
LArSoft light signal simulation

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LArSoft light simulation: status

```
if (track->GetProperTime() != 0)
{
    return;
}
std::cout << "Particle with PDG " << pdgCode << std::endl;

fParticleList.Add(fCurrentParticle.particle);
}
```

- Solved the issue with the trackIDs that was compromising the simulations.

LArSoft light simulation: status

S		std::vector<sim::AuxDetHit>.....	?
.		std::vector<sim::SimEnergyDeposit>.....	?
.		std::vector<art::RNGsnapshot>.....	8
.		std::vector<artg4tk::PhotonHit>.....		.16977
.		std::vector<sim::SimEnergyDeposit>.....	?
.		std::vector<sim::SimPhotonsLite>.....		...312
.		art::TriggerResults.....	1
.		std::vector<sim::MCShower>.....	0
.		std::vector<sim::SimEnergyDeposit>.....		...1822
.		std::vector<simb::MCParticle>.....		159304
.		std::vector<sim::SimEnergyDeposit>.....	?
.		std::vector<sim::SimEnergyDeposit>.....	?
.		std::vector<sim::SimEnergyDeposit>.....	?
.		std::vector<sim::OpDetBacktrackerRecord>.....		...152
.		std::vector<sim::SimChannel>.....		...17
.		std::vector<sim::OpDetBacktrackerRecord>.....		...126
.		std::vector<sim::MCTrack>.....	2
r		std::vector<artg4tk::PhotonHit>.....		.11131
.		std::map<int, std::set<int> >.....	8

- We are finally able to generate, propagate and detect Cherenkov photons.
- PhotonHit: object containing true information on the detected photons.

LArSoft light simulation: next steps

- Try to activate scintillation:
 - Check that we are able to choose between full and fast light simulation.
 - Check that when running full simulation we detect PhotonHits.