Neutron Distribution from remoll Simulation

- Energy Selection : > 10 MeV

- Skyshine detector (#5556) and Hall A roof (#101)

- Distributions:

  - Energy

  - 1D vertex Z (along beam line)

  - 2D vertex X-Z and Y-Z

  - 2D X-Z hits

Det 5556

Y

X

Z

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1
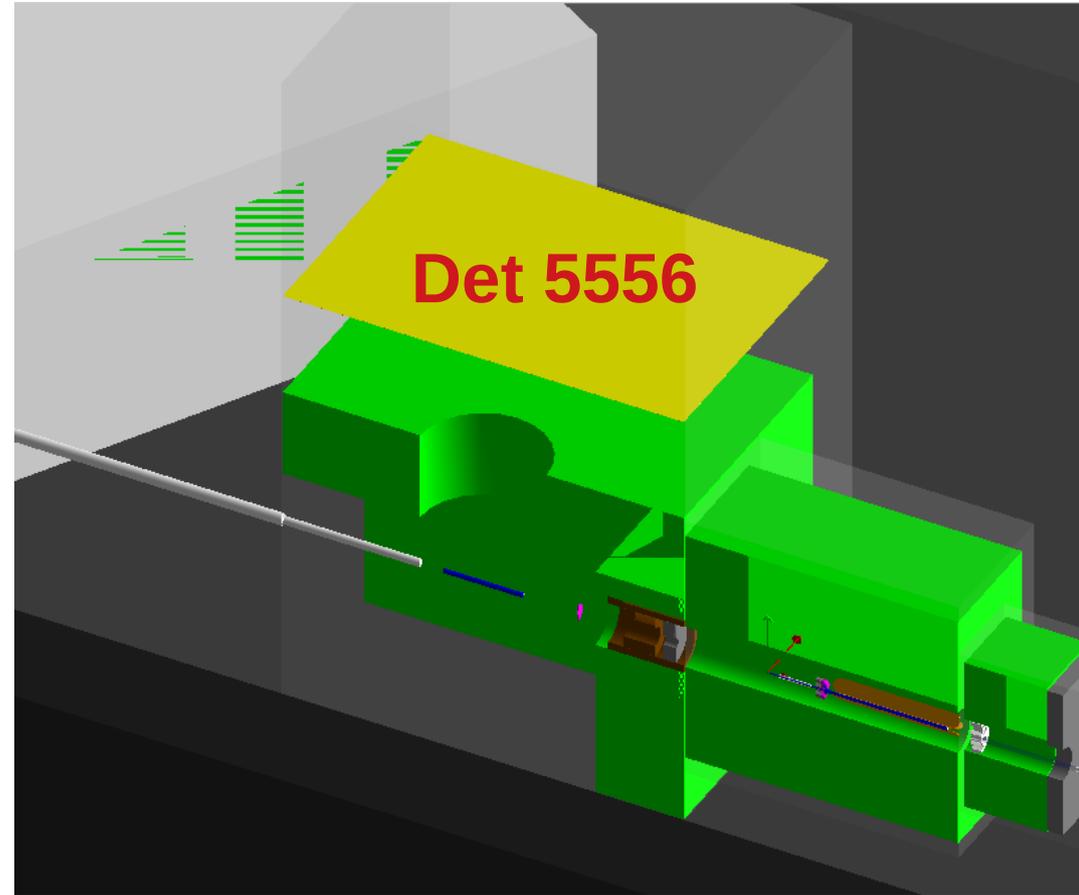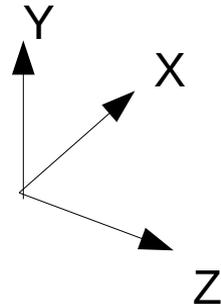
Roof(101): HE(>10 MeV) neutron vertices
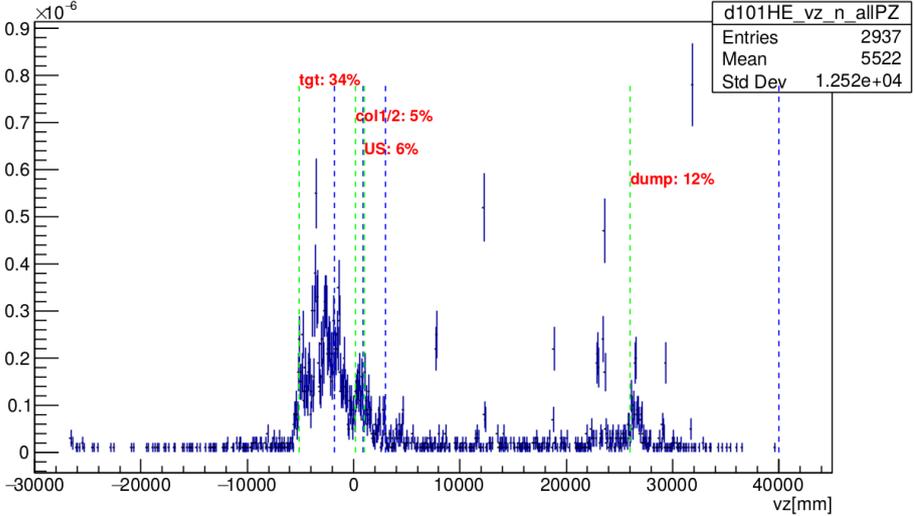
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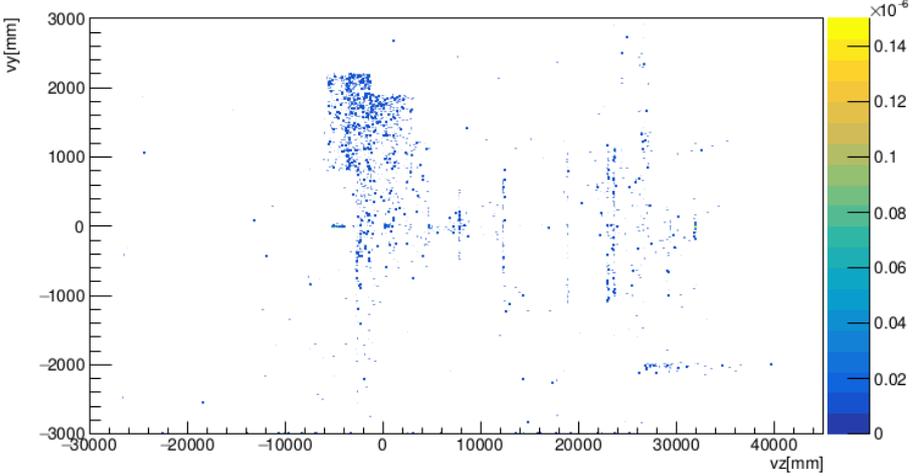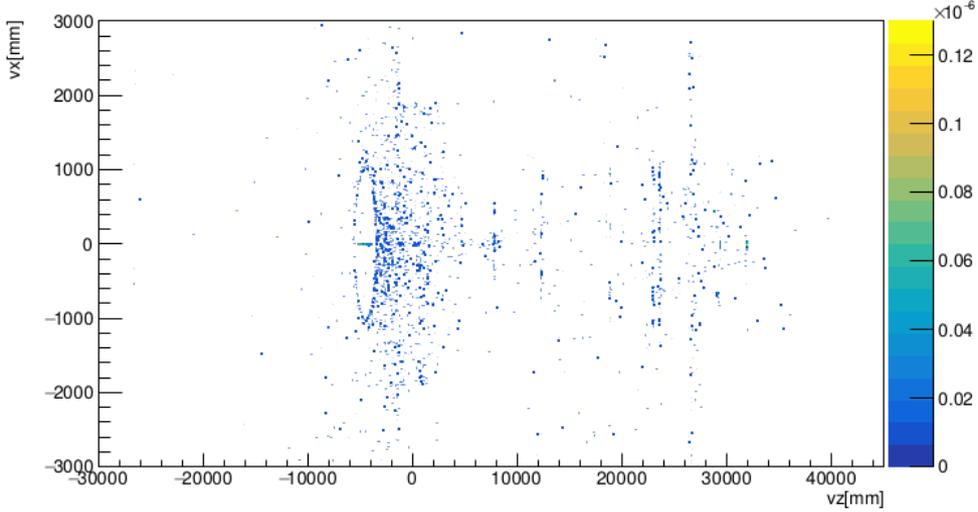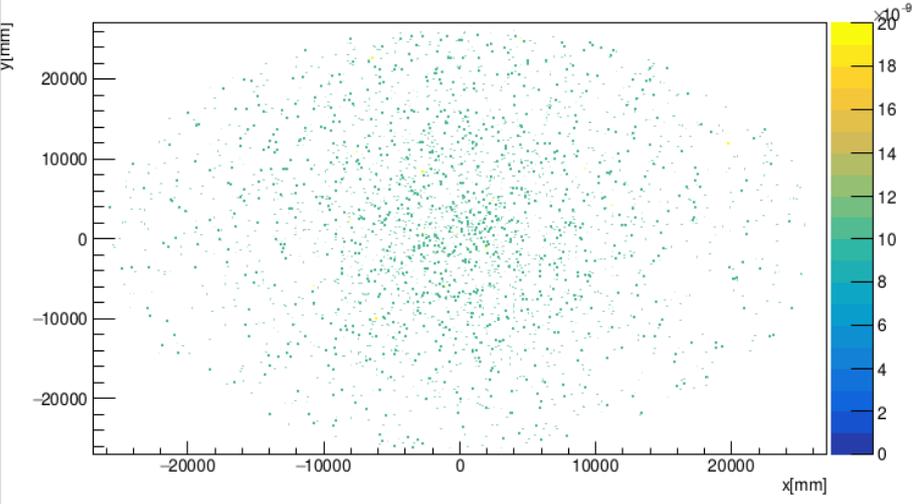
Roof(101): Neutron Engergy Distribution

energy distribution n weighted by rate

dHL_Roof_energy_n_Dmg0	
Entries	203255
Mean	1.294
RMS	12.1

Integral:2.9e-05

3
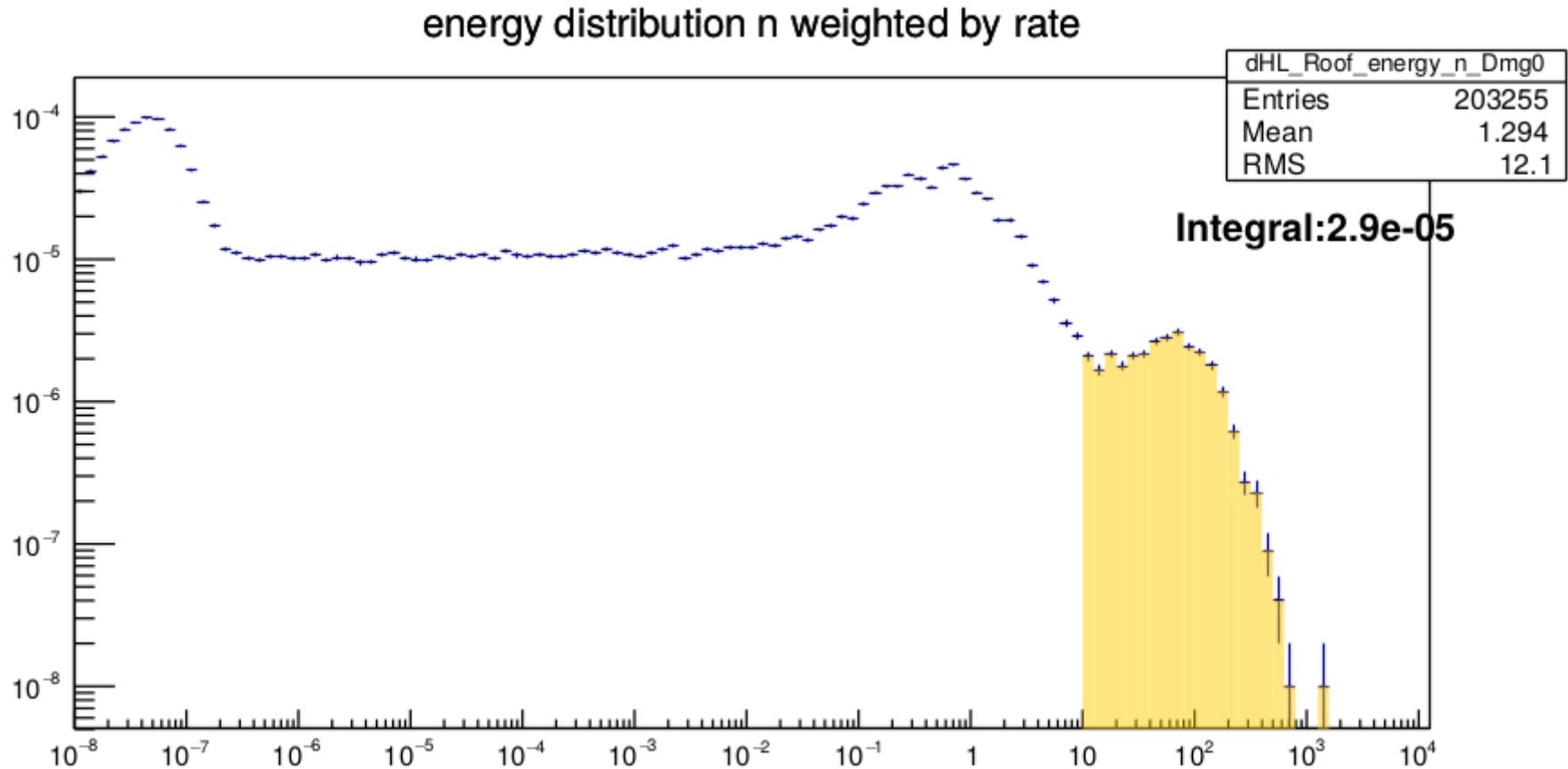
Skyshine (5556): HE(>10 MeV) neutron vertices
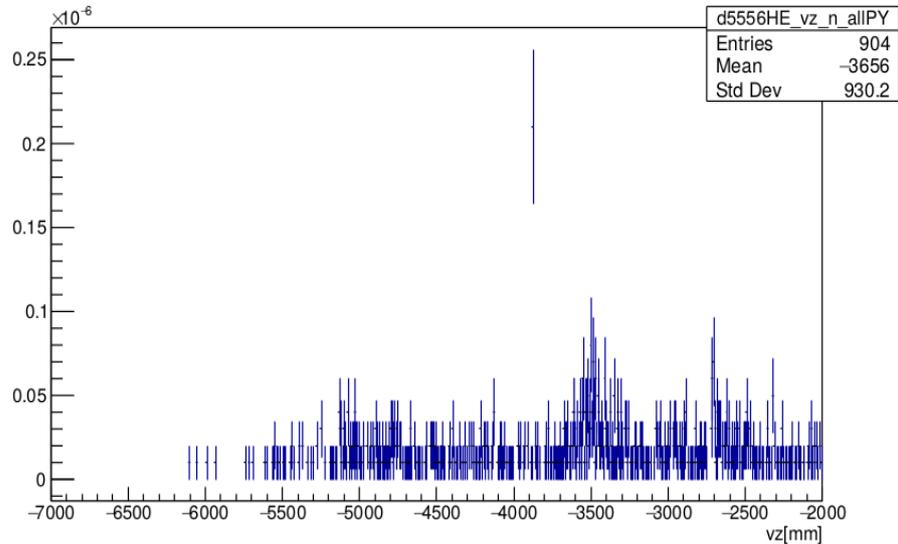
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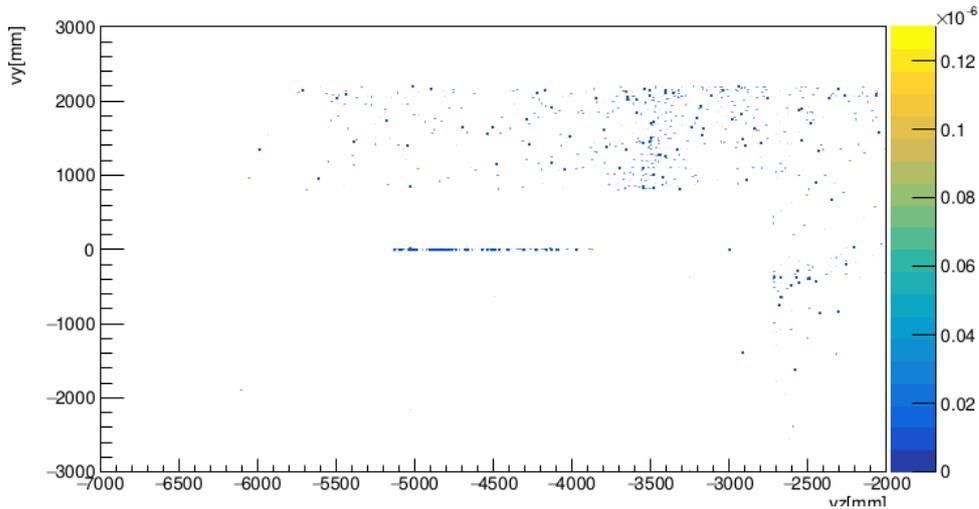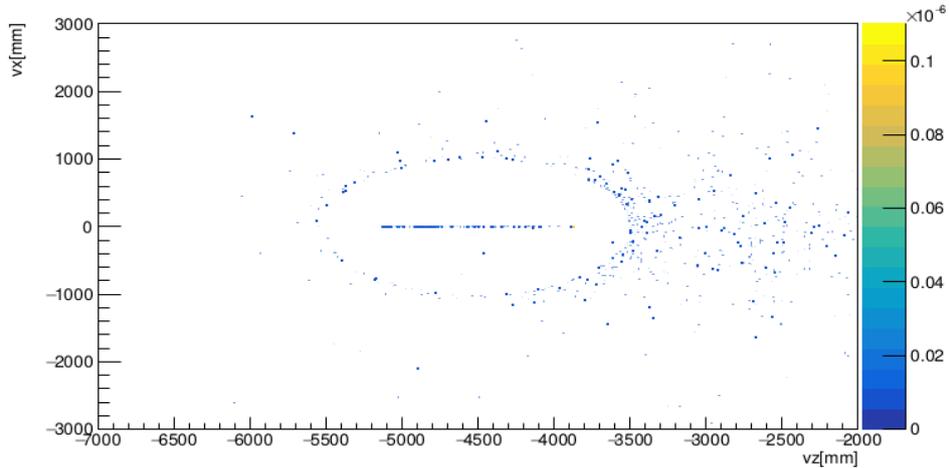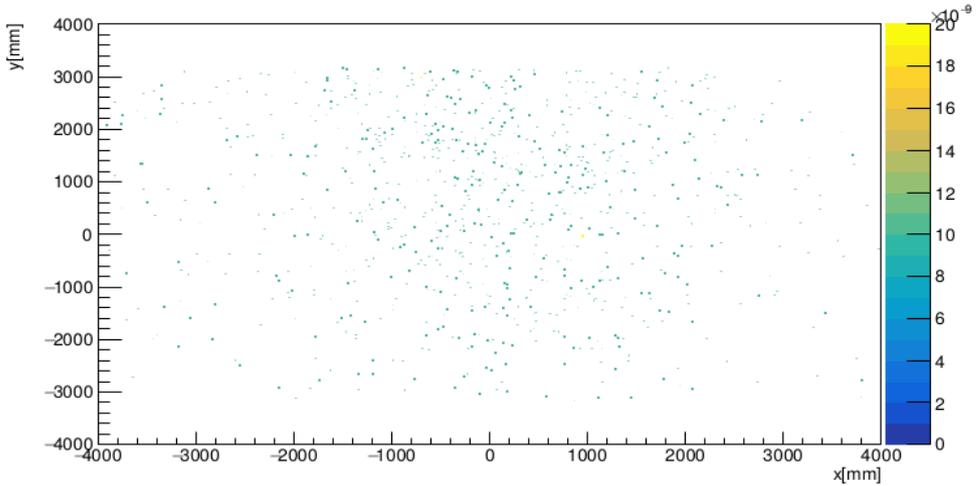
Skyshine (5556): neutron energy distribution

energy distribution allPZ n
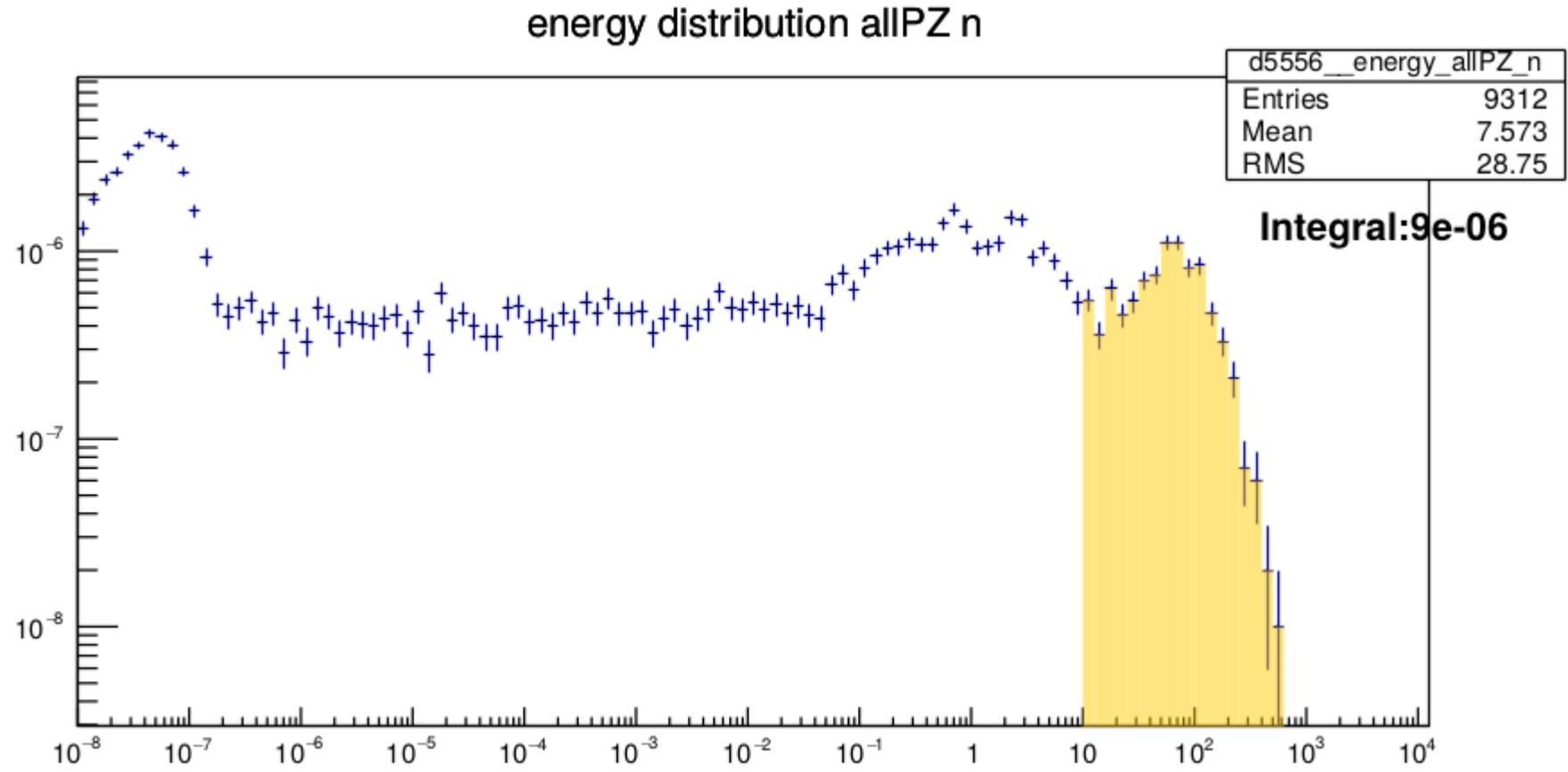
Boundary Dose

detID	Conf 1	Conf 2	Conf 3	Conf 4 (This work)
5555	4.02E-05	3.04E-05	2.65E-05	n/a
5556	1.11E-06	4.88E-06	9.03E-06	9.00E-06
101(roof)	1.53E-05	2.15E-05	3.27E-05	2.87E-05
Increase in roof	100%	141%	214%	188%

*estimated 2.4 mrem/year with conf1