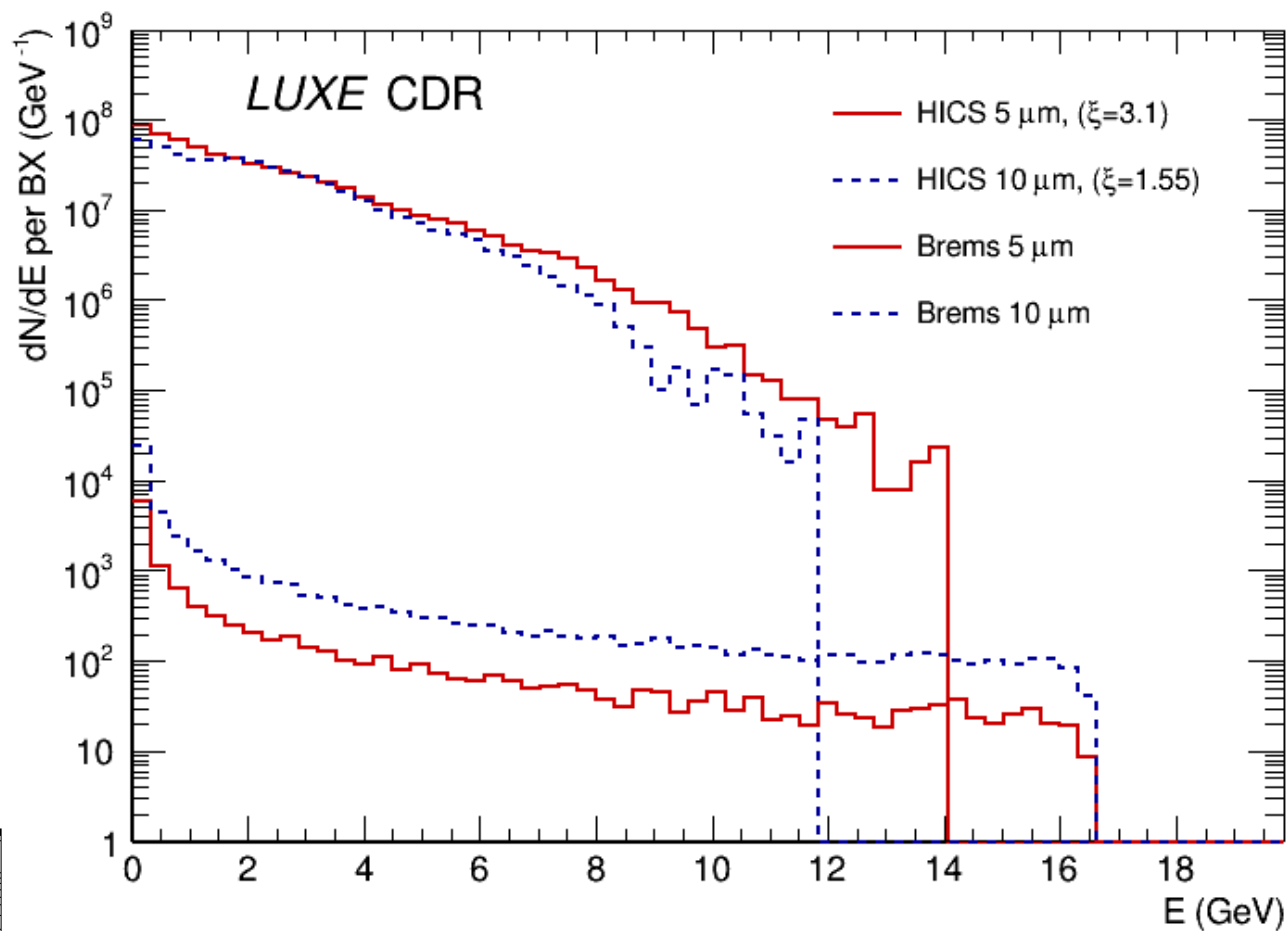
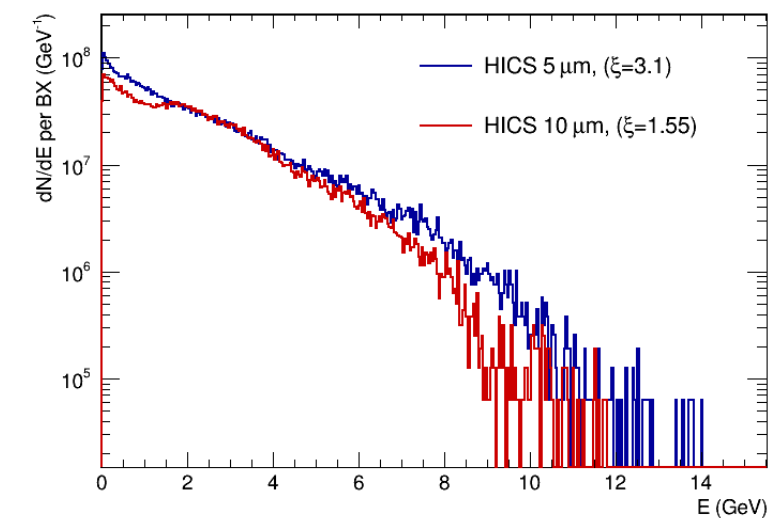
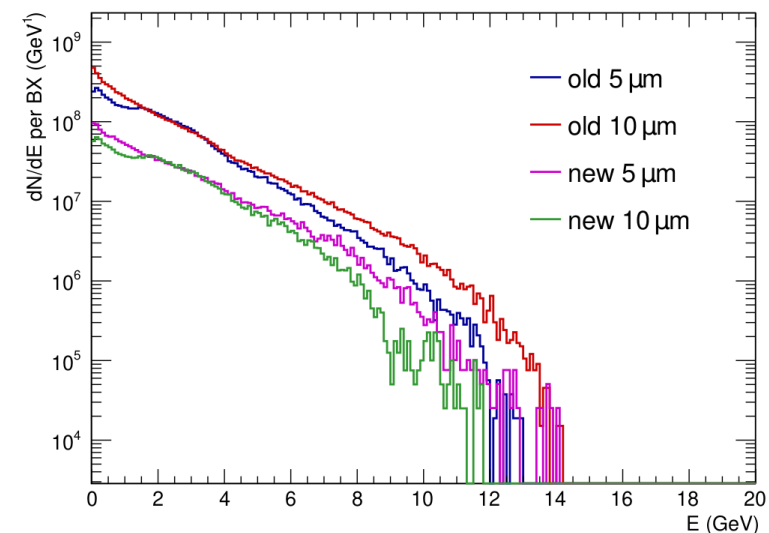


Update on LUXE GEANT4 Simulation

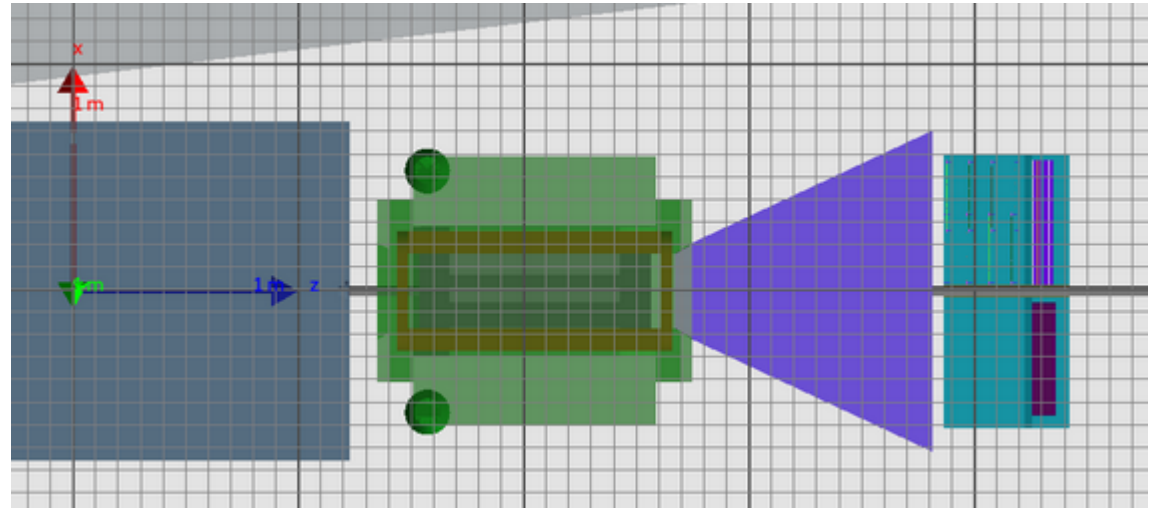
Oleksandr Borysov

Photons HICS vs bremsstrahlung



/nfs/dust/luxe/group/MCProduction/Signal/uncompressed/IPstrong_V1.1.00/JETI40/e_laser/16.5GeV

Update of the Tracks tree



```

root [1] Tracks->Draw(">>elist6200", "(detid==6200 && trackid==1 && pdg==11 && esecundary>1.0)")
(long long) 4
root [2] Tracks->SetEventList(elist6200);
root [3] Tracks->Scan("eventid:pdg:trackid:detid:x:y:z:E:esecundary:nsecundary:ptrackid", "((detid==-1 || detid==6200) && trackid==1)")
*****
*   Row   * Instance *   eventid *   pdg *   trackid *   detid *   x *   y *   z *   E * esecundar * nsecundar * ptrackid *
*****
*   999 *   0 *   999 *   11 *   1 *   -1 * 0.0041933 * 0.0006536 * 0.0819365 * 15.05463 * 0 * -1 * 1000 *
*   999 *   1 *   999 *   11 *   1 *  6200 * -37.14861 * 0.0227722 * 3864.5 * 13.605302 * 1.4492830 * 8 * 0 *
*  1242 *   0 *  1242 *   11 *   1 *   -1 * -0.000904 * -0.003281 * 0.0248249 * 13.849127 * 0 * -1 * 1243 *
*  1242 *   1 *  1242 *   11 *   1 *  6200 * -40.49475 * -0.029269 * 3864.5 * 1.4046605 * 12.444417 * 5 * 0 *
*  1653 *   0 *  1653 *   11 *   1 *   -1 * 0.0016079 * 0.0009830 * 0.0367674 * 15.471844 * 0 * -1 * 1654 *
*  1653 *   1 *  1653 *   11 *   1 *  6200 * -36.13547 * -0.009504 * 3864.5 * 11.886255 * 3.5855498 * 3 * 0 *
*  1908 *   0 *  1908 *   11 *   1 *   -1 * -0.000900 * 0.0019157 * 0.0571588 * 12.925038 * 0 * -1 * 1909 *
*  1908 *   1 *  1908 *   11 *   1 *  6200 * -43.38205 * -0.042676 * 3864.5 * 7.0173120 * 5.9076790 * 3 * 0 *
*****
==> 8 selected entries

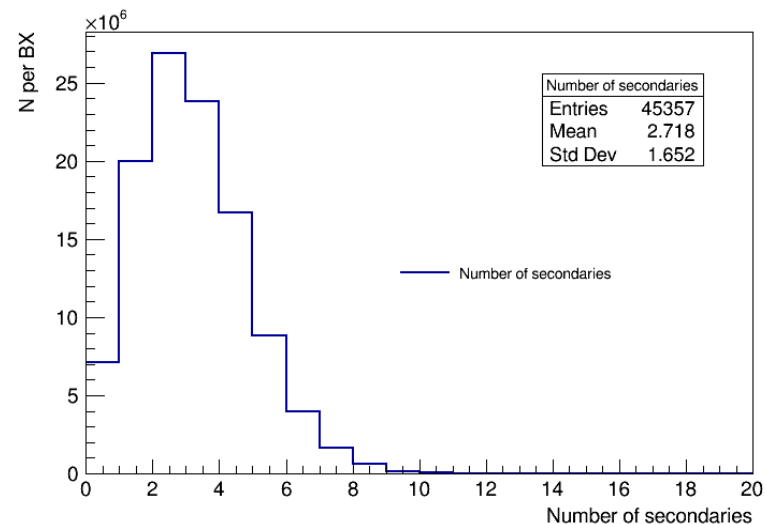
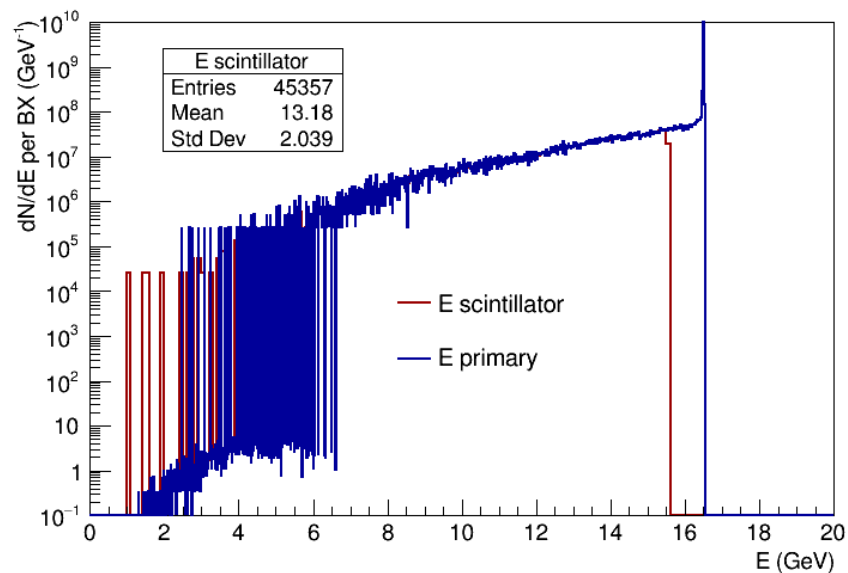
```

```

[oborysov@naf-luxe01 tmp_test]$ for nn in 1000 1243 1654 1909; do awk "{if (\$10==${nn}) print \$0}" e_laser_JETI40_16.5GeV_0.8Jpulse_5000.0nm_w0_4000_zmsh_2000_nmp_IPstrong_V1.1.00
run_8_particles.out; done
15.055141      4.1933254      0.65364331      81.936536      0.1241274945125630E-04      0.5750395074438663E-05      0.99999999933040467187      11      750000.      1000
13.849638     -0.90463301     -3.2813551      24.824920     -0.1474582405570456E-04     -0.4514417635699601E-05     0.99999999920042589207      11      750000.      1243
15.472355      1.6079522      0.98304547      36.767448      0.1487453366721607E-04     -0.2153372453003895E-05     0.99999999934167827257      11      750000.      1654
12.925549     -0.90046710     1.9157216      57.158895     -0.1373544166720436E-04     -0.1153473709641602E-04     0.99999999905767433182      11      750000.      1909
[oborysov@naf-luxe01 tmp_test]$

```

Secondaries produced by signal electrons



ce_scintillator_signal_e_loss_e_second_0

