

## IceCube DOM beamtest at the Fermilab Test Beam Facility (FTBF)

*Thursday, 8 June 2017 18:00 (2 hours)*

The IceCube Neutrino Observatory is a cubic-kilometer particle detector located at the South Pole. It consists of 5160 digital optical modules (DOMs) embedded in the ice, each containing a 10-inch photomultiplier tube (PMT). The infrastructure at the FTBF gives us a precise knowledge of the particles which are contained in the beamline. Using this knowledge, we plan to make precise measurements of the DOM response in water at the secondary beamline, known as MTest, at the 1-32 GeV configuration, meaning that the beamline contains mainly pions and muons. Such direct photon measurements from particles can be used for particle identification (PID) and will be most applicable in the PINGU detector which is the proposed lower energy upgrade in the next generation of IceCube experiments. Current efforts are focused on gathering and doing checks on equipment such as the DAQ at the FTBF.

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