

LArSoft minutes, 19-Aug-2010. -- Eric Church

This is the first installment of -- we hope -- regular LArSoft minutes to appear here in the uBooNE docDB. For the details of these matters we advise drilling down into the usual spot at <https://cdcvs.fnal.gov/redmine/projects/activity/larsoft> (check also the Wiki button there) and attending the bi-weekly meetings. We welcome all interested parties and would-be contributors. Next meeting is 9/2, 8am. Though, that may conflict with a uBooNE collab mtg conflict, we note, so stay tuned.

>>> video: 85LARSW
>>> phone: 510 883 860 (ID 85LARSW)
>>> fnal location: LIBRA - WH9SE

Josh gave a report on hit-track association in ArgoNeut MC. He ran a sample of 6 GeV/c muons. The distance between hit and the HoughLine has a sigma of about 1.5 ticks. Ticks in ArgoNeuT are 198 nsec, drift speed is 1.5 mm/usec. So, 0.4 millimeters. The fatter-than-Gaussian tail goes out far past that. Easily 99% of the hits are inside a couple mm. Insofar as overlap of clusters/tracks hits is concerned, in 99% of the events the HoughLines contain 93% of the DBSCAN hits.

Brian Page reports uBooNE CALD module now contains signal shapes appropriate to uBooNE. Not, of course, derived from any real electronics, but the main point is what goes into the wire signals is now consistent with the FFT deconvolution. ArgoNeuT response function is fixed too. This removes once-abundant spurious hits, and represents a huge step forward for the uBooNE MC. He's not entirely checked-in.

Brian R proceeds on the change-over to Framework -- not FMWK, and no longer CMS-Lite. Just Framework. Work is going well; and Brian's got a few simple SingleParticle jobs already running and is at work on more involved jobs. There will be a workshop of inner circle FMWK->Framework developers where key parts of the port will be exercised, and then the wider LArSoft will need to port, as well. Please continue your work unabated in FMWK until such notice.

Eric's working on a module called AggregateEvent, in which the goal is to bring in top-level reconstruction objects at the end of the event, gather those pointers and make the linkages.

New Yale hire, MIT exile, Adam Patch, will begin work on uBooNE gdml work.

Ben stuck in Birk's constant in LArG4 which had not been in previously and which affects scintillation light output below few hundred-ish MeV. Scintillation light is now produced correctly. LArG4::MaterialPropertyLoader.h,cxx is where he sets Birk's constant. (Using LowEnergyEMFactory:CustomPhysicsFactory did nothing for scint light.) Ben advises TPC LArG4 people to now go and check how charge deposition has changed. Find a nice little discussion at bottom of http://neutrino.phys.ksu.edu/~GLG4sim/test_build/latest/GLG4sim/docs/html/FAQ.html.

Brian R/Eric urged the litany: please keep the code agnostic to the detector. Mitch suggested, in this vein, reading things like E-field and drift velocities from a DB.