

Dustin M. Keller
1299 Swan Lake Dr. #305
Charlottesville, VA 22902
(434) 243-9955

December 11, 2018

The University of Virginia
Department of Physics

Dear Committee :

I am responding to your advertisement for Research Assistant Professor of Physics and have enclosed my CV and a statement of research interests for your review.

Some critical points of my experience relevant to this position include:

- Major project leadership as spokesperson, collaboration chair, and systems expert
- Averaging one approved experimental proposal every year from the time of graduation
- Considerable experience with both software and hardware design and development for small and large scale projects
- Specialty in solid polarized target systems with novel designs as well as designing, building and running cryogenic evaporation and dilution refrigerators used in nuclear polarization in fixed target experiments
- A broad interest in the theoretical evolution of nuclear and particle physics along with ways to experimentally test these ideas
- Development of new techniques and technology used in experimental proposals at multiple national labs

In my present position as a Principal Scientist at the University of Virginia I have made multiple improvements on polarized target technology used in nuclear and particle scattering experiments. I am involved with projects at several national labs and am interested in expanding to even larger scale projects. I have recently been heavily involved in the organization and leadership of the polarized Drell-Yan experiment along with the construction of the polarized target system to be used during this three year run at Fermilab. I presently have specific interests in hadron spectroscopy and the exploration of exotic states, hadronic structure, and exploiting spin degrees of freedom in novel physics especially on the intensity frontier. I am also interested in the extraction of GPD and TMD information with new experimental, phenomenological and analytical approaches. I am already deeply involved in polarized target innovation and leadership of the UVA Solid Polarized Target Group where I continue to mentor undergrad, graduates and postdoc. The most enjoyable part of working in physics to me is the opportunity to meet complexity with creativity to find solutions and new ways of approaching exploration.

Thank you for your time and consideration. I look forward to discussing how my experience and research can compliment the group.

Sincerely,

Dustin Keller