

Postdoctoral Research Associate Position
Experimental Nuclear Physics Group
Department of Physics
North Carolina A&T State University

The Nuclear Physics Group at the North Carolina A&T State University is accepting applications for a postdoctoral research associate position to work on the ongoing third experimental run and data analysis of the experiment to measure the $\eta \rightarrow \gamma\gamma$ decay width (E12-10-011) in Hall D at Jefferson Laboratory (JLab). In addition, our group is playing a leading role in the PRad Collaboration at JLab to perform a precision measurement of the proton charge radius to address the “*proton radius puzzle*” in hadronic and atomic physics. Currently we are preparing the second, much upgraded and fully approved experiment (PRad-II, JLab experiment E12-20-004) to improve the total experimental uncertainty by a factor of four for this important physical quantity. Our group also played a leading role in the development of a new experiment to search for hidden sector low mass particles, in particular the hypothetical X17 particle, recently observed in several low energy nuclear physics experiments. This experiment was recently approved by PAC50 in July 2022 with a high scientific rating (JLab experiment E12-21-003). Our group is planning to play a leading role in all stages of the preparation, installation and execution of these experiments. The successful candidate will be located at Jefferson Laboratory and expected to take leading roles in both data analysis, preparation of new proposals through active Monte Carlo simulations, and preparation of new experiments in Hall B at JLab. Applicants must have a recent Ph.D. in experimental nuclear or high energy particle physics and experience working with hardware and software for accelerator based experiments, as well as an extensive knowledge of data analysis techniques. Review of applications will start from December 1st, 2022 and will continue to accept applications until the position is filled. Applicants should submit a cover letter, curriculum vitae, statement of research interests and experience, and arrange to have three letters of recommendations emailed to:

Dr. A. Gasparian, Professor of Physics
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