

The Department of Physics at the University of Virginia (UVA) invites applicants for a Research Associate position to work on photonuclear experiments at the High Intensity Gamma Source (HIGS) of the Tri-Universities Nuclear Laboratory (TUNL) located on the campus of Duke University.

Our program of experiments is focused primarily on photodisintegration of few-body systems d , ${}^3\text{He}$, and ${}^4\text{He}$, with special attention to anomalous structures previously observed in two-body (nn and np) final states of other reactions. Preparations are currently underway for measurements of the Gerasimov-Drell-Hearn integrand for the deuteron with photon energies up to 20 MeV; of T_{20} for deuteron photodisintegration; of asymmetries in $d(\gamma, \bar{n})$; and of angular distributions in ${}^4\text{He}(\bar{\gamma}, n)$. For these we have developed an 88-detector neutron detector array, are commissioning a 72-detector neutron polarimeter, and are collaborating with the University of Virginia Polarized Target Group to commission a dynamically polarized hydrogen/deuterium target. These studies are being complemented by measurements of angular and energy asymmetries in the Bethe-Heitler process for which we are commissioning experimental apparatus consisting of a magnet, four multi-plane wire chambers, and two scintillator hodoscopes. This program is being carried out in collaboration with scientists from UVA, the University of Saskatchewan, and Jefferson Lab as well as TUNL staff. Our group consists of one faculty, one research associate, and three graduate students. The successful candidate will be expected to take a leading role in the preparation, execution, and analysis of these experiments and will be encouraged to develop proposals for complementary experiments. Experience with hardware (especially polarized targets), CAD software, and GEANT simulations is desirable.

Qualification Requirements: Candidates must have a PhD degree in Physics by the appointment start date. Strong knowledge, skills, and experience in at least some of the following are required: experimental nuclear or particle physics, detector design and construction, experimental simulation, dynamically polarized target construction or operation.

APPLICATION PROCEDURE: Apply online at https://uva.wd1.myworkdayjobs.com/en-US/UVAJobs/job/Charlottesville-VA/Research-Associate-in-Physics_R0001945 and attach a cover letter, curriculum vitae, a brief statement of research interests and the contact information for three individuals who can provide professional reference letters.

APPLICATION DEADLINE: Review of applications will begin on June 1, 2019, but the position will remain open until filled.

This is a one-year appointment; however, appointment may be renewed for an additional two, one-year increments, contingent upon available funding and satisfactory performance.

For additional information about the position, please contact Blaine Norum, Professor, ben@virginia.edu

For questions about the application process, please contact Rich Haverstrom, Faculty Search Advisor, at rkh6j@virginia.edu

For more information on the benefits available to postdoctoral associates at UVA, visit postdoc.virginia.edu and hr.virginia.edu/benefits.