

GEANT4 Simulation Report

Riccardo Nicolaidis ²

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² riccardo.nicolaidis@unitn.it

GDML File Name : **LEM.GAGG-worldVOL_DummyMaterials_Parsed.gdml**

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- Ntuple ID: 0 Ntuple Column ID: 7 Ntuple Column Name: EventID
- Ntuple ID: 0 Ntuple Column ID: 8 Ntuple Column Name: JobNumber
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- Ntuple ID: 0 Ntuple Column ID: 10 Ntuple Column Name: Ed_LV_BakeliteBoardBottom
- Ntuple ID: 0 Ntuple Column ID: 11 Ntuple Column Name: Ed_LV_AIFrame_Thick_0
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- Ntuple ID: 0 Ntuple Column ID: 19 Ntuple Column Name: Ed_LV_AIScrew_3
- Ntuple ID: 0 Ntuple Column ID: 20 Ntuple Column Name: Ed_LV_BakeliteCable
- Ntuple ID: 0 Ntuple Column ID: 21 Ntuple Column Name: Ed_LV_AIFrame_Thick_2
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- Ntuple ID: 0 Ntuple Column ID: 23 Ntuple Column Name: Ed_LV_AIScrew_Thick_4
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Volume	Material	Mass (g)
LV_AI_Screw_Thick_3	G4_Galactic	9.05215e-26
LV_BakeliteBoardBottom	G4_Galactic	1.52827e-24
LV_AI_Frame_Thick_0	G4_Galactic	8.11217e-26
LV_SiliconDetector_Thin_1	G4_Si	0.0325397
LV_SiliconDetector_Thick_3	G4_Si	0.135903
LV_AI_Frame_Thick_3	G4_Galactic	1.10354e-25
LV_BakeliteBoardTop	G4_Galactic	1.42262e-24
LV_AI_Screw_1	G4_Galactic	1.95667e-25
LV_SiliconDetector_Thin_3	G4_Si	0.0325397
LV_PlasticVetoBottom	G4_PLASTIC_SC_VINYLTOLUENE	100.1
LV_AI_Screw_3	G4_Galactic	1.95667e-25
LV_BakeliteCable	G4_Galactic	2.23231e-26
LV_AI_Frame_Thick_2	G4_Galactic	1.10354e-25
LV_SiliconDetector_Thick_2	G4_Si	0.135903
LV_AI_Screw_Thick_4	G4_Galactic	9.05215e-26
LV_BakeliteBoardMiddleLower	G4_Galactic	1.20638e-24
LV_SiliconDetector_Thick_1	G4_Si	0.135903
LV_AI_Frame_Thin_1	G4_Galactic	8.49576e-26
LV_SiliconDetector_Thin_0	G4_Si	0.0104495
LV_SiliconDetector_Thin_2	G4_Si	0.0325397
LV_AI_Bottom	G4_Galactic	1.17351e-23
LV_AI_Screw	G4_Galactic	1.95667e-25
LV_AI_Frame_Thin_0	G4_Galactic	4.81911e-26
LV_AI_Top	G4_Galactic	2.05874e-23
LV_BakeliteCable_4	G4_Galactic	2.81814e-26
LV_Calo	GAGG	82.875
LV_BakeliteCable_3	G4_Galactic	2.81814e-26
LV_BakeliteCable_1	G4_Galactic	2.81814e-26
LV_BakeliteCable_2	G4_Galactic	2.81814e-26
LV_PlasticVetoTop	G4_PLASTIC_SC_VINYLTOLUENE	166.68
LV_BakeliteBoardMiddleUpper	G4_Galactic	1.27751e-24
LV_BakeliteBoardCalo	G4_Galactic	6.393e-25
LV_AI_Screw_2	G4_Galactic	1.95667e-25
LV_AICoverLower	G4_Galactic	8.39779e-25
LV_AI_Frame_Thin_3	G4_Galactic	8.49576e-26
LV_SiliconDetector_Thin_4	G4_Si	0.0325397
LV_AI_Frame_Thin_4	G4_Galactic	8.49576e-26
LV_AICoverUpper	G4_Galactic	8.13683e-25
LV_AI_Frame_Thin_2	G4_Galactic	8.49576e-26
LV_SiliconDetector_Thick_0	G4_Si	0.0439621
LV_AI_Screw_Thick_0	G4_Galactic	5.42892e-26
LV_AI_Screw_Thick_2	G4_Galactic	9.05215e-26
LV_AI_Screw_Thick_1	G4_Galactic	9.05215e-26
LV_SiliconDetector_Thick_4	G4_Si	0.135903
LV_AI_Frame_Thick_1	G4_Galactic	1.10354e-25
LV_AI_Frame_Thick_4	G4_Galactic	1.10354e-25

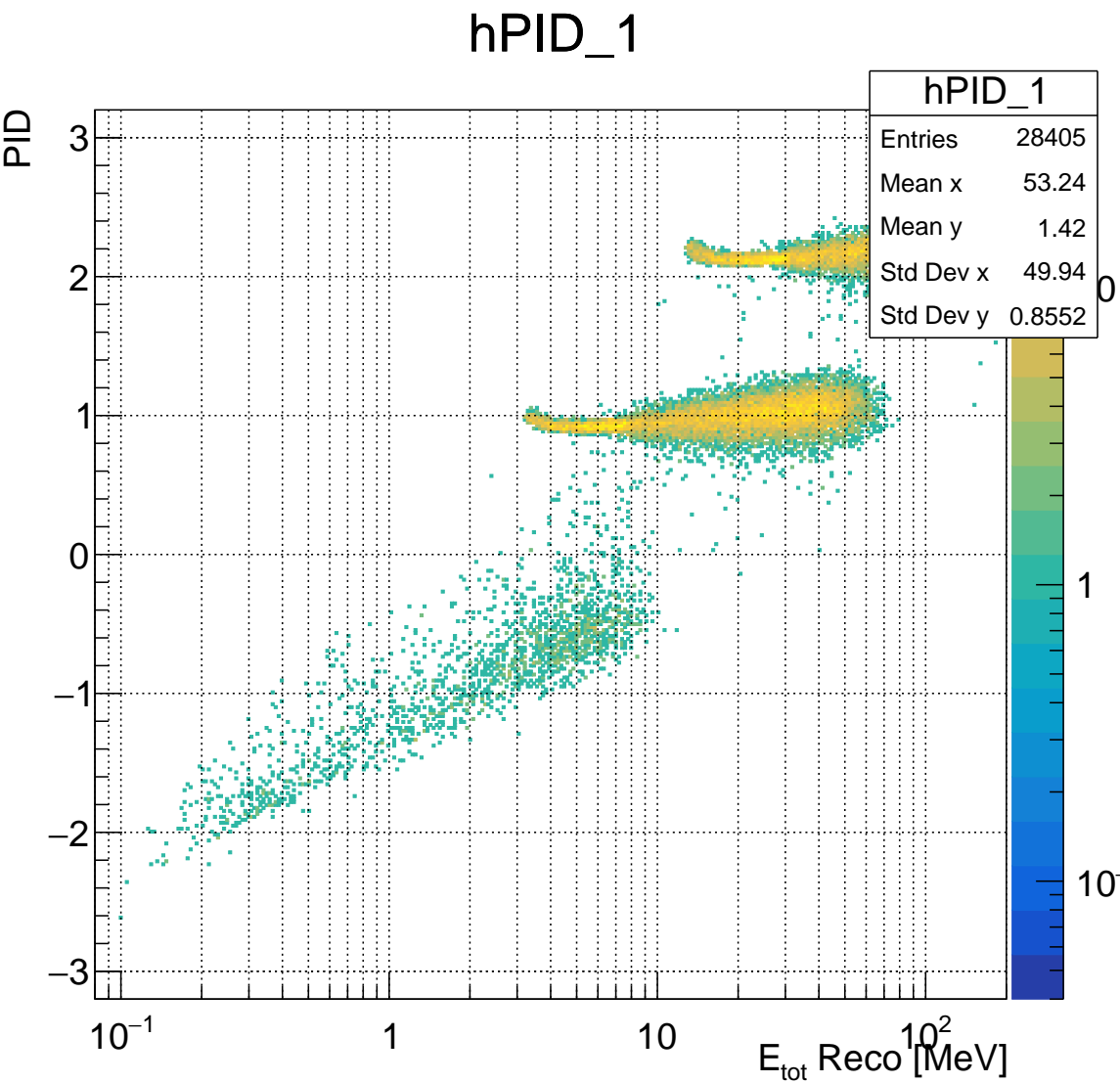


Figure: PID, No Gaussian Smearing, Total Energy is the Energy reconstructed.

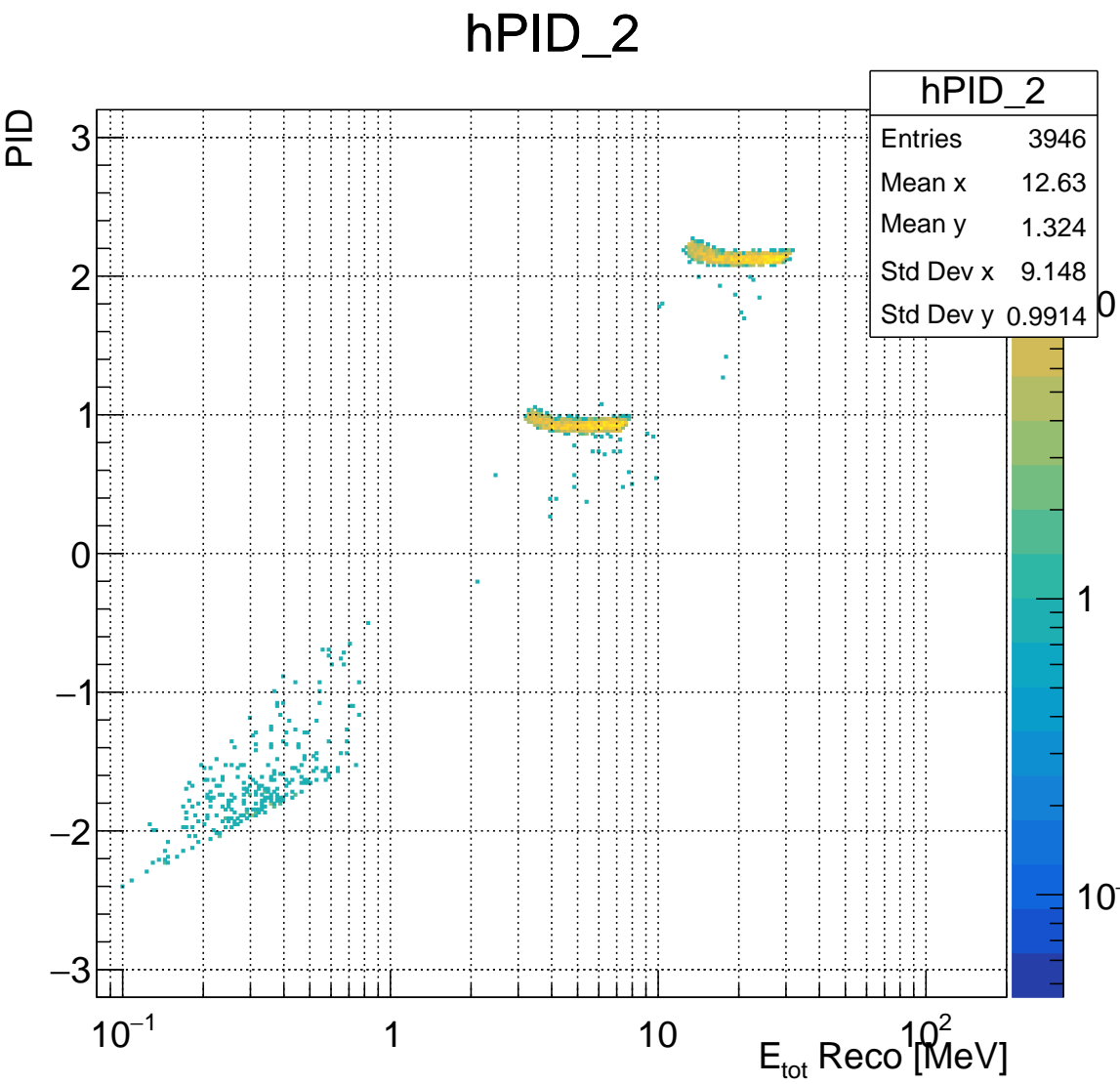


Figure: PID, No Gaussian Smearing, Total Energy is the Energy reconstructed, No Calorimeter.

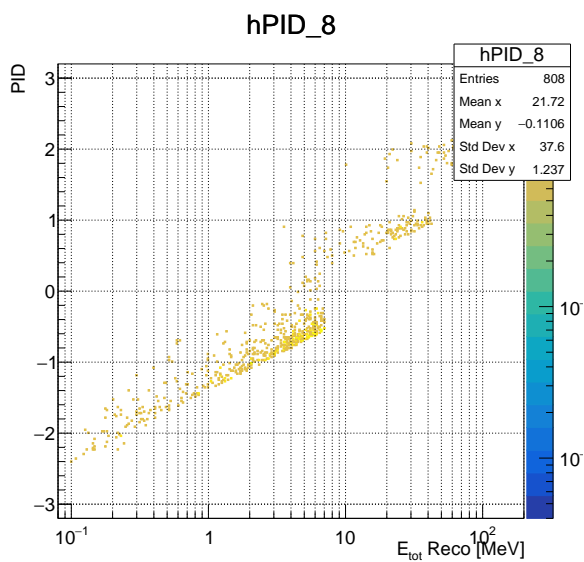


Figure: PID. Convined events but Measured energy is not equal to the MC energy.

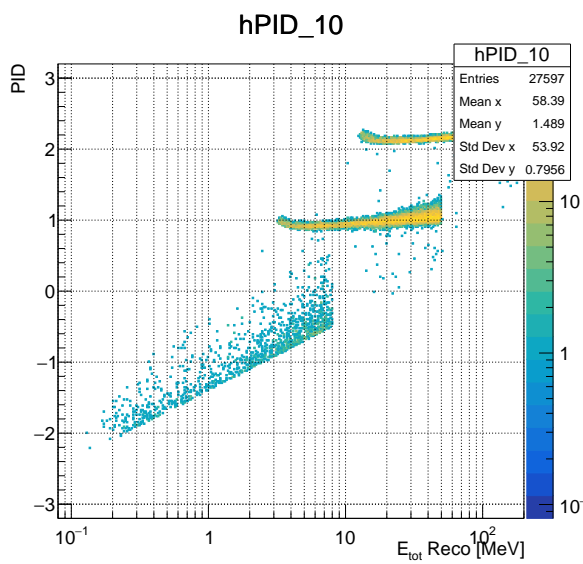


Figure: PID. Convined events and Measured energy is equal to the MC energy.

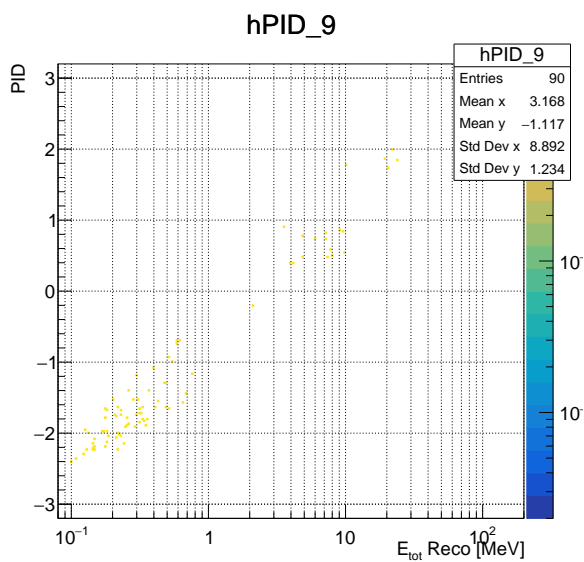


Figure: PID. Convined events but Measured energy is not equal to the MC energy. No Calorimeter.

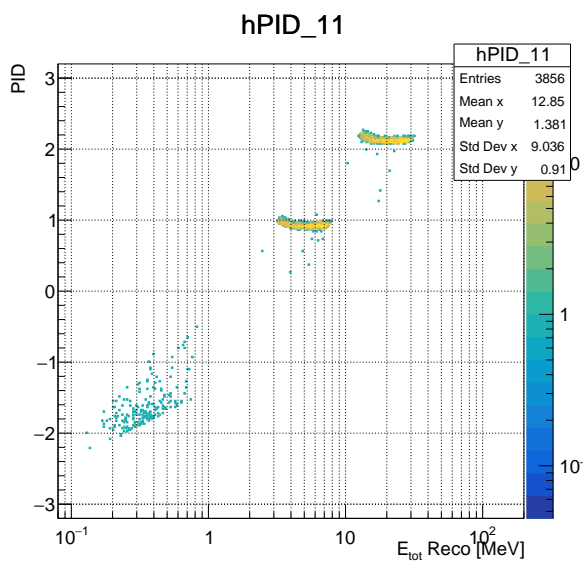


Figure: PID. Convined events and Measured energy is equal to the MC energy. No Calorimeter.

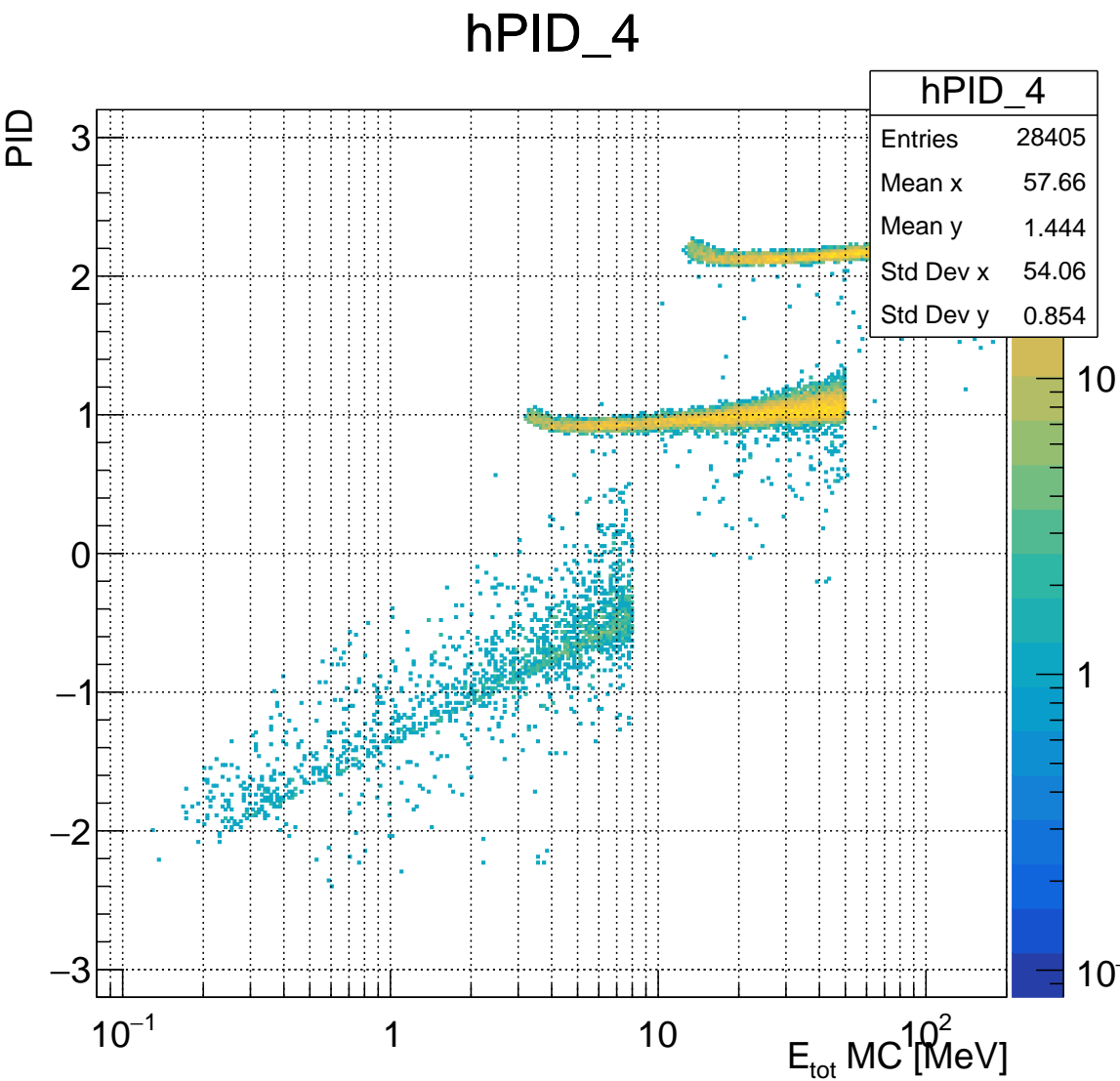


Figure: PID, No Gaussian Smearing, Total Energy is the MC Energy.

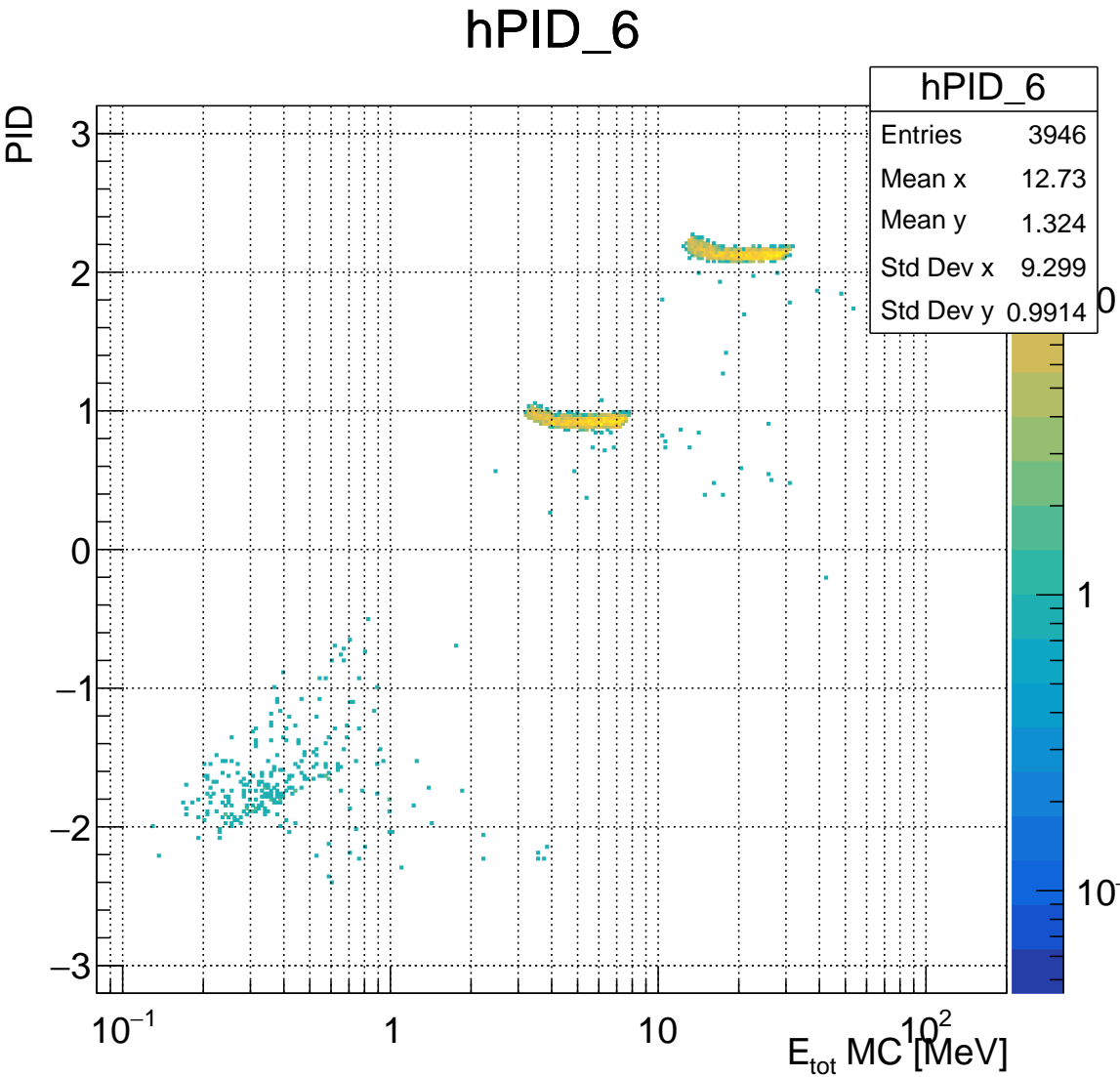


Figure: PID, No Gaussian Smearing, Total Energy is the MC Energy, No Calorimeter.

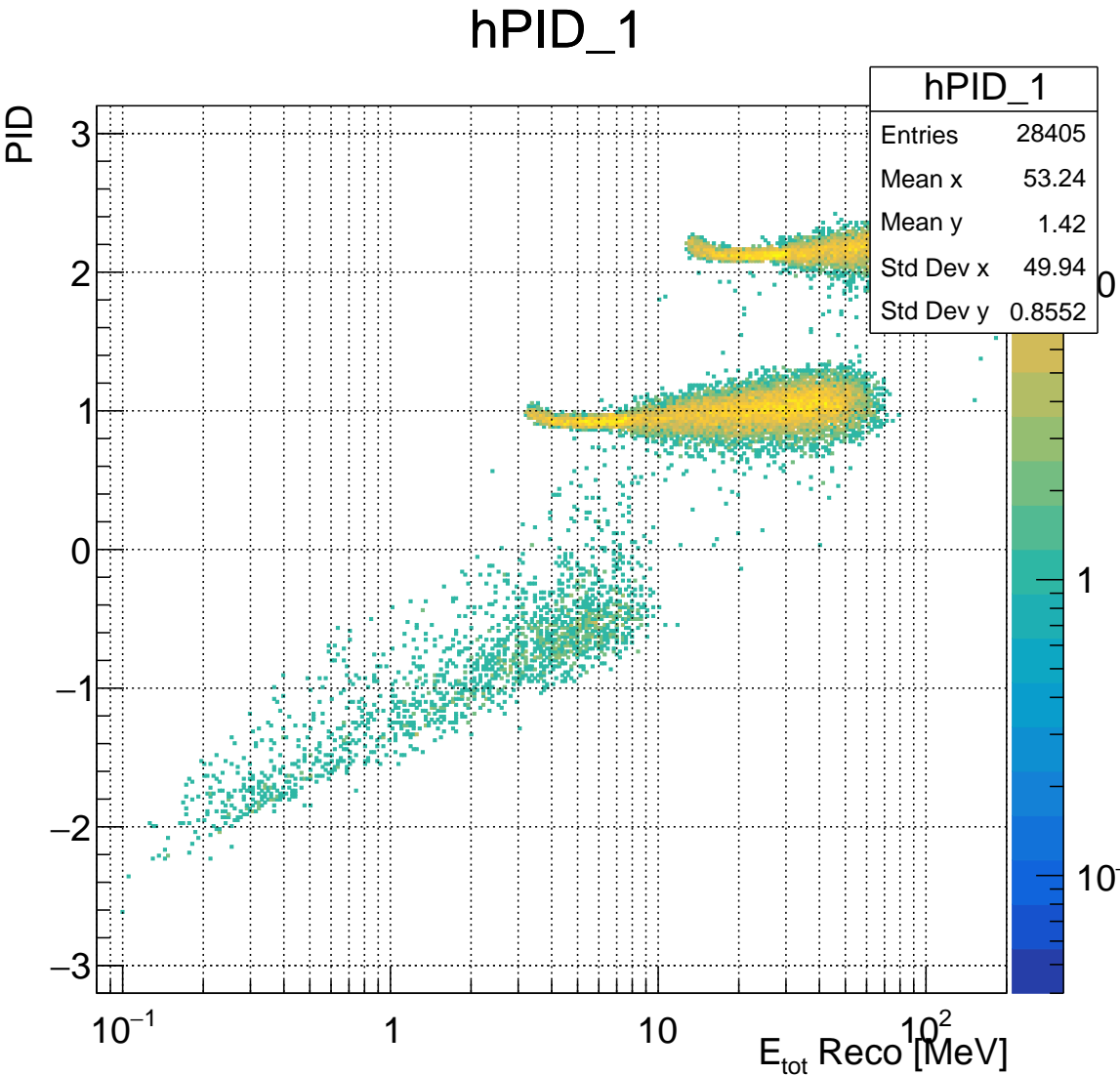


Figure: PID, Gaussian Smearing, Total Energy is the Energy reconstructed.

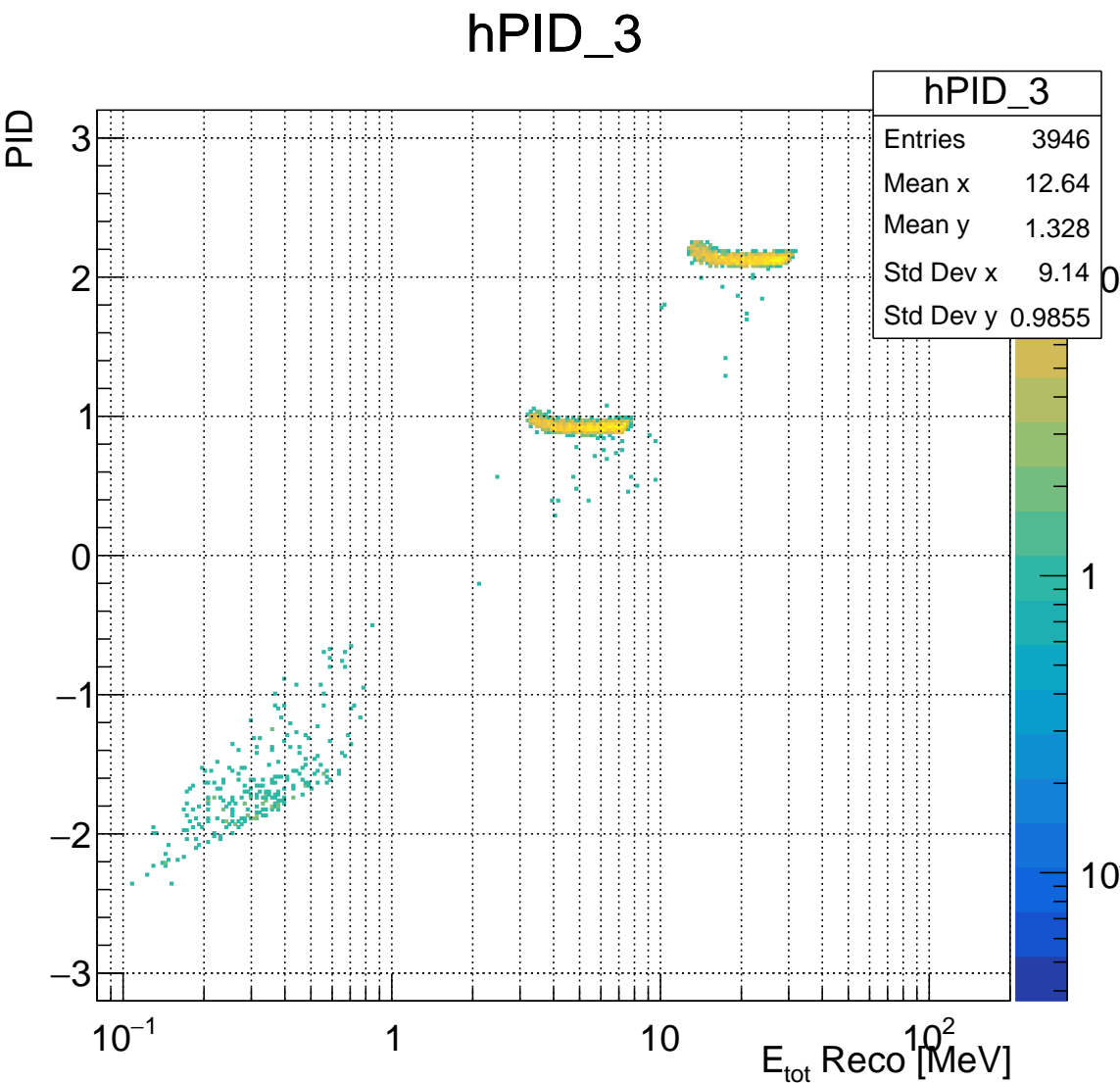


Figure: PID, Gaussian Smearing, Total Energy is the Energy reconstructed, No Calorimeter.

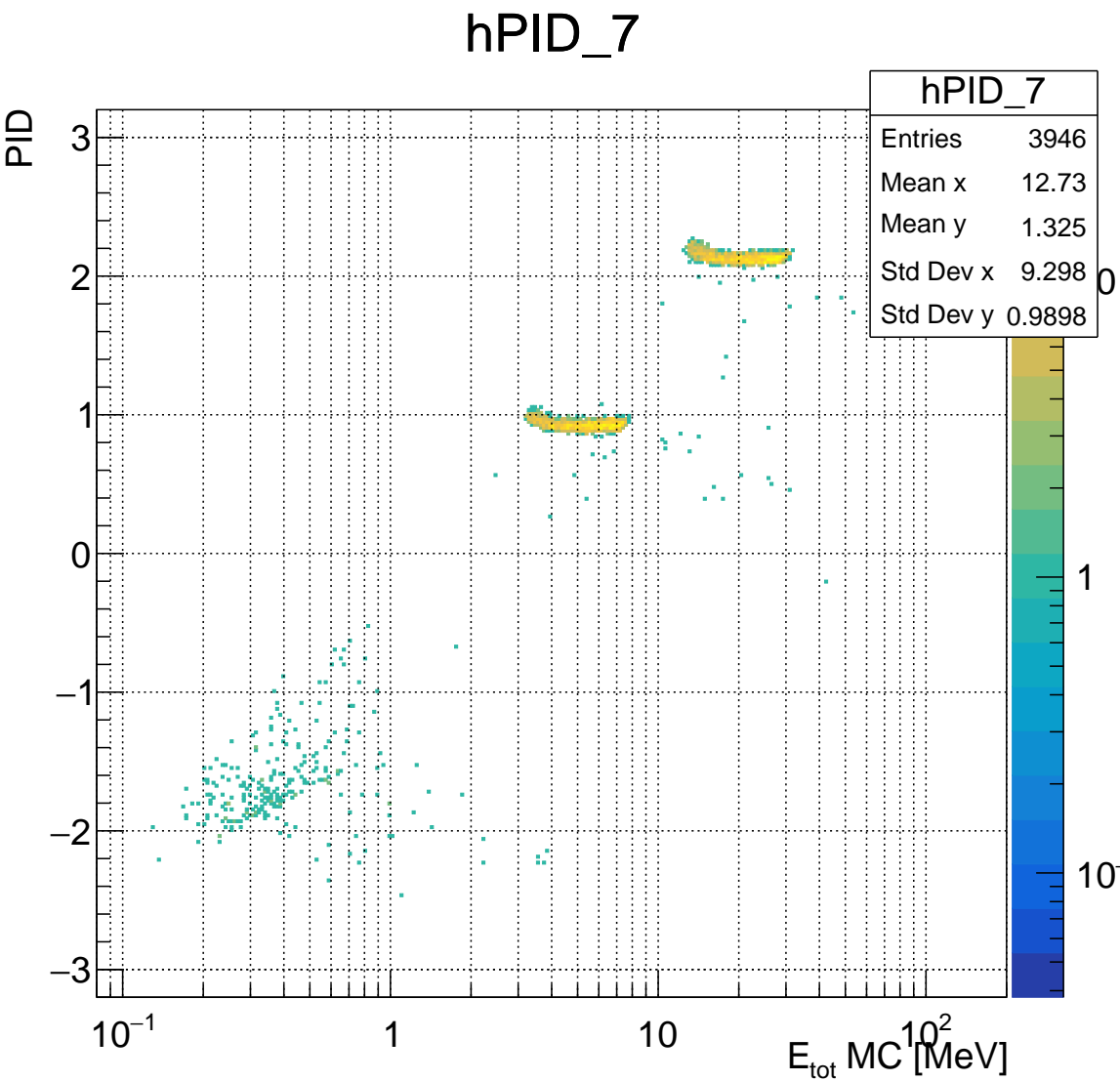


Figure: PID, Gaussian Smearing, Total Energy is the MC Energy, No Calorimeter.

mgrPID

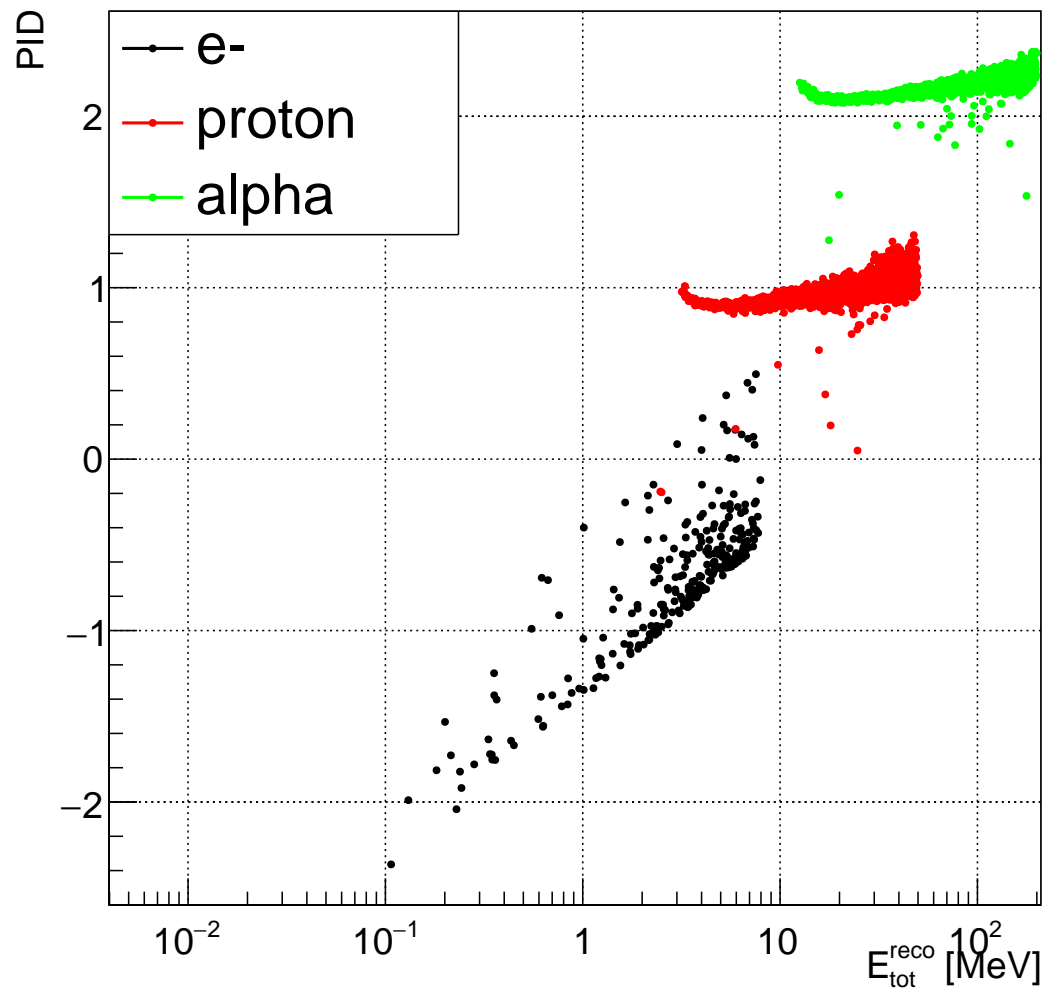


Figure: PID, Gaussian Smearing, Total Energy is the Energy reconstructed, No Calorimeter.

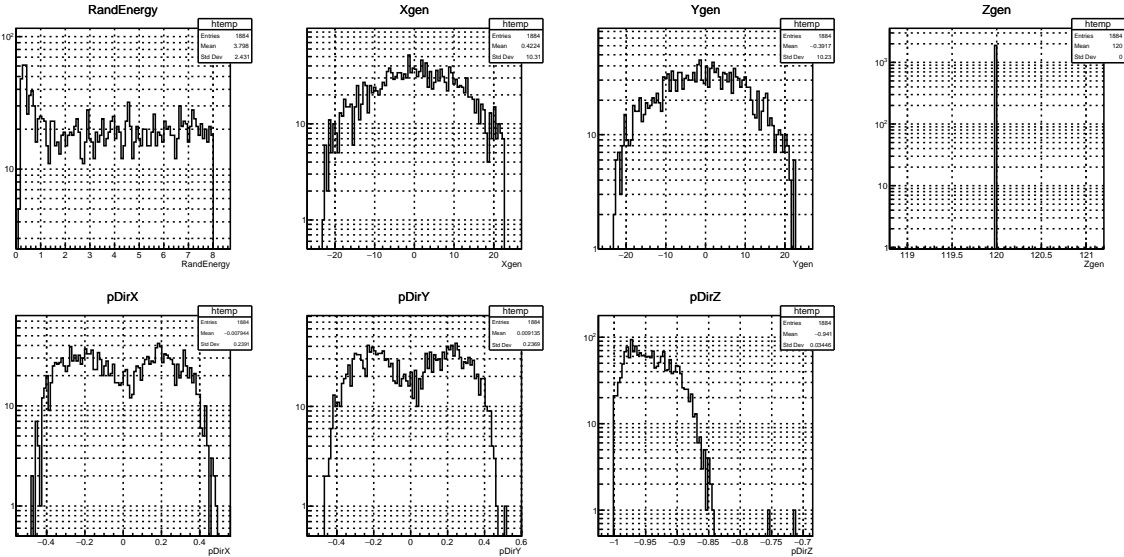


Figure: MC quantities

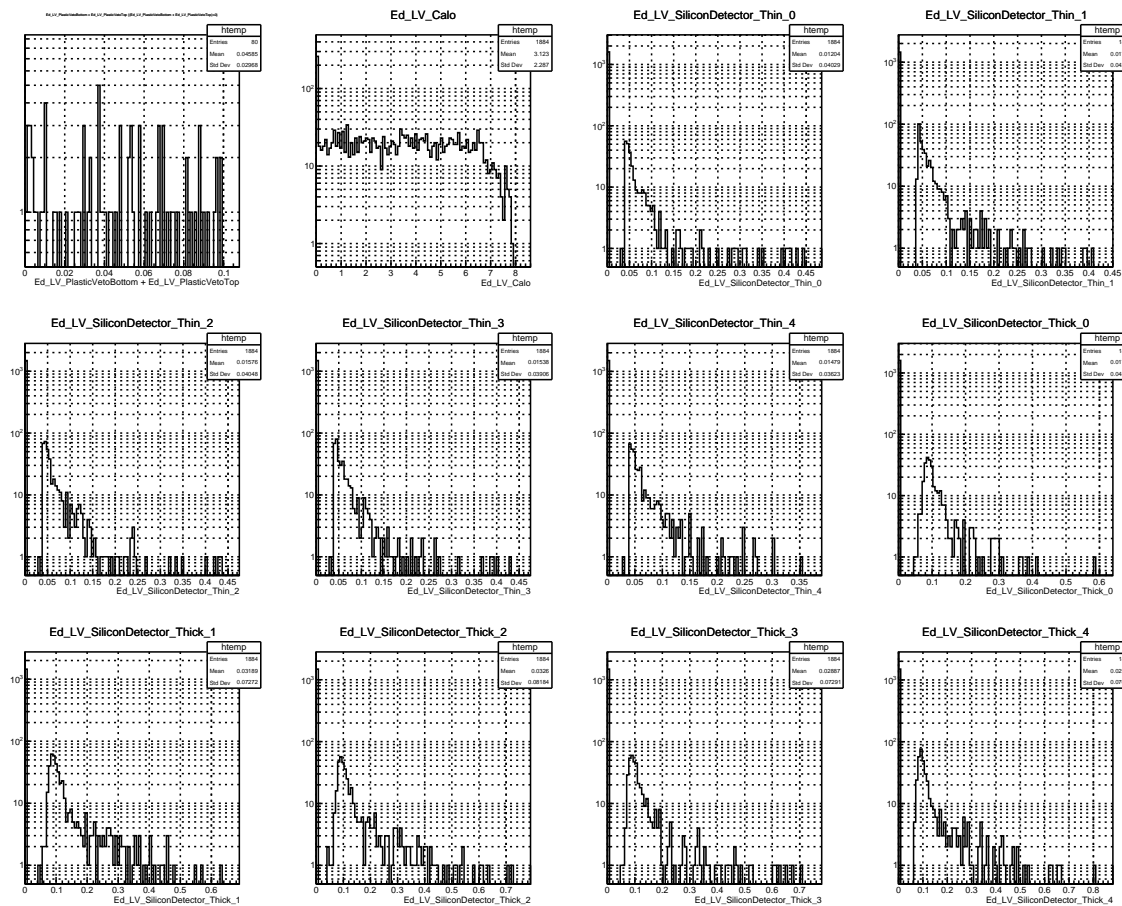


Figure: Detected energies

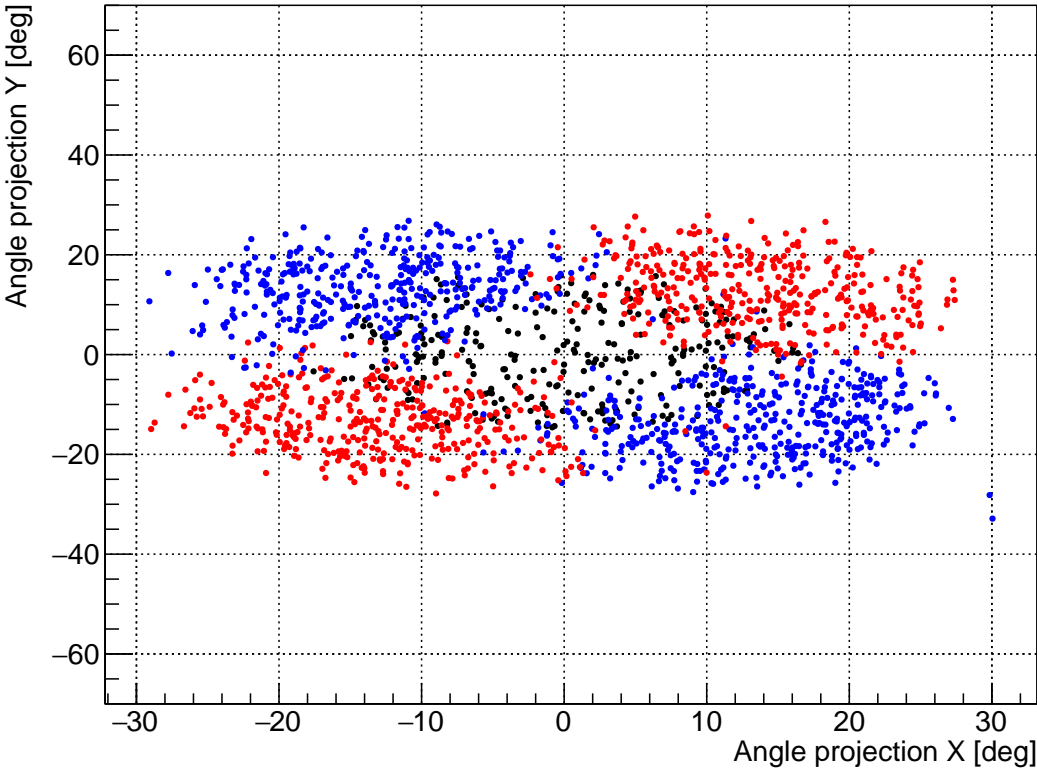


Figure: Angles distribution

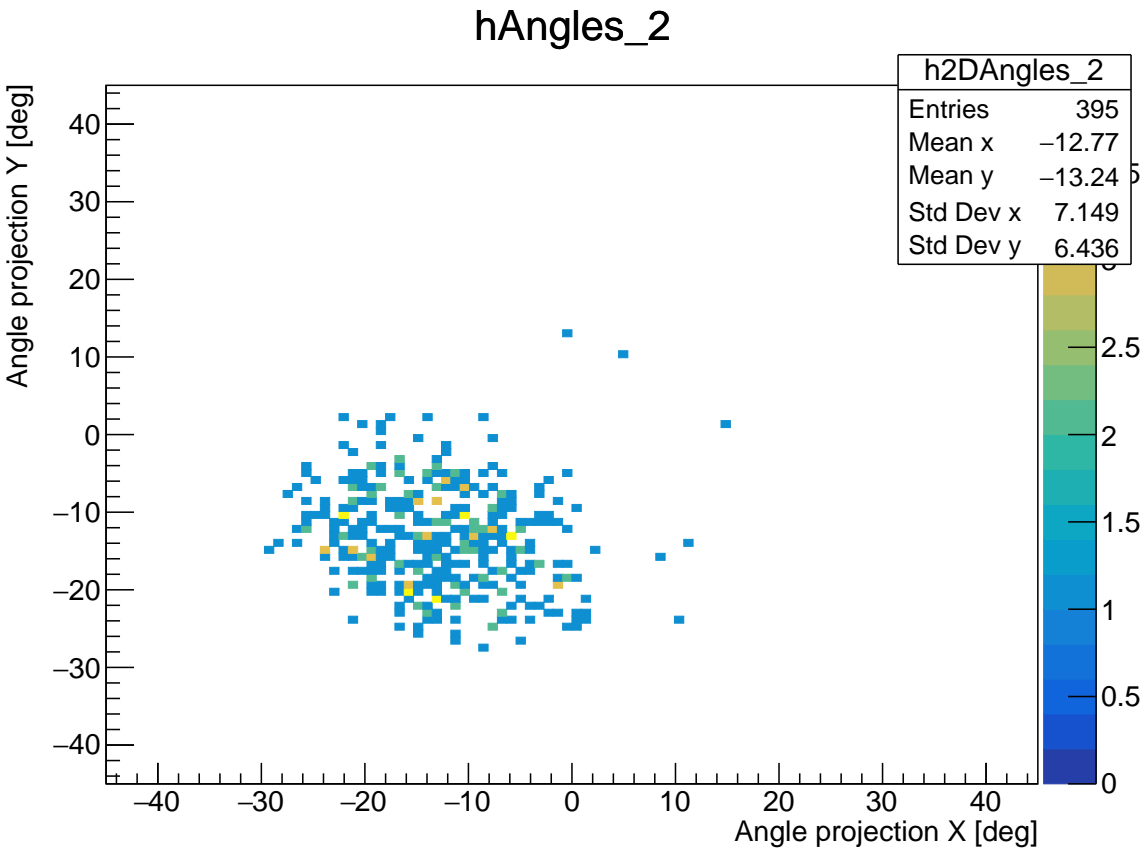


Figure: Angles distribution

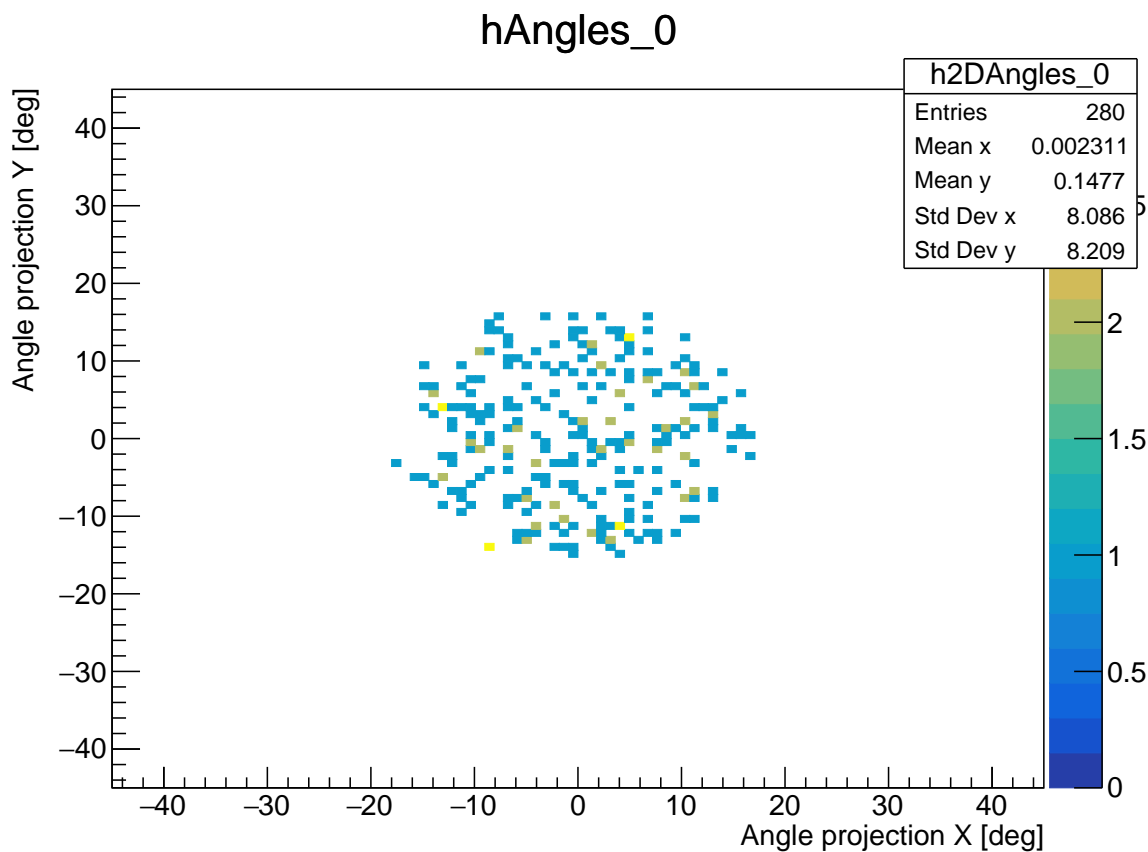


Figure: Angles distribution

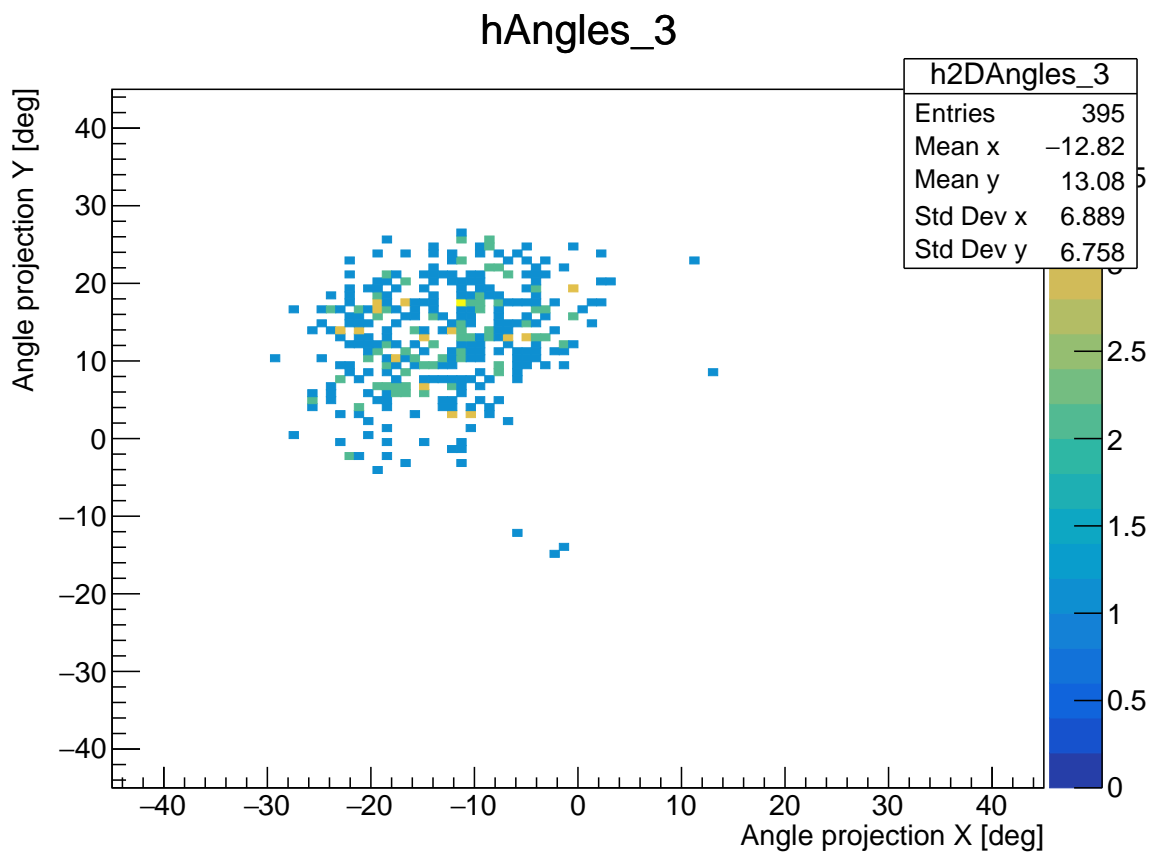


Figure: Angles distribution

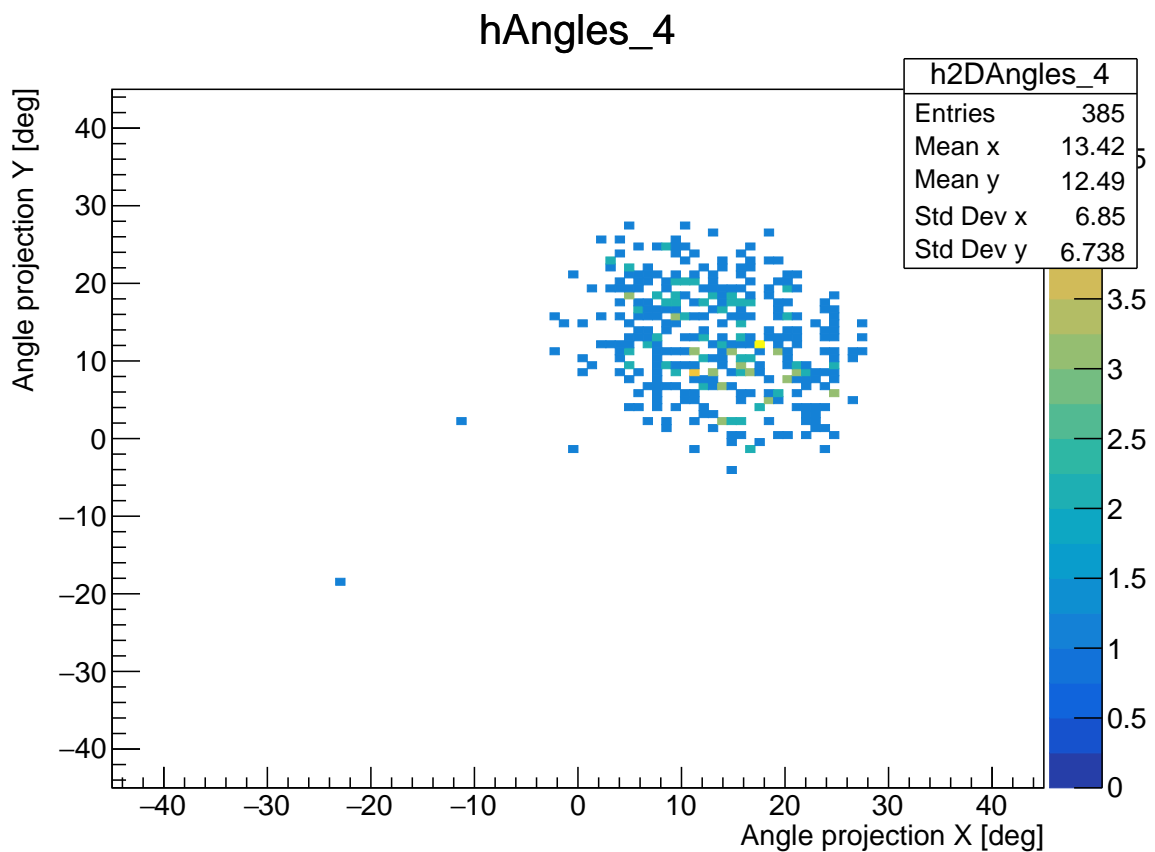


Figure: Angles distribution

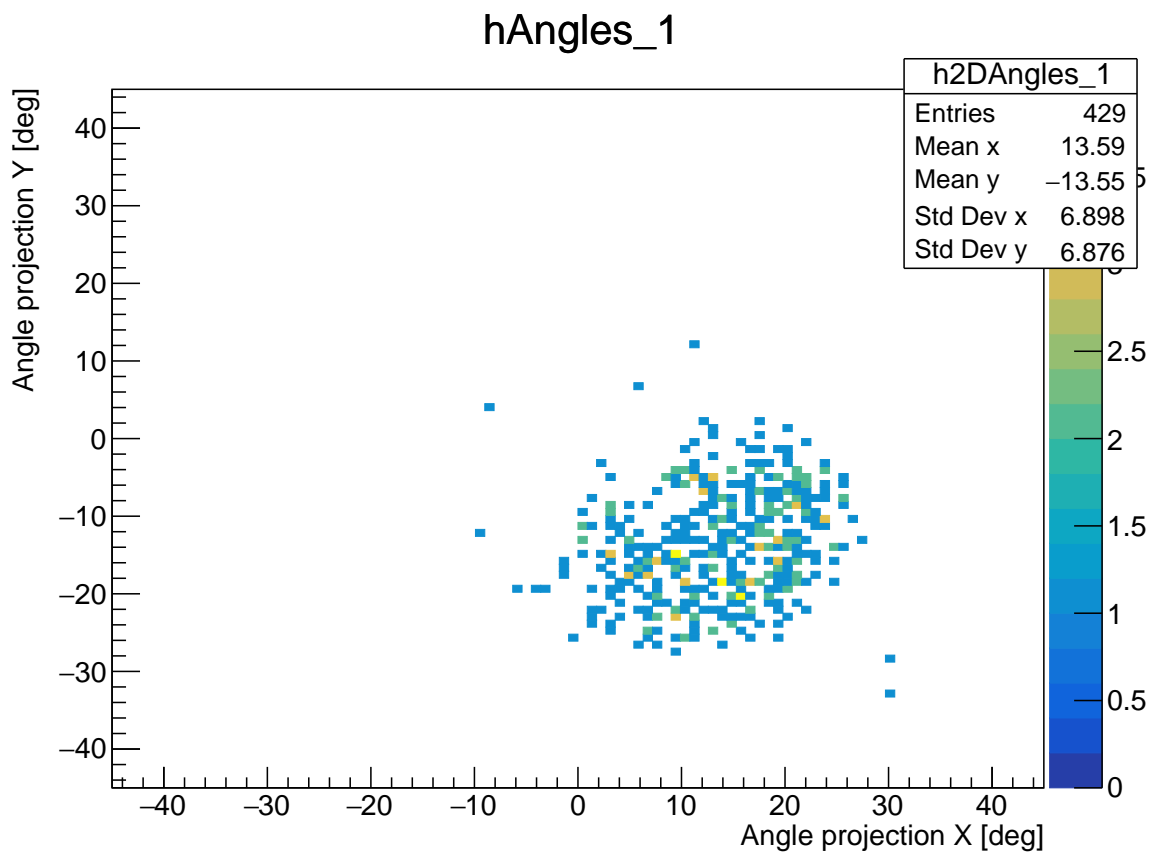


Figure: Angles distribution

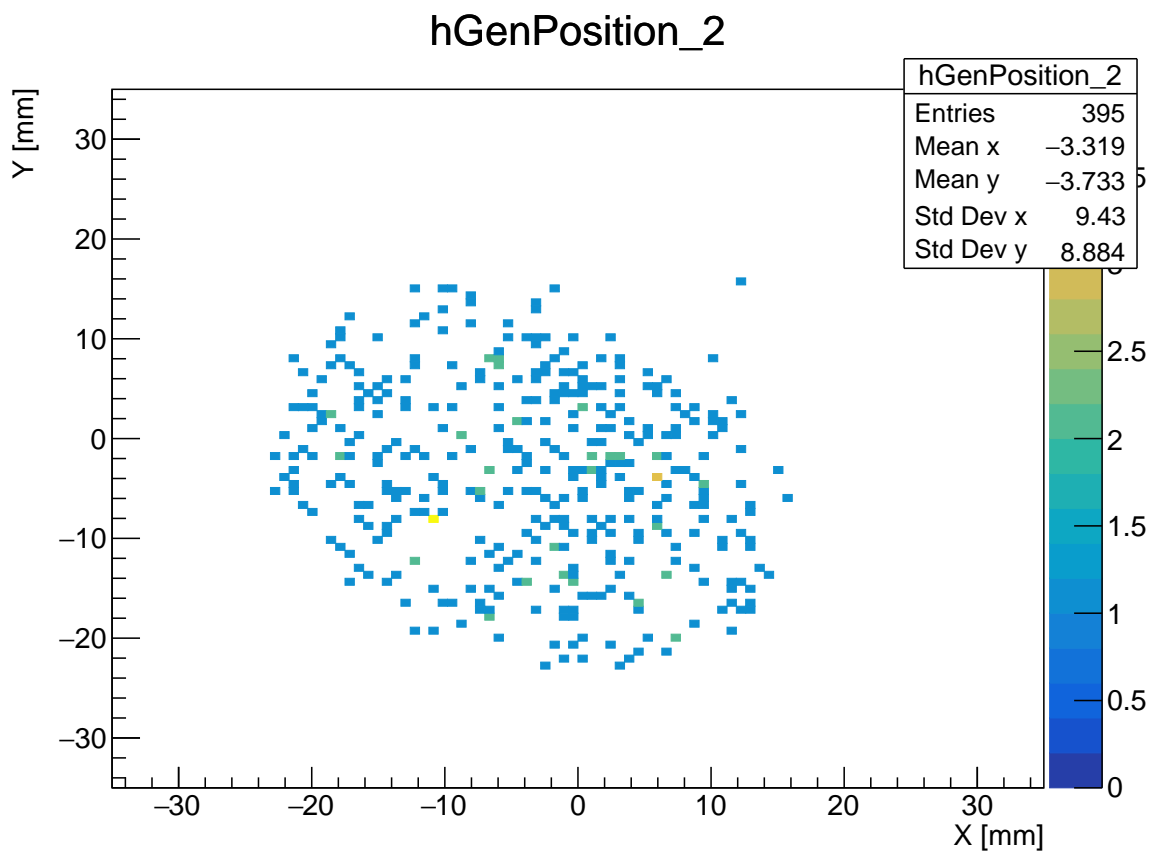


Figure: Generation Position

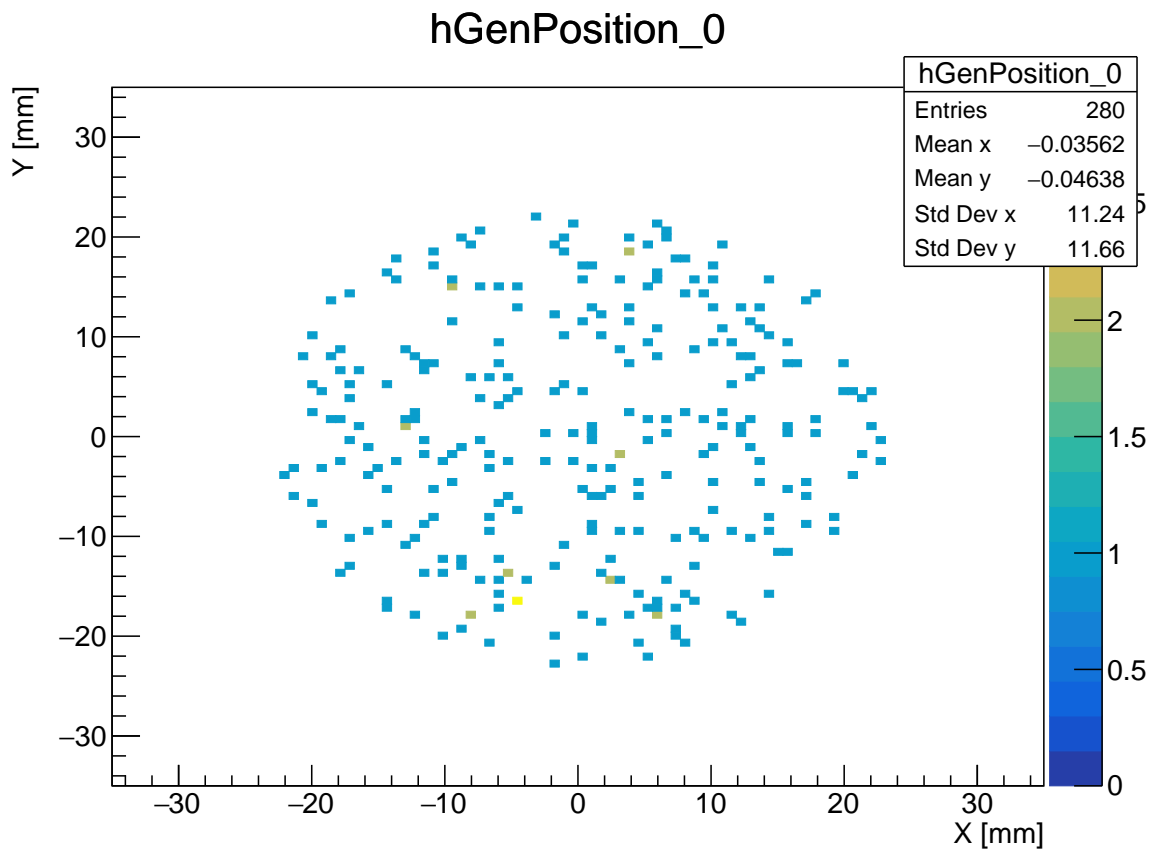


Figure: Generation Position

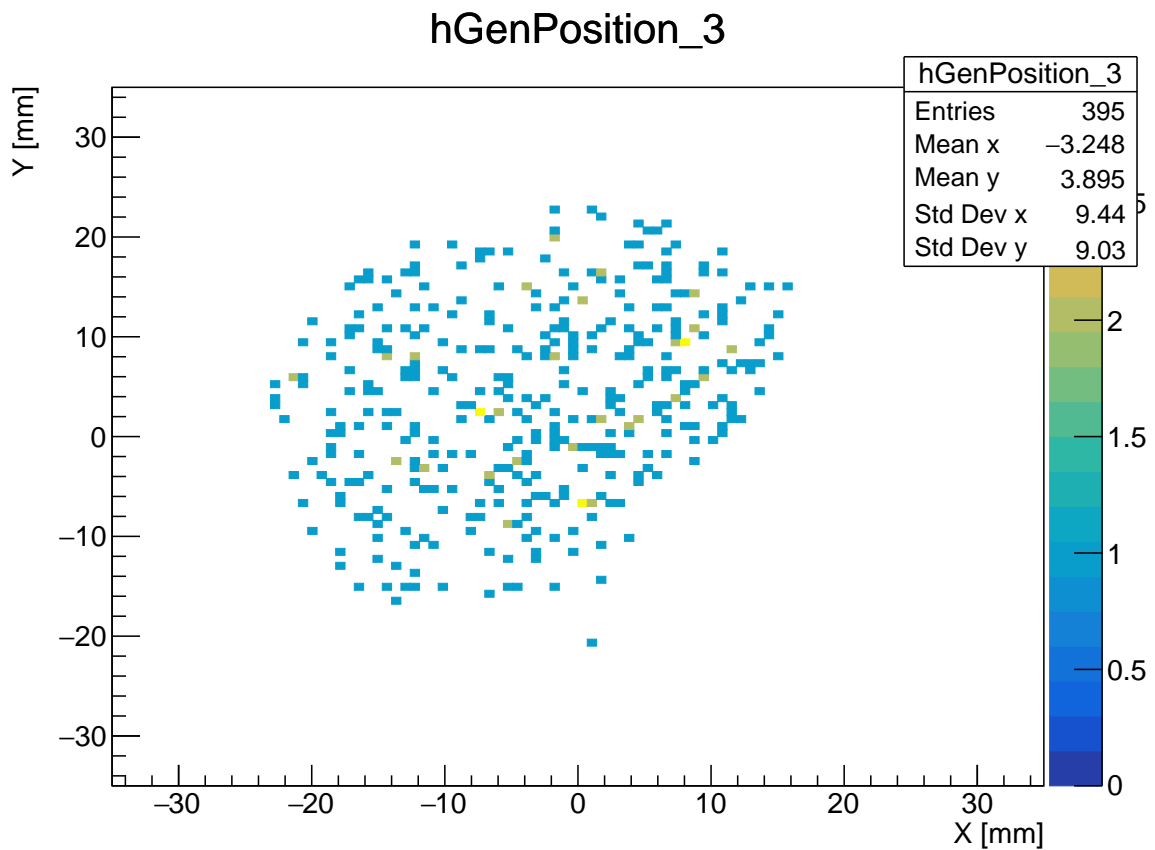


Figure: Generation Position

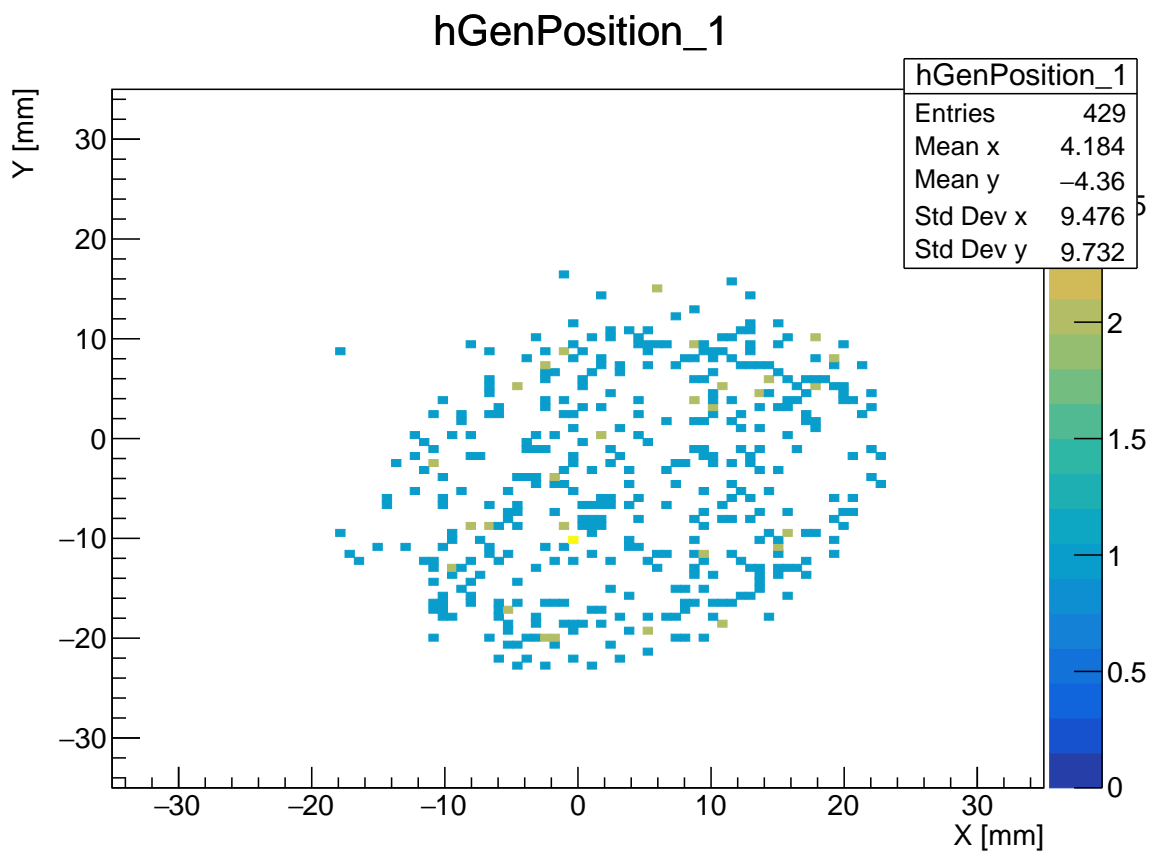


Figure: Generation Position

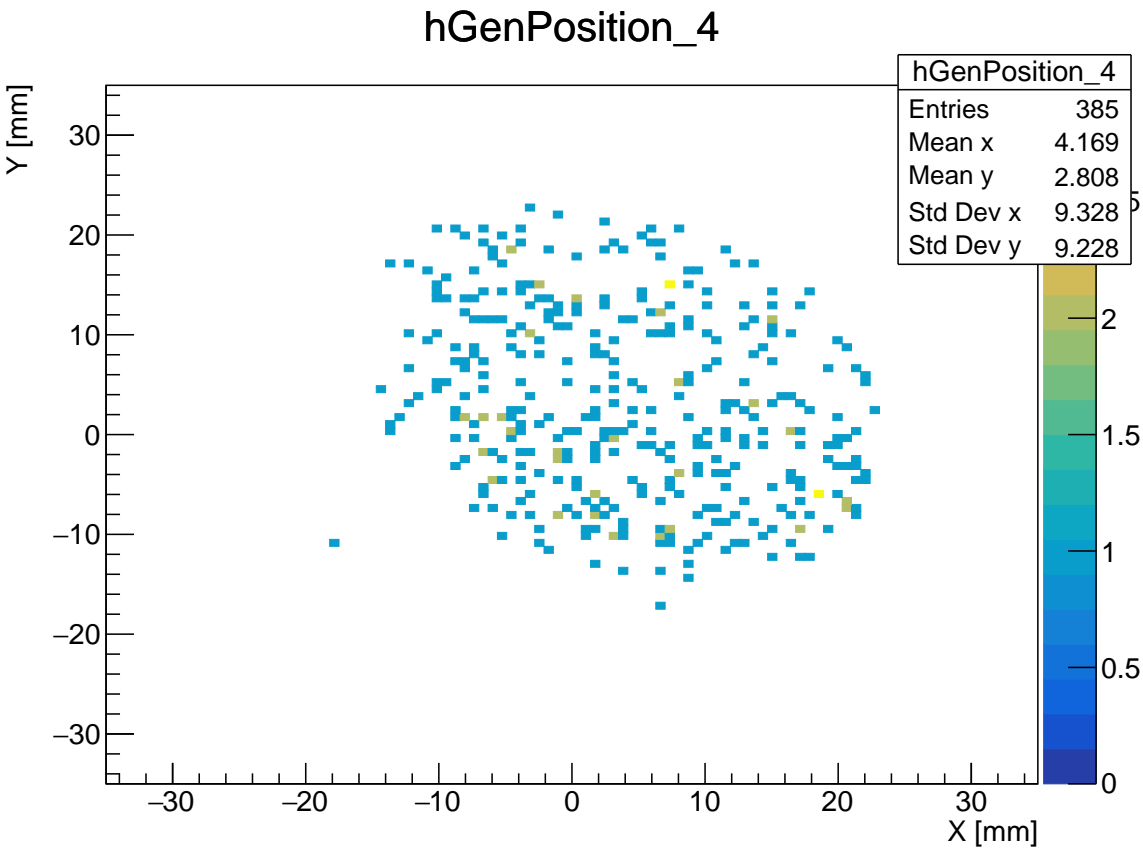


Figure: Generation Position

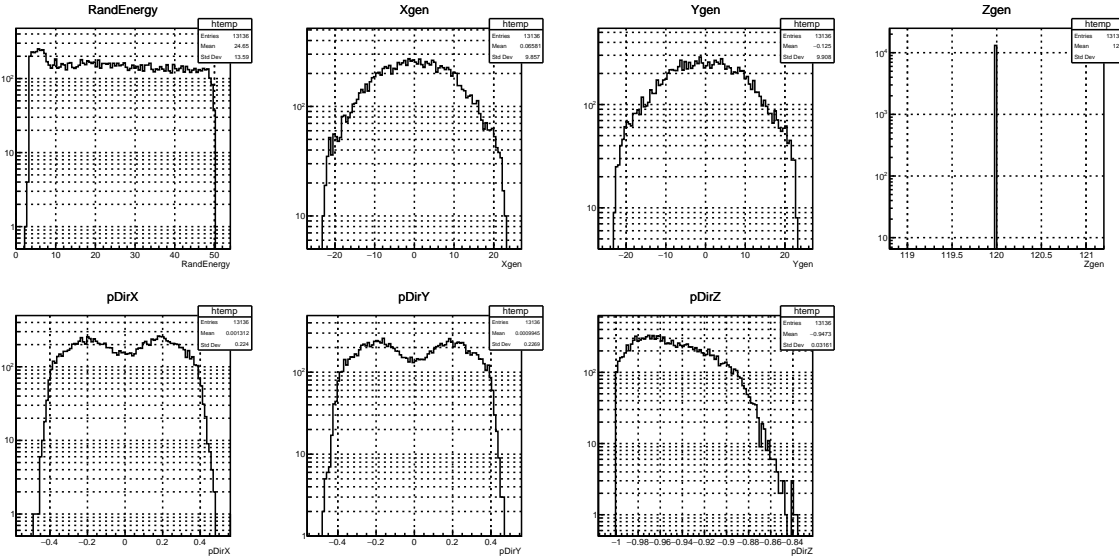


Figure: MC quantities

Energies distribution for proton

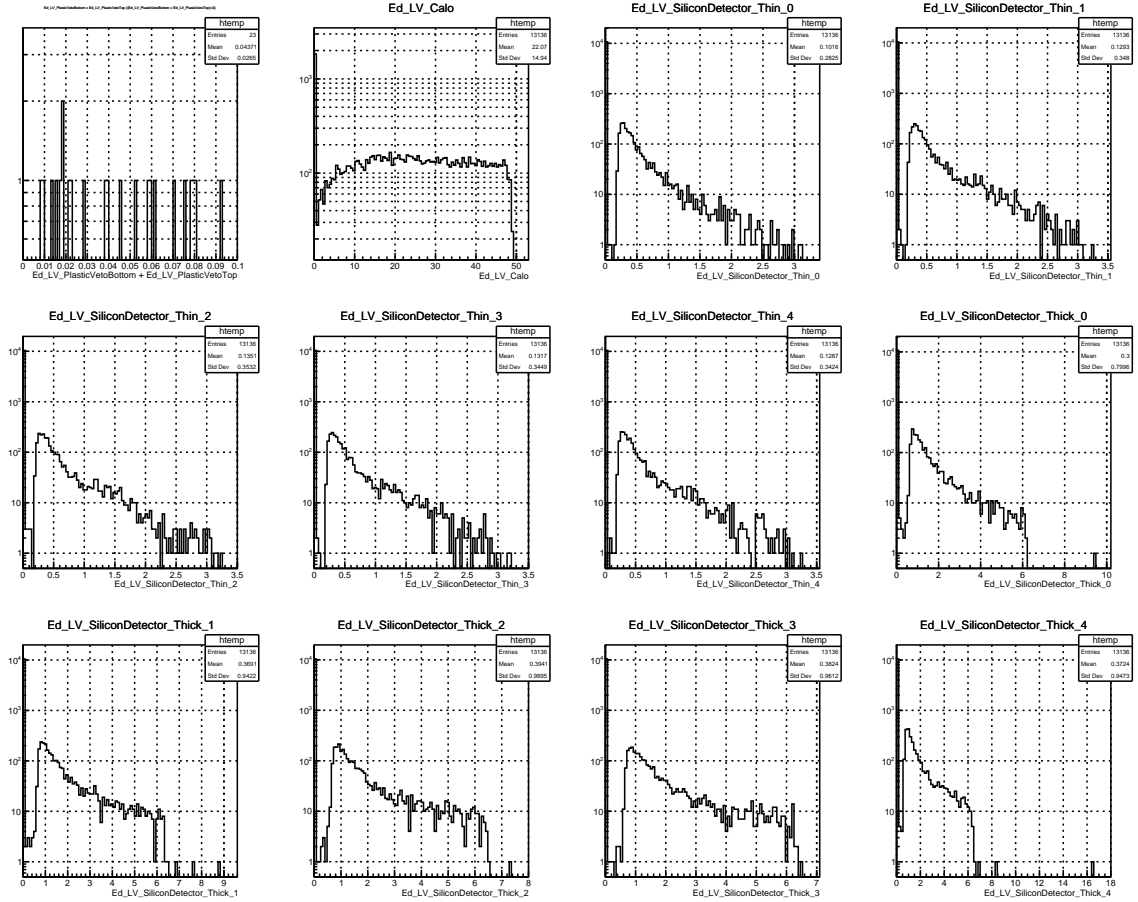


Figure: Detected energies

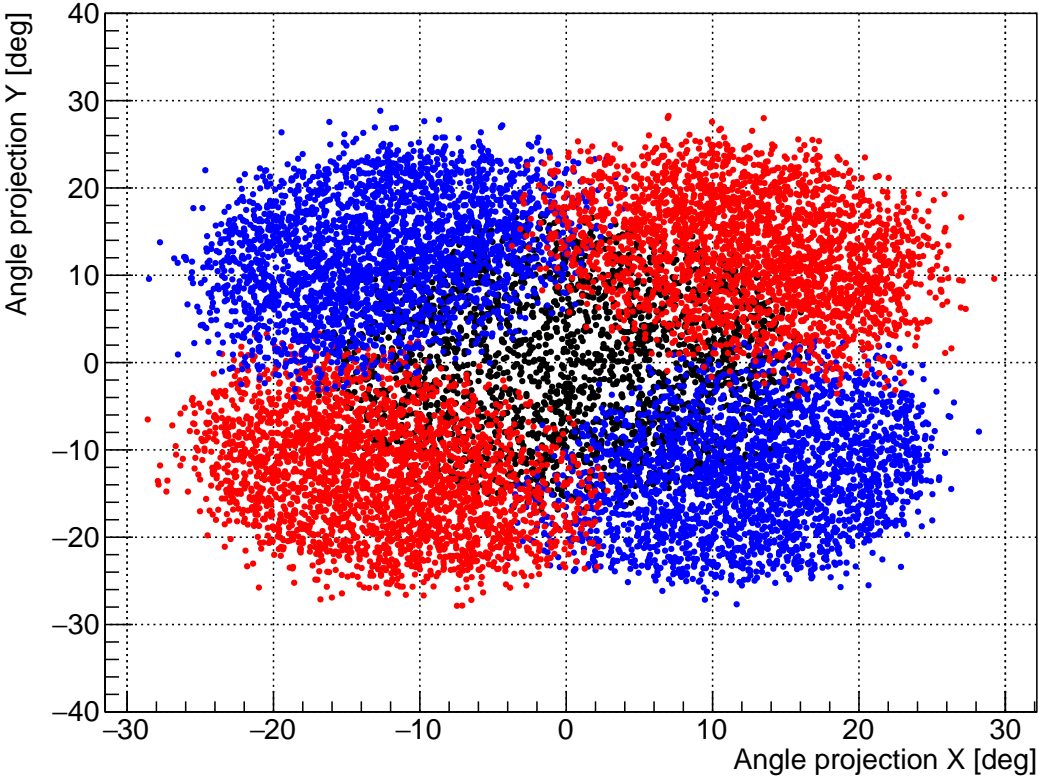


Figure: Angles distribution

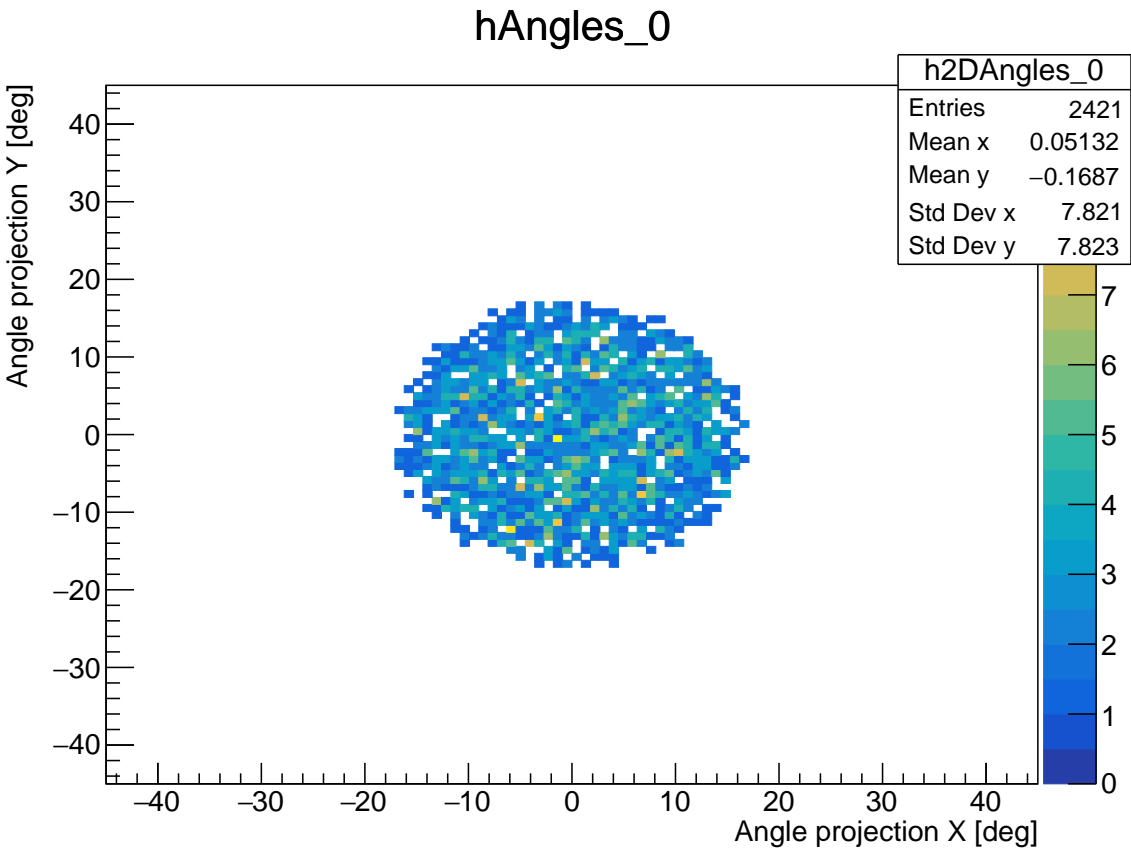


Figure: Angles distribution

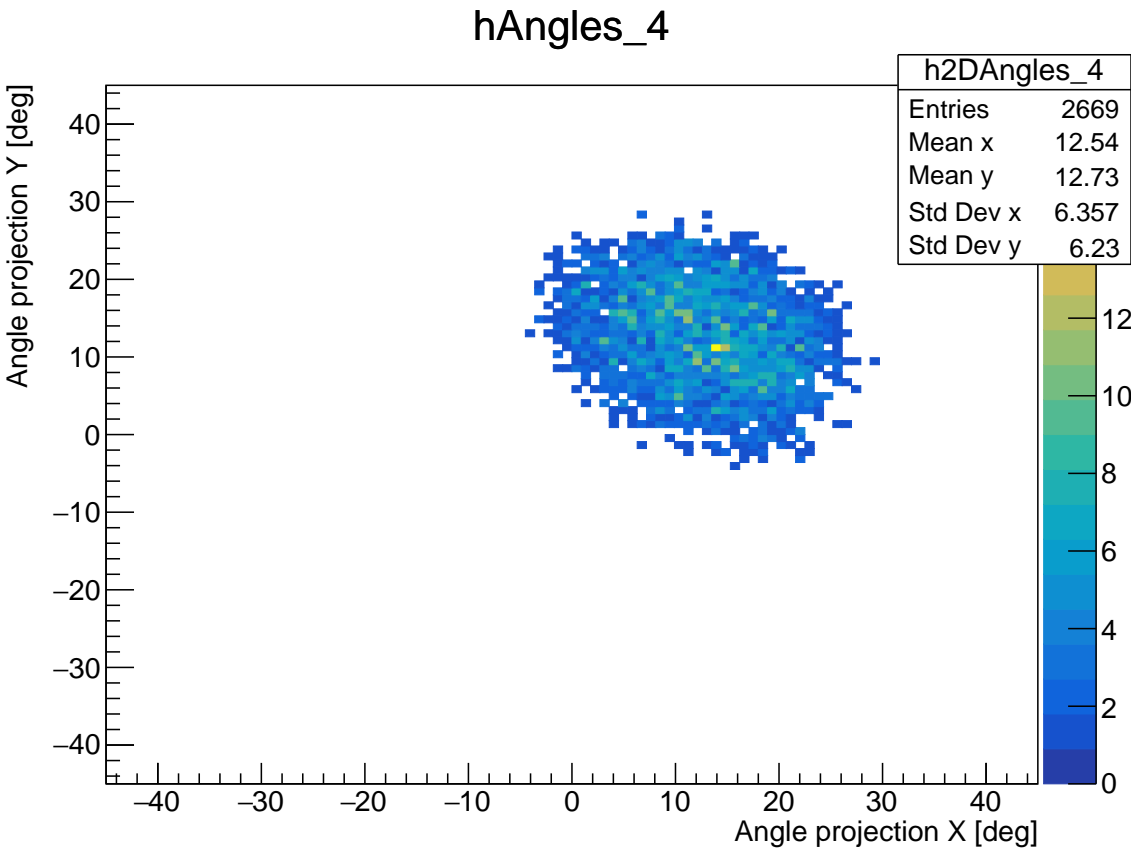


Figure: Angles distribution

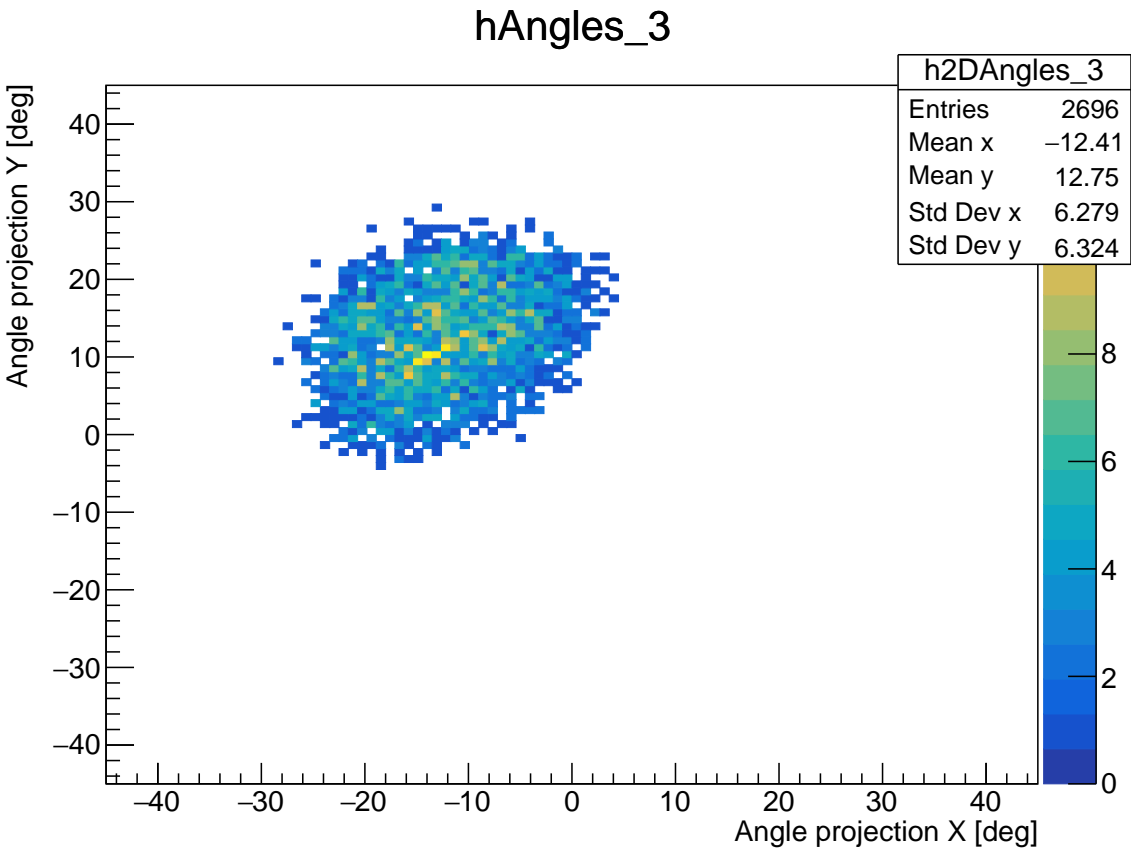


Figure: Angles distribution

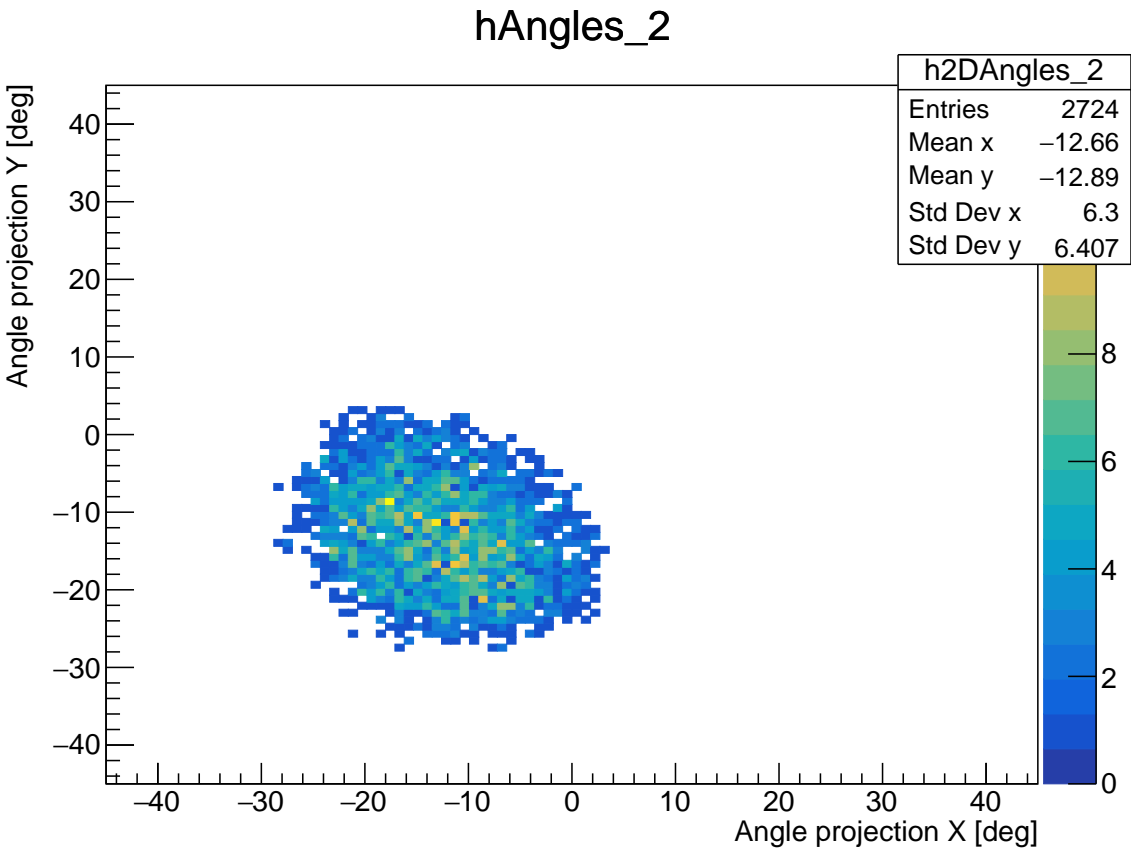


Figure: Angles distribution

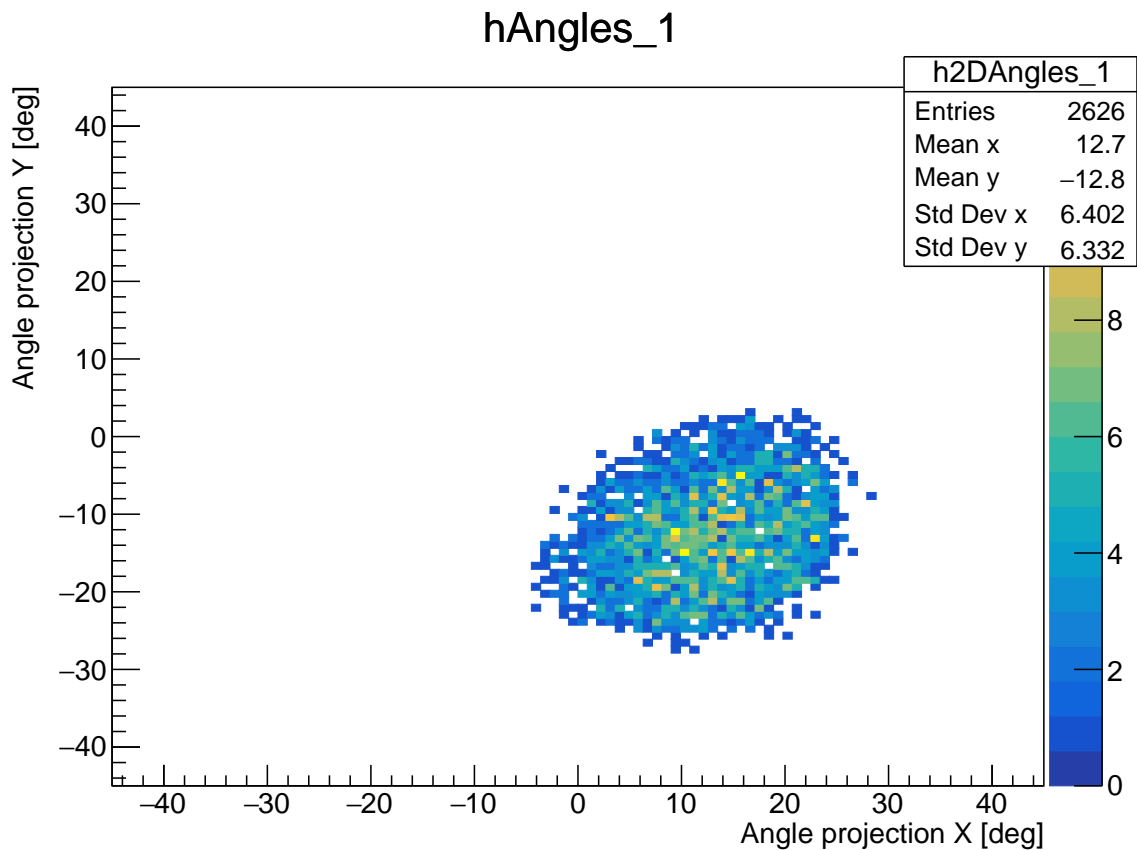


Figure: Angles distribution

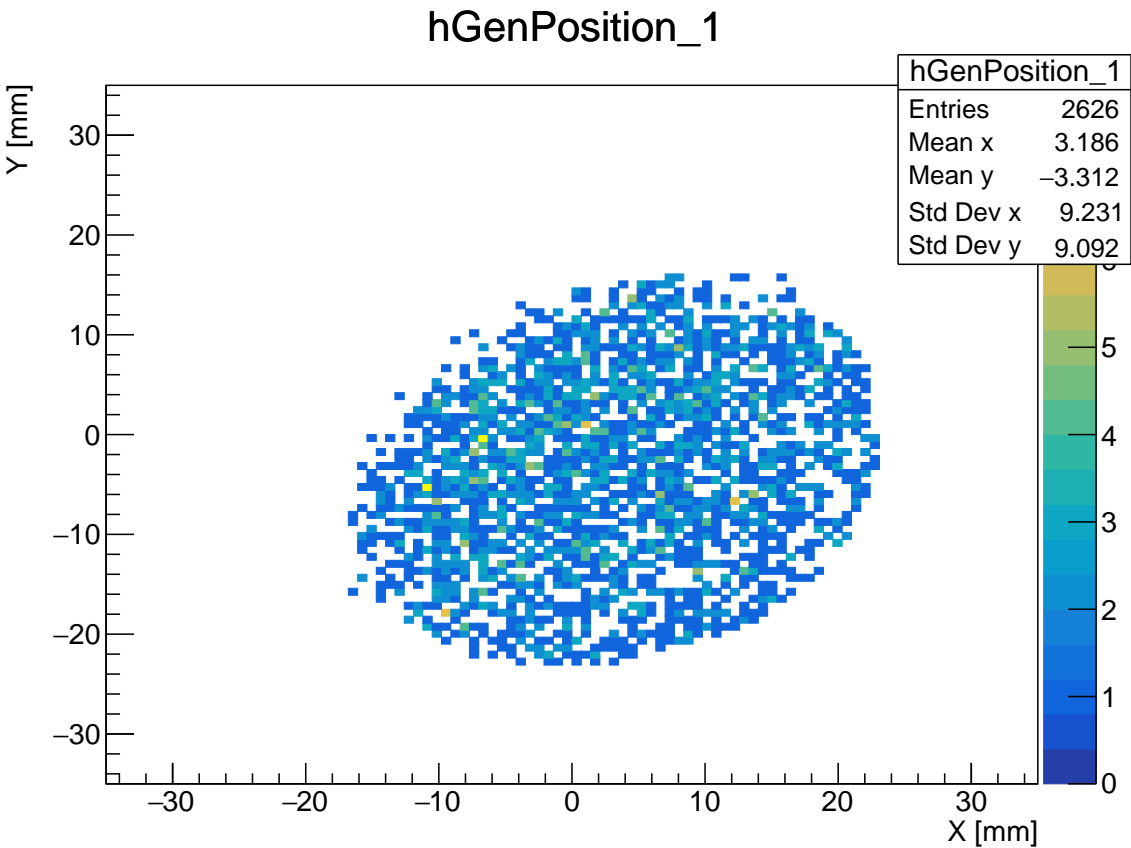


Figure: Generation Position

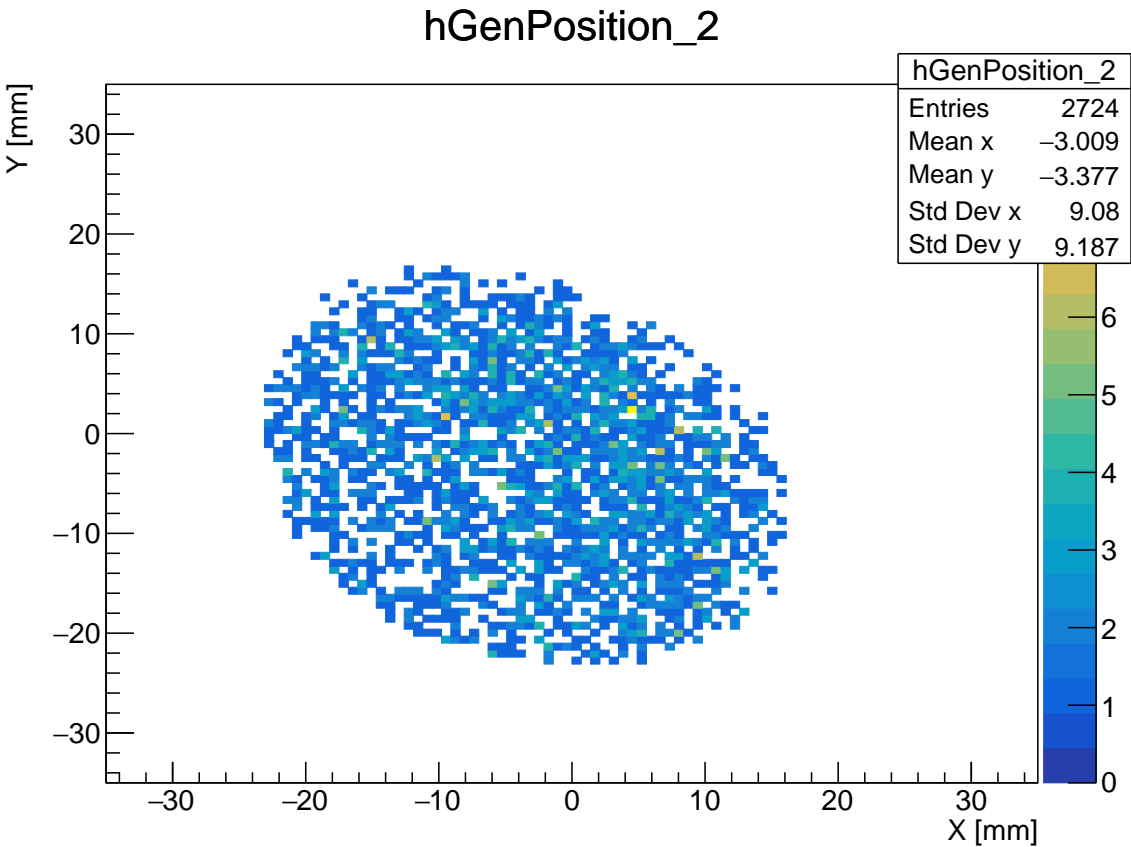


Figure: Generation Position

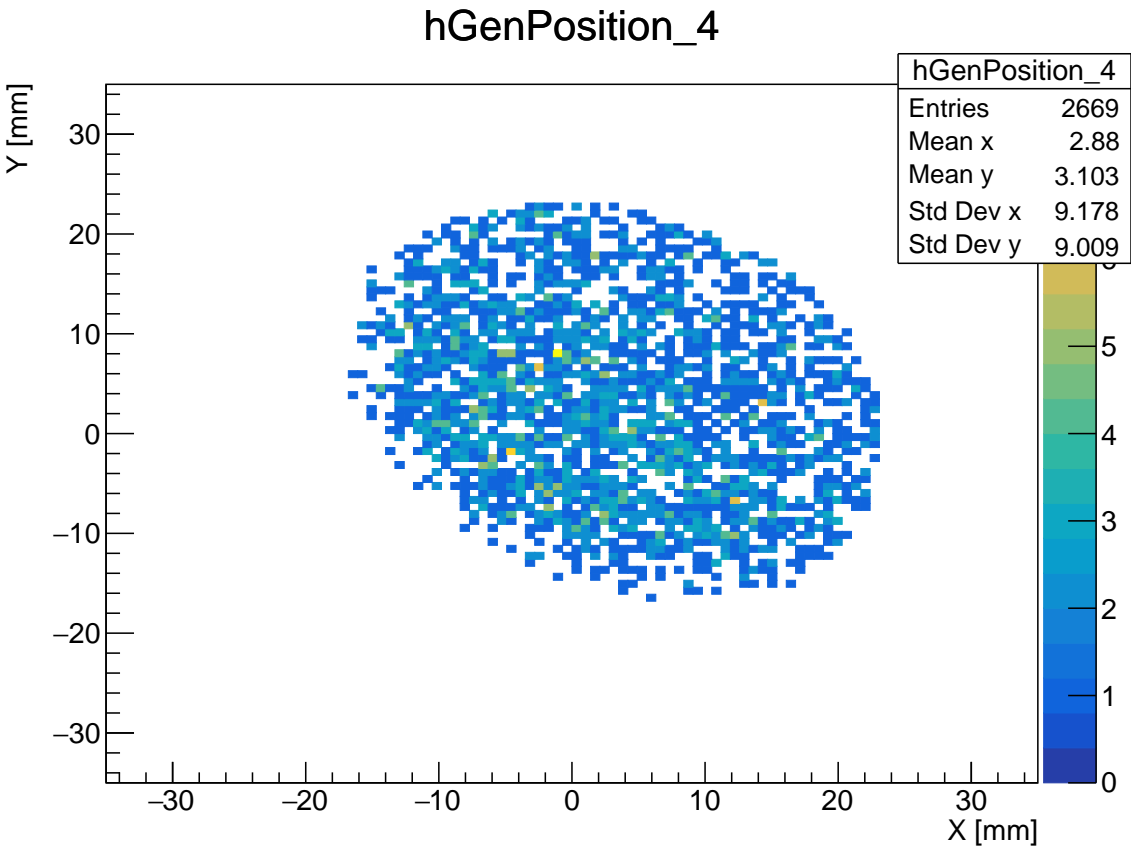


Figure: Generation Position

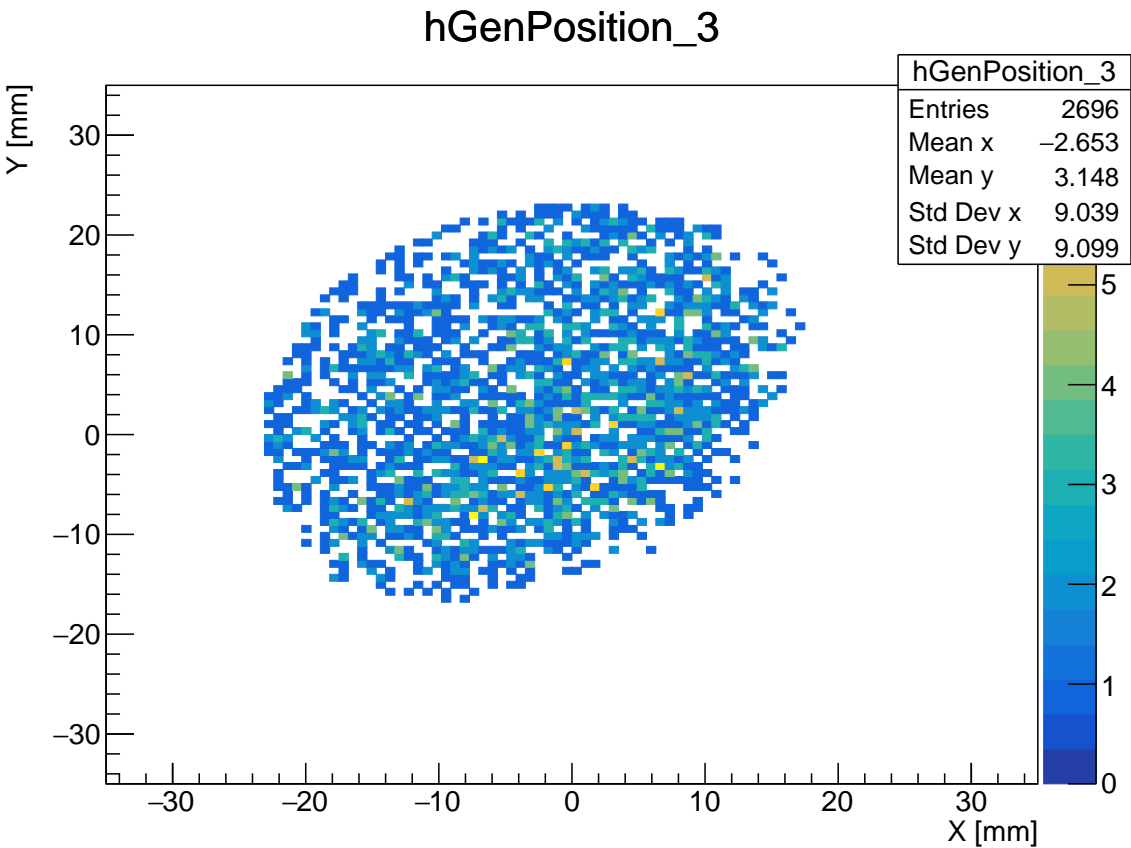


Figure: Generation Position

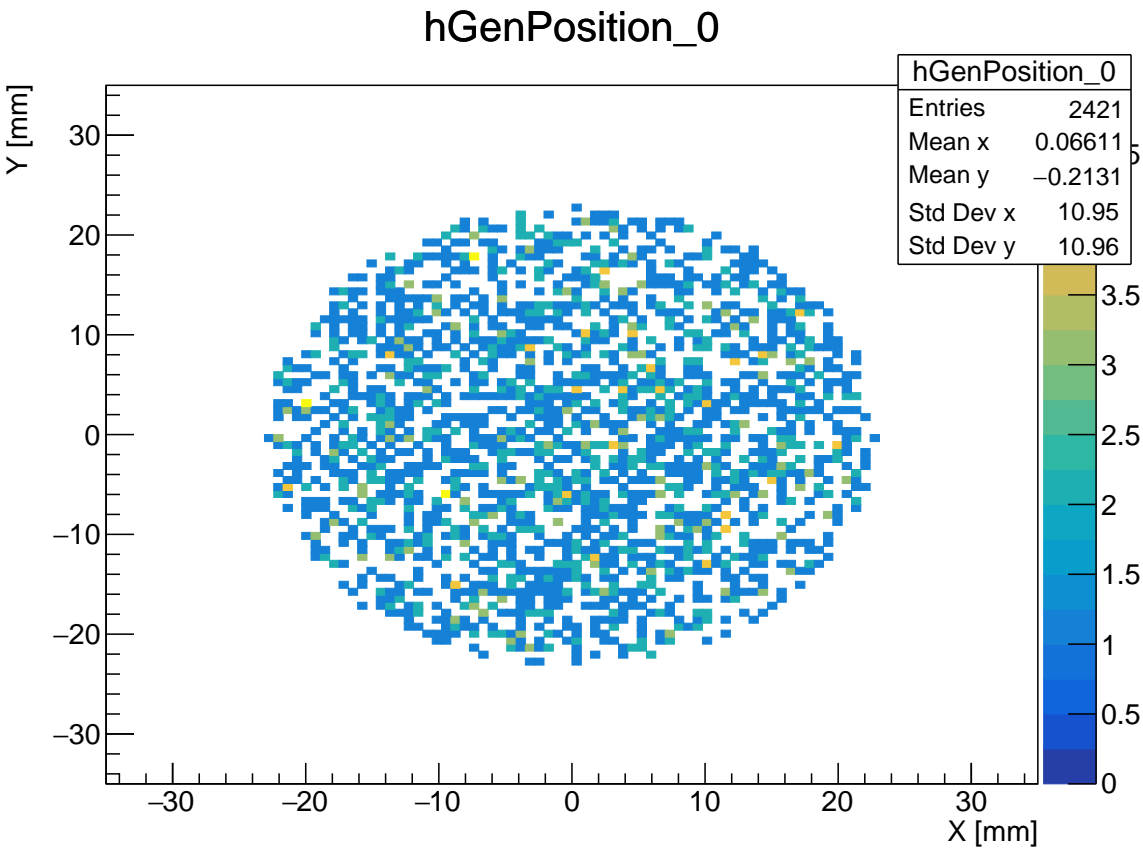


Figure: Generation Position

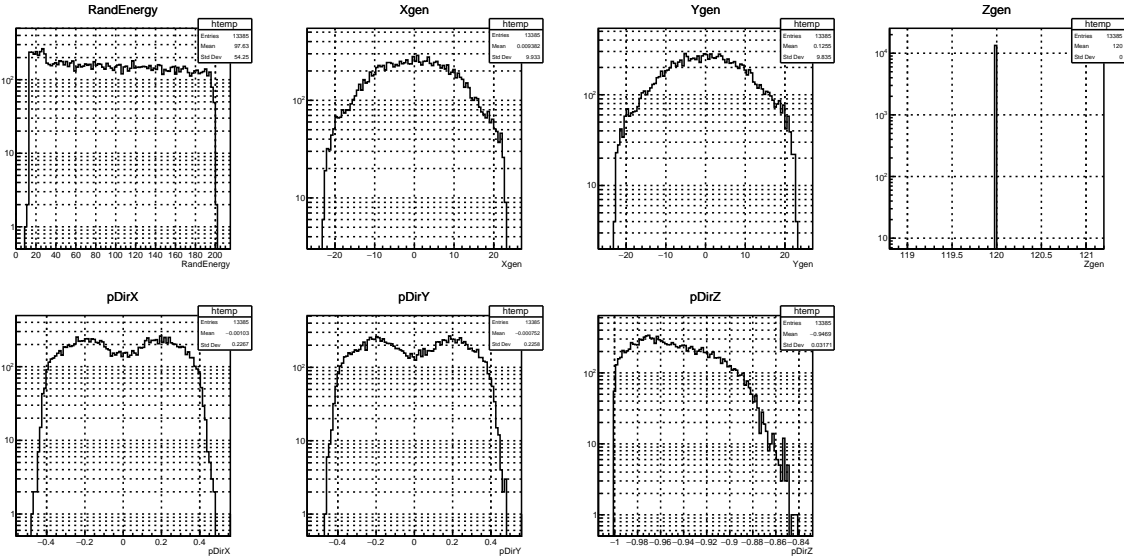


Figure: MC quantities

Energies distribution for alpha

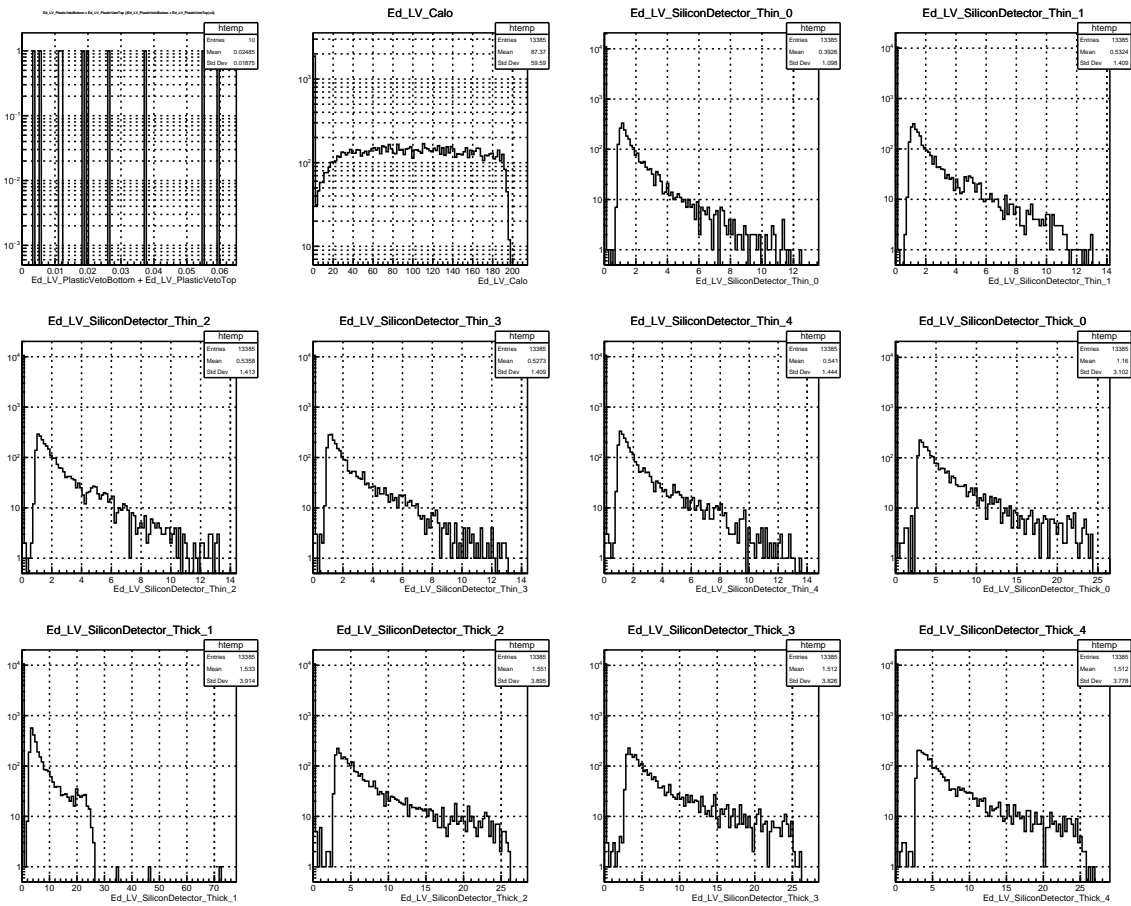


Figure: Detected energies

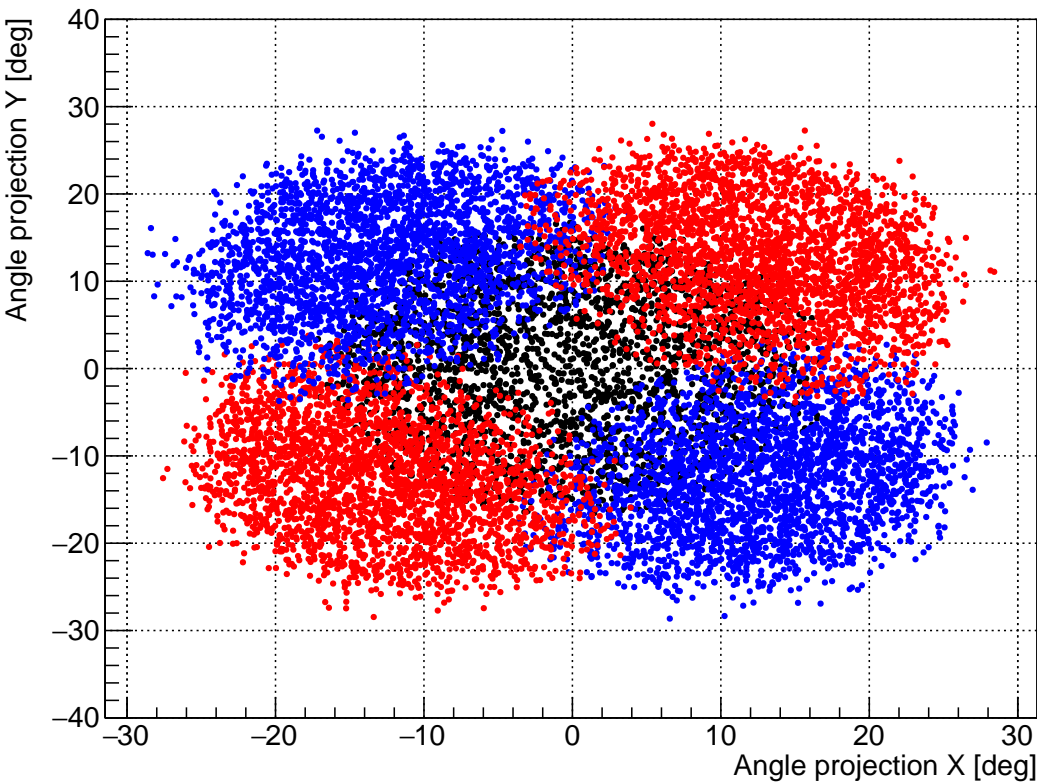


Figure: Angles distribution

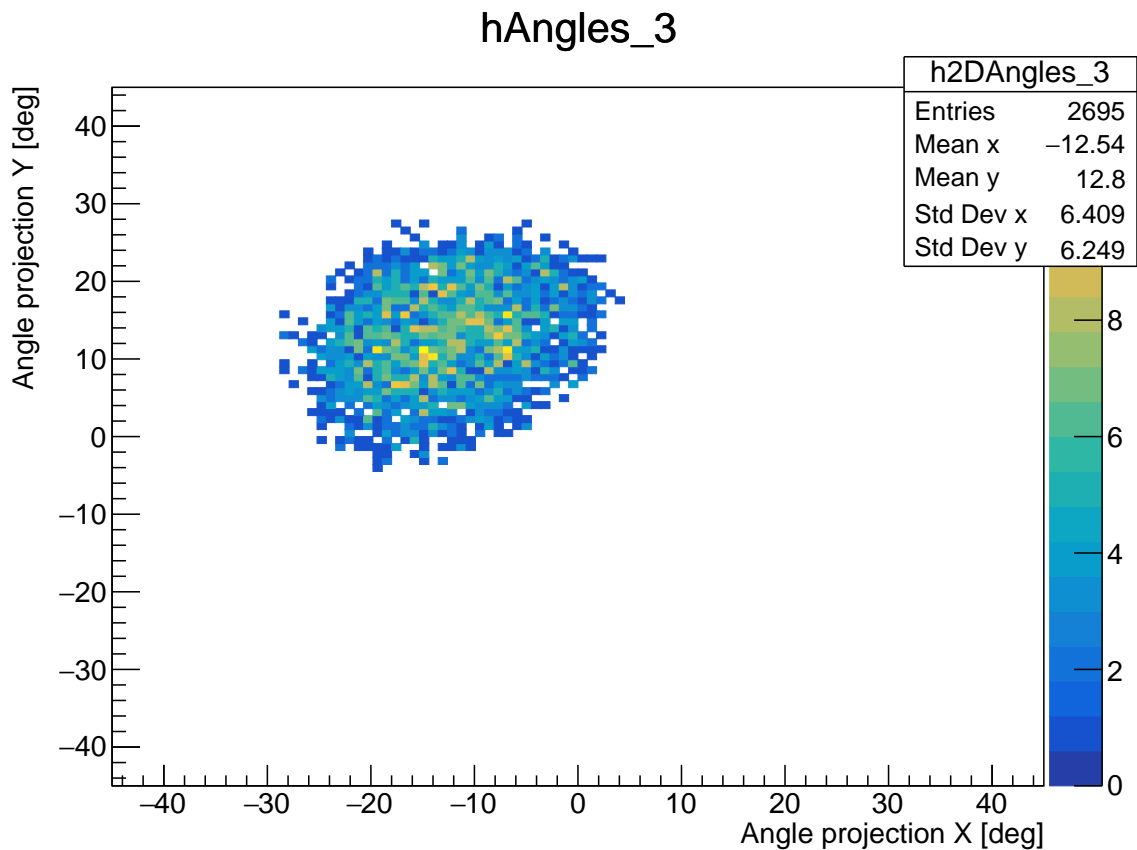


Figure: Angles distribution

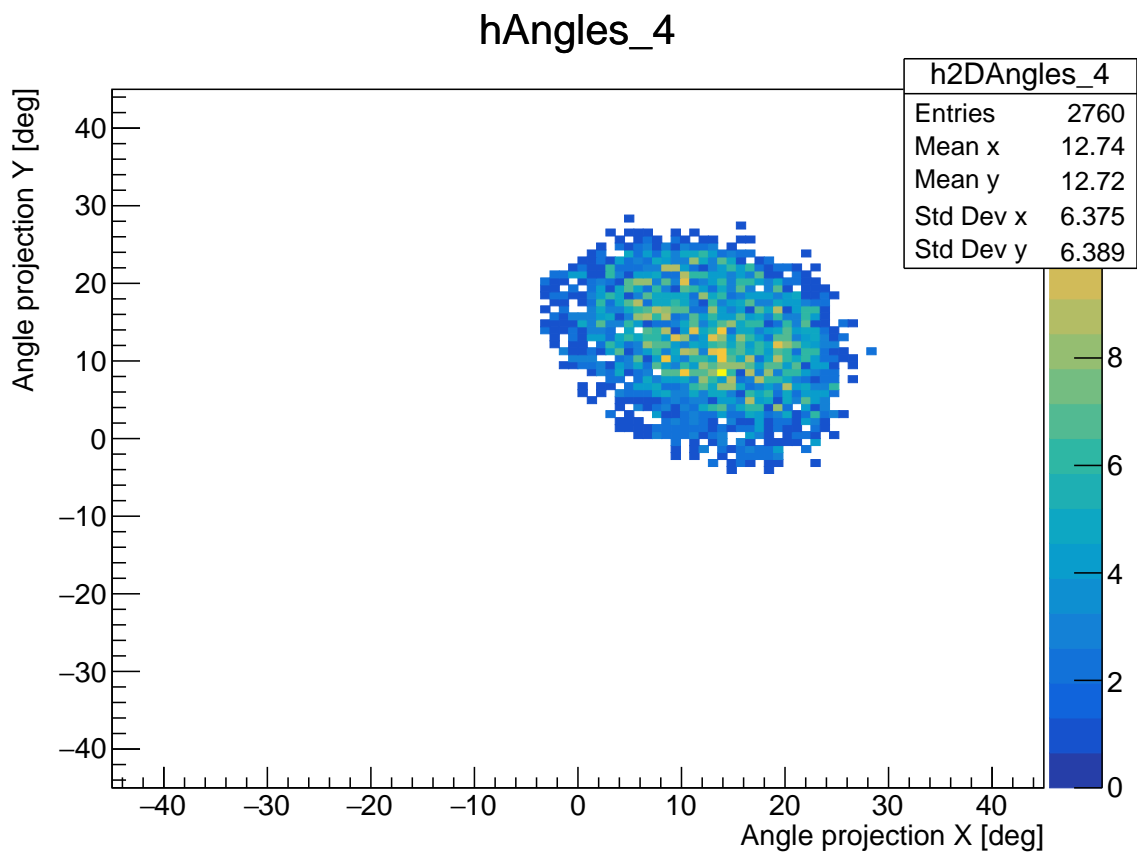


Figure: Angles distribution

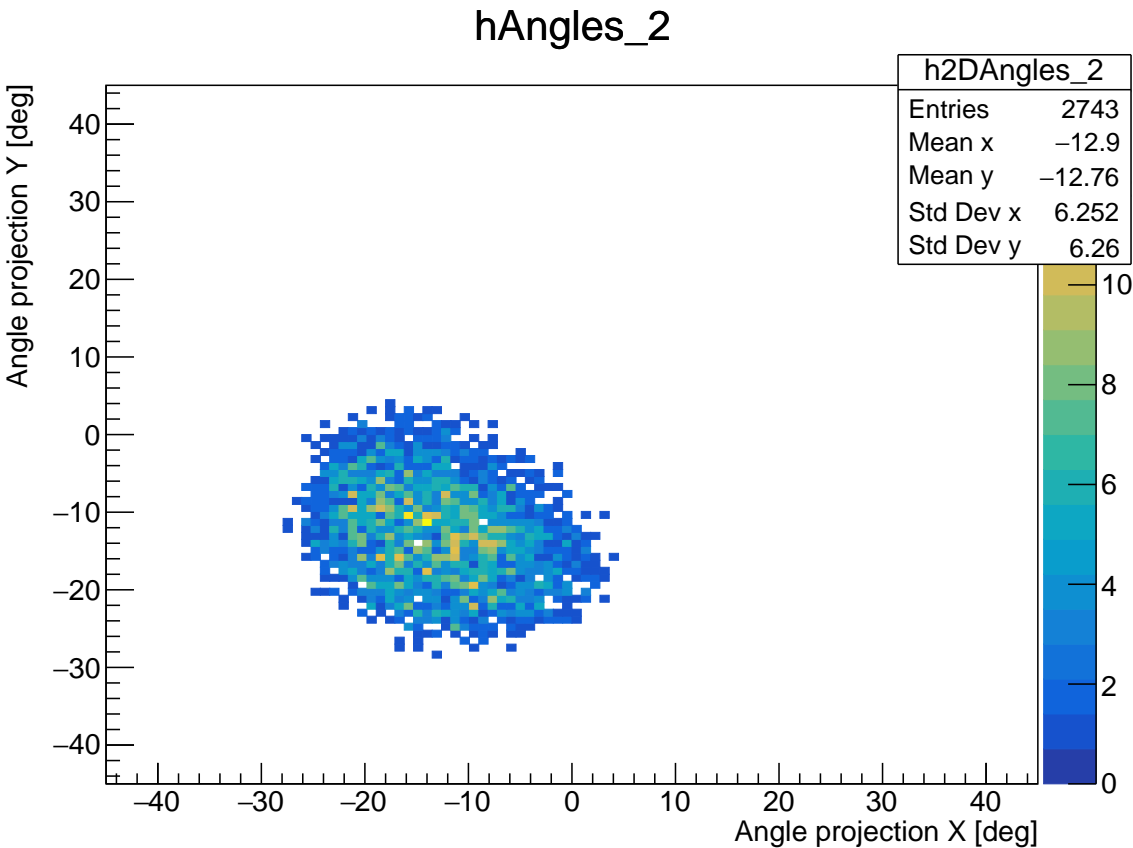


Figure: Angles distribution

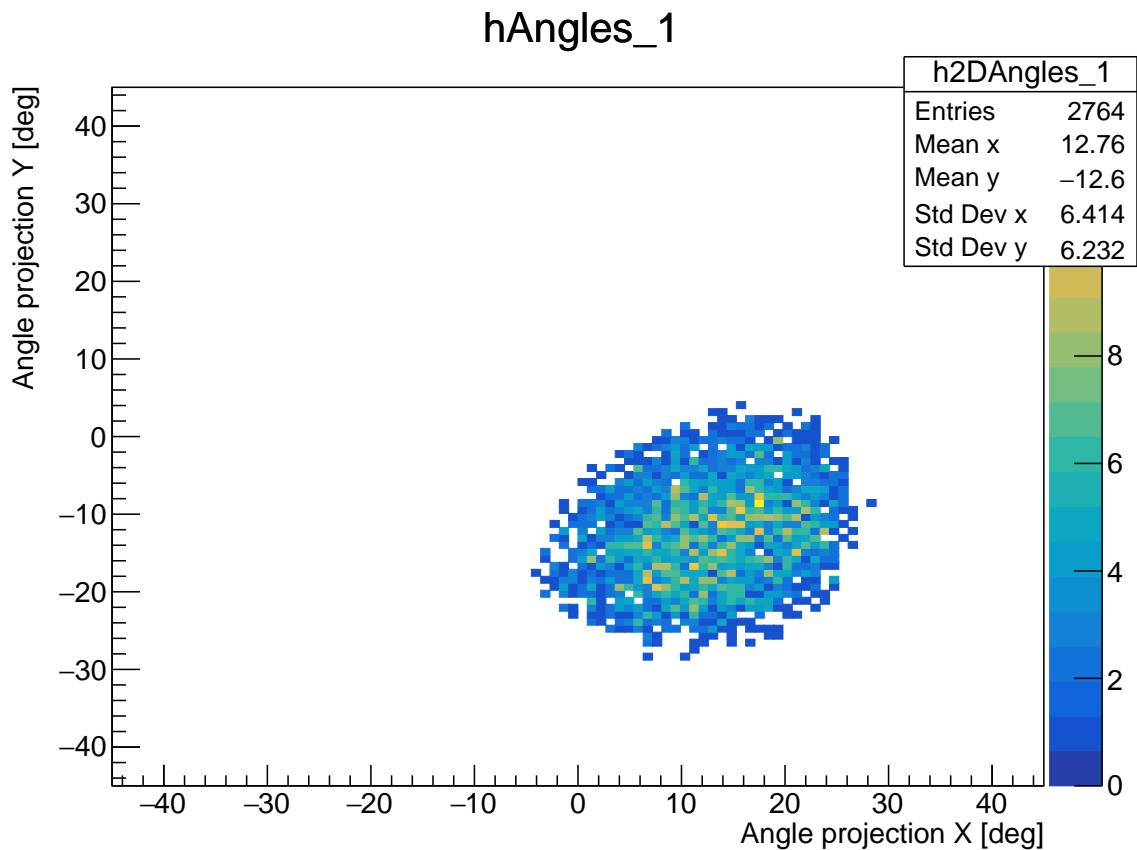


Figure: Angles distribution

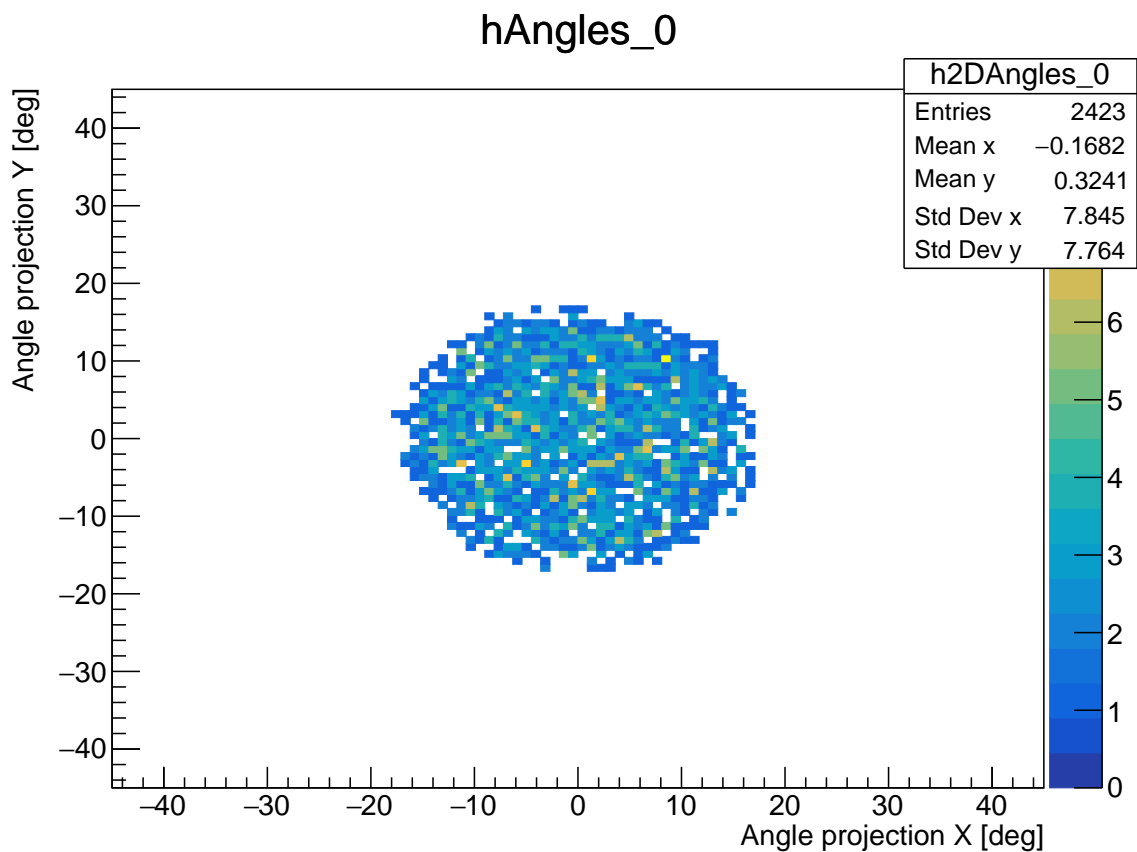


Figure: Angles distribution

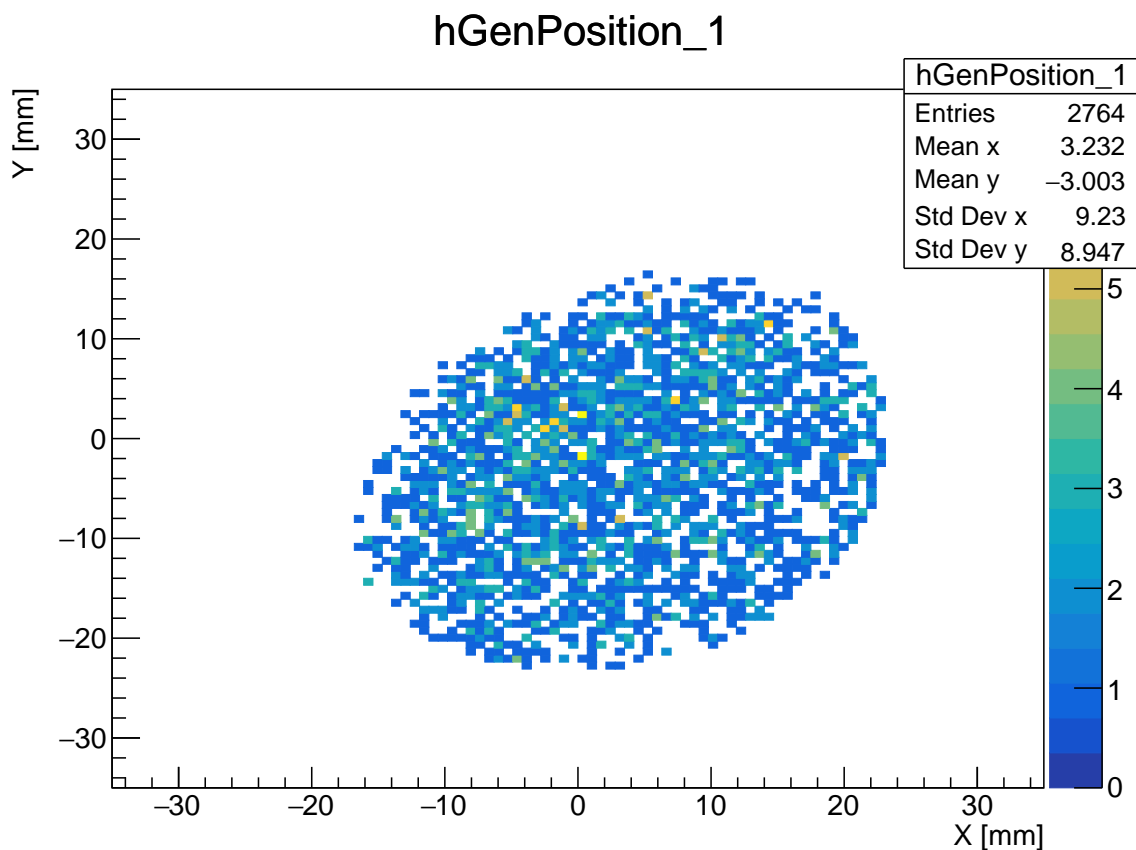


Figure: Generation Position

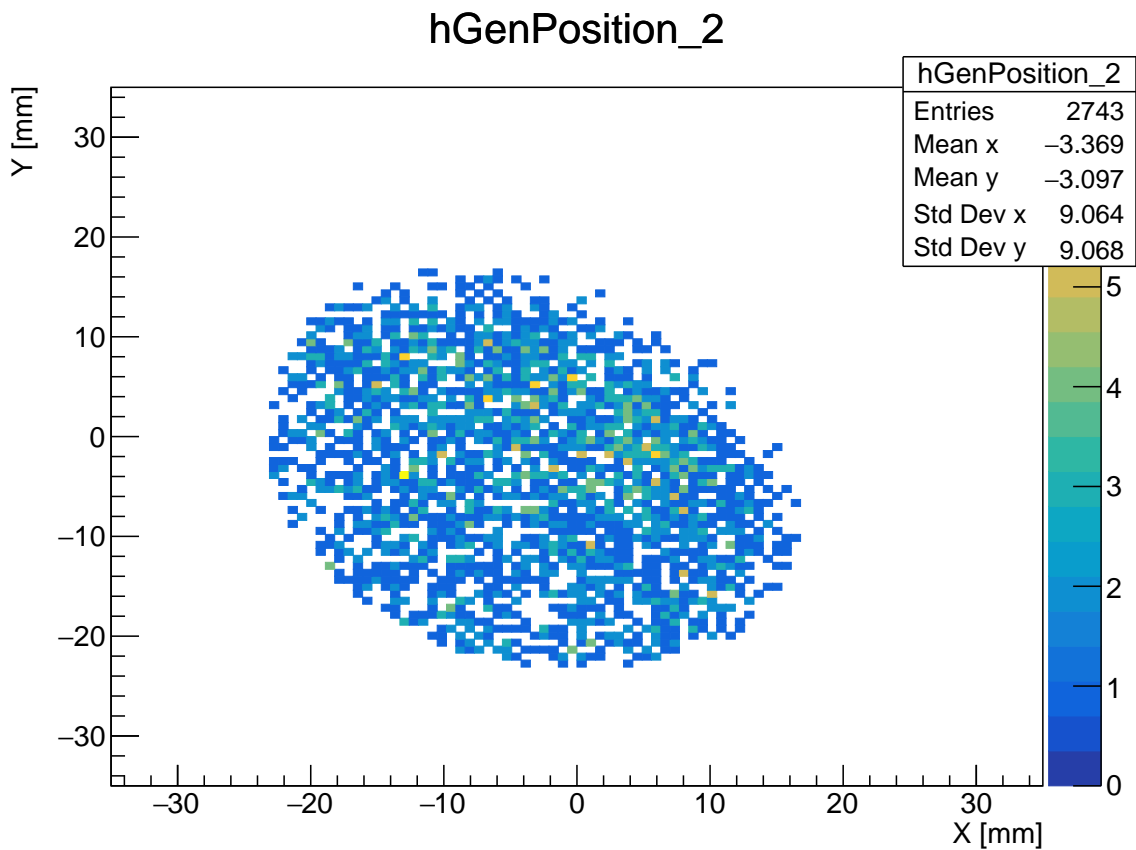


Figure: Generation Position

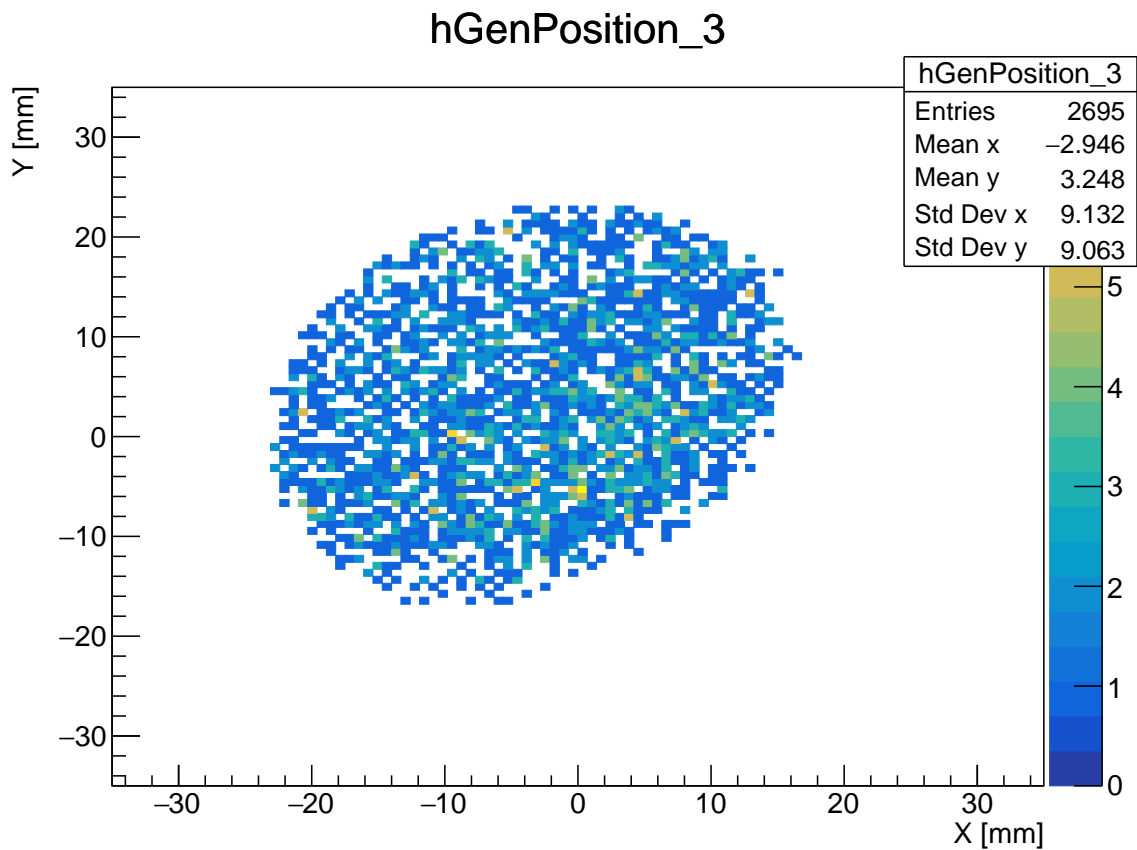


Figure: Generation Position

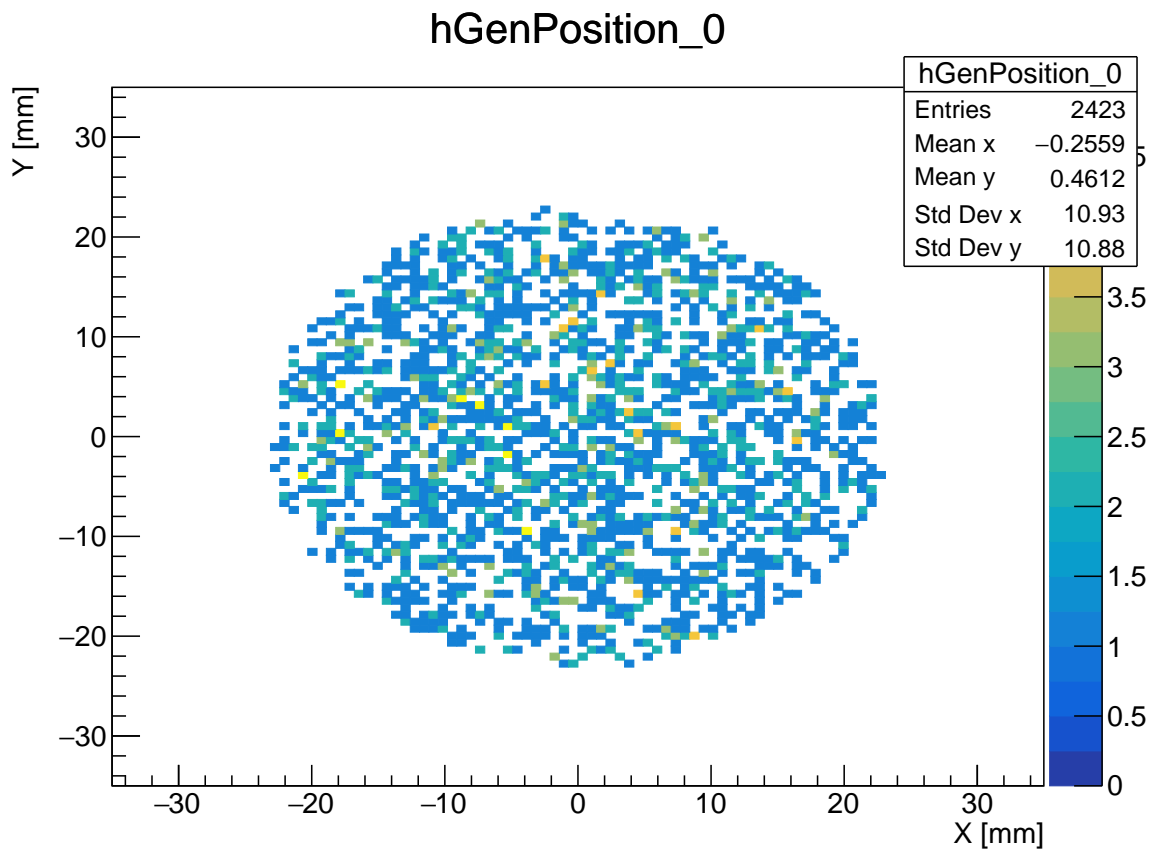


Figure: Generation Position

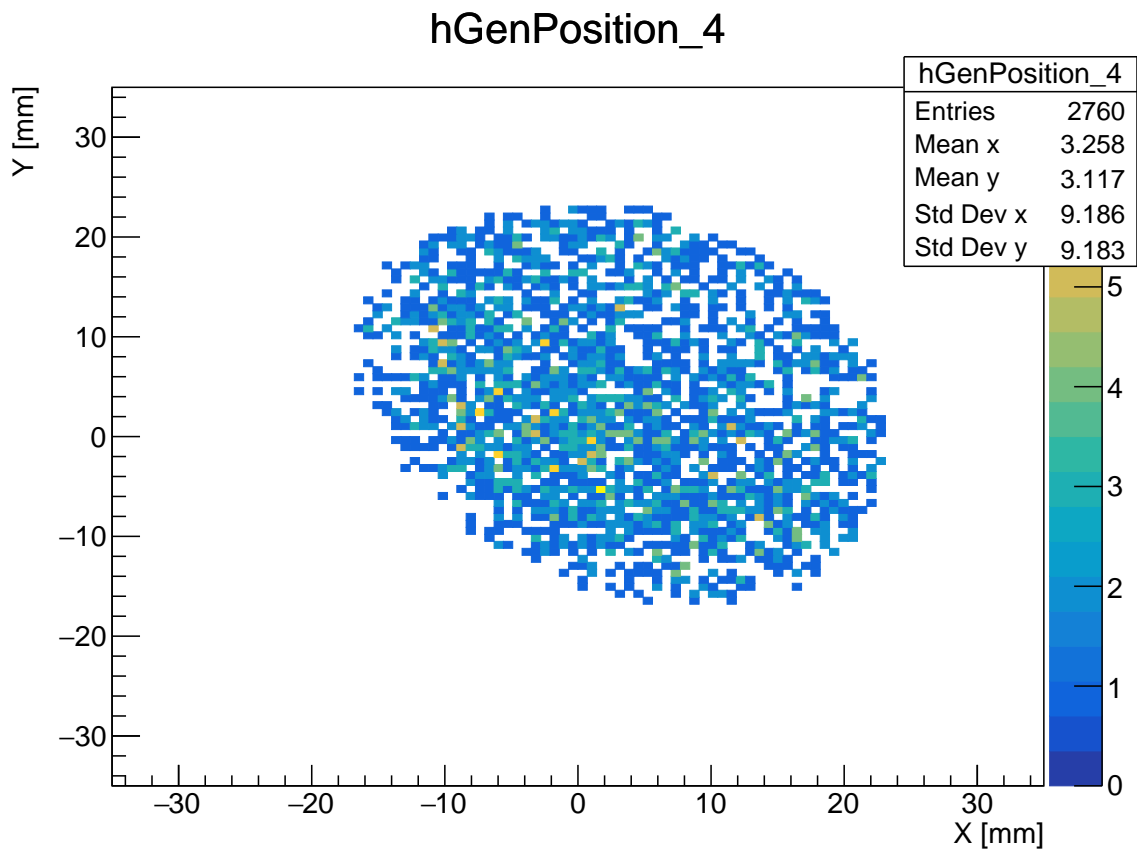


Figure: Generation Position

