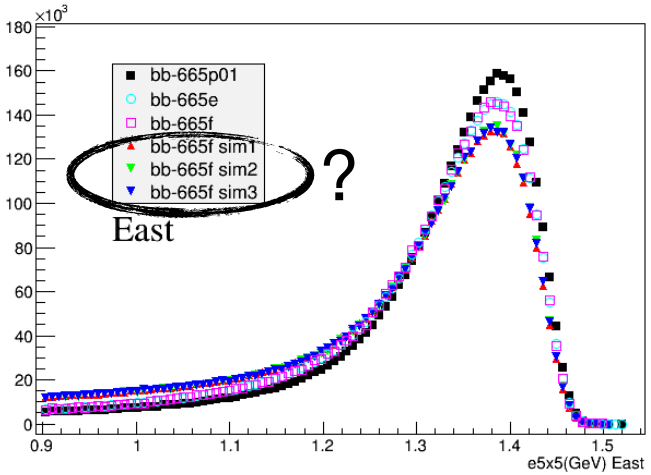
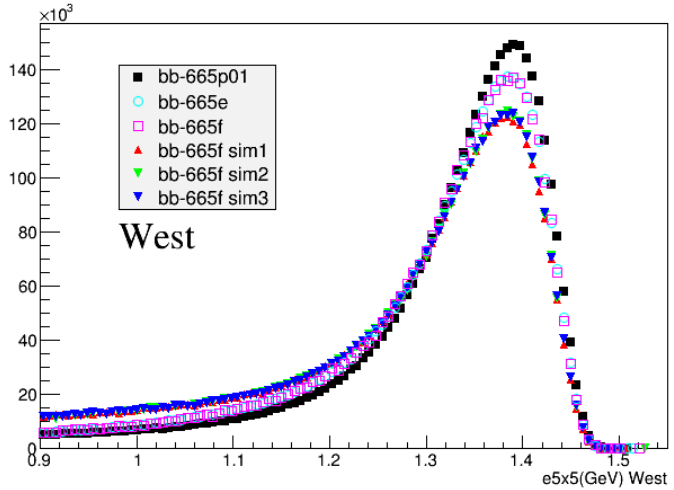
Additional checks

There is still something not clear





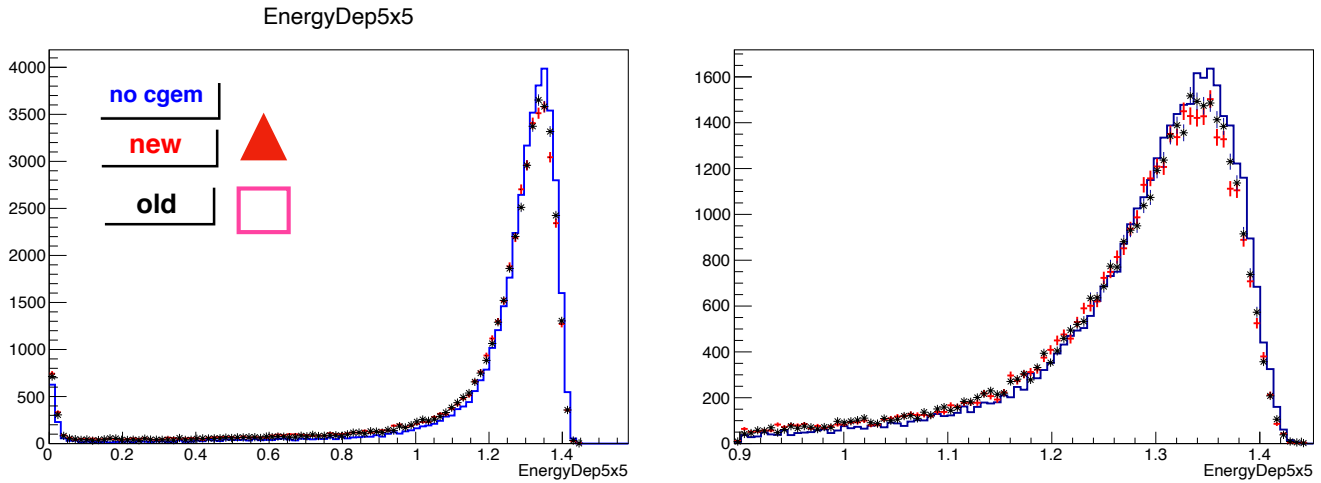
Single particle simulation

- 20000 e- with p=1.5 GeV/c
- 20000 e+ with p=1.5 GeV/c
- Three different configurations
  - ✤ NO CGEM
  - ✤ Old CGEM geometry (L1=L2=L3; cgemboss665f) □ X_0 = 1.44%
  - ✤ New CGEM geometry (almost the final one) ▲ X_0 = 1.8%

Additional checks: results

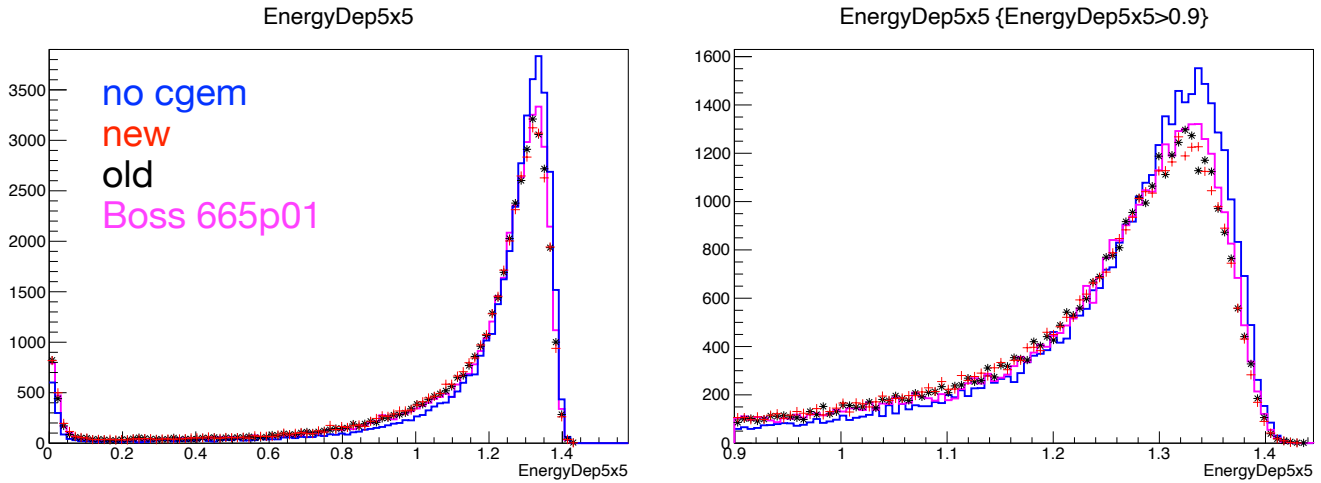
No difference observed in the barrel region, as expected

e- simulated uniformly within: 0.85<cosθ<0.93

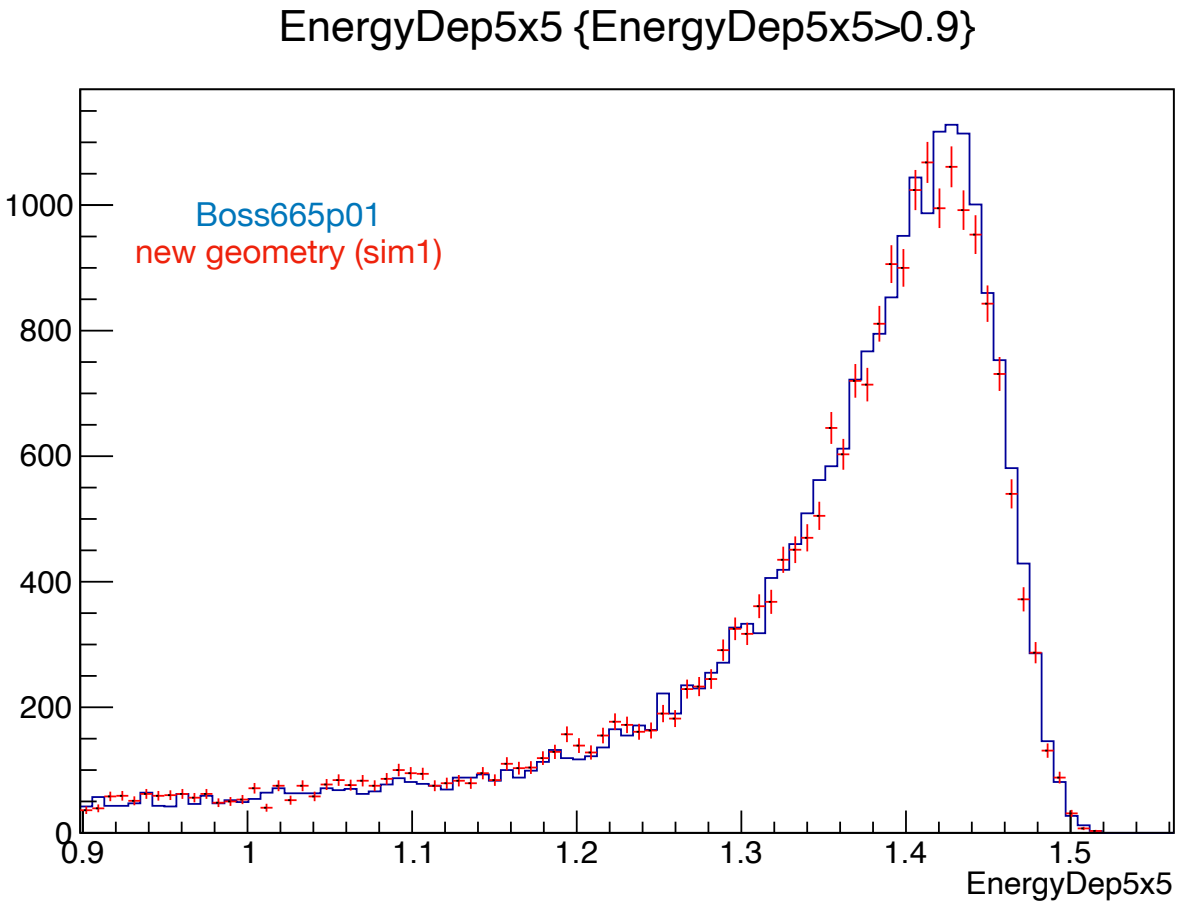


but BhaBha angular distribution is $\propto (1+\cos^2\theta)$ the c.m.

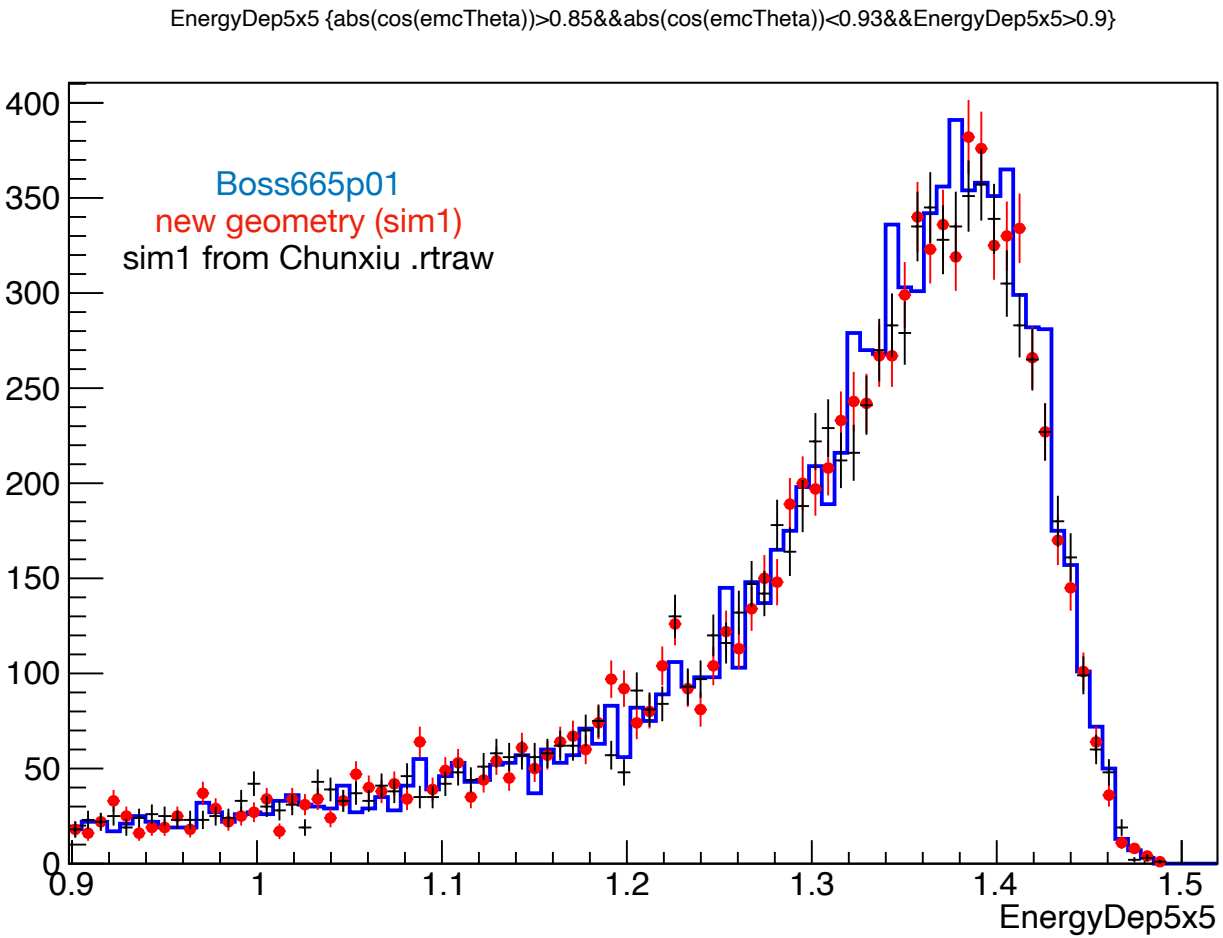
e- simulated uniformly within: 0.925<cosθ<0.93



BhaBha simulation



BhaBha simulation



20000 bhabha in the endcaps

First conclusion and open questions

- Simulation of new geometry is consistent
  - Are there applied some cuts/requirements in the analysis?
  - All the samples are consistent each other? Are applied the same requirements in the simulation?

```
Babayaga.Ebeam=1.5485;            // Ecm = 2*Ebeam [GeV]
Babayaga.MinThetaAngle=16;        // minimum angle(deg.)
Babayaga.MaxThetaAngle=164;       //maximum angle(deg.)
Babayaga.MinimumEnergy=0.4;       //minimum energy  (GeV)
Babayaga.MaximumAcollinearity=10; //maximum acollinearity (deg.)
```

- Is it possible to simulate single electron/positron?