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

The Experimental Nuclear Physics Group at the North Carolina A&T State University is accepting applications for a postdoctoral research associate position to work on our group's experiments at Jefferson Laboratory (JLab). Currently, our group is playing a leading role in the PRad Collaboration at JLab to perform the second, much upgraded experiment (PRad-II, E12-20-004) to improve the total experimental uncertainty by a factor of four for the proton radius to address the "*proton radius puzzle*" in hadronic and atomic physics. Our group also playing 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, also with a high scientific rating (E12-21-003). Our group is playing a leading role in all stages of the preparation, installation and execution of these experiments. In addition, the successful candidate will actively participate in the data analysis process of the experiment to measure the  $\eta \rightarrow \gamma\gamma$  decay width recently performed in Hall D at JLab (E12-10-011).

The successful candidate will be located at Jefferson Laboratory and expected to take leading roles in: (a) data analysis; (b) preparation and execution of new experiments (PRad-II and X17-Search) in Hall B at JLab; (c) preparation of new experimental proposals. 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 now 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 Department of Physics 101 Marteena Hall 1601 E. Market St. NC A&T State University Greensboro, NC 27411 USA Email: <u>agaspari@ncat.edu</u>

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