

## PUBLICATIONS

Google Scholar Page: [https://scholar.google.com/citations?user=vuv4p2\\_rVAEC&hl=en&oi=ao](https://scholar.google.com/citations?user=vuv4p2_rVAEC&hl=en&oi=ao)  
h-index = 34. Total citations = 10376 (as of July 2024).

### Refereed Journals and Preprints

1. J. See Toh, M. Du, X. Tang, Y. Su, T. Rojo, C.O. Patterson, N.R. Williams, C. Zhang, and S. Gupta:  
*Many-Body Anderson Metal-Insulator Transition using Kicked Quantum Gases*  
arXiv:2305.14817 (2023). Accepted in Physical Review Letters (in press).
2. T. Rahman, A. Wirth-Singh, A. Ivanov, D. Gochnauer, E. Hough, and S. Gupta:  
*Bloch Oscillation Phases investigated by Multi-path Stuckelberg Atom Interferometry*  
Phys Rev Research **6**, L022012 (2024).
3. K. Hossain, S. Gupta, M. Forbes:  
*Detecting Entrainment in Fermi-Bose Mixtures*  
Phys. Rev. A **105**, 063315 (2022).
4. J. See Toh, K. C. McCormick, X. Tang, S. Ying, X. Luo, C. Zhang, and S. Gupta:  
*Observation of Many-body Dynamical Delocalization in a Kicked 1D Ultracold Gas*  
Nature Physics **18**, 1297 (2022).  
News & Views: [Kicked rotors back in action](#)
5. D. Gochnauer, T. Rahman, A. Wirth-Singh and S. Gupta:  
*Interferometry in an Atomic Fountain with ytterbium Bose-Einstein condensates*  
Atoms **9** (3), 58 (2021).
6. B. Plotkin-Swing, A. Wirth, D. Gochnauer, T. Rahman, K.E. McAlpine, and S. Gupta:  
*Crossed-Beam slowing to enhance narrow-line Ytterbium Magneto-Optic Traps*  
Reviews of Scientific Instruments. **91**, 093201 (2020).
7. A. Green, H. Li, J. H. See Toh, X. Tang, K. McCormick, M. Li, E. Tiesinga, S. Kotochigova, and S. Gupta:  
*Feshbach resonances in p-wave three-body recombination within Fermi-Fermi mixtures of open-shell  $^6\text{Li}$  and closed-shell  $^{173}\text{Yb}$  atoms*  
Physical Review X. **10**, 031037 (2020).
8. K.E. McAlpine, D. Gochnauer, and S. Gupta:  
*Excited-band Bloch Oscillations for Precision Atom Interferometry*  
Phys Rev A. **101**, 023614 (2020).  
Selected as PRA Editor's Suggestion.  
Featured as APS Synopsis Piece: <https://physics.aps.org/articles/v13/s35>
9. D. Gochnauer, K.E. McAlpine, B. Plotkin-Swing, A.O. Jamison, and S. Gupta:  
*Bloch-bands Picture for Light Pulse Atom Diffraction and Interferometry*  
Phys Rev A **100**, 043611 (2019).  
Selected as PRA Editor's Suggestion article.
10. A. Green, J. H. See Toh, R. Roy, M. Li, S. Kotochigova, and S. Gupta:  
*Two-photon photoassociation spectroscopy of the Doublet-Sigma YbLi molecular ground state*  
Phys Rev A. **99**, 063416 (2019).
11. B. Plotkin-Swing, D. Gochnauer, K. McAlpine, E.S. Cooper, A.O. Jamison, and S. Gupta:  
*Three-path atom interferometry with large momentum separation*  
Phys Rev Lett. **121**, 133201 (2018).

12. R. Roy, A. Green, R. Bowler, and S. Gupta:  
*Two-Element Mixture of Bose and Fermi Superfluids*  
Phys. Rev. Lett. **118**, 055301 (2017).  
Selected as PRL Editor's suggestion article.
13. R. Roy, R. Shrestha, A. Green, S. Gupta, M. Li, S. Kotochigova, A. Petrov, and C.H. Yuen:  
*Photoassociative production of ultracold heteronuclear YbLi\* molecules*  
Phys Rev A **94**, 033413 (2016).
14. B. Saxberg, B. Plotkin-Swing, and S. Gupta:  
*Active Stabilization of a Diode Laser Injection Lock.*  
Rev Sci. Instr. **87**, 063109 (2016).
15. R.J. Roy, A.M. Green, R.S. Bowler, and S. Gupta:  
*Rapid Cooling to Quantum Degeneracy in Dynamically Shaped Atom Traps*  
Phys Rev. A. **93**, 043403 (2016).
16. A. Jayakumar, B. Plotkin-Swing, A.O. Jamison, and S. Gupta:  
*Dual-axis Vapor Cell for simultaneous laser frequency stabilization on disparate optical transitions.*  
Rev. Sci. Instr. **86**, 073115 (2015).
17. W.H. Dowd, R.J. Roy, R.K. Shrestha, A. Petrov, C. Makrides, S. Kotochigova, and S. Gupta:  
*Magnetic Field Dependent Interactions in an Ultracold Li-Yb(<sup>3</sup>P<sub>2</sub>) Mixture.*  
New J. Phys. **17**, 055007 (2015).
18. A.O. Jamison, B. Plotkin-Swing, and S. Gupta:  
*Advances in Precision Contrast Interferometry with Yb Bose-Einstein condensates.*  
Phys Rev. A. **90**, 063606 (2014).
19. A.Khramov, A.Hansen, W.Dowd, R.Roy, C.Makrides, A.Petrov, S.Kotochigova, and S.Gupta:  
*Ultracold Heteronuclear Mixture of Ground and Excited State Atoms.*  
Phys. Rev. Lett. **112**, 033201 (2014).
20. A.H. Hansen, A.Y. Khramov, W.H. Dowd, A.O. Jamison, B. Plotkin-Swing, R.J. Roy, and S. Gupta:  
*Production of quantum degenerate mixtures of ytterbium and lithium with controllable inter-species overlap.*  
Phys. Rev. A. **87**, 013615 (2013).
21. A.Y. Khramov, A.H. Hansen, A.O. Jamison, W.H. Dowd, and S. Gupta:  
*Dynamics of Feshbach molecules in an ultracold three-component mixture.*  
Phys. Rev. A. **86**, 032705 (2012).
22. V.V. Ivanov and S. Gupta:  
*Laser-driven Sisyphus cooling in an optical dipole trap.*  
Phys. Rev. A. **84**, 063417 (2011).
23. A.O. Jamison, J.N. Kutz, and S. Gupta:  
*Atomic Interactions in Precision Interferometry Using Bose-Einstein Condensates.*  
Phys. Rev. A. **84**, 043643 (2011).
24. A.H. Hansen, A. Khramov, W.H. Dowd, A.O.Jamison, V.V. Ivanov, and S. Gupta:  
*Quantum Degenerate Mixture of Ytterbium and Lithium Atoms.*  
Phys. Rev. A. **84**, 011606R (2011).
25. V.V. Ivanov, A. Khramov, A.H. Hansen, W.H. Dowd, F. Munchow, A.O. Jamison, and S. Gupta:  
*Sympathetic cooling in an optically trapped mixture of alkali and spin-singlet atoms.*

- Phys. Rev. Lett. **106**, 153201 (2011).  
Selected as a PRL Editor's suggestion article.
26. K.W. Murch, K.L. Moore, S. Gupta, and D.M. Stamper-Kurn:  
*Observation of quantum-measurement backaction with an ultracold atomic gas.*  
Nature Phys. **4**, 561 (2008).
  27. S. Gupta, K.L. Moore, K.W. Murch, and D.M. Stamper-Kurn:  
*Cavity nonlinear optics at low photon numbers from collective atomic motion.*  
Phys. Rev. Lett. **99**, 213601 (2007).
  28. K.L. Moore, S. Gupta, K.W. Murch, and D.M. Stamper-Kurn:  
*Probing the quantum state of a guided atom laser pulse.*  
Phys. Rev. Lett. **97**, 180401 (2006).
  29. K.W. Murch, K.L. Moore, S. Gupta, and D.M. Stamper-Kurn:  
*Dispersion management of ultracold atoms using betatron resonances in a storage ring.*  
Phys. Rev. Lett. **96**, 013202 (2006).
  30. S. Gupta, K.W. Murch, K.L. Moore, T.P. Purdy, and D.M. Stamper-Kurn:  
*Bose-Einstein condensation in a circular waveguide.*  
Phys. Rev. Lett. **95**, 143201 (2005).
  31. K.L. Moore, T.P. Purdy, K.W. Murch, K.R. Brown, K. Dani, S. Gupta and D.M. Stamper-Kurn:  
*Bose-Einstein condensation in a mm-scale Ioffe-Pritchard trap.*  
App. Phys. B. **82** (4), 533 (2006).
  32. K.L. Moore, T.P. Purdy, K.W. Murch, S. Leslie, S. Gupta and D.M. Stamper-Kurn:  
*Collimated single-pass atom source from a pulsed alkali metal dispenser for laser-cooling experiments.*  
Rev. Sci. Instr. **76** (2): 023106 (2005).
  33. S. Gupta, Z. Hadzibabic, J.R. Anglin, and W. Ketterle:  
*Collisions in zero temperature Fermi gases.*  
Phys. Rev. Lett. **92**, 100401 (2004).
  34. M.W. Zwierlein, C.A. Stan, C.H. Schunck, S.M.F. Raupach, S. Gupta, Z. Hadzibabic, and W. Ketterle:  
*Observation of Bose-Einstein condensation of molecules.*  
Phys. Rev. Lett. **91**, 250401 (2003).
  35. M.W. Zwierlein, Z. Hadzibabic, S. Gupta, and W. Ketterle:  
*Spectroscopic insensitivity to cold collisions in a two-state mixture of fermions.*  
Phys. Rev. Lett. **91**, 250404 (2003).
  36. Z. Hadzibabic, S. Gupta, C.A. Stan, C.H. Schunck, M.W. Zwierlein, K. Dieckmann, and W. Ketterle:  
*Fifty-fold improvement in the number of quantum degenerate fermionic atoms.*  
Phys. Rev. Lett. **91**, 160401 (2003).
  37. S. Gupta, Z. Hadzibabic, M.W. Zwierlein, C.A. Stan, K. Dieckmann, C.H. Schunck, E.G.M. van Kempen, B.J. Verhaar, and W. Ketterle:  
*Radio-Frequency Spectroscopy of Ultracold Fermions.*  
Science **300**, 1723 (2003).
  38. A. Gorlitz, T.L. Gustavson, A.E. Leanhardt, R.F. Low, A.P. Chikkatur, S. Gupta, S. Inouye, D.E. Pritchard, and W. Ketterle:  
*Sodium Bose-Einstein Condensates in the  $F=2$  State in a Large-volume Optical Trap.*  
Phys. Rev. Lett. **90**, 090401 (2003).

39. K. Dieckmann, C.A. Stan, S. Gupta, Z. Hadzibabic, C.H. Schunck and W. Ketterle:  
*Decay of an ultracold fermionic Lithium gas near a Feshbach resonance.*  
Phys. Rev. Lett. **89**, 203201 (2002).
40. S. Gupta, K. Dieckmann, Z. Hadzibabic and D.E. Pritchard:  
*Contrast Interferometry using Bose-Einstein Condensates to Measure  $h/m$  and  $\alpha$ .*  
Phys. Rev. Lett. **89**, 140401 (2002).
41. Z. Hadzibabic, C.A. Stan, K. Dieckmann, S. Gupta, M.W. Zwierlein, A. Gorlitz and W. Ketterle:  
*Two-species mixture of quantum degenerate Bose and Fermi gases.*  
Phys. Rev. Lett. **88**, 160401 (2002).
42. T.L. Gustavson, A.P. Chikkatur, A.E. Leanhardt, A. Gorlitz, S. Gupta, D.E. Pritchard and W. Ketterle:  
*Transport of Bose-Einstein condensates with optical tweezers.*  
Phys. Rev. Lett. **88**, 020401 (2002).
43. A. Gorlitz, J.M. Vogels, A.E. Leanhardt, C. Raman, T.L. Gustavson, J.R. Abo-Shaeer, A.P. Chikkatur, S. Gupta, S. Inouye, T. Rosenband, D.E. Pritchard, and W. Ketterle:  
*Realization of Bose-Einstein condensates in lower dimensions.*  
Phys. Rev. Lett. **87**, 130402 (2001).
44. S. Inouye, S. Gupta, T. Rosenband, A.P. Chikkatur, A. Gorlitz, T.L. Gustavson, A.E. Leanhardt, D.E. Pritchard, and W. Ketterle:  
*Observation of vortex phase singularities in Bose-Einstein condensates.*  
Phys. Rev. Lett. **87**, 080402 (2001).
45. D.E. Pritchard, A.D. Cronin, S. Gupta and D.A. Kokorowski:  
*Atom optics: Old ideas, current technology, and new results.*  
Ann. Phys. **10** (1-2): 35-54 (2001).
46. D.M. Stamper-Kurn, A.P. Chikkatur, A. Gorlitz, S. Gupta, S. Inouye, J. Stenger, D.E. Pritchard, and W. Ketterle:  
*Probing Bose-Einstein condensates with optical Bragg scattering.*  
Int J Mod Phys B **15** 1621-1640 (2001).
47. S. Inouye, R.F. Low, S. Gupta, T. Pfau, A. Gorlitz, T.L. Gustavson, D.E. Pritchard, and W. Ketterle:  
*Amplification of light and atoms in a Bose-Einstein condensate.*  
Phys. Rev. Lett. **85**, 4225-4228 (2000).
48. A.P. Chikkatur, A. Gorlitz, D.M. Stamper-Kurn, S. Inouye, S. Gupta, and W. Ketterle:  
*Suppression and enhancement of impurity scattering in a Bose-Einstein condensate.*  
Phys. Rev. Lett. **85**, 483-486 (2000).
49. S. Inouye, T. Pfau, S. Gupta, A.P. Chikkatur, A. Gorlitz, D.E. Pritchard, and W. Ketterle:  
*Phase-coherent amplification of atomic matter waves.*  
Nature **402**, 641-644 (1999).
50. D. Stamper-Kurn, A. Chikkatur, A. Gorlitz, S. Inouye, S. Gupta, D. Pritchard, and W. Ketterle:  
*Excitation of phonons in a Bose-Einstein condensate by light scattering.*  
Phys. Rev. Lett. **83**, 2876-2879 (1999).
51. R.A. Rubenstein, D.A. Kokorowski, A.A. Dhirani, T.D. Roberts, S. Gupta, J. Lehner, W.W. Smith, E.T. Smith, H.J. Bernstein, and D.E. Pritchard:  
*Measurement of the density matrix of a longitudinally modulated atomic beam.*  
Phys. Rev. Lett. **83**, 2285-2288 (1999).

52. R.A. Rubenstein, A.A. Dhirani, D.A. Kokorowski, T.D. Roberts, E.T. Smith, W.W. Smith, H.J. Bernstein, J. Lehner, S. Gupta, and D.E. Pritchard:  
*Search for off-diagonal density matrix elements for atoms in a supersonic beam.*  
Phys. Rev. Lett. **82**, 2018-2021 (1999).
53. E.J. Galvez, C.W. MacGregor, B. Chaudhuri, S. Gupta, E. Massoni, F. DeZela:  
*Blackbody-radiation-induced resonances between Rydberg-Stark states of Na.*  
Phys. Rev. A **55**, 3002-3006 (1997).

#### Conference Proceedings and Book Chapters

54. T. Botter, D. Brooks, S. Gupta, Z-Y. Ma, K.L. Moore, K.W. Murch, T.P. Purdy, and D.M. Stamper-Kurn:  
*Quantum micro-mechanics with ultracold atoms.*  
Proceedings of the XXI International Conference on Atomic Physics (2009).
55. S. Gupta, D.A. Kokorowski, R.A. Rubenstein, W.W. Smith:  
*Longitudinal interferometry with atomic beams.*  
Adv AMO Physics, Vol **46**:243-275 (Academic Press, 2001).
56. S. Gupta, A.E. Leanhardt, A.D. Cronin, and D.E. Pritchard:  
*Coherent manipulation of atoms with standing light waves.*  
CR Acad. – IV, **2** (3): 479-495 (2001).

#### **INVITED TALKS**

1. Terrestrial Very-Long-Baseline Atom Interferometry 2<sup>nd</sup> Workshop (Imperial College, London), “Managing Bloch Oscillation Phases for Large-Momentum-Transfer Atom Interferometry”, Apr 3, 2024.
2. Joint US-Germany Collaboration Meeting: Einstein Elevator (Hannover University), “Managing Bloch Oscillation Phases for Large-Momentum-Transfer Atom Interferometry”, Dec 6, 2023.
3. Lehigh University Physics Colloquium, “Quantum Transport and Ultracold Atom Optics”, Oct 26, 2023.
4. AFOSR review meeting, “Many-body Effects on Dynamical Localization and Anderson Transition in Kicked Quantum Gases”, Aug 4, 2023.
5. APS March Meeting, “Many-body Effects on Dynamical Localization and Anderson Transition in Kicked Quantum Gases”, Mar 6, 2023.
6. QIS in Physics seminar, UW, “Momentum Space Quantum Simulation: Many-body Dynamics of a Kicked Quantum Gas”, Nov 22, 2022.
7. Colgate University Physics Dept. Seminar, “NanoKelvin Quantum Matters: Coherence, Correlations, Chaos”, Sep 20, 2022.
8. AFOSR review meeting, “Many-body Dynamics of Kicked Ultracold Gases” August 5, 2022.
9. Plenary talk at Northwest APS meeting, “Ultracold Atom Optics and Quantum Transport” June 4, 2022.
10. MIT Lincoln lab Modern Physics Lecture Series, “Ultracold Atoms and Quantum Gases” May 18, 2022 (Virtual).
11. AFOSR review meeting, “Tuning Interactions in Ultracold Atoms: Novel Feshbach resonances and many-body dynamical delocalization”, August 19, 2021 (Virtual).

12. Online School and Discussion Meeting on Trapped Atoms, Molecules and Ions, ICTS, Tata Institute of Fundamental Research, Mumbai, India, “Tuning Interactions in Ultracold Gases: Superfluid Mixtures, Molecules, Transport” May 20, 2021 (Virtual).
13. Quantum Systems for Fundamental Science Workshop, University of Illinois at Urbana-Champaign, “Fermi-Bose Mixtures”, July 27, 2020 (Virtual).
14. DQ-mat Colloquium, Leibniz Universität Hannover, “A Quantum Transport Approach to Precision Atom Interferometry”, June 25, 2020 (Virtual).
15. Plenary Talk at 21<sup>st</sup> Annual Meeting of the Northwest Section of the APS, Thompson Rivers University, Kamloops, BC, Canada, May 15, 2020. (Invited, but meeting canceled due to Covid19).
16. Northwest Quantum Network Workshop, Washington State University, Pullman, WA, “Ultracold Atoms and Molecules at UW”, Feb 20, 2020.
17. Quantum Foundry Seminar, University of California, Santa Barbara, CA, “Resonant Interactions in Ultracold Fermions: Superfluid Mixtures and Novel Molecules”, Feb 6, 2020.
18. 7th International Workshop on Ultracold Group II Atoms. Beijing, China, “Ultracold Ytterbium for Synthesizing Paramagnetic Molecules and for Atom Interferometry”, Oct 1, 2018.
19. AFOSR review meeting. Arlington, VA, “YbLi Molecules in the Electronic Ground State: a general all-optical approach”, June 19, 2018.
20. NASA Fundamental Physics Workshop, LaJolla, CA, Apr 11, 2018.
21. Stanford University, AMO Seminar, Stanford, CA, “Two-Element Bose-Fermi Superfluid Mixture and Bose-Einstein condensate interferometer” Nov 16, 2017.
22. University of California, AMO Seminar, Berkeley, CA, “Two-Element Bose-Fermi Superfluid Mixture and Bose-Einstein condensate interferometer”, Nov 15, 2017.
23. University of Washington, Physics Department Colloquium, Seattle, WA, “Superfluid mixtures, molecules, and interferometry with ultracold atomic gases”. Oct 2, 2017.
24. ARO MURI review meeting, Adelphi, MD, “All-Optical Route to LiYb Molecules”, June 19, 2017.
25. Georgia Institute of Technology, AMO Seminar, Atlanta, GA, “Two-Element Mixture of Bose and Fermi Superfluids”, April 20, 2017.
26. Rice University, AMO Seminar, Houston, TX, “Two-Element Mixture of Bose and Fermi Superfluids”, Feb 23, 2017.
27. Washington University at St. Louis, Condensed Matter Seminar, St Louis, MO, “Building new quantum systems with mixtures of ultracold atomic gases”, Feb 6, 2017.
28. ARO MURI review meeting, Atlanta, GA, “Combining Yb and Li: Bose-Fermi superfluid Mixture and toward Ultracold Doublet-Sigma Molecules”, October 6, 2016.
29. 25<sup>th</sup> International Conference of Atomic Physics (ICAP), Seoul, South Korea, “Two-Element Mixture of Bose and Fermi Superfluids”, July 26, 2016.
30. University of California, Physics Department Colloquium. San Diego, CA, “Combining Quantum Gases: Ultracold Molecules and Superfluid Mixtures”, May 12, 2016.

31. University of British Columbia, AMO Seminar. Vancouver, BC, “Combining Yb and Li: Molecules and Quantum Degenerate Mixtures”, March 31, 2016.
32. College de France, AMO Seminar. Paris, France, “Combining Yb and Li: Molecules and Quantum Degenerate Mixtures”, Feb 25, 2016.
33. 6th International Workshop on Ultracold Group II Atoms. Paris Observatory, Paris, France, “Combining Yb and Li: Molecules and Quantum Degenerate Mixtures”, Feb 24, 2016.
34. ARO MURI review meeting, Harvard University, Cambridge, MA, “Towards Doublet-Sigma YbLi Molecules with an all-optical approach”, Nov 5, 2015.
35. University of Washington, Institute for Nuclear Theory Workshop on Frontiers in Quantum Simulation with Cold Atoms Workshop. Seattle, WA, “Experiments with Ultracold Mixtures of Lithium and Ytterbium Atoms”, April 30, 2015.
36. ICTS School & Discussion Meeting on Frontiers in Light-Matter Interactions, IACS Kolkata, India, “Combining Alkali and Alkaline-Earth-Like Atoms: Towards Paramagnetic Polar Molecules for Ultracold Chemistry and Quantum Simulation”, Dec 21, 2014.
37. Joint ARO/AFOSR MURI review meeting, University of California at Los Angeles, CA, “Combining Ytterbium and Lithium for Ultracold Doublet-Sigma Molecules”, Nov 20, 2014.
38. University of Illinois at Urbana-Champaign, AMO Seminar, IL, “Quantum Mixtures of Alkali and Alkaline-earth-like Atoms”, Nov 5, 2014.
39. Workshop on Few-Body Physics. Institute for Nuclear Theory, University of Washington, Seattle, WA, “Strongly Interacting Regimes in the Lithium-Ytterbium System”, May 12, 2014.
40. University of Connecticut, AMO Seminar, Storrs, CT, “Quantum Mixtures of Ytterbium and Lithium Atoms”, Apr 14, 2014.
41. Joint ARO/AFOSR MURI review meeting, Arlington, VA, “Combining Heteronuclear Ground and Excited State Atoms”, Nov 21, 2013.
42. 2013 Hangzhou Workshop on Quantum Matter, Zhejiang University, Hangzhou, China, “Quantum Mixtures of Ytterbium and Lithium Atoms”, Apr 22, 2013.
43. Kavli Institute of Theoretical Physics, New Science with Ultracold Molecules Conference, U.C. Santa Barbara, CA, “Quantum Mixtures of Ytterbium and Lithium Atoms: Towards Ultracold Paramagnetic Polar Molecules”, Mar 15, 2013.
44. Massachusetts Institute of Technology, CUA Seminar. Cambridge, MA, “Quantum Mixtures of Ytterbium and Lithium Atoms”, Feb 12, 2013.
45. State University of New York, AMO Seminar. Stony Brook, NY, “Quantum Mixtures of Ytterbium and Lithium Atoms”, Feb 11, 2013.
46. 5<sup>th</sup> International Workshop on Ultracold Group II Atoms. National Institute of Information and Communications Technology, Tokyo, Japan, “Quantum Mixtures of Ytterbium and Lithium Atoms”, Oct 10-12, 2012.
47. University of California, AMO Seminar. Berkeley, CA, “Quantum Mixtures of Alkali and Alkaline-Earth-Like Atoms”, Oct 03, 2012.

48. University of Washington, Physics Department Colloquium. Seattle, WA, “Combining Ultracold Atoms: Quantum Mixtures and Towards Polar Molecules”, Sep 24, 2012.
49. Washington State University, Physics Department Colloquium. Pullman, WA, “Combining Ultracold Atoms: Quantum Mixtures and Towards Polar Molecules”, Sep 18, 2012.
50. University of Chicago, AMO Seminar. Chicago, IL, “Quantum Mixtures and Polar Molecules from Mismatched Ultracold Atoms”, Feb 2, 2012.
51. Northwestern University, AMO Seminar. Evanston, IL, “Quantum Mixtures and Polar Molecules from Mismatched Ultracold Atoms”, Feb 1, 2012.
52. University of Texas at Austin, Center for Complex Quantum Systems Seminar. Austin, TX. “Quantum Degenerate Mixture of Highly Mismatched Atoms”, Sep 22, 2011.
53. International Workshop on “Fermions from Cold Atoms to Neutron Stars: Benchmarking the Many-Body Problem”. Institute for Nuclear Theory, University of Washington, Seattle, Washington, WA, “Quantum Degenerate Mixture of Lithium and Ytterbium Atoms”, May 16, 2011.
54. 12th Annual Meeting of the Northwest Section of the APS, Whitman College, Walla Walla, WA, “Ultracold Atoms, Mixtures, and Molecules”, Oct 2, 2010.
55. University of British Columbia, AMO Seminar. Vancouver BC, Canada, “From Ultracold Atoms to Ultracold Mixtures and Polar Molecules”, Dec 17, 2009.
56. University of Oregon, Center for Optics Seminar. Eugene, OR, “Cavity QED and Polar Molecules with Ultracold Atoms”, May 04, 2009.
57. University of Washington, CMA Seminar. Seattle, WA, Jan 20, 2009.
58. Washington-AAPT Meeting, Bellevue Community College, Bellevue, WA, “Ultracold Atoms and Quantum Gases”, Oct 11, 2008.
59. Washington State University, Physics Colloquium. Pullman, “Cavity QED with Trapped Ultracold Atoms”, Oct 23, 2007.
60. New Laser Scientists’ Conference (NLSC), Rochester, New York, “Cavity QED with ultracold atoms”, Oct 13, 2006.
61. Optical Society of America Annual Meeting, Rochester, New York, “Cavity QED with ultracold atoms”, Oct 08, 2006.
62. University of California at Merced, School of Natural Sciences Seminar. Merced, CA, “Ultracold Atoms and Bose-Einstein Condensates in Storage Rings and Optical Cavities”, Mar 23, 2006.
63. University of Washington, Physics Department Colloquium. Seattle, WA, “Ultracold Atoms and Bose-Einstein Condensates in Storage Rings and Optical Cavities”, March 09, 2006.
64. Yale University, Condensed Matter Seminar. New Haven, CT, “Ultracold Atoms and Bose-Einstein Condensates in Storage Rings and Optical Cavities”, Feb 23, 2006.
65. College of William and Mary, Physics Department Colloquium. Williamsburg, VA, “Ultracold Atoms and Bose-Einstein Condensates in Storage Rings and Optical Cavities”, Feb 20, 2006.
66. Georgia Institute of Technology, Physics Department Colloquium. Atlanta, GA, “Ultracold Atoms and Bose-Einstein Condensates in Storage Rings and Optical Cavities”, Feb 13, 2006.



67. Cornell University, LASSP Solid State and Theory Seminars. Ithaca, NY, "Ultracold Atoms and Bose-Einstein Condensates in Storage Rings and Optical Cavities", Jan 19, 2006.
68. University of Arizona, Physics Department Colloquium. Tucson, AZ, "A Storage Ring for Bose-Einstein Condensates", Nov 09, 2005.
69. University of California at Berkeley, Condensed Matter Seminar. Berkeley, CA, "The Quest for Fermionic Superfluidity in Dilute Atomic Gases", Apr 05, 2004.
70. Physics of Quantum Electronics (PQE) conference, Snowbird, Utah, "Sympathetic Cooling in Atom Traps: Road to Degenerate Fermions and Molecular Bose-Einstein condensates", Jan 05, 2004.
71. Institute for Nuclear Theory, Univ. of Washington, INT Workshop. Seattle, WA, "Experiments with a strongly interacting fermionic lithium gas", November 19, 2003.
72. 34<sup>th</sup> Annual Meeting of the Division of Atomic, Molecular and Optical Physics (DAMOP) of the American Physical Society, Boulder, Colorado, "Strongly interacting degenerate Fermi gases", May 24, 2003.
73. University of California at Berkeley, AMO Seminar. Berkeley, CA, "Experiments with Degenerate Bose and Fermi Gases", October 2002.
74. International Workshop on Recoil Induced Effects and BEC, Gargnano del Garda, Italy, "Contrast Interferometry with Bose-Einstein Condensates to Measure  $h/m$  and  $\alpha$ ", June 23-26, 2002.
75. Tata Institute of Fundamental Research, Seminar. Mumbai, India, "Atom Optics with a Bose-Einstein Condensate", Feb 25, 2002.
76. University of Massachusetts at Dartmouth, Seminar. Dartmouth, MA, "Bose-Einstein Condensates: Coherent and Superfluid", March 2000.