### Update on LUXE GEANT4 Simulation.

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# Background simulation with additional shielding for ECal

Event display of simulated 100k primary electrons



## Event display

#### **Requirements:**

- Root installed with EVE (it seems to be a default option)
- Implemented as a single macro file (not the best approach but good for simplicity to test)
- Luxe GDML geometry file supplied as first parameter;
- Simulation output root file (Hits and Tracks tree are used);

#### **Extensions:**

- Extend to display Trajectories tree and energy deposits from HIts with transformation from local to global reference frames as in DetSettings.
- Tune propagation class which displays particle trajectories.
- Add to git.

#### Example:

/nfs/dust/ilc/user/oborysov/runjlx/macro/eve

root -l lxeve\_geom\_tree\_gui.C'("lxgeomdump\_hics\_91c0c7ee\_nc\_dump\_no\_incerts.gdml", "luxe\_hics\_signal\_165gev\_3000nm\_jeti40\_cv12\_em0\_alw\_1mu\_cut\_tv4\_hv1\_1.root")'