

# Far Detector Photon Detector Working Group

Coordinator: Ed Blucher

Deputies: Ettore Segreto, Matt Toups

Manager: Norm Buchanan

General scope of working group: Everything related to far detector photon detection system

- We are working on a prioritized list of projects (both physics and technical) that need to be addressed (see talk by Matt Toups at 24 September 2015 PD WG meeting)
- While the short-term schedule is driven by ProtoDUNE, the focus of working group is the far detector
- In addition to ProtoDUNE, we will explore/develop synergies with SBND

# Detector Performance Requirements

Most urgent short-term goal: sharpen performance requirements for system (in collaboration with Physics Performance WG)

## Some challenges

- Develop methods to advance the simulation and modeling of LAr scintillation light in a multi-kiloTon far detector.
- Define a program to benchmark LAr scintillation light simulations.
- Understand the impact of  $^{39}\text{Ar}$  and other impurities on the light detection system requirements needed to achieve physics goals.

## Working Group Meetings

- Updated meeting time: 12:30 central time on Thursdays during detector weeks.
- Norm is considering having additional project-focused discussions during off weeks.
- Mailing list: [DUNE-FD-PHOTON@FNAL.GOV.](mailto:DUNE-FD-PHOTON@FNAL.GOV)