

Curriculum Vitae Wolfgang Lorenzon

Professor of Physics
The University of Michigan
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Education

1988	Ph.D.	University of Basel, Switzerland (Experimental Physics)
1984	Diploma	University of Basel, Switzerland (Experimental Physics)

Appointments

2006 - present	Professor, Physics Department, University of Michigan
2000 - 2006	Associate Professor, Physics Department, University of Michigan
1996 - 2000	Assistant Professor, Physics Department, University of Michigan
1994 - 1996	Assistant Professor, Department of Physics and Astronomy, University of Pennsylvania

Research Interests

Dark Matter search (LZ experiment)
Proton Radius puzzle (MUSE experiment)
Hadronic physics (SpinQuest experiment)

Professional Experience

2017 - 2018	Visiting Physicist, SLAC, Menlo Park, California, August 2017–July 2018
2010	URA Visiting Scholar, Fermilab, Batavia, Illinois, July–December 2010
2005	Guest Scientist, LBL, Berkeley, California, January–July 2005
1997 - 1998	Deputy Spokesman of HERMES Experiment, DESY, Hamburg, Germany
1996 - 1998	Visiting Scientist, DESY, Hamburg, Germany, January–August: each year
1992 - 1994	Research Associate, TRIUMF / Simon Fraser University, Vancouver, Canada
1989 - 1992	Research Fellow, California Institute of Technology, Pasadena, CA

Awards and Fellowships

2010	Fellow, American Physical Society (APS)
1999	University of Michigan, LS&A Excellence in Research Award

Grants

2021 - 2024	National Science Foundation, “Studies of Nucleons at Fermilab and PSI”, (Single PI) \$999,478
2021 - 2022	National Science Foundation, COVID supplemental for 2 grad students (Single PI) \$127,000
2021 - 2024	Department of Energy, “Search for Dark Matter with the LZ experiment”, (PI, with Penning as Co-PI for Task DM), \$1,065,000
2021 - 2022	2021 DOE SCGSR Award for graduate student Noah Wuerfel, (PI), \$38,000
2021 - 2026	LBNL, subcontract for “LZ operations travel”, (PI, with Penning as Co-PI) \$322,156
2018 - 2022	National Science Foundation, “Nuclear Physics Studies at Fermilab and PSI”, (Single PI) \$1,125,000 + \$30,001 in a supplemental grant for Marshall Scott (4 month postdoc)
2021	2021 URA Visiting Fellow Award for postdoc Ievgen Lavrukhin (PI), \$15,000
2020 - 2021	2020 URA Visiting Scholar Award for graduate student Noah Wuerfel, (PI), \$12,000
2018 - 2021	Department of Energy, “Search for Dark Matter with the LZ experiment”, (PI for Task L), \$525,000
2017 - 2020	LBNL, subcontract for “LZ travel to SLAC, SURF, etc”, (Single PI) \$78,500
2016 - 2019	National Science Foundation, “A Liquid Hydrogen Target for the MUSE Experiment”, (Single PI) \$588,994 + \$57,412 in a supplemental grant (2017)
2015 - 2019	Department of Energy through LBNL, “Rn Removal system for LZ Project”, (PI, with Akerlof as Co-PI) \$273,000
2017 - 2018	SLAC, subcontract for “Sabbatical Salary support to work on LZ at SLAC”, (Single PI) \$76,293
2016 - 2018	Department of Energy, “Search for Dark Matter with the LZ experiment”, (PI, with Akerlof as Co-PI), \$340,000
2016 - 2018	LSA Instructional Technology New Initiatives/ New Infrastructure (NINI) Grants, “Advancing Physics Lab Reform: Using FlipItPhysics to Prepare At-Risk Students to Succeed”, (Co-PI with Michelotti, Orr, and Popov) \$75,000
2016	Gift for “Spin Polarized Beam at Fermilab”, \$8,000
2015 - 2018	National Science Foundation, “Drell-Yan Studies at Fermilab”, (Single PI) \$636,000 + \$277,033 in five supplemental grants (2016 – 2018)
2015 - 2018	University of Michigan, “Dark Matter Search with LZ”, (PI, with Akerlof as Co-PI), \$125,000 (\$50k LSA, \$50k OVPR, \$25k Physics Dept.)
2015 - 2016	U-M Transforming Learning for Third Century (TLTC) Quick Wins/Discovery grant program, “Launch for Incorporating Computational Modeling in Introductory Physics Labs”, (Co-PI with Michelotti, Orr, and Popov) \$49,823
2015	Gift for “Spin Polarized Beam at Fermilab”, \$17,000
2013 -2015	University of Michigan , “PandaX: A Dark Matter Experiment in China”, (PI, with Tarle, Gerdes, Schwarz as Co-PIs), \$150,000

2012 - 2015 National Science Foundation, “Drell-Yan Scattering: SeaQuest and Beyond”,
(Single PI) \$420,000
+ \$30,986 in a supplemental grant (2015)

2011 - 2014 Department of Energy, “Electric Dipole Moment Measurements with
Rare Isotopes: The Radon-EDM Experiment” (Co-PI with Chupp) \$360,000

2014 Gift for “Spin Polarized Beam at Fermilab”, \$15,000

2013 Spring/Summer Rackham research grant, \$10,940

2013 Gift for “Spin Polarized Beam at Fermilab”, \$10,000

2011 - 2012 University of Michigan, “PandaX: A Dark Matter Experiment in China”,
(PI, with Tarle, Gerdes, Chupp as Co-PIs), \$311,000

2011 Gift for “Spin Polarized Beam at Fermilab - Research Fellow Support”, \$15,000

2010 URA Visiting Scholars Program at Fermilab, \$33,367

2010 - 2012 Department of Energy, “Proposal to Study the Properties and Interactions
of Elementary Particles”, Dark Energy Task, (Co-PI with Tarle, Gerdes
and McKay) \$485,000 + \$240,000 (bridging funds: Oct 11 – Apr 12)
+ \$37,500 in a supplemental (ARRA) grant (2010)

2009 - 2012 National Science Foundation, “Intermediate Energy Nuclear Physics”,
(Single PI) \$625,000

2009 - 2010 Department of Energy, “Proposal to Study the Properties and Interactions
of Elementary Particles”, Dark Energy Task, (Co-PI with Tarle, Gerdes
and McKay) \$443,000

2009 Department of Energy, Dark Energy Task Supplement, (Co-PI with Tarle) \$58,000
+ \$18,000 in a supplemental grant (2009)
+ added to Particle Physics Umbrella base grant

2008 - 2010 Department of Energy, “Precision Photometry to Study the Nature
of Dark Energy”, (PI, with Schubnell Co-PI) \$120,089

2007 - 2010 Department of Energy, “Electric Dipole Moment Measurements with
Rare Isotopes: The Radon-EDM Experiment” (Co-PI with Chupp) \$313,000

2007 Brookhaven National Lab, Jefferson Lab, “Workshop on Precision Polarimetry
for the EIC”, (PI) \$4,000

2006 - 2009 National Science Foundation, “Hadronic Physics with Electromagnetic
Probes at HERMES”, (Single PI) \$529,726
+ \$24,628 in two supplemental grants (2007 – 2008)

2004 - 2006 Department of Energy, “CP Odd Electric Dipole Moment Measurements
with Rare Isotopes”, (PI with Chupp) \$164,000
+ \$22,000 in a supplemental grant (2005)

2003 - 2006 National Science Foundation, “Hadronic Physics with Electromagnetic
Probes at HERMES”, (Single PI) \$544,434

2000 - 2003 National Science Foundation, “Intermediate Energy Nuclear
Physics at HERMES”, (Single PI) \$420,000 + \$16,243 in a supplemental grant

1997 - 2000 National Science Foundation, “Research in Intermediate Energy
Nuclear Physics”, (Single PI) \$359,760 + \$46,116 in three supplemental grants

1995 - 1996 National Science Foundation, “Equipment Grant for building a
longitudinal polarimeter at the HERA Storage ring at DESY, Hamburg”,
Co-PI’s, D. Balamuth, H.T. Fortune, and R. Zurmuhle, \$137,500

1995 National Science Foundation, “Research in Nuclear Physics”,
Co-PI’s, D. Balamuth, H.T. Fortune, and R. Zurmuhle, \$625,000

Publications in Refereed Journals

Published: 174 articles in refereed journals - 1 article accepted - 3 articles submitted.

Total number of citations: 17,830 (GoogleScholar), h-index: 66 (March 18, 2022)

Articles published in Refereed Journals

1. R. Henneck *et al.*, *Nucl. Instr. Meth.* **A259**, (1987) 329. "A Facility for Monoenergetic Polarized Neutrons of 30-70 MeV"
2. R. Henneck *et al.*, *Phys. Rev.* **C37**, (1988) 2224. "0° Polarization Transfer in (p,n)-Reactions from ${}^6,7\text{Li}$ and ${}^9\text{Be}$ near 55 MeV"
3. S. Burzynski *et al.*, *Phys. Rev.* **C39**, (1989) 56. "p- ${}^4\text{He}$ Scattering: New Data and a Phase-Shift Analysis between 30 and 72 MeV"
4. B. von Przewoski *et al.*, *Nucl. Phys.* **A496**, (1989) 15. "A measurement of $\frac{d\sigma}{d\Omega}$ and A_y in elastic proton scattering from ${}^{12,13}\text{C}$, ${}^{29}\text{Si}$ and ${}^{31}\text{P}$ at 72 MeV"
5. M.A. Pickar *et al.*, *Phys. Rev.* **C42**, (1990) 20. "0° polarization transfer in ${}^2\text{H}(\vec{p}, \vec{n}pp)$ at 54 and 71 MeV"
6. C. Brogli-Gysin *et al.*, *Phys. Rev.* **B250**, (1990) 11. " A_y in n-d elastic scattering: a test for three-nucleon calculations"
7. C.E. Woodward *et al.*, *Phys. Rev. Lett.* **65**, (1990) 698. "Measurement of Inclusive Quasielastic Scattering of Polarized Electrons from Polarized ${}^3\text{He}$ "
8. J.P. Chen *et al.*, *Phys. Rev. Lett.* **66**, (1991) 1283. "Longitudinal and Transverse Response Functions in ${}^{56}\text{Fe}(e,e')$ at Momentum Transfer Near 1 GeV/c"
9. H. Hammans *et al.*, *Phys. Rev. Lett.* **66**, (1991) 2293. "Neutron-Proton Spin-Correlation Parameter A_{zz} at 68 MeV"
10. C.E. Jones-Woodward *et al.*, *Phys. Rev.* **C44**, (1991) R571. "Determination of the Neutron Electric Form Factor in Quasielastic Scattering of Polarized Electrons from Polarized ${}^3\text{He}$ "
11. Z.E. Meziani *et al.*, *Phys. Rev. Lett.* **69**, (1992) 41. "High Momentum Transfer $R_{T,L}$ Inclusive Response Functions for ${}^{3,4}\text{He}$ "
12. C.E. Jones *et al.*, *Phys. Rev.* **C47**, (1993) 110. " ${}^3\vec{H}e(\vec{e}, e')$ quasielastic asymmetry"
13. K. Lee *et al.*, *Phys. Rev. Lett.* **70**, (1993) 738. "Measurement of Spin Observables using a Storage Ring with polarized Beam and Polarized Internal Gas Target"
14. W. Lorenzon *et al.*, *Phys. Rev.* **A47**, (1993) 468. "NMR calibration of optical measurement of nuclear polarization in ${}^3\text{He}$ "
15. Z.E. Meziani *et al.*, *Nucl. Phys* **A553**, (1993) 701. "High Momentum Transfer $R_{T,L}$ Response Functions for ${}^{3,4}\text{He}$ "
16. W. Lorenzon *et al.*, *Europhys. Lett.* **21**, (1993) 747. "Search for an Isotensor Electromagnetic Interaction"
17. D.P. Barber *et al.*, *Nucl. Instr. Meth.* **A329**, (1993) 79. "The HERA Polarimeter and the first Observation of Electron Spin at HERA"
18. N.C.R. Makins *et al.*, *Phys. Rev. Lett.* **72**, (1994) 1986. "Momentum Transfer Dependence of Nuclear Transparency from the Quasielastic ${}^{12}\text{C}(e,e'p)$ Reaction"
19. H. Hammans *et al.*, *Phys. Rev. Lett.* **72**, (1994) 2665. "Neutron-Proton Spin-Correlation Parameter A_{zz} at 68 MeV – Reply"

20. W. Lorenzon *et al.*, *Nucl.Instr. Meth.* **A342**, (1994) 516. "Gas Scintillation in He-N₂-CH₄ and He-N₂ mixtures"
21. H. Gao *et al.*, *Phys. Rev.* **C50**, (1994) R546. "Measurement of neutron magnetic form factor from inclusive quasielastic scattering of polarized electrons from polarized ³He".
22. C. Bloch *et al.*, *Nucl. Instr. Meth.* **A354**, (1995) 437. "Spin-dependent scattering of polarized protons from a polarized ³He internal gas target"
23. M.A. Miller *et al.*, *Phys. Rev. Lett.* **74**, (1995) 502. "Measurement of Quasielastic ³He(\vec{p} , pN) Scattering from Polarized ³He and the Three-Body Ground State Spin Structure".
24. J.E. Belz *et al.*, *Phys. Rev. Lett.* **74**, (1995) 646. "Two Body Photodisintegration of the Deuteron up to 2.8 GeV"
25. J.-O. Hansen *et al.*, *Phys. Rev. Lett.* **74**, (1995) 654. "Transverse-Longitudinal Asymmetry in the Quasielastic ³H $\vec{e}(\vec{e}, e')$ Reaction"
26. T.G. O'Neill *et al.*, *Phys. Lett.* **B351**, (1995) 87. "A Dependence of Nuclear Transparency in Quasielastic A(e,e'p) at High Q²"
27. W.J. Cummings *et al.*, *Phys. Rev.* **A51**, (1995) 4842. "Optical Pumping of Rb Vapor using High Power GaAlAs Diode Laser Arrays"
28. H.J. Bulten *et al.*, *Phys. Rev. Lett.* **74**, (1995) 4775. "Exclusive Electron-Scattering from Deuterium at High Momentum-transfer"
29. C.E. Jones *et al.*, *Phys. Rev.* **C52**, (1995) 1520. "Measurement of spin-dependent asymmetry in ³H $\vec{e}(\vec{e}, e')$ inelastic scattering at low energy transfer"
30. J.F.J. van den Brand *et al.*, *Phys. Rev.* **D52**, (1995) 4868. "Evidence for virtual Compton scattering from the proton"
31. J. Arrington *et al.*, *Phys. Rev.* **C53**, (1996) 2248. "Inclusive Electron Scattering from Nuclei at $x \sim 1$ "
32. R.G. Milner *et al.*, *Phys. Lett.* **B379**, (1996) 67. "The Spin-dependent Momentum Distributions of the Neutron and Proton in ³He".
33. K. Ackerstaff *et al.*, *Phys. Lett.* **B404**, (1997) 383. "Measurement of the Neutron Spin Structure Function g_1^n with a Polarized ³He Internal Target".
34. P. Bogorad *et al.*, *Nucl. Instr. Meth.* **A398**, (1997) 211. "A Combined Polarized Target/Ionization Chamber for Measuring the Spin Dependence of Nuclear Muon Capture in Laser Polarized ³He".
35. P.A. Souder *et al.* *Nucl. Instr. Meth.* **A402**, (1998) 311. "Laser polarized muonic ³He and spin dependent μ^- capture"
36. D. Abbott *et al.*, *Phys. Rev. Lett.* **80**, (1998) 5072. "Quasifree (e,e'p) Reactions and Proton Propagation in Nuclei"
37. B.B. Blinov *et al.*, *Phys. Rev. Lett.* **81**, (1998) 2906. "Spin flipping in the presence of a full Siberian snake"
38. P. Chu *et al.*, *Phys. Rev.* **E58**, (1998) 4973. "Unexpectedly Wide rf-induced Synchrotron Sideband Depolarizing Resonances"
39. K. Ackerstaff *et al.*, *Nucl.Instr. Meth.* **A417**, (1998) 230. "The HERMES Spectrometer"
40. A. Airapetian *et al.*, *Phys. Lett.* **B442**, (1998) 484. "Measurement of the Proton Spin Structure Function g_1^p with a Pure Hydrogen Target"

41. K. Ackerstaff *et al.*, *Phys. Rev. Lett.* **81**, (1998) 5519. “Flavor Asymmetry of the Light Quark Sea from Semi-inclusive Deep-inelastic Scattering”
42. K. Ackerstaff *et al.*, *Phys. Lett.* **B444**, (1998) 531. “Determination of the Deep Inelastic Contribution to the Generalised Gerasimov-Drell-Hearn Integral for the Proton and Neutron”
43. K. Ackerstaff *et al.*, *Phys. Rev. Lett.* **82**, (1999) 1164. “Beam-Induced Nuclear Depolarization in a Gaseous Polarized Hydrogen Target”
44. K. Ackerstaff *et al.*, *Phys. Rev. Lett.* **82**, (1999) 3025. “Observation of Coherence Length Effects in Exclusive ρ^0 Electroproduction”
45. B.B. Blinov *et al.*, *Phys. Rev. Spec. Top.* **2**, (1999) 064001. “Synchrotron-sideband snake depolarizing resonances”
46. K. Ackerstaff *et al.*, *Phys. Lett.* **B464**, (1999) 123. “Flavor Decomposition of the Polarized Quark Distributions in the Nucleon from Inclusive and Semi-inclusive Deep-inelastic Scattering”
47. K. Ackerstaff *et al.*, *Phys. Lett.* **B475**, (2000) 386. “Nuclear Effects on $R = \sigma_L/\sigma_T$ in Deep Inelastic Scattering”
48. A. Airapetian *et al.*, *Phys. Rev. Lett.* **84**, (2000) 2584. “Measurement of the Spin Asymmetry in the Photoproduction of pairs of High- p_T Hadrons at HERMES”
49. A. Airapetian *et al.*, *Phys. Rev. Lett.* **84**, (2000) 4047. “Evidence for a Single-Spin Azimuthal Asymmetry in Semi-Inclusive Pion Electroproduction”
50. D. Dutta *et al.*, *Phys. Rev.* **C61**, (2000) 061602(R). “Separated spectral functions for the quasifree $^{12}\text{C}(e, e'p)$ reaction”
51. A. Airapetian *et al.*, *Eur. Phys. J.* **C17**, (2000) 389. “Exclusive leptonproduction of ρ^0 mesons from hydrogen at intermediate virtual photon energies”
52. A. Airapetian *et al.*, *Phys. Lett.* **B494**, (2000) 1. “The Q^2 -dependence of the Generalized Gerasimov-Drell-Hearn Integral for the Proton”
53. K. Ackerstaff *et al.*, *Eur. Phys. J.* **C18**, (2000) 303. “Measurement of Angular Distributions and $R = \sigma_L/\sigma_T$ in Diffractive Electroproduction of ρ^0 Mesons”
54. A. Airapetian *et al.*, *Eur. Phys. J.* **C20**, (2001) 479. “Hadron formation in deep-inelastic positron scattering in a nuclear environment”
55. A. Airapetian *et al.*, *Phys. Lett.* **B513**, (2001) 301. “Double-Spin Asymmetry in the Cross Section for Exclusive ρ^0 Production in Lepton-Proton Scattering”
56. E.C. Schulte *et al.*, *Phys. Rev. Lett.* **87**, (2001) 102302. “Measurement of the high energy two-body deuteron photodisintegration differential cross section”
57. A. Airapetian *et al.*, *Phys. Rev.* **D64**, (2001) 097101. “Single-Spin Azimuthal Asymmetry in the Electroproduction of Neutral Pions in Semi-inclusive Deep Inelastic Scattering”
58. A. Airapetian *et al.*, *Phys. Rev. Lett.* **87**, (2001) 182001. “Measurement of the Beam-Spin Azimuthal Asymmetry Associated with Deeply-Virtual Compton Scattering”
59. A. Airapetian *et al.*, *Eur. Phys. J.* **C21**, (2001) 599. “Multiplicity of Charged and Neutral Pions in Deep-Inelastic Scattering of 27.5 GeV Positrons on Hydrogen”
60. V.S. Morozov *et al.*, *Phys. Rev. Accel. Beams* **4**, (2001) 104002. “Spin-flipping polarized electrons”
61. A. Airapetian *et al.*, *Phys. Rev.* **D64**, (2001) 112005. “Measurement of Longitudinal Spin Transfer to Lambda Hyperons in Deep Inelastic Lepton Scattering”

62. B.B. Blinov *et al.*, *Phys. Rev. Lett.* **88**, (2002) 014801. “99.6% Spin-flip efficiency in the presence of a strong Siberian snake”
63. M. Beckmann *et al.*, *Nucl. Instr. Meth.* **A479**, (2002) 334. “The Longitudinal Polarimeter at HERA”
64. A. Airapetian *et al.*, *Phys. Lett.* **B535**, (2002) 85. “Single-spin azimuthal asymmetry in exclusive electroproduction of π^+ mesons”
65. K. Garrow *et al.*, *Phys. Rev.* **C66**, (2002) 044613. “Nuclear transparency from quasielastic $A(e,e'p)$ reactions up to $Q^2 = 8.1$ (GeV/c)²”
66. A. Airapetian *et al.*, *Phys. Rev. Lett.* **90**, (2003) 052501. “ Q^2 Dependence of Nuclear Transparency for (In)coherent ρ^0 production”
67. A. Airapetian *et al.*, *Phys. Rev. Lett.* **90**, (2003) 092002. “Evidence for Quark-Hadron Duality in the Proton Spin Asymmetry A_1 ”
68. A. Airapetian *et al.*, *Eur. Phys. J.* **C26**, (2003) 527. “The Q^2 Dependence of the Generalized Gerasimov-Drell-Hearn Sum Rule for the Proton and the Neutron”
69. A. Airapetian *et al.*, *Phys. Lett.* **B562**, (2003) 182. “Measurement of single-spin azimuthal asymmetries in semi-inclusive electroproduction of pions and kaons on a longitudinally polarized deuterium target”
70. A. Airapetian *et al.*, *Eur. Phys. J.* **C29**, (2003) 171. “Double-spin asymmetry in rho and phi production at intermediate energies”
71. A. Airapetian *et al.*, *Phys. Lett.* **B567**, (2003) 339. “Erratum to: Nuclear Effects on $R = \sigma_L/\sigma_T$ in Deep Inelastic Scattering [K. Ackerstaff *et al.*, *Phys. Lett. B* 475, (2000) 386]”
72. D. Dutta *et al.*, *Phys. Rev.* **C68**, (2003) 064603. “Quasielastic $(e,e'p)$ reaction on ^{12}C , ^{56}Fe , and ^{97}Au ”
73. A. Airapetian *et al.*, *Phys. Lett.* **B577**, (2003) 37. “Quark fragmentation to π^\pm , π^0 , K^\pm , p and \bar{p} in the nuclear environment”
74. A. Airapetian *et al.*, *Phys. Rev. Lett.* **92**, (2004) 012005. “Flavor Decomposition of the Sea-Quark Helicity Distributions in the Nucleon from Semiinclusive Deep Inelastic Scattering”
75. J. Rhodes *et al.*, *Astropart. Phys.* **20**, (2004) 377. “Weak lensing from space I: instrumentation and survey strategy”
76. A. Airapetian *et al.*, *Phys. Lett.* **B585**, (2004) 213. “Evidence for a narrow $|S|=1$ baryon state at a mass of 1528 MeV in quasi-real photoproduction”
77. A. Airapetian *et al.*, *Eur. Phys. J.* **D29**, (2004) 21. “Nuclear Polarization of Molecular Hydrogen Recombined on a Non-metallic Surface”
78. A. Airapetian *et al.*, *Phys. Lett.* **B599**, (2004) 212. “Hard Exclusive Electroproduction of $\pi^+\pi^-$ Pairs”
79. M.E. Christy *et al.*, *Phys. Rev.* **C70**, (2004) 015206. “Measurement of electron-proton elastic cross sections for $0.4 < Q^2 < 5.5$ (GeV/c)²”
80. W. Lorenzon, *Fizika* **B13**, (2004) 315. “Flavor separated quark polarizations at HERMES” (refereed conference proceedings)
81. A. Airapetian *et al.*, *Phys. Rev. Lett.* **94**, (2005) 012002. “Single-Spin Asymmetries in Semi-Inclusive Deep-Inelastic Scattering on a Transversely-Polarized Hydrogen Target”
82. A. Airapetian *et al.*, *Phys. Rev.* **D71**, (2005) 012003. “Quark Helicity Distributions in the Nucleon for up-, down-, and strange-quarks from Semi-inclusive Deep-inelastic Scattering”

83. A. Airapetian *et al.*, *Phys. Rev.* **D71**, (2005) 032004. “Search for an exotic $S=-2$, $Q=-2$ baryon resonance at a mass near 1862 MeV in quasi-real photoproduction”
84. A. Airapetian *et al.*, *Nucl. Instr. and Meth.* **A540**, (2005) 68. “The HERMES Polarized Hydrogen and Deuterium Internal Gas Target”
85. A. Airapetian *et al.*, *Phys. Lett.* **B622**, (2005) 14. “Subleading-twist effects in single-spin asymmetries in semi-inclusive deep-inelastic scattering on a longitudinally polarized hydrogen target”
86. A. Airapetian *et al.*, *Phys. Rev. Lett.* **95**, (2005) 242001. “Measurement of the Tensor Structure Function b_1 of the Deuteron”
87. A. Airapetian *et al.*, *Phys. Rev. Lett.* **96**, (2006) 162301. “Double-hadron lepton production in the nuclear medium”
88. A. Airapetian *et al.*, *Phys. Rev.* **D74**, (2006) 072004. “Longitudinal spin transfer to the Lambda hyperon in semi-inclusive deep-inelastic scattering”
89. J.A. Fairfield *et al.*, *IEEE Trans. Nucl. Sci.* **53**, (2006) 3877. “Reduced charge diffusion in thick, fully depleted CCDs with enhanced red sensitivity”
90. A. Airapetian *et al.*, *Phys. Rev.* **D75**, (2007) 012007. “Precise determination of the spin structure function g_1 of the proton, deuteron, and neutron”
91. A. Airapetian *et al.*, *Phys. Rev.* **D75**, (2007) 011103. “Beam-charge azimuthal asymmetry and deeply virtual Compton scattering ”
92. V. Tvaskis *et al.*, *Phys. Rev. Lett.* **98**, (2007) 142301. “Longitudinal-Transverse Separations of Deep-Inelastic Structure Functions at Low Q^2 for Hydrogen and Deuterium”
93. N. Barron *et al.*, *PASP.* **119**, (2007) 466-475. “Sub-Pixel Response Measurement of Near-Infrared Sensors”
94. A. Airapetian *et al.*, *Phys. Lett.* **B648**, (2007) 164. “Beam-Spin Asymmetries in the Azimuthal Distribution of Pion Electroproduction”
95. A. Airapetian *et al.*, *Nucl. Phys.* **B780**, (2007) 1. “Hadronization in Semi-inclusive deep inelastic scattering on nuclei”
96. E. Alden, M. Kennedy, W. Lorenzon, and W. Smith, *The Physics Teacher* **45**, (2007) 492-495. “An Electromagnetic Induction Flashlight Experiment”
97. A. Airapetian *et al.*, *Phys. Rev.* **D76**, (2007) 092008. “Transverse Polarization of Lambda and Lambda-bar Hyperons in Quasi-Real Photon-Nucleon Scattering at HERMES”
98. A. Airapetian *et al.*, *Phys. Lett.* **B659**, (2008) 486-492. “Cross sections for hard exclusive electroproduction of π^+ mesons on a hydrogen target”
99. E.R. Tardiff *et al.*, *Phys. Rev.* **C77**, 052501(R) (2008). “Polarization and relaxation rates of radon”
100. A. Airapetian *et al.*, *JHEP* **06**, (2008) 017. “Evidence for a Transverse Single-Spin Asymmetry in Lepton production of $\pi^+\pi^-$ Pairs”
101. A. Airapetian *et al.*, *JHEP* **06**, (2008) 066. “Measurement of Azimuthal Asymmetries With Respect To Both Beam Charge and Transverse Target Polarization in Exclusive Electroproduction of Real Photons”
102. A. Airapetian *et al.*, *Phys. Lett.* **B666**, (2008) 446. “Measurement of parton distributions of strange quarks in the nucleon from charged-kaon production in deep-inelastic scattering on the deuteron”

103. A. Airapetian *et al.*, *Phys. Lett.* **B679**, (2009) 100. “Exclusive ρ^0 electroproduction on transversely polarized protons”
104. A. Airapetian *et al.*, *Eur. Phys. J.* **C62**, (2009) 659. “Spin Density Matrix Elements in Exclusive ρ^0 Electroproduction on ^1H and ^2H Targets at 27.5 GeV Beam Energy”
105. A. Airapetian *et al.*, *Phys. Rev. Lett.* **103**, (2009) 152002. “Observation of the Naive-T-odd Sivers Effect in Deep-Inelastic Scattering”
106. A. Airapetian *et al.*, *JHEP* **11**, (2009) 083. “Separation of contributions from deeply virtual Compton scattering and its interference with the Bethe–Heitler process in measurements on a hydrogen target”
107. A. Airapetian *et al.*, *Phys. Lett.* **B682**, (2010) 345. “Single-spin azimuthal asymmetry in exclusive electroproduction of π^+ mesons on transversely polarized protons ”
108. A. Airapetian *et al.*, *Phys. Lett.* **B682**, (2010) 351. “Search for a Two-Photon Exchange Contribution to Inclusive Deep-Inelastic Scattering ”
109. A. Airapetian *et al.*, *Nucl. Phys.* **B829** (2010) 1. “Measurement of azimuthal asymmetries associated with deeply virtual Compton scattering on an unpolarized deuterium target ”
110. A. Airapetian *et al.*, *Phys. Lett.* **B684**, (2010) 114. “Transverse momentum broadening of hadrons produced in semi-inclusive deep-inelastic scattering on nuclei”
111. A. Airapetian *et al.*, *Phys. Rev.* **C81**, (2010) 035202. “Nuclear-mass dependence of beam-helicity and beam-charge azimuthal asymmetries in deeply virtual Compton scattering”
112. V. Tvaskis *et al.*, *Phys. Rev.* **C81**, (2010) 055207. “The proton and deuteron F_2 structure function at low Q^2 ”
113. A. Airapetian *et al.*, *JHEP* **06**, (2010) 019. “Exclusive Leptoproduction of Real Photons on a Longitudinally Polarised Hydrogen Target”
114. A. Airapetian *et al.*, *Phys. Lett. B* **693** (2010) 11. “Effects of transversity in deep-inelastic scattering by polarized protons”
115. A. Airapetian *et al.*, *JHEP* **08**, (2010) 130. “Leading-Order Determination of the Gluon Polarization from high- p_T Hadron Electroproduction”
116. A. Airapetian *et al.*, *Nucl. Phys.* **B842** (2011) 265. “Measurement of azimuthal asymmetries associated with deeply virtual Compton scattering on a longitudinally polarized deuterium target”
117. T. Biesiadzinski *et al.*, *PASP.* **123**, (2011) 179-186. “Measurement of Reciprocity Failure in Near Infrared Detectors”
118. A. Airapetian *et al.*, *Eur. Phys. J.* **C71**, (2011) 1609. “Ratios of Helicity Amplitudes of Exclusive ρ^0 Electroproduction”
119. A. Airapetian *et al.*, *JHEP* **05**, (2011) 126. “Inclusive Measurements of Inelastic Electron and Positron Scattering from Unpolarized Hydrogen and Deuterium Targets”
120. D. Schlegel *et al.*, “The BigBOSS Experiment”, arXiv:1106.1706
121. T. Biesiadzinski *et al.*, *PASP.* **123**, (2011) 958. “Reciprocity Failure in HgCdTe Detectors: Measurements and Mitigation”
122. A. Airapetian *et al.*, *Phys. Lett.* **B704**, (2011) 15. “Measurements of double-spin asymmetries associated with deeply virtual Compton scattering on a transversely polarized hydrogen target”
123. A. Airapetian *et al.*, *Eur. Phys. J.* **A47**, (2011) 113. “Multidimensional Study of Hadronization in Nuclei”

124. (Spin@Fermi Collaboration) A.D. Krisch, *et al.*, arXiv:1110.3042, [physics.acc-ph. “Updated Report Acceleration of Polarized Protons to 120-150 GeV/c at Fermilab”, submitted to Fermilab in August 2011.
125. A. Airapetian *et al.*, *Eur. Phys. J.* **C72**, (2012) 1921. “Measurement of the virtual-photon asymmetry A_2 and the spin-structure function g_2 of the proton”
126. A. Airapetian *et al.*, *JHEP* **07**, (2012) 032. “Beam-helicity and beam-charge asymmetries associated with deeply virtual Compton scattering on the unpolarised proton”
127. A. Airapetian *et al.*, *JHEP* **10**, (2012) 042. “Beam-helicity asymmetry arising from deeply virtual Compton scattering measured with kinematically complete event reconstruction”
128. A. Airapetian *et al.*, *Phys. Rev.* **D87**, (2013) 012010. “Azimuthal distributions of charged hadrons, pions, and kaons produced in deep-inelastic scattering off unpolarized protons and deuterons”
129. (DES Collaboration) K. Kuehn *et al.*, *PASP.* **125**, (2013) 410-429. “PreCam, a Precursor Observational Campaign for Calibration of the Dark Energy Survey”
130. A. Airapetian *et al.*, *Phys. Rev.* **D87**, (2013) 074029. “Multiplicities of charged pions and kaons from semi-inclusive deep-inelastic scattering by the proton and the deuteron”
131. A. Airapetian *et al.*, *Phys. Lett. B* **728C** (2014) 183. “Transverse target single-spin asymmetry in inclusive electroproduction of charged pions and kaons”
132. A. Airapetian *et al.*, *JHEP* **01**, (2014) 077. “Beam-helicity asymmetry in associated electroproduction of real photons $ep \rightarrow e\gamma\pi N$ in the Δ -resonance region”
133. T. Biesiadzinski *et al.*, *PASP.* **126**, (2014) 000. “Beyond Quantum Efficiency: a Comprehensive NIR Detector Response Study”
134. E.R. Tardiff *et al.*, *Hyperfine interact.* **225**, (2014) 197. “The radon EDM apparatus”
135. A. Airapetian *et al.*, *Phys. Rev.* **D89**, (2014) 097101. “Re-evaluation of the Parton Distribution of Strange Quarks in the Nucleon”
136. X.G. Cao *et al.*, *Sci. China-Phys. Mech. Astron.*, **57(8)**(2014) 1476-1494. “PandaX: a liquid xenon dark matter experiment at CJPL”
137. M. Xiao *et al.*, *Sci. China-Phys. Mech. Astron.* **57(11)**, (2014) 2024-2030. “First dark matter search results from the PandaX-I experiment”
138. Q. Lin *et al.*, *JINST* **9**, (2014) P04014. “High Resolution Gamma Ray Detection in a Dual Phase Xenon Time Projection Chamber”
139. A. Airapetian *et al.*, *Phys. Rev.* **D90**, (2014) 072007. “Transverse polarisation of Lambda hyperons from quasi-real photoproduction on nuclei”
140. A. Airapetian *et al.*, *Euro. Phys. J.* **C74**, (2014) 3110. “Spin density matrix elements in exclusive ω electroproduction on ^1H and ^2H targets at 27.6 GeV beam energy”
141. N. Akopov *et al.*, *Phys. Rev.* **D91**, (2015) 057101. “Pentaquark Θ^+ search at HERMES”
142. A. Airapetian *et al.*, *Euro. Phys. J.* **C75**, (2015) 361. “Bose-Einstein correlations in hadron-pairs from lepto-production on nuclei ranging from hydrogen to xenon”
143. D.S. Akerib, C.W. Akerlof, D.Yu. Akimov, S.K. Alsum, H.M. Araujo, X. Bai, A.J. Bailey, J. Balajthy, S. Balashov, M.J. Barry *et al.* [LZ Collaboration], “LUX-ZEPLIN (LZ) Conceptual Design Report”, arXiv:1509.02910 [physics.ins-det].
144. X. Xiao *et al.*, *Phys. Rev.* **D92**, (2015) 052004. “Low-mass dark matter search results from full exposure of PandaX-I experiment”

145. S. Stephenson *et al.*, *JINST* **10**, (2015) P10040. “MiX: A Position Sensitive Dual-Phase Liquid Xenon Detector”
146. A. Airapetian *et al.*, *Euro. Phys. J.* **C75**, (2015) 600. “Transverse-target-spin asymmetry in exclusive omega-meson electroproduction”
147. A. Airapetian *et al.*, *Euro. Phys. J.* **C76**, (2016) 162. Erratum to: “Spin density matrix elements in exclusive ω electroproduction on ^1H and ^2H targets at 27.5 GeV beam energy (vol 74, 3110, 2014)”
148. A. Tan *et al.*, *Phys. Rev.* **D93**, (2016) 122009. “Dark Matter Search Results from the Commissioning Run of PandaX-II”
149. A. Tan *et al.*, *Phys. Rev. Lett.* **117**, (2016) 121303. “Dark Matter Results from First 98.7-day Data of PandaX-II Experiment”.
150. M. Xiao, C. Aldred, W. Lorenzon, arXiv:1712.09683 [physics.acc-ph]. “Spin tracking of polarized protons in the Main Injector at Fermilab”
151. J. Haefner *et al.*, *Nucl. Instr. Meth.* **A856**, (2017) 86. “Reflectance dependence of polytetrafluoroethylene on thickness for xenon scintillation light”.
152. A. Airapetian *et al.*, *Euro. Phys. J.* **C77**, (2017) 378. “Ratios of helicity amplitudes for exclusive ρ^0 electroproduction on transversely polarized protons”.
153. F. Antoulinakis *et al.*, *Phys. Rev. Accel. Beams* **20**, (2017) 091003. “4-twist helix snake to maintain polarization in multi-GeV proton rings”.
154. D.S. Akerib *et al.*, (LZ Collaboration), *Astro. Part. Phys.* **96**, (2017) 1. “Identification of Radiopure Titanium for the LZ Dark Matter Experiment and Future Rare Event Searches”.
155. B.J. Mount *et al.*, [LZ Collaboration], “LUX-ZEPLIN (LZ) Technical Design Report”, arXiv:1703.09144 [physics.ins-det].
156. R. Gilman *et al.*, (MUSE Collaboration), arXiv:1709.09753 [physics.ins-det]. Technical Design Report for the Paul Scherrer Institute Experiment R-12-01.1: Studying the Proton “Radius” Puzzle with μp Elastic Scattering”.
157. K. Pushkin *et al.*, *Nucl. Instr. Meth.* **A903**, (2018) 267. “Study of radon reduction in gases for rare event search experiments”.
158. C.A. Aidala *et al.*, (SeaQuest Collaboration), *Nucl. Instr. Meth.* **A930**, (2019) 49. “The SeaQuest Spectrometer at Fermilab”
159. A. Airapetian *et al.*, (HERMES Collaboration), *Phys. Rev.* **D99**, (2019) 112001. “Longitudinal double-spin asymmetries in semi-inclusive deep-inelastic scattering of electrons and positrons by protons and deuterons”
160. A. Airapetian *et al.*, (HERMES Collaboration), *Phys. Lett. B* **797** (2019) 134886. “Beam-helicity asymmetries for single-hadron production in semi-inclusive deep-inelastic scattering from unpolarized hydrogen and deuterium targets”
161. D.S. Akerib *et al.*, (LZ Collaboration), *Astro. Part. Phys.* **116**, (2020) 102391. “Measurement of the Gamma Ray Background in the Davis Cavern at the Sanford Underground Research Facility”
162. P. Roy *et al.*, *Nucl. Instr. Meth.* **A949**, (2020) 162874. “A Liquid Hydrogen Target for the MUSE Experiment at PSI”
163. D.S. Akerib *et al.*, (LZ Collaboration), *Nucl. Instr. Meth.* **A953**, (2020) 163047. “The LUX-ZEPLIN (LZ) Experiment”.

164. D.S. Akerib *et al.*, (LZ Collaboration), *Phys. Rev.* **C102**, (2020) 014602. “Projected sensitivity of the LUX-ZEPLIN experiment to the $0\nu\beta\beta$ decay of ^{136}Xe ”, <https://link.aps.org/doi/10.1103/PhysRevC.102.014602>
165. D.S. Akerib *et al.*, (LZ Collaboration), *Phys. Rev.* **D101**, (2020) 052002. “Projected WIMP sensitivity of the LUX-ZEPLIN (LZ) dark matter experiment”, <https://doi.org/10.1103/PhysRevD.101.052002>
166. D.S. Akerib *et al.*, (LZ Collaboration), *Astro. Part. Phys.* **125**, (2021) 102480. “Simulations of Events for the LUX-ZEPLIN (LZ) Dark Matter Experiment”, <https://doi.org/10.1016/j.astropartphys.2020.102480>
167. D.S. Akerib *et al.*, (LZ Collaboration), *Eur. Phys. J.* **C80**, (2020) 1044. “The LUX-ZEPLIN (LZ) radioactivity and cleanliness control programs”, <https://dx.doi.org/10.1140/epjc/s10052-020-8420-x>
168. T. Rostomyan *et al.*, (MUSE Collaboration), *Nucl. Instr. Meth.* **A986**, (2021) 164801. “Timing Detectors with SiPM read-out for the MUSE Experiment at PSI”, <https://doi.org/10.1016/j.nima.2020.164801>
169. A. Airapetian *et al.*, (HERMES Collaboration), *JHEP* **12**, (2020) 010. “Azimuthal single- and double-spin asymmetries in semi-inclusive deep-inelastic lepton scattering by transversely polarized protons”, [https://doi.org/10.1007/JHEP12\(2020\)010](https://doi.org/10.1007/JHEP12(2020)010)
170. J. Dove *et al.*, (SeaQuest Collaboration), *Nature* **590**, (2021) 561. “The Asymmetry of Antimatter in the Proton”, <https://doi.org/10.1038/s41586-021-03282-z>
171. M. Arthurs *et al.*, *JINST* **16**, (2021) P07047. “Performance Study of Charcoal-based Radon Reduction Systems for Ultra-clean Rare Event Detectors”, <https://doi.org/10.1088/1748-0221/16/07/P07047>
172. D.S. Akerib *et al.*, (LZ Collaboration), *Phys. Rev.* **C104**, (2021) 065501. “Projected sensitivity of the LUX-ZEPLIN experiment to the two-neutrino and neutrinoless double beta decays of ^{134}Xe ”, <https://link.aps.org/doi/10.1103/PhysRevC.104.065501>
173. R. Linehan *et al.*, in press at *Nucl. Instr. Meth.* **A**, (2022). “Design and production of the high voltage electrode grids and electron extraction region for the LZ dual-phase xenon time projection chamber”, <https://doi.org/10.1016/j.nima.2021.165955>
174. D.S. Akerib *et al.*, (LZ Collaboration), *Phys. Rev.* **D104**, (2021) 092009. “Projected sensitivities of the LUX-ZEPLIN experiment to new physics using low-energy electron recoils”, <https://journals.aps.org/prd/abstract/10.1103/PhysRevD.104.092009>

Articles accepted for publication in Refereed Journals

1. D.S. Akerib *et al.*, (LZ Collaboration), “Cosmogenic production of ^{37}Ar in the context of the LUX-ZEPLIN experiment”, accepted by PRD
arXiv:2201.02858 [hep-ex]

Articles submitted for publication in Refereed Journals

1. D.S. Akerib *et al.*, (LZ Collaboration), “Enhancing the sensitivity of the LUX-ZEPLIN (LZ) dark matter experiment to low energy signals”, submitted to PRD
arXiv:2101.08753 [astro-ph.IM]

2. E. Cline *et al.*, (MUSE Collaboration), “Characterization of Muon and Electron Beams in the Paul Scherrer Institute PiM1 Channel for the MUSE Experiment”, submitted to PRC arXiv:2109.09508 [physics.ins-det]
3. J. Aalbers *et al.*, “A Next-Generation Liquid Xenon Observatory for Dark Matter and Neutrino Physics” arXiv:2203.02309 [physics] Search...

Conference Proceedings and Other publications

1. W. Lorenzon “Color Transparency (e,e’p) Measurements at SLAC”, *AIP Conference Proceedings* No. 269, Particles and Fields Series 51, ed. F. Gross, p. 308 (1992).
2. W. Lorenzon *AIP Conference Proceedings* No. 421, ed. R.J. Holt, M.A. Miller, p. 181 (1997).
3. W. Lorenzon *Proceedings of the XXVI SLAC Summer Institute on Particle Physics*, ed. L. Dixon, p. 437 (1998).
4. W. Lorenzon “Beam Polarimetry at HERA”, *AIP Conference Proceedings* No. 421, ed. R.J. Holt, M.A. Miller, p. 181.
5. W. Lorenzon *πN Newsletter No. 15*, ed. D. Drechsel, G. Höhler, W. Kluge, H. Leutwyler, B.M.K. Nefkens, H.-M. Staudenmaier, p. 209 (1999).
6. W. Lorenzon *Proceedings of Orbis Scientiae 1999* in “Quantum Gravity, Generalized Theory of Gravitation, and Superstring Theory-Based Unification”, Kluwer Academic/Plenum Publishers, New York, ed. B.N. Kursunoglu, S.L. Mintz, A. Perlmutter, p. 209 (1999).
7. V. Morozov *et. al.*, “99.9% spin-flip efficiency in the presence of a strong Siberian snake”, *AIP Conference Proceedings* No. 675, p. 776 (2003).
8. W. Lorenzon “Nuclear Transparency in Exclusive ρ^0 Production at HERMES”, *AIP Conference Proceedings* No. 698, ed. Z. Parsa, p. 119 (2003).
9. W. Lorenzon “Electron Beam Polarimetry for EIC/eRHIC”, *AIP Conference Proceedings* No. 698, ed. Z. Parsa, p. 797 (2003).
10. A. Ealet *et. al.*, “An integral field spectrograph for SNAP”, *Proceedings of the Society of Photo-Optical Instrumentation Engineers* (SPIE) 5487, p. 1587 (2004).
11. M. Sholl *et. al.*, “SNAP telescope”, *IPNP Proceedings* 5487, p. 1473 (2004).
12. W. Lorenzon *Fizika* **B13**, (2004) 315, a refereed journal of the Croatian Physical Society.
13. W. Lorenzon, “Pentaquark search at Hermes”, *Proceedings of the International Workshop “Pentaquark 04”*, World Scientific Publishing Co., Singapore, 2005, ed. A. Hosaka and T. Hotta, p. 66 (2005).
14. M. Schubnell *et. al.*, “Near infrared detectors for SNAP”, *Proceedings of the Society of Photo-Optical Instrumentation Engineers* (SPIE) 6276, p. Q2760 (2006).
15. M. Brown *et. al.*, “Development of NIR detectors and science driven requirements for SNAP”, *Proceedings of the Society of Photo-Optical Instrumentation Engineers* (SPIE) 6265, p. 26535 (2006).
16. E. Tardiff *et. al.*, “Polarization and relaxation of Rn-209”, *Conference Proceedings in NIMA* 579, p. 472 (2007).
17. W. Lorenzon “EIC Electron Beam Polarimetry Workshop summary”, *AIP Conference Proceedings* No. 980, eds. A. Kponou, Y. Makdisi, and A. Zelinski, p. 407 (2007).
18. W. Lorenzon “Count rate dependent non-linearity and pixel size variations in 1.7 micron cut-off detectors”, *Proceedings of the Society of Photo-Optical Instrumentation Engineers* (SPIE) 7021, p. V210 (2008).

19. M. Schubnell *et. al.*, “Precision Quantum Efficiency Measurements on 1.7 Micron Near Infrared Devices”, *Proceedings of the Society of Photo-Optical Instrumentation Engineers* (SPIE) 7021, p. L210 (2008).
20. B. Aurand *et. al.*, “Executive Summary of the Workshop on Polarization and Beam Energy Measurements at the ILC”, (2008) arXiv:0808.1638 [physics.acc-ph].
21. B. Aurand *et. al.*, “Beam Polarization at the ILC: the Physics Impact and the Accelerator Solutions”, (2009) arXiv:0903.2959 [physics.acc-ph]
22. W. Lorenzon “Precision Electron Beam Polarimetry”, *AIP Conference Proceedings* No. 1149, eds. D. Crabb, D. Day, S. Liuti, X. Zheng, M. Poelker, and Y. Prok, p. 709 (2009).
23. W. Lorenzon, “Drell-Yan Scattering at Fermilab: SeaQuest and Beyond”, *Nuovo Cimento C* 35, Issue 2 (2012).
24. W. Lorenzon, “Polarized Protons in the Fermilab Main Injector”, *Proceedings of Science (PSTP)* (2013), online: <http://pos.sissa.it/cgi-bin/reader/conf.cgi?confid=182>.
25. W. Lorenzon, “Opportunities with Polarized Hadron Beams”, *Int. J. Mod. Phys. Conf. Ser.* 40, ed. Haiyan Gao and Bo-Qiang Ma, p. 1660108 (2016), (DOI: 10.1142/S2010194516601083).
26. M. Xiao, W. Lorenzon and C. Aldred, “Spin Tracking of polarized protons in the Main Injector at Fermilab”, *Proceedings of the 57th ICFA Advanced Beam Dynamics Workshop on High-Intensity, High Brightness and High Power Hadron Beams* (2016), (DOI:10.18429/JACoW-HB2016-MOPR036), online: <http://jacow.org/hb2016/papers/mopr036.pdf>
27. W. Lorenzon, “The LZ Dark Matter experiment”, ed. Paolo Checchia, Mauro Mezzetto and 15 others, *PoS EPS-HEP2017 (2017) 072* , (DOI: 10.22323/1.314.0072).
28. W. Lorenzon, “The MUSE experiment at PSI: Status and Plans”, *Proceedings of Science NuFact2019* (2020) 076.
online at : <https://pos.sissa.it/369/076> (DOI: <https://doi.org/10.22323/1.369.0076>).

Invited Talks and Papers

1. CEBAF 1992 Summer Workshop, Newport News, Virginia 1992, Plenary Talk on “Color Transparency (e,e’p) Measurements at SLAC”
Particles and Fields Series 51, AIP Conference Proceedings No. 269, ed. F. Gross, p. 308.
2. 1993 Canadian Association of Physicists Congress, Burnaby, British Columbia (June 13-16), Invited Talk on “Search for Color Transparency in (e,e’p) at SLAC”
3. 1996 International Workshop on Lepton Polarization at High Energy Colliders, Lecce, Italy (September 26-28), Plenary talk on “The Hermes Experiment at HERA: First Results”
4. Gordon Research Conference on QCD in Nuclear Physics, Newport, Rhode Island (July 27 - August 1, 1997), Invited talk on “New Results from the HERMES Experiment”
5. Seventh International Workshop on Polarized Gas Targets and Polarized Beams, Urbana, Illinois (August 18-22, 1997), Invited Talk on “Beam Polarimetry at HERA”
AIP Conference Proceedings No. 421, ed. R.J. Holt, M.A. Miller, p. 181.
6. 1998 Joint APS/AAPT Meeting, Columbus, Ohio (April 18 - 21, 1998), Invited talk on “Polarimeters for Polarized Electron Beams”
7. 1998 SLAC Summer Institute Topical Conference, Stanford, California (August 3-14), Plenary Talk on “Results from HERMES”
SLAC Report 538, Proceedings of the XXVI SLAC Summer Institute on Particle Physics, ed. L. Dixon, p. 437.

8. Eighth International Symposium on Meson-Nucleon Physics and the Structure of the Nucleon, Zuoz, Switzerland (August 15-21, 1999), Invited Talk on “Recent Results from HERMES” π N Newsletter No. 15, ed. D. Drechsel, G. Höhler, W. Kluge, H. Leutwyler, B.M.K. Nefkens, H.-M. Staudenmaier, p. 209.
9. 1999 International Conference on Orbis Scientiae, Ft. Lauderdale, Florida (December 16-19, 1999), Plenary Talk on “The Mystery of Nucleon Spin”
Proceedings of Orbis Scientiae 1999 in “Quantum Gravity, Generalized Theory of Gravitation, and Superstring Theory-Based Unification”, Kluwer Academic/Plenum Publishers, New York, ed. B.N. Kursunoglu, S.L. Mintz, A. Perlmutter, p.209.
10. Workshop on Quark-Hadron Transition in Structure and Fragmentation Functions at Jefferson Laboratory, Newport News, Virginia (April 17-18, 2000), Plenary Talk on “Fragmentation and Semi-Inclusive Results from HERMES”
11. 2001 Joint APS/JPS Meeting, Maui, HI (October 17 - 20, 2001), Talk on “Deeply Virtual Compton Scattering at HERMES”
12. Workshop on Electron Beam Polarimetry for the Electron Ion Collider at BNL, Upton, New York (November 8, 2002), Plenary Talk on “The Longitudinal Polarimeter at HERA”
13. Eighth Conference on the Intersection of Particle and Nuclear Physics (CIPANP 2003), New York, NY (May 19-24, 2003), Talk on “Nuclear Transparency in Exclusive ρ^0 Production at HERMES”
AIP Conference Proceedings No. 698, ed. Z. Parsa, p. 119.
14. Eighth Conference on the Intersection of Particle and Nuclear Physics (CIPANP 2003), New York, NY (May 19-24, 2003), Talk on “Electron Beam Polarimetry for EIC/eRHIC”
AIP Conference Proceedings No. 698, ed. Z. Parsa, p. 797.
15. Second International Conference on Nuclear and Particle Physics with CEBAF at JLab (NAPP 2003), Dubrovnik, Croatia (May 26-31, 2003) Plenary Talk on “Flavor Separated Quark Polarizations at HERMES”
Fizika **B13**, (2004) 315, a refereed journal of the Croatian Physical Society.
16. Workshop on Precision Electron Beam Polarimetry at Jlab, Newport News, VA (June 9-10, 2003), Plenary talk on “The Longitudinal Polarimeter at HERA”
17. Penta-Quark 2003 Workshop at JLab, Newport News, VA (November 6-8, 2003), Plenary talk on “The Θ^+ pentaquark search at HERMES”
18. Pentaquark04 Workshop at SPring-8, Japan (July 20-23, 2004), Plenary talk on “Pentaquark search at HERMES”
Proceedings of the International Workshop “Pentaquark04”, World Scientific Publishing Co., Singapore, 2005, ed. A. Hosaka and T. Hotta, p. 66.
19. Seventh Annual Symposium on Japanese-American Frontiers of Science at the U.S. National Academy of Sciences, Irvine, CA (December 10-12, 2004), Short Plenary Talk on “Pentaquarks: A new subatomic species?”
20. Miami 2004 Conference on Elementary Particle Physics and Cosmology, Coral Gables and Key Biscayne, FL (December 15-19, 2004), Plenary talk on “Shedding Light on Dark Energy with the SuperNova/Acceleration Probe (SNAP)”
21. Pentaquark 2005 Workshop at JLab, Newport News, Virginia (October 20-22, 2005), Plenary talk on “Search for exotic Baryons at HERMES”
22. XIIth International Workshop on Polarized Sources, Targets & Polarimetry at BNL, Upton, New York (September 10-14, 2007), Summary Talk on “Precision Electron Beam Polarimetry”
AIP Conference Proceedings No. 980, eds. A. Kponou, Y. Makdisi, and A. Zelinski, p. 407.

23. Workshop on Polarization and Energy measurements at the ILC, Zeuthen, Germany (April 9-11, 2008), Workshop Summary Talk
24. 4th Electron Ion Collider Workshop at Hampton University (May 19-23, 2008), Plenary talk on “Precision Electron and Ion Polarimetry for EIC”
25. SPIE Symposium on Astronomical Telescopes and Instrumentation: Synergies Between Ground and Space in Marseille, France (June 23-27, 2008), talk on “Count rate dependent non-linearity and pixel size variations in 1.7 micron cut-off detectors”
Proceedings of the Society of Photo-Optical Instrumentation Engineers (SPIE) 7021, p. V210 (2008).
26. 18th International Symposium on Spin Physics Symposium (SPIN2008) at University of Virginia (October 6-11, 2008), Invited talk on “Precision Electron Beam Polarimetry”
AIP Conference Proceedings No. 1149, eds. D. Crabb, D. Day, S. Liuti, X. Zheng, M. Poelker, and Y. Prok, p. 709 (2009).
27. ESO Workshop on Detectors for Astronomy, Garching, Germany (October 12-16, 2009), talk on “Limits on Reciprocity Failure in 1.7 μ m cut-off NIR astronomical detectors”
28. Workshop on Studying the hadron structure in Drell-Yan reactions, CERN, Geneva, Switzerland (April 26-27, 2010), Plenary talk on “Future Drell-Yan fixed target experiments at Fermilab”
29. Polarized Drell-Yan Physics Workshop, Santa Fe (October 31 - November 1, 2010), Plenary talk on “Drell-Yan Experiments at Fermilab: SeaQuest and Beyond”
30. Transversity 2011 Workshop, Veli Lošinj, Croatia (August 29 - September 2, 2011), Plenary talk on “Drell-Yan Scattering at Fermilab: SeaQuest and Beyond” Proceedings of the International Workshop “Transversity 2011” in *Nuovo Cimento C* 35, Issue 2
31. Light Dark Matter 2013 Workshop, Ann Arbor, Michigan (April 15-17, 2013), invited talk on “PandaX - Status and Plans”
32. Workshop on Opportunities for Polarized Physics at Fermilab, Fermilab (May 20-22, 2013), Plenary talk on “Polarized Drell-Yan at Fermilab”
33. XVth International Workshop on Polarized Sources, Targets, and Polarimetry (PSTP 2013) at University of Virginia (September 9 - 13, 2013), Invited talk on “Polarized Protons in the Fermilab Main Injector”
Proceedings of Science web: <http://pos.sissa.it/cgi-bin/reader/conf.cgi?confid=182>.
34. 9th Circum-Pan-Pacific Spin Symposium on High Energy Spin Physics, Ji’nan, China (October 28-31, 2013), Plenary Talk on “Drell-Yan Scattering at Fermilab: SeaQuest and Beyond”
35. 2014 Mitchell Workshop on Collider and Dark Matter Physics at Texas A&M, College Station, TX, (May 12-15, 2014), Invited talk on ”Status of PandaX”
36. APS Division of Nuclear Physics: 2014 Long-range plan Town Meeting on QCD at Temple University, Philadelphia, PA (September 13-15, 2014), Invited talk on “Polarized Drell-Yan at FNAL”
37. 21st International Symposium on Spin Physics (SPIN2014) at Peking University, Beijing, China (October 20-24, 2014), Invited talk on “Opportunities with Polarized Hadron Beams”
38. 10th Circum-Pan-Pacific Spin Symposium on High Energy Spin Physics (PacSpin2015) at Institute of Physics, Academia Sinica in Taipei, Taiwan (October 5-8, 2015), Plenary talk on “Opportunities with polarized protons at Fermilab”
39. COMPASS beyond 2020 Workshop, CERN, Switzerland (March 21-22, 2016), Invited Talk on “FermiLab opportunities on polarized Drell-Yan”

40. European Centre for Theoretical Studies Workshop on Partons Transverse Momentum Distributions at Large x , Trento, Italy (April 11-15, 2016), Invited talk on “Polarized Drell-Yan at Fermilab”
41. 4th Workshop on the QCD Structure of the Nucleon (QCD-N’16), Palacio San Joseren, Getxo, Spain, (July 11-15, 2016), Invited Talk on “E-906 results and future fixed-target Drell Yan programs”
42. 20th International Conference on Particle Physics and Cosmology (COSMO-16) at the University of Michigan, Ann Arbor, MI (August 8-12, 2016), Talk on “The LZ Dark Matter experiment”
43. International Conference on 3D parton distributions: path to the LHC, INFN-Frascati, Italy (November 29 - December 2, 2016), Plenary talk on “Fixed-target Drell Yan – Present & Future”
44. EPS Conference on High Energy Physics 2017, Venice, Italy (July 5-12, 2017), Talk on “The LZ Dark Matter experiment”
45. LIDINE 2017 Conference, SLAC (September 22-24, 2017), invited talk on “PTFE Reflectance for Xenon Scintillation Light”
46. INT Workshop INT-17-68W on the The Flavor Structure of Nucleon Sea, Seattle, (October 2-13, 2017), Plenary talk on “Opportunities with Fixed-Target Drell-Yan”
47. The 11th Workshop on Hadron Physics in China and Opportunities Worldwide, Nankai University, Tianjin, China (August 22-27, 2019), Plenary talk on “Fixed-target Drell Yan – Present & Future”
48. The 21st International Workshop on Neutrinos from Accelerators (NUFACT 2019), Daegu, Korea (August 26-31, 2019), invited talk on “The MUSE experiment at PSI: Status and Plans”
49. CPAD 2019 Instrumentation Frontier Workshop, Madison, WI (December 8-10, 2019), Talk on “Radon reduction in Dark Matter Detectors”
50. APS Division of Nuclear Physics, online (October 29 - November 1, 2020), Talk on “A Liquid Hydrogen Target for TPEX”

Conferences / Workshops / Symposia Organizations

1. 1998 International Conference on Orbis Scientiae, Ft. Lauderdale, FL,
– Session organizer and Moderator on “Proton Spin Content”
2. 1999 Physics in Collision Conference, Ann Arbor, MI, June 24-26
– Local Organizing Committee
3. Seventh Conference on the Intersection of Particle and Nuclear Physics, Quebec City, Canada, May 22-28, 2000
– Session Organizer and Session Chair on “Spin Physics”
4. Second Workshop on Physics with an Electron-Polarized light-Ion Collider (EPIC), MIT, Cambridge, MA, September 15-16, 2000
– Scientific Organizing Committee
5. Second Joint DNP/JPS Meeting of the APS, Maui, Hawaii, September 18-22, 2005
– Workshop co-organizer on “Beyond $q\bar{q}$ and qqq : Pentaquarks and more”
– Mini-Symposium co-organizer on “Pentaquarks”

6. Workshop on Precision Electron Beam Polarimetry for the Electron Ion Collider, Ann Arbor, MI, August 23-24, 2007
– Workshop Organizer
7. Spin Physics Symposium, Ann Arbor, MI, November 14, 2009
– Chair of Spin Physics Symposium Organizing Committee
8. EIC14 The International Workshop on Accelerator Science and Technology for Electron-Ion Collider, Jefferson Lab, March 17-21, 2014
– Session Organizer on “Working group for electron/positron sources, proton/ion sources and polarimetry”
9. Forth Joint DNP/JPS Meeting of the APS, Big Island, Hawaii, October 7-11, 2014
– Workshop organizer on “Polarized Drell-Yan Physics at Fermilab”

Seminars / Colloquia / Public

1. University of Basel, 17-Nov-1988, ”Search for $\Delta T=2$ transitions in the electro-magnetic interaction”
2. California Institute of Technology, 19-Jan-1989, ”Search for $\Delta T=2$ transitions in the electro-magnetic interaction”
3. University of Illinois, 19-Feb-1992, ”Color Transparency in (e,e’p)”
4. Brookhaven National Lab, 25-Feb-1992, ”Color Transparency in (e,e’p)”
5. Old Dominion University, 9-Mar-1992, ”Color Transparency in (e,e’p)”
6. CEBAF, 10-Mar-1992, ”Color Transparency in (e,e’p)”
7. Argonne National Lab, 15-Apr-1992, ”Color Transparency in (e,e’p)”
8. TRIUMF, 4-Jun-1992, ”Color Transparency in (e,e’p)”
9. University of Washington, Seattle, 30-Mar-1993, ”Color Transparency in (e,e’p)”
10. University of Illinois, 5-May-1993, ”Search for Color Transparency”
11. Kent State University, 19-Jul-1993, ”Search for Color Transparency”
12. University of Pennsylvania, 21-Sep-1993, ”Search for Color Transparency”
13. DESY, 10-Sep-1994, ”Longitudinal Polarimeter for HERA”
14. NIKHEF, 5-Jan-1995, ”Longitudinal Polarization at HERA”
15. Drexel University, 24-Feb-1995, ”Polarized Muon Capture on ^3He ”
16. University of Maryland, 17-April-1995, ”Polarized Muon Capture on ^3He ”
17. University of Michigan, 1-Dec-1995, ”Polarized Muon Capture on ^3He ”
18. University of Michigan (SPC), 8-Dec-1997, ”Recent Results from HERMES”
19. University of Michigan, 5-May-1999, ”Recent Results from HERMES”
20. University of Michigan, Department Colloquium, 3-Nov-1999, ”The Mystery of Nucleon Spin”
21. University of Basel, 16-May-2002, ”HERMES Spin Physics”
22. University of Michigan (SPC), 21-June-2002, ”HERMES Spin Physics”
23. University of Michigan, 24-March-2003, ”Recent Results from HERMES”
24. University of Michigan (SPC), 11-July-2003, ”Pentaquarks - A new form of matter?”

25. Hong Kong University of Science and Technology, 18-Dec-2003, “Shedding Light on Dark Energy with the SuperNova/Acceleration Probe”
26. Duke University, 14-Oct-2004, “Shedding Light on Dark Energy with the SuperNova/Acceleration Probe”
27. Old Dominion University, Colloquium, 1-Mar-2005, “Shedding Light on Dark Energy with the SuperNova/Acceleration Probe”
28. Caltech, 4-Mar-2005, “Shedding Light on Dark Energy with the SuperNova/Acceleration Probe”
29. University of Michigan, Department Colloquium, 26-Oct-2005, “Pentaquarks: Do they exist?”
30. Simon Fraser University, Department Colloquium, 12-Feb-2007, “New Eyes on the Expanding Universe: The SuperNova/Acceleration Probe (SNAP)”
31. Ann Arbor District Library Public Lecture Series, Ann Arbor, MI (September 20, 2007), Public Lecture on “The Dark Side of the Universe”
32. Ann Arbor News (local newspaper), 5-Nov-2007, “The physics of a great tackle”
33. Fermilab, 17-August-2010, Joint seminar with Alan Krisch on ”Hard collisions of polarized protons: past, present & future” and “Polarized Drell-Yan at Fermilab’s Main Injector”
34. Peking University, 23-August-2010, “Exploring Nucleon Structure with Drell-Yan Scattering at Fermilab”
35. Shanghai Jiaotong University, 3-September-2010, “NIR detectors for astronomical observations”
36. William & Mary, Colloquium, 22-April-2011, “Shedding Light on Dark Energy: The Dark Energy Survey”
37. DESY, 13-June-2013, “Polarized Drell-Yan at Fermilab”
38. Peking University, 1-November-2013, “Drell-Yan Scattering at Fermilab: SeaQuest and Beyond”
39. University of Michigan, UROP, 5-Nov-2013, “Search for Dark Matter”
40. Los Alamos National Laboratory, 17-February-2014, “Polarized Drell-Yan at Fermilab”
41. University of Michigan, Society of Physics Students, 4-Nov-2014, “SeaQuest and Beyond: Studying Subatomic Physics at Fermilab”
42. Fermilab, 4-Mar-2015, “Search for Dark Matter with PandaX”
43. University of Michigan, Chi-Epsilon Honors Society, 28-Oct-2015, “Shedding Light on Dark Matter with LZ”
44. Ann Arbor Math Olympiad Club, 21-Nov-2015, “A Career in Physics”
45. University of Michigan, Donor Symposium, 30-Mar-2016, “Shedding Light on The Dark Side of the Universe with LZ”
46. SLAC KIPAC Tea seminar series, 1-Sep-2017, “PandaX-II latest results”
47. Universidad Nacional Autónoma de México, Mexico City, Mexico, 23-November-2017, Colloquium on “Shedding Light on The Dark Side of the Universe with LZ”
48. SLAC Experimental Seminar series, 26-June-2018, “The MUSE experiment: addressing the proton radius puzzle via elastic muon scattering”
49. Ann Arbor Math Olympiad Club, 20-Oct-2018, “A Career in Physics”
50. University of Hawaii Seminar series, 23-Oct-2018, “The Proton Radius Puzzle”

51. Saturday Morning Physics, 10-Nov-2018, “The Proton Radius Puzzle”
52. Peking University, 22-August-2019, “The MUSE experiment: addressing the proton radius puzzle via elastic muon scattering”
53. Fermilab, 25-Oct-2019, “Sivers Function: Status + Plans”
54. University of Michigan, HEP seminar, 8-Mar-2021, “The Asymmetry of Antimatter in the Proton”

Talks & Seminars by Students and Postdocs (since 2019)

1. M. Scott, “Using Machine Learning Tools to Enhance Background Subtraction at E906/SeaQuest”, APS meeting, Denver, CO, April 2019.
2. M. Arthurs, “Radon Reduction System For LZ Dark Matter Experiment”, APS meeting, Denver, CO, April 2019.
3. M. Reh, “Measurement of Flow Impedance in Radon Trap for LZ”, APS meeting, Denver, CO, April 2019.
4. N. Wuerfel, “ E-1039 FPGA Trigger”, APS DNP, Crystal City, VA, October 2019.
5. M. Kim, “The SpinQuest/E-1039 Polarized Drell-Yan Experiment at Fermilab”, APS DNP, Crystal City, VA, October 2019.
6. H. Reid, “The Liquid Hydrogen Target for MUSE”, APS DNP, Crystal City, VA, October 2019.
7. N. Wuerfel, “Why I am excited to work on SpinQuest”, New Perspectives 2020, online, July 2020
8. M. Kim, “The SpinQuest/E-1039 FPGA Trigger”, New Perspectives 2020 (2.0), Fermilab, online, August 2020
9. N. Wuerfel, “Polarized Drell-Yan at SpinQuest”, APS DNP, online, October 2020.
10. I. Lavrukhin, “Pion-Proton Scattering with MUSE Apparatus”, APS DNP, online, October 2020.
11. H. Reid, “The Liquid Hydrogen Target for MUSE”, APS DNP, online, November 1, 2020.
12. M. Kim, “The SpinQuest/E-1039 FPGA Trigger”, APS DNP, online, November 1, 2020.
13. I. Lavrukhin, “TPEX@DESY - A Two-Photon Exchange Experiment at DESY”, 9th GHP Workshop, online, April 2021.
14. I. Lavrukhin, “The Liquid Hydrogen Target for TPEX”, APS April Meeting, online, April 2021.
15. H. Reid, “The Liquid Hydrogen Target for MUSE”, APS April Meeting, online, April 2021.
16. N. Wuerfel, “A Multithreaded Tracking Algorithm for SpinQuest”, APS April Meeting, online, April 2021.
17. M. Arthurs, “Charcoal-based Radon Reduction for Rare Event Detectors”, APS April Meeting, online, April 2021.
18. C. Amarasinghe, “Anomaly Finding in the LZ Dark Matter Experiment”, APS April Meeting, online, April 2021.
19. D. Huang, “Background Studies for the LUX-ZEPLIN Dark Matter Experiment”, APS April Meeting, online, April 2021.

20. R. Coronel, “A Proposal for an Ultra-Low Energy Nuclear-Recoil Calibration in Liquid Xenon using Neutron Capture”, APS April Meeting, online, April 2021.
21. I. Adnane, “The Benefits of Using OSG for Large-Scale Physics Computing”, poster presentation at APS April Meeting, online, April 2021.
22. Y. Li, “Use MiX for a Low Energy Nuclear Recoil Calibration in Liquid Xenon”, APS April Meeting, online, April 2021.
23. I. Lavruchin, “FPGA Trigger for SpinQuest Experiment”, New Perspectives 2021, online, August 2021
24. C. Amarasinghe, “A Proposal to Use Neutron Capture as a Source of Low Energy NRs with MiX”, LIDINE 2021, online, September 2021.
25. S. Lunkenheimer, ”Feasibility Studies for Measuring the Astrophysical S-Factor of the Reaction $^{12}\text{C}(\alpha, \gamma)^{16}\text{O}$ via Electro-Disintegration at MAGIX”, APS April Meeting, New York, NY, April 2022.
26. C. Amarasinghe, “LZ Preliminary Sensitivity to Effective Field Theory Couplings”, APS April Meeting, New York, NY, April 2022.
27. M. Arthurs, “Unsupervised ML as a tool for investigating anomalous data”, APS April Meeting, New York, NY, April 2022.

International/Professional Memberships, Services

2021	Member, DOE/SC Status Review of the MOLLER Project (TJNAF)
2021	Member, DOE Dark Matter New Initiative Status Review Panel
2021 - present	Member, AMBER PubCom committee
2021	Member, AMBER MOU Drafting committee
2021	Member, SoLID Spectrometer Director’s Review (TJNAF)
2020 - present	Member, Steering Committee, SpinQuest collaboration
2020	Member, DOE/SC CD-1 Review of the MOLLER Project (TJNAF)
2020	Member, DOE Cosmic Frontier Grants Comparative Review Panel
2019 - 2020	Member, COMPASS++/AMBER Temporary Steering Board and Bylaw Drafting committee
2019	Member, DOE Early Career Program Review committee
2019 - present	Chair, Speakers Board, SpinQuest collaboration
2019 - present	Reviewer, Subatomic Physics Proposals, BSF
2018 - 2020	Member, Speakers and Publication Board, LZ collaboration
2018	Member, International Advisory Committee for XeSAT2018 conference in Japan
2017 - 2018	Member, Task Force for LZ Radon Distillation
2017	Chair, Task Force for LZ Service Work
2016	Member, NSF Nuclear Physics Proposal Review Panel
2016	Chair, Technical Design Review for LZ (SLAC)
2013 - 2016	Member, Jefferson Lab Program Advisory Committee
2009 - present	Reviewer, Subatomic Physics Proposals, NSERC
2008 - 2010	Member, Natural Sciences and Engineering Research Council, NSERC, of Canada
2008 - present	Member, Michigan Center for Theoretical Physics
2008	Referee, engineering design report for beam polarimetry at the ILC

2008	Member, NSF Nuclear Physics Proposal Review Panel
2007 - 2012	Chair, Nominating Committee (HERMES experiment)
2007 - 2010	Chair, Task Force on Precision Electron Polarimetry (Electron Ion Collider Collaboration)
2005 - 2012	Member, HERMES editorial board (HERMES experiment)
2005 - present	Reviewer, Nuclear Science Proposals, Department of Energy
2001 - 2007	Member, HERA Polarization Steering Board (DESY laboratory)
2005 - 2006	Reviewer, W.H. Freeman & Company, Textbooks
2001 - 2006	Consultant for Ann Arbor Hands On Museum
2000 - present	Reviewer, Netherlands Organization for Scientific Research, NWO, Proposals
1999 - 2000	Reviewer, Prentice Hall, Textbooks
1998 - present	Referee, Physical Review and Physical Review Letters
1997 - present	Reviewer, Intermediate Energy Nuclear Science Proposals, National Science Foundation
1989 - present	Member, American Physical Society
1986 - 1989	Member, Swiss Physical Society

Internal Service

Departmental:

2022	Honors Senior Thesis and Williams Award Committee, chair
2022	Undergraduate Awards (4 awards) committee, chair
2021	Honors Senior Thesis and Williams Award Committee, chair
2021	Distinguished Faculty Achievement Award Nomination committee, co-chair (Tim Chupp)
2020	Sloan Research Fellow Nomination committee, chair (Björn Penning)
2020	Undergraduate Awards (4 awards) committee, chair
2020	Honors Senior Thesis and Williams Award Committee, chair
2019 - 2022	Department Executive Committee, member
2019 - 2021	Editorial Advisory Board / WWW page committee, chair
2019	Promotion Committee, chair (Christine Aidala)
2019	Honors Senior Thesis Reader and Williams Award committee, chair
2019	APS Mentoring Award Nomination committee, chair (Tim Chupp)
2019	Distinguished Faculty Achievement Award Nomination committee, co-chair (Tim Chupp)
2018 - 2019	Faculty Search, co-chair
2018 - 2019	Astro & HEP Seminar Committee, co-chair
2018	LS&A Collegiate Chair Nomination Committee, co-chair (Tim Chupp)
2018	Promotion Committee, member (Vanessa Shi)
2018	Promotion decision making committee, member (David Lubensky)
2018 - 2020	Introductory Physics Committee, member
2016 - 2017	Graduate Admissions and Fellowships, member
2015 - 2020	Junior Faculty Mentor for Joshua Spitz
2015 - 2016	Graduate Admissions and Fellowships, member
2014	Promotion Committee, chair (Christine Aidala)
2014 - 2015	Graduate Admissions and Fellowships, member
2014	Third year review committee, member (Christine Aidala)
2014	Promotion Committee, member (Aaron Pierce)
2013 - 2014	Graduate Admissions and Fellowships, member
2012 - 2016	Junior Faculty Mentor for Christine Aidala

2012 - 2013 Graduate Admissions and Fellowships, member
 2012 - 2013 Introductory Physics Committee, member
 2012 Promotion Committee, member (Michael Schubnell)
 2011 - 2012 Graduate Admissions and Fellowships, member
 2011 - 2012 Introductory Physics Committee, member
 2011 - 2012 Examiner for Oral English Test (formerly ELI Test)
 2011 Promotion Committee, member (Jim Liu)
 2011 Williams Award and Honors Senior Theses Reader, chair
 2011 Weidenbeck Award Committee, chair
 2010 - 2011 FRIB Science Cluster Hire Proposal Committee, chair
 2010 - 2011 Graduate Admissions and Fellowships, member
 2010 Promotion Committee, member (Dan Levin)
 2010 Weidenbeck Award Committee, chair
 2009 - 2010 FRIB Science Cluster Hire Proposal Committee, chair
 2009 - 2010 Graduate Admissions and Fellowships, member
 2009 Spin Physics Symposium Committee, chair
 2009 Weidenbeck Award Committee, chair
 2013 - 2014 Introductory Physics Committee, member
 2008 - 2009 Department Executive Committee, member
 2008 - 2009 AAPT Teaching Assistant Award Committee, co-chair
 2008 Promotion Committee, member (Shawn McKee)
 2008 Weidenbeck Award Committee, chair
 2007 - 2010 Introductory Physics Committee, member
 2007 - 2008 Computing Committee, chair
 2006 - 2007 Computing Committee, chair
 2006 - 2007 Saturday Morning Physics Committee, co-chair
 2006 Promotion Committee, chair (David Reis)
 2005 - 2006 Graduate Admissions and Fellowships, member
 2005 - 2006 Editorial Advisory Board and Web Page, member
 2005 Graduate student mini-colloquium, fall term
 2004 Graduate student mini-colloquium, fall term
 2004 Leff Scholarship Committee, Chair, winter term
 2003 - 2004 Instructional Technology Oversight Team
 2002 Williams Award Prize Committee, Chair
 2001 - 2002 HEP Spin Seminar
 2001 - 2002 Editorial Advisory Board / WWW Page, member
 2001 Graduate student mini-colloquium, fall term
 2001 Terwilliger Prize Committee, Chair
 2001 Graduate student mini-colloquium, winter term
 2000 - 2001 HEP Spin Seminar
 2000 Terwilliger Prize Committee, Chair
 1999 - 2000 HEP Spin Seminar
 1999 - 2000 Computing Committee, Member
 Subcommittee for Research Computing, Chair
 1998 - 1999 Society of Physics Students (SPS) advisor
 1997 Graduate student mini-colloquium

College:

2017 - 2020 NextProf initiative, mentor

University:

2016 - 2017 Concur ExpenseIt Pilot Committee, member

2014 - 2015 Concur Travel & Expense Focus Group Committee, member

2012 Promotion Committee, member (Michael Hartman, NERS, CoE)

2007 - 2009 Senate Assembly, alternate member

Faculty Mentees

Assistant Professor: Björn Penning	9/2020	–	present
Assistant Professor: Joshua Spitz	9/2015	–	7/2021
Assistant Professor: Christine Aidala	9/2012	–	7/2016

Research Scientists

Assistant Research Scientist Emeritus: Richard Raymond	5/2009	–	present
Assistant Research Scientist: Richard Raymond	7/2008	–	4/2009
Associate Research Scientist: Vladimir Luppov	7/2003	–	9/2003
Assistant Research Scientist: Alexander Borissov	1/2001	–	10/2002

Postdoctoral Associates

1. Stefan Lunkenheimer	1/2022	–	present
2. Ievgen Lavrukhin [‡] ^b	2/2020	–	present
3. Dongqing Huang [†]	11/2019	–	present
4. Marshall Scott	9/2020	–	12/2020
5. Daniel Morton	7/2019	–	9/2019
6. Minjung Kim [‡]	3/2019	–	3/2021
7. Priyashree Roy [*]	11/2016	–	5/2019
8. Takahiro Sawada	10/2016	–	3/2018
9. Andrew Chen	3/2015	–	6/2016
10. Kirill Pushkin	7/2013	–	9/2018
11. Maria Leonova	7/2011	–	12/2011
12. Chiranjib Dutta	6/2010	–	7/2012
13. Lara DeNardo	1/2009	–	12/2009
14. Avetik Airapetian	12/2002	–	4/2008
15. Alexander Borissov	1/1999	–	10/2002
16. Andreas Most	10/1995	–	11/1998
17. Michael Spengos	9/1994	–	12/1995

[‡] deputy spokesperson MUSE experiment (2020 – present)

^b recipient of 2021 URA Visiting Fellow Award

[†] deputy convener for the LZ Background Working Group (2020 – present)

[‡] recipient of 2020 Fermilab Intensity Frontier Fellow Award

^{*} winner of 2016 JLab Thesis Prize

Dissertation Committees (current)

<u>Name</u>	<u>Candidacy</u>	<u>Comm. Chair</u>	<u>Duration</u>
1. Luke Korly	S21		Aug 2021 – present
2. Michael Williams	S21		Aug 2021 – present
3. Desmond Shangase	S20		Aug 2020 – present
4. Dillon Fitzgerald	W20		Nov 2019 – present
5. Chamindu Amarasinghe	F19	X	Aug 2019 – present
6. Haley Reid	F20	X	Jun 2019 – present
7. Eva Krägeloh	S19		Jul 2019 – present
8. Noah Wuerfel ^{# ‡}	W19	X	Nov 2017 – present
9. Maris Arthurs [‡]	S18	X	May 2016 – present

^b recipient of 2016 DNP Travel and Registration Award

[#] recipient of 2020 URA Visiting Scholar Award

[‡] recipient of 2021 DOE SCGSR Award

Dissertation Committees (past)

<u>Name</u>	<u>Candidacy</u>	<u>Degree</u>	<u>Comm. Chair</u>	<u>Occupation</u>
<u>UMich:</u>				
1. Jordan Roth	F18	-		deceased
2. Kristofer Ogren	S20	F21		Postdoc at Los Alamos
3. Marshall Scott	S17	S20	X	Postdoc at Argonne
4. Catherine Ayuso	W17	W20		Postdoc at MSU
5. Alec Tewsley-Booth	S15	F19		Postdoc at U-M
6. Daniel Morton [‡]	S15	S19	X	Data Scientist Sift5.io
7. Midhat Farooq	F15	W19		Outreach Coordinator NSF
8. Taylor Baildon	-	-		failed candidacy
9. Natasha Sachdeva		F18		Postdoc LANL
10. Noah Steinberg [§]	F17		X	theory grad student U-M
11. Matthew Mar cath	S16	S18		staff at LANL
12. Joe Osborn	F14	S18		Postdoc at U-M
13. Bryan Ramson	S13	F17		Postdoc at FNAL
14. Pengwei Xie		S17		External reviewer for SJTU
15. Skyler Degenkolb	S12	F16		Postdoc at JILA
16. Scott Stephenson [#]	S12	F14	X	CEO DeepGram.com
17. Zhongming (Franklin) Qu	S12	-	X	Software Expert at Huawei (Beijing)
18. Matthew Bales	F10	W14		postdoc at NIST
19. Tomasz Biesiadzinski	S09	S13		research scientist at SLAC
20. Cheng Peng		W12		unknown
21. Stephen Gliske [‡]	W08	S11	X	Assist. Prof. in Neurosurgery (UNL)
22. Eric Tardiff	F04	S09		unknown
23. Monisha Sharma	F05	S08		Sen Product Engin. Manager (TDK)
24. Wouter Deconinck [†]	F04	W08	X	Associate Prof. (UMANITOBA)

<u>Name</u>	<u>Candidacy</u>	<u>Degree</u>	<u>Comm. Chair</u>	<u>Occupation</u>
25. Sarah Nuss-Warren	F04	-		R&D Manager (Savant Group)
26. Carol Scarlett *	W01	S02	X	Associate Prof. (FAMU)
27. Svetlana Gladysheva		W00		Assistant VP for Research (Duke U)
28. Todd Smith		F97		Assoc. Prof. (U Dayton)
<u>UPenn:</u>				
29. Sergey Rudnitsky	F95	S97	X	Chicago Mercantile Exchange
30. Douglas A. Smith		F95		
31. Farrukh A. Azfar		F95		
32. Ming-Hsu Kao		F95		
33. Doug Koltenuk	F95			

[‡] recipient of 2017 DNP Travel and Registration Award

[§] recipient of 2017 the Physics Department Barnett Award

[‡] recipient of 2014 Helmut Baer Fellowship

[‡] recipient of 2013 Rackham Centennial Fellowship

[‡] recipient of 2007 DNP Travel and Registration Award

[†] winner of Sokol Award, Cornwell Prize, and Distinguished Dissertation Award

* winner of Rackham, Rackham Merit, and Sloan fellowships from 1996-1998

Masters, Senior and Honors Thesis Committees (Physics)

<u>Name</u>	<u>Masters</u>	<u>Senior Thesis</u>	<u>Honors Thesis</u>	<u>Comm. Chair</u>
1. Michael Reh			W19	X
2. Evan Chang			W19	X
3. Yuhan Wang			W18	X
4. Callum Aldred		W17		X
5. Jonathan Haefner [‡]			W16	X
6. Noah Shutty [‡]			W15	X
7. Robert Newman			F09	X
8. Anastasia Karabina		W08		X
9. Nathaniel Barron [†]			F04	X
10. Michael Borysow *		W04		X
11. Justin J. Schnettler		W00		X
12. Sergey Rudnitsky (UPenn)	F95			X

[‡] recipient of 2015 Goldwater Scholarship

and recipient of 2016 LSA Jerome and Isabella Karle Physical Sciences Award

[‡] recipient of 2014 Otho Lyle Tiffany & Mary Lois Tiffany Fellowship

and recipient of 2015 LSA Jerome and Isabella Karle Physical Sciences Award

[†] winner of 2006 Franco Nori Prize

* winner of 2004 Williams Award

Undergraduates Supervised in Research

<u>Name</u>	<u>Duration</u>
1. Alexandra Kucich	Mar 22 - present
2. Ethan Hazelton	Jan 22 - present
3. Samara Steinfeld	May 21 - present
4. Zhuoheng Yang	Jan 21 - present
5. Ilyas Adnadne	Sep 20 - Apr 21
6. Ilyas Adnadne	Aug 21 - present
7. Ruben Coronel	Feb 20 - present
8. Yi Liu	Nov 19 - Apr 21
9. Yi Liu	Sep 21 - present
10. Zoe Wong	May 21 - Dec 2021
11. Lorenz Hoernel	Jun 21 - Aug 21
12. Matthew Dimond	Feb 19 - May 20
13. Ryan Hennessey	Sep 18 - Apr 19
14. Evan Chang	May 18 - May 19
15. Sabrina Corsetti [†]	Dec 17 - Jan 19
16. Luc LePottier	Dec 16 - Jan 19
17. Michael Reh	Sep 16 - Jul 19
18. Minjie Lei	Sep 16 - Apr 18
19. Yuhan Wang	Jan 16 - Apr 18
20. John Schaefer	Sep 16 - Apr 18
21. Erick Rossi De La Fuente	Sep 16 - Aug 17
22. Divyanish Saini	Sep 16 - Apr 17
23. Dhayaa Anbajagane	Sep 16 - Apr 17
24. Matthew Okunawo	Jan 16 - Aug 16
25. Aaron Sander(UROP)	Sep 15 - Apr 16
26. Callum Aldred	May 14 - Mar 17
27. Jonathan Haefner	Aug 13 - May 16
28. Elizabeth Batista	May 15 - Dec 15
29. Noah Shutty	Oct 13 - Jul 15
30. Rebecca Peterson-Hall	Sep 14 - Dec 14
31. Shangnan Zhou	Sep 14 - Dec 14
32. Yugeng He	Apr 13 - Aug 13
33. Elliot MacNeille	Nov 12 - Jan 13
34. Zachary Jackson(UROP)	Sep 12 - Apr 13
35. Mykola Murskyj	May 12 - Apr 13
36. Andrew Smith	May 11 - Dec 12
37. Joseph Hendrickson	Sep 11 - Apr 12
38. Khalid Jawed	Jan 11 - Apr 12
39. Mike Howe	Jan 11 - Aug 11
40. Josh Larson	Jan 11 - Apr 11
41. Michael Stewart	Sep 09 - Apr 11
42. Samuel Cohen	May 09 - Aug 10
43. Nicholas Ledezma (UROP)	Oct 09 - Apr 10
44. Jasim Khan (UROP)	Oct 09 - Dec 09
45. Robert Newman	Apr 08 - Dec 09

<u>Name</u>	<u>Duration</u>
46. Zimu Li	Sep 08 - Aug 09
47. Celia Cunningham	Sep 07 - Apr 08
48. Celia Cunningham	Sep 08 - Aug 09
49. Brian Ball*	May 07 - Aug 09
50. Tim Raben	Apr 08 - Aug 08
51. Anastasia Karabina (REU)	May 06 - Jun 08
52. Cesar Palma (REU)	Mar 07 - Aug 07
53. Dylan Moreland (REU)	May 05 - Aug 05
54. Nathaniel Barron (REU)	Apr 03 - May 05
55. Michael Borysow (REU)	Apr 02 - Apr 04
56. Joseph A. Paul (REU)	Apr 03 - Aug 03
57. Joseph Raisenen	Sep 01 - Apr 02
58. Justin J. Schnettler	Jan 01 - Jul 01
59. Justin J. Schnettler	Sep 99 - Apr 00
60. Anand Rajagopalan	Sep 98 - Dec 99

* winner of 2009 Wiley Book Award

† winner of 2019 Bodine Scholarship, 2019 Dahlin Award, 2020 Goldwater Award

Other Teaching Information

Fall 1997	started a new course for introduction to quantum mechanics, 390 LEC
Fall 2000	proposed a new course for honors students, 360 LEC
Summer 2008	introduced 3 new labs for the Mechanics Intro Labs, 127/141/161
Summer 2009	introduced 3 new labs for the Mechanics Intro Labs, 127/141/161
Winter 2014	introduced 2 new labs for the Mechanics Intro Labs, 141/161
Fall 2014	modified 6 labs in Phys 161 to take advantage of "inertial measurement units"
Winter 2015	introduced 1 new lab for the Mechanics Intro Labs, 136
Winter 2013	introduced 3 new (VPython based) labs for the Mechanics Intro Labs, 141
Fall 2016	introduced 1 new (VPython based) lab for the Mechanics Intro Labs, 141
Fall 2017	introduced 1 new (VPython based) lab for the Mechanics Intro Labs, 141
F18 - W19	started introduction of VPython for all 11 Mechanics Intro Labs, 141 (w/ Tom Finzell)
F19 - W20	rewrote all 241 labs using Jupiter Notebook, plus modify format to better align with 141 labs (w/ Eric Gonzalez (Lead GSI))
F19 - F20	introduced Tracker into all 11 Mechanics Intro Labs, 141 (w/ DIALUP team)
F20 - W21	converted all labs to be compatible with remote instruction

Teaching Assignments

F-96	140 DISC (3)	/	W-97	research leave
F-97	390 LEC	/	W-98	research leave
F-98	390 LEC	/	W-99	106 LEC
F-99	106 LEC	/	W-00	390 LEC
F-00	340 LEC	/	W-01	106 LEC

F-01	106 LEC	/	W-02	260 LEC
F-02	duty off campus	/	W-03	sabbatical leave
F-03	390 LEC	/	W-04	125 LEC
F-04	390 LEC & 125 DISC (3) 501 Mini-Coll	/	W-05	research leave
F-05	106 LEC & 501 Mini-Coll	/	W-06	390 LEC
F-06	106 LEC	/	W-07	390 LEC
F-07	127/141/161 LAB supervision 161 LEC	/	W-08	127/141/161 LAB supervision 161 LEC
F-08	127/141/161 LAB supervision 161 LEC	/	W-09	127/141/161 LAB supervision 161 LEC
F-09	127/141/161 LAB supervision 161 LEC	/	W-10	127/141/161 LAB supervision 161 LEC
F-10	sabbatical leave (1 st half)	/	W-11	136/141/161 LAB supervision 161 LEC
F-11	sabbatical leave (2 nd half)	/	W-12	136/141 LAB supervision 161 LEC
F-12	medical leave	/	W-13	240 LEC / medical leave
F-13	136/141/161 LAB supervision 161 LEC	/	W-14	136/141/161 LAB supervision 161 LEC
F-14	136/141/161 LAB supervision 161 LEC	/	W-15	136/141/161 LAB supervision 161 LEC
F-15	136/141/161 LAB supervision 161 LEC	/	W-16	136/141/161 LAB supervision 161 LEC
F-16	136/141/161 LAB supervision 161 LEC	/	W-17	136/141/161 LAB supervision 161 LEC
F-17	sabbatical leave	/	W-18	sabbatical leave
F-18	136/141/161 LAB supervision 161 LEC	/	W-19	136/141/161 LAB supervision 161 LEC
F-19	141/241/161/261 LAB supervision 161 LEC	/	W-20	141/241/161/261 LAB supervision 261 LEC
F-20	141/241/161/261 LAB supervision 161 LEC	/	W-21	141/241/161/261 LAB supervision 161 LEC
F-21	141/241/161/261 LAB supervision 161 LEC	/	W-22	141/241/161/261 LAB supervision 161 LEC