

LBNE Collaboration Workshop
on the Near Neutrino Detector
28-29 July 2014

Objectives: To stimulate the evaluation by the full Collaboration of the capability of the LBNE Near Neutrino Detector (NND), the reference design for which is the fine-grained tracker documented in the LBNE-India Detailed Project Report[LBNE-doc-6704], to achieve the scientific objectives of LBNE. To increase involvement by the LBNE Collaboration in the development of the LBNE NND and its physics program.

Questions/Topics

1) Requirements:

- a) Are the requirements for the LBNE NND[LBNE-doc-8806] well defined, and do they address the scientific objectives of all stakeholders?
- b) Are the detector requirements well justified, based on the physics requirements? Are they necessary and sufficient to achieve the LBNE Physics Research Goals[LBNE-doc-3056] and Global Science Requirements[LBNE-doc-4772]?

2) Does the NND reference design meet the physics requirements laid out in the LBNE requirements document[LBNE-doc-8806]?

3) How will it be verified / validated that the design meets the requirements?

4) What improvements to the design should be considered and how should they be evaluated relative to the reference design? For example, is it necessary, desirable or unnecessary to include a LArTPC or high pressure GARTPC as part of the NND system?

5) Are there features in the current reference design that go beyond what is necessary to meet the requirements as currently understood? If so, what is the reason for this and what is the benefit to LBNE?

At the end of the workshop, a report will be written summarizing the conclusions of the workshop and recommending the next steps in this process, which could include subsequent workshops.

This workshop charge is developed jointly by LBNE Leadership and the Near Detector Working Group (NDWG), including especially the Indian members of LBNE who have proposed the construction of the reference design to their funding agencies. The organizing committee for the workshop will consist of the Collaboration Co-Spokespeople, Project Director, Project Manager, Co-Conveners of the NDWG, and Co-Leaders of the LBNE Indian group.

All members of the LBNE Collaboration are encouraged to participate. Additional people not in the collaboration may be invited by the workshop organizers.