

Cosmogenics Working Group: Organizational Topics

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Cosmogenics Working Group: Bi-weekly Meeting

Sep. 30, 2015

Overview

Purpose:

Characterization of cosmogenic interactions in DUNE Far Detector

Conveners:

Dan Dwyer (dadwyer@lbl.gov)

Vitaly Kudryavtsev (v.kudryavtsev@sheffield.ac.uk)

Website:

<https://web.fnal.gov/collaboration/DUNE/SitePages/Cosmogenics%20Working%20Group.aspx>

Email List: dune-physics-cosmo@fnal.gov

Members: 23, currently

Cosmogenic Tasks

Cosmogenics as background:

- Extensive simulations of cosmogenic interactions(~ 0.1 Hz/10 kton)
- Characterization of background to proton decay searches
- Impact of cosmogenic activation on supernova ν measurements
- Study of background to atmospheric neutrino measurements

Cosmogenics as calibration:

- Reference cosmogenic tracks in TPC:
muons and secondaries, calibrate particle ID, dE/dx
- Stopping muons as well-known 'calibration source' for TPC

Cosmogenics as signal:

- Precision studies of muon-nuclear interactions
- Characterization of muon groups
- Studies of stopping muons

Working Group Charge

Status:

We do not yet have a charge.

Plans:

Be proactive. Begin drafting our own charge, in conjunction with:

- Our working group members
- Other WGs:
 - Proton decay, Atmo- ν , Low-energy ν , Calibration, Recon., etc.
- Physics Coordinators (J. Urheim, R. Patterson)

Comment:

Goals and progress will be strongly depend on your participation!

Regular Meetings

Regular time:

Poll preferred: Wed. 9am CT, 3pm UK, 4pm Europe

-> Continue using this time, unless significant conflict?

Periodicity:

Bi-weekly, during 'physics' weeks

-> Consider monthly, unless more frequent meetings required?

Warning!:

Oct. 28: Still daylight savings time in US, not in UK/Europe.

-> Meeting will be 9am CT, 2pm UK, 3pm Europe.