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Degrees Earned

Harvard University, Ph.D., Theoretical particle physics, 1998

Harvard University, A.B., Summa cum laude in physics, 1992

Professional Experience

Professor, National Superconducting Cyclotron Laboratory, Michigan State University, 2017-present

Professor, North Carolina State University, 2012-2017

Associate Professor, North Carolina State University, 2007-2012

Assistant Professor, North Carolina State University, 2001-2007

Postdoctoral Researcher, University of Massachusetts, 1998-2001

Awards, Honors, and Offices Held

Vice Chair

Topical Group on Few-Body Systems and Multiparticle Dynamics

American Physical Society, 2016-2017

American Physical Society Fellow, 2014

Alumni Distinguished Undergraduate Professor Award, 2012-2013

Outstanding Teaching Award, NC State University, 2006-2007

Fannie and John Hertz Foundation Graduate Fellowship, 1992-1997

Robbins Prize, Harvard University, 1996

Deturs Prize, Gross Scholar, Hoopes Prize, John Harvard Scholarship, Phi Beta Kappa

Harvard University, 1988-1992

Apker Award, National Co-Winner, American Physical Society, 1991

New Preprints

1. M. Freer, H. Horiuchi, Y. Kanada-En'yo, D. Lee and U.-G. Meißner, "Microscopic Clustering in Nuclei," arXiv:1705.06192 [nucl-th].
2. S. Elhatisari *et al.*, "Ab initio calculations of the isotopic dependence of nuclear clustering," arXiv:1702.05177 [nucl-th].
3. S. König and D. Lee, "Volume Dependence of N-Body Bound States," arXiv:1701.00279 [hep-lat].

Publications

1. J. M. Alarcón *et al.*, "Neutron-proton scattering at next-to-next-to-leading order in Nuclear Lattice Effective Field Theory," Eur. Phys. J. A **53**, no. 5, 83 (2017) [arXiv:1702.05319 [nucl-th]].
2. A. Rokash, E. Epelbaum, H. Krebs and D. Lee, "Effective forces between quantum bound states," Phys. Rev. Lett. in press [arXiv:1612.08004 [nucl-th]].
3. S. Elhatisari, K. Katterjohn, D. Lee, U.-G. Meißner and G. Rupak, Phys. Lett. B **768**, 337 (2017) [arXiv:1610.09095 [nucl-th]].
4. D. Lee, "Lattice methods and the nuclear few- and many-body problem," Lect. Notes Phys. **936**, 237 (2017) [arXiv:1609.00421 [nucl-th]].
5. S. Elhatisari, D. Lee, U.-G. Meißner and G. Rupak, "Nucleon-deuteron scattering using the adiabatic projection method," Eur. Phys. J. A **52**, no. 6, 174 (2016) [arXiv:1603.02333 [nucl-th]].
6. S. Elhatisari *et al.*, "Nuclear binding near a quantum phase transition," Phys. Rev. Lett. **117**, no. 13, 132501 (2016) [arXiv:1602.04539 [nucl-th]].
7. D. Lee, "Nuclear lattice simulations and SU(4) symmetry," Int. J. Mod. Phys. E **25**, no. 05, 1641010 (2016).
8. B. N. Lu, T. A. Lähde, D. Lee and U.-G. Meißner, "Precise determination of lattice phase shifts and mixing angles," Phys. Lett. B **760**, 309 (2016), [arXiv:1506.05652 [nucl-th]].
9. S. Elhatisari, D. Lee, G. Rupak, E. Epelbaum, H. Krebs, T. A. Lähde, T. Luu and U.-G. Meißner, "Ab initio alpha-alpha scattering," Nature **528**, 111 (2015) [arXiv:1506.03513 [nucl-th]].
10. N. Klein, D. Lee, W. Liu and U.-G. Meißner, "Regularization Methods for Nuclear Lattice Effective Field Theory," Phys. Lett. B **747**, 511 (2015) [arXiv:1505.07000 [nucl-th]].
11. A. Rokash, M. Pine, S. Elhatisari, D. Lee, E. Epelbaum and H. Krebs, "Scattering cluster wave functions on the lattice using the adiabatic projection method," Phys. Rev. C **92**, no. 5, 054612 (2015) [arXiv:1505.02967 [nucl-th]].
12. B. N. Lu, T. A. Lähde, D. Lee and U.-G. Meißner, "Breaking and restoration of rotational symmetry for irreducible tensor operators on the lattice," Phys. Rev. D **92**, no. 1, 014506 (2015) [arXiv:1504.01685 [nucl-th]].
13. T. A. Lähde, T. Luu, D. Lee, U.-G. Meißner, E. Epelbaum, H. Krebs and G. Rupak, "Nuclear Lattice Simulations using Symmetry-Sign Extrapolation," Eur. Phys. J. A **51**, no. 7, 92 (2015) [arXiv:1502.06787 [nucl-th]].
14. S. Bour, D. Lee, H.-W. Hammer and U.-G. Meißner, "Ab initio Lattice Results for Fermi Polarons in Two Dimensions," Phys. Rev. Lett. **115**, no. 18, 185301 (2015) [arXiv:1412.8175 [cond-mat.quant-gas]].

15. T. A. Lähde, E. Epelbaum, H. Krebs, D. Lee, U.-G. Meißner and G. Rupak, “Uncertainties of Euclidean Time Extrapolation in Lattice Effective Field Theory,” *J. Phys. G* **42**, no. 3, 034012 (2015) [arXiv:1409.7538 [nucl-th]].
16. S. Elhatisari and D. Lee, “Fermion-dimer scattering using an impurity lattice Monte Carlo approach and the adiabatic projection method,” *Phys. Rev. C* **90**, no. 6, 064001 (2014) [arXiv:1407.2784 [nucl-th]].
17. B. N. Lu, T. A. Lähde, D. Lee and U.-G. Meißner, “Breaking and restoration of rotational symmetry on the lattice for bound state multiplets,” *Phys. Rev. D* **90**, no. 3, 034507 (2014) [arXiv:1403.8056 [nucl-th]].
18. E. Epelbaum, H. Krebs, T. A. Lähde, D. Lee, U.-G. Meißner and G. Rupak, “Ab Initio Calculation of the Spectrum and Structure of ^{16}O ,” *Phys. Rev. Lett.* **112**, no. 10, 102501 (2014) [arXiv:1312.7703 [nucl-th]].
19. T. A. Lähde, E. Epelbaum, H. Krebs, D. Lee, U.-G. Meißner and G. Rupak, “Lattice Effective Field Theory for Medium-Mass Nuclei,” *Phys. Lett. B* **732**, 110 (2014) [arXiv:1311.0477 [nucl-th]].
20. M. Pine, D. Lee and G. Rupak, “Adiabatic projection method for scattering and reactions on the lattice,” *Eur. Phys. J. A* **49**, 151 (2013) [arXiv:1309.2616 [nucl-th]].
21. A. Rokash, E. Epelbaum, H. Krebs, D. Lee and U.-G. Meißner, “Finite volume effects in low-energy neutron–deuteron scattering,” *J. Phys. G* **41**, 015105 (2014) [arXiv:1308.3386 [nucl-th]].
22. S. Elhatisari, S. König, D. Lee and H.-W. Hammer, “Causality, universality, and effective field theory for van der Waals interactions,” *Phys. Rev. A* **87**, no. 5, 052705 (2013) [arXiv:1303.5261 [physics.atom-ph]].
23. E. Epelbaum, H. Krebs, T. A. Lähde, D. Lee and U.-G. Meißner, “Dependence of the triple-alpha process on the fundamental constants of nature,” *Eur. Phys. J. A* **49**, 82 (2013) [arXiv:1303.4856 [nucl-th]].
24. G. Rupak and D. Lee, “Radiative capture reactions in lattice effective field theory,” *Phys. Rev. Lett.* **111**, no. 3, 032502 (2013) [arXiv:1302.4158 [nucl-th]].
25. E. Epelbaum, H. Krebs, T. A. Lähde, D. Lee and U.-G. Meißner, “Viability of Carbon-Based Life as a Function of the Light Quark Mass,” *Phys. Rev. Lett.* **110**, no. 11, 112502 (2013) [arXiv:1212.4181 [nucl-th]].
26. S. König, D. Lee and H.-W. Hammer, “Causality constraints for charged particles,” *J. Phys. G* **40**, 045106 (2013) [arXiv:1210.8304 [nucl-th]].
27. E. Epelbaum, H. Krebs, T. A. Lähde, D. Lee and U.-G. Meißner, “Structure and rotations of the Hoyle state,” *Phys. Rev. Lett.* **109**, 252501 (2012) [arXiv:1208.1328 [nucl-th]].
28. M. Pine and D. Lee, “Effective Field Theory for Bound State Reflection,” *Annals Phys.* **331**, 24 (2013) [arXiv:1206.6280 [nucl-th]].
29. S. Bour, H.-W. Hammer, D. Lee and U.-G. Meißner, “Benchmark calculations for elastic fermion-dimer scattering,” *Phys. Rev. C* **86**, 034003 (2012) [arXiv:1206.1765 [nucl-th]].
30. S. Elhatisari and D. Lee, “Causality bounds for neutron-proton scattering,” *Eur. Phys. J. A* **48**, 110 (2012) [arXiv:1206.1207 [nucl-th]].
31. Y. Nishida and D. Lee, “Weakly bound molecules trapped with discrete scaling symmetries,” *Phys. Rev. A* **86**, 032706 (2012) [arXiv:1202.3414 [cond-mat.quant-gas]].

32. S. Koenig, D. Lee and H.-W. Hammer, "Non-relativistic bound states in a finite volume," *Annals Phys.* **327**, 1450 (2012) [arXiv:1109.4577 [hep-lat]].
33. S. Bour, S. Koenig, D. Lee, H.-W. Hammer and U.-G. Meißner, "Topological phases for bound states moving in a finite volume," *Phys. Rev. D* **84**, 091503 (2011) [arXiv:1107.1272 [nucl-th]].
34. S. Bour, X. Li, D. Lee, U.-G. Meißner and L. Mitas, "Precision benchmark calculations for four particles at unitarity," *Phys. Rev. A* **83**, 063619 (2011) [arXiv:1104.2102 [cond-mat.quant-gas]].
35. S. Koenig, D. Lee and H.-W. Hammer, "Volume Dependence of Bound States with Angular Momentum," *Phys. Rev. Lett.* **107**, 112001 (2011) [arXiv:1103.4468 [hep-lat]].
36. E. Epelbaum, H. Krebs, D. Lee and U.-G. Meißner, "Ab initio calculation of the Hoyle state," *Phys. Rev. Lett.* **106**, 192501 (2011) [arXiv:1101.2547 [nucl-th]].
37. D. Lee and M. Pine, "How quantum bound states bounce and the structure it reveals," *Eur. Phys. J. A* **47**, 41 (2011) [arXiv:1008.5187 [nucl-th]].
38. E. Epelbaum, H. Krebs, D. Lee and U.-G. Meißner, "Lattice calculations for $A=3,4,6,12$ nuclei using chiral effective field theory," *Eur. Phys. J. A* **45**, 335 (2010) [arXiv:1003.5697 [nucl-th]].
39. H.-W. Hammer and D. Lee, "Causality and the effective range expansion," *Annals Phys.* **325**, 2212 (2010) [arXiv:1002.4603 [nucl-th]].
40. E. Epelbaum, H. Krebs, D. Lee and U.-G. Meißner, "Lattice effective field theory calculations for $A = 3,4,6,12$ nuclei," *Phys. Rev. Lett.* **104**, 142501 (2010) [arXiv:0912.4195 [nucl-th]].
41. H.-W. Hammer and D. Lee, "Causality and universality in low-energy quantum scattering," *Phys. Lett. B* **681**, 500 (2009) [arXiv:0907.1763 [nucl-th]].
42. E. Epelbaum, H. Krebs, D. Lee and U.-G. Meißner, "Lattice chiral effective field theory with three-body interactions at next-to-next-to-leading order," *Eur. Phys. J. A* **41**, 125 (2009) [arXiv:0903.1666 [nucl-th]].
43. E. Epelbaum, H. Krebs, D. Lee and U.-G. Meißner, "Ground state energy of dilute neutron matter at next-to-leading order in lattice chiral effective field theory," *Eur. Phys. J. A* **40**, 199 (2009) [arXiv:0812.3653 [nucl-th]].
44. D. Lee, "Lattice simulations for few- and many-body systems," *Prog. Part. Nucl. Phys.* **63**, 117 (2009) [arXiv:0804.3501 [nucl-th]].
45. D. Lee, "The Ground state energy at unitarity," *Phys. Rev. C* **78**, 024001 (2008) [arXiv:0803.1280 [nucl-th]].
46. D. Lee, "The Symmetric heavy-light ansatz," *Eur. Phys. J. A* **35**, 171 (2008) [arXiv:0704.3439 [cond-mat.supr-con]].
47. B. Borasoy, E. Epelbaum, H. Krebs, D. Lee and U.-G. Meißner, "Dilute neutron matter on the lattice at next-to-leading order in chiral effective field theory," *Eur. Phys. J. A* **35**, 357 (2008) [arXiv:0712.2993 [nucl-th]].
48. B. Borasoy, E. Epelbaum, H. Krebs, D. Lee and U.-G. Meißner, "Chiral effective field theory on the lattice at next-to-leading order," *Eur. Phys. J. A* **35**, 343 (2008) [arXiv:0712.2990 [nucl-th]].
49. B. Borasoy, E. Epelbaum, H. Krebs, D. Lee and U.-G. Meißner, "Two-particle scattering on the lattice: Phase shifts, spin-orbit coupling, and mixing angles," *Eur. Phys. J. A* **34**, 185 (2007) [arXiv:0708.1780 [nucl-th]].

50. D. Lee and R. Thomson, "Temperature-dependent errors in nuclear lattice simulations," *Phys. Rev. C* **75**, 064003 (2007) [nucl-th/0701048].
51. D. Lee, "Spectral convexity for attractive $SU(2N)$ fermions," *Phys. Rev. Lett.* **98**, 182501 (2007) [nucl-th/0701041].
52. B. Borasoy, E. Epelbaum, H. Krebs, D. Lee and U.-G. Meißner, "Lattice Simulations for Light Nuclei: Chiral Effective Field Theory at Leading Order," *Eur. Phys. J. A* **31**, 105 (2007) [nucl-th/0611087].
53. D. Lee, "Superfluidity and non-monogamous pairing at unitarity," *Phys. Rev. B* **75**, 134502 (2007) [cond-mat/0606706 [cond-mat.stat-mech]].
54. D. Lee, "Large- N droplets in two dimensions," *Phys. Rev. A* **73**, 063204 (2006) [physics/0512085].
55. D. Lee, "Ground state energy of spin-1/2 fermions in the unitary limit," *Phys. Rev. B* **73**, 115112 (2006) [cond-mat/0511332].
56. B. Borasoy, H. Krebs, D. Lee and U.-G. Meißner, "The triton and three-nucleon force in nuclear lattice simulations," *Nucl. Phys. A* **768**, 179 (2006) [nucl-th/0510047].
57. D. Lee and T. Schäfer, "Cold dilute neutron matter on the lattice. II. Results in the unitary limit," *Phys. Rev. C* **73**, 015202 (2006) [nucl-th/0509018].
58. D. Lee and T. Schäfer, "Cold dilute neutron matter on the lattice. I. Lattice virial coefficients and large scattering lengths," *Phys. Rev. C* **73**, 015201 (2006) [nucl-th/0509017].
59. M. Hamilton, I. Lynch and D. Lee, "Lattice gas models derived from effective field theory," *Phys. Rev. C* **71**, 044005 (2005) [nucl-th/0412014].
60. D. Lee and T. Schäfer, "Neutron matter on the lattice with pionless effective field theory," *Phys. Rev. C* **72**, 024006 (2005) [nucl-th/0412002].
61. J. W. Chen, D. Lee and T. Schäfer, "Inequalities for light nuclei in the Wigner symmetry limit," *Phys. Rev. Lett.* **93**, 242302 (2004) [nucl-th/0408043].
62. D. Lee, "Pressure inequalities for nuclear and neutron matter," *Phys. Rev. C* **71**, 044001 (2005) [nucl-th/0407101].
63. D. Lee, "Inequalities for low-energy symmetric nuclear matter," *Phys. Rev. C* **70**, 064002 (2004) [nucl-th/0407088].
64. D. Lee, B. Borasoy and T. Schäfer, "Nuclear lattice simulations with chiral effective field theory," *Phys. Rev. C* **70**, 014007 (2004) [nucl-th/0402072].
65. D. J. Lee and I. C. F. Ipsen, "Zone determinant expansions for nuclear lattice simulations," *Phys. Rev. C* **68**, 064003 (2003) [nucl-th/0308052].
66. D. Lee and P. Maris, "Massless QED(3) with explicit fermions," *Phys. Rev. D* **67**, 076002 (2003) [hep-lat/0212033].
67. D. Lee, "Zone methods and the fermion sign problem," *Nucl. Phys. Proc. Suppl.* **119**, 979 (2003) [hep-lat/0209047].
68. B. Borasoy and D. Lee, "Study of relativistic bound states in a scalar model using diagonalization / Monte Carlo methods," *Nucl. Phys. A* **696**, 537 (2001) [hep-ph/0101186].
69. D. Lee, N. Salwen and M. Windolowski, "Introduction to stochastic error correction methods," *Phys. Lett. B* **502**, 329 (2001) [hep-lat/0010039].

70. N. Salwen and D. Lee, "Modal expansions and nonperturbative quantum field theory in Minkowski space," *Phys. Rev. D* **62**, 025006 (2000) [hep-th/9910103].
71. D. Lee, N. Salwen and D. Lee, "The diagonalization of quantum field Hamiltonians," *Phys. Lett. B* **503**, 223 (2001) [hep-th/0002251].
72. N. Salwen and D. Lee, "The Massless Thirring model in spherical field theory," *Phys. Lett. B* **468**, 118 (1999) doi:10.1016/S0370-2693(99)01192-2 [hep-th/9908131].
73. P. J. Marrero, E. A. Roura and D. Lee, "A nonperturbative analysis of symmetry breaking in two-dimensional ϕ^4 theory using periodic field methods," *Phys. Lett. B* **471**, 45 (1999) [hep-th/9906189].
74. D. Lee and N. Salwen, "Renormalization in spherical field theory," *Phys. Lett. B* **460**, 107 (1999) [hep-th/9905077].
75. B. Borasoy and D. Lee, "Spherical gauge fields," *Phys. Lett. B* **447**, 98 (1999) [hep-th/9901100].
76. D. Lee, "Fermions in spherical field theory," *Phys. Lett. B* **444**, 474 (1998) [hep-th/9812147].
77. D. Lee, "Introduction to spherical field theory," *Phys. Lett. B* **439**, 85 (1998) [hep-th/9811117].
78. D. Lee and H. Georgi, "Sum rule for large $N(c)$ QCD and application to heavy quarkonia," *Phys. Lett. B* **426**, 367 (1998) [hep-ph/9710324].
79. D. Lee, "A Simple model of two-body decays of charmed mesons into pseudoscalar mesons using the $1/N$ expansion," *Phys. Lett. B* **275**, 469 (1992) Erratum: [*Phys. Lett. B* **277**, 529 (1992)].

Research Grants

"Nuclear theory at North Carolina State University", co-PI on DOE Nuclear Theory group grant with Thomas Schäfer (PI), Chueng-Ryong Ji, and Mithat Ünsal, 2017-2020. Amount: \$1,140,000.

"Nuclear theory at North Carolina State University", co-PI on DOE Nuclear Theory group grant with Thomas Schäfer (PI) and Chueng-Ryong Ji, 2015-2017. Amount: \$550,000.

"Nuclear theory at North Carolina State University", co-PI on DOE Nuclear Theory group grant with Thomas Schäfer (PI), Stephen Cotanch, and Chueng-Ryong Ji, 2012-2015. Amount: \$771,000.

"Nuclear theory at North Carolina State University", co-PI on DOE Nuclear Theory group grant with Thomas Schäfer (PI), Stephen Cotanch, and Chueng-Ryong Ji, 2009-2012. Amount: \$745,000.

"Nuclear theory at North Carolina State University", co-PI on DOE Nuclear Theory group grant with Thomas Schäfer (PI), Stephen Cotanch, and Chueng-Ryong Ji, 2006-2019. Amount: \$608,000.

"Nuclear Lattice Simulations with Chiral Effective Field Theory", single PI DOE Nuclear Theory grant, 2004-2006. Amount: \$79,000.

"Infinite-dimensional Eigenvalue Problems", co-PI on NSF Computational Mathematics grant with Ilse Ipsen (PI), Stephen Cotanch, 2002-2003. Amount: \$65,000.

Invited Talks

1. Seminar, Université libre de Bruxelles, July 2017
2. Seminar, IPN Orsay, July 2017
3. Workshop on Probing fundamental interactions by low energy excitations: Advances in theoretical nuclear physics, Royal Institute of Technology, Stockholm, June 2017
4. NSCL seminar, Michigan State University, May 2017
5. Physics Colloquium, Vanderbilt University, April 2017
6. Sign 2017: International Workshop on the Sign Problem in QCD and Beyond, INT, Seattle, March 2017
7. TRIUMF Workshop on Progress in Ab Initio Techniques in Nuclear Physics, Vancouver, February 2017
8. Tsukuba-CCS-RIKEN Joint Workshop on Microscopic Theories of Nuclear Structure and Dynamics, December 2016
9. Low-Energy Nuclear Get-Together, Oak Ridge National Laboratory, December 2016
10. Forschungszentrum Jülich, November 2016
11. Colloquium, Lawrence Livermore National Laboratory, October 2016
12. Nuclear Physics Forum, Lawrence Berkeley National Laboratory, October 2016
13. Kavli Institute for Theoretical Physics, UC Santa Barbara, September 2016
14. ECT* Workshop "Towards consistent approaches for nuclear structure and reactions", Trento, Italy, June 2016
15. Ruhr-University Bochum, June 2016
16. INT Workshop on Nuclear Physics from Lattice QCD, Seattle, May 2016
17. APS April Meeting, Salt Lake City, April 2016
18. FRIB Theory Alliance Meeting, Michigan State University, East Lansing, April 2016
19. Physics Colloquium, University of Tennessee, Knoxville, April 2016
20. Cyclotron Colloquium, Texas A&M University, College Station, April 2016
21. Physics at the Falls Workshop on Pairing Phenomena, Buffalo, March 2016
22. Plenary Talk, DPG Spring Meeting, Darmstadt, March 2016
23. TRIUMF Workshop on Progress in Ab Initio Techniques in Nuclear Physics, Vancouver, February 2016
24. SINAP-CUSTIPEN Workshop, Shanghai, December 2015
25. Physics Colloquium, Texas A&M University Commerce, November 2015
26. Bethe Center Workshop on Challenges in Strong Interaction Physics, Bad Honnef, September 2015

27. Los Alamos National Laboratory, Los Alamos, August 2015
28. WE-Heraeus Workshop on Cold Atoms meet Quantum Field Theory, Bad Honnef, July 2015
29. 12th International Conference on Nucleus-Nucleus Collisions, Catania, June 2015
30. Gordon Research Conference in Nuclear Chemistry, Colby-Sawyer College, New London, June 2015
31. IIP Workshop on Weakly Bound Exotic Nuclei, Natal, May 2015
32. Plenary Talk, 21st International Conference on Few Body Problems in Physics, Chicago, May 2015
33. Bethe Forum on Methods for Lattice Field Theory, University of Bonn, Germany, March 2015
34. Physics Colloquium, Lehigh University, Bethlehem, February 2015
35. TRIUMF Workshop on Progress in Ab Initio Techniques in Nuclear Physics, Vancouver, February 2015
36. Physics Colloquium, George Washington University, Washington, D.C., February 2015
37. Radioactive Isotope Science Project, Daejeon, December 2014
38. Physics Colloquium, University of Georgia, Athens, December 2014
39. NORDITA Program on Computational Challenges in Nuclear and Many-Body Physics, Stockholm, October 2014
40. Beijing KITPC Workshop, Beijing, August 2014
41. Benasque Workshop on Bound States and Resonances in Effective Field Theories and Lattice QCD calculations, Benasque, July 2014
42. INT Program on Universality in Few-body Systems: Theoretical Challenges and New Directions, Seattle, May 2014
43. ECT* Workshop on Three-Body Forces from Matter to Nuclei, Trento, May 2014
44. Physics Colloquium, Texas A&M University, College Station, April 2014
45. TRIUMF Workshop on Nuclear Structure and Reactions, Vancouver, February 2014
46. Physics Colloquium, Argonne National Laboratory, December 2013
47. University of Kentucky, Lexington, December 2013
48. Workshop on Inelastic Reactions in Light Nuclei, Hebrew University, Jerusalem, October 2013
49. XXXVI Brazilian Meeting on Nuclear Physics, Maresias, September 2013
50. Workshop on QCD under extreme conditions – University of Bern – Bern, Switzerland, August 2013
51. INT Program on Advances in Quantum Monte Carlo Techniques for Non-Relativistic Many-Body Systems, Seattle, July 2013
52. Workshop on Nuclear Dynamics with Effective Field Theories, Ruhr-University Bochum, July 2013
53. Ruhr-University Bochum, Bochum, June 2013
54. ECT* Workshop on From Few-Nucleon Forces to Many-Nucleon Structures, Trento, June 2013

55. Jefferson Laboratory, Newport News, April 2013
56. Department of Mathematics Seminar, North Carolina State University, Raleigh, April 2013
57. INT Program on Computational and Theoretical Advances for Exotic Isotopes in the Medium Mass Region, Seattle, April 2013
58. Brookhaven National Laboratory, Upton, March 2013
59. INT Workshop on Nuclear Reactions from Lattice QCD, Seattle, March 2013
60. Workshop on Ab Initio Understanding of Light Nuclei, Birmingham, December 2012
61. APS DNP Meeting 2012, Newport Beach, October 2012
62. Washington University, St. Louis, October 2012
63. Workshop on Facing up to Contemporary Challenges in Light Nuclei, Argonne, August 2012
64. 7th International Workshop on Chiral Dynamics, Jefferson Laboratory, Newport News, August 2012
65. Forschungszentrum Jülich, Jülich, June 2012
66. Ruhr-University Bochum, June 2012
67. Technical University of Darmstadt, Darmstadt, May 2012
68. Physics Colloquium, Michigan State University, East Lansing, April 2012
69. APS April Meeting 2012, Atlanta, March/April 2012
70. Ohio University, Athens, March 2012
71. Olso-MSU-ORNL-UT School on the Computational Quantum Many-body Problem, Oak Ridge, January 2012
72. Physics Colloquium, TRIUMF, Vancouver, December 2011
73. Michigan State University, East Lansing, October 2011
74. Scientific Discovery through Advanced Computing meeting (SCIDAC 2011), Denver, July 2011
75. ECT* Workshop on Not so Few, but not Too Many, Trento, July 2011
76. ECT* Workshop on Three-Nucleon Forces in the Vacuum and in the Medium, Trento, July 2011
77. INT Workshop on Fermions from Cold Atoms to Neutron Stars, Seattle, WA, May 2011
78. DESY Zeuthen, Zeuthen, May 2011
79. Physics Colloquium, Ruhr-Universität Bochum, May 2011
80. Chalmers University, Gothenburg, May 2011
81. Triangle Nuclear Theory Seminar, Duke University, Durham, March 2011
82. ECT* Workshop on Effective theories and the nuclear many-body problem, Trento, March 2011
83. Heraeus Foundation and Bethe Center Workshop on Strong interactions, Bad Honnef, February 2011
84. Taiwan Nuclear Physics School, National Dong Hwa University, Hualien, January 2011

85. Jefferson Laboratory, Newport News, November 2010
86. Physics Colloquium, University of North Carolina at Wilmington, February 2010
87. Donoghue-Golowich-Holstein Fest, University of Massachusetts Amherst, October 2010
88. Ruhr-University Bochum, July 2010
89. Helmholtz Institute, Bonn University, July 2010
90. Chiral 10 Workshop, Valencia, June 2010
91. INT Workshop on Finite-Volume Effects in Few-Body Systems, Seattle, April 2010
92. University of Maryland, College Park, March 2010
93. INT Workshop on Weakly Bound Systems in Atomic and Nuclear Physics, Seattle, March 2010
94. Physics Colloquium, University of North Carolina at Chapel Hill, October 2009
95. Plenary Talk, International Conference on Few-Body Problems in Physics, Bonn, September 2009
96. International Conference on Recent Progress in Many-Body Theories, Columbus, July 2009
97. 6th International Workshop on Chiral Dynamics, Bern, July 2009
98. Frontiers in Nuclear Physics (Walter Glöckle's 70th birthday) Bad Honnef, June 2009
99. INT Workshop on Effective Field Theories and the Many-Body Problem, Seattle, May 2009
100. DOE Extreme Scale Computing Workshop in Nuclear Science, Washington, D.C., January 2009
101. Ohio State University, Columbus, November 2008
102. Quark Confinement and the Hadron Spectrum, Mainz, September 2008
103. US-Korea Science and Technology Conference, Reston, VA, August 2007
104. Korean Scientists and Engineers Regional Conference, Charlotte, April 2007
105. Physics Colloquium, University of North Carolina at Wilmington, February 2007
106. Physics Department Colloquium, Bonn University, November 2006
107. QCD and Few-Hadron Systems, Bad Honnef, November 2006
108. George Washington University, Washington D.C., October 2006
109. University of Maryland, College Park, October 2006
110. Chiral Dynamics 2006, Chapel Hill, September 2006
111. US-Korea Science and Technology Conference, Teaneck, August 2006
112. Helmholtz Institute, Bonn University, July 2006
113. Institute for Nuclear Physics, Forschungszentrum Jülich, July 2006
114. In Heaven and on Earth 2006: The Nuclear Equation of State in Astrophysics, Montreal, July 2006
115. Argonne National Laboratory, Argonne, June 2006

116. Jefferson Laboratory, Newport News, December 2005
117. US-Korea Science and Technology Conference, University of California Irvine, August 2005
118. Society for Industrial and Applied Mathematics Conference, New Orleans, July 2005
119. Helmholtz Institute, Bonn University, July 2005
120. Institute for Nuclear Physics, Forschungszentrum Jülich, July 2005
121. Workshop on Effective Field Theory in Physics, Ohio State University, Columbus, June 2005
122. American Physics Society Meeting, Tampa, April 2005
123. University of Kentucky, Lexington, March 2005
124. Jefferson Laboratory PN12 Workshop, Newport News, December 2005
125. ECT* Workshop on Novel Methods in Many Body Nuclear Theory, Trento, September 2004
126. Summer Lattice Workshop, Lawrence Berkeley National Laboratory, Berkeley, August 2004
127. University of Indiana, Bloomington, April 2004
128. Jefferson Laboratory, Newport News, January 2004
129. Workshop on the Fermion Sign Problem, Ecole Normale Superieure, Lyon, July 2003
130. Triangle Universities Nuclear Laboratory, Duke University, Durham, June 2003
131. California Institute of Technology, Pasadena, May 2003
132. Duke University, Durham, November 2001
133. University of North Carolina, Chapel Hill, November 2001
134. Technical University of Munich, Garching, August 2001

Teaching Experience

1. Physics for Scientists and Engineers I (PY205) at NCSU in Spring 2017
2. College Physics I (PY211) at NCSU in Spring 2016
3. Physics for Scientists and Engineers II (PY208) at NCSU in Fall 2015
4. Physics for Scientists and Engineers I (PY205) at NCSU in Spring 2015
5. Physics for Scientists and Engineers II (PY208) at NCSU in Fall 2014
6. Physics for Scientists and Engineers I (PY205) at NCSU in Spring 2014
7. Physics for Scientists and Engineers I (PY205) at NCSU in Fall 2013
8. University Physics II (PY202) at NCSU in Spring 2013
9. Physics for Scientists and Engineers I (PY205) at NCSU in Spring 2012
10. Reading Course on Groups and Representations (PY810) at NCSU in Fall 2011

11. Physics for Scientists and Engineers II (PY208) at NCSU in Fall 2011
12. Quantum Field Theory II (PY712) at NCSU in Spring 2011
13. Quantum Field Theory I (PY711) at NCSU in Fall 2010
14. University Physics II (PY202) at NCSU in Spring 2010
15. Physics for Scientists and Engineers II (PY208) at NCSU in Fall 2009
16. Reading Course on Quantum Field Theory I (PY810) at NCSU in Fall 2009
17. Quantum Field Theory II (PY712) at NCSU in Spring 2009
18. Quantum Field Theory I (PY711) at NCSU in Fall 2008
19. University Physics II (PY202) at NCSU in Spring 2008
20. Reading Course on Quantum Field Theory I (PY810) at NCSU in Fall 2007
21. Physics for Scientists and Engineers II (PY208) at NCSU in Fall 2007
22. Quantum Field Theory II (PY712) at NCSU in Spring 2007
23. Quantum Field Theory I (PY711) at NCSU in Fall 2006
24. Physics for Scientists and Engineers I (PY205) at NCSU in Spring 2006
25. Physics for Scientists and Engineers II (PY208) at NCSU in Fall 2005
26. Quantum Field Theory II (PY712) at NCSU in Spring 2005
27. Quantum Field Theory I (PY711) at NCSU in Fall 2004
28. Physics for Scientists and Engineers I (PY205) at NCSU in Spring 2004
29. Physics for Scientists and Engineers II (PY208) at NCSU in Fall 2003
30. Reading Course on Quantum Field Theory III (PY810) at NCSU in Fall 2003
31. Physics for Scientists and Engineers II (PY208) at NCSU in Spring 2003
32. Quantum Field Theory II (PY712) at NCSU in Spring 2003
33. Quantum Field Theory I (PY711) at NCSU in Fall 2002
34. Physics for Scientists and Engineers I (PY205) at NCSU in Spring 2002

Service to Profession

Co-organizer of Mainz Institute for Theoretical Physics Workshop
“Progress in Diagrammatic Monte Carlo Methods for Quantum Field Theories in Particle-, Nuclear-, and Condensed Matter Physics”, 2017

Co-organizer of Institute for Nuclear Theory Program
“Toward Predictive Theories of Nuclear Reactions Across the Isotopic Chart”, 2017

Co-organizer of European Centre for Theoretical Studies Workshop
“Advances in Diagrammatic Monte Carlo”, 2016

Scientific Co-advisor for Kavli Institute for Theoretical Physics Program
"Frontiers of Nuclear Physics", 2016

Co-organizer/Lecturer
"TALENT School on Nuclear Quantum Monte Carlo Methods" at NCSU, 2016

Vice Chair of the APS Few-Body Topical Group, 2016-2017

Manager of the North American Nuclear Theory Jobs Webpage, 2012-present

President of Phi Beta Kappa NC State University Zeta Chapter, 2015-present

Co-organizer of European Centre for Theoretical Studies Workshop
"Advances in Diagrammatic Monte Carlo for Quantum Field Theory Calculations in Nuclear, Particle,
and Condensed Matter Physics", Trento, 2015

Organizer of Nuclear Theory Session at Southeastern Section of APS Meeting, Columbia, 2014

Executive Committee of APS Few-Body Topical Group, 2011-2014

Co-organizer of Institute for Nuclear Theory Program on "Light Nuclei from First Principles", 2012

International Advisory Committee for Few-Body Problems in Physics, 2009-2012

Organizing Committee for Hertz Foundation Summer Workshop, 2010

Co-organizer of XQCD Workshop at NCSU, 2008

Organizing Committee for Southeastern Section of APS Meeting, Raleigh, 2008

National Science Foundation Review Panel, 2007-2008

NSF Panel for the 2007 East Asia and Pacific Summer Institute

NSF Panel for the 2006 East Asia and Pacific Summer Institute

Korean-American Scientists and Engineers Association, North Carolina Chapter President, 2001-2002