Diana S. Parno

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Professional Career

- January 2017 - Present: **Assistant Research Professor**
  Dept. of Physics, Carnegie Mellon University, Pittsburgh, Pennsylvania

- At CENPA and Dept. of Physics, University of Washington, Seattle, Washington:

  - June 2016 - December 2016: **Research Assistant Professor**
  - September 2014 - November 2016: **Associate Director, CENPA**
  - April 2014 - May 2016: **Acting Assistant Professor**
  - April 2011 - April 2014: **Postdoctoral Research Associate**

Education

- Ph.D. in Physics, 2011, **Carnegie Mellon University**, Pittsburgh, Pennsylvania.

- M.S. in Physics, 2006, **Carnegie Mellon University**, Pittsburgh, Pennsylvania.

- A.B. in Physics, 2004, **Harvard University**, Cambridge, Massachusetts.

Selected Refereed Publications (28 total)

1. Measurements of d_2^n and A_1^n: Probing the neutron spin structure
   D. Flay, M. Posik, D. S. Parno *et al.*, Phys. Rev. D **94** 052003

2. Precision Measurements of A_1^n in the Deep Inelastic Regime
   D. S. Parno, D. Flay, M. Posik *et al.*, Phys. Lett. B **744** 309 (2015)

3. Assessment of molecular effects on neutrino mass measurements from tritium beta decay
   L. I. Bodine, D. S. Parno, and R. G. H. Robertson, Phys. Rev. C **91** 035505 (2015, Editors'
   Suggestion)

4. Focal-plane detector system for the KATRIN experiment (corresponding author)
   J. F. Amsbaugh *et al.*, Nucl. Inst. Meth. A, **778** 40 (2015)

5. A Precision Measurement of the Neutron Twist-3 Matrix Element d_2^n: Probing Color Forces
   M. Posik, D. Flay, D. S. Parno *et al.*, Phys. Rev. Lett. **113** 022002 (2014)

6. Dead layer on silicon p-i-n diode charged-particle detectors
   B. L. Wall *et al.*, Nucl. Inst. Meth. A **744** 73-79 (2014)

7. Measurement of parity violation in electron-quark scattering
   D. Wang *et al.*, Nature **506**, 67-70 (2014)

8. Comparison of Modeled and Measured Performance of a GSO Crystal as Gamma Detector
   D. S. Parno, M. Friend, V. Mamyan *et al.*, Nucl. Inst. Meth. A **728**, 92-96 (2013)

9. [Upgraded photon calorimeter with integrating readout for Hall A Compton Polarimeter at Jefferson Lab](#)
   M. Friend, D. Parno, F. Benmokhtar, *et al.*, Nucl. Inst. Meth. A **676**, 96-105 (2012)

10. [Measurement of the Neutron Radius of ^{208}Pb Through Parity-Violation in Electron Scattering](#)
    S. Abrahamyan *et al.* (PREX Collaboration), Phys. Rev. Lett. **108**, 112502 (2012)

Recent Invited Talks at Workshops and Conferences

1. Upcoming: *The KATRIN experiment* (February 2017)
   Lake Louise Winter Institute, Alberta, Canada.

2. *Direct Measurements of Neutrino Mass* (September 2016)
   Symmetry Tests in Nuclei and Atoms, KITP, Santa Barbara, California.

3. *Direct Nuclear Probes of Neutrino Mass* (April 2016)
   APS April Meeting, Salt Lake City, Utah.

4. *Electron Detection for KATRIN* (April 2016)
   Determination of the absolute electron (anti)-neutrino mass, ECT*, Trento, Italy.

Recent Seminars

1. *Unmasking the Neutrino: The Standard Model and Beyond* (February-April 2016)

   - Nuclear Particle Astrophysics Seminar, Yale University, New Haven, CT.
   - High Energy Physics Seminar, California Institute of Technology, Pasadena, CA.
   - High Energy Physics Seminar, Carnegie Mellon University, Pittsburgh, PA.
   - High Energy Physics Seminar, University of Pittsburgh, Pittsburgh, PA.
   - Neutrino Seminar, Princeton University, Princeton, NJ.

2. *KATRIN: Seeking the Neutrino Mass* (October 2015)
   Physics Division Seminar, Argonne National Laboratory, Argonne, Illinois.

Selected Service, Outreach, and Other Professional Activities

- KATRIN Analysis Co-Coordinator, 2017-Present

- Local Organizing Committee, DNP Fall Meeting (2017)

- KATRIN Physics Advisory Committee, 2016-Present

- Co-organizer, KATRIN Final State Distribution Workshop, March 2014

- Organizer, LGBT+ Physicists advocacy group, 2011-Present. Led development of Best Practices Guide for physics departments.