

## Invited Research Talks

- 52 Rice University, AMO Seminar**  
Houston, TX (USA), May 7, 2020  
*TBA*
- 51 Brookhaven National Lab, Quantum Seminar**  
Brookhaven, NY (USA), November 7, 2019  
*"Many-Body Physics with Atoms and Molecules under Quantum Control"*
- 50 Penn State University, AMO Seminar**  
University Park, PA (USA), October 8, 2019  
*"Many-Body Physics with Atoms and Molecules under Quantum Control"*
- 49 Joint Quantum Symposium 2019**  
New York, NY (USA), April 19, 2019  
*"Ultracold Dipolar Molecules for Quantum Simulation and Quantum Information"*
- 48 Rutgers University, Condensed Matter Seminar**  
New Brunswick, NY (USA), March 26, 2019  
*"Many-Body Quantum Physics with Ultracold Dipolar Molecules"*
- 47 NEQSys Workshop, Brookhaven National Lab**  
Brookhaven, NY (USA), October 26, 2018  
*"Quantum Simulation and Computation with Ultracold Atoms and Molecules"*
- 46 International Workshop on Precision Many Body Physics**  
Amherst, MA (USA), October 20, 2018  
*"Quantum Control of Ultracold Dipolar Molecules"*
- 45 Frontiers in Condensed Matter Physics (FCMP) Seminar**  
New York, NY (USA), October 4, 2018  
*"Quantum Simulation with Ultracold Quantum Gases"*
- 44 APS DAMOP Meeting 2018**  
Fort Lauderdale, FL (USA), May 29, 2018  
*"Quantum Control of Ultracold Dipolar Molecules"*
- 43 Erwin Schroedinger Institute, Quantum Paths Workshop**  
Vienna (Austria), April 18, 2018  
*"Quantum Control of Ultracold Atoms and Molecules" (blackboard talk)*
- 42 Joint Quantum Symposium 2018**  
New York, NY (USA), April 5, 2018  
*"Quantum Control of Ultracold Atoms and Molecules"*
- 41 Massachusetts Institute of Technology, iQulSE Seminar**  
Cambridge, MA (USA), March 15, 2018  
*"Quantum Control of Ultracold Dipolar Molecules"*

- 40 City University of New York, “Current Problems in Condensed Matter”**  
New York, NY (USA), November 10, 2017  
*“Quantum Control of Ultracold Dipolar Molecules”*
- 39 New York University, AMO Seminar**  
New York, NY (USA), October 31, 2017  
*“Quantum Control of Ultracold Dipolar Molecules”*
- 38 Princeton University, AMO Seminar**  
Princeton, NJ (USA), October 25, 2017  
*“Quantum Control of Ultracold Dipolar Molecules”*
- 37 ICPEAC 2016 - International Conference on Photonic, Electronic and Photonic Collisions**  
Cairns, Queensland (Australia), July 26, 2017  
*“Quantum Control of Ultracold Dipolar Molecules”*
- 36 Aspen Center for Physics, “Correlations and Entanglement in and out of equilibrium”**  
Aspen, CO (USA), July 11, 2017  
*“Quantum Control of Ultracold Dipolar Molecules” (blackboard talk)*
- 35 Frontiers in Condensed Matter Physics (FCMP) Seminar**  
New York, NY (USA), February 23, 2017  
*“Quantum Simulation with Ultracold Quantum Gases”*
- 34 ICQFT 2016, International Conference on Quantum Foundations and Technology**  
Shanghai (China), November 18, 2016  
*“Coherent Quantum Control of Ultracold Dipolar NaK Molecules”*
- 33 Collège de France, AMO Seminar**  
Paris (France), October 19, 2016  
*“Coherent Quantum Control of Ultracold Dipolar NaK Molecules”*
- 32 University of Innsbruck, AMO Seminar**  
Innsbruck (Austria), October 13, 2016  
*“Coherent Quantum Control of Ultracold Dipolar NaK Molecules”*
- 31 BEC Center, University of Trento, AMO Seminar**  
Trento (Italy), October 7, 2016  
*“Coherent Quantum Control of Ultracold Dipolar NaK Molecules”*
- 30 BEC 2016 “Quantum Gases and Quantum Coherence”**  
Salerno (Italy), September 1, 2016  
*“Coherent Quantum Control of Ultracold Dipolar NaK Molecules”*
- 29 Cornell University, AMO Seminar**  
Ithaca, NY (USA), February 18, 2016  
*“Ultracold Quantum Matter of Strongly Dipolar Molecules”*

- 28 Caltech, AMO Seminar**  
Pasadena, CA (USA), February 10, 2016  
*"Ultracold Quantum Matter of Strongly Dipolar Molecules"*
- 27 Columbia University, AMO Seminar**  
New York City, NY (USA), February 04, 2016  
*"Ultracold Quantum Matter of Strongly Dipolar Molecules"*
- 26 Princeton University, AMO Seminar**  
Princeton, NJ (USA), January 28, 2016  
*"Ultracold Quantum Matter of Strongly Dipolar Molecules"*
- 25 North Carolina State University, Colloquium**  
Raleigh, NC (USA), January 25, 2016  
*"Ultracold Quantum Matter of Strongly Dipolar Molecules"*
- 24 Yale University, AMO Seminar**  
New Haven, CT (USA), January 19, 2016  
*"Ultracold Quantum Matter of Strongly Dipolar Molecules"*
- 23 Stony Brook University, AMO Seminar**  
Stony Brook, NY (USA), October 12, 2015  
*"Ultracold Quantum Matter of Strongly Dipolar Molecules"*
- 22 University of Connecticut, AMO Seminar**  
Storrs, CT (USA), October 5, 2015  
*"Ultracold Quantum Matter of Strongly Dipolar Molecules"*
- 21 École Polytechnique Fédérale de Lausanne, AMO Seminar**  
Lausanne (Switzerland), September 29, 2015  
*"Ultracold Quantum Matter of Strongly Dipolar Molecules"*
- 20 Universität Bonn, AMO Seminar**  
Bonn (Germany), August 24, 2015  
*"Ultracold Dipolar Gas of Fermionic NaK Molecules in Their Absolute Ground State"*
- 19 Aspen Center for Physics, "Ultracold Quantum Matter with Atoms and Molecules"**  
Aspen, CO (USA), July 30, 2015  
*"Ultracold Dipolar Gas of Fermionic NaK Molecules in Their Absolute Ground State" (blackboard)*
- 18 UCLA, AMO Seminar**  
Los Angeles, CA (USA), March 19, 2015  
*"Ultracold Molecules of NaK – A Quantum Gas with Strong Dipolar Interactions"*
- 17 Massachusetts Institute of Technology, CUA Seminar**  
Cambridge, MA (USA), March 10, 2015  
*"Ultracold Molecules of NaK – A Quantum Gas with Strong Dipolar Interactions"*

- 16 University of Toronto, AMO Seminar**  
Toronto, ON (Canada), February 25, 2015  
*"Ultracold Molecules of NaK – A Quantum Gas with Strong Dipolar Interactions"*
- 15 Yale University, AMO Seminar**  
New Haven, CT (USA), February 17, 2015  
*"Ultracold Molecules of NaK – A Quantum Gas with Strong Dipolar Interactions"*
- 14 Universität Bayreuth, AMO Seminar**  
Bayreuth (Germany), January 9, 2015  
*"Ultracold Molecules of NaK – A Quantum Gas with Strong Dipolar Interactions"*
- 13 Symposium on "Experiments on Precision Many-Particle Physics"**  
Heidelberg (Germany), January 8, 2015  
*"Ultracold Molecules of NaK – A Quantum Gas with Strong Dipolar Interactions"*
- 12 Workshop on Quantum Gases, Fluids and Solids**  
Sao Carlos (Brasil), August 16, 2014  
*"Ultracold Molecules of NaK – A Quantum Gas with Strong Dipolar Interactions"*
- 11 Johannes Gutenberg-Universität Mainz**  
Mainz (Germany), June 30, 2014  
*"Ultrakalte NaK-Moleküle – Ein Quantengas mit stark dipolarer Wechselwirkung"*
- 10 Institute of Science and Technology Austria**  
Vienna (Austria), April 9, 2014  
*"Ultracold Molecules of NaK – A Quantum Gas with Strong Dipolar Interactions"*
- 9 University of Chicago, AMO Seminar**  
Chicago, IL (USA), November 9, 2013  
*"Ultracold Molecules of NaK – A Quantum Gas with Strong Dipolar Interactions"*
- 8 Williams College, Physics Colloquium**  
Williamstown, MA (USA), April 26, 2013  
*"Dipolar Molecules – A new player in the world of ultracold quantum matter"*
- 7 New Physics with Ultracold Molecules (hot topics)**  
Kavli Institute, Santa Barbara, CA (USA), March 15, 2013  
*"Towards Chemically Stable Ground State Molecules of NaK"*
- 6 International Conference on Quantum Gases of Polar Molecules**  
Beijing (China), August 28, 2012  
*"Towards Fermionic Ground-State Molecules with Strong Dipolar Interactions"*
- 5 Atominstitut Wien, AMO Seminar**  
Vienna (Austria), April 15, 2011  
*"Interacting Bosonic and Fermionic Atoms in 3D Optical Lattice Potentials"*

- 4 **Frontiers of Matterwave Optics - FOMO 2011**  
Obergurgl (Austria), March 25, 2011  
*"Quantum Phase Revival Spectroscopy"*
- 3 **DPG Spring Meeting - AMOP 2010**  
Hannover (Germany), March 8-12, 2010  
*"Interacting Bosonic and Fermionic Atoms in 3D Optical Lattice Potentials"*
- 2 **Massachusetts Institute of Technology, AMO Seminar**  
Cambridge, MA (USA), December 7, 2009  
*"Interacting Bosonic and Fermionic Atoms in 3D Optical Lattice Potentials"*
- 1 **18th Laser Physics Workshop - LPHYS 2009**  
Barcelona (Spain), July 13-17, 2009  
*"Interacting Bosonic and Fermionic Atoms in 3D Optical Lattice Potentials"*

## Outreach talks

- 9 **Society of Physics Students, Columbia University**  
New York, NY (USA), December 5, 2019  
*"Ultracold Dipolar Molecules – Experiments with the Coldest Matter in the Universe"*
- 8 **Graduate Student Seminar, Columbia University**  
New York, NY (USA), September 26, 2019  
*"Ultracold Matter for Quantum Simulation and Quantum Information"*
- 7 **Prospective Students Open House, Columbia University**  
New York, NY (USA), March 25, 2019  
*"Ultracold Atoms and Molecules"*
- 6 **Research Experiences for Undergraduates (REU) Program, Columbia University**  
New York, NY (USA), July 24, 2018  
*"Ultracold Atoms and Molecules"*
- 5 **Prospective Students Open House, Columbia University**  
New York, NY (USA), March 19, 2018  
*"Ultracold Atoms and Molecules"*
- 4 **Seminar on Current Problems in Physics, Columbia University**  
New York, NY (USA), January 30, 2018  
*"Quantum Simulation with Ultracold Quantum Gases"*
- 3 **Nevis Retreat, Columbia University**  
Irvington, NY (USA), December 1, 2017  
*"Quantum Control of Ultracold Dipolar Molecules"*
- 2 **Society of Physics Students, Columbia University**  
New York, NY (USA), November 30, 2017  
*"Ultracold Dipolar Molecules – A New Type of Ultracold Quantum Matter"*

- 1 Graduate Student Seminar, Columbia University**  
New York, NY (USA), February 24, 2017  
*"Ultracold Quantum Matter of Strongly Dipolar Molecules"*

## Other Talks and Selected Posters

- 24 Bose-Einstein Condensation 2017 – Frontiers in Quantum Gases (Poster)**  
Sant Feliu de Guixols (Spain), September 2-8, 2017  
*"Towards Ultracold Dipolar Molecules in Two Dimensions"*
- 23 APS DAMOP Meeting DAMOP 2016**  
Providence, RI (USA), May 26, 2016  
*"Coherent Microwave Control of Ultracold NaK Ground State Molecules"*
- 22 APS DAMOP Meeting 2015**  
Columbus, OH (USA), June 9, 2015  
*"Ultracold Dipolar Gas of Fermionic NaK Molecules in Their Absolute Ground State"*
- 21 APS DAMOP Meeting 2014**  
Madison, WI (USA), June 4, 2014  
*"Observation of Coherent Quench Dynamics in a Metallic Many-Body State of Fermionic Atoms"*
- 20 Bose-Einstein Condensation 2013 – Frontiers in Quantum Gases (Poster)**  
Sant Feliu de Guixols (Spain), September 7-13, 2013  
*"Towards Chemically Stable Fermionic Ground State Molecules of NaK"*
- 19 International Conference on Atomic Physics ICAP 2012 (Poster)**  
Palaiseau (France), July 23-27, 2012  
*"Strongly Interacting Mixtures of Bosonic  $^{23}\text{Na}$  and Fermionic  $^{40}\text{K}$ "*
- 18 DFG Excellence Grant Application of the MAINZ Graduate School**  
Bonn (Germany), February 22, 2012  
*"Ultracold Atoms in Optical Lattices"*
- 17 International Workshop on Ultracold and Molecular Quantum Gases**  
Schloss Ringberg (Germany), April 04, 2011  
*"Quantum Phase Revival Spectroscopy"*
- 16 IQOQI Innsbruck, Bloch/Zoller Group Retreat 2010**  
Innsbruck (Austria), June 17-18, 2010  
*"Interacting Bosons and Fermions in 3D Optical Lattice Potentials"*
- 15 MAINZ Graduate School Review Retreat**  
Schmittent/Taunus (Germany), April 14-16, 2010  
*"Interacting Bosonic and Fermionic Atoms in 3D Optical Lattice Potentials"*

- 14 DARPA OLE Phase II Kick-Off Meeting**  
Miami, FL (USA), December 3, 2009  
*"Expansion Dynamics of Fermions in an Optical Lattice" &  
"Multi-Orbital Quantum Phase Diffusion"*
- 13 APS DAMOP Meeting 2010**  
Houston, TX (USA), May 28, 2010  
*"Interacting Bose-Fermi Mixtures in 3D Optical Lattice Potentials"*
- 12 Goethe-Universität Frankfurt, Condensed Matter Theory Seminar**  
Frankfurt am Main (Germany), May 28, 2009  
*"Quantum Phase Diffusion & Mixtures of Bosonic and Fermionic Atoms"*
- 11 APS DAMOP Meeting 2009**  
Charlottesville, VA (USA), May 23, 2009  
*"Observation of Multi-Band Physics using Quantum Phase Diffusion in 3D Optical Lattices"*
- 10 APS DAMOP Meeting 2009**  
Charlottesville, VA (USA), May 22, 2009  
*"Repulsively Interacting Fermi-Fermi Mixtures in 3D Optical Lattices"*
- 9 DARPA OLE Phase I Review Meeting**  
Landsdowne Resort, VA (USA), May 18-19, 2009  
*"Bosonic Superfluidity near the Mott Insulator in 3D: Validating a Quantum Simulator" &  
"Fermions with Repulsive Interactions in 3D Optical Lattices"*
- 8 Faraday Discussions and EuroQUAM Meeting**  
Durham (UK), April 18-21, 2009  
*"Interacting Bosons and Fermions in 3D Optical Lattice Potentials"*
- 7 DPG Spring Meeting - AMOP 2009**  
Hamburg (Germany), March 2, 2009  
*"Observation of Multi-Band Physics using Quantum Phase Diffusion in 3D Optical Lattices"*
- 6 DARPA OLE Phase I Review Meeting**  
Las Vegas, NV (USA), December 15-18, 2008  
*"Repulsive Fermions in Optical Lattices" & "Quantum Phase Diffusion in Optical Lattices"*
- 5 International Conference on Atomic Physics ICAP 2008 (Poster)**  
Storrs, CT (USA), July 27 – August 1, 2008  
*"Interacting Bosonic and Fermionic Atoms in 3D Optical Lattice Potentials"*
- 4 Young Quantum Opticians Conference**  
Florence (Italy), March 29, 2008  
*"Coexistence of Bosonic and Fermionic Atoms in an Optical Lattice Potential"*
- 3 DPG Spring Meeting - AMOP 2008**  
Darmstadt (Germany), March 11, 2008  
*"Controlled Loading of an Ultracold Bose-Fermi Mixture into an Optical Lattice Potential"*

**2 International Conference on Atomic Physics ICAP 2006 (Poster)**

Innsbruck (Austria), July 16-21, 2006

*“Ultracold Na Atoms in a Hollow Core Photonic Crystal Fiber“*

**1 Center for Ultracold Atoms Seminar (10-minutes talk)**

Cambridge, MA (USA), March 14, 2006

*“Ultracold Na Atoms in a Hollow Core Photonic Crystal Fiber*