Postdoctoral Research Associate Positions in Nucleon decay and Neutrino Experiments
The State University of New York (SUNY) at Stony Brook

The Nucleon decay and Neutrino (NN) group at Stony Brook has up to two openings for postdoctoral research associate positions. Qualified candidates are invited to apply.

The NN group has participated in the Super-Kamiokande (SK), K2K and T2K experiments in Japan for the last two decades. Recent establishment of non-zero $\theta_{13}$ and electron neutrino appearance from a muon neutrino beam paves the way to resolve the unknown neutrino mass hierarchy and to explore CP violation in the lepton sector, which may hold a key to our understanding of the matter-antimatter asymmetry in the universe. We are looking for outstanding postdoc candidates who will join us in our pursuit of new discoveries and breakthroughs. The successful candidates will have an opportunity to participate in the T2K and SK experiments as well as in the experiments based on the LAr TPC technology (CAPTAIN and DUNE at LBNF). The group enjoys a stimulating and cooperative research environment provided by the presence of other strong research groups working on high-energy collider experiments, particle theory, nuclear physics and nuclear astrophysics, and efforts on under-ice cosmic neutrinos and cosmology.

Currently, in T2K, the group is involved in the T2K-SK activities for SK detector calibration, event reconstruction and data processing. We are participating in the various data and physics analysis including oscillation analysis of the experiment. We are also involved in the ND280 off-axis pi-zero detector (P0D) and ND280 off-axis detector software. We conduct neutrino interaction cross-section measurements using the P0D. In SK, we are leading an effort to test and implement the newly developed event reconstruction software, fiTQun, which is also planned to be used for the proposed Hyper-Kamiokande experiment. In addition, the group is active in the CAPTAIN experiment that is mounting a LAr TPC R&D project. Finally the group has been participating in the DUNE related activities since 2014 including DUNE 35t prototype at Fermilab, and the group is expect to play a significant role in protoDUNE at CERN.

Each candidate must have a Ph.D. degree in experimental particle physics. The successful applicant is expected to participate in a variety of hardware, software and physics analysis activities. S/he will be given a considerable amount of freedom in choosing research topics. S/he will be an employee of the Research Foundation of SUNY, whose policies will apply.

If you are interested in this position, send your CV and research statement (past experience and future plans, 2-page limit), and arrange for at least three letters of reference to: Charise Kelly cckelly@sbhep.physics.sunysb.edu. Any inquiries on the position can be sent to Prof. Chang Kee Jung chang.jung@stonybrook.edu or Prof. Clark McGrew clark.mcgrew@stonybrook.edu. The initial deadline for the application is February 5, 2016. However, late applications will be accepted and considered until the positions are filled. Start date of the position is flexible. Salary will be commensurate with experience.

The Research Foundation of the State University of New York at Stony Brook is an equal opportunity, affirmative action employer.