

Warren F. Rogers – Curriculum Vitae

CONTACT

Department of Physics, Indiana Wesleyan University
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EDUCATION

1986 Ph.D. Physics, University of Rochester, Rochester NY
1983 M.A. Physics, University of Rochester, Rochester NY
1981 B.S. Physics, Harvey Mudd College, Claremont CA

EMPLOYMENT

2016–pr Professor and Blanchard Chair, Physics, Indiana Wesleyan University, Marion, IN
2002–16 Professor, Physics, Westmont College, Santa Barbara, CA
2007–09 Interim Provost, Westmont College
1996–02 Associate Professor, Physics, Westmont College
1994–96 Assistant Professor, Physics, Westmont College
1988–94 Assistant Professor, Physics, State University of New York, Geneseo, NY
1991, 92 Visiting Assistant Professor (summer), University of Rochester
1989, 90 Visiting Research Scientist (summer), University of Washington, Seattle WA
1986–88 Post-Doctoral Research Associate, University of Washington
1982–86 Research Assistant, University of Rochester
1981–82 Teaching Assistant, University of Rochester
1980 Research Assistant (summer), Sacramento Peak Observatory, Sunspot NM

HONORS, AWARDS, GRANTS

2020– Project Director, NSF Research at Undergraduate Institutions (RUI) grant PHY-2012511
2018 Prize for a Faculty Member for Research in an Undergraduate Institution, American Physical Society (APS)
2015– Project Director, NSF RUI grant PHY-1506402/1744043
2011–15 Project Director, NSF RUI grant PHY-1101745
2009 Distinguished Service Award, Division of Nuclear Physics, APS
2009–11 Principal Investigator, NSF Major Research Instrumentation (MRI) grant PHY-0922622
2006– Fellow, American Physical Society
2005–11 Project Director, NSF RUI grant PHY-0502010
2001–04 Principal Investigator, NSF MRI grant PHY-0132641
2000–05 Project Director, NSF RUI grant PHY-0072915
1998–pr NSF and DOE funding for the Conference Experience for Undergraduates (CEU) at the fall meetings of the Division of Nuclear Physics, APS
1999 Faculty Research Award, Westmont College
1997–01 Project Director, NSF RUI grant PHY-9722692
1994–97 Project Director, NSF RUI grant PHY-9496322
1993–95 Project Director, NSF RUI grant PHY-9302897
1992 NSF Research Opportunity Award (ROA), in conjunction with the Nuclear Structure Research Laboratory (NSRL), University of Rochester
1991 NSF ROA grant, NSRL, Univ. of Rochester

SERVICE

2020–21	Executive Director, MoNA Collaboration
2017–	Member, Harrassment Prevention Committee, Division of Nuclear Physics (DNP), American Physical Society (APS)
2018 –	Member, DNP Allies Committee
2015–17	Ad-hoc Deputy Secretary/Treasurer, DNP, APS
2014–16	Program Advisory Committee, Los Alamos Neutron Science Center (LANSCE)
2015–18	Chair, Education Committee, DNP, APS
2014–15	Executive Director, Modular Neutron Array (MoNA) Collaboration
2010–13	Executive Committee, California and Nevada Section, APS
2007–09	Programming Committee, DNP, APS
2007–08	Executive Director, MoNA Collaboration
2003–06	Committee on Education, APS
2003–04	Education Subcommittee, Nuclear Science Advisory Committee (NSAC)
1999–	Member, Education Committee, DNP
1998–16	NSF Sponsored Research Officer, Westmont College
1998–16	Director, Conference Experience for Undergraduates (CEU), Nuclear Physics
1996–02	Radiation Safety Officer, Westmont College
1994	Executive Board Member, NY Section AAPT
1990–04	American Association of Physics Teachers (AAPT)
1983–	Member, Division of Nuclear Physics (DNP), American Physical Society (APS)
1983–	Member, American Physical Society (APS)

PUBLICATIONS

(Undergraduate student co-authors listed in **bold**)

1. **Cloudcroft Occultation Summary. I. December 1978 - March 1980**, Richard R. Radick, John L. Africano, Warren F. Rogers, Timothy J. Schneeberger, and Edmund T. Tyson, *Astronomical Journal* **87** 885 (1982)
2. **The Photometric Variability of Solar-Type Stars. II. Stars Selected from Wilson's Chromospheric Activity Survey**, Richard R. Radick, M.S. Wilkerson, S.P. Worden, John L. Africano, A. Klimke, Steven Ruden, Warren Rogers, Taft E. Armandroff, and M.S. Giampapa, *Publications of the Astronomical Society of the Pacific* **95** 300 (1983)
3. **Transport Efficiency of Free Atoms for Laser Spectroscopy Using a Cryogenic Helium Jet**, A.G. Martin, S.B. Dutta, W.F. Rogers, and D.L. Clark, *Nuclear Instruments and Methods in Physics Research A* **247** 520 (1986)
4. **Measurement of the Isotope Shift of ^{82}Sr** , A.G. Martin, S.B. Dutta, W.F. Rogers, and D.L. Clark, *Physical Review C* **34** 1120 (1986)
5. **Measurement of the Magnetic Moment of ^{33}Cl Using On-Line β -Nuclear Magnetic Resonance**, W.F. Rogers, D.L. Clark, S.B. Dutta, and A.J. Martin, *Physical Letters B* **177** 293 (1986)
6. **β -NMR Magnetic Moment Measurement Using On-Line Mass Separation and Tilted Foil Polarization**, Warren F. Rogers, David L. Clark, Sanghamitra B. Dutta, Alexander G. Martin, *Nuclear Instruments and Methods in Physics Research A* **253** 256 (1987)
7. **Laser Spectroscopy of Radioactive Atoms Using the Photon-Burst Technique**, A.G. Martin, S.B. Dutta, W.F. Rogers, D.L. Clark, *Journal of the Optical Society of America* **4** 405 (1987)
8. **New Constraints on Composition-Dependent Interactions Weaker Than Gravity**, E.G. Adelberger, C.W. Stubbs, W.F. Rogers, F.J. Raab, B.R. Heckel, J.H. Gundlach, H.E. Swanson, R. Watanabe, *Physical Review Letters* **59** 849 (1987) - 1790(E)

9. **Limits on Composition-Dependent Interactions Using a Laboratory Source: Is There a “Fifth Force” Coupled to Isospin?**, C.W. Stubbs, E.G. Adelberger, B.R. Heckel, W.F. Rogers, H.E. Swanson, R. Watanabe, J.H. Gundlach, F.J. Raab, *Physical Review Letters* **62** 609 (1989)
10. **Experimental Bounds on Interactions Mediated by Ultra-Low Mass Bosons**, B.R. Heckel, E.G. Adelberger, C.W. Stubbs, W.F. Rogers, Y. Su, J.E. Swanson, G. Smith, *Physical Review Letters* **63** 2705 (1989)
11. **Testing the Equivalence Principle in the Field of the Earth: Particle Physics at Masses Below $1 \mu\text{eV}$?**, E.G. Adelberger, C.W. Stubbs, B.R. Heckel, W.F. Rogers, Y. Su, H.E. Swanson, G. Smith, R. Watanabe, J.R. Gundlach, *Physical Review D* **42** 3267 (1990)
12. **Optical Isotope Shift and Hyperfine Structure Measurements of $^{152,154-158,160}\text{Gd}$** , S.B. Dutta, A.G. Martin, W.F. Rogers, D.L. Clark, *Physical Review C* **42** 1191 (1990)
13. **Searches for New Macroscopic Forces**, E.G. Adelberger, B.R. Heckel, W.F. Rogers, C.W. Stubbs, *Annual Review of Nuclear and Particle Science* **41** 269 (1991)
14. **Tilted Foil Polarization and Magnetic Moments of Mirror Nuclei**, N. Benczer-Koller, T. Vass, A.W. Mountford, G. Kumbartzki, D.C. Zheng, L. Zamick, M. Hass, C. Broude, M. Satteson, W. Rogers, *Proceedings of the 4th International Spring Seminar on Nuclear Physics*, Amalfi, May 18-22 (1992)
15. **Quadrupole and Magnetic Moment Measurements On Spin-Aligned Projectile Fragments**, G. Neyens, N. Coulier, S. Teughels, S. Ternier, K. Vyvey, R. Coussement, D. L. Balabanski, J. M. Casandjian, M. Chartier, M.D. Cortina-Gil, M. Lewitowicz, W. Mittig, A. N. Ostrowski, P. Roussel-Chomaz, N. Alamanos, A. Lepine-Szily, and W. Rogers, *Heavy Ion Physics* **7** 101 (1998)
16. **The Quadrupole Moment of ^{18}N , Measured with the Level Mixing Resonance (LMR) Method**, N. Coulier, G. Neyens, S. Teughels, G. Georgiev, S. Ternier, K. Vyvey, R. Coussement, D.L. Balabanski, M.D. Cortina-Gil, M. Lewitowicz, W. Mittig, F. de Oliveira Santos, P. Roussel-Chomaz, W.F. Rogers, and A. Lépine-Szily, *Il Nuovo Cimento A* **111** 727 (1998)
17. **The Magnetic and Quadrupole Moment of Oriented Nuclei Measured With β -LMR-NMR**, S. Teughels, G. Neyens, N. Coulier, G. Georgiev, S. Ternier, K. Vyvey, D.L. Balabanski, R. Coussement, W.F. Rogers, M.D. Cortina-Gil, F. de Oliveira Santos, M. Lewitowicz, W. Mittig, P. Roussel-Chomaz, A. Lepine Szily, *Proceedings of the ENAM (Exotic Nuclear and Atomic Masses) Conference*, 58 (1998)
18. **Application of Nuclear Magnetic Resonance, Level Mixing Resonance and Their Combination for Measurement of Nuclear Magnetic and Quadrupole Moments**, G. Georgiev, G. Neyens, N. Coulier, S. Teughels, S. Ternier, K. Vyvey, D.L. Balabanski, R. Coussement, W.F. Rogers, D. Cortina-Gil, F. de Oliveira, M. Lewitowicz, W. Mittig, P. Roussel-Chomaz, A. Lepine-Szily, P.F. Mantica, *Balkan Physics Letters, Special Issue*, p. 250-3 (1998)
19. **Magnetic Moment of the 1^- Ground State in ^{18}N Measured by a New β -LMR-NMR Technique**, G. Neyens, N. Coulier, S. Teughels, G. Georgiev, B.A. Brown, W.F. Rogers, D.L. Balabanski, R. Coussement, A. Lepine-Szily, M. Lewitowicz, W. Mittig, F. de Oliveira Santos, P. Roussel-Chomaz, S. Ternier, K. Vyvey, D. Cortina-Gil, *Physical Review Letters* **82** 497 (1999)
20. **New β -Level Mixing Resonance and Nuclear Magnetic Resonance Method for Measuring Magnetic Dipole and Electric Quadrupole Moments of Short-Lived Nuclei**, N. Coulier, G. Neyens, S. Teughels, D.L. Balabanski, R. Coussement, G. Georgiev, S. Ternier, K. Vyvey, and W.F. Rogers, *Physical Review C* **59** 1935 (1999)
21. **Ground-State Magnetic Moment of the T=1 Nucleus ^{32}Cl Using On-Line β -NMR Spectroscopy**, W.F. Rogers, G. Georgiev, G. Neyens, D. Borremans, N. Coulier, R. Coussement, A. Davies, J. Mitchell, S. Teughels, B.A. Brown, P.F. Mantica, *Physical Review C* **62** 044312 (2000)

22. **Evidence for $2f_{7/2}$ Neutron Strength in the Low Energy Structure of $^{144,146,148,150}\text{Nd}$ Isotopes**, J. Holden, N. Benczer-Koller, G. Jakob, G. Kumbartzki, T.J. Mertzimekis, K.-H. Speidel, A. Macchiavelli, M. McMahan, L. Phair, P. Maier-Komor, A.E. Stuchbery, W.F. Rogers, **A.D. Davies**, *Physics Letters B* **493** 7 (2000)
23. **Single Particle Degrees of Freedom in the Transition from Deformed to Spherical Nuclei**, J. Holden, N. Benczer-Koller, G. Jakob, G. Kumbartzki, T.J. Mertzimekis, K.-H. Speidel, C.W. Beausang, R. Krucken, A. Macchiavelli, M. McMahan, L. Phair, A.E. Stuchbery, P. Maier-Komor, W. Rogers, **A.D. Davies**, *Physical Review C* **63** 024315/1-8 (2001)
24. **Spin Polarization of ^{37}K Produced in a Single-Proton Pick-up Reaction at Intermediate Energies**, D.E. Groh, P.F. Mantica, A.E. Stuchbery, A. Stolz, T.J. Mertzimekis, W.F. Rogers, A.D. Davies, S.N. Liddick, and B.E. Tomlin, *Physical Review Letters* **90** 202502 (2003)
25. **MoNA – The Modular Neutron Array**, B. Luther, T. Baumann, M. Thoennessen, J. Brown, P. DeYoung, J. Finck, J. Hinnefeld, R. Howes, K. Kemper, P. Pancella, G. Peaslee, W. Rogers and S. Tabor, *Nuclear Instruments and Methods in Physics Research A* **505** 33 (2003)
26. **MoNA – The Modular Neutron Array at the NSCL**, T. Baumann, J. A. Brown, P. DeYoung, J. E. Finck, J. D. Hinnefeld, R. Howes, K. W. Kemper, B. A. Luther, P. V. Pancella, G. F. Peaslee, W. F. Rogers, S. L. Tabor and M. Thoennessen, *CP680, Application of Accelerators in Research and Industry: 17th Int'l. Conference*, American Institute of Physics 0-7354-0149-7/03 554 (2003)
27. **Education in Nuclear Science; A Status Report and Recommendations for the Beginning of the 21st Century**, Joseph Cerny, Cornelius Beausang, Jolie Cizewski, Timothy Hallman, Calvin Howell, Andrea Palounek, Warren Rogers, Brad Sherrill, Robert Welsh, Sherry Yennello, Richard Casten, A Report of the DOE/NSF Nuclear Science Advisory Committee Subcommittee on Education, November 2004
28. **Construction of a Modular Large-Area Neutron Detector for the NSCL**, T. Baumann, J. Boike, J. Brown, M. Bullinger, J.P. Bychoswki, **S. Clark**, K. Daum, P.A. DeYoung, J.V. Evans, J. Finck, N. Frank, A. Grant, J. Hinnefeld, G.W. Hitt, R.H. Howes, **B. Isselhardt**, K.W. Kemper, J. Longacre, Y. Lu, B. Luther, S.T. Marley, D. McCollum, E. McDonald, U. Onwuemene, P.V. Pancella, G.F. Peaslee, W.A. Peters, M. Rajabali, J. Robertson, W.F. Rogers, S.L. Tabor, M. Thoennessen, E. Tryggestad, R.E. Turner, P.J. VanWylen, **N. Walker**, *Nuclear Instruments and Methods in Physics Research A* **543**, 517 (2005)
29. **Undergraduate Research Opportunities: The Key to a Bright Future for Nuclear Science in the United States**, W.F. Rogers, J. Cerny, *Nuclear Physics News (NuPECC)*, **15** 4 3 (2005)
30. **Fabrication of a Modular Neutron Array: A Collaborative Approach to Undergraduate Research**, R.H. Howes, T. Baumann, M. Thoennessen, J. Brown, P.A. DeYoung, J. Finck, J. Hinnefeld, K.W. Kemper, B. Luther, P.V. Pancella, G.F. Peaslee, W.F. Rogers, S. Tabor, *American Journal of Physics* **73** (2) 122 (2005)
31. **Nuclear Magnetic Moment of the ^{57}Cu Ground State**, K. Minamisono, P. F. Mantica, T. J. Mertzimekis, A.D. Davies, M. Hass, J. Pereira, J. S. Pinter, W. F. Rogers, J. B. Stoker, B. E. Tomlin, and R. R. Weerasiri, *Physical Review Letters* **96** 102501 (2006)
32. **Big Physics at Small Places: The Mongol Horde Model of Undergraduate Research**, P. J. Voss, J. E. Finck, R. H. Howes, J. Brown, T. Baumann, A. Schiller, M. Thoennessen, P. A. DeYoung, G. F. Peaslee, J. Hinnefeld, B. Luther, P.V. Pancella, and W. F. Rogers, *Journal of College Teaching & Learning* **5** (2), 37 (February 2008)
33. **Production of Nuclei in Neutron Unbound States via Primary Fragmentation of ^{48}Ca** , G. Christian, W.A. Peters, D. Absalon, D. Albertson, T. Baumann, D. Bazin, E. Breitbach, J. Brown, P.L. Cole, D. Denby, P.A. DeYoung, J.E. Finck, H. Frank, A. Fritsch, C. Hall, A.M. Hayes, J. Hinnefeld, C.R. Hoffman, R. Howes, B. Luther, E. Mosby, S. Mosby, D. Padilla, P.V. Pancella, G. Peaslee, W.F.

- Rogers, A. Schiller, M.J. Strongman, M. Thoennessen, and L.O. Wagner. *Nuclear Physics A* **801** 101 (2008)
34. **Determination of the N = 16 Shell Closure at the Oxygen Drip Line**, C.R. Hoffman, T. Baumann, D. Bazin, J. Brown, G. Christian, P.A. DeYoung, J.E. Finck, N. Frank, J. Hinnefeld, R. Howes, P. Mears, E. Mosby, S. Mosby, J. Reith, B. Rizzo, W.F. Rogers, G. Peaslee, W.A. Peters, A. Schiller, M.J. Scott, S.L. Tabor, M. Thoennessen, P.J. Voss, and T. Williams, *Physical Review Letters* **100** 152502 (2008)
 35. **Evidence for a Doubly Magic ^{24}O** , C.R. Hoffman, T. Baumann, D. Bazin, J. Brown, G. Christian, D.H. Denby, P.A. DeYoung, J.E. Finck, N. Frank, J. Hinnefeld, S. Mosby, W.A. Peters, W.F. Rogers, A. Schiller, A. Spyrou, M.J. Scott, S.L. Tabor, M. Thoennessen, and P. Voss, *Physics Letters B* **672** 17 (2009)
 36. **Doubly-Magic Nature of ^{56}Ni : Measurement of the Ground State Nuclear Magnetic Dipole Moment of ^{55}Ni** , J.S. Berryman, K. Minamisono, W.F. Rogers, B.A. Brown, H.L. Crawford, G.F. Grinyer, P.F. Mantica, J.B. Stoker, and I.S. Towner, *Physical Review C* **79**, 064305 (2009)
 37. **Disappearance of the N = 14 Shell**, M. J. Strongman, A. Spyrou, C. R. Hoffman, T. Baumann, D. Bazin, J. Brown, P.A. DeYoung, J.E. Finck, N. Frank, S. Mosby, W.F. Rogers, G.F. Peaslee, W.A. Peters, A. Schiller, S.L. Tabor, and M. Thoennessen, *Physical Review C* **80** 021302 (2009)
 38. **Observation of a two-neutron cascade from a resonance in ^{24}O** , C. R. Hoffman, T. Baumann, J. Brown, P. A. DeYoung, J. E. Finck, N. Frank, J. D. Hinnefeld, S. Mosby, W. A. Peters, W. F. Rogers, A. Schiller, J. Snyder, A. Spyrou, S. L. Tabor, and M. Thoennessen, *Physical Review C* **83** 031303(R) (2011)
 39. **Neutron knockout of ^{12}Be populating neutron-unbound states in ^{11}Be** , W. A. Peters, T. Baumann, B. A. Brown, J. Brown, P. A. DeYoung, J. E. Finck, N. Frank, K. L. Jones, J.-L. Lecouey, B. Luther, G. F. Peaslee, W. F. Rogers, A. Schiller, M. Thoennessen, J. A. Tostevin, and K. Yoneda, *Physical Review C* **83** 057304 (2011)
 40. **Exploring the Low-Z Shore of the Island of Inversion at N = 19**, G. Christian, N. Frank, S. Ash, T. Baumann, D. Bazin, J. Brown, P. A. DeYoung, J. E. Finck, A. Gade, G. F. Grinyer, **A. Grovom**, J. D. Hinnefeld, E. M. Lunderberg, B. Luther, M. Mosby, S. Mosby, T. Nagi, G. F. Peaslee, W. F. Rogers, J. K. Smith, J. Snyder, A. Spyrou, M. J. Strongman, M. Thoennessen, M. Warren, D. Weisshaar, and A. Wersal, *Physical Review Letters* **108** 032501 (2012)
 41. **Nuclear structure physics with MoNA-LISA**, S. L. Stephenson, J. A. Brown, P. A. DeYoung, J. E. Finck, N. H. Frank, J. D. Hinnefeld, R. A. Kaye, B. A. Luther, G. F. Peaslee, D. A. Meyer, W. F. Rogers and the MoNA Collaboration, in Neutron Spectroscopy, Nuclear Structure, Related Topics: XIX International Seminar of Neutrons with Nuclei, (Joint Institute for Nuclear Research, Dubna, Russia, 2012) 138-144
 42. **Search for ^{21}C and Constraints on ^{22}C** , S. Mosby, N. S. Badger, T. Baumann, D. Bazin, M. Bennett, J. Browne, G. Christian, P. A. DeYoung, J. E. Finck, **M. Gardner**, J. D. Hinnefeld, E. A. Hook, E. M. Lunderberg, B. Luther, D. A. Meyer, M. Mosby, G. F. Peaslee, W. F. Rogers, J. K. Smith, J. Snyder, A. Spyrou, M. J. Strongman, M. Thoennessen, *Nuclear Physics A* **909** 69-78 (2013)
 43. **Observation of a low-lying neutron-unbound state in ^{19}C** , M. Thoennessen, S. Mosby, N.S. Badger, T. Baumann, D. Bazin, M. Bennett, J. Brown, G. Christian, P.A. DeYoung, J.E. Finck, **M. Gardner**, E.A. Hook, B. Luther, D.A. Meyer, M. Mosby, W.F. Rogers, J.K. Smith, A. Spyrou, M.J. Strongman, *Nuclear Physics A* **912**, 1-6 (2013)
 44. **Unbound excited states of the N=16 closed shell nucleus ^{24}O** , W.F. Rogers, **S. Garrett, A. Grovom**, R.E. Anthony, **A. Aulie, A. Barker**, T. Baumann, J.J. Brett, J. Brown, G. Christian, P.A. DeYoung, J.E. Finck, N. Frank, **A. Hamann**, R.A. Haring-Kaye, J. Hinnefeld, A.R. Howe, N.T. Islam, M.D. Jones, A.N. Kuchera, **J. Kwiatkowski**, E.M. Lunderberg, B. Luther, D.A. Meyer, S. Mosby, A.

- Palmisano, **R. Parkhurst**, A. Peters, J. Smith, J. Snyder, A. Spyrou, S.L. Stephenson, M. Strongman, **B. Sutherland**, **N.E. Taylor**, and M. Thoennessen, *Phys. Rev. C* **92** 034316 (2015)
45. **Two-neutron sequential decay of ^{24}O** , M.D. Jones, N. Frank, T. Baumann, J. Brett J. Bullaro, P.A. DeYoung, J.E. Finck, K. Hammerton, J. Hinnefeld, Z. Kohley, A.N. Kuchera, J. Pereira, A. Rabe, W.F. Rogers, J.K. Smith, A. Spyrou, S.L. Stephenson, K. Stiefel, M. Tuttle-Timm, R.G.T. Zegers, M. Thoennessen, *Phys. Rev. C* **92** 051306 (2015)
 46. **Dictionary of Christianity and Science – The Definitive Reference for the Intersection of Christian Faith and Contemporary Science**, contributions on the topics of Albert Einstein, Isaac Newton, and SETI (Search for Extra-terrestrial Intelligence), Zondervan (2017)
 47. **APS in the #MeToo Era**, Warren Rogers, Roxanne Springer, and Sherry Yennello, American Physical Society Newsletter, *APS News* **27** 8 (2018)
 48. **Measurements of Fast Neutron Scattering in Plastic Scintillator with Energies from 20 to 200 MeV**, W.F. Rogers, A. Kuchera, **J. Boone**, N. Frank, S. Mosby, M. Thoennessen, **A. Wantz**, *Nuclear Instruments and Methods in Physics Research A* **943** 162436 (2019)
 49. **Low-lying level structure of the neutron-unbound $N = 7$ isotones**, D. Votaw, P. A. DeYoung, T. Baumann, A. Blake, **J. Boone**, J. Brown, D. Chrisman, J. E. Finck, N. Frank, J. Gombas, P. Guèye, J. Hinnefeld, H. Karrick, A. N. Kuchera, H. Liu, B. Luther, F. Ndayisabye, M. Neal, J. Owens-Fryar, J. Pereira, C. Persch, T. Phan, T. Redpath, W. F. Rogers, S. Stephenson, K. Stiefel, C. Sword, **A. Wantz**, and M. Thoennessen, *Phys. Rev. C* **102** 014325 (2020)
 50. **Cambridge Handbook of Undergraduate Research: Chapter on Undergraduate Research in Physics**, N. Abraham, J.A. Hudgings, M. Jackson, W.F. Rogers, in press (2021)
 51. **Neutron-Unbound States in ^{31}Ne** , D. Chrisman, A.N. Kuchera, T. Baumann, A. Blake, B.A. Brown, J. Brown, C. Cochran, P.A. DeYoung, J.E. Finck, N. Frank, P. Guye, H. Karrick, H. Liu, J. McDonough, T. Mix, B. Monteagudo, T.H. Redpath, W.F. Rogers, R. Seaton-Todd, A. Spyrou, K. Stiefel, M. Thoennessen, J.A. Tostevin, and D. Votaw, *Phys. Rev. C* **104** 034313 (2021)

UNPUBLISHED WORK

Physics of Music: Science and Art, W.F. Rogers, complete text for a course in the Physics of Music

PRESENTATIONS

1. **Measurement of Magnetic Moments of Light β -Unstable Nuclei Using On-Line Nuclear Magnetic Resonance**, W.F. Rogers, A.G. Martin, S.B. Dutta, D.L. Clark, General Meeting of the American Physical Society, Crystal City VA, *Bulletin of the American Physical Society* **30** 790 (1985)
2. **Magnetic Moment of ^{33}Cl Measured Using On-Line β -Nuclear Magnetic Resonance (Beta-NMR)**, W.F. Rogers, A.G. Martin, S.B. Dutta, D.L. Clark, General Meeting of the American Physical Society, Washington DC, *Bulletin of the American Physical Society* **31** 771 (1986)
3. **Measurements of Parity Non-Conservation (PNC) and Search for Time Reversal Non-Conservation (TNC) Using Reactor-Produced Cold Neutrons**, Nuclear Physics Seminar, Department of Physics, University of Washington, Seattle WA (May 1987)
4. **Forces Weaker Than Gravity**, Nuclear Brown Bag Seminar, Department of Physics, University of Washington, Seattle WA (May 1988)
5. **Search for a Fifth Force**, invited talk, Spring Meeting of the New York State Section of the American Association of Physics Teachers, Geneseo NY (15 April 1989)

6. **A Search for Intermediate-Range Composition-Dependent Interactions**, Nuclear Physics Seminar, Department of Physics and Astronomy, University of Rochester, Rochester NY (14 September 1989)
7. **A Search for Intermediate-Range Composition-Dependent Interactions (“Fifth Force”)**, Physics Colloquium, Department of Physics and Astronomy, SUNY Binghamton, Binghamton NY (4 December 1989)
8. **A Search for Intermediate-Range Composition-Dependent Interactions (“Fifth Force”)**, Physics Colloquium, Department of Physics and Astronomy, SUNY Brockport, Brockport NY (5 October 1990)
9. **Even Odd Nuclei Have Their Moments**, Physics Colloquium, Department of Physics and Astronomy, SUNY Geneseo, Geneseo NY (2 May 1991)
10. **Nuclear Magnetic Moment Measurements Using the β -NMR Technique**, Physics Colloquium, Department of Physics and Astronomy, SUNY Brockport, Brockport NY (6 December 1991)
11. **Searches for New Macroscopic Forces**, invited talk, Spring Meeting of the New York State Section of the American Association of Physics Teachers, Brockport NY (11 April 1992)
12. **What Makes Gravity So Attractive?**, Physics Colloquium, Department of Physics and Astronomy, SUNY Geneseo, Geneseo NY (2 April 1992)
13. **“LabTools Data Analysis Package for Use in Undergraduate Science Laboratory**, Third Annual Northeast Regional Meeting of the American Association of Physics Teachers, Vassar College, Poughkeepsie NY (November 1992)
14. **Ground-State Nuclear Magnetic Moment Measurements using β -NMR Spectroscopy and Tilted Foil Polarization**, W.F. Rogers, R. Schultz, P. Troischt, D. Zajac, N. Benczer-Koller, T. Vass, A.W. Mountford, M. Hass, G. Goldring, C. Broude, M. Satteson, B. Zimmerman, C.N. Davids, BGO Group, Annual Meeting of the Division of Nuclear Physics, American Physical Society, Asilomar CA, *Bulletin of the American Physical Society* **30** 1844 (1993)
15. **Search for a Composition-Dependent Finite-Range Force Using an Ultra Sensitive Torsion Balance**, Natural Science Research Seminar, Westmont College, Santa Barbara CA (March 1995)
16. **Measurement of Nuclear Ground State Magnetic Moments Using Radiation-Detected NMR and Tilted Foil Polarization**, invited talk, Instituut voor Kern- en Stralingsfysica (Institute for Nuclear and Radiation Physics, IKS), University of Leuven, Belgium, 9 December 1996
17. **Sub-Atomic Physics - Getting to the Heart of the Matter**, Phi Kappa Phi Lecture, Westmont College, Santa Barbara CA (24 February 1997)
18. **Simultaneous Application of β -Detected LMR and NMR Spectroscopy for Measurement of Nuclear Dipole and Quadrupole Moments**, invited talk, National Superconducting Cyclotron Laboratory, Michigan State University, East Lansing MI (June 1997)
19. **Experimental Requirements for Application of Combined β -LMR and β -NMR Spectroscopy for Measurement of Nuclear Moments**, Workshop on Future Experiments and Detectors for Nuclear Structure and Astrophysics at the Upgraded NSCL, National Superconducting Cyclotron Laboratory, Michigan State University, East Lansing MI (August 1997)
20. **Simultaneous Application of β -Detected LMR and NMR Spectroscopy for Measurement of Nuclear Dipole and Quadrupole Moments**, W.F. Rogers, G. Neyens, N. Coulier, S. Teughels, K. Vyvey, S. Ternier, G. Lepine-Szily, Annual Meeting of the Division of Nuclear Physics, American Physics Society, Whistler BC, *Bulletin of the American Physical Society* **42** 7 1642 (1997)
21. **Simultaneous Application of β -Detected LMR and NMR Spectroscopy for Measurement of Nuclear Dipole and Quadrupole Moments**, Physics Colloquium, Calvin College, Grand Rapids, MI (6 March 1998)

22. **Simultaneous Application of β -Detected LMR and NMR Spectroscopy for Measurement of Nuclear Dipole and Quadrupole Moments**, Nuclear Physics Forum, Lawrence Berkeley National Laboratory, 88⁷ Cyclotron Lab (April 1998)
23. **Measurement of the ^{32}Cl Ground State Magnetic Moment Using On-Line β -NMR Spectroscopy**, Warren F. Rogers, Andrew Davies, Jonathan Mitchell, Georgi Georgiev, Nico Coulier, Gerda Neyens, Stephanie Teughels, Paul Mantica, Jason Pond, Annual Meeting of the Division of Nuclear Physics, American Physical Society, Santa Fe, NM, *Bulletin of the American Physical Society* **43** 6 1561 (1998)
24. **Excited-State Nuclear Magnetic Moments**, Physics Colloquium, California State University at San Luis Obispo, (7 October 1999)
25. **B(E2) Measurements for $^{144-146}\text{Nd}$ Excited States via Coulomb Excitation**, W.F. Rogers et al., Annual Meeting of the Division of Nuclear Physics, American Physical Society, Williamsburg, VA, *Bulletin of the American Physical Society* **45** 5 55 (2000)
26. **Measurement of the ^{32}Cl Ground State Magnetic Moment Using On-Line β -NMR Spectroscopy**, W.F. Rogers, A. Davies, J. Mitchell, G. Georgiev, G. Neyens, D. Borremans, N. Coulier, R. Coussement, S. Teughels, B.A. Brown and P.F. Mantica, Poster presentation, Nuclear Structure 2000, Michigan State University, East Lansing, MI August 15-19, 2000
27. **Ground State Magnetic Moment Measurements in Isospin Multiplets**, W.F. Rogers, Rare Isotope Accelerator (RIA)2000 Workshop, Research Triangle Park, NC, July 24-26, 2000
28. **Overview of the Conference Experience for Undergraduates (CEU)**, W.F. Rogers, Joint Working Group on Education, Outreach and the Role of the Universities, Combined Nuclear Structure and Astrophysics Town Meeting, Oakland, CA November 10-12 (2000)
29. **Measurements of Ground State Nuclear Magnetic Moments Near $N=Z$** , W.F. Rogers, Annual Meeting of the Division of Nuclear Physics, American Physical Society, East Lansing, MI, *Bulletin of the American Physical Society* **47** 6 37 (2002)
30. **Construction of a Modular Neutron Array (MoNA) - A Multi-College Collaboration**, W.F. Rogers, Annual Meeting of the Division of Nuclear Physics, American Physical Society, East Lansing, MI, *Bulletin of the American Physical Society* **47** 6 27 (2002)
31. **Life Elsewhere in the Universe – A Scientific and Religious Exploration**, W.F. Rogers, Huntington College Forester Lecture, Huntington, IN 2 December (2003)
32. **A Report on the Conference Experience for Undergraduates**, W.F. Rogers, Invited Talk, Spring Meeting of the American Physical Society, Denver, CO, *Bulletin of the American Physical Society* **49** 2 152 (2004)
33. **Life Elsewhere in the Universe – A Scientific Exploration**, W.F. Rogers, *Westmont Downtown Series Lecture*, Santa Barbara, CA, 13 May (2004)
34. **Westmont College Physics and Astronomy Program**, W.F. Rogers, H.M. Sommermann, Santa Barbara Astronomical Unit, Invited Talk, Santa Barbara, CA, 2 September (2005)
35. **Element Genesis**, W.F. Rogers, Santa Barbara Astronomical Unit, Invited Talk, Santa Barbara, CA, 3 February (2006)
36. **The Sky's the Limit – Astronomy at Westmont College**, K.E. Kihlstrom, W.F. Rogers, H.M. Sommermann, *Westmont Downtown Series Lecture*, Santa Barbara, CA, 30 March (2006)
37. **Cosmic Muon Detection using the NSCL Modular Neutron Array**, W.F. Rogers, S. Mosby, E. Mosby, J. Gillette, M. Reese, Annual Meeting of the Division of Nuclear Physics, American Physical Society, Nashville, TN, *Bulletin of the American Physical Society* **51** 6 103 (2006)

38. **Neutron Multiplicity Determination in MoNA**, W.F. Rogers, J. Gillette, M. Gardner, A. Reed, Annual Meeting of the Division of Nuclear Physics, American Physical Society, Newport News, VA, *Bulletin of the American Physical Society* **52** 10, 56 (2007)
39. **Conference Experience for Undergraduates in the Division of Nuclear Physics – 10 Years Running**, Warren Rogers, Invited Talk, April Meeting of the American Physical Society, *Bulletin of the American Physical Society* **53** 5 103 (2008)
40. **A Conversation on “Einstein: His Life and Universe”**, Warren Rogers, Patti Hunter, James Taylor, *Westmont Downtown Series Panel Discussion*, Santa Barbara, CA, 29 January 2009
41. **Neutron Multiplicity Discrimination in MoNA Using Hit Pattern Analysis**, Warren F. Rogers, M. Gardner, M. Bennett, MoNA Collaboration, Annual Meeting of the Division of Nuclear Physics, American Physical Society, Big Island, Hawaii, *Bulletin of the American Physical Society* **54** 10 164 (2009)
42. **Construction and testing of the Large multi-Institutional Scintillator Array (LISA) - a model of collaborative undergraduate research**, Warren Rogers, April Meeting of the American Physical Society, Anaheim, CA, *Bulletin of the American Physical Society* **56** 12, B3.00004 (2011)
43. **Unity and Diversity in the Cosmos: Astrophysics and the Origin of the Stuff from Which We Are Made**, Warren F. Rogers, Paul C. Wilt Phi Kappa Phi Lecture, Westmont College, March 4 (2014)
44. **Results from the LISA Commissioning Experiment on the decay of $^{24}\text{O}^* \rightarrow ^{23}\text{O} + \text{n}$** , W.F. Rogers, Joint Meeting of the Division of Nuclear Physics, American Physical Society, and the Japanese Physical Society (JPS), Waikoloa, HI, *Bulletin of the American Physical Society* **59** 10, EB.00002 (2014)
45. **Unbound Excited States of the N=16 Closed Shell Nucleus ^{24}O** , W.F. Rogers and the MoNA Collaboration, Fall Meeting of the Division of Nuclear Physics, American Physical Society, Santa Fe, NM, *Bulletin of the American Physical Society* **60** 13, HE.00004 (2015)
46. **Direct Observation of Neutron Scattering in MoNA Scintillator Detectors**, W.F. Rogers, S. Mosby, N. Frank, A.N. Kuchera, M. Thoennessen, Spring Meeting of the American Physical Society, Washington, DC, *Bulletin of the American Physical Society* **62** 1, H13.00002 (2017)
47. **Direct Observation of Neutron Scattering in BC408 Scintillator for Comparison to Simulation**, W.F. Rogers, J.E. Boone, A. Wantz, N. Frank, A.N. Kuchera, S. Mosby, M. Thoennessen, Fall Meeting of the Division of Nuclear Physics, American Physical Society, Pittsburgh, PA, *Bulletin of the American Physical Society* **62** 11, JD.00007 (2017)
48. **Direct Observation of Neutron Scattering in BC408 Scintillator, and Comparison to Simulation**, W.F. Rogers, J.E. Boone, A. Wantz, N. Frank, A.N. Kuchera, S. Mosby, M. Thoennessen, Joint Meeting of the APS Division of Nuclear Physics and the Physical Society of Japan, Waikoloa, HI, *Bulletin of the American Physical Society* **63** 12, MH.00011 (2018)
49. **Undergraduate Research in Nuclear Physics and the Conference Experience for Undergraduates**, W.F. Rogers, Invited talk, Indiana University Bloomington, Bloomington, IN, 21 February 2018
50. **Study of Neutron-Decay of Exotic Nuclei using the MoNA-LISA Detector Arrays and Monte Carlo Simulation**, W.F. Rogers, Invited talk, Indiana University Purdue University Indianapolis (IUPUI), Indianapolis, IN, 29 March 2018
51. **The Value of Undergraduate Research Participation in Physics, and in National DNP Meetings via the Conference Experience for Undergraduates**, W.F. Rogers, Invited talk, April Meeting of the American Physical Society, Columbus, OH, *Bulletin of the American Physical Society* APR18-2018-030041, U05.00001 (2018)

52. **The Value and Joy of Mentoring Undergraduate Students in Research**, W.F. Rogers, Invited talk, Indiana Section of the American Association of Physics Teachers, Roncalli High School, Indianapolis, IN, 21 April 2018
53. **Fast-neutron spectroscopy at FRIB: does simulation predict neutron scattering in plastic scintillator well at FRIB energies? A critical test of simulation using direct single-neutron scattering observations**, W.F. Rogers, invited talk, Notre Dame University, South Bend, IN, 1 October 2018.
54. **Excellence and Equity in Physics: The Allies Program of the APS Division of Nuclear Physics**, W.F. Rogers, invited talk, Ohio University, Athens, OH, 15 February 2019.
55. **Life, the Universe, and Nuclear Physics**, W.F. Rogers, invited talk, Summer Science Program, Purdue University, West Lafayette, IN, 5 July 2019
56. **Fast Neutron Spectroscopy at FRIB: Neutron Scattering Dynamics and Multi-Neutron Detection**, W.F. Rogers, invited talk, National Superconducting Cyclotron Laboratory, Michigan State University, East Lansing, MI, 30 September 2020
57. **Undergraduate Research and Recruitment through MoNA and the CEU**, W.F. Rogers, invited talk, Workshop for Applied Nuclear Data Activities, Lawrence Berkeley National Laboratory, Berkeley, CA, 1 February 2021