

Paul Voytas

Education:

- Ph.D. (Physics) University of Wisconsin-Madison, December 1993
Thesis Title: "A Target for Producing Polarized ^{21}Na by Optical Pumping"
Minor (Distributed) Astrophysics, Computer Science
- B. S. (Physics) University of Michigan-Ann Arbor, May 1986: With Distinction

Professional Activities

University Positions:

- 1994(Spring) Visiting Assistant Professor, Richard Stockton College of New Jersey (Pomona, NJ)
1997-98 Faculty Assistant, University of Wisconsin-Madison
1998-04 Assistant Professor of Physics, Wittenberg University
2004-16 Associate Professor of Physics, Wittenberg University
2016- Professor of Physics, Wittenberg University

Other Professional Experience:

- 1987-93 Research Assistant, Experimental Nuclear Physics, University of Wisconsin-Madison
1994-95 Research Associate, Experimental Nuclear Physics, SUNY at Stony Brook
1995-98 Research Associate, University of Wisconsin-Madison
2003- Research Associate, University of Wisconsin-Madison (Summers)
2008- Reviewer for American Journal of Physics
2016 Reviewer for National Science Foundation

Current activities:

- Research project on HALO-1kt supernova neutrino detector with HALO-1kt Collaboration.
Research project on ^{20}F beta decay with Michigan State University/NSCL.
Research project on ^{14}O and ^{14}C beta decay with Univ. of Wisconsin-Madison.
Ongoing project on Light Induced Atom Desorption.

Publications in Refereed Journals:

- "Polarization transfer in the $^{23}\text{Na}(\vec{p}, ^{23}\vec{Mg})n$, $^{31}\text{P}(\vec{p}, ^{31}\vec{S})n$, and $^{35}\text{Cl}(\vec{p}, ^{35}\vec{Ar})n$ reactions"
M.A. Miller, P.A. Voytas, A.D. Roberts, P.A. Quin, W. Haeberli,
Phys. Rev. C 44 5 (1991) pp. 1995-2001
- "Polarization Transfer in $^{12}\text{C}(\vec{p}, ^{12}\vec{N})n$ at 120 and 150 MeV"
P.A. Voytas, T.E. Pickering, W.K. Pitts, P.A. Quin, J.E. Schewe, J.E. Knott,
T. Rinckel, J.J. Szymanski, Phys. Rev. C 47 2 (1993) pp. 860-862
- "Nuclear β -decay constraints on tensor contributions in $\pi \rightarrow e\nu\gamma$ "
P. A. Quin, J. Deutsch, T.E. Pickering, J.E. Schewe, P.A. Voytas
Phys. Rev. D 47 3 (1993) pp. 1247-1249

“Laser traps for radioactive isotopes”

P.A. Voytas, J.A. Behr, A. Ghosh, G. Gwinner, L.A. Orozco, J.E. Simsarian, G.D. Sprouse, F. Xu, *Hyp. Int.* 97/98 (1996) p.529-534

“A target for producing polarized ^{21}Na by optical pumping”

P.A. Voytas, J.E. Schewe, P.A. Quin, L.W. Anderson, *Nucl. Instr. Meth.* A374 (1996) pp. 7-11

“Magneto-optical trapping of ^{210}Fr ”

J.E. Simsarian, A. Ghosh, G. Gwinner, L.A. Orozco, G.D. Sprouse, P.A. Voytas, *Phys. Rev. Lett.* 76 (1996) pp. 3522-25

“Measurement of the Polarization-Asymmetry Correlation for ^{21}Na with novel target and polarimeter”

J.E. Schewe, P.A. Voytas, P.A. Quin
Nucl. Instrum. Meth., A390 (1997) 274-278.

“A magneto-optical trap loaded from a pyramidal funnel”

R. S. Williamson, P. A. Voytas, R. T. Newell, T. Walker
Optics Express, Vol 3. No. 3, 111-117 (1998)

“Direct Measurement of the L/K ratio in ^7Be Electron Capture”

P.A. Voytas, C. Ternovan, M. Galeazzi, D. McCammon, J.J. Kolata, P. Santi, D. Peterson, V. Guimarães, F.D. Becchetti, M.Y. Lee, T.W. O’Donnell, D. A. Roberts, S. Shaheen, *Physical Review Letters*, 88, 012501, (7 Jan, 2002).

“Revalidation of the Isobaric Multiplet Mass Equation”

M. C. Pyle, A. Garca, E. Tatar, J. Cox, B. K. Nayak, S. Triambak, B. Laughman, A. Komives, L. O. Lamm, J. E. Rolon, T. Finnessy, L. D. Knutson, and P. A. Voytas
Physical Review Letters, 88, 122501, (7 Mar, 2002).

“Cryogenic Micro-Calorimeters for studies of LE implanted RNB’s”

P. A. Voytas, Conference Proceedings of CAARI 2002.

“The Half-Life of ^{66}Ga ”

G. W. Severin, L. D. Knutson, P. A. Voytas, E. A. George
Physical Review C, 82, 067301 (2010).

“A Superconducting Beta Spectrometer”

L. D. Knutson, G. W. Severin, S. L. Cotter, Li Zhan, P. A. Voytas, and E. A. George
Review of Scientific Instruments, 82, 073302 (2011).

“ ^{66}Ga Ground State β Spectrum”

G. W. Severin, L. D. Knutson, P. A. Voytas, and E. A. George
Physical Review C, 89, 057302 (2014).

“Measurement of the Shape Factor for the Beta Decay of ^{14}O ”

E. A. George, P. A. Voytas, G. W. Severin, and L. D. Knutson
Physical Review C, 90, 065501 (2014).

Contributions to Professional Conferences:

- “A Beta-Decay Test for Right-Handed Currents in the Weak Interaction”
P.A. Voytas, J.E. Schewe, and P.A. Quin,
Bulletin of the American Physical Society, vol. 34, no. 8 (1989) p. 1819
- “Nuclear Beta Decay Coupling Constants-A New Global Analysis”
P.A. Voytas, T. Pickering, J.E. Schewe, and P.A. Quin,
Bulletin of the American Physical Society, vol. 36, no. 8 (1991) p. 2154
- “On-Line Optical Pumping of ^{21}Na ”
P.A. Voytas, J. E. Schewe, L.W. Anderson, and P.A. Quin,
Bulletin of the American Physical Society, vol. 37, no. 5 (1992) p. 1272
- “Target for Producing Polarized ^{21}Na by Optical Pumping ”
P.A. Voytas, J.E. Schewe, P.A. Quin, L.W. Anderson, and R.E. Miers,
Workshop on Polarized Ion Sources and Polarized Gas Targets, AIP Conference
Proceedings 293, (1994) p. 208
- “Laser trapping of ^{210}Fr ”
P.A. Voytas, J.E. Simsarian, A. Ghosh, G. Gwinner, L.A. Orozco, G.D. Sprouse,
Post Deadline contributed paper presented at Fall, 1995 American Physical Society
Division of Nuclear Physics meeting in Bloomington, IN
- “ ^{38}K , ^{37}K laser trapping and β -decay measurements.”
Invited paper presented at the Division of Nuclear Chemistry and Technology of the
American Chemical Society. April 15, 1997 San Francisco, CA
- “Modeling a new superconducting beta spectrometer for a CVC test in ^{14}O beta decay”
Division of Nuclear Physics Fall Meeting, Chicago, 2004
- “Investigating Tangential Acceleration in the Laboratory with a Rotation Wheel”
Elizabeth George, Paul Voytas, Lynn Knutson, Gregory Severin
American Association of Physics Teachers Summer Meeting, Ann Arbor, 2009
- “ Determination of the ground state branching ratio in $^{14}\text{O}\rightarrow^{14}\text{N}$ beta decay”
Paul Voytas, Elizabeth George, Lynn Knutson, Gregory Severin
American Physical Society April Meeting, Denver, 2013
- “ The shape of the $^{66}\text{Ga}\rightarrow^{66}\text{Zn}$ ground state beta decay spectrum”
American Physical Society April Meeting, Denver, 2013
- As Co-Author (most recent):*
- “The shape of the $^{66}\text{Ga}\rightarrow^{66}\text{Zn}$ ground state beta decay spectrum
American Physical Society April Meeting, Denver, 2013
- “Toward a measurement of weak magnetism in ^6He decay”
Division of Nuclear Physics Fall Meeting, Santa Fe, 2015
- “Search for new physics in a precise ^{20}F beta spectrum shape measurement”
Division of Nuclear Physics Fall Meeting, Santa Fe, 2015

Other Presentations:

Nuclear physics seminar at University of Wisconsin-Madison Nov. 9, 1995
“Laser trapping of Radioactive Atoms”
Physics Department seminar at Wittenberg University February 6, 1999
“The Weird and Wacky World of Weak Interactions”
“Cryogenic (Micro-calorimetric) Detectors” Presented at the Town Meeting on
Opportunities in Nuclear Astrophysics
Held at the University of Notre Dame, June, 1999 Sponsord by the Division of
Nuclear Physics of the American Physical Society
Physics Seminar at University of Michigan April 9, 2001
“Direct Measurement of the L/K ratio in ${}^7\text{Be}$ Electron Capture”
Physics Seminar at Miami University April 3, 2002
“Direct Measurement of the L/K ratio in ${}^7\text{Be}$ Electron Capture”
Physics Seminar at Indiana University April 3, 2006
“Oxygen-14 beta decay and the Standard Model”
Physics seminar at National Superconducting Cyclotron Laboratory Nov. 11, 2013
“Beta spectroscopy in ${}^{14}\text{O}$ ”
Presentation at the Low Energy Community Meeting
Held at Michigan State University, Aug, 2015
“Precision beta spectrum of ${}^{14}\text{O}$ and ${}^{20}\text{F}$ ”

Professional Memberships:

American Physical Society (since 1987)
Division of Nuclear Physics
Division of Laser Science
Division of Atomic, Molecular and Optical Physics
Forum on Physics and Society
Forum on Education
Ohio Region Section of the American Physical Society
American Association of Physics Teachers (since 1988)
Southern Ohio Section of American Association of Physics Teachers