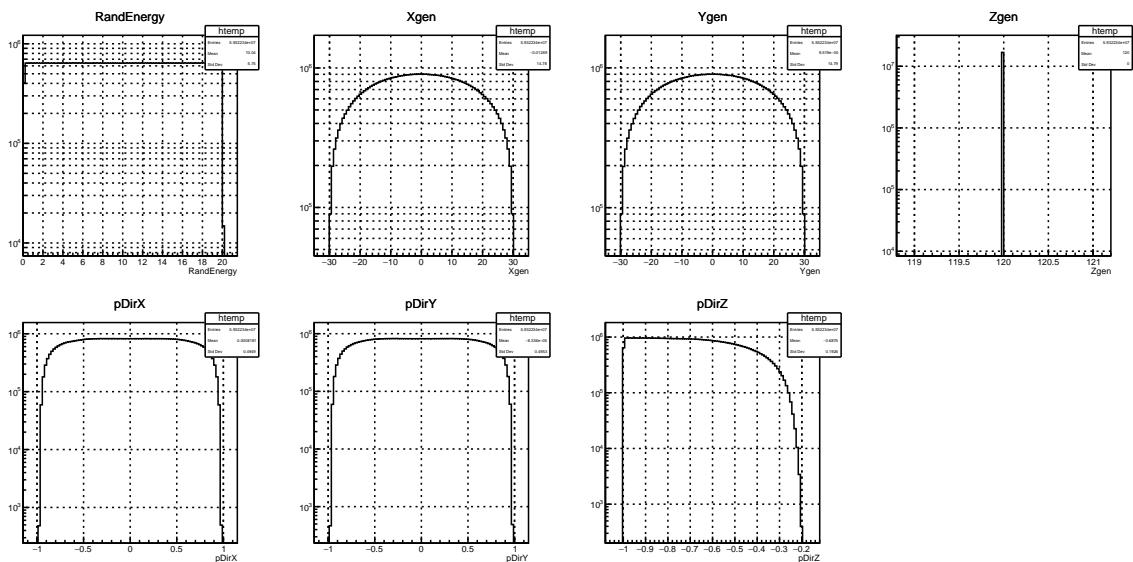


Figure: MC quantities

Energies distribution for e-

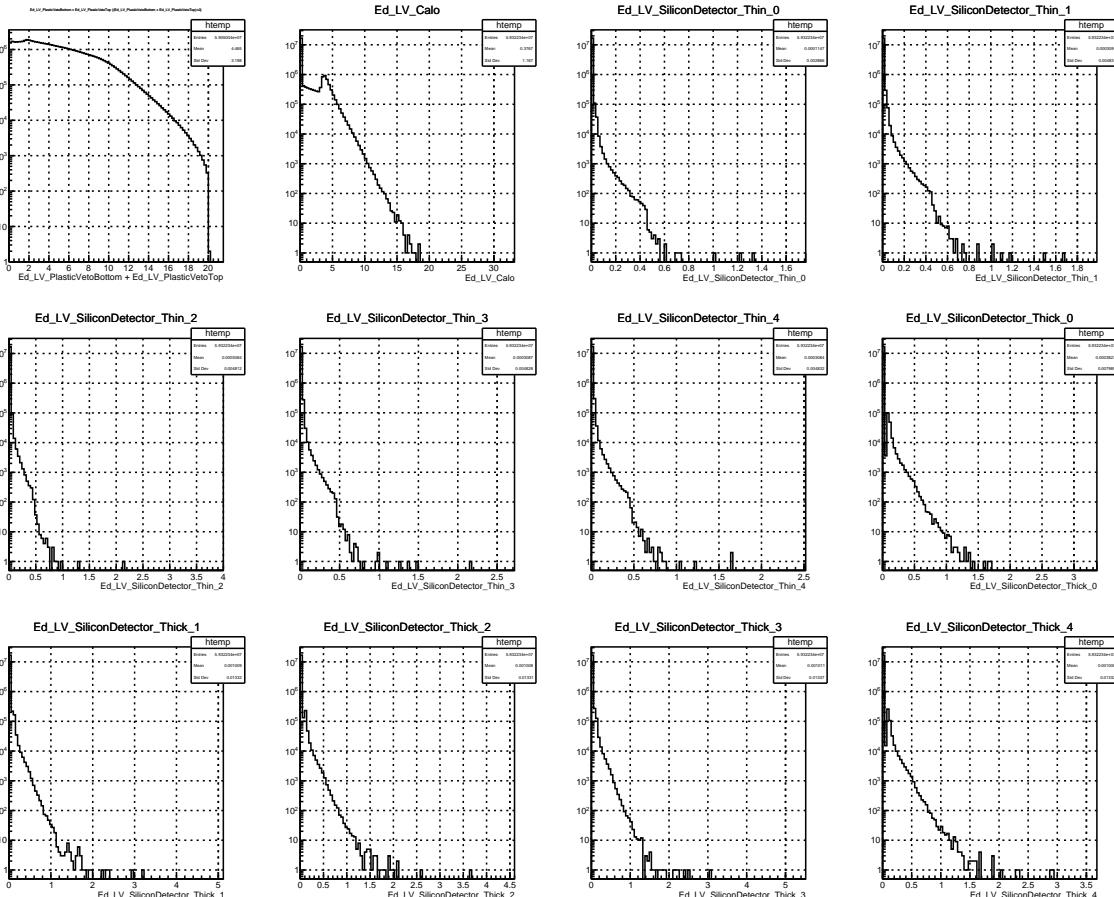


Figure: Detected energies

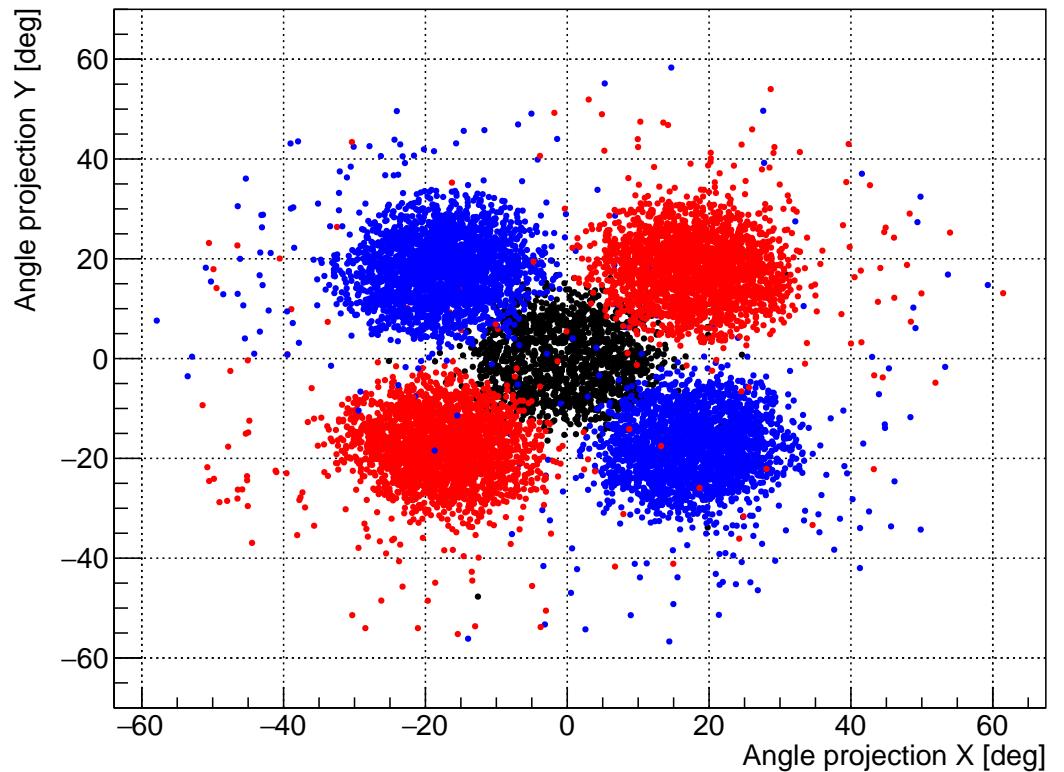


Figure: Angles distribution

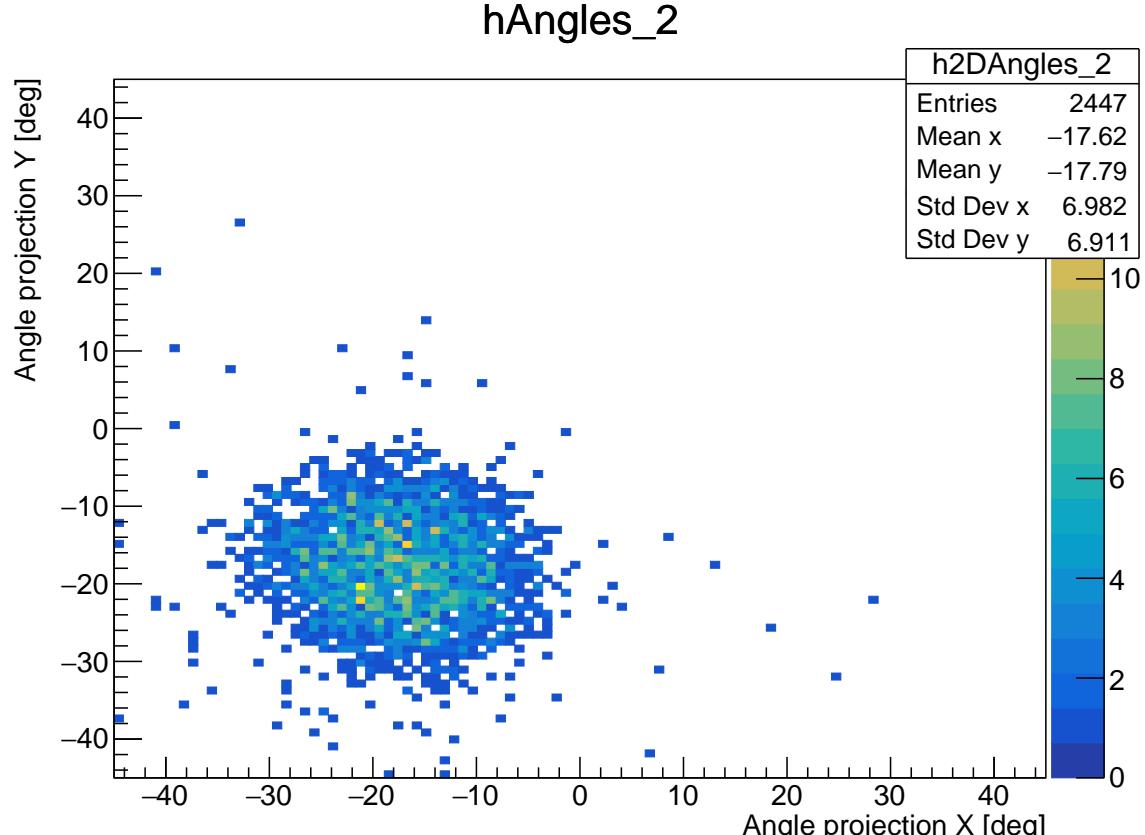


Figure: Angles distribution

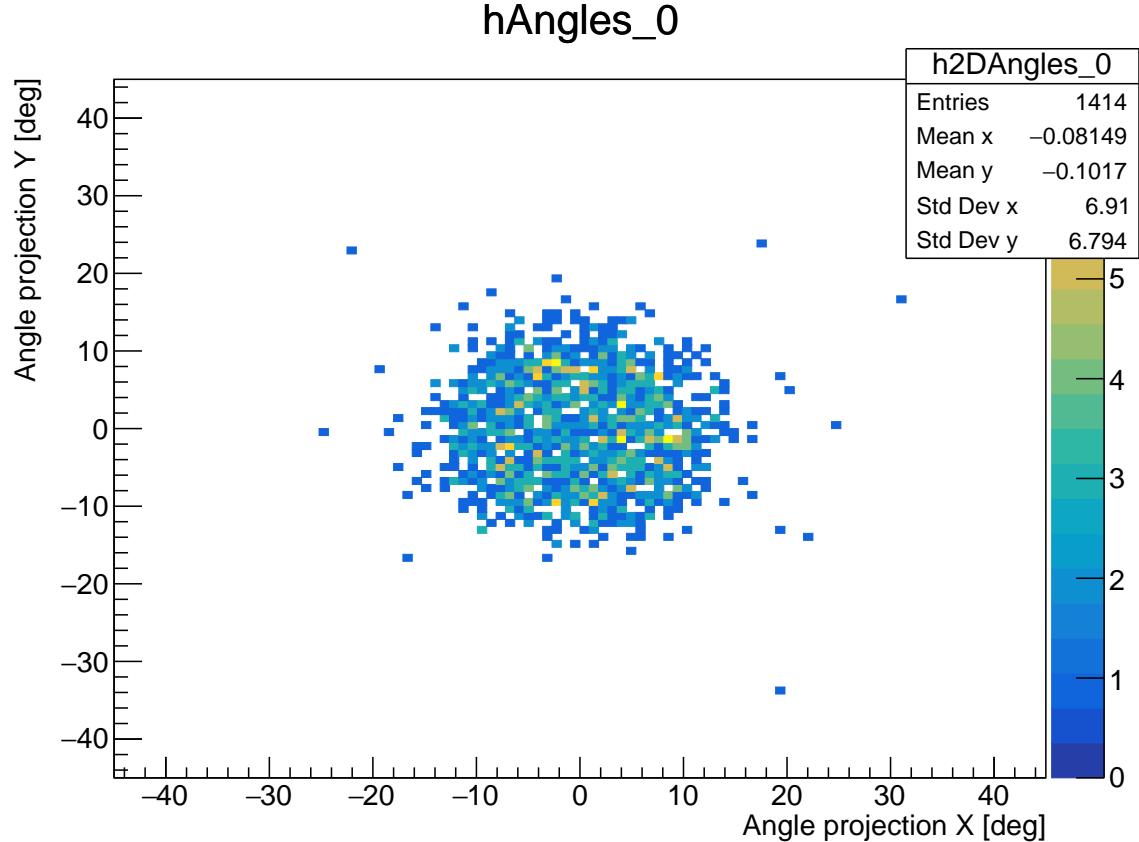


Figure: Angles distribution

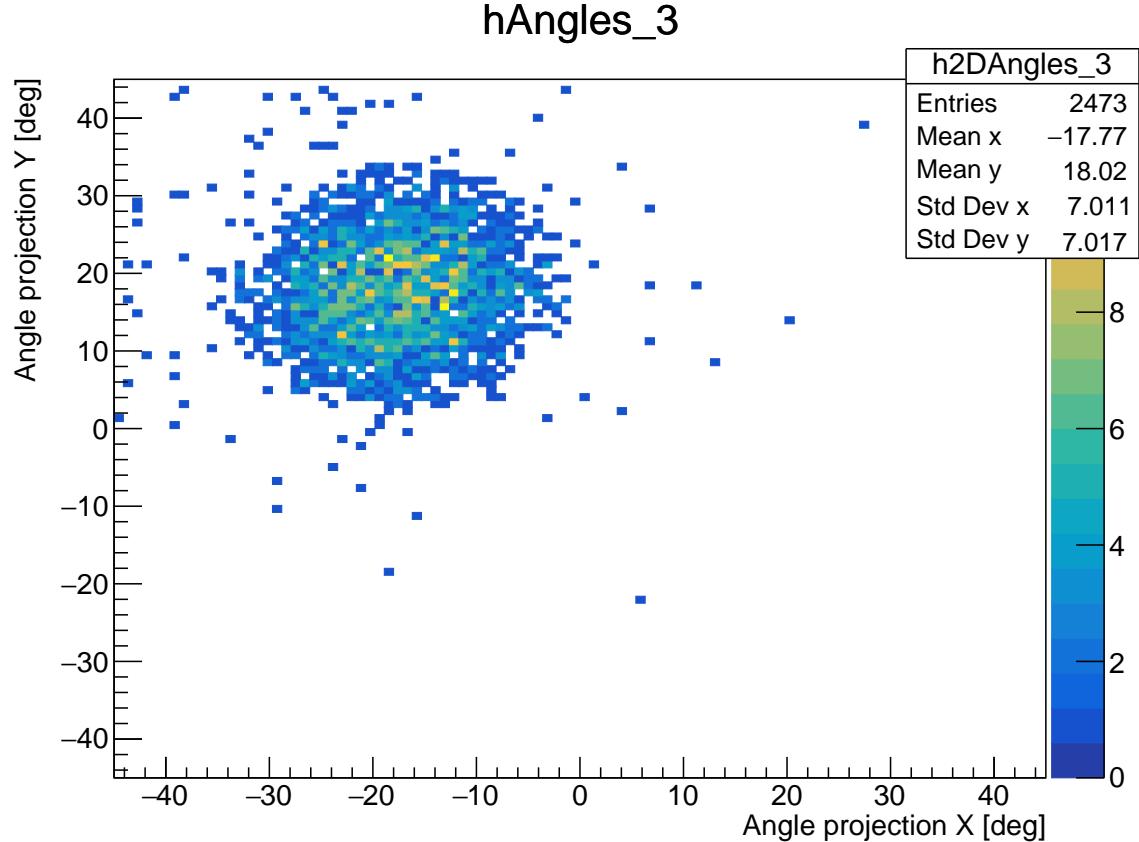


Figure: Angles distribution

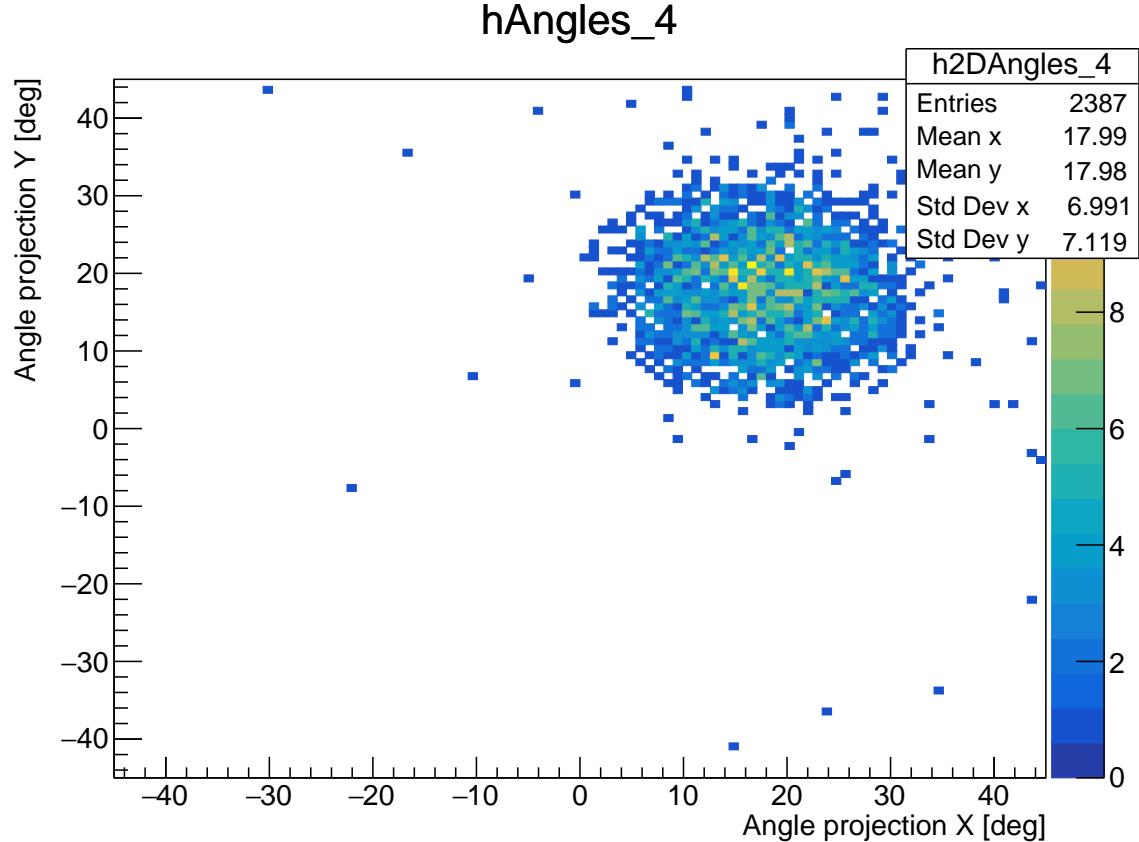


Figure: Angles distribution

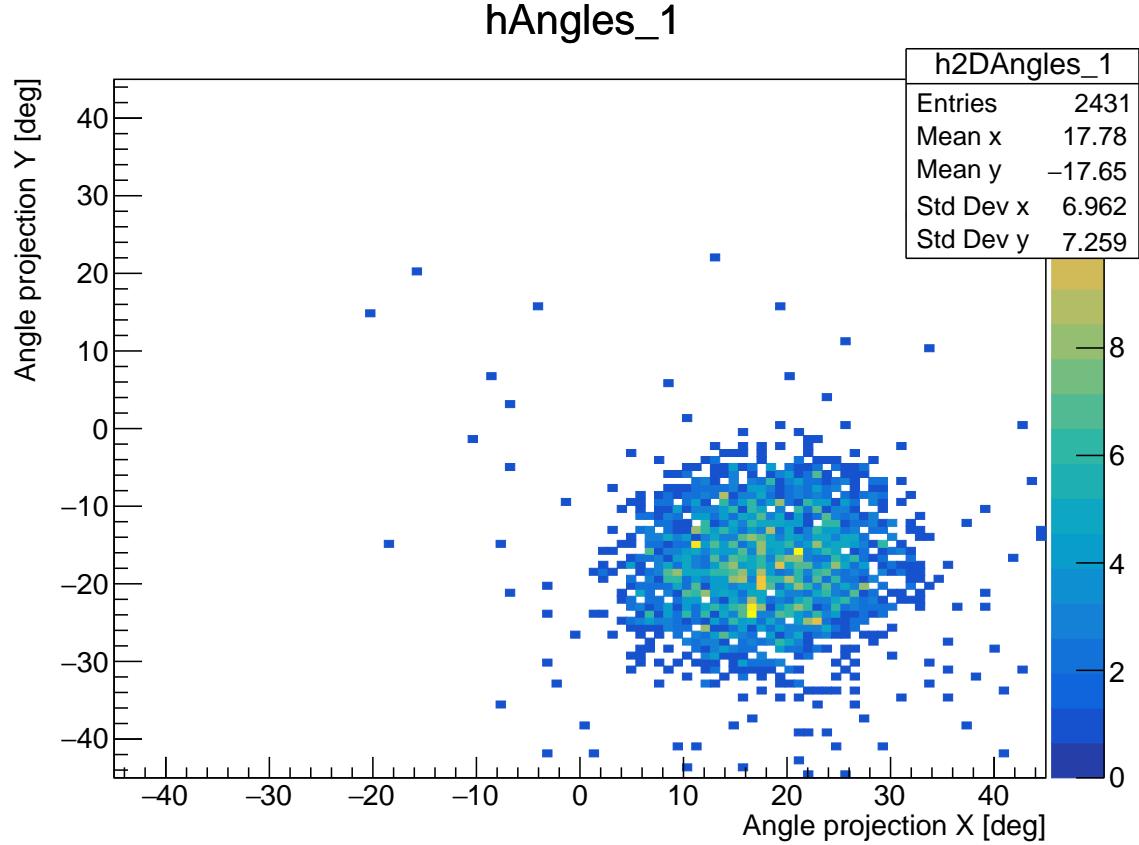


Figure: Angles distribution

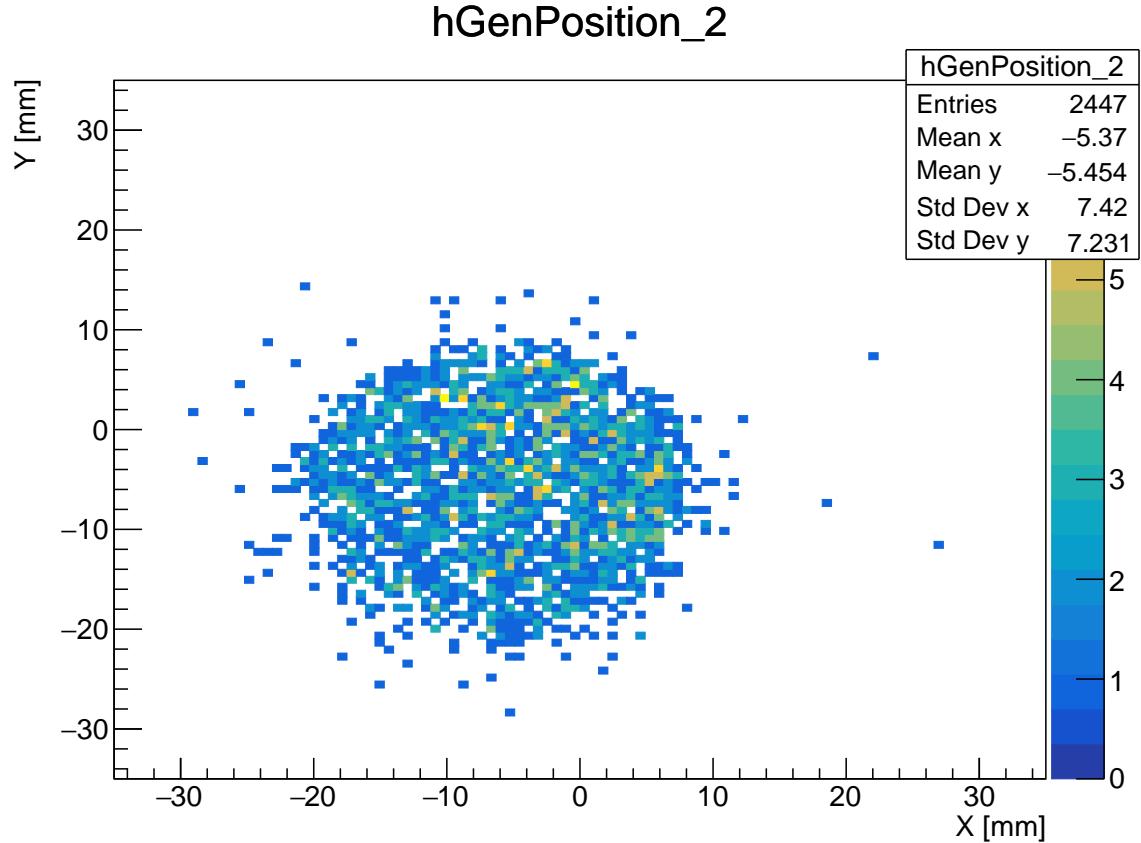


Figure: Generation Position

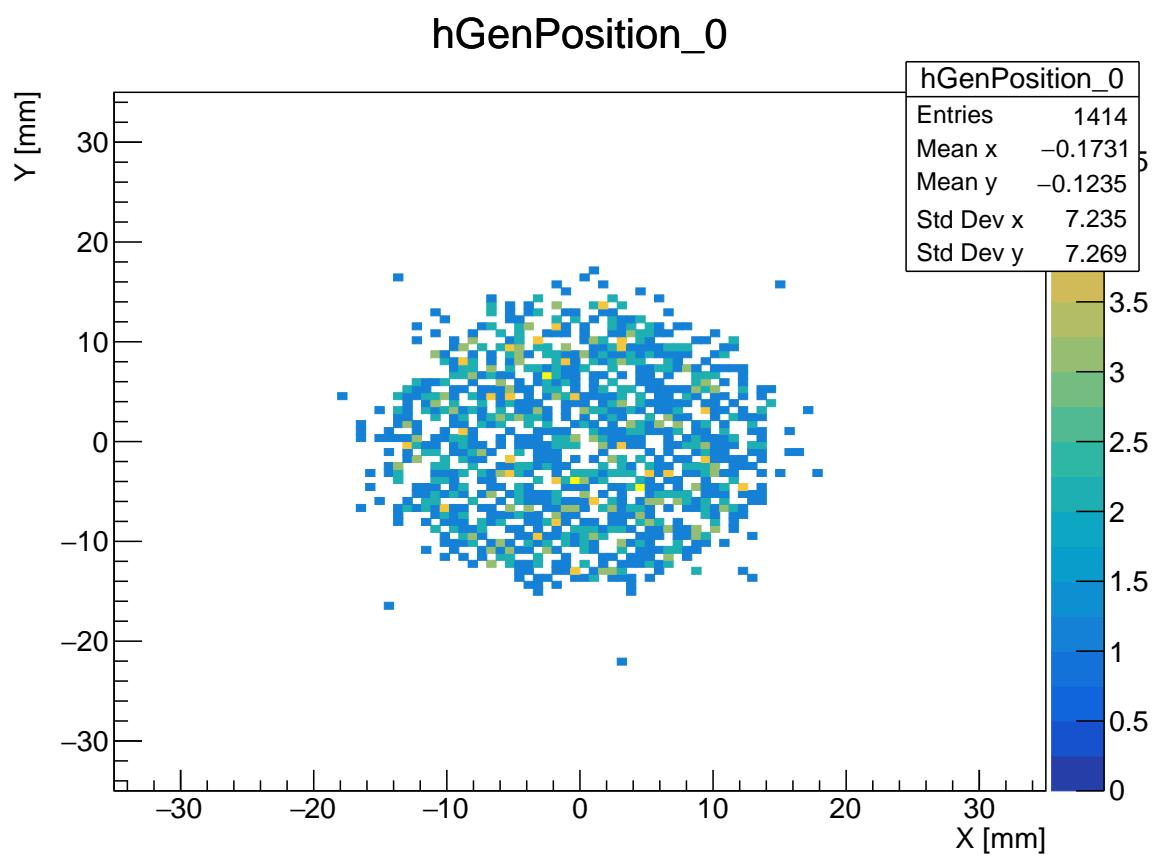


Figure: Generation Position

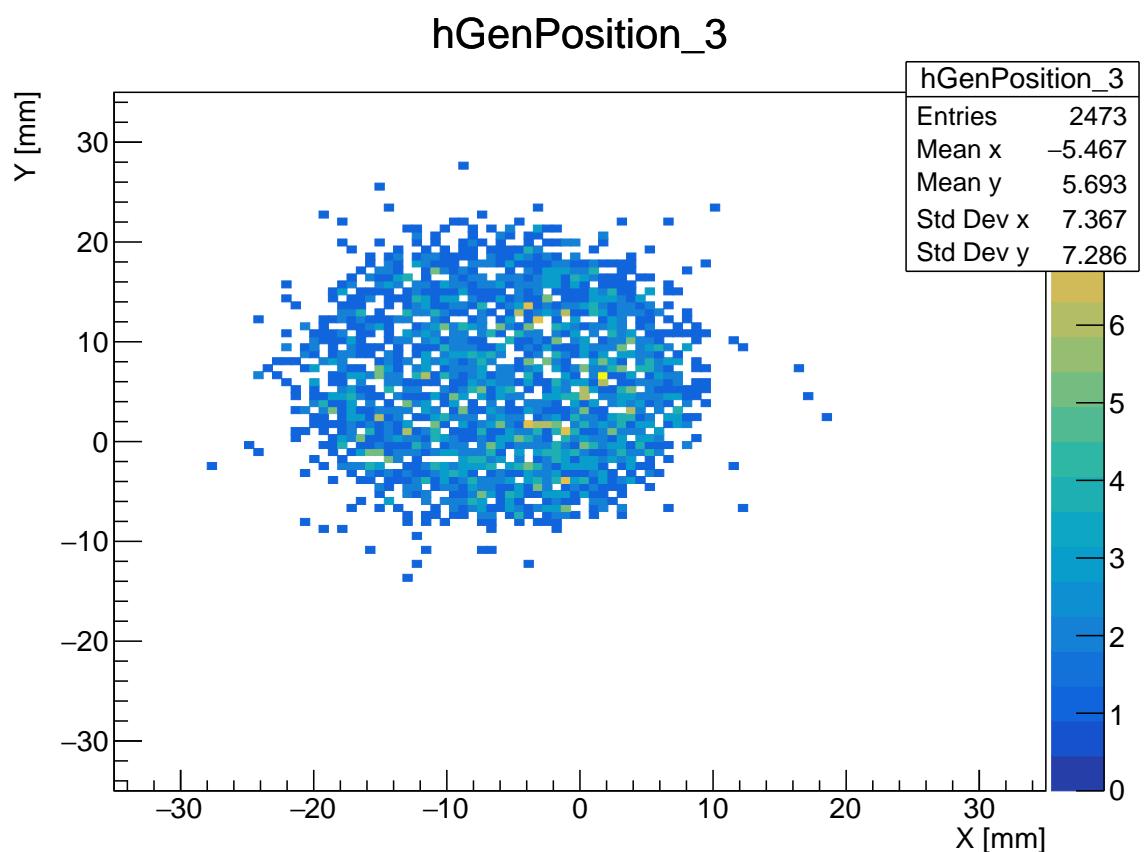


Figure: Generation Position

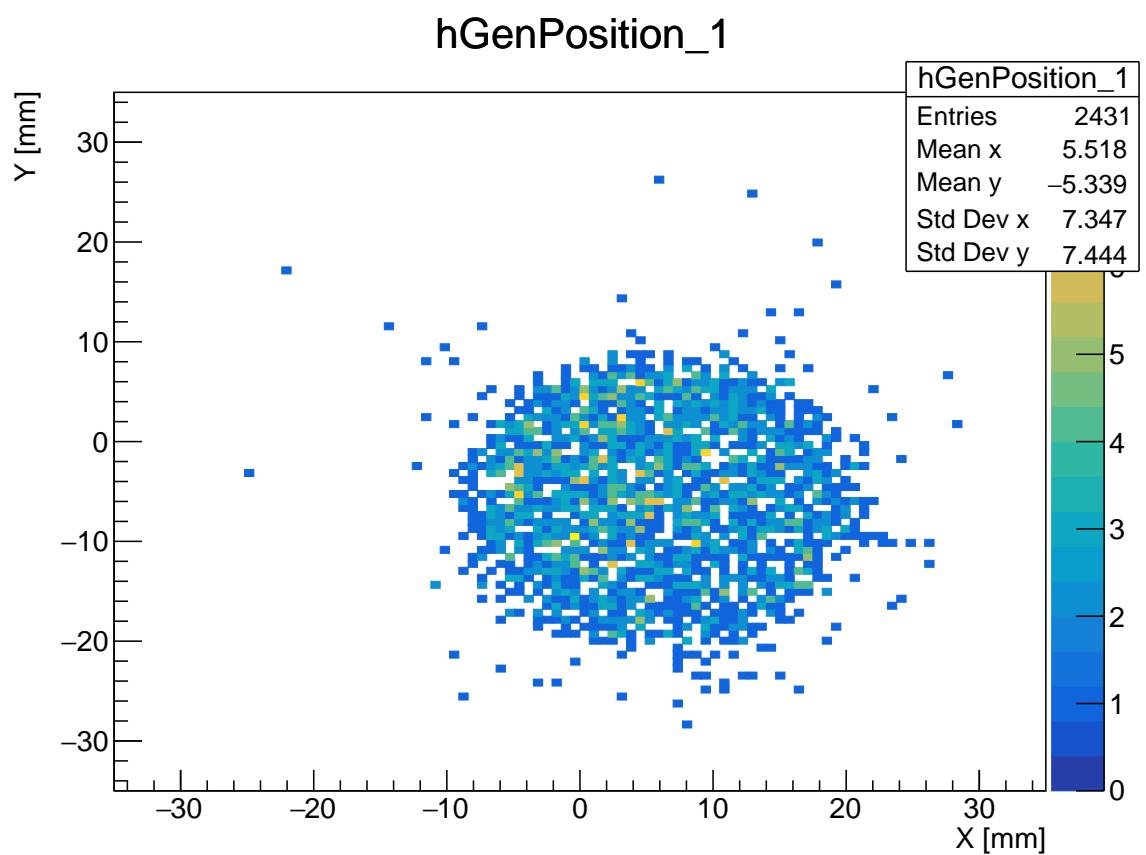


Figure: Generation Position

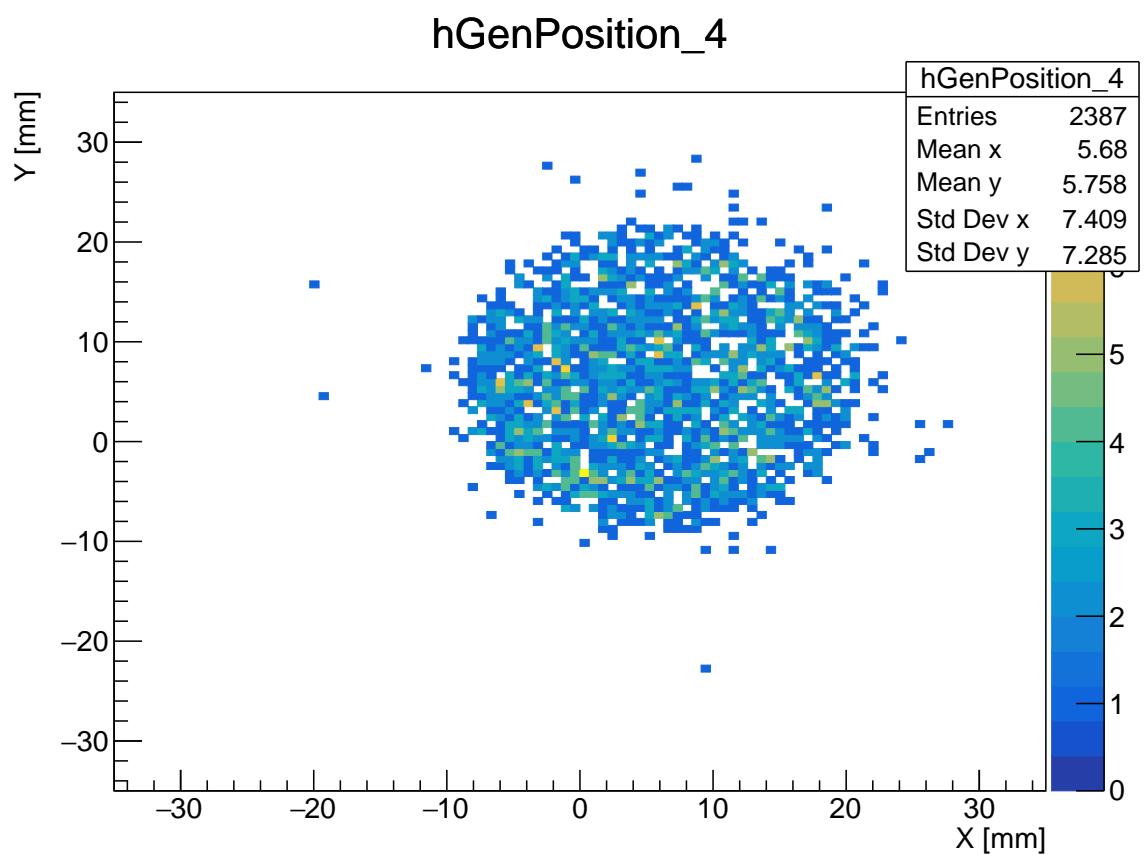


Figure: Generation Position

MC quantities for proton_t0

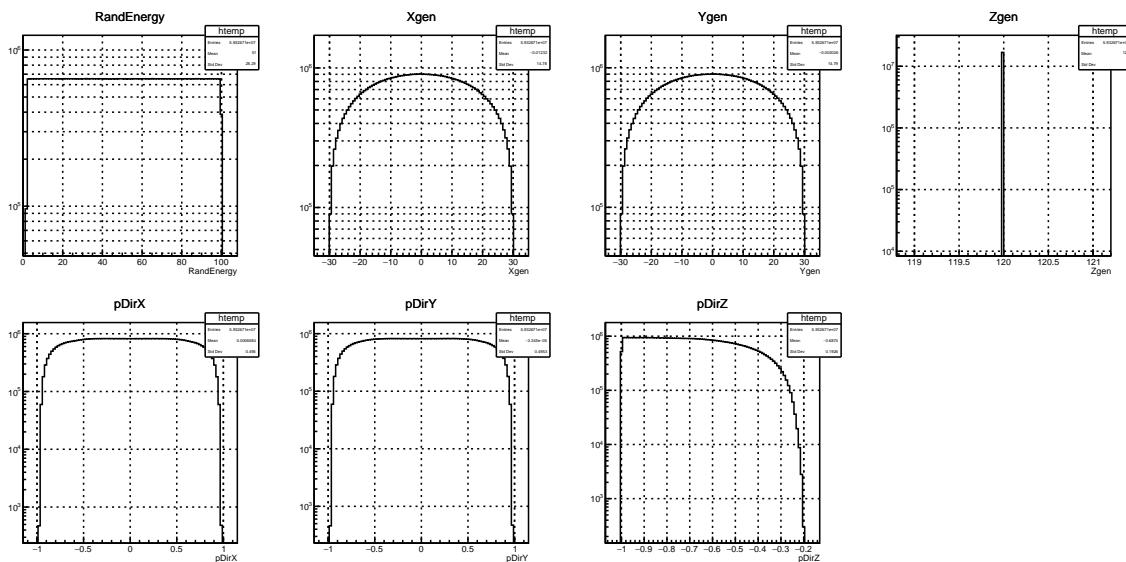


Figure: MC quantities

Energies distribution for proton

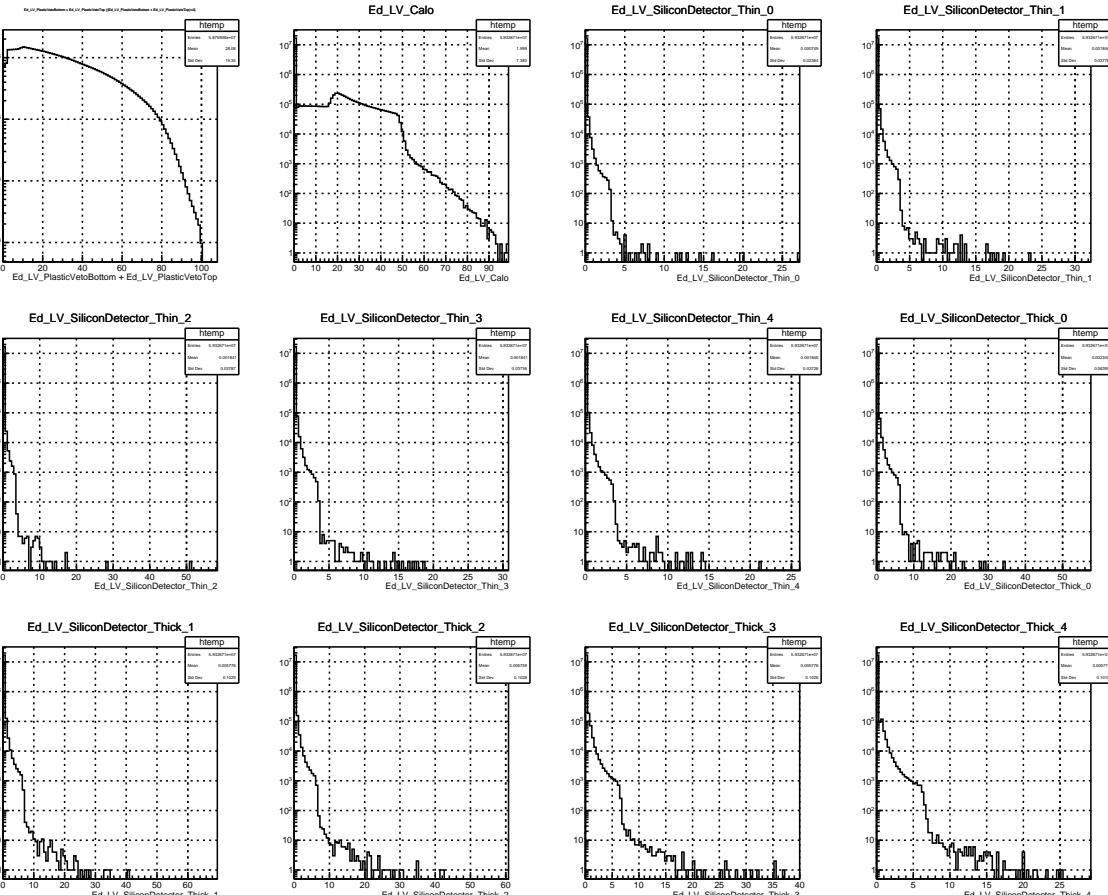


Figure: Detected energies

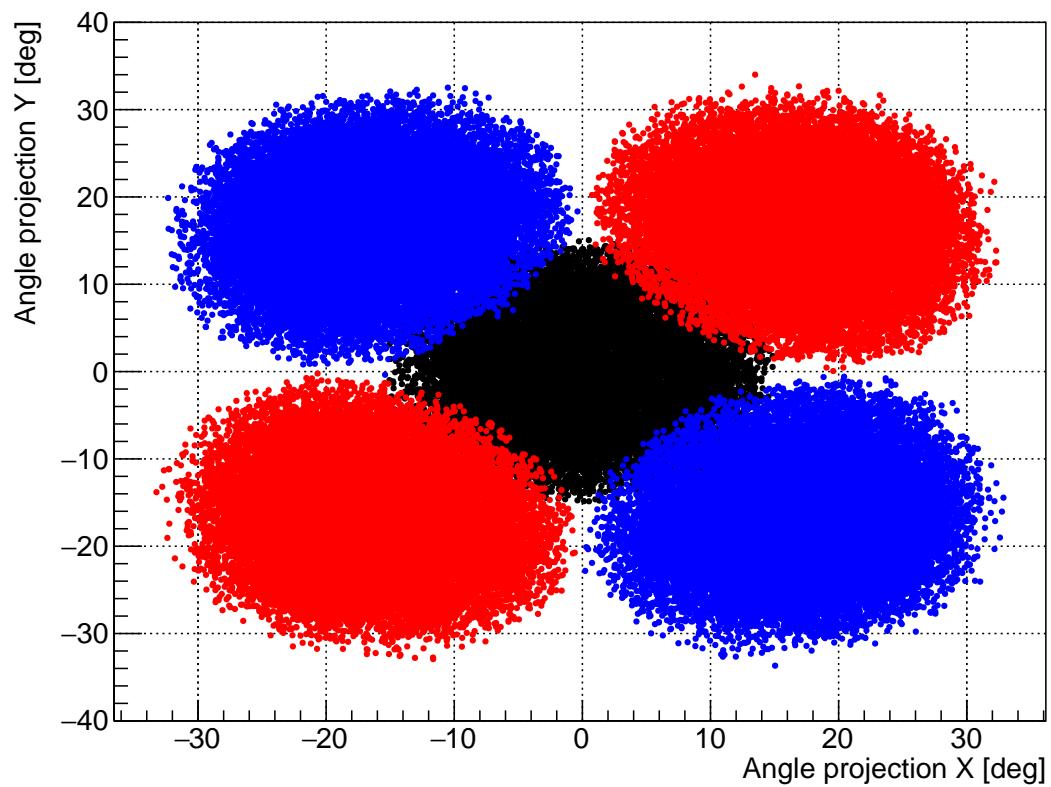


Figure: Angles distribution

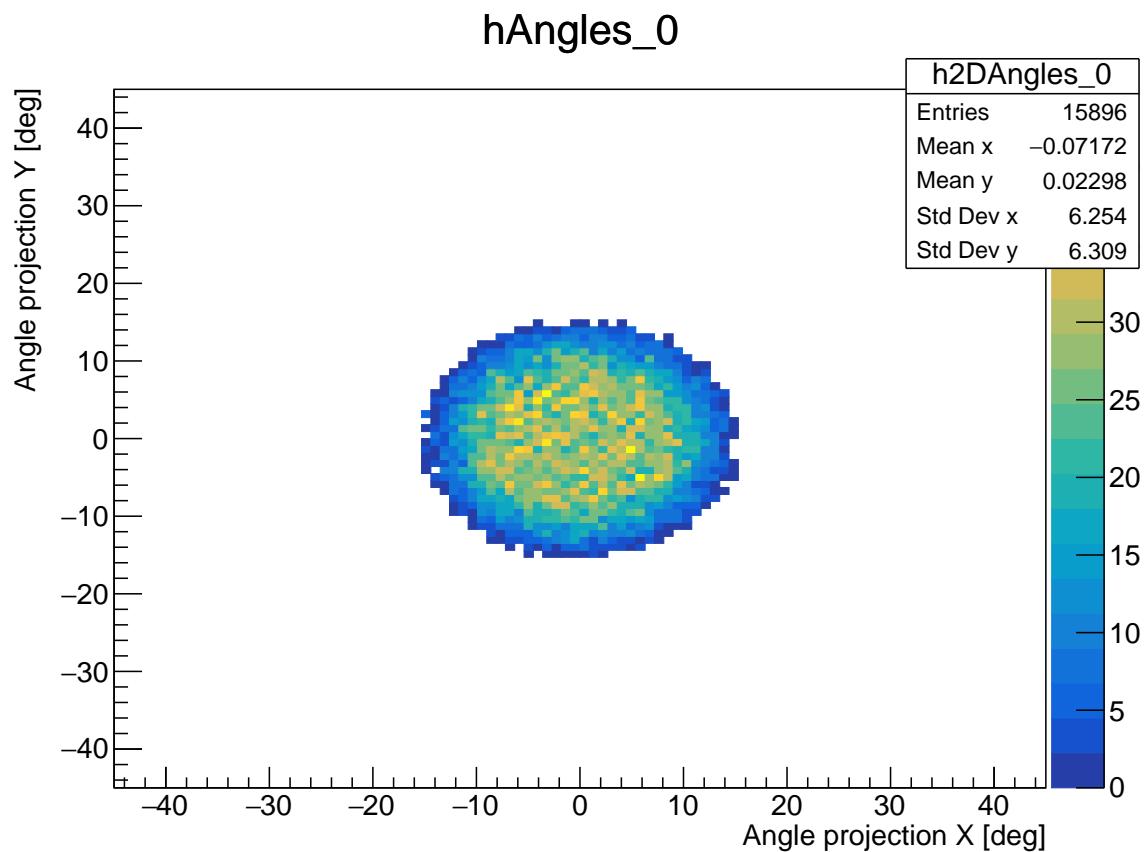


Figure: Angles distribution

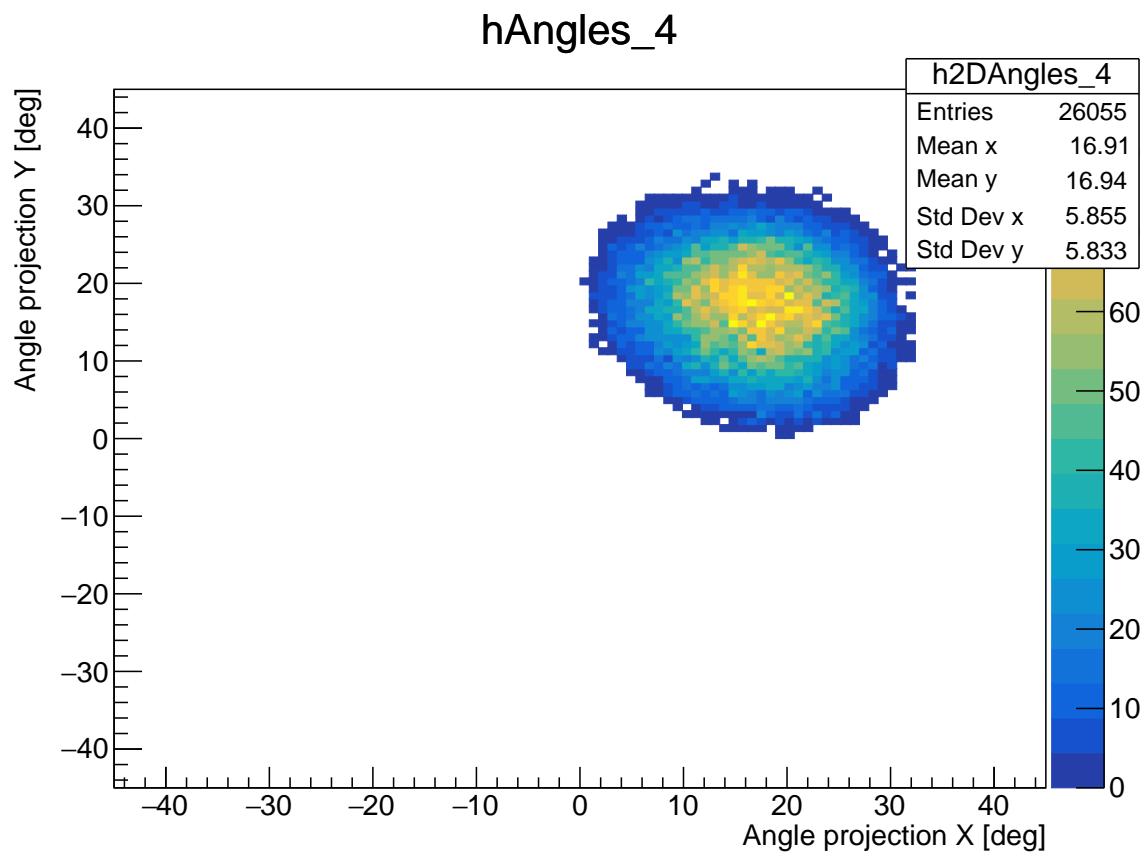


Figure: Angles distribution

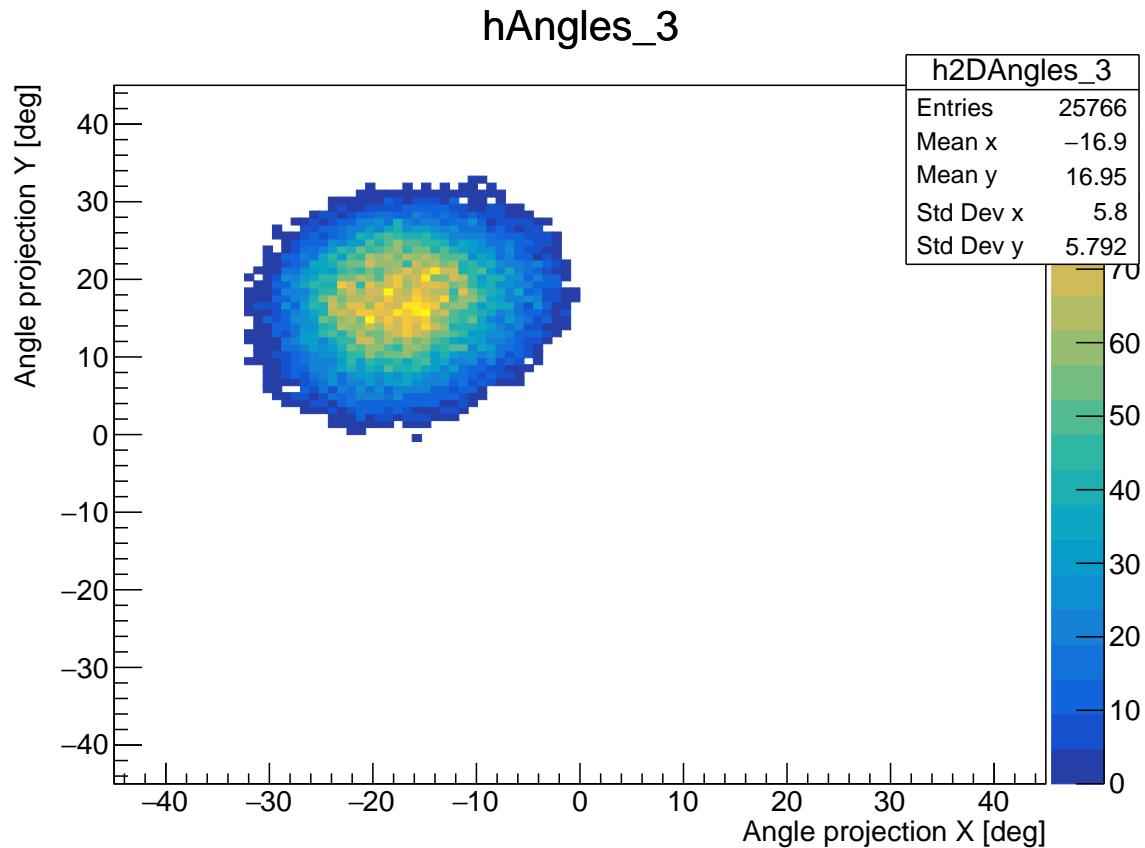


Figure: Angles distribution

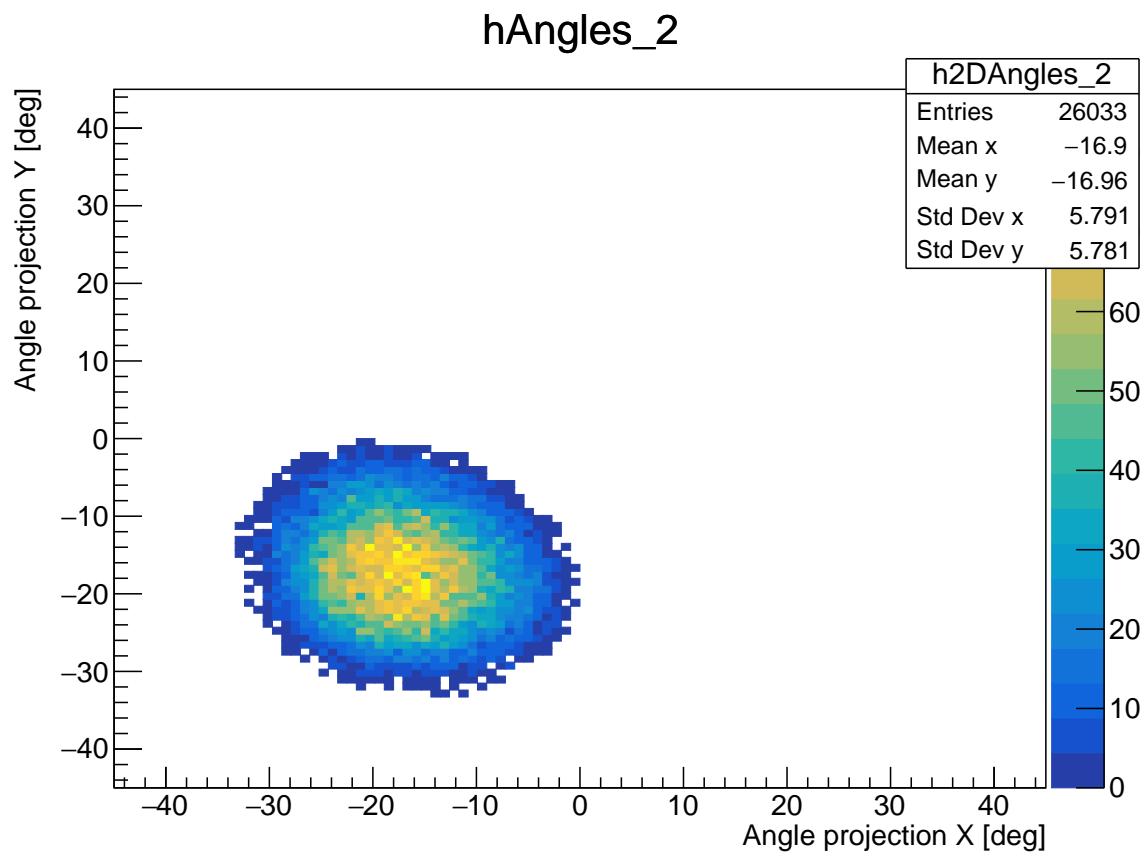


Figure: Angles distribution

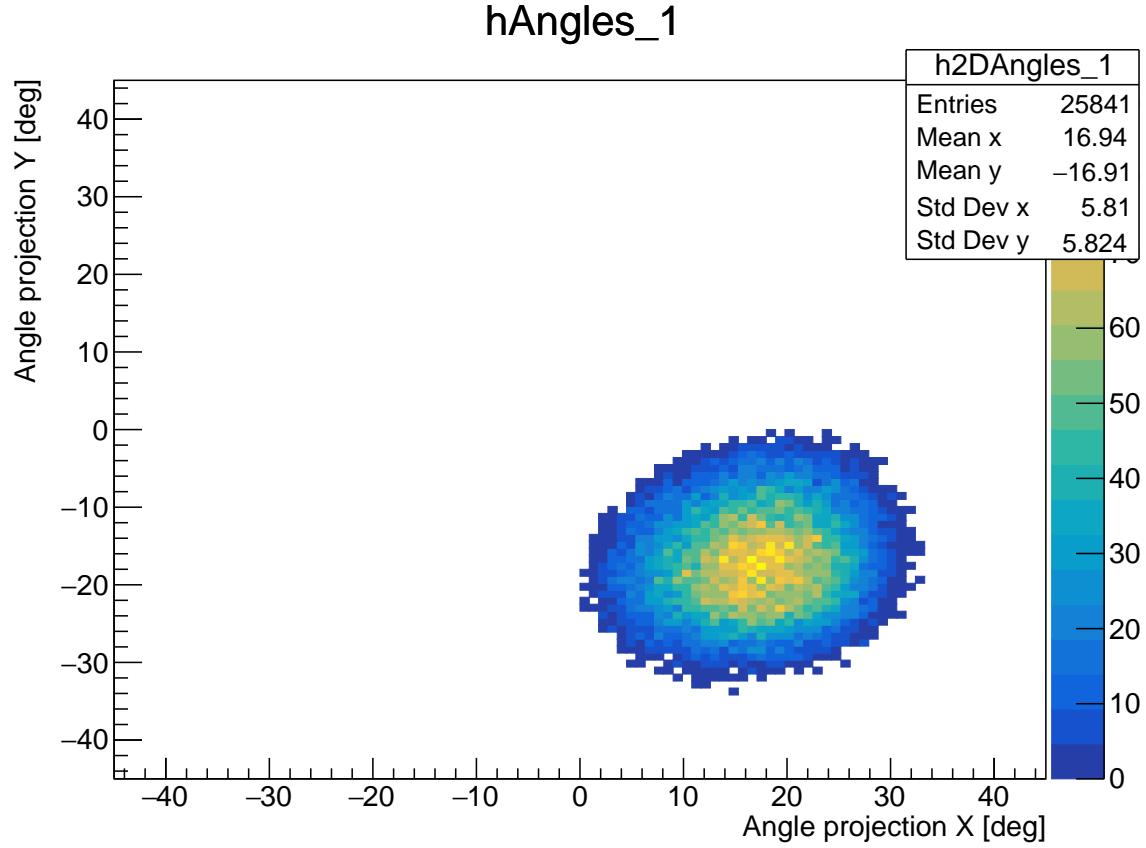


Figure: Angles distribution

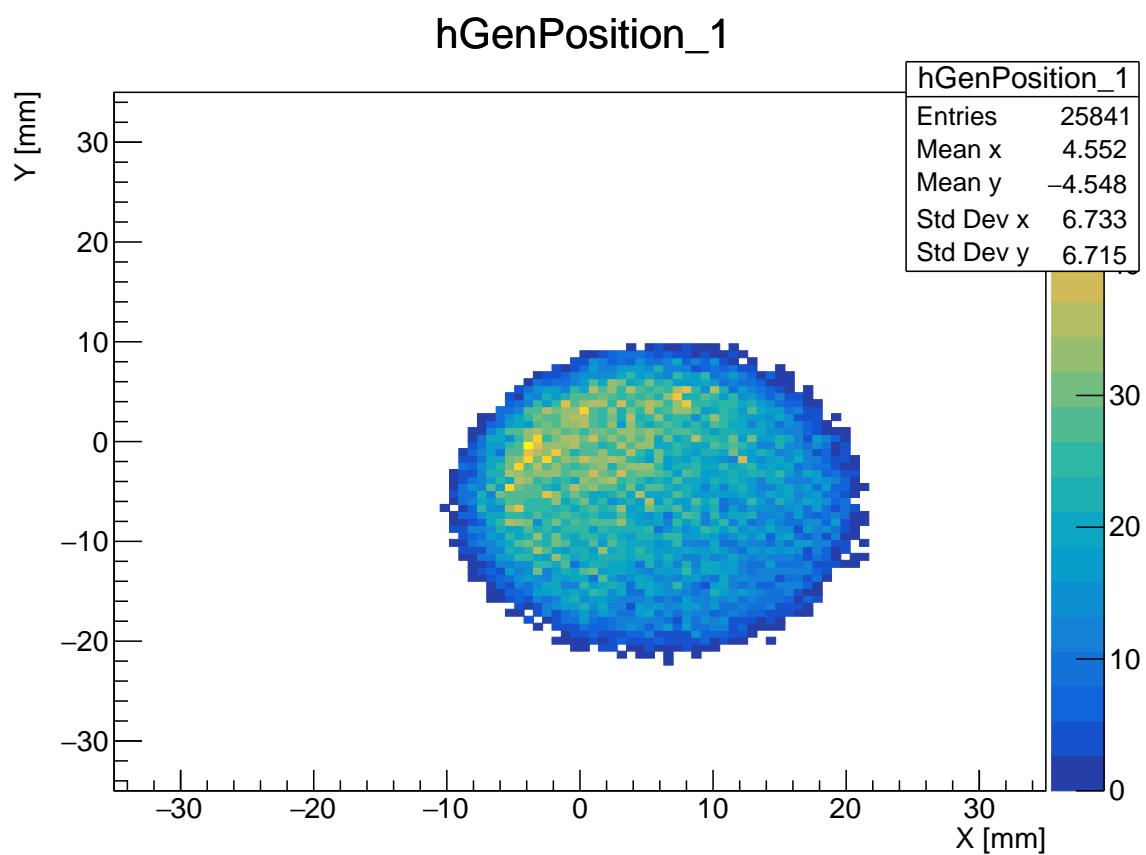


Figure: Generation Position

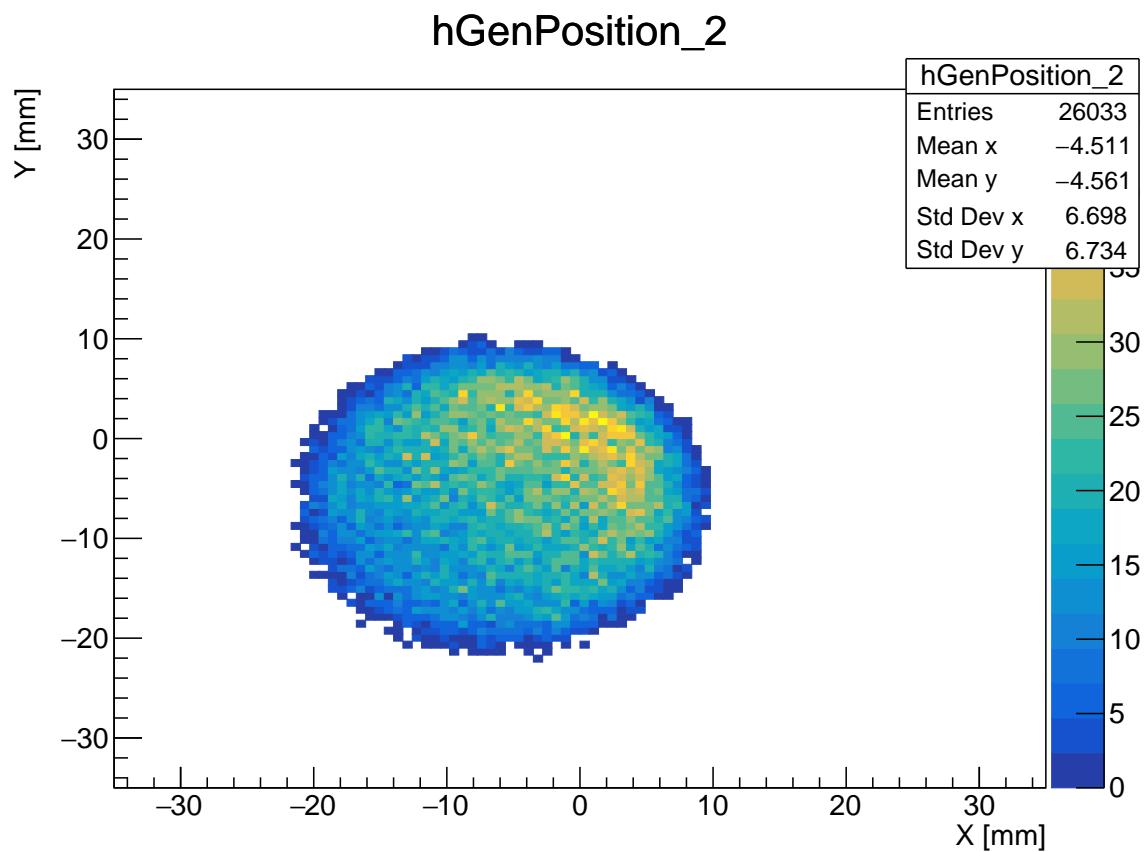


Figure: Generation Position

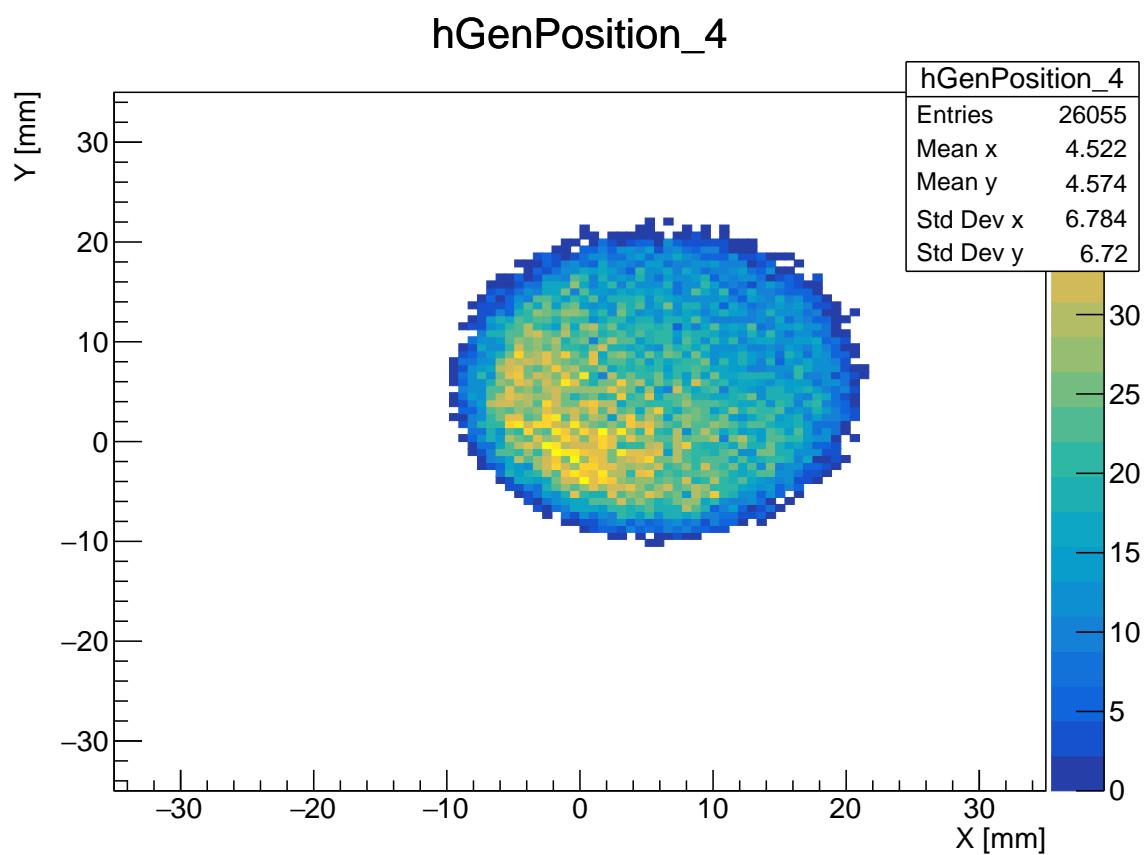


Figure: Generation Position

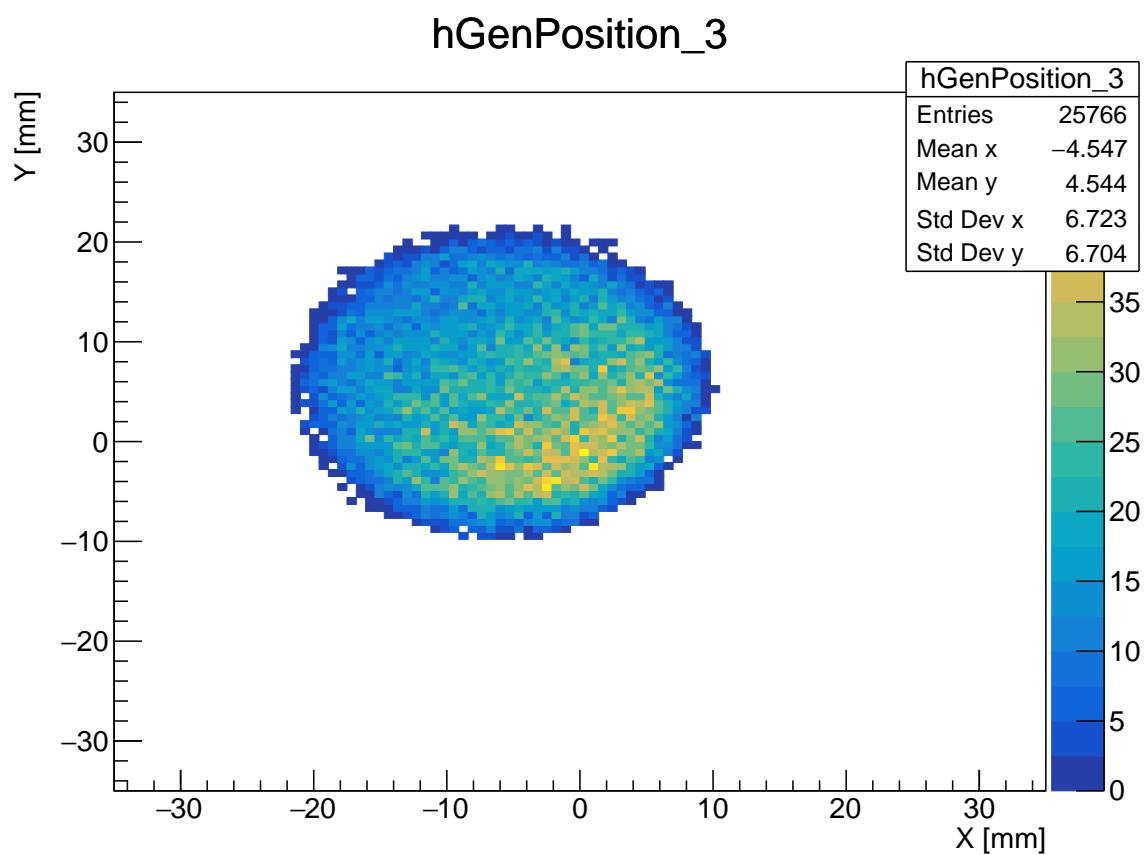


Figure: Generation Position

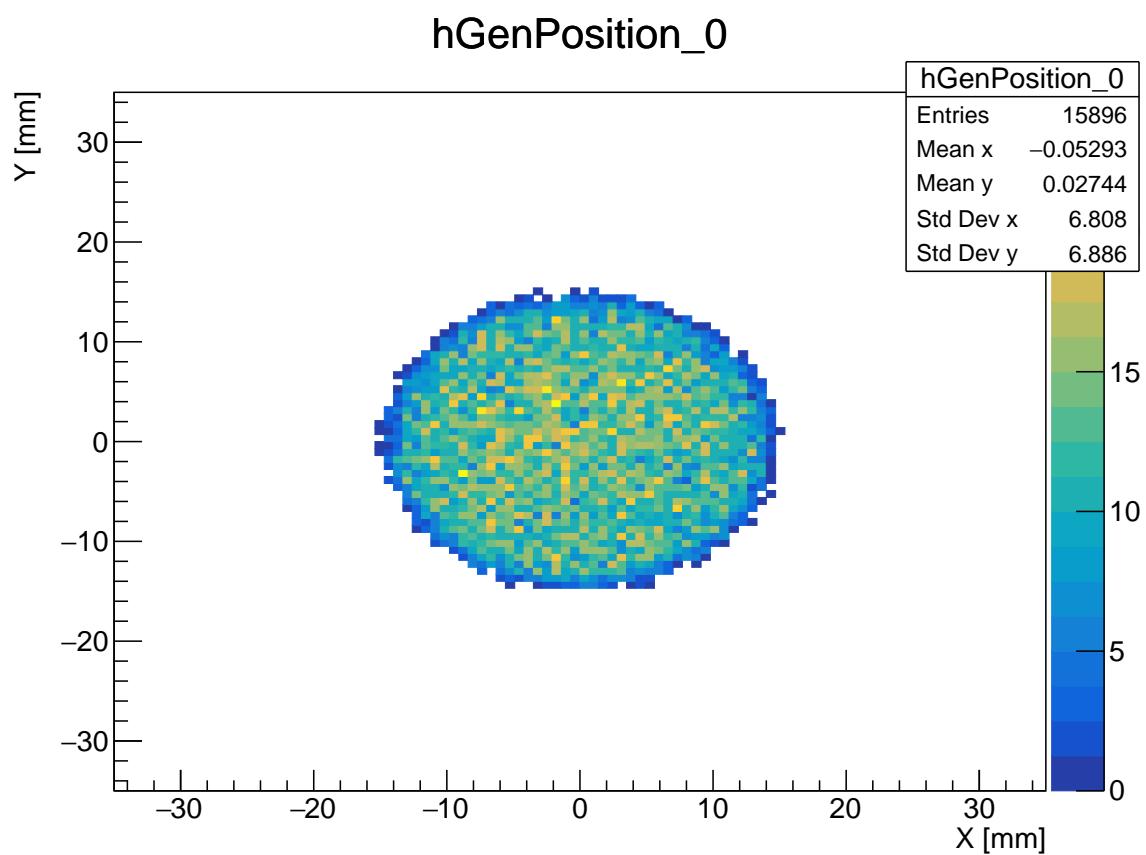


Figure: Generation Position

MC quantities for alpha_t0

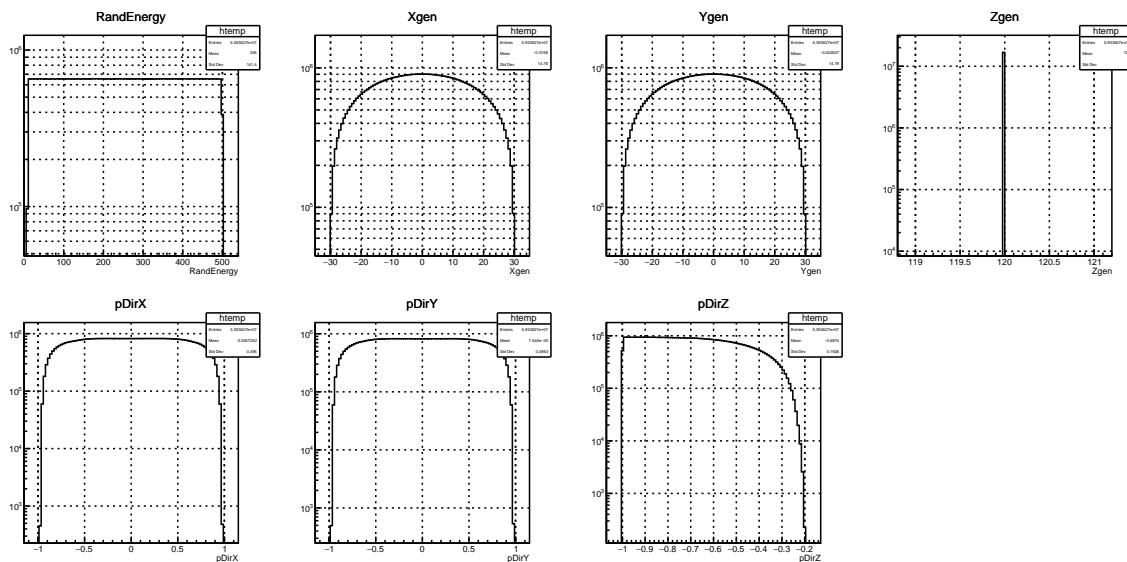


Figure: MC quantities

Energies distribution for alpha

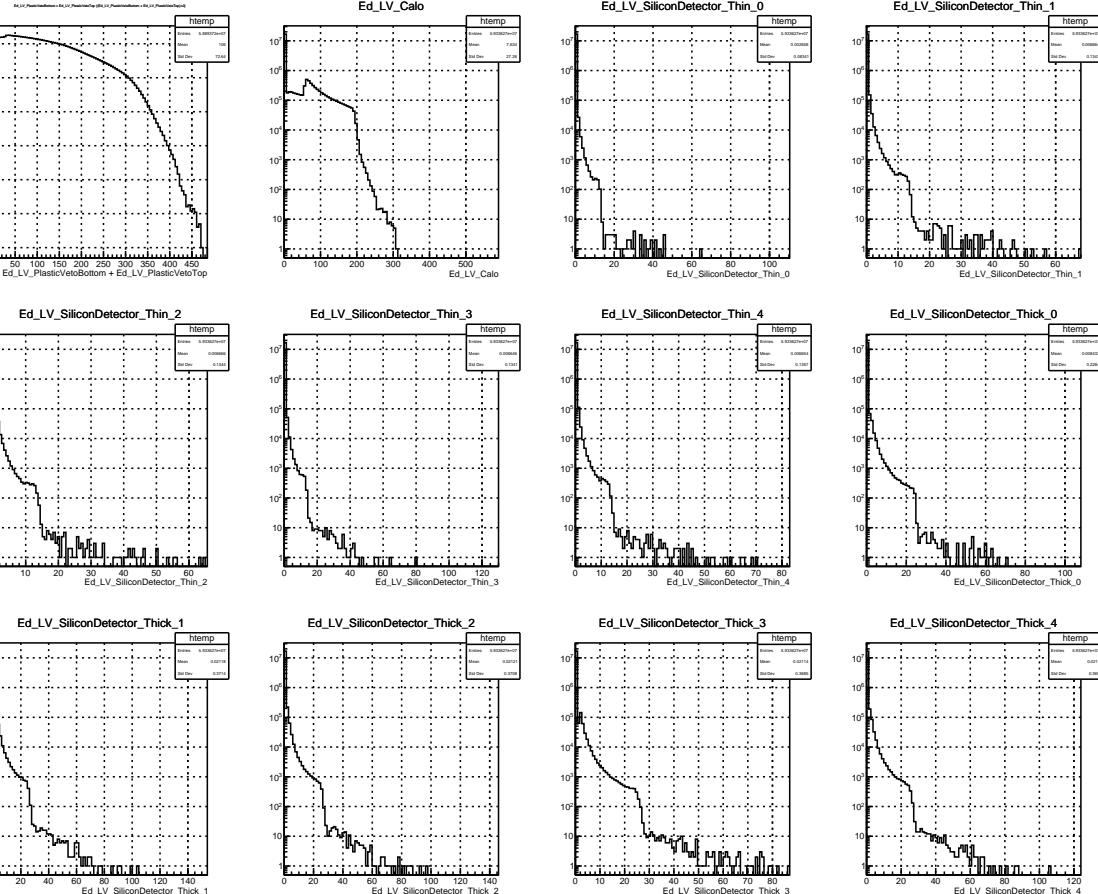


Figure: Detected energies

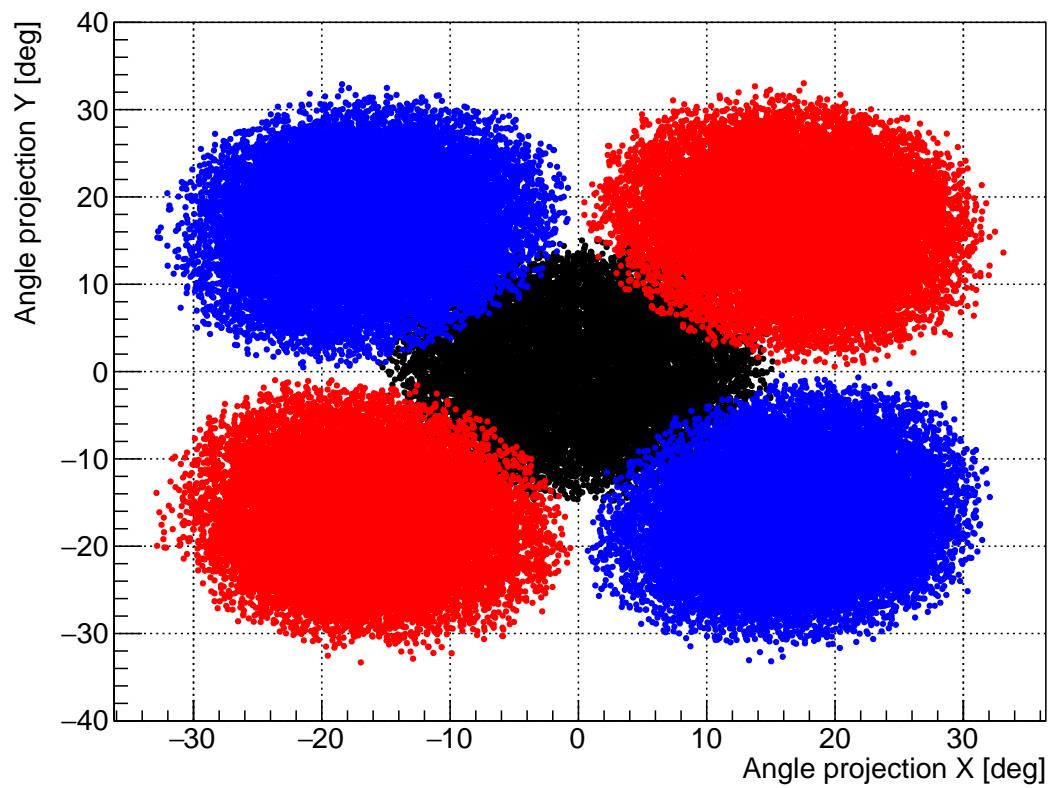


Figure: Angles distribution

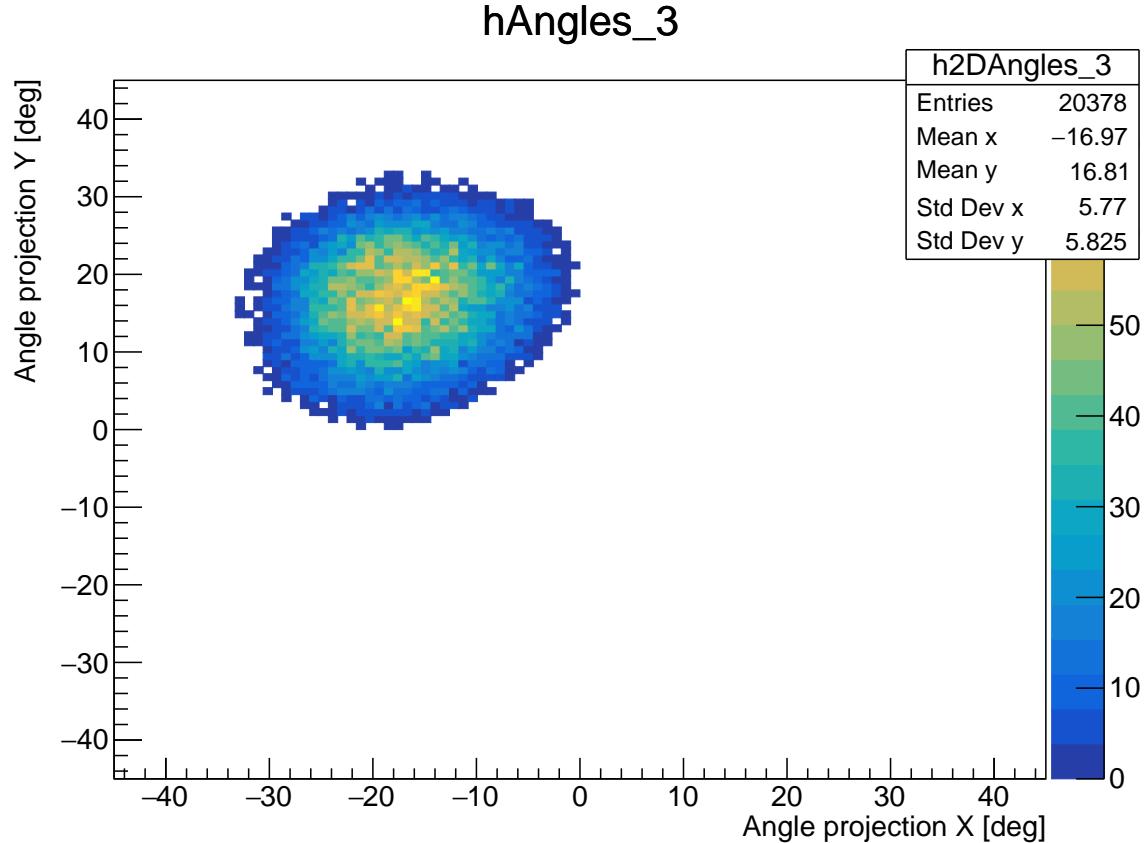


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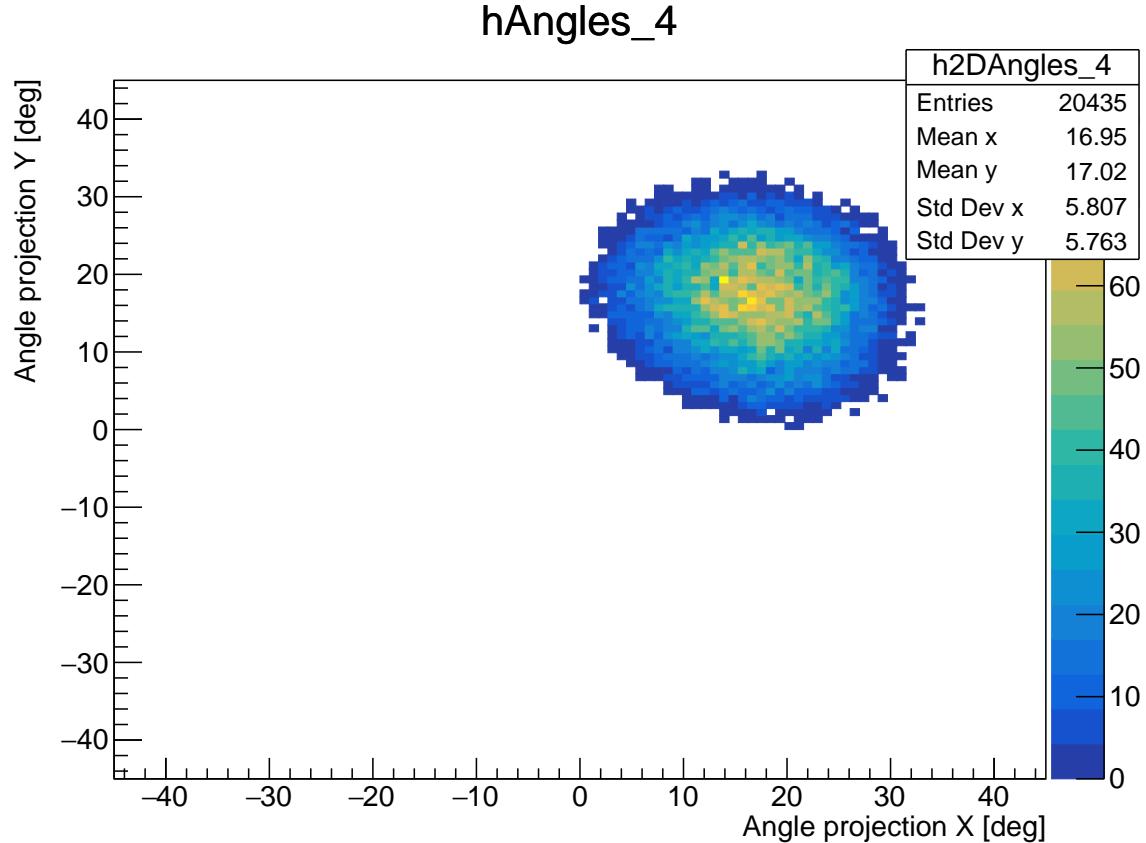


Figure: Angles distribution

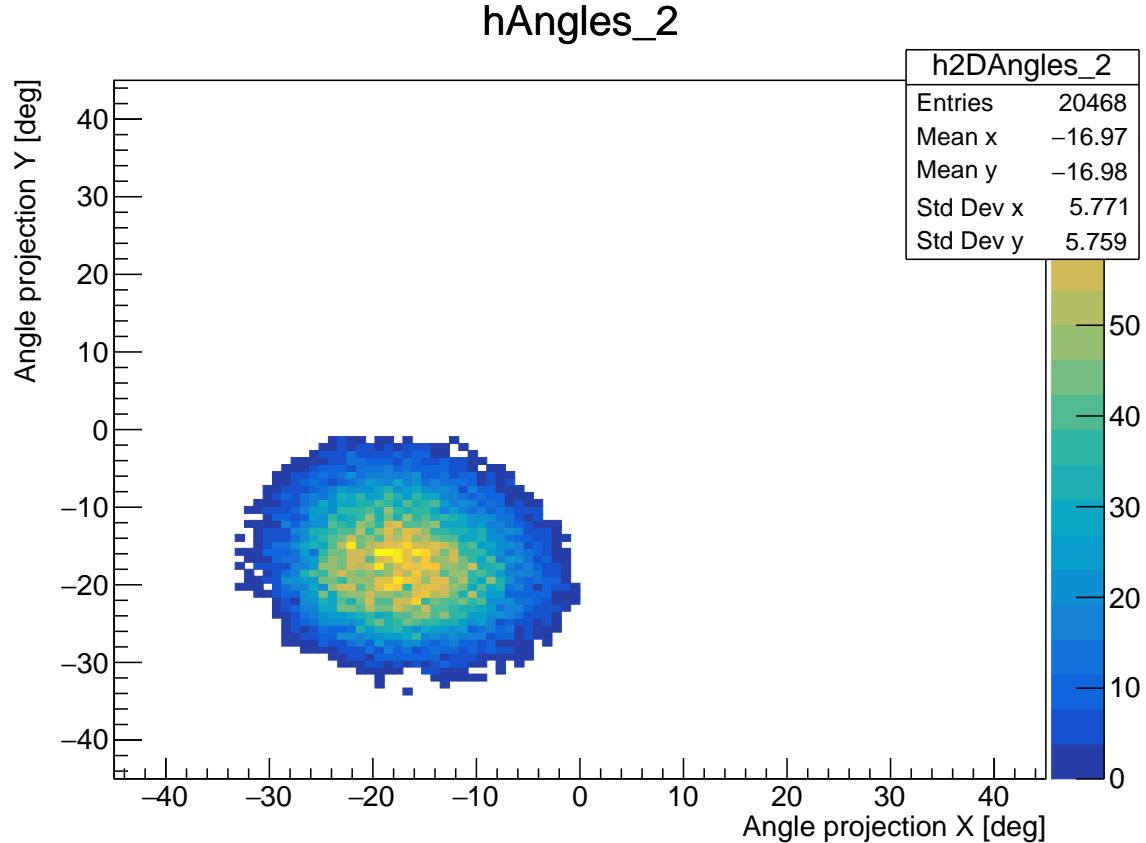


Figure: Angles distribution

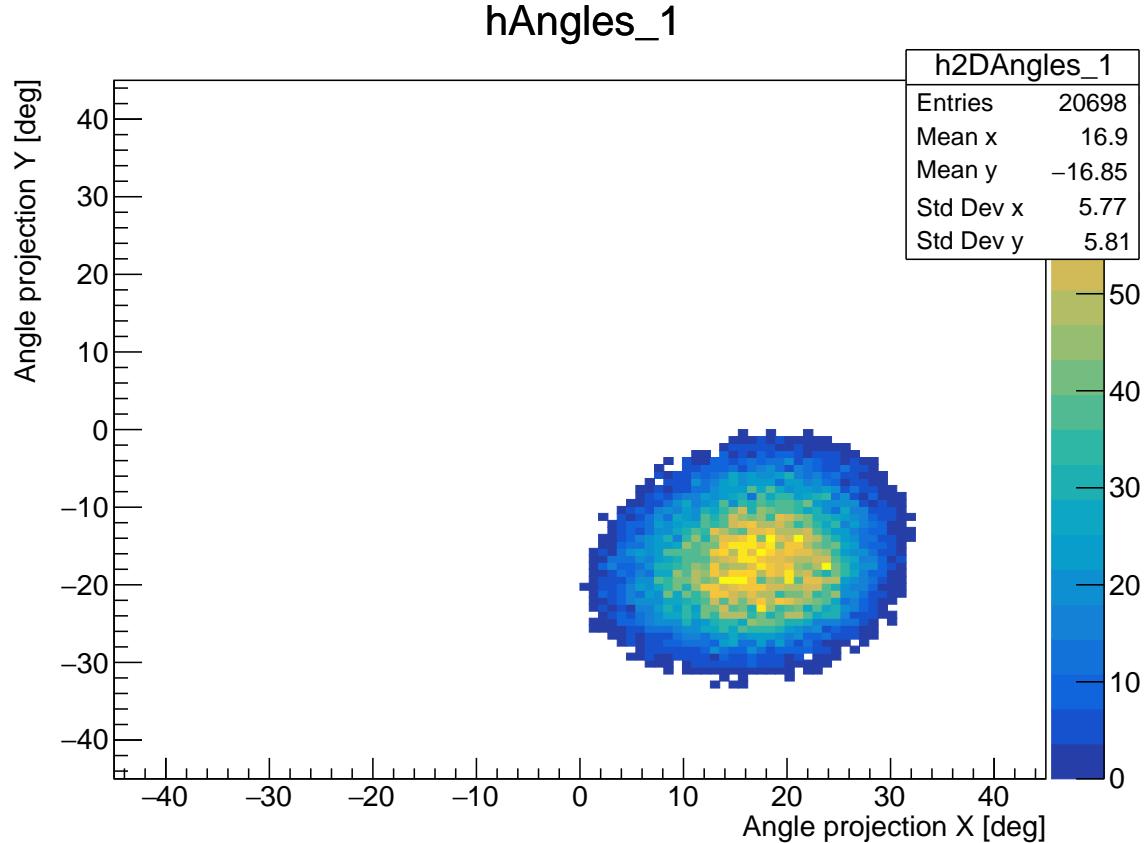


Figure: Angles distribution

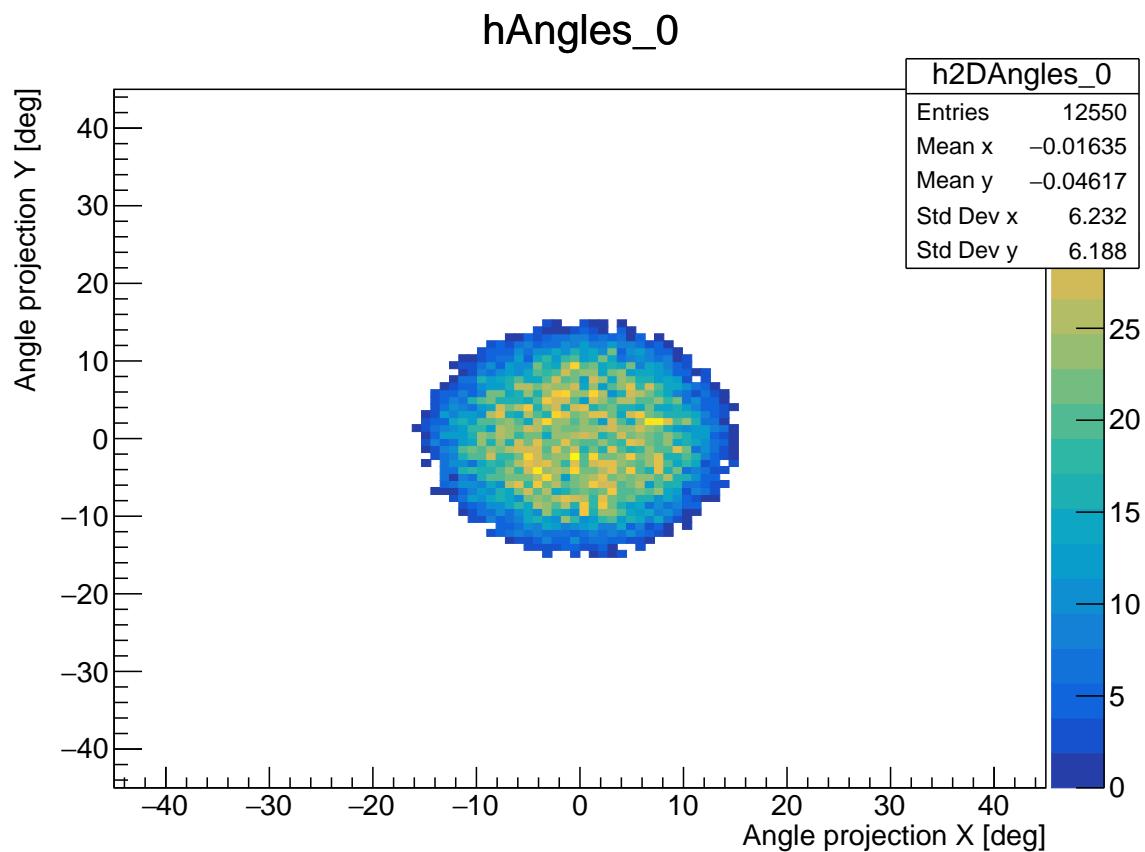


Figure: Angles distribution

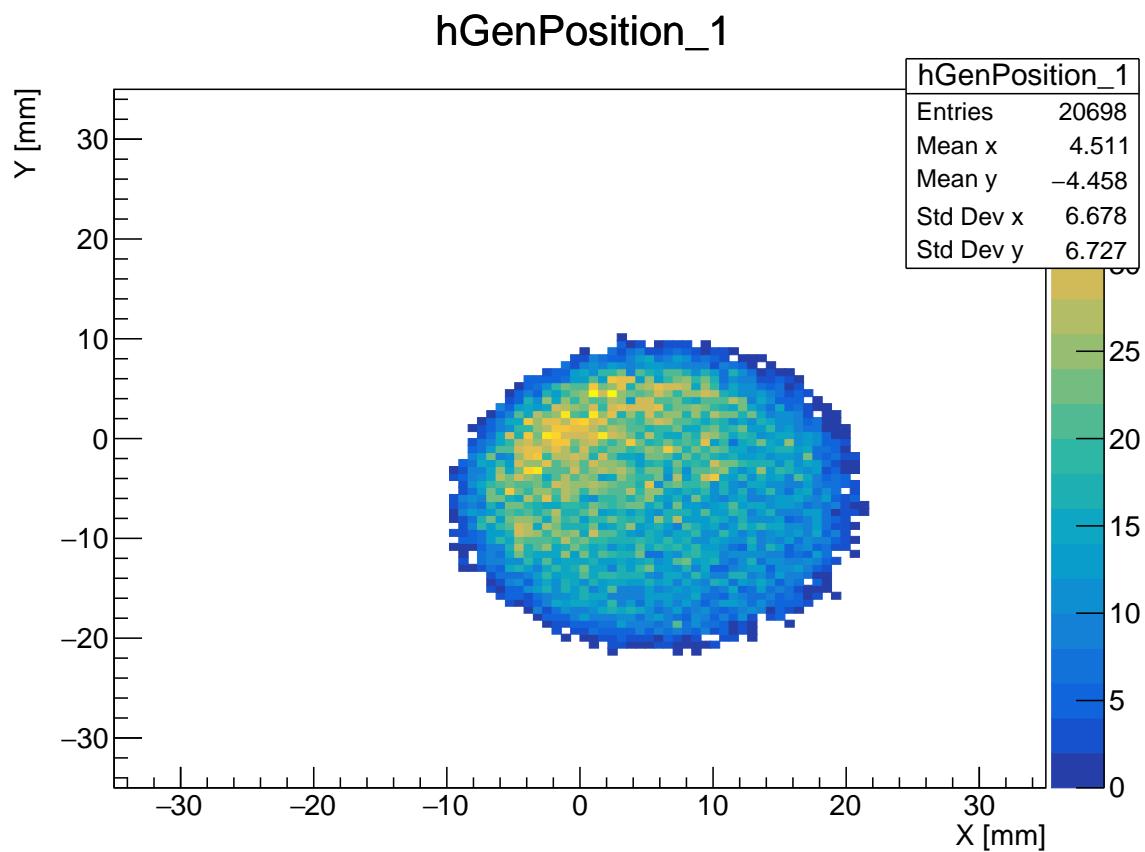


Figure: Generation Position

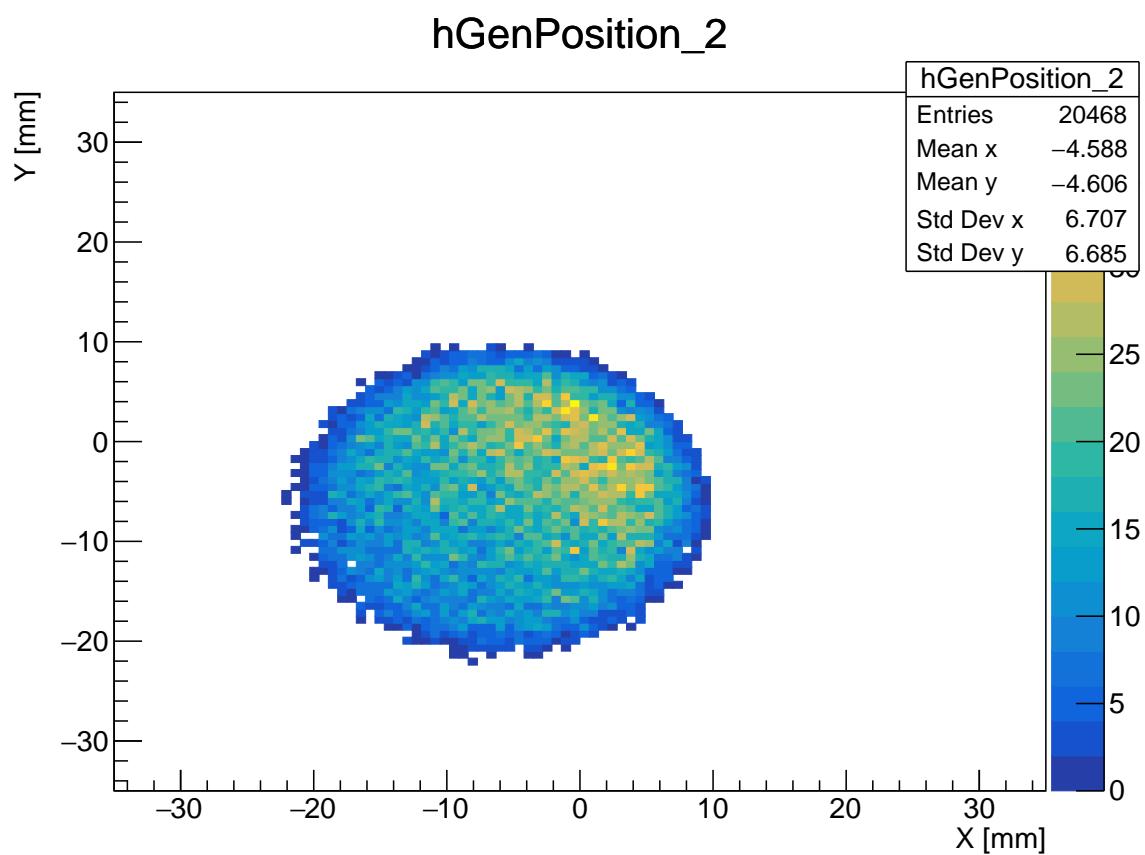


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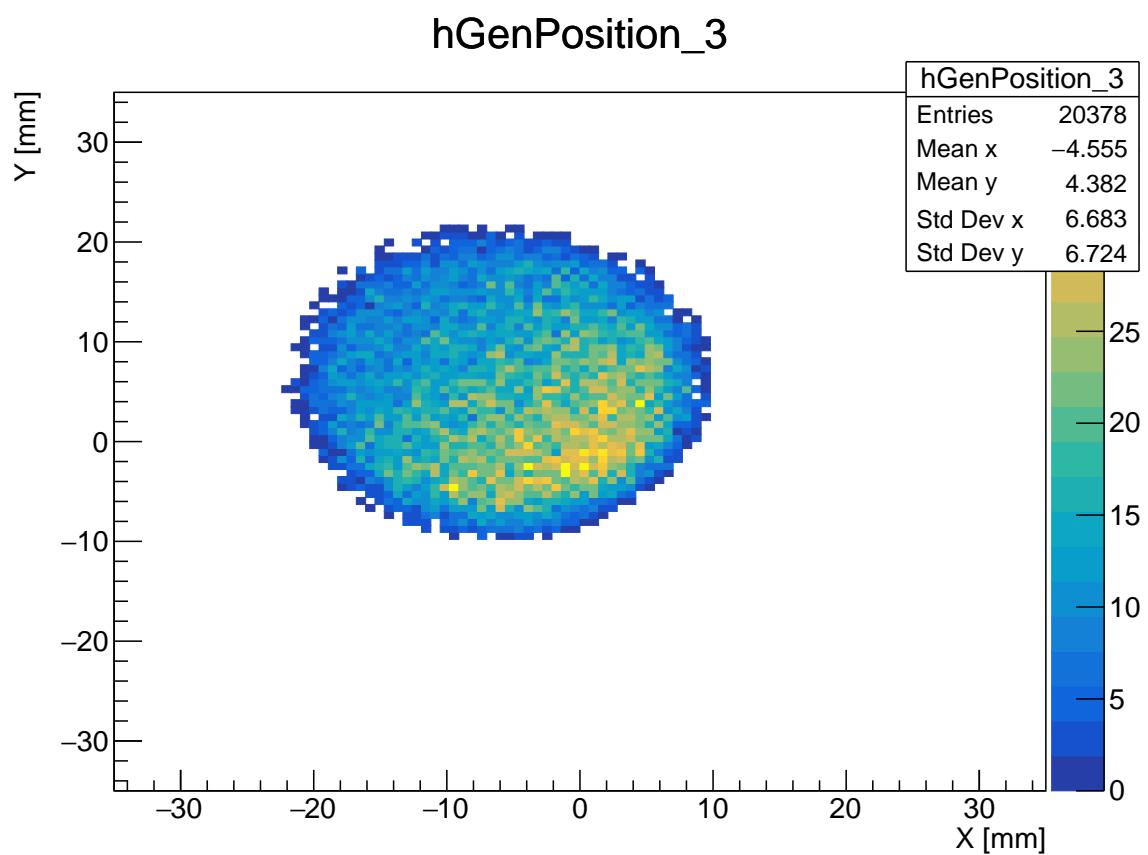


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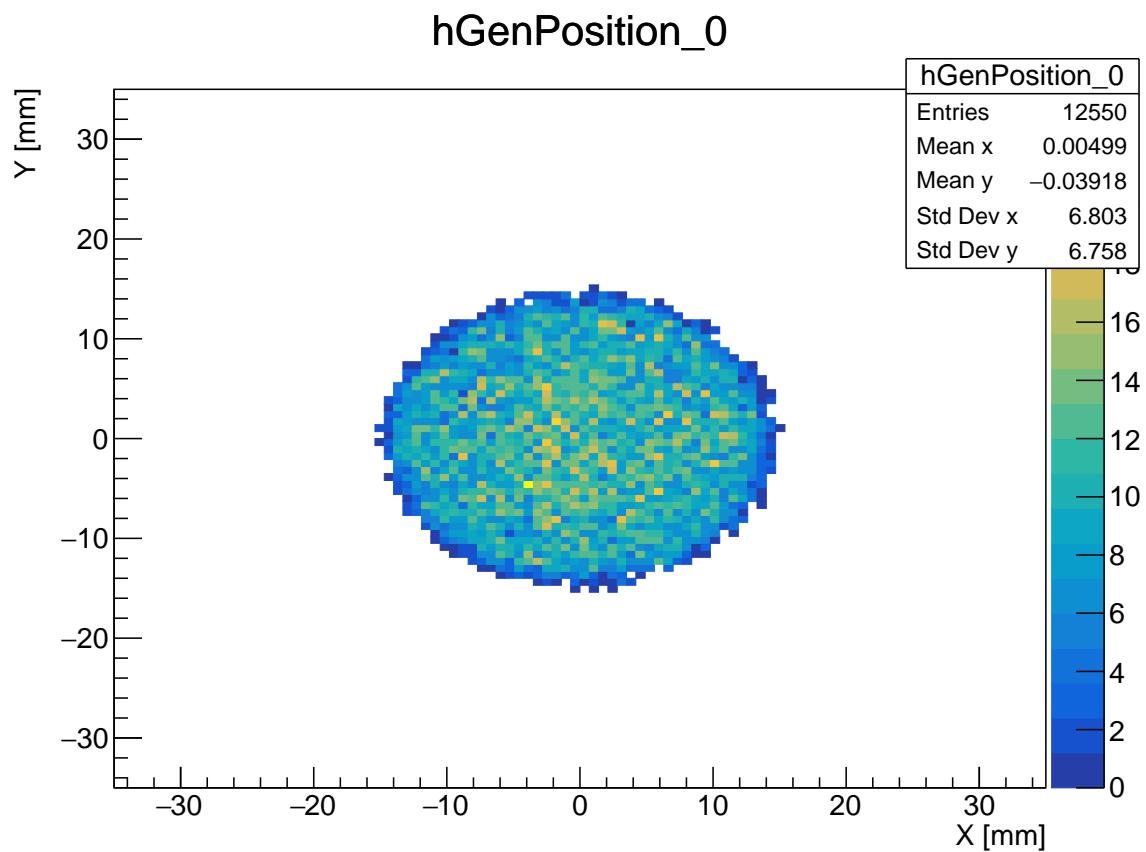


Figure: Generation Position

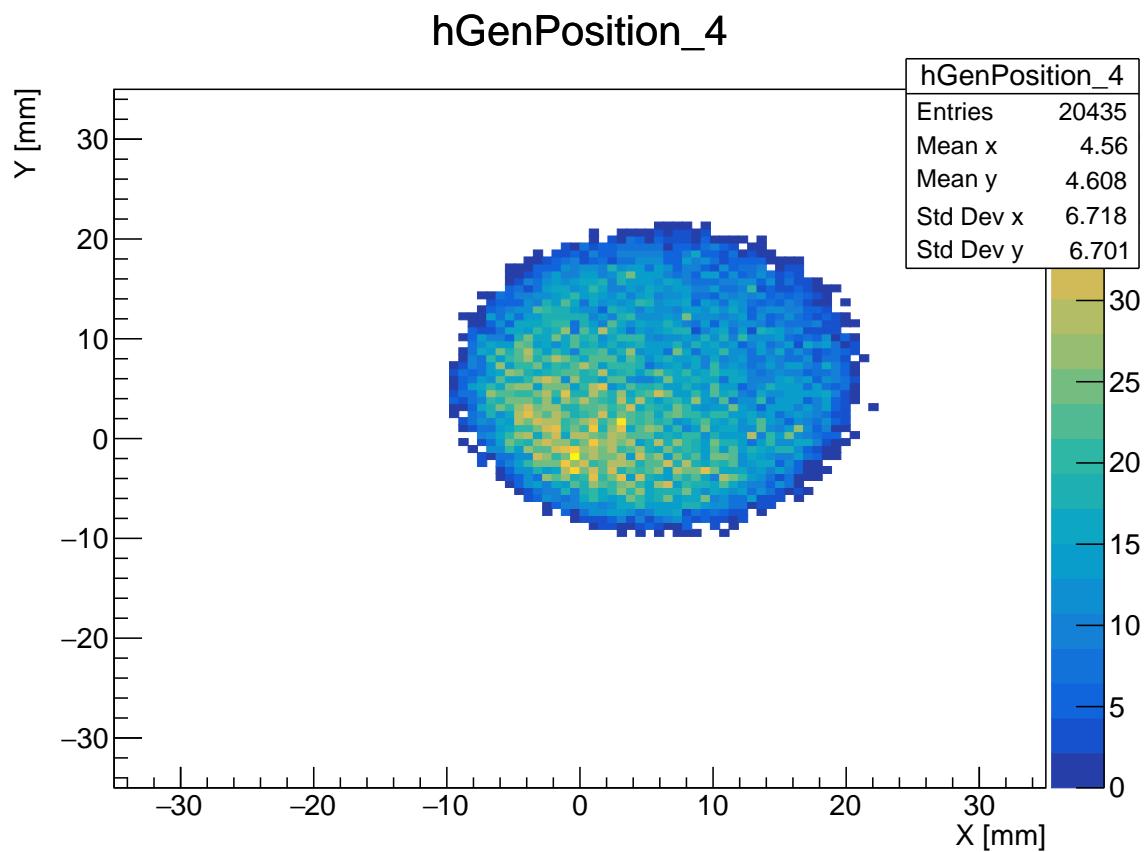


Figure: Generation Position

