



COLLEGE OF
BASIC SCIENCES

Department of Physics & Astronomy
Louisiana State University

Post-doctoral Researcher in Experimental Neutrino Physics

The experimental neutrino physics group at Louisiana State University invites applications for a postdoctoral research associate position to work on the DUNE and T2K experiments.

The successful candidate will be expected to work on the development of liquid argon detector technology, analysis of data from the ProtoDUNE experiment and event reconstruction software. She/he should expect to perform neutrino physics analyses using the T2K data and to contribute to the planned upgrade of the T2K near detector as well as the operation of the experiment.

The Deep Underground Neutrino Experiment (DUNE) foresees to send a neutrino beam originating at Fermilab towards four 10kt liquid argon (LAr) detectors located underground in the Sanford Underground Research Facility (SURF) in South Dakota. ProtoDUNE is a 700t single-phase LAr prototype detector located in a charged particle test beam at CERN. The LSU group focuses on construction, commissioning as well as simulations and data analysis of ProtoDUNE and DUNE.

T2K is an operating long-baseline neutrino oscillation experiment and observed the appearance of electron (anti-)neutrinos in a beam of muon (anti-)neutrinos. These measurements also provided a tantalizing hint for CP violation in the neutrino sector. Additional data and an upgraded near detector will improve sensitivity to the CP violation and oscillation parameters. Efforts at LSU include R&D for the near detector upgrade and physics studies.

Formal requirements are a Ph.D. in nuclear or particle physics or related disciplines. Candidates should have expertise in particle detectors, experience with data analysis and strong programming skills. Travel to experimental sites is expected and longer-term stays could be an option.

Applicants should send an application letter, a brief statement of research interests, a CV including a list of publications and arrange for three letters of reference to be sent to Prof. Thomas Kutter, kutter@phys.lsu.edu.

Review of applications will commence immediately and will continue until the position has been filled. Salary will be commensurate with qualifications and experience.

LSU is an Equal Opportunity/Equal Access Employer.