

Cheng Chin - Curriculum Vitae

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Education

1995-2001	Ph.D., Physics, Stanford University (Advisor: Steven Chu)
1990-1993	B.S., Physics, National Taiwan University

Academic Position

2019-2022	Honorary Chair Professor, National Sun Yat-Sen University, Taiwan
2018-2020	Visiting Professor, Tsinghua University, China
2015	JILA Visiting Fellow, JILA
2014, 2015	Visiting Professor, Universität München, Munich, Germany
2014, 2015	Guest Scientist, Max-Planck-Institut für Quantenoptik, Garching, Germany
2014, 2015	Visiting Professor, Universität Ulm, Ulm, Germany
2014	Visiting Professor, ETH Zurich, Zurich, Switzerland
2013	Visiting Scientist, Institute of Atomic and Molecular Sciences, Taiwan
2013	Visiting Scientist, Center for Ultracold Atoms, MIT
2013	Visiting Professor, Physics and Astronomy Department, Rice University
2013-	Professor, Enrico Fermi institute, University of Chicago
2013-	Professor, James Franck institute, University of Chicago
2013-	Professor, Department of Physics, University of Chicago
2009-2012	Associate Professor, James Franck institute, University of Chicago
2009-2012	Associate Professor, Department of Physics, University of Chicago
2005-2008	Assistant Professor, James Franck institute, University of Chicago
2005-2008	Assistant Professor, Department of Physics, University of Chicago
2005	Visiting Professor, ETH, Zurich, Switzerland
2003	Visiting Professor, Institut für Experimentalphysik, Universität Innsbruck, Austria
2003-2005	Visiting Scientist, Institut für Experimentalphysik, Universität Innsbruck, Austria
2001-2003	Postdoctoral Fellow, Physics Department, Stanford University

Honors and Awards *(since 2003)*

2024	Academician, Academic Sinica
2021	Marian and Stuart Rice Research Award
2017	Bose-Einstein Condensation Award
2014	American Physical Society Fellow
2014	Thomson Reuters Highly Cited Researcher
2014	Distinguished Alumni Award, Physics Department, National Taiwan University
2013-2015	Alexander von Humboldt Research Fellow
2011	I. I. Rabi Prize, American Physics Society
2009	Materials Computation Center Travel Award
2008	IUPAP Young Scientist Prize in Atomic, Molecular and Optical Physics

2008-2012	National Science Foundation CAREER award
2006-2012	The David and Lucile Packard Fellow
2006	Outstanding Young Researcher Award, Overseas Chinese Physics Association
2006-2008	Alfred P. Sloan Research Fellow
2003-2005	Lise-Meitner Postdoctoral Research Fellow, Austrian Science Fund

Academic Activities (since 2001)

2025	Committee of Atomic, Molecular and Optical Sciences, National Academies of Sciences, Engineering, and Medicine
2024	Organizer, DeMille Fest – <i>Dr. David DeMille's 60th Birthday Celebration Symposium</i>
2023-2025	Organizer, University of Chicago-Taiwan Exchange Program in Sciences (UCTS)
2021-2022	President, International Organization of Chinese Physicists and Astronomers
2016-2019	Executive Committee, APS DAMOP
2015-2020	Bose-Einstein Condensation Conference Scientific Committee
2015	Co-organizer, INT Program: “Frontiers on Quantum Simulation with Cold Atoms”
2014-2020	JILA National Science Foundation Physics Frontier Center Advisory Committee
2012	Chair, American Physical Society (APS) Midwest Prairie Section
2011~2014	Program Committee, American Physical Society Division of Atomic, Molecular and Optical Physics (APS DAMOP) conference
2011	Co-organizer, Aspen Workshop “Few- & Many-Body Physics in Cold Quantum Gases Near Resonances”
2011	National Science Foundation AMO Physics Proposal Review Panelist
2010	Co-organizer, Conference on <i>Novel Quantum States in Condensed Matter</i> , Beijing, China
2010~2017	Editor, New Journal of Physics
2008~2024	Organizer, S.M.A.R.T. (Science, Mathematics, and Research Training) High School Science Outreach Program
2008	Organizer, “Frontier in Laser Cooling, Single-Molecule Biophysics and Energy Science – <i>Dr. Steven Chu's 60th Birthday Celebration Symposium</i> ”
2007~2012	Director, Chicago MRSEC Research Experiences for Undergraduates (REU) Program
2007,11,18,23	Organizer, France-Chicago research exchange program in Physics
2005,09,16,23	Organizer, Midwest Cold Atom Workshop
2001	Local committee member and Editor, the 15 th ICOLS (International Conference of Laser Spectroscopy Conference)

Current Group Members

9 Graduate students	Geyue Cai, Mingjiamei Zhang, Shu Nagata, Lauren Weiss, Henry Endo, Evan Yamaguchi, Lambert Kong, Rahaf Youssef, Claire Pritts
8 Undergrad students	Nathan Brucotao, Marie Buclez, Leon Gold, Otto Meyer,

Winston Wu, Mouhamed Mbengue, Mona Mao, Vincent Ji

Former Students and Postdoctoral Fellows

<i>Name</i>	<i>UChicago Position</i>	<i>Current position</i>
Chen-Lung Hung	Ph.D. in Physics, 2005~2011	Associate Professor, Purdue University
Xibo Zhang	Ph.D. in Physics, 2006~2012	Associate Professor, Peking University, China
Skyler Degenkolb	Undergrad, 2007~2010	Professor, Heidelberg University, Germany
Kathy-Anne Soderberg	Postdoc fellow, 2007~2010	Senior Scientist, Air Force Research Laboratory
Eric Hazlett	Postdoc fellow, 2011~2013	Assistant Professor, St. Olaf College
Zhaoyuan Ma	Postdoc fellow, 2010	Professor, Future Laboratory, Tsinghua Univ.
Shih-Kuang Tung	Postdoc fellow, 2010~2014	Associate Professor, Tsinghua Univ., Taiwan
Karina Jimenez Garcia	Postdoc fellow, 2012~2014	Assistant Professor, Center for Research and Advanced Studies of the National Polytechnic Institute, Mexico City, Mexico
Colin Parker	Postdoc fellow, 2011~2015	Associate Professor, Georgia institute of Technology
Jiazhong Hu	Postdoc fellow, 2017~2018	Associate Professor, Tsinghua Univ., China
Brian DeSalvo	Postdoc fellow, 2016~2019	Assistant Professor, Indiana University
Lei Feng	Ph.D. in Physics, 2013~2019	Assistant Professor, Fudan University
Zhendong Zhang	Ph.D. in Physics, 2022	Assistant Professor, University of Hong Kong

Selected Public Coverages (since 2005)

- 2024 **Live Science:** Inside the 20-year quest to unravel the bizarre realm of 'quantum superchemistry'
- 2023 **Physics.org:** Study demonstrates many-body chemical reactions in a quantum degenerate gas
- 2023 **Scientific American:** 'Quantum Superchemistry' Observed for the First Time Ever
- 2023 **Univ. of Chicago News:** Chicago scientists observe first evidence of 'quantum superchemistry' in the laboratory
- 2023 **Univ. of Chicago News:** Scientists use lasers to recreate 'twisted' superconducting material
- 2022 **Univ. of Chicago News:** UChicago scientists create strange quantum 'domain walls' in laboratory
- 2021 **National Science Foundation:** Bose fireworks and Shooting quantum particles resembles pattern like a turtle
- 2021 **New Scientist:** *Frozen cloud of molecules acts as a single quantum object*

Publications – Cheng Chin

112. Fermion mediated pairing in the Ruderman-Kittel-Kasuya-Yosida to Efimov transition regime
Geyue Cai, Henry Ando, Sarah McCusker, Cheng Chin
ArXiv:2502.06266

111. Stability and Dynamics of Atom-Molecule Superfluids Near a Narrow Feshbach Resonance
Yunda Li, Wei Han, Zengming Meng, Wenxin Yang, Cheng Chin, Jing Zhang
arXiv:2411.16287
110. Two dimensional arrays of Bose-Einstein condensates: interference and stochastic collapse dynamics
Youjia Huang, Shu Nagata, Joseph Jochinowski, Jiazhong Hu, Cheng Chin
Phys. Rev. Research 6, -43272 (2024)
109. Stability and Dynamics of Atom-Molecule Superfluids Near a Narrow Feshbach Resonance
Zhiqiang Wang, Ke Wang, Zhendong Zhang, Shu Nagata, Cheng Chin, K. Levin
Phys. Rev. A 110, 013306 (2024)
108. Observation of sound propagation in a strongly interacting Bose-Fermi mixture
Krutik Patel, Geyue Cai, Henry Ando, Cheng Chin
Phys. Rev. Lett. 131, 083003 (2023)
107. Many-body Chemical Reactions in a Quantum Degenerate Gas
Zhendong Zhang, Shu Nagata, Kaixuan Yao, Cheng Chin
Nature Physics 19, 1466 (2023)
106. Observation of sound propagation in a strongly interacting Bose-Fermi mixture
Krutik Patel, Geyue Cai, Henry Ando, Cheng Chin
ArXiv:2205.14518
105. Observation of interaction-induced mobility edge in a disordered atomic wire
Yunfei Wang, Jia-Hui Zhang, Yuqing Li, Jizhou Wu, Wenliang Liu, Feng Mei, Ying Hu, Liantuan Xiao, Jie Ma, Cheng Chin, Suotang Jia
Phys. Rev. Lett. 129, 103401 (2022)
104. Design and construction of a quantum matter synthesizer
Jonathan Trisnadi, Mingjiamei Zhang, Lauren Weiss, Cheng Chin
Rev. Sci. Instrum. 93, 083203 (2022)
103. Atomic Bose-Einstein condensate in a twisted-bilayer optical lattice
Zengming Meng, Liangwei Wang, Wei Han, Fangde Liu, Kai Wen, Chao Gao, Pengjun Wang, Cheng Chin, Jing Zhang
Nature 615, 231 (2023)
102. Dynamical preparation of an atomic condensate in a Hofstadter band
Han Fu, Andreas Glatz, F. Setiawan, Kai-Xuan Yao, Zhendong Zhang, Cheng Chin, K. Levin
Phys. Rev. A 105, 043301 (2022)
101. Dynamics of domain walls in a Bose-Einstein condensate driven by density-dependent gauge field
Kai-Xuan Yao, Zhendong Zhang, Cheng Chin
Nature 602, 68 (2022)
100. Transition from an atomic to a molecular Bose-Einstein condensate
Zhendong Zhang, Liangchao Chen, Kai-Xuan Yao, Cheng Chin
Nature 592, 708 (2021)
99. Jet Sub-structure in Fireworks Emission from Non-uniform and Rotating Bose-Einstein Condensates
Han Fu, Zhendong Zhang, Kai-Xuan Yao, Lei Feng, Jooheon Yoo, Logan W. Clark, K. Levin, Cheng Chin
Phys. Rev. Lett. 125, 183003 (2020)
98. Quantum Simulators: Architectures and Opportunities
Ehud Altman, Kenneth R. Brown, Giuseppe Carleo, Lincoln D. Carr, Eugene Demler, Cheng Chin, Brian DeMarco, Sophia E. Economou, Mark A. Eriksson, Kai-Mei C. Fu, Markus Greiner, Kaden R. A. Hazzard, Randall G. Hulet, Alicia J. Kollar, Benjamin L. Lev, Mikhail D. Lukin, Ruichao Ma, Xiao Mi, Shashank Misra, Christopher Monroe, Kater Murch, Zaira Nazario, Kang-Kuen Ni, Andrew C. Potter, Pedram Roushan, Mark Saffman, Monika Schleier-Smith, Irfan Siddiqi, Raymond Simmonds, Meenakshi Singh, I. B. Spielman, Kristan Temme, David S. Weiss, Jelena Vuckovic, Vladan Vuletic, Jun Ye, Martin Zwierlein
PRX Quantum 2, 017003 (2021)
97. Pattern formation in a driven Bose-Einstein Condensate
Zhendong Zhang, Kai-Xuan Yao, Lei Feng, Jiazhong Hu, Cheng Chin
Nature Physics 16, 652 (2020)

96. Exploring Novel Quantum Phenomena of Atoms and Molecules at Ultralow Temperatures
Cheng Chin
Chicago Physics 3, 8 (2019)
95. Real Time Control of Hamiltonian of a 2D Quantum Gas
Cheng Chin
in "2D Quantum Metamaterials", proceedings of the 2018 NIST Workshop, World Scientific, ed by W.P. Kirk, J.N. Randall and J.H.G. Owen (2019)
94. Engaged in gauge theory
Cheng Chin
Nature Physics 15, 1106 (2019)
93. Strongly Correlated Quantum Gas Prepared by Direct Laser Cooling
Pablo Solano, Yiheng Duan, Yu-Ting Chen, Alyssa Rudelis, Cheng Chin, Vladan Vuletic
Phys. Rev. Lett. 123, 173401 (2019)
92. Quantum Simulation of Coherent Hawking-Unruh Radiation
Jiazhong Hu, Lei Feng, Zhendong Zhang, Cheng Chin
Nature Physics 15, 785–789 (2019)
91. Temperature dependence of the pairing fraction in the BEC-BCS crossover
Thomas Paintner, Daniel K. Hoffmann, Wolfgang Limmer, Wladimir Schoch, Benjamin Deissler, Cheng Chin, Johannes Hecker Denschlag
Physical Review A 99, 053617 (2019)
90. Fermion-Mediated Interactions Between Bosonic Atoms
B.J. DeSalvo, Krutik Patel, Geyue Cai, and Cheng Chin
Nature 568, 61 (2019)
89. Super-resolution microscopy of cold atoms in an optical lattice
Mickey McDonald, Jonathan Trisnadi, Kai-Xuan Yao, Cheng Chin
Physical Review X 9, 021001 (2019)
88. Correlations in high harmonic generation of matter-wave jets revealed by pattern recognition
Lei Feng, Jiazhong Hu, Logan W. Clark, Cheng Chin
Science 363, 521(2019)
87. Observation of Density-Dependent Gauge Fields in a Bose-Einstein Condensate Based on Micromotion Control in a Shaken Two-Dimensional Lattice
Logan W. Clark, Brandon M. Anderson, Lei Feng, Kathy Levin, Cheng Chin
Phys. Rev. Lett. 121,030402 (2018)
86. Collective emission of matter-wave jets from driven Bose-Einstein condensates
Logan W. Clark, Anita Gaj, Lei Feng, Cheng Chin
Nature 551 356 (2017)
85. Ultracold gases with intrinsic scale invariance
Cheng Chin
In "Universal Themes of Bose-Einstein Condensation", Cambridge University Press, editors: D. Snoke, N. Proukakis, P. Littlewood, (2017).
84. Dynamics and interactions of particles in a thermophoretic trap
Benjamin Foster, Frankie Fung, Connor Fieweger, Mykhaylo Usatyuk, Anita Gaj, B. J. DeSalvo, Cheng Chin
Proc. SPIE 10347, Optical Trapping and Optical Micromanipulation XIV, 103471Z (2017/08/25).
<http://dx.doi.org/10.1117/12.2277140>
83. Observation of three-photon bound states in a quantum nonlinear medium
Qi-Yu Liang, Aditya V. Venkatramani, Sergio H. Cantu, Travis L. Nicholson, Michael J. Gullans, Alexey V. Gorshkov, Jeff D. Thompson, Cheng Chin, Mikhail D. Lukin, Vladan Vuletic
Science 359, 783 (2018)
82. Coherent inflationary dynamics for Bose-Einstein condensates crossing a quantum critical point
Lei Feng, Logan W. Clark, Anita Gaj, Cheng Chin
Nature Physics 14, 269 (2018)
81. Observation of a Degenerate Fermi Gas Trapped by a Bose-Einstein Condensate
B.J. DeSalvo, Krutik Patel, Jacob Johansen, Cheng Chin

- Phys. Rev. Lett. 119, 233401 (2017)
80. Direct Lattice Shaking of Bose Condensates: Finite Momentum Superfluids
Brandon M. Anderson, Logan W. Clark, Jennifer Crawford, Andreas Glatz, Igor S. Aranson, Peter Scherpelz, Lei Feng, Cheng Chin, and K. Levin
Phys. Rev. Lett. 118, 220401 (2017)
 79. Testing universality of Efimov physics across broad and narrow Feshbach resonances
Jacob Johansen, B. J. DeSalvo, Krutik Patel, Cheng Chin
Nature Physics 13, 731 (2017)
 78. Stable thermophoretic trapping of generic particles at low pressures
Frankie Fung, Mykhaylo Usatyuk, B. J. DeSalvo, and Cheng Chin
Appl. Phys. Lett. 110, 034102 (2017)
 77. Calibrating High Intensity Absorption Imaging of Ultracold Atoms
Klaus Hueck, Niclas Luick, Lennart Sobirey, Jonas Siegl, Thomas Lompe, Henning Moritz, Logan W. Clark, Cheng Chin
Optics Express 25, 8670 (2017)
 76. Exotic domain walls in Bose-Einstein condensates with double-well dispersion
Tongtong Liu, Logan W. Clark, Cheng Chin
Phys. Rev. A 94, 063646 (2016)
 75. Universal space-time scaling symmetry in the dynamics of bosons across a quantum phase transition
Logan W. Clark, Lei Feng, Cheng Chin
Science, 354, 606 (2016)
 74. Ultracold atomic gases going strong
Cheng Chin
National Science Review 03: 168-173 (2016) doi: 10.1093/nsr/nwv073
 73. Universal Loss Dynamics in a Unitary Bose Gas
Ulrich Eismann, Lev Khaykovich, Sébastien Laurent, Igor Ferrier-Barbut, Benno S. Rem, Andrew T. Grier, Marion Delahaie, Frédéric Chevy, Christophe Salomon, Li-Chung Ha, and Cheng Chin
hal-01149089 (2015)
 72. Stable levitation and dynamics of ice particles at low pressures
Nicholas Kowalski, Bernard Xie, Colin V. Parker, Cheng Chin
arXiv:1504.01035 (2015)
 71. Quantum dynamics with spatiotemporal control of interactions in a stable Bose-Einstein condensate
Logan W. Clark, Li-Chung Ha, Chen-Yu Xu, Cheng Chin
Phys. Rev. Lett. 115, 155301 (2015)
 70. Ten years of Nature Physics: Bound to be universal?
Cheng Chin and Yujun Wang
Nature Physics, 11, 449 (2015)
 69. Roton-maxon excitation spectrum of Bose condensates in a shaken optical lattice
Li-Chung Ha, Logan W. Clark, Colin V. Parker, Brandon M. Anderson, Cheng Chin
Phys. Rev. Lett. 114, 055301 (2015)
 68. Observation of geometric scaling of Efimov states in a Fermi-Bose Li-Cs mixture
Shih-Kuang Tung, Karina Jimenez-Garcia, Jacob Johansen, Colin V. Parker, Cheng Chin
Phys. Rev. Lett. 113, 240402 (2014)
 67. Bosonic thermoelectric transport and breakdown of universality
A. Rancon, Cheng Chin, K. Levin
New J. Phys. 16, 113072 (2014)
 66. Strong Interaction Effects in Superfluid Ising Quantum Phase Transition
Wei Zheng, Boyang Liu, Jiao Miao, Cheng Chin, Hui Zhai
Phys. Rev. Lett. 113, 155303 (2014)
 65. In Situ Imaging of Atomic Quantum Gases
Chen-Lung Hung and Cheng Chin
Book Chapter of "*Quantum Gas Experiments*" (2014)
 64. Physics Viewpoint: Looking for Hofstadter's Butterfly in Cold Atoms
Cheng Chin, Erich J. Mueller

- Physics 6, 118 (2013)
63. Efficient Continuous-Duty Bitter-Type Electromagnets for Cold Atom Experiments
Dylan Sabulsky, Colin V. Parker, Nathan D. Gemelke, Cheng Chin
Rev. Sci. Instrum. 84, 104706 (2013)
 62. Anomalous thermoelectric transport in two-dimensional Bose gas
Eric L. Hazlett, Li-Chung Ha, Cheng Chin
arXiv:1306.4018 (2013)
 61. Direct observation of effective ferromagnetic domains of cold atoms in a shaken optical lattice
Colin V. Parker, Li-Chung Ha, Cheng Chin
Nature Physics 9, 769 (2013)
 60. Quench Dynamics in Bose condensates in the Presence of a Bath: Theory and Experiment
A. Rancon, Chen-Lung Hung, Cheng Chin, K. Levin
Phys. Rev. A 88, 031601 (2013)
 59. Strongly interacting two-dimensional Bose gases
Li-Chung Ha, Chen-Lung Hung, Xibo Zhang, Ulrich Eismann, Shih-Kuang Tung, Cheng Chin
Phys. Rev. Lett. 110, 145302 (2013)
 58. Ultracold mixtures of atomic Li-6 and Cs-133 with tunable interactions
Shih-Kuang Tung, Colin Parker, Jacob Johansen, Cheng Chin, Yujun Wang, Paul S. Julienne
Phys. Rev. A 87, 010702 (2013)
 57. From Cosmology to Cold Atoms: Observation of Sakharov Oscillations in Quenched Atomic Superfluids
Chen-Lung Hung, Victor Gurarie, Cheng Chin
Science 341, 1213 (2013)
 56. Quantum critical behavior of ultracold atoms in two-dimensional optical lattices
Xibo Zhang, Chen-Lung Hung, Shih-Kuang Tung, Cheng Chin
Science 335, 1070 (2012)
 55. Universal scaling of Efimov resonance positions in cold atom systems
Cheng Chin, arXiv:1111.1484 (2011)
 54. Extracting density-density correlations from in situ images of atomic quantum gases
Chen-Lung Hung, Xibo Zhang, Li-Chung Ha, Shih-Kuang Tung, Nathan Gemelke, Cheng Chin
New Journal of Physics 13 075019 (2011)
 53. Exploring quantum criticality based on ultracold atoms in optical lattices
Xibo Zhang, Chen-Lung Hung, Shih-Kuang Tung, Nathan Gemelke, Cheng Chin
New Journal of Physics 13 045011 (2011)
 52. Observation of scale invariance and universality in two-dimensional Bose gases
Chen-Lung Hung, Xibo Zhang, Nathan Gemelke, Cheng Chin
Nature 470, 236 (2011)
 51. Feshbach Resonances in Ultracold Gases
Cheng Chin, Rudolf Grimm, Paul Julienne, Eite Tiesinga
Review of Modern Physics 82, 1225 (2010)
 50. Atoms in chequerboard order
Cheng Chin, Nathan Gemelke
Nature News and Views 464 1289 (2010)
 49. Slow Mass Transport and Statistical Evolution of An Atomic Gas Across the Superfluid-Mott Insulator Transition
Chen-Lung Hung, Xibo Zhang, Nathan Gemelke, Cheng Chin
Phys. Rev. Lett. 104.160403 (2010)
 48. Optical lattices for coherent quantum collision microscopy
Andreas Klinger, Skyler Degenkolb, Nathan Gemelke, Kathy-Anne Brickman Soderberg, and Cheng Chin
Rev. Sci. Instrum., 80, 013109 (2010)
 47. *In-situ* Observation of incompressible Mott-insulating domains of ultracold atomic gases
Nathan Gemelke, Xibo Zhang, Chen-Lung Hung, Cheng Chin
Nature 460, 995 (2009)
 46. Ultracold molecules: new probes on the variation of fundamental constants
Cheng Chin, V.V. Flambaum, M.G. Kozlov

- New Journal of Physics 11, 055048 (2009)
45. Ultracold molecules: vehicles to scalable quantum information processing
Kathy-Anne Brickman Soderberg, Nathan Gemelke, Cheng Chin
New Journal of Physics 11, 055022 (2009)
 44. Precision determination of scattering lengths from molecular binding energies
A. Lange, K. Pilch, A. Prantner, F. Ferlaino, B. Engeser, H.-C. Nägerl, R. Grimm and C. Chin
Phys. Rev. A 79, 013622 (2009)
 43. Exploring Universality of Few-Body Physics Based on Ultracold Atoms Near Feshbach Resonances
Nathan Gemelke, Chen-Lung Hung, Xibo Zhang, Cheng Chin
Proceedings of the 21st International Conference on Atomic Physics (ICAP 2008, Storrs)
 42. Simple, accelerating evaporation to Bose-Einstein condensation in a tilted optical trap
Chen-Lung Hung, Xibo Zhang, Nathan Gemelke and Cheng Chin
Phys. Rev. A 78, 01604 (2008)
 41. Spectroscopy of ultracold, trapped cesium Feshbach molecules
M. Mark, F. Ferlaino, S. Knoop, J.G. Danzl, T. Kraemer, C. Chin, H.-C. Nägerl, R. Grimm
Phys. Rev. A 76, 042514 (2007)
 40. 'Stückelberg interferometry' with ultracold molecules
M. Mark, T. Kraemer, P. Waldburger, J. Herbig, C. Chin, H.-C. Nägerl, R. Grimm
Phys. Rev. Lett. 99, 113201 (2007)
 39. Precision measurements of collective oscillations in the BEC-BCS crossover
A. Altmeyer, S. Riedl, C. Kohstall, M. J. Wright, R. Geursen, M. Bartenstein, C. Chin, J. Hecker Denschlag, and R. Grimm
Phys. Rev. Lett. 98, 040401 (2007).
 38. Experimental Evidence for Efimov Quantum States
H.-C. Nagerl, T. Kramer, M. Mark, P. Waldburger, J.G. Danzl, B. Engeser, A.D. Lange, K. Pilch, A. Jaakkola, C. Chin, R. Grimm
Proceedings of the 20th International Conference on Atomic Physics (ICAP 2006, Innsbruck)
 37. Enhanced sensitivity to fundamental constants in ultracold atomic and molecular systems near Feshbach resonances
Cheng Chin and V.V. Flambaum
Phys. Rev. Lett. 96, 230801 (2006)
 36. Evidence for Efimov quantum states in an ultracold gas of caesium atoms
T. Kraemer, M. Mark, P. Waldburger, J. G. Danzl, C. Chin, B. Engeser, A. D. Lange, K. Pilch, A. Jaakkola, H.-C. Nägerl and R. Grimm
Nature 440, 315-318 (16 March 2006).
 35. A simple model of Feshbach molecules
Cheng Chin, cond-mat/0506313
 34. Formation and Bose-Einstein condensation of ultracold molecules
Cheng Chin, Physics Bimonthly, Taiwan, 27, 403 (2005)
 33. Observation of Feshbach-like resonances in collisions between ultracold molecules
C. Chin, T. Kraemer, M. Mark, J. Herbig, P. Waldburger, H.-C. Nägerl and R. Grimm
Phys. Rev. Lett. 94, 123201 (2005)
 32. Simple mean-field model for condensates in the BEC-BCS crossover regime
Cheng Chin
Phys. Rev. A, 72, 041601(R) (2005)
 31. Efficient creation of molecules from a cesium Bose-Einstein condensate
M. Mark, T. Kraemer, J. Herbig, C. Chin, H.-C. Nägerl and R. Grimm
Europhys. Lett. 69, 706 (2005).
 30. Radio-frequency transitions on weakly-bound ultracold molecules
C. Chin and P. Julienne
Phys. Rev. A, 71, 012713 (2005)
 29. Precise determination of Li6 cold collision parameters by radio-frequency spectroscopy on weakly bound molecules

- M. Bartenstein, A. Altmeyer, S. Riedl, R. Geursen, S. Jochim, C. Chin, J. Hecker Denschlag, and R. Grimm
Phys. Rev. Lett. 94, 103201 (2005)
28. Exploring the BEC-BCS Crossover with an Ultracold Gas of Li-6 Atoms
M. Bartenstein, A. Altmeyer, S. Riedl, S. Jochim, R. Geursen, C. Chin, J. Hecker Denschlag, R. Grimm
in Proceedings of the XVII. International Conference on Atomic Physics (ICAP 2004, Rio de Janeiro)
 27. The birth of ultracold molecules in the world of quantum gas
C. Chin
Association of Asia Pacific Physical Societies Bulletin 14, 14 (2004)
 26. Observation of the Pairing Gap in a Strongly Interacting Fermi Gas
C. Chin, M. Bartenstein, A. Altmeyer, S. Riedl, S. Jochim, J. Hecker Denschlag, and R. Grimm
Science 305, 1128 (2004); published online July 22 2004; 10.1126/science.1100818
 25. Collective Excitations of an ultracold Gas in the BEC-BCS Crossover Regime
M. Bartenstein, A. Altmeyer, S. Riedl, S. Jochim, C. Chin, J. Hecker Denschlag, and R. Grimm
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 24. Ultracold Cs₂ Feshbach Spectroscopy
C. Chin, V. Vuletić, A. J. Kerman, S. Chu, E. Tiesinga, P.J. Leo and C.J. Williams
Phys. Rev. A 70, 032701 (2004)
 23. Thermal Equilibrium and Efficient Evaporation in an Ultracold Atom-Molecule Mixture
C. Chin and R. Grimm
Phys. Rev. A 69, 033612 (2004)
 22. Crossover from a Molecular Bose-Einstein Condensation to a Degenerate Fermi Gas
M. Bartenstein, A. Altmeyer, S. Riedl, S. Jochim, C. Chin, J. Hecker Denschlag, and R. Grimm
Phys. Rev. Lett. 92, 120401 (2004)
 21. Optimized Production of a Cesium Bose-Einstein Condensate
T. Kraemer, J. Herbig, M. Mark, T. Weber, C. Chin, H.-C. Nägerl and R. Grimm
Appl. Phys. B 79, 1013 (2004)
 20. Impact of Casimir-Polder Potential and Johnson Noise on Bose-Einstein Condensate Stability Near Surfaces
Y. Lin, I. Teper, C. Chin, and V. Vuletić
Phys. Rev. Lett. 92, 050404 (2004).
 19. Experiments with a Bose-Einstein Condensate of Cesium Atoms
T. Weber, J. Herbig, M. Mark, T. Kraemer, C. Chin, H.-C. Nägerl and R. Grimm
in Proceedings of the XVI International Conference on Laser Spectroscopy (ICOLS 2003, Palm Cove).
 18. Bose-Einstein Condensation of Molecules
S. Jochim, M. Bartenstein, A. Altmeyer, G. Hendl, S. Riedl, C. Chin, J. Hecker Denschlag and R. Grimm
Science 302, 2101 (2003); published online Nov. 13, 2003; 10.1126/science.1093280 (Science Express).
 17. Pure Gas of Optically Trapped Molecules Created from Fermionic Atoms
S. Jochim, M. Bartenstein, A. Altmeyer, G. Hendl, C. Chin, J. Hecker Denschlag, and R. Grimm
Phys. Rev. Lett. 91, 240402 (2003).
 16. Preparation of a Pure Molecular Quantum Gas
J. Herbig, T. Kraemer, M. Mark, T. Weber, C. Chin, H.-C. Nägerl and R. Grimm
Science 301, 1510-1513 (2003)
 15. Sensitive Detection of Cold Cesium Molecules Formed on Feshbach Resonances
C. Chin, A. J. Kerman, V. Vuletić and S. Chu
Phys. Rev. Lett. 90, 033201 (2003).
 14. Controlled Atom-Molecule Interactions in Ultracold Gases
C. Chin, V. Vuletić, A. J. Kerman and S. Chu
in Proceedings of the II. Asia Pacific Conference on Few-Body Problems in Physics (APFB 2002, Shanghai), Modern Physics Letters A 18, 398 (2003).
 13. Measurement of Collision Shifts on Clock Transition and Quantum Computation in Optical Lattices
C. Chin, V. Vuletić, A. J. Kerman and S. Chu
in Proceedings of the XV. International Conference on Laser Spectroscopy (ICOLS 2001, Snowbird).
 12. Cooling, Collisions and Coherence of Cold Cesium Atoms in a Trap (Ph.D. Thesis)

- C. Chin (Stanford 2001).
11. High Precision Feshbach Spectroscopy of Ultracold Cesium Collisions
C. Chin, V. Vuletić, A. J. Kerman and S. Chu
in Proceedings of the XVI. International Conference on Few-Body Problems in Physics (FB16, Taipei), Nuclear Physics A 684, 641 (2001).
 10. Measurement of An Electron's Electric Dipole Moment Using Cesium Atoms Trapped in Optical Lattices
C. Chin, V. Leiber, V. Vuletić, A. J. Kerman and S. Chu
Phys. Rev. A. 63, 033401 (2001).
 09. Determination of Cs-Cs Interaction Parameters Using Feshbach Spectroscopy
A. J. Kerman, C. Chin, V. Vuletić, S. Chu, P. J. Leo, C. J. Williams, and P. S. Julienne
in Proceedings of the Euroconference on Atomic Optics and Interferometry (Cargese), C. R. Acad. Sci. Paris, t. 2, Serie IV, p. 633 (2001).
 08. High Resolution Feshbach Spectroscopy of Cesium
C. Chin, V. Vuletić, A. J. Kerman and S. Chu
Phys. Rev. Lett. 85, 2717 (2000).
 07. Laser Cooling: Beyond Optical Molasses and Beyond Closed Transitions
V. Vuletić, A. J. Kerman, C. Chin, and S. Chu
in Proceedings of the XVII. International Conference on Atomic Physics (ICAP 2000, Florence).
 06. Beyond Optical Molasses: 3D Raman Sideband Cooling of Atomic Cesium to High Phase-Space Density
A. J. Kerman, V. Vuletić, C. Chin, and S. Chu
Phys. Rev. Lett. 84, 439 (2000).
 05. Suppression of Atomic Radiative Collisions by Tuning the Ground-State Scattering Length
V. Vuletić, C. Chin, A. J. Kerman, and S. Chu
Phys. Rev. Lett. 83, 943 (1999).
 04. Observation of Low-Field Feshbach Resonances in Collisions of Cesium Atoms
V. Vuletić, A. J. Kerman, C. Chin, and S. Chu
Phys. Rev. Lett. 82, 1406 (1999).
 03. Raman Sideband Cooling in An Optical Lattice
V. Vuletić, A. J. Kerman, C. Chin, and S. Chu
in Proceedings of the 14th International Conference on Laser Spectroscopy (ICOLS 1999, Innsbruck).
 02. Degenerate Raman Sideband Cooling of Trapped Cesium Atoms at Very High Atomic Densities
V. Vuletić, C. Chin, A. J. Kerman, and Steven Chu
Phys. Rev. Lett. 81, 5768 (1998).
 01. Exploring the Properties of the Physical Fields by Computer Simulation
C. Chin and W. Li
1989 National Science Exhibition (Ministry of Education, Taipei, Taiwan 1990).

Invited Talks in Conferences and Workshops (~ Nov. 2017)

- | | |
|-------|---|
| 11/17 | Conference on Frontiers in Two-Dimensional Quantum Systems (smr 3167) , Trieste, Italy |
| 10/17 | International School & Workshop on “Critical Stability of Quantum Few-Body Systems” ,
Dresden, Germany |
| 09/17 | Bose-Einstein condensation 2017: Frontiers in Quantum Gases , Sant Feliu, Spain |
| 06/17 | Aspen workshop on "Correlations and Entanglement in and out of Equilibrium: from Cold Atoms to Electrons" , Aspen, Co |
| 05/17 | SPICE workshop on Non-equilibrium Quantum Matter workshop , Schloss Waldthausen,
Mainz, Germany |
| 12/16 | NCTS Annual Meeting 2016: Quantum Simulation and Numerical Studies in Many-Body Systems , National Tsinghua University, Taiwan |
| 08/16 | Quantum Gases 2016: Non-equilibrium dynamics , Beijing, China. |
| 06/16 | Qin-Huang-Dao Summer Workshop: Beyond Standard Quantum Gases , Qinhuangdao, China |
| 06/16 | KITPC-PKU conference in Synthetic Topological Quantum Matter , Beijing, China |
| 04/16 | 614. We-Heraeus-Seminar, “Few-body physics: Advances and prospects in Theory and Experiment” , Physikzentrum Bad Honnef, Germany |

12/15 **IAS Program and Croucher Conference on Topological Phases in Condensed Matter and Cold Atomic Systems**, Hong Kong, China

11/15 **SFB/Transregio 21 Workshop 2015: 9th International Conference on Control of Quantum Correlations in Tailored Matter: Common Perspectives of Mesoscopic Systems and Quantum Gases**, Gunsberg, Germany

11/15 **The International Symposium on Material Sciences**, Osaka, Japan

10/15 **Joint Conference on Novel Quantum Matter**, Beijing, China

09/15 **12th US-Japan Seminar: Many-body Quantum Systems from Quantum Gases to Metrology and Information Processing**, Madison, Wisconsin

09/15 **FINESS-2015: Finite-Temperature Non-Equilibrium Superfluid Systems**, Sopot, Poland

08/15 **Synthetic Quantum Magnetism**, Dresden, Germany

08/15 **International Conference on Quantum Fluids and Solids**, Niagara Falls, NY

07/15 **CIOF 2015: 7th International Conference on Information Optics and Photonics**, Nanjing, China

07/15 **2015 Taiwan International Symposium on Contemporary Atomic and Optical Physics**, Hsinchu, Taiwan

04/15 **INT-15-1 Program: Frontiers in Quantum Simulation with Cold Atoms**, Seattle, WA

03/15 **Aspen Workshop: Non-equilibrium quantum matter**, Aspen, Co

03/15 **Quantum Many-Body Systems Far from Equilibrium**, Stellenbosch, South Africa

12/14 **Topological Aspects of Quantum Matters**, Hsinchu, Taiwan

11/14 **Phase Transitions in Low Dimensions**, Buffalo, NY

08/14 **Quantum Gases 2014: Synthetic Gauge and Large Spin System**, Beijing, China

08/14 **Extreme Sciences: Explore the Unknown Environments**, CiTou, Taiwan

08/14 **Quantum Critical Matter – From Atoms to Bulk (QCM 14)**, Obergurgl, Austria

08/14 **International Conference on Atomic Physics**, Washington DC

06/14 (Plenary) **OCPA8 International Conference on Physics Education and Frontier Physics**, Nanyang Technological University, Singapore

06/14 **American Physical Society DAMOP**, Madison, WI

03/14 **American Physical Society March meeting**, Denver, CO

02/14 **International Conference on Quantum Optics**, Obergurgl, Austria

02/14 **CIFAR Cold Atoms**, Banff, Canada

09/13 **NSFC-ISF: Joint Workshop on Bose-Einstein Condensation and Ultracold Phenomena**, Beijing, China

09/13 **Bose-Einstein Condensation 2013 – Frontier in Quantum Gases**, Sant Feliu de Guixols, Spain

04/13 **US-Japan Joint Seminar 2013**, Nara, Japan

04/13 **Few-body Physics in Cold Atomic Gases**, Beijing, China

03/13 **Finite temperature and low energy effects in cold atomic and molecular few- and many-body systems**, ITAMP, Cambridge, MA

03/13 **Universal Themes of Bose-Einstein Condensation**, Lorentz Center, Leiden, Netherlands

02/13 **FINESS-2013: Finite-Temperature Non-equilibrium Superfluid Systems**, Queenstown, New Zealand

01/13 **43rd Winter Colloquium on the Physics of Quantum Electronics (PQE-2013)**, Snowbird, UT

09/12 **Packard Fellow Meeting**, Monterey, CA

07/12 **ICTP Workshop on Quantum Simulations with Ultracold Atoms**, Trieste, Italy

07/12 **Summer School on Quantum Many-Body Physics of Ultra-Cold Atoms and Molecules**, Trieste, Italy

06/12 **5th International Symposium on Cold Atom Physics**, IChang, China

05/12 **2012 International workshop on ultracold atoms and molecules**, Taichung, Taiwan

05/12 **International Conference on Frontiers of Cold Atoms and Related Topics**, Hong Kong, China

03/12 **Frontiers of quantum condensed matter physics: light, matter and unusual devices out of equilibrium**, New York, NY

01/12 **2012 Aspen Ultracold Atomic Systems Conference**, Aspen, CO

11/11 **Modeling Materials with Cold Gases Through Simulations**, Zurich, Switzerland

09/11 **Bose-Einstein Condensation 2011 – Frontiers in Quantum Gases**, Sant Feliu de Guixols, Spain

09/11 **2011 Conference on the UK Network for Research at the Interface between Cold Atoms and Condensed Matter Physics**, Nottingham, UK

08/11 (Plenary) **26th International Conference on Low Temperature Physics**, Beijing, China

07/11 (Plenary) **The 7th Chinese Physicists Worldwide International Conference**, Kaohsiung, Taiwan

06/11 **Gordon Research Conference**, Vermont, VT

06/11 (Prize talk) **DAMOP (Meeting of the Division of Atomic, Molecular and Optical Physics)**, Atlanta, GA

06/11 **Aspen Workshop “Few- & Many-Body Physics in Cold Quantum Gases Near Resonance”**, Aspen, CO

05/11 **INT Ultracold Atom Symposium**, Seattle, WA

12/10 **Control of Quantum Correlations in Tailored Matter SFB/TTR 21 workshop (SFB/TTR21)**, Gunzburg, Germany

10/10 **Beyond Standard Optical Lattices**, Santa Barbara, CA

07/10 **Quantum Simulation Workshop**, Hefei, China

07/10 **4th International Symposium on Cold Atom Physics**, Zhoushan, China

06/10 **2nd International Conference: Nonlinear waves-Theory and Applications**, Beijing, China

06/10 **Complexity and Disorder at Ultra-low temperatures**, Santa Fe, NW

06/10 **Ultracold Fermi Gas: Superfluidity and Strong-Correlation**, Tokyo, Japan

06/10 **Critical Behavior of Lattice Models in Condensed Matter and Particle Physics**, Aspen, CO

05/10 **DAMOP (Meeting of the Division of Atomic, Molecular and Optical Physics)**, Houston, TX

05/10 **Joint Urbana Chicago Festival**, Chicago, IL

03/10 **APS March Meeting**, Portland, OR

11/09 **Ab-Initio Modeling of Cold Gases**, Zurich, Switzerland

10/09 **Efimov Physics in Ultracold Gases**, Innsbruck, Austria

10/09 **Efimov States in molecules and nuclei**, Rome, Italy

09/09 **Bose-Einstein condensation 2009 – Frontiers in Quantum Gases**, Sant Feliu de Guixols, Spain

08/09 **6th Meeting of Chinese Physicists Worldwide**, Lanzhou, China

07/09 **Low-Temperature Physics Conference in China**, Qingdao, China

07/09 **International Conference on Quantum Foundation and Technology: Frontier and Future**, Shanghai, China

07/09 **Colorado Cold Molecule Workshop**, Denver, CO

05/09 **Quantum Simulation/Computation with Cold Atoms and Molecules**, Aspen, CO

04/09 **Nearly Perfect Fluids – from quark-gluon plasma to ultracold atoms**, Research Triangle, NC

01/09 (Plenary Talk) **Third Winter School of Asian CORE Program**, Taipei, Taiwan

01/09 **39th Winter Colloquium on the Physics of Quantum Electronics (PQE-2009)**, Snowbird, UT

10/08 **New Laser Scientists Conference**, Rochester, NY

08/08 **Frontiers in Laser Cooling, Single-Molecule Biophysics and Energy Science**, Berkeley, CA

07/08 **21st International Conference on Atomic Physics**, Storrs, CT

07/08 **Third International Symposium on Cold Atom Physics**, Wuhan, China

07/08 **Summer School on Cold Atom Physics and Precision Measurements**, Shanghai, China

12/07 **Workshop on Bose-Einstein Condensation and Quantized Vortices in Superfluidity and Superconductivity**, Singapore

11/07 **2nd MidWest Cold Atom Workshop**, Madison, WI

09/07 **Packard Fellow Meeting**, Monterey, CA

08/07 **Summer School on Experimental Cold Atomic and Molecular Physics**, Shanghai

09/06 **4th COE Symposium On Physics of Self-Organization Systems**, Tokyo, Japan

06/06 **Gordon Research Conference**, South Hadley, MA

06/06 **Strong Correlations in Fermi Systems**, Copenhagen, Denmark
 02/06 **CIAR UltraCold Matter Workshop**, Banff, Alberta, Canada
 01/06 **Aspen Physics Workshop on Strong Correlations in Ultracold Fermi System**, CO
 12/05 **60th Anniversary of Phys. Dept. at National Taiwan University**, Taipei, Taiwan
 11/05 **Cold Atom Workshop**, Taipei, Taiwan
 09/05 **Workshop on Bose condensation and degenerate Fermi gases**, Wuhan, China
 09/05 **The Chinese Physics Society Annual meeting**, Wuhan, China
 08/05 **LT24 (International Conference on Low temperature Physics)**, Orlando, FL
 07/05 **Telluride Workshop on “Theory of Ultracold Molecules”**, Telluride, CO
 06/05 **Ultracold Trapped Atomic Gases**, Aspen, CO
 05/05 **DAMOP (Meeting of the Division of Atomic, Molecular and Optical Physics)**, Lincoln, NE
 04/05 **Strongly Interacting Quantum Gases**, Columbus, OH
 02/05 **Banff Cold Atom Meeting**, Banff, Alberta, Canada
 02/05 (Plenary Talk) **2005 PSROC Annual Meeting**, Kaohsiung, Taiwan
 10/04 **New Laser Scientist Conference III**, Rochester, NY
 09/04 **Meeting on Interacting Fermions and Optical Lattices**, ETH, Zürich, Switzerland
 07/04 **ISCAP-I (International Symposium on Cold Atom Physics)**, Jiangxi, China
 06/04 **Gordon Research Conference**, South Hadley, MA
 05/04 **CLEO/IQEC 2004**, San Francisco, CA
 09/03 **Theoretical Concepts and Recent Experiments on Ultracold Molecules**, Volterra, Italy
 06/00 **APS DAMOP (Meeting of the Division of Atomic, Molecular and Optical Physics)**, Storrs, CN
 03/99 **FB16 (International Conference on Few-Body Problems in Physics)**, Taipei, Taiwan

Colloquium and Seminar talks (Jan. 2005 ~Dec. 2017)

08/17 CM/AMO Seminar talk, UC San Diego, San Diego
 07/17 Special Seminar talk, MIT, Boston
 03/17 Seminar talk, Tsinghua University, Beijing, China
 03/17 Seminar talk, USTC, Hefei, China
 01/17 Colloquium talk, Physics Department, Purdue University
 12/16 AMO seminar talk, Academic Sinica, Taiwan
 12/16 Colloquium talk, Electrophysics Department, National Chiao Tung University, Taiwan
 11/16 Colloquium talk, University of British Columbia, Canada,
 10/16 Friday Lunch Seminar, University of Chicago
 06/16 AMO Seminar talk, Physics Department, Stanford University
 02/16 Colloquium talk, Physics Department, Columbia University, New York
 01/16 Physical Science Seminar, IBM Thomas J. Watson Research Center, Yorktown Height, New York.
 12/15 General Education Colloquium talk, National Cheng Kung University, Tainan, Taiwan
 12/15 Colloquium talk, University of Vermont, Burlington, Vermont
 11/15 887th Colloquium talk, Institute for Molecular Science, Okazaki, Japan
 10/15 Seminar talk, Tsinghua University, Beijing, China
 10/15 Seminar talk, University of Ulm, Ulm, Germany
 09/15 Seminar talk, Max Planck institute for Quantum Optics, Munich, Germany
 07/15 Seminar talk, Institute for Atomic and Molecular Science, Academic Sinica, Taiwan
 04/15 Colloquium talk and Seminar talk, Washington State University, WA
 03/15 Seminar talk, Harvard University, MA
 02/15 Colloquium talk, JILA, Co
 01/15 Colloquium talk, University of Michigan, MI
 01/15 Colloquium talk, Michigan State University, MI
 12/14 Seminar talk, Institute for Atomic and Molecular Science, Academic Sinica, Taiwan
 12/14 Seminar talk, Research Center for Applied Sciences, Academic Sinica, Taiwan

12/14 Colloquium talk, National Taiwan University, Taiwan
 11/14 Condensed matter seminar, Princeton University, NJ
 11/14 Colloquium talk, Illinois State University, Normal IL
 09/14 Seminar talk, University of Amsterdam, Amsterdam, Netherlands
 09/14 Seminar talk, Bonn University, Germany
 09/14 Seminar talk, Max Planck Institute of Quantum Optic, Garching, Germany
 05/14 Seminar talk, Tübingen University, Germany
 05/14 SFB/ZOQ colloquium talk, Tübingen University, Germany
 05/14 Ecole Normale Supérieure, France
 04/14 CQD Special Colloquium, Heidelberg University, Germany
 04/14 Seminar talk, Innsbruck University, Austria
 03/14 Colloquium talk, ETH, Zurich, Switzerland
 01/14 Seminar talk and 4 lectures, Ulm University, Germany
 01/14 Colloquium talk, Hamburg University, Germany
 01/14 SFB/TRR 21-Colloquium, Ulm University, Germany
 12/13 Seminar talk, National Tsinghua University, Hsinchu, Taiwan
 12/13 colloquium talk, seminar talk and 3 lectures, Institute of Atomic and Molecular Science, Academic Sinica, Taiwan
 11/13 Colloquium talk, Kansas State University, KS
 08/13 Seminar talk, Lincoln National Laboratory, MA
 07/13 Seminar talk, Physics Department, MIT, MA
 05/13 Seminar talk, Physics & Astronomy Department, Rice University, TX
 05/13 Seminar talk, Physics & Astronomy Department, Rice University, TX
 04/13 Institute of Advanced Studies, Tsinghua University, Beijing, China
 02/13 Colloquium talk, Enrico Fermi Institute, University of Chicago, IL
 12/12 Joint CQSE and CASTS Seminar talk, National Taiwan University, Taiwan
 12/12 Seminar talk, Institute of Physics, Academic Sinica, Taiwan
 10/12 Colloquium talk, University of Chicago, IL
 09/12 Hard Condensed Matter and Atomic-Molecular-Optical Physics Seminar, Georgia Institute of Technology, GA
 09/12 Seminar talk, Ecole Normale Supérieure, Paris, France
 09/12 AMO physics lectures, Ecole Normale Supérieure, Paris, France
 07/12 Seminar talk, Innsbruck University, Innsbruck, Austria
 06/12 Special lectures, Shanxi University, China
 05/12 Colloquium talk, Cornell University, NY
 03/12 Seminar talk, Georgia Institute of Technology, GA
 01/12 Seminar talk, Stanford University, CA
 01/12 Colloquium talk, Cornell University, NY
 12/11 Joint CQSE and CASTS Seminar talk, National Taiwan University, Taiwan
 12/11 Seminar talk, National Tsinghua University, Hsinchu, Taiwan
 10/11 Seminar talk, Purdue University (Calumet campus), Hammond, IN
 10/11 Atomic, Molecular, and Optical Physics Seminar talk, Northwestern University, Evanston, IL
 10/11 Colloquium talk, University of Wisconsin – Madison, Madison, WI
 09/11 Colloquium talk, Princeton University, Princeton, NJ
 09/11 Seminar talk, LENS, Florence, Italy
 09/11 Colloquium talk, University of Virginia, VA
 08/11 Seminar talk, Institute for Interdisciplinary Information Sciences, Tsinghua University, China
 06/11 Colloquium talk, Aspen Workshop, Aspen, CO
 02/11 Colloquium talk, Pennsylvania State University, State College, PA
 02/11 Colloquium talk, University of Washington, Seattle, WA

02/11 Colloquium talk, University of Connecticut, Storrs, CN
 12/10 Seminar talk, National Tsing-Hua University, Hsinchu, Taiwan
 12/10 Seminar talk, Institute of Physics, Academic Sinica, Taipei, Taiwan
 12/10 Colloquium talk, Physics Department, Chinese University of Hong Kong, Hong Kong, China
 12/10 Seminar talk, Institute of Atomic and Molecular Sciences, Academic Sinica, Taipei, Taiwan
 12/10 Colloquium talk, Institut für Angewandte Physik, University of Bonn, Bonn, Germany
 11/10 Seminar talk, 5th Physics institute, University of Stuttgart, Stuttgart, Germany
 11/10 Colloquium talk, Oklahoma State University, Stillwater, OK
 10/10 Colloquium talk, University of Calgary, Calgary, Canada
 10/10 CM seminar talk, Purdue University, IN
 09/10 CM seminar talk, University of Massachusetts Amherst, MA
 06/10 ZhongCuanCun Forum talk, Beijing, China
 06/10 Seminar talk, Peking University, Beijing, China
 06/10 Seminar talk, Tsinghua University, Beijing China
 04/10 AMO seminar talk, Joint Quantum Institute, University of Maryland, MD
 04/10 Colloquium talk, Indiana University-Purdue University, Indianapolis, IN
 04/10 Colloquium talk, Illinois Institute of Technology, Chicago, IL
 03/10 CM/AMO Seminar talk, University of Michigan, Ann Arbor, MI
 12/09 NCKU Physics/NCTS Seminar talk, National Cheng Kung University, Taiwan
 12/09 Seminar talk, Physics Department, National Chung Hsing University, Taiwan
 12/09 NTU Physics/CTS Seminar talk, National Taiwan University, Taiwan
 11/09 Colloquium talk, Physics Department, Colorado School of Mines, Golden, CO
 11/09 Special Colloquium talk, JILA, Boulder, CO
 11/09 Colloquium talk, Physics Department, University of Ulm, Germany
 10/09 Nuclear Physics Seminar Talk, University of Kentucky, Lexington, IL
 10/09 Colloquium talk, University of Kentucky, Lexington, IL
 10/09 AMO seminar talk, UC Berkeley, Berkeley, CA
 10/09 Colloquium talk, Northwestern University, Evanston, IL
 10/09 Colloquium talk, University of Chicago, Chicago, IL
 09/09 Colloquium talk, University of Massachusetts, Boston, MA
 09/09 Center for Ultracold Atoms Seminar talk, MIT, Boston, MA
 09/09 Colloquium talk, Heidelberg University, Heidelberg, Germany
 09/09 Seminar talk, Max-Planck-Institute for Quantum Optics, Munich, Germany
 08/09 Seminar talk, Los Alamos National Laboratory, Los Alamos, NM
 07/09 Seminar talk, Institute of Quantum Electronics, Peking University, University, Beijing, China
 07/09 Seminar talk, Institute of Physics, Chinese Academy of Science, Beijing, China
 07/09 Colloquium talk, Physics Department, Tsinghua University, Beijing, China
 07/09 Seminar talk, Center for Advanced Study, Tsinghua University, Beijing, China
 06/09 Colloquium talk, Institute for Quantum Computing, Waterloo, Canada
 04/09 Seminar talk, Physics Department, Ohio State University, OH
 04/09 Seminar talk, High Energy Physics division, Argonne National Laboratory, IL
 03/09 Colloquium talk, Physics Department, University of California, Davis, CA
 03/09 Seminar talk, Physics Department, University of Texas at Austin, TX
 03/09 AMO seminar talk, Physics Department, Rice University, Houston, TX
 12/08 CQSE Seminar talk, Institute of Atomic, Molecular Science, National Taiwan University, Taiwan
 09/08 Seminar talk, Physics Department, Michigan State University, MI
 09/08 Seminar talk, Physics Department, University of Toronto, Canada
 12/07 Seminar talk, Physics Department, National Tsinghua University, Hsinchu, Taiwan
 08/07 Seminar talk, Physics Department, Beijing University, China
 04/07 Colloquium talk, Physics Department, Northwestern University

12/06 Colloquium talk, Physics Department, National Taiwan University, Taipei, Taiwan
 10/06 HEP Seminar Talk, Physics Department, University of Chicago
 10/06 Colloquium talk, Physics Department, Toledo University
 09/06 Seminar talk, Physics Department, Kyoto University, Kyoto, Japan
 09/06 Seminar talk, Physics Department, Tokyo University, Tokyo, Japan
 08/06 Colloquium talk, Physics Department, National Cheng-Kung University, Tainan, Taiwan
 08/06 Seminar talk, Institute of Atomic and Molecular Science, Academic Sinica, Taipei, Taiwan
 05/06 Colloquium talk, Argonne National Laboratory, Argonne
 04/06 Seminar talk, Physics Department, Ohio State University
 04/06 Colloquium talk, Physics Department, Purdue University
 03/06 Contributed talk, APS March meeting, Baltimore, Maryland
 03/06 Colloquium talk, James Franck institute, University of Chicago
 01/06 Seminar talk, Physics Department, University of Michigan
 09/05 Seminar talk, Physics Department, Jiao Tong University, Shanghai, China
 03/05 Colloquium talk, Argonne National Laboratory, Argonne, IL
 03/05 Colloquium talk, Physics Department, University of Chicago, IL

Selected Public Coverage (since 2005)

2019 **American Physical Society Physics Viewpoint:** Zooming in on ultracold atoms
 2019 **UChicago PSD News:** Cold atoms act as messengers at a distance
 2019 **Nature News and Views:** New interactions seen in an ultracold gas
 2019 **UChicago News:** Machine learning reveals hidden turtle pattern in quantum fireworks
 2018 **UChicago News:** Quantum systems work together for change, UChicago scientists find
 2017 **Pro-physik.de:** Bosonenfalle für Fermionen
 2017 **American Physical Society Physics Synopsis:** Fermions trapped in Bose gas
 2017 **Univ. of Chicago News:** UChicago scientists see fireworks from atoms at ultra-low temperatures
 2017 **Univ. of Chicago News:** UChicago physicists settle debate over how exotic quantum particles form
 2017 **Univ. of Chicago:** Undergrads achieve levitation breakthrough
 2017 **Chicago Maroon:** Physics Undergraduates Help Discover New Levitation Method
 2017 **Univ. of Chicago News:** New method uses heat flow to levitate variety of objects
 2016 **Univ. of Chicago News:** Researchers confirm decades-old theory describing principle of phase transitions
 2015 **Univ. of Chicago News:** *Laser-wielding physicists seize control of atoms' behavior*
 2015 **Physics Viewpoint:** Casting new light on atomic interactions
 2015 **Univ. of Chicago News:** *Cesium atoms shaken, not stirred, to create elusive excitation in superfluid*
 2015 **Univ. of Chicago News:** *Exotic, gigantic molecules fit inside each other like Russian nesting dolls*
 2014 **Quanta:** *Physicists Find a Surprising Rule of Threes*
 2013 **Science:** Ultracold Big Bang experiment successfully simulates evolution of early universe
 2013 **Univ. of Chicago News:** Ultracold Big Bang experiment successfully simulates evolution of early universe

- 2012 **Univ. of Chicago News:** Ultracold experiments heat up quantum research
- 2011 **Univ. of Chicago News:** *Same rules apply to some experimental systems regardless of scale*
- 2009 **NSF:** *"Wedding Cake" Images Display Transitions between Exotic Quantum States*
- 2009 **Univ. of Chicago News:** *Experiment reveals dramatic transition from conductor to insulator*
- 2008 **Physorg.com:** *Physicists propose ultracold scheme for scalable quantum information processing*
- 2008 **Univ. of Chicago Inquiry:** *Faculty Q and A with Cheng Chin*
- 2007 **Univ. of Chicago News:** *Physicists warm up to ultracold experiments*