

## Postdoctoral Position in Experimental Low-Energy Nuclear Physics at UNC - TUNL

The University of North Carolina at Chapel Hill has an opening for a highly motivated postdoctoral researcher to work in the area of nuclear structure. The focus of the group is on the low-excitation structure of medium-mass and heavy nuclei, specifically on how nuclear shapes and shell structure evolve on the proton- and neutron-rich sides of stability. This work directly impacts our understanding of the nucleosynthesis of heavy nuclei and also impacts fundamental interactions by, for example, focusing on the matrix elements that describe neutrinoless double beta decay. The successful applicant is expected to have experience in experimental nuclear physics research, preferably including work with large  $\gamma$ -ray detector arrays such as Gammasphere, Gretina or equivalent. Experiments will be performed at the Laboratory for Experimental Nuclear Astrophysics (LENA) and the High-Intensity  $\gamma$ -ray Source (HIGS), both located at the Triangle Universities Nuclear Laboratory (TUNL). Other experiments will take place at national user facilities, such as ATLAS at Argonne National Laboratory and the National Superconducting Cyclotron Laboratory at Michigan State University, as well as international radioactive beam facilities.

Candidates should apply online at <http://unc.peopleadmin.com/postings/133565>, where they can upload their curriculum vitae, including a list of publications, and a statement regarding their research interests. Candidates will be prompted for contact information for three required references, who will be able to upload letters of reference once the application is complete. Questions about this position posting may be directed to **Prof. Robert V.F. Janssens** ([rvfj@email.unc.edu](mailto:rvfj@email.unc.edu)). The position is originally for one year, renewable by mutual consent for a period of up to 3 years. Review of applications will begin immediately and continue until the position is filled.

TUNL is one of four Department of Energy Nuclear Physics Centers of Excellence, with affiliated experimental and theoretical faculty from Duke, North Carolina Central, North Carolina State, and the University of North Carolina-Chapel Hill. Located on the campus of Duke University in Durham, North Carolina, TUNL draws collaborators worldwide, with opportunities in both accelerator and non-accelerator based research. Nuclear structure studies are performed at the High Intensity Gamma Source (HI $\gamma$ S), which provides 1 to 100 MeV  $\gamma$ -ray beams with fluxes of  $10^8/s$ , and at the 10-MV tandem van de Graaff accelerator laboratory. Nuclear astrophysics experiments are conducted at HI $\gamma$ S, the tandem and at the Laboratory for Experimental Nuclear Astrophysics (LENA). In addition, these research programs also carry out experiments at leading national and international user facilities. Other programs at TUNL include research in fundamental symmetries and manifestations of quantum chromodynamics at low energies.

The University of North Carolina-Chapel Hill was established in 1789 as the nation's first public university. It ranks 6<sup>th</sup> amongst public universities in U.S. News and World Reports 2018 rankings of national universities. U.S. News also ranks the Triangle region (Chapel Hill, Raleigh and Durham) as #7 in their top 100 places to live in the U.S. There is a lively arts and music scene and there are many opportunities for outdoor activities. In addition, the mountains are about a 3-hour drive and the shore is about 2.5 hours away.

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.