

A large, cylindrical metal detector vessel, likely made of stainless steel, occupies the lower half of the frame. A person wearing purple gloves is visible on the left side, working on the top plate of the vessel. The top plate has several circular ports and a central access hatch. The background is blurred, showing more of the detector's structure and some colorful flags.

# **Neutrino Detector R&D Facilities Workshop Goals**

Brian Rebel  
January 20, 2016

# Goal: Introduce Users to the Available Facilities and How to Access Them



- The size of the lab can make it seem like accessing its resources is very complicated
  - Workshop pre-survey showed that 83% of respondents did not know who to contact to access the facilities
  - 50% of respondents have used Fermilab facilities in the past - so even those somewhat familiar with the facilities aren't sure how to go about using all of them
  - Hopefully this workshop will make the process more transparent

# Goal: Introduce Users to the Available Facilities and How to Access Them



- The size of the lab can make it seem like accessing its resources is very complicated
- Workshop pre-survey showed that 83% of respondents did not know who to contact to access the facilities
- 50% of respondents have used Fermilab facilities in the past - so even those somewhat familiar with the facilities aren't sure how to go about using all of them
- Hopefully this workshop will make the process more transparent

# Goal: Get Feedback from the Community on Evolving the Facilities

- The lab is very interested in enabling the community to participate in detector development
  - The facilities you toured this morning are all available for use by the community...
  - ...and there are certainly ways that we can evolve the facilities to make them even better
  - The talks you will see will all have some suggestions for ways to evolve the facilities
- Tomorrow during the feedback lunch, we will talk about
  - What you all see as the most useful facilities we currently have?
  - What you would like to see added to the facilities?
  - What things make you want to do development at Fermilab...and what things make you want to avoid doing development at Fermilab?
  - How can we make the facilities best serve the current program while keeping an eye on the future?



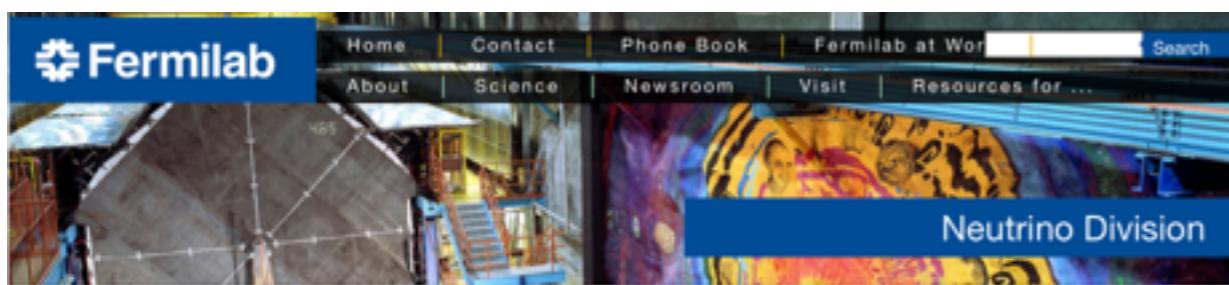
# What We Mean When We Talk About Detector Development

- Q: Does a detector development project have to be aligned with an approved project?
- A: Not necessarily. Frequently we work in smaller scale efforts into the various facilities that may or may not be useful for ongoing projects like DUNE,  $\mu^2e$ , g-2, etc. Large scale efforts need to have an agreement worked out at higher levels in the lab. ANNIE is an example of such an effort.
- Q: Does this workshop mean there is a new funding source available for people to start new efforts?
- A: Unfortunately, no. This is not a funding opportunity announcement and there is no new pot of money for starting new projects. That being said, arrangements can be made depending on the scale of the project. Sometimes that means using project task codes and sometimes that means users pay for some consumables to support the tests. Test beam time is free if it is approved.

# Final Thoughts

- This workshop is for the community - please use it to let us know how we can best enable work by the community
- Keep your eyes and ears open for opportunities where/how you can use the facilities
- A lot of folks are wanting to get involved with DUNE detector development - there is a talk tomorrow on how folks can contribute and what DUNE views as its needs
- This is a chance to demonstrate the enthusiasm of the community for detector development so that we can continue to make the case to keep a strong effort at Fermilab

# Useful Resources



## Neutrino Division

- Experiments
- Experimental Output
- Detector R & D Facilities
- Who's who
- Organization Chart
- Postdoc Supervision
- Events
- Services
- Job Opportunities
- Intensity Frontier Fellowships
- Education and Outreach

## Detector Research and Development Facilities

The Neutrino Division hosts several facilities for new detector research and development. These facilities are open to the neutrino community. The facilities include test stands for developing liquid argon time projection chambers, areas exposed to charged particle beams, and areas exposed to neutrino beams.

### Quick Links

- Become a User
- Liquid Argon Facilities
- Neutrino Beam Facilities
- Charged Particle Beam Facilities
- Scheduling Time
- Safety Training

[neutrino.fnal.gov/facilities](http://neutrino.fnal.gov/facilities)

Last modified: 11/09/2015 | [email Fermilab](#)

## Detector R&D

### Detector Research and Development

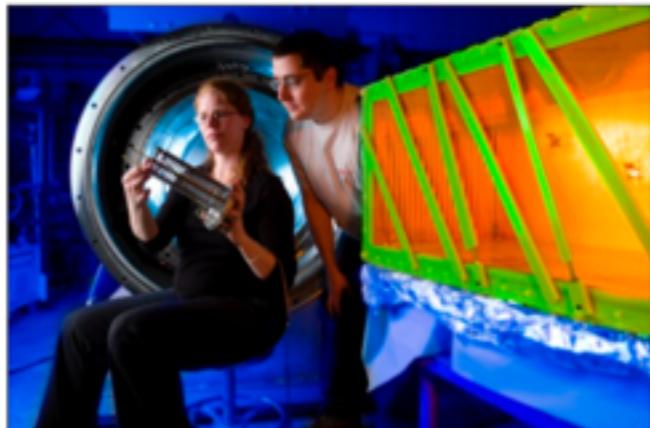
Fermilab: [Home](#) | [Help](#) | [Phone Book](#) | [Fermilab at Work](#)



### ABOUT

Fermilab has an intensive program in particle detector research and development. This program revolves around a series of institutional capabilities, typically not available elsewhere. The types of facilities that contribute to detector research include: the Silicon Detector Facility, a large ASIC Engineering group, extensive experience in Cryogenic and Vacuum Engineering, a unique High Energy Test Beam Facility, and a world-class Computing Center.

## Detector Research and Development



[detectors.fnal.gov](http://detectors.fnal.gov)



## Main

### FTBF pages

- [Become a User Overview](#)
- [Before You Arrive](#)
- [Contacts](#)
- [Location](#)
- [Working at FTBF](#)
- [Documentation Overview](#)

### Quick Links

## Main

The goal of the Fermilab Test Beam Facility (FTBF) program is to provide flexible, equal and open access to test beams for all detector tests, with relatively low bureaucratic overhead and a guarantee of safety, coordination and oversight.

Hundreds of researchers come and go through the FTBF, testing their detectors on one of the two test beams. The FTBF is the only facility in the United States that allows scientists from all over the world to test their detectors with high-energy hadron beams. Some experiments run for 24 hours a day, seven days a week, for several weeks. Since the facility began operating in 2005, it has served over 633 collaborators on 45 experiments in 24 countries.

### Quick Links:

- [Become a User](#)

# Fermilab Contacts



Brian Rebel  
Neutrino Division  
[brebel@fnal.gov](mailto:brebel@fnal.gov)

Erik Ramberg  
Particle Physics Division  
[ramberg@fnal.gov](mailto:ramberg@fnal.gov)



Mandy Rominsky  
Fermilab Test Beam  
Facility  
[rominsky@fnal.gov](mailto:rominsky@fnal.gov)

Margaret Votava  
Scientific Computing  
Division  
[votava@fnal.gov](mailto:votava@fnal.gov)

