Postdoctoral Researcher
Center for Nuclear Femtography

Posting Date: 07/15/2023
Salary Range: $61,100 – $75,00
Work Location Type: Flexible On-site at Jefferson Lab (working more than 75% on-site).

The Center for Nuclear Femtography (CNF) invites applications for a postdoctoral research associate position at Southeastern Universities Research Association (SURA). CNF is a multi-disciplinary center supported by the Commonwealth of Virginia focusing on the emerging science of nuclear femtography. Nuclear femtography is the mapping of the spatial distribution and motion of the quarks and gluons within the nucleus at the sub-femtoscale, using both data from experiments, and first principles computation in QCD. The realization of this science requires a multi-disciplinary approach encompassing experimental and theoretical nuclear physics, applied mathematics, and computational science including machine learning, visualization, and calculations at the frontier of exa-scale computing.

The successful candidate will play a leadership role within the center, contributing to the establishment of a coherent approach/framework to facilitate exploit input from theorists, experimentalists and computer scientists in order to advance the study of the internal structure of the nucleon and nuclei. This includes 3D imaging arising from the Generalized Parton Distributions (GPDs), Gravitational Form Factors (GFFs) and Transverse Momentum Dependent Distributions (TMDs) as they emerge from deeply exclusive processes, deep inclusive processes and first-principles computation.

The candidate should have the necessary skills to work with an interdisciplinary and international team of scientists and graduate students, and play an important role in developing documentation and communication tools for the center.

This appointment will be initially for one year and is renewable contingent upon satisfactory performance and available funding. Applicants should have a PhD in experimental or theoretical nuclear or particle physics, with experience in high level data analysis. Advanced computational skills in the area of Artificial Intelligent (A.I) and Machine Learning (M.L) skills will be a plus.

Application Requirements:

1. Letter of Interest: The letter of interest is limited to two pages and must describe the proposed work and how the work will support the goals of the CNF.
2. Curriculum Vitae: CV that contains relevant education, experience, and publications.
3. Letters of Reference: Two letters of reference are required. They may be included in the application package or sent separately from the referee.

Submission Instructions: Send all requirements electronically to cwilson@sura.org. Inquiries about the position should be directed to CNF acting director, Dr. Latifa Elouadrhiri (latifa@jlab.org).
SURA is an Equal Opportunity Employer. We believe that no one should be discriminated against because of their differences, such as age, disability, ethnicity, gender, gender identity and expression, religion, or sexual orientation. All employment decisions shall be made without regard to age, race, creed, color, religion, sex, national origin, ancestry, disability status, veteran status, sexual orientation, gender identity or expression, genetic information, marital status, citizenship status, or any other basis as protected by federal, state, or local law.