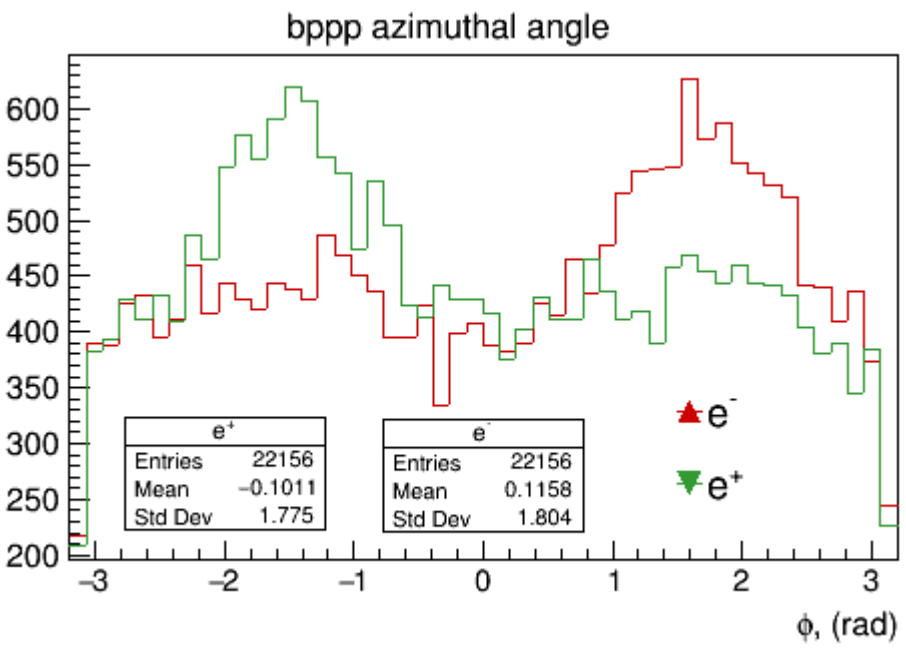
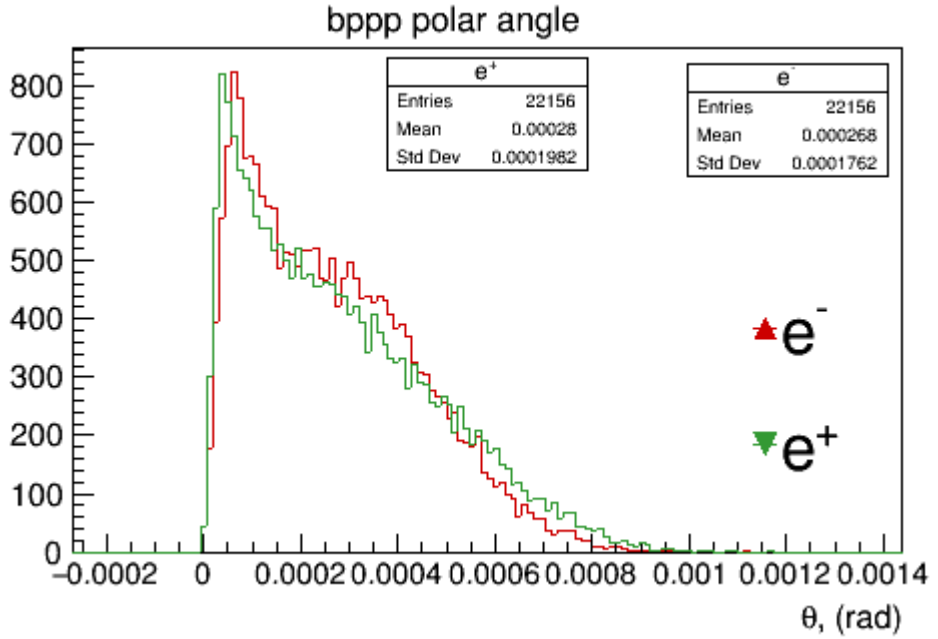
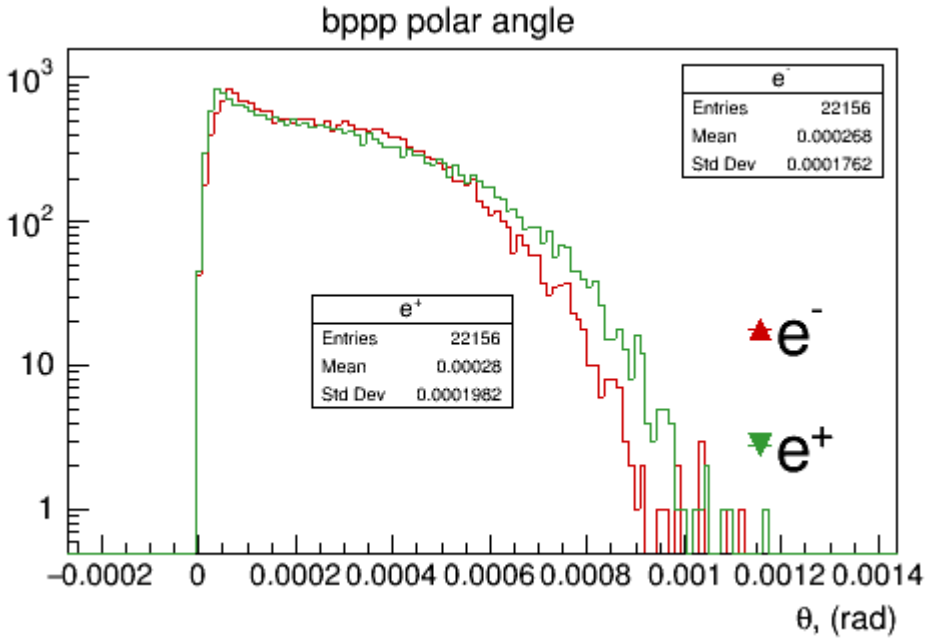
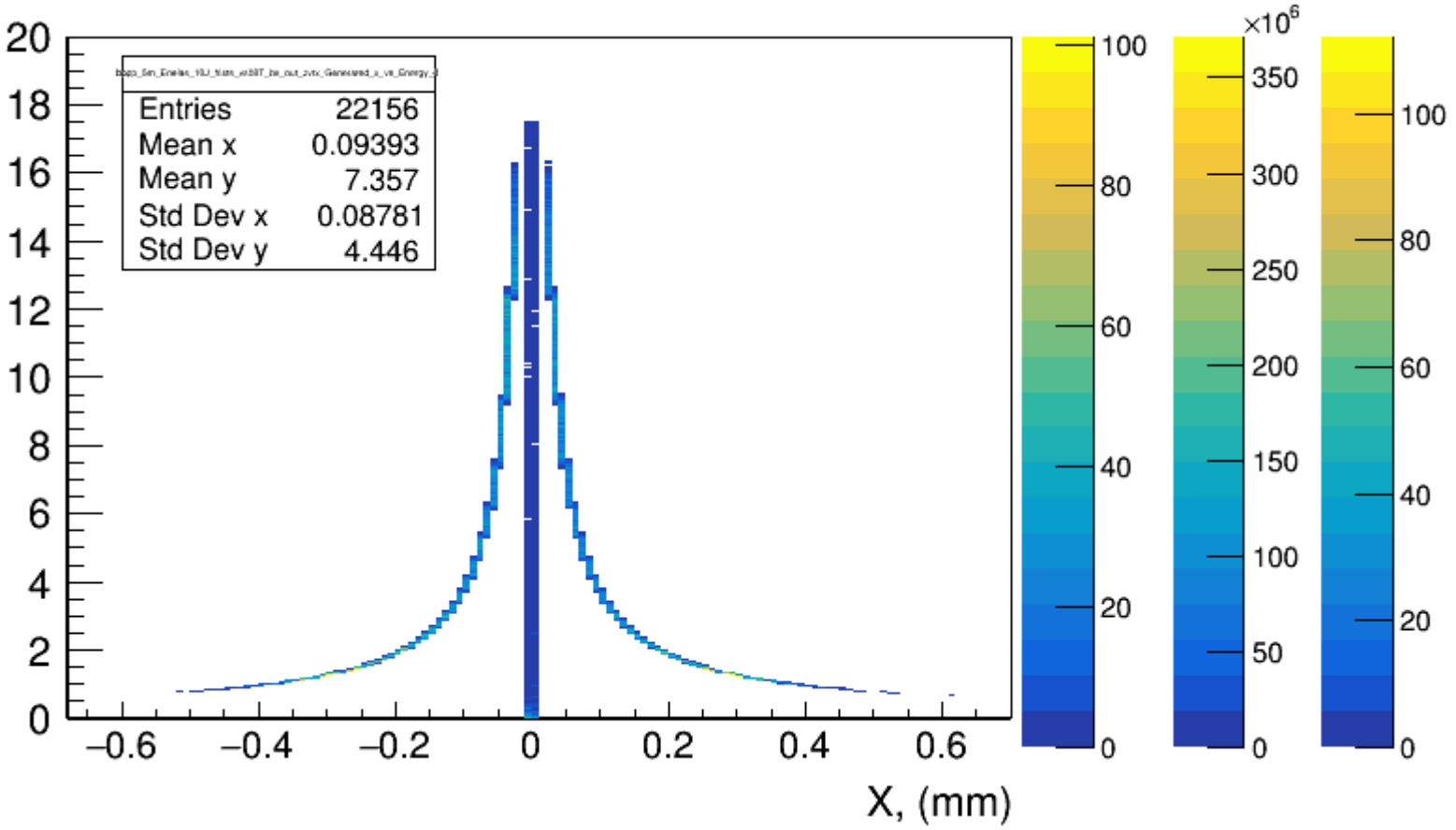
e- e+ φ and θ angles distribution








Entries 22156
Mean x 0.09393
Mean y 7.357
Std Dev x 0.08781
Std Dev y 4.446
X, (mm)
×10^6

LUXE AFS shared directory

Shared directory for luxe group:

/afs/desy.de/group/flc/luxe

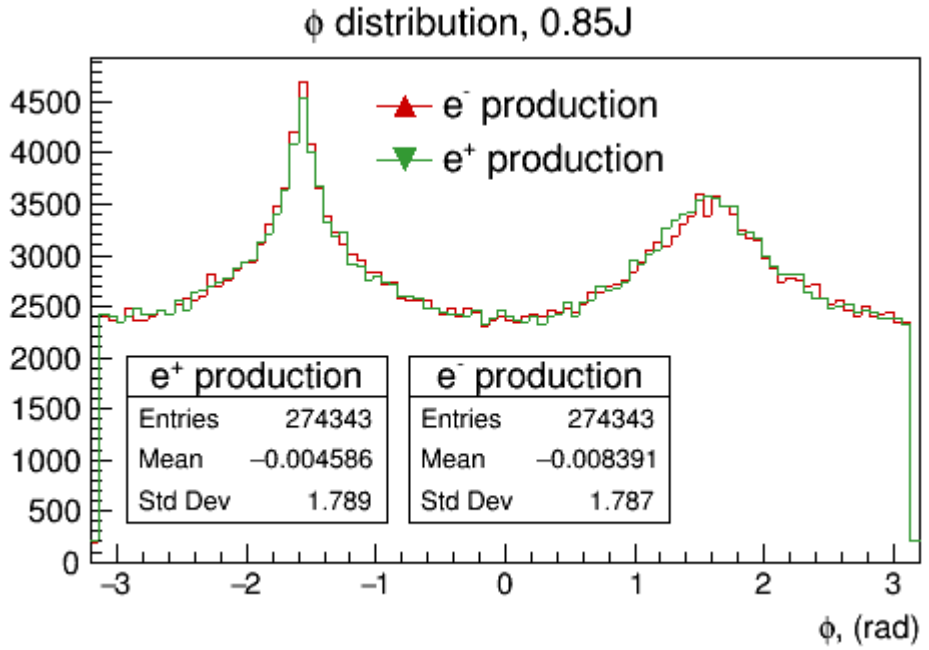
```
[oborysov@naf-ilc12 macro]$ fs listquota /afs/desy.de/group/flc/luxe --human
Volume Name                    Quota       Used %Used   Partition
g.flc.16914A5D452             500.0G       2.0K    0%          0%
```

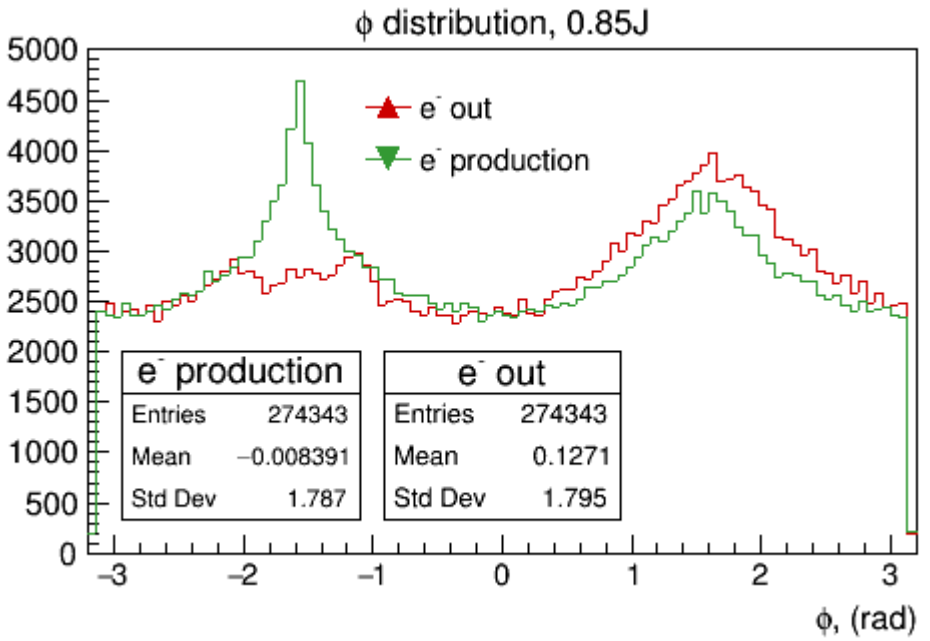
List group members: pts members usg:luxe

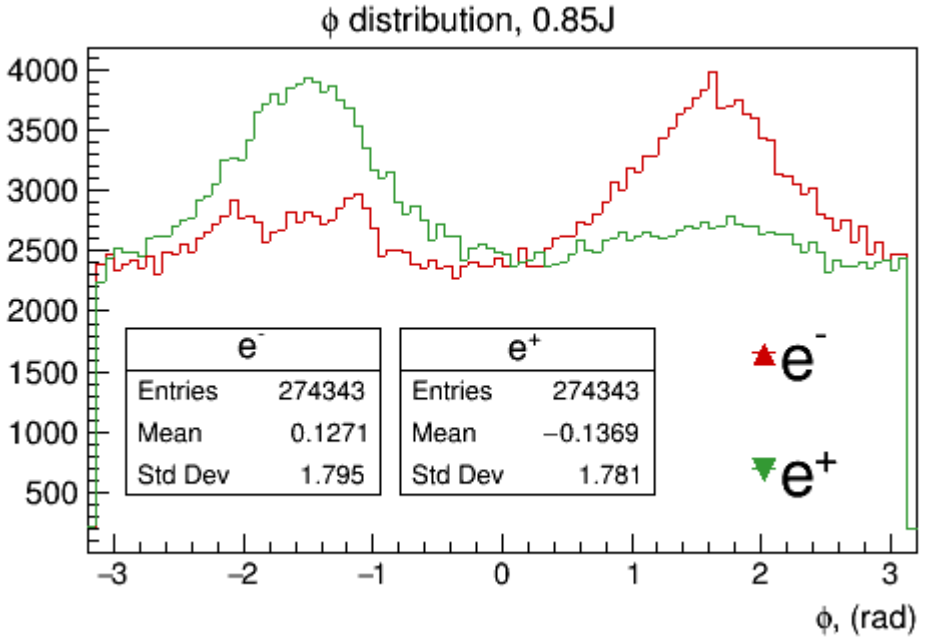
AFS fs command can be used to share also (for reading) a directory in /afs/….pool/...

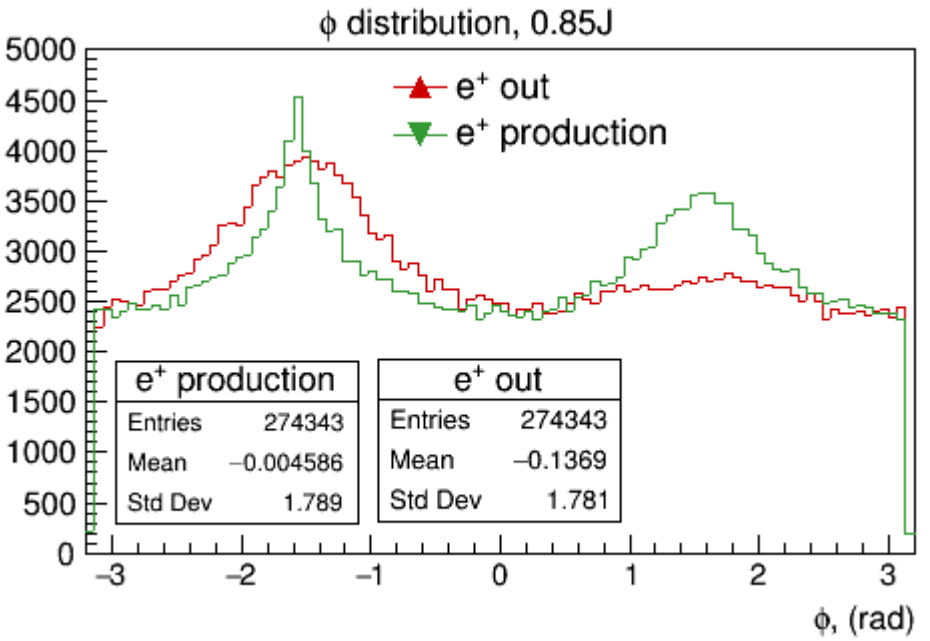
To check permissions in a directory: fs listacl <path_to_directory>

e- e+ azimuthal angle distribution

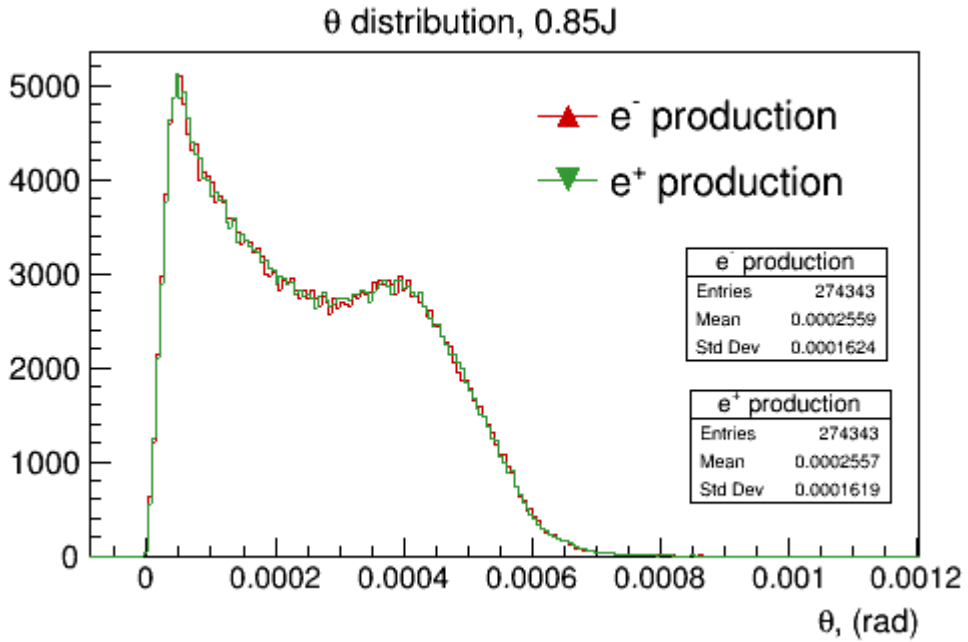


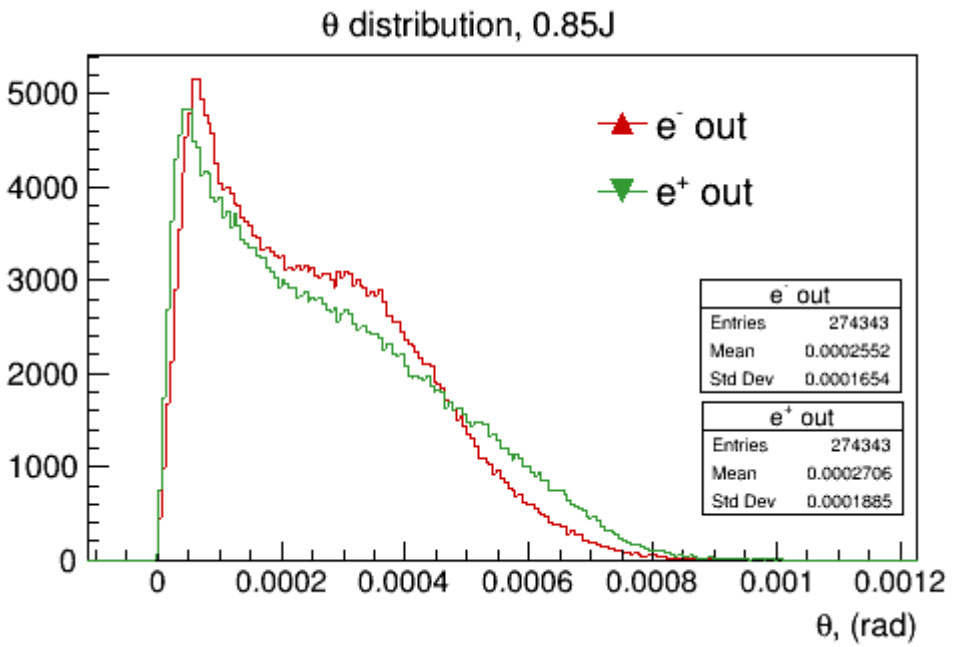




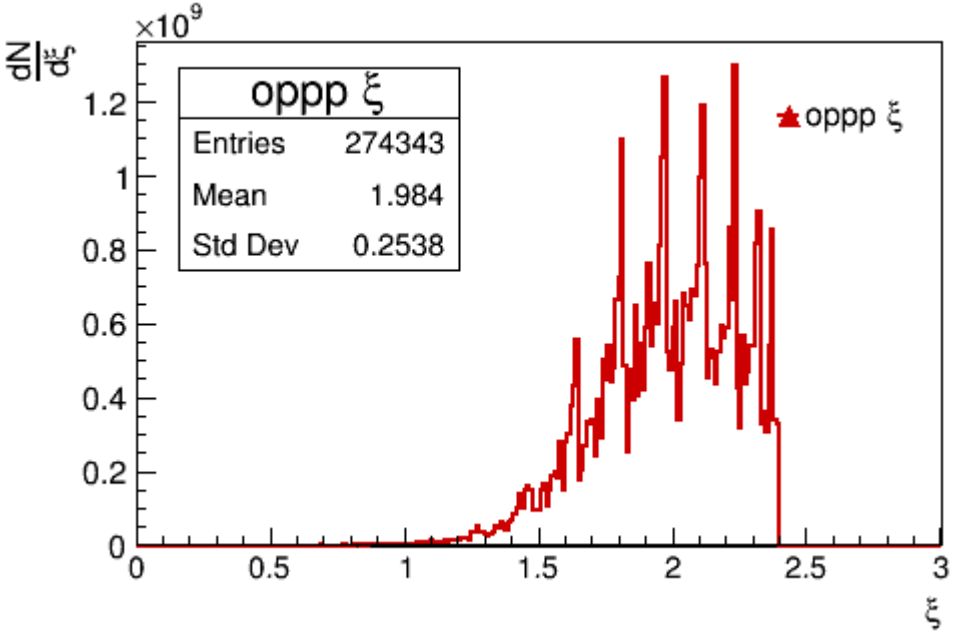


e- e+ polar angle distribution





OPPP for different ξ and χ_γ



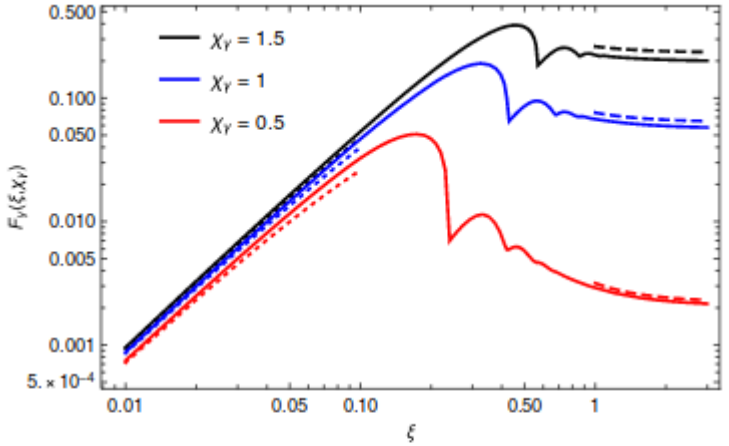
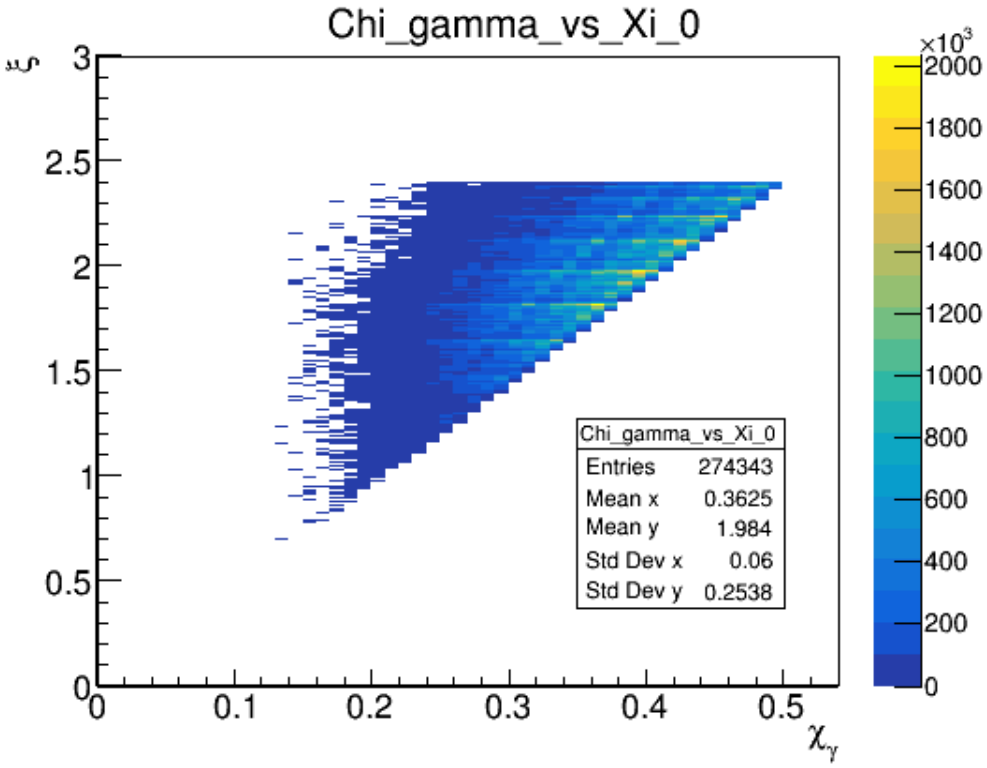
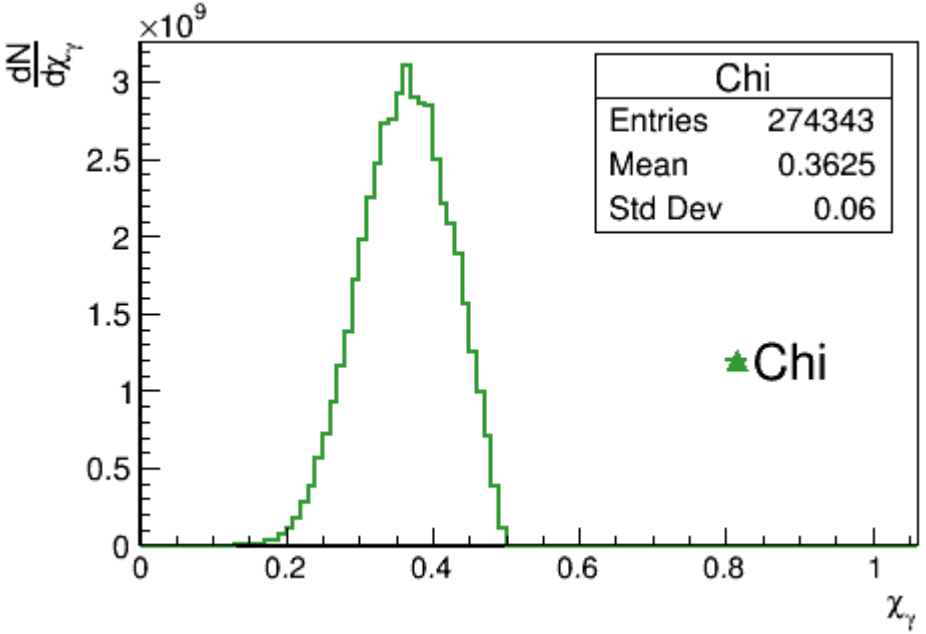


FIG. 2. The dimensionless function $F_\gamma(\xi,\chi_\gamma)$, Eq. (6), describing the probability of laser-assisted OPPP, as a function of the laser intensity parameter ξ, for different values of the photon recoil parameter χ_γ (solid lines). The dotted (dashed) line shows the analytic result valid at small (large) values of the intensity parameter, Eq. (8) [Eq. (9)].





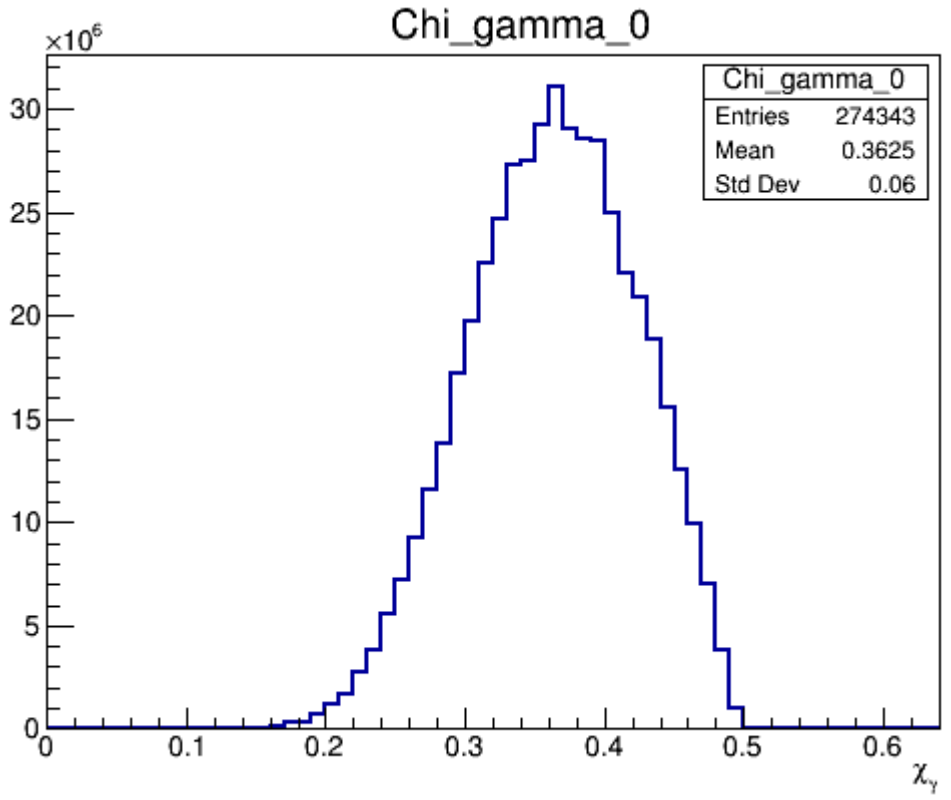
χ_γ

$$\xi \equiv \frac{e|\mathbf{E}|}{\omega m_e} = \frac{m_e}{\omega}\frac{|\mathbf{E}|}{\mathrm{E}_c}, \quad \chi_\gamma \equiv \frac{k \cdot k_i}{m_e^2}\xi = (1+\cos\theta)\frac{\omega_i}{m_e}\frac{|\mathbf{E}|}{\mathrm{E}_c}, \qquad (5)$$

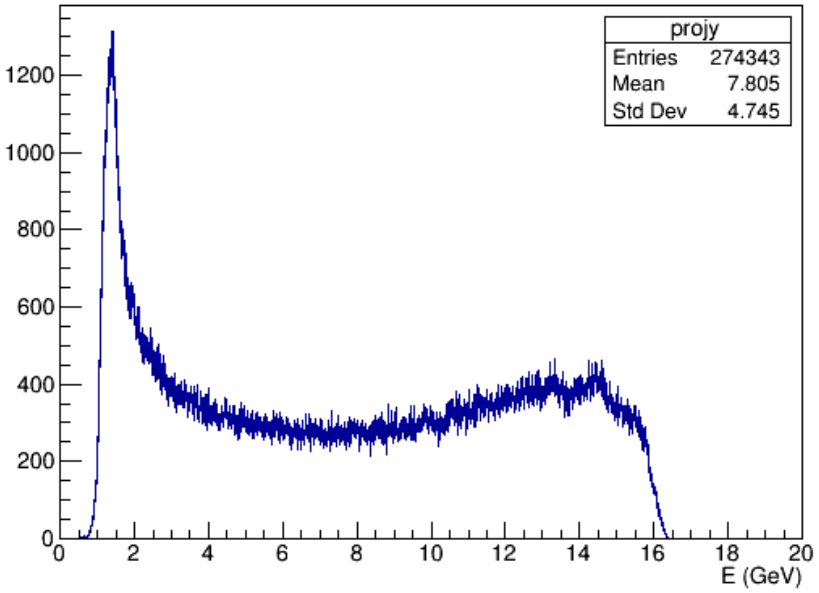
$$\chi_\gamma = (1+\cos(\theta))\frac{\omega\,\omega_i}{m_e^2}\,\xi$$

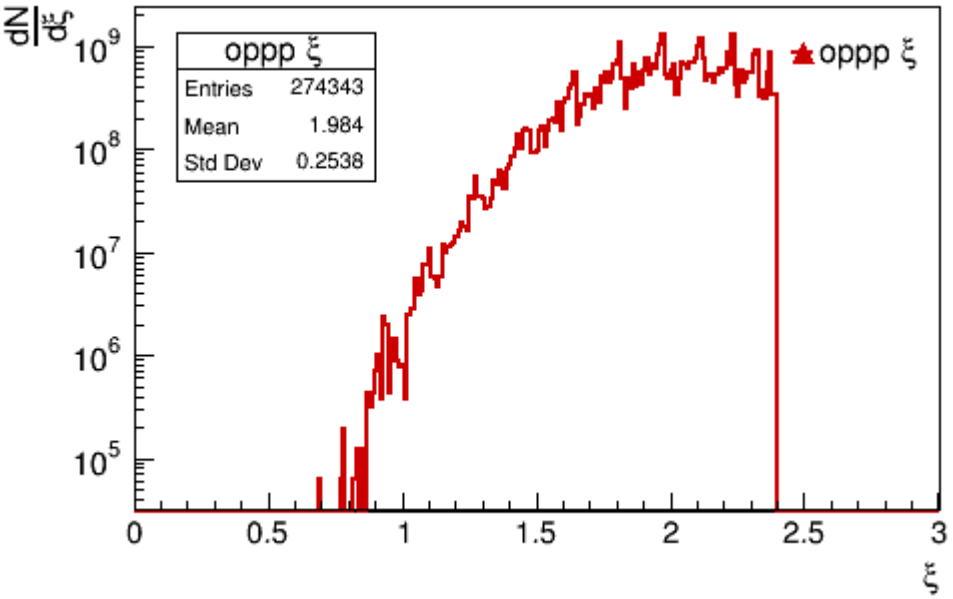
- cos(θ) ~ 1;
- ω ~ 1.5 eV;
- ω_i < 17.5 GeV;
- m_e ~ 0.5 MeV;
- ξ < 2.4.

$$\chi_\gamma < (1+1)\frac{17.5 * 1.5\text{e-}9}{0.5\text{e-}3^2}\,2.4 \approx 0.48$$



Spectra e-


projy
Entries 274343
Mean 7.805
Std Dev 4.745
1200
1000
800
600
400
200
0
0 2 4 6 8 10 12 14 16 18 20
E (GeV)


oppp ξ
Entries 274343
Mean 1.984
Std Dev 0.2538
oppp ξ
dN/dξ
10^9
10^8
10^7
10^6
10^5
0 0.5 1 1.5 2 2.5 3
ξ