

LArSoft minutes, 21-Dec-2011. -- Eric Church

LArSoft minutes appear at <https://cdcvs.fnal.gov/redmine/projects/activity/larsoftsvn>. (The location presumably at which you found these!) For further details of matters reported here drill down into the wiki, etc, at that redmine site. Everyone is welcome to attend the bi-weekly meetings. Next meeting will be 04-Jan-2012. It will be back in the Racetrack, 7X0.

There are pdfs from Herb and Christina on the Documents link on redmine today.

Christina showed her CRY work. We need more bodies on this problem! She will try to get to a calculation of detected cosmic muon rate in the uBooNE LArTPC soon. For now Christina has the code running for shortened exposure times and squares of varying sizes over the detector. It remains a bit of a mystery why code that's supposed to ensure that only muons pointing at uBooNE don't always generate particles that go through uBooNE. Christina needs to apply an Ana module, like LArG4Ana, and drill down. That's for after the holidays.

Herb has CalWire code calling SignalShapingServiceMicroBooNE, so FFT kernels are calculated on the fly. Georgia will do similarly now for SimWire. There's still some normalization uncertainty in the filtering, which sets the overall scale on the deconvoluted output pulses. We discussed how noise is put in ad-hoc after a convoluted signal, which is just wrong/naive. There should be 500-600 e's on each wire per each sample, from an LBNE study. Bruce suggests that we get the noise spectrum from BNL if we want to do better, which it's not clear we must do. Georgia will revisit. Herb showed how the whole SimWire/CalWire chain for uBooNE now produces nice output hits and spacepoints. He was a little confused as to why an offset is still necessary for the wire times, but it's only 0.75 ticks and each wire has the same offset. Seems pretty good to this reporter. See Herb's presentation for details.

Happy holidays, all, on the LArSoft effort. Nice work in 2011! See ya in 2012.

Details for the next meeting:

>>> video: 85LARSW

>>> phone: 510 423 9220 (ID 85LARSW)

>>> fnal location: Racetrack, 7th floor x-over