

Pad saturation test

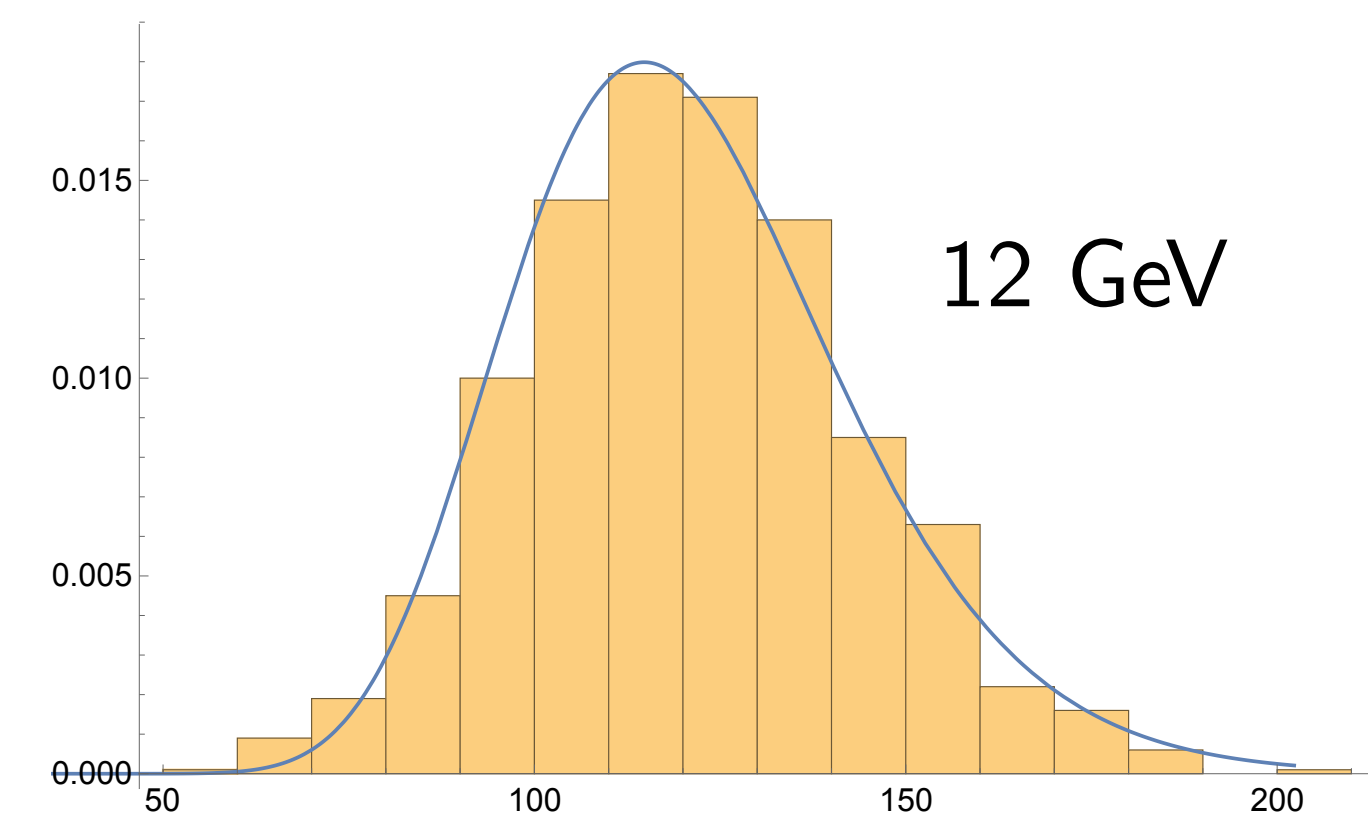
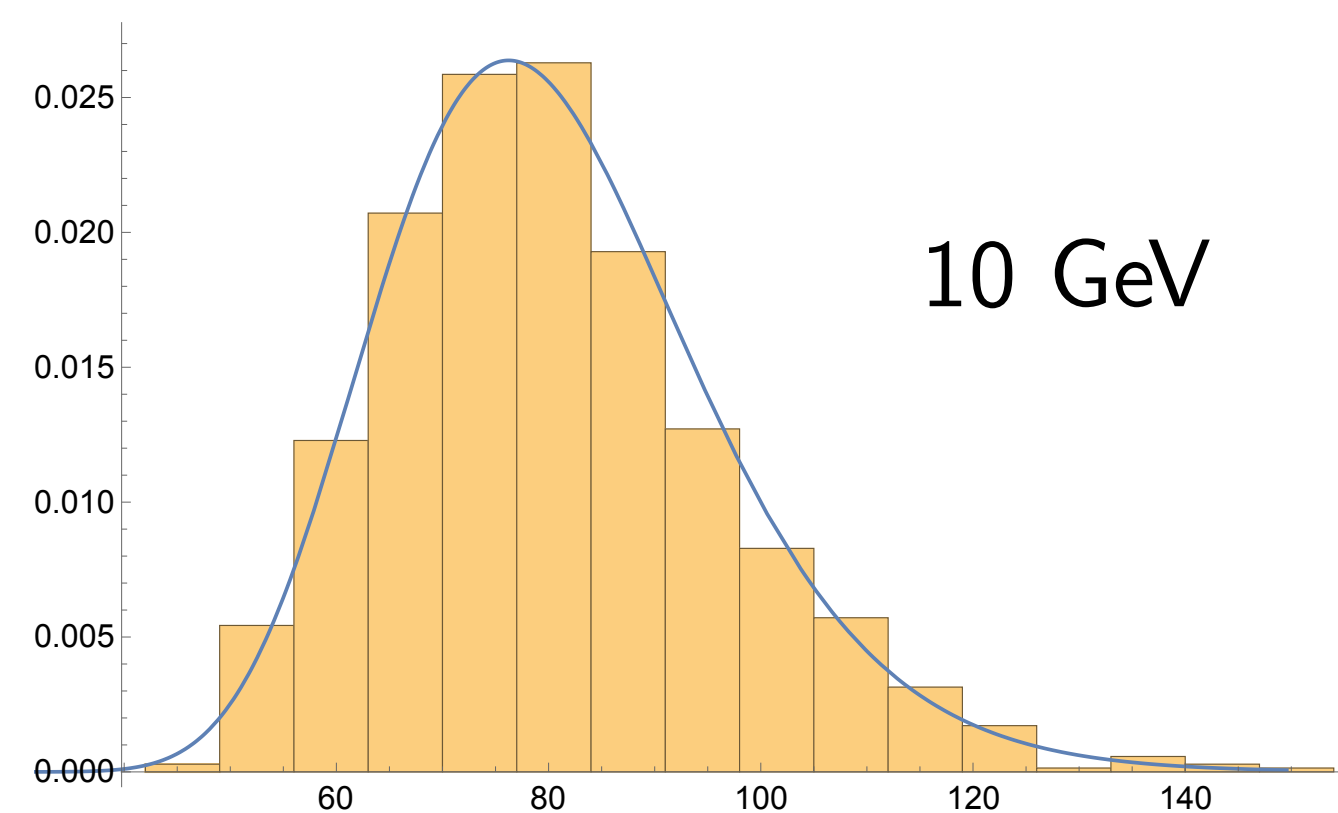
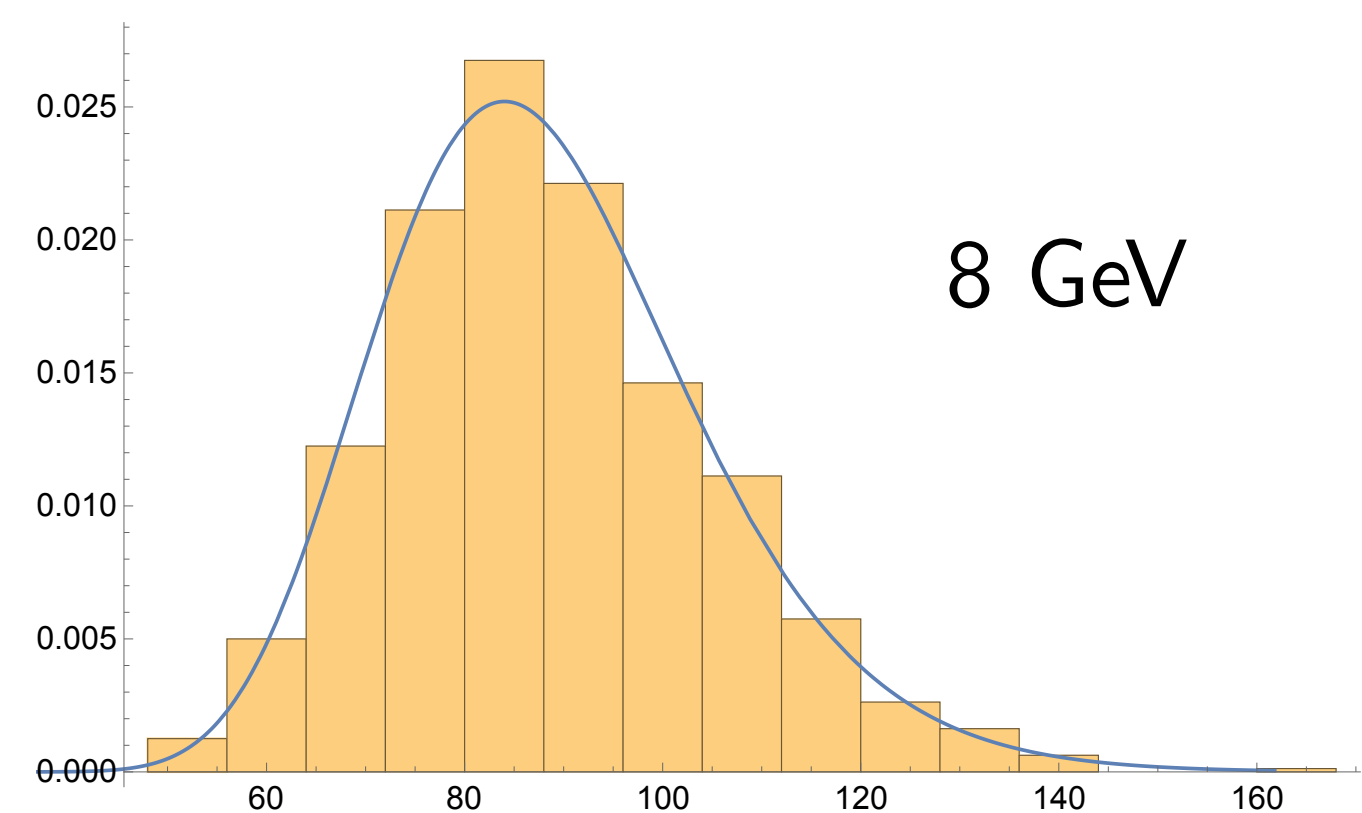
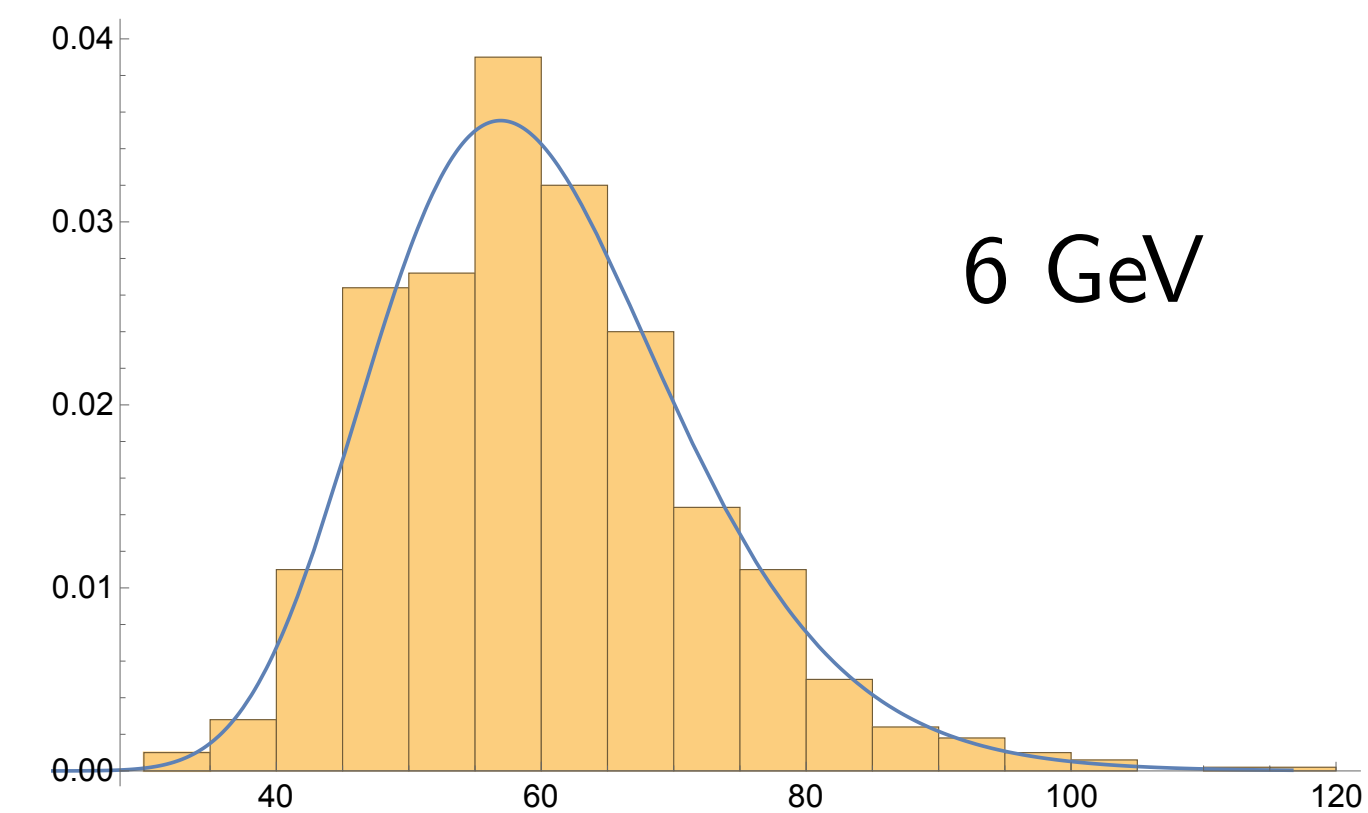
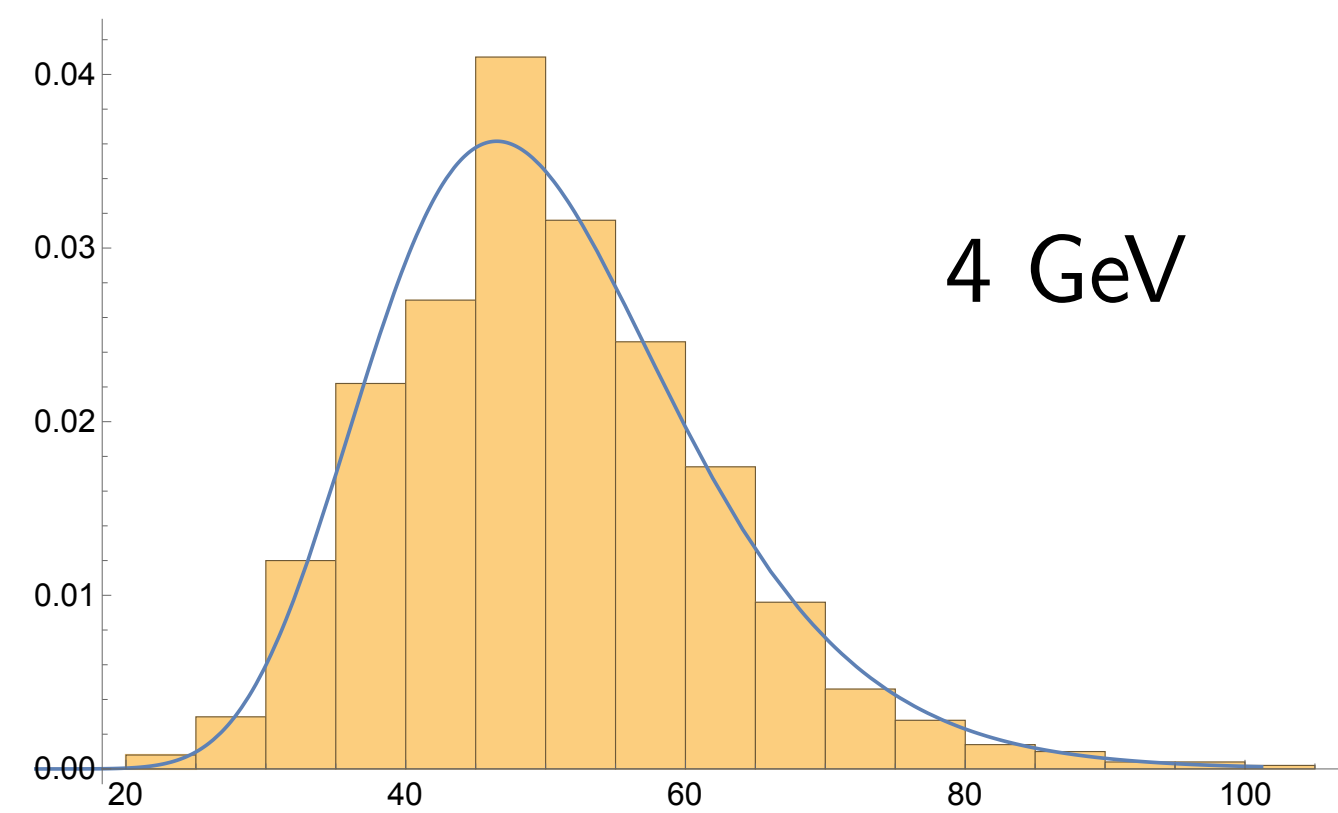
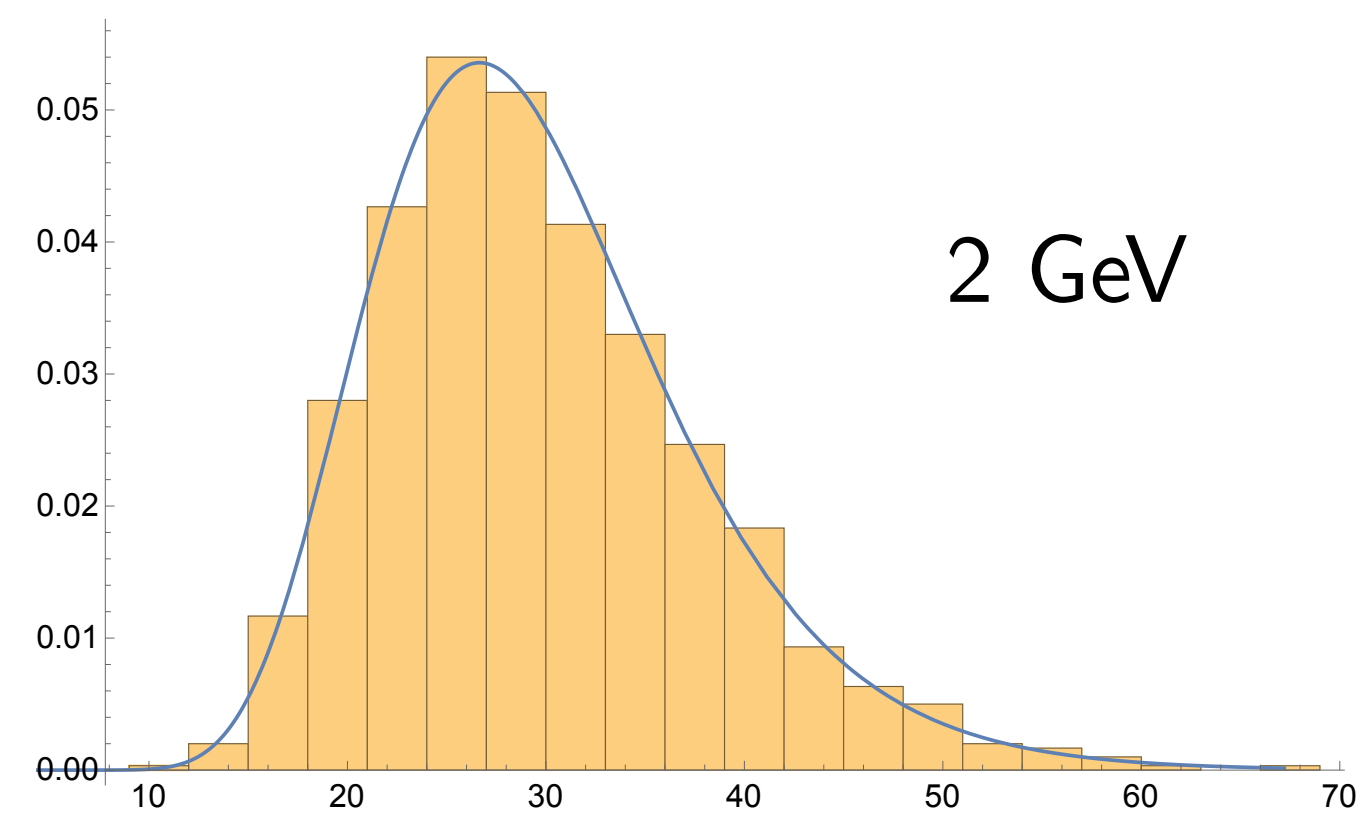
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1 July 2021

One positron's showers pad by pad (x 1000 for statistics)

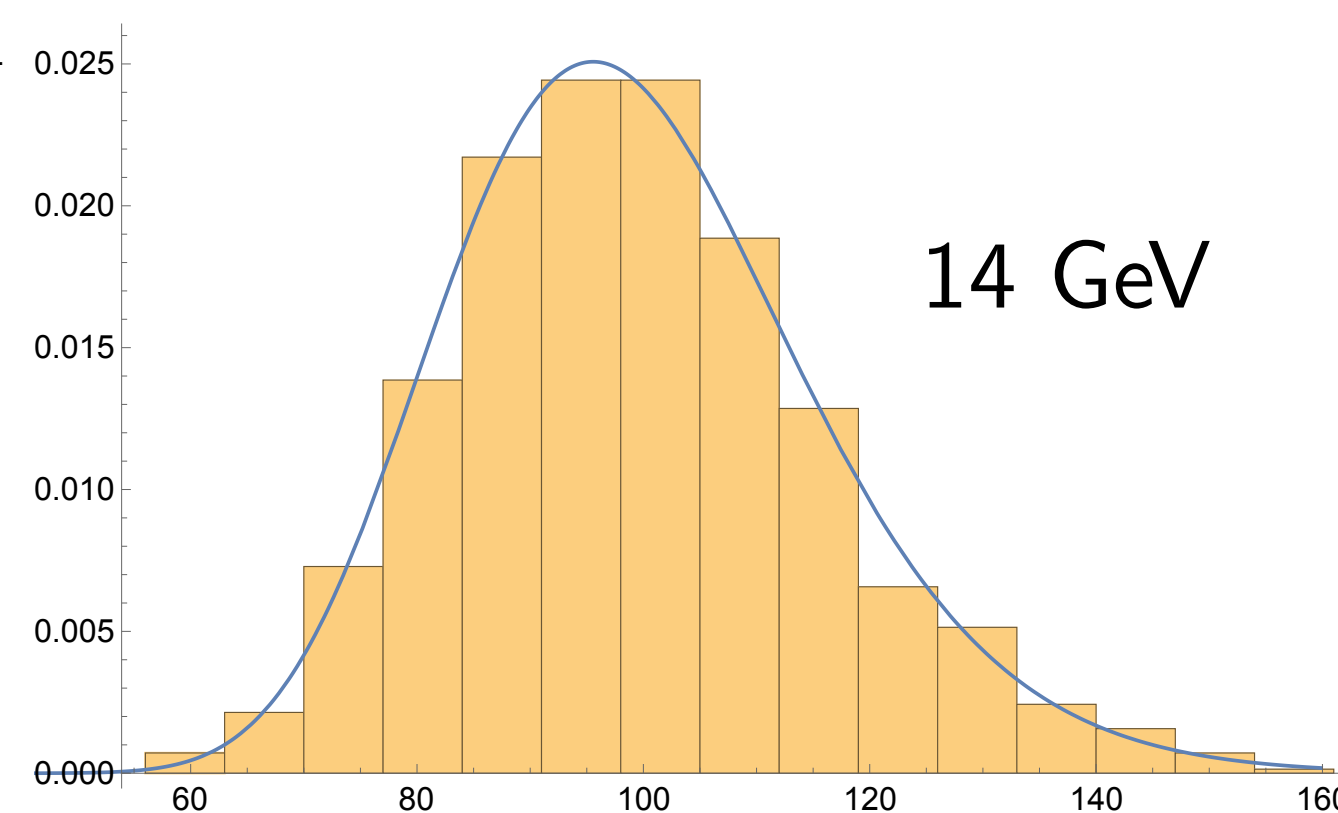
1 MIP = 4 fC = 90 keV

Positron E ₀ /GeV	2	4	6	8	10	12	14
Highest E _{dep} /MeV	6.048	9.107	10.50	14.56	13.46	18.21	14.39
Highest E _{dep} /MIP	67.20	101.2	116.7	161.8	149.6	202.3	159.9
MPV of Highest E _{dep} /MIP	26.65	46.51	56.93	84.03	76.24	114.8	95.57



PDF/MIP-1

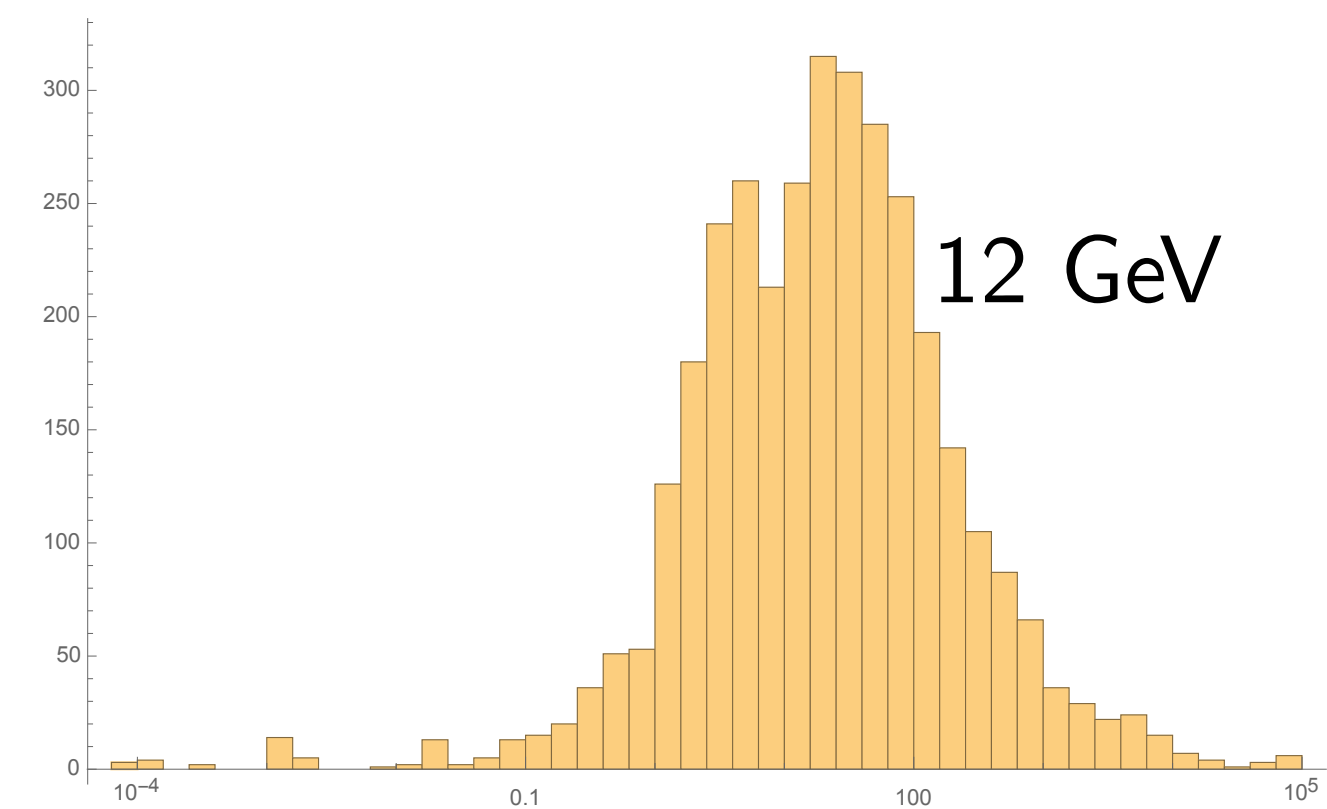
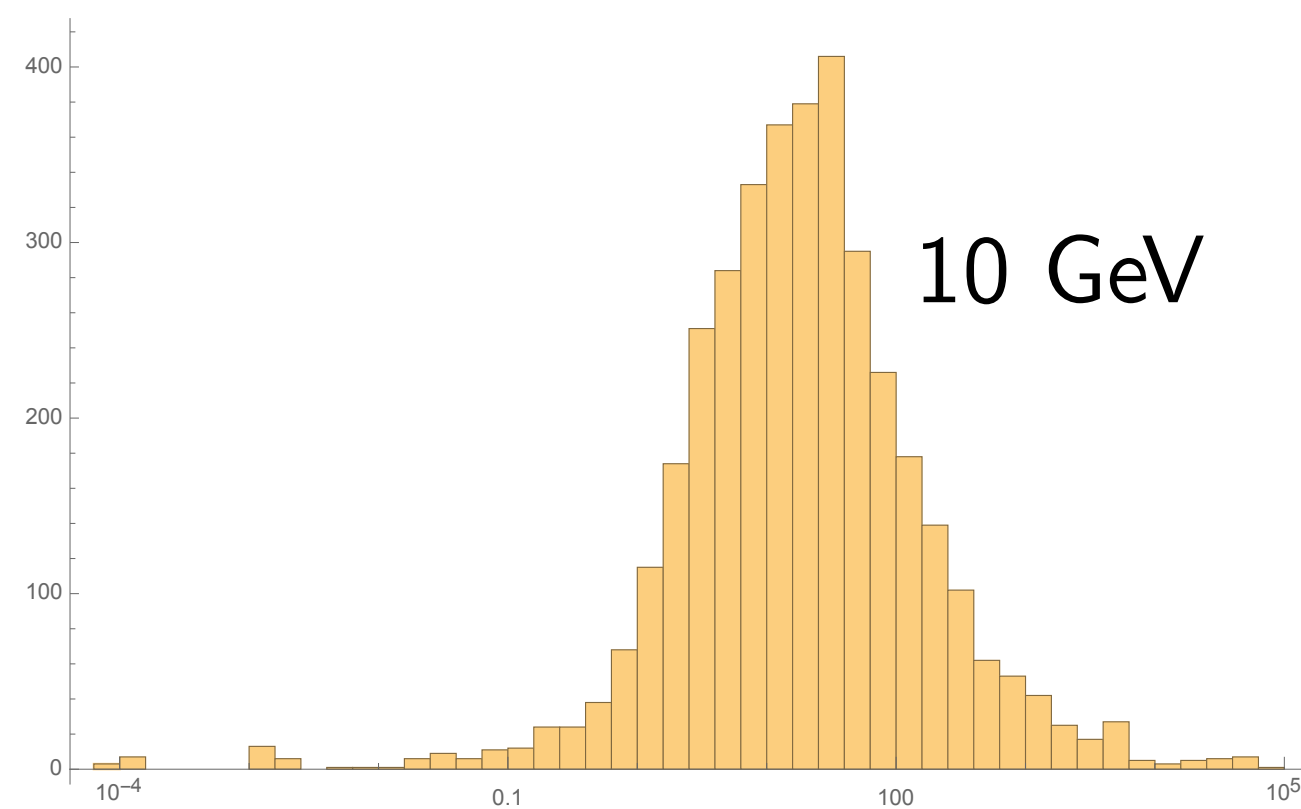
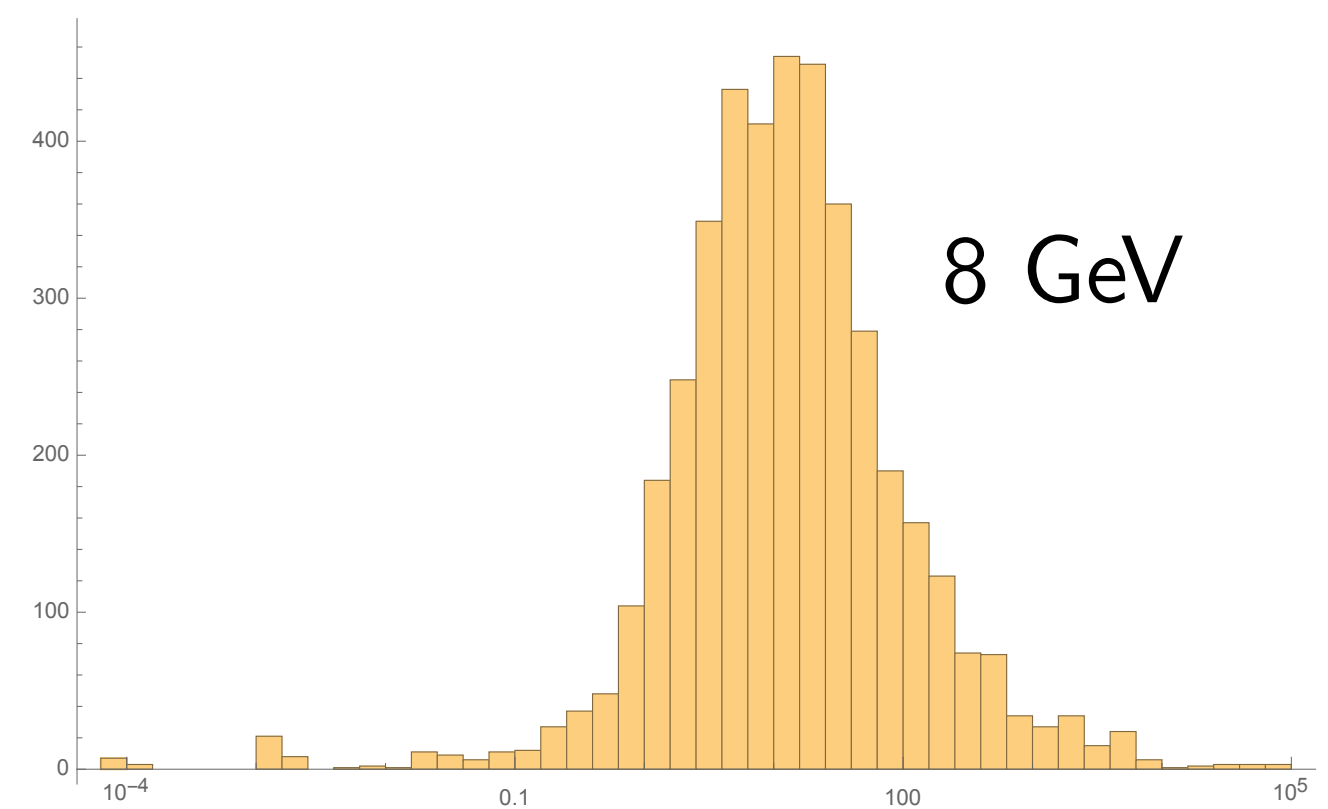
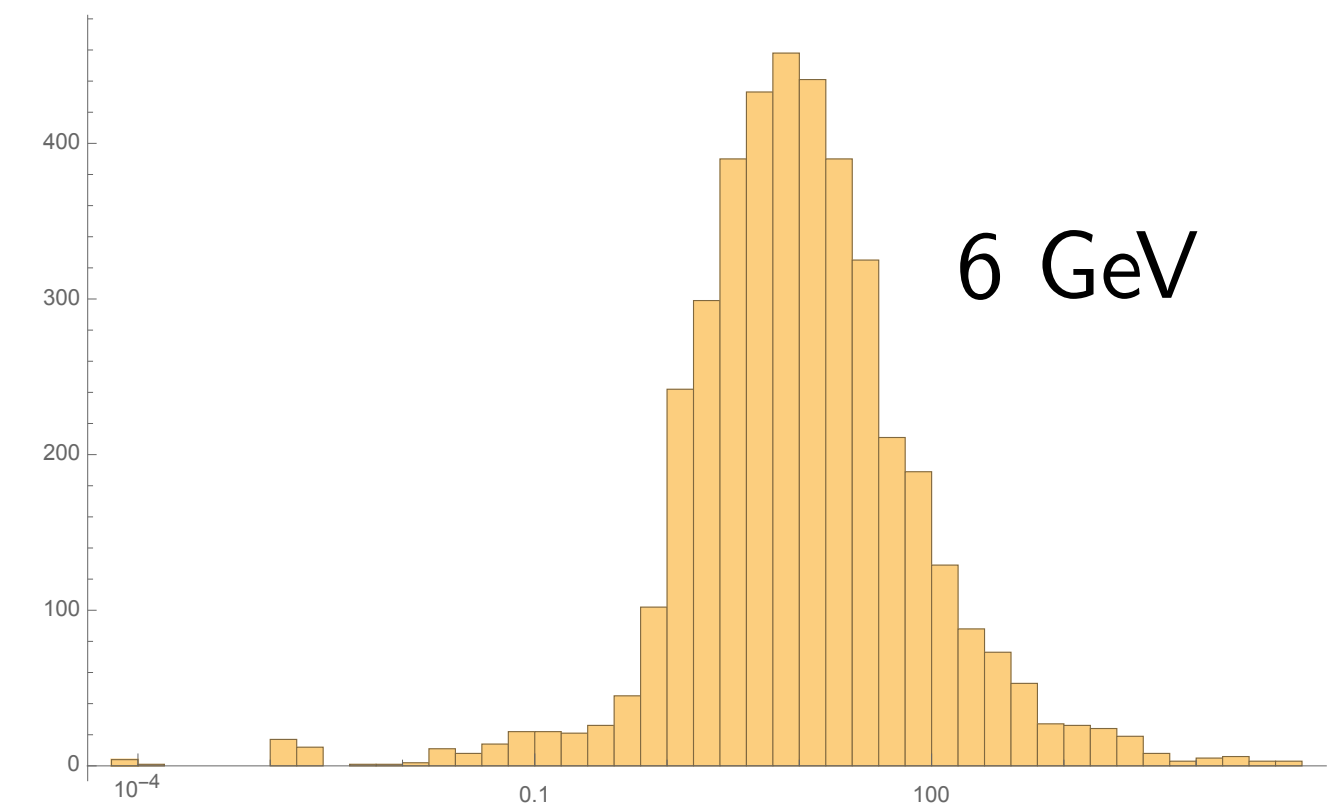
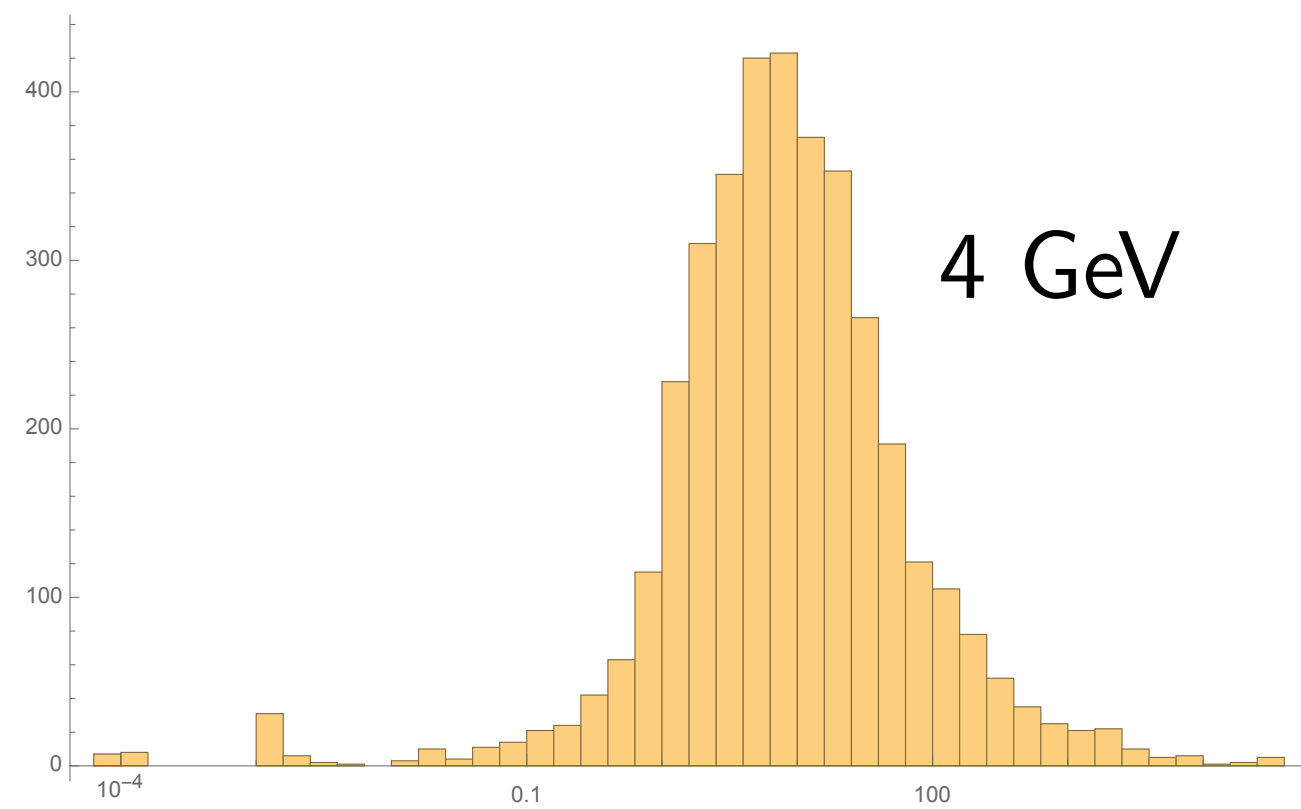
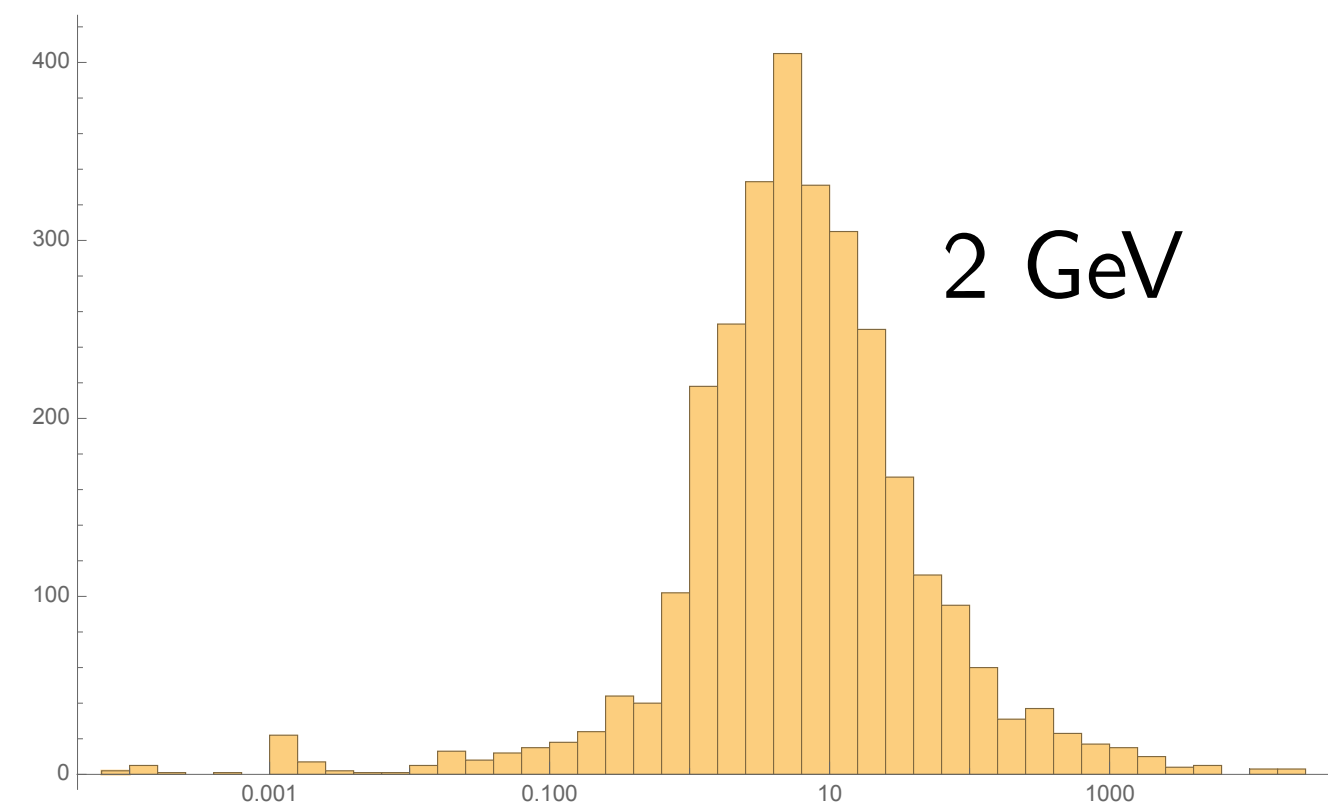
**for 1 positron as a shower
distribution of max values**



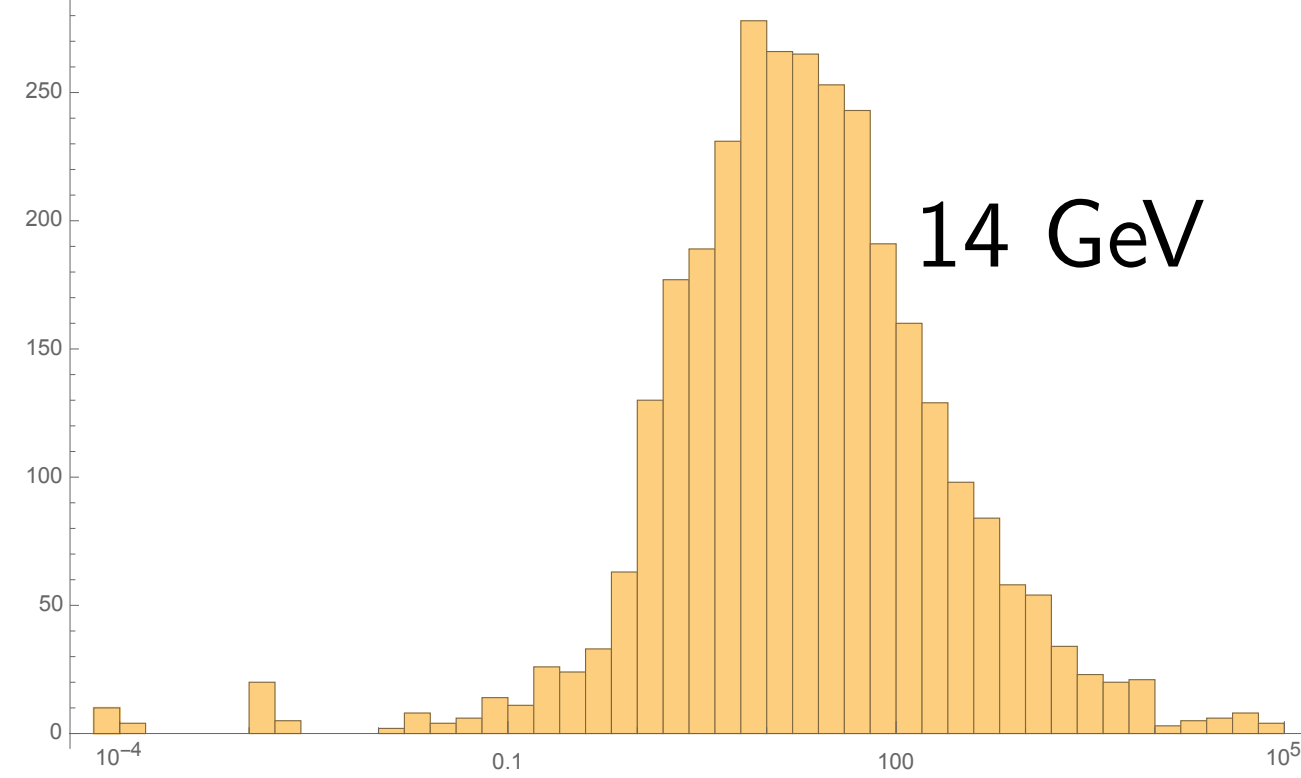
highest Edep/MIP

1000 positron's shower pad by pad

Positron E ₀ /GeV	2	4	6	8	10	12	14
Highest E _{dep} /MeV	1848.6	3323.3	4072.2	6261.6	5741.8	8959.1	6453.8
Highest E _{dep} /MIP	20540	36925	45247	69593	63798	99546	71708
Mean E _{dep} /MIP	89.67	136.7	184.5	242.4	341.4	442.8	548.3



count



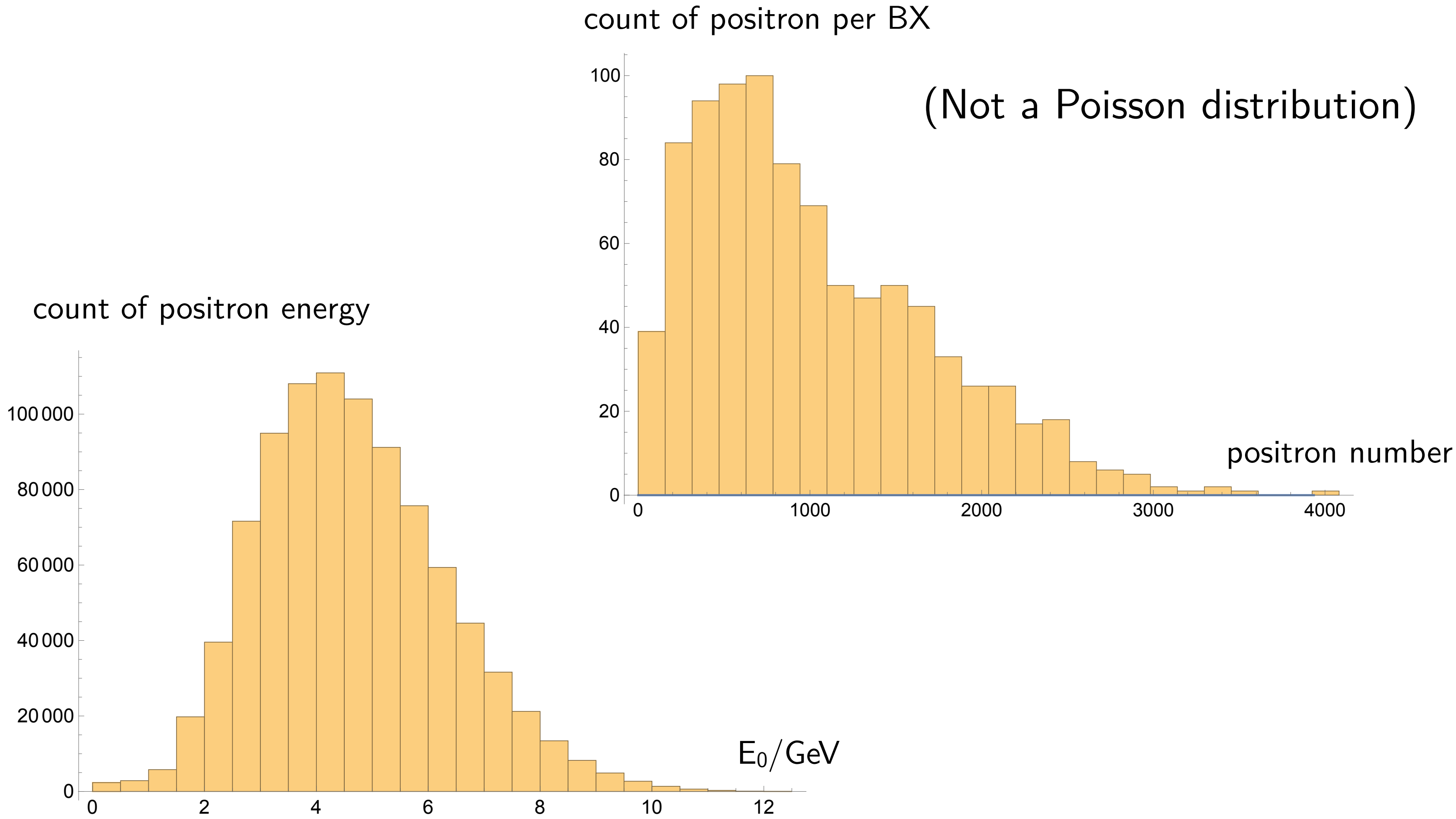
Edep/MIP

**for 1000 positrons as a shower
distribution of Edep per pad**

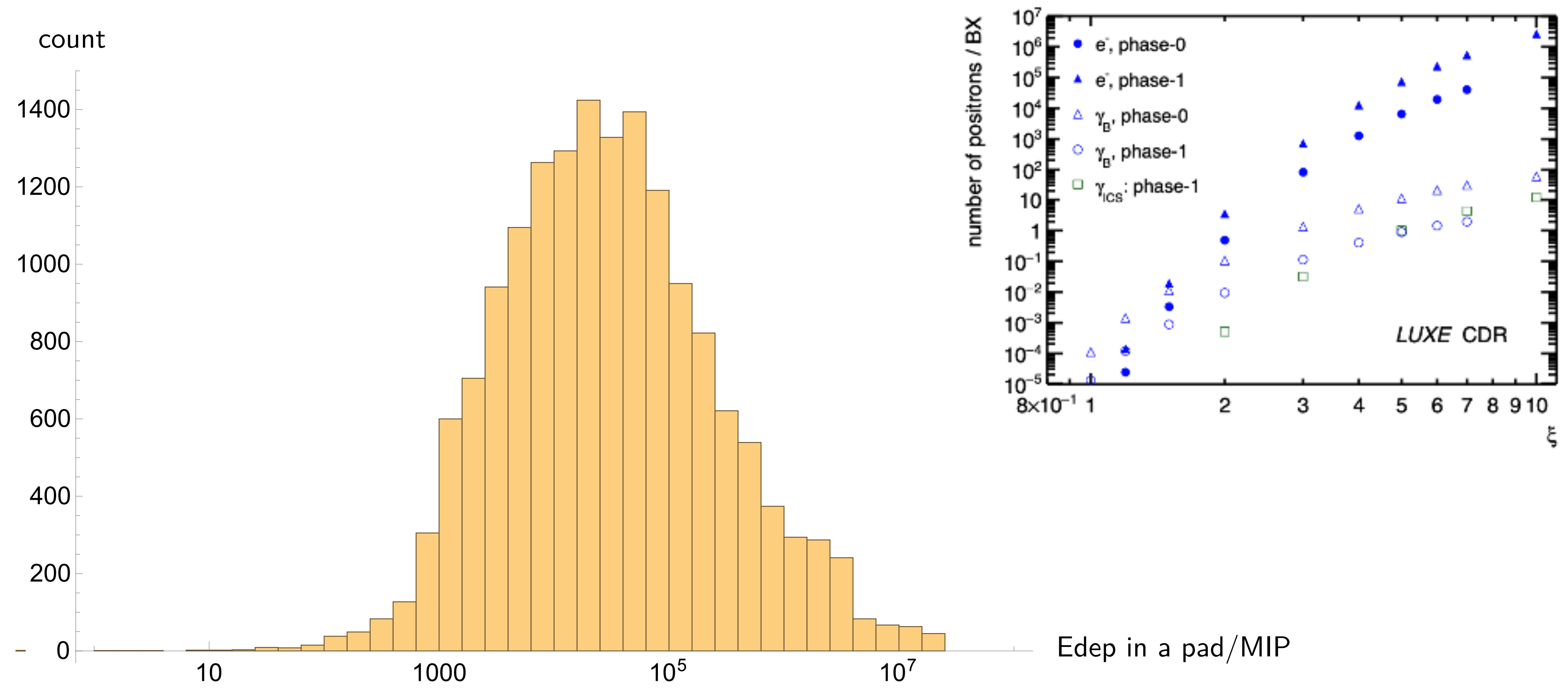
IPstrong all signal's shower pad by pad

Positron number	915122 (901 BX)
Highest E_{dep}/GeV	2066.5
Highest E_{dep}/kMIP	22 961

$23 \text{ M MIPs} * 4 \text{ fC} = 80 \text{ nC}$



for 915122 positrons as a shower
distribution of Edep per pad



charge current density in ECal electronics: $80 \times 10^{12} \text{ e.h.cm}^{-3}$