

Postdoctoral Scholar
Experimental Nuclear and Astroparticle Physics Group
The University of North Carolina at Chapel Hill
and
Triangle Universities Nuclear Laboratory

The University of North Carolina at Chapel Hill Physics and Astronomy Department has an immediate opening for a postdoctoral researcher position in experimental nuclear and astroparticle physics (<https://tarheels.live/enapgroup/>). The group's primary research activities are searching for neutrinoless double-beta decay in ^{76}Ge as part of the LEGEND Collaboration, a direct search for neutrino mass in the KATRIN tritium beta-decay neutrino mass experiment, and involvement in the liquid scintillator R&D experiment NuDot.

The UNC group is a leading contributor to the LEGEND collaboration, with major roles in detector development and characterization, electronics readout and data acquisition, and software and analysis development activities. The UNC group is also leading the development and validation of novel machine learning methods for LEGEND simulations and analysis. We have been heavily involved in constructing, commissioning, and operating the first phase, LEGEND-200, which started physics data taking in 2023. We are likewise strongly engaged in developing LEGEND-1000, a next-generation ton-scale experiment. In KATRIN we are responsible for data acquisition, are helping guide the science program, and are exploring quantum sensor techniques to enhance KATRIN's ultimate sensitivity.

Our UNC group is an integral part of the Triangle Universities Nuclear Laboratory (TUNL) (<https://www.tunl.duke.edu/>), a Department of Energy Office of Nuclear Physics Center of Excellence, which provides substantial technical and scientific resources related to our activities. We are also affiliated with the Institute for Cosmology, Subatomic Matter, and Symmetries (CoSMS) (<https://cosms.unc.edu/>) that offers a stimulating environment for discussions on a broad range of fundamental physics and astronomy topics. Postdoctoral fellows have access to a well-developed mentoring network and will have the opportunity to work with diverse student populations at the undergraduate and graduate levels. This position also provides the opportunity to work closely with other postdoctoral fellows, our scientific and engineering staff, as well as TUNL and CoSMS colleagues. Our group is highly invested in Diversity, Equity, and Inclusion (DEI) efforts within UNC Chapel Hill, TUNL, the LEGEND Collaboration, and APS, with faculty serving in leadership positions related to DEI within these organizations.

Chapel Hill is consistently ranked as one of the best places to live in America, where one finds a small-town culture with metropolitan amenities. The town is walkable, eclectic, safe, affordable, diverse and green. Residents enjoy the temperate weather and the easy access to activities in the Triangle, on the coast and in the mountains.

The position requires a PhD in Physics, experience in experimental nuclear, particle or astrophysics, and an established record of research excellence.

Postdoctoral appointments are typically for two years, with the option of a reappointment for a third year.

To apply for this position, please follow and complete the online application at <https://unc.peopleadmin.com/postings/264407> including all required documents. Applicants must provide the names and contact information for 3 letter writers who will submit recommendation letters for the applicant via the UNC People Admin recruitment portal. Please contact Professors John Wilkerson (jfw@unc.edu), Reyco Henning (rhennig@unc.edu), or Julieta Gruszko (jgruszko@unc.edu) or the ENAP Research Project Manager Sarah Van Heusen (sarahvh@unc.edu) if you require any additional information.

The University of North Carolina at Chapel Hill is an equal opportunity and affirmative action employer. All qualified applicants will receive consideration for employment without regard to age, color, disability, gender, gender expression, gender identity, genetic information, race, national origin, religion, sex, sexual orientation, or status as a protected veteran.

If you experience any problems accessing the system or have questions about the application process, please contact the University's Equal Employment Opportunity office at (919) 966-3576 or send an email to equalopportunity@unc.edu. Please note: The Equal Employment Opportunity office will not be able to provide specific updates regarding position or application status.