

BROOKHAVEN NATIONAL LABORATORY

SCIENTIFIC STAFF/POSTDOCTORAL RESEARCH ASSOCIATE POSITION

The Physics Department at Brookhaven National Laboratory has an opening for a full-time Research Associate position for a period of two years with the possibility of renewal for a third year.

Brookhaven National Laboratory (BNL) is involved in the realization of an Electron Ion Collider (EIC), a major new research facility that will advance the long-term vision for Nuclear Physics. In 2015, the Nuclear Science Advisory Committee (NSAC) gave an Electron-Ion Collider the highest recommendation for new construction after the completion of FRIB in their Long Range Plan. The realization of such a facility is of highest priority for the QCD community in the US.

BNL is investing in efforts expanding the scientific reach of an EIC through Laboratory Directed Research and Development (LDRD) projects. In this context, the EIC working group at the Lab has an opening for a postdoctoral research associate position to work on jet studies in electron-proton and electron-nucleus collisions. There are no detailed studies at present that take advantage of state-of-the-art developments to study jet production and propagation in the clean environment of electron-nucleus (e+A) and polarized electron-proton (e+p) collisions at the EIC. We plan to initiate such studies through this project.

The aim of the experimental component of the project is to perform feasibility studies for EIC measurements of such physics processes, identify key observables and develop the necessary analysis techniques. Theoretically robust observables will be studied with a full GEANT implementation of EIC detectors to determine their experimental accessibility and the detector capabilities necessary to make such measurements at an EIC. Close collaboration with the theorists will be essential for progress on all aspects of this program. The person selected will also work closely with the members of the Center for Frontiers in Nuclear Science, setup jointly between Stony Brook University and BNL.

We are seeking a talented individual to take an active role in this project. Experience in experimental particle and high-energy nuclear physics as well as solid knowledge in jet finding techniques, computing and process modeling are highly desirable.

Position Requirements: Requires a Ph.D. in experimental nuclear or particle physics, a strong background in programming, and good communication skills to collaborate with a broad international EIC community.

Brookhaven National Laboratory (BNL) is an equal opportunity employer committed to ensuring that all qualified applicants receive consideration for employment and will not be discriminated against on the basis of race, color, religion, sex, sexual orientation, gender identity, national origin, age, status as a veteran, disability or any other federal, state or local protected class.

We invite you to consider Brookhaven National Laboratory for employment. To be considered for this position, please apply online at <https://jobs.bnl.gov> and enter the Job ID 1181 into the Search by Job ID field. In addition, please forward a copy of your application to thomas.ullrich@bnl.gov directly.