

Invited International Talks

- 319** **POSTECH Signature International Conference on Prospective Quantum Technology: Science and Applications**
Pohang (South Korea), 1- 3 November 2023
"New Avenues for Quantum Simulation with Ultracold Atoms, Molecules and Photons"
- 318** **Quantum Colloquium**
Cambridge (UK), 25 October 2023
"New Avenues for Quantum Simulation with Ultracold Atoms, Molecules and Photons"
- 317** **Future Science Week**
Hongkong (China), 15 October 2023
"Quantum Simulations using Ultracold Atoms Molecules and Photons"
- 316** **GRC Quantum Control of Light and Matter**
Newport (USA), 6-11 August 2023
"Quantum Simulation using Atoms, Photons and Molecules"
- 315** **Boulder Summer School: Non-Equilibrium Quantum Dynamics**
Boulder (USA), 3-28 July 2023
„Quantum Simulation using Ultracold Atoms"
- 314** **Precision Many-Body Physics Workshop**
Collège de France, Paris (France), 12-14 June 2023
"Probing equilibrium and non-equilibrium dynamics of the Hubbard model with ultracold atoms: non-local correlations and full counting statistics"
- 313** **Racah Lecture**
The Hebrew University of Jerusalem (Israel), 5 June 2023
"New Avenues for Quantum Simulation with Atoms, Molecules and Photons"
- 312** **Topology and Physics on Mount Carmel - Zak Fest**
Technion Haifa (Israel), 15-18 May 2023
"Probing Topology and Non-Equilibrium Dynamics Using Ultracold Atoms"

- 311 Princeton Physics Colloquium**
Princeton (USA), 13 April 2023
"New Avenues for Quantum Simulation with Atoms, Molecules and Photons"
- 310 IMPRS QST Berkeley-Munich Winter School**
Berkeley (USA), 8 January 2023
"Quantum Simulation and Quantum Computing using Ultracold Atoms"
- 309 Physics Colloquium – Weizmann Institute of Science**
Rehovot (Israel), 6 December 2022
"Large Scale Quantum Simulations using Ultracold Atoms in Optical Lattices"
- 308 Sorbonne Physics Colloquium**
Paris (France), 30 November 2022
"Quantum Simulations using Ultracold Atoms in Optical Lattices"
- 307 University of Birmingham Physics Colloquium**
Birmingham(UK), 23 November 2022
"Large Scale Quantum Simulations using Ultracold Atoms in Optical Lattices"
- 306 Wave Localisation, Many-body Localisation, and Quantum Information**
Cargèse (France), 24-27 October 2022
"Quantum Simulation using Ultracold Atoms in Optical Lattices" & "Experimental Probes of Many-Body Localisation using Ultracold Atoms"
- 305 Lise Meitner Distinguished Lecture**
AlbaNova Stockholm (Sweden), 22 September 2022
"Large Scale Quantum Simulations using Ultracold Atoms in Optical Lattices"
- 304 DYNISQ22 Program**
KITP Santa Barbara (USA), 2 September 2022
"Exploring Non-Equilibrium Dynamics using Ultracold Atoms in Optical Lattices"
- 303 Nobel Symposium on Emerging Quantum Technologies**
Malmö (Sweden), 25-28 August 2022
"Large Scale Quantum Simulations using Ultracold Atoms in Optical Lattices"

- 302 Quantum Interactive Dynamics**
Oxford University (UK), 23 June 2022
"Probing Non-Equilibrium Dynamics and KPZ Universality using Ultracold Atomic Quantum Simulations"
- 301 Open System Control of Atomic and Photonic Matter**
Physikzentrum Bad Honnef (Germany), 14 June 2022
"Subwavelength Arrays of Quantum Emitters as Novel Light Matter Interfaces"
- 300 Mathematical Results in Quantum Many-Body Systems**
Herrsching (Germany), 9 June 2022
"Probing Quantum Matter In- and Out-of-Equilibrium Using Quantum Gas Microscopes"
- 299 DAMOP Meeting 2022**
Orlando (USA), 30.5.-3.6.2022
"A Single Rydberg Atom Controlled Optical Mirror formed by Subwavelength Arrays of Atoms"
- 298 EU Cluster Review Meeting (PASQuaS)**
Paris (France), 13 May 2022
"Programmable Atomic Large Scale Quantum Simulations"
- 297 QFARM Seminar (Stanford University)**
Stanford (USA), 4 May 2022
"From Kardar-Parisi-Zhang Superdiffusion in Heisenberg Quantum Magnets to Novel Quantum Optical Light Matter Interfaces with Subwavelength Atomic Arrays"
- 296 Stanford Physics Colloquium**
Stanford (USA), 3 May 2022
"Quantum Matter under the Microscope - Engineering and Probing Quantum Matter using Quantum Simulations"
- 295 The European Spring School on Quantum Science and Technology**
Strasbourg (France), Invited Lectures, 11-12 April 2022
"Large Scale Quantum Simulations using Ultracold Quantum Gases in Optical Lattices"
- 294 APS March Meeting 2022**
Chicago (USA), Invited talk (virtual), 14-18 March 2022
"From Polaronic Metals to Hole Pairing - Exploring Fermi-Hubbard Systems using Quantum Gas Microscopy"

- 293 European Quantum Technologies Conference**
Dublin (virtual), Keynote talk, 29 November-2 December 2021
"Quantum Simulations"
- 292 ESI Workshop Topology, Disorder, and Hydrodynamics in Non-equilibrium Quantum Matter**
Vienna (virtual), 29 November 2021
"Probing Kardar-Parisi-Zhang Universality in Heisenberg Quantum Magnets"
- 291 NIST Grand Challenges in QST**
NIST (virtual), 22 November 2021
"Quantum Simulations"
- 290 1st International Symposium in Trans Scale Quantum Science**
Tokyo (virtual), 25-29 October 2021
"Probing Quantum Matter In- and Out-Of-Equilibrium on a Large Scale Atomic Quantum Simulator"
- 289 Bose-Einstein-Condensation 2021**
San Feliu de Guixols, 13-17 September 2021
"Probing Kardar-Parisi-Zhang Universality in Heisenberg Quantum Magnets"
- 288 HKUST IAS Center for Quantum Technologies Inaugural Workshop**
Hong-Kong, Videoconference talk, 26 August 2021
"Probing Quantum Matter In and Out of Equilibrium on a Large-Scale Atomic Quantum Simulator"
- 287 Chilloquium: Harvard Students Colloquium Cambridge**
Videoconference lecture 16 August 2021
"Large Scale Quantum Simulations using Ultracold Atoms"
- 286 Boulder Summer School for Condensed Matter and Material Physics**
Boulder, Videoconference lecture series, 26-28 July 2021
"Experimental Probes of Many-Body Localization Experiments and Non-Equilibrium dynamics"
- 285 VI International Conference on Quantum Technologies (ICQT) - Digital Edition**
Moscow, Videoconference talk, 15 July 2021
"Probing Quantum Matter In and Out of Equilibrium on a Large-Scale Atomic Quantum Simulator"

- 284 Janet Das Sarma Colloquium Series QUANTUM**
Videoconference, 17 May 2021
"Realizing and Probing Quantum Matter using Large Scale Quantum Simulations"
- 283 ICTS Online School on Trapped Atoms, Molecules and Ions, Bangalore (India)**
Videoconference lectures, 18-19 May 2021
"Quantum Simulation"
- 282 Cornell University Physics Colloquium**
Videoconference 3 May 2021
"Engineering and Probing Quantum Matter using Large Scale Quantum Simulations"
- 281 ICFO/IMPRS QST Summer School**
Videoconference 24. March 2021
"Engineering and Probing Quantum Matter using Quantum Simulations"
- 280 Tel Aviv University - Center for Quantum Science and Technology Seminar**
Videoconference, 16 March 2021
"Engineering and Probing Quantum Matter using Quantum Simulations"
- 279 Israel Quantum Meetup**
Videoconference, 18 January 2021
"Quantum Simulation and Quantum Computing"
- 278 Workshop on Quantum Simulation**
Tze'elim (Israel) 23-26 February 2020
"Engineered Ultracold Quantum Matter - From Quantum Simulations to Novel Quantum Light-Atom Interfaces"
- 277 Universidad Autonoma de Barcelona (UAB) Physics Colloquium**
Barcelona (Spain), 19 February 2020
"Quantum Matter under the Microscope"
- 276 Harvard Quantum Optics Seminar**
Harvard University (USA), 5 February 2020
From Non-Equilibrium Topological Matter to Rydberg Macrodimers

- 275 Harvard Physics Colloquium**
Harvard University (USA), 3 February 2020
“Engineered Ultracold Quantum Matter - From Quantum Simulations to Novel Quantum Light-Atom Interfaces”
- 274 Ultra-Quantum Matter (UQM) Meeting – Simons Foundation**
New York (USA), 23-24 January 2020
- 273 Japan-EU-US Symposium on Quantum Technologies**
Kyoto (Japan), 16-17 December 2019
“Quantum Simulations using Ultracold Atoms and Ions”
- 272 Quantum Simulations in Optical Lattices and Beyond**
Shanghai (China), 13-14 December 2019
“Exploring Quantum Matter Using Ultracold Atoms”
- 271 Chalmers University - Light at the Nanoscale: From Molecules to Quants**
Gothenburg (Sweden), 5-6 December 2019
“Quantum Matter under the Microscope”
- 270 APS Ridge Colloquium**
Ridge (USA), 21 November 2019
“Large Scale Quantum Simulations Using Ultracold Atoms”
- 269 Stony Brook – Physics Colloquium**
Stony Brook (USA), 20 November 2019
“Large Scale Quantum Simulations Using Ultracold Atoms”
- 268 Flatiron Institute – Workshop on Nonequilibrium Quantum Matter**
New York (USA), 19 November 2019
“Exploring Quantum Matter using Ultracold Atoms”
- 267 Ernest Kempton Adams Lecture – Columbia University**
New York (USA), 18 November 2019
“Quantum Many-Body Dynamics under the Microscope”
- 266 Open Questions in Quantum Physics: Information, Computation and Foundations**
ESTEC, Leiden (Netherlands), 15 November 2019
“Large Scale Quantum Simulations Using Ultracold Atoms”
- 265 Ordering and Dynamics of Correlated Quantum Systems**
Évero (Portugal) 21-25 October 2019
“Fermi Hubbard Model under the Quantum Gas Microscope”

- 264 Les Houches Summer School - Dynamics and Disorder in Quantum Many Body Systems Far From Equilibrium**
Les Houches (France), 17 July – 23 August 2019
“Nonequilibrium Dynamics with Ultracold Atoms”
- 263 Designing Quantum Matter**
San Sebastian (Spain), 16-18 July 2019
“From Dynamical Spin Charge Deconfinement to Rydberg Macrodimers”
- 262 Quantum Connections - Summer School**
Stockholm (Sweden), 17-20 June 2019
“Large Scale Quantum Simulations Using Ultracold Atoms in Optical Lattices”
- 261 GRC Atomic Physics**
Newport Rhode Island (USA), 9-12 June 2019
“From Dynamical Spin Charge Deconfinement to Rydberg Macrodimers”
- 260 New Trends in Quantum Complex Systems**
Venice (Italy), 8-11 April 2019
“Quantum Simulations using Ultracold Atoms”
- 259 Quantum Information and Measurement (QIM) V: Quantum Technologies
Plenary Talk**
Rome (Italy), 4-6 April 2019
“Quantum Simulations using Ultracold Atoms”
- 258 Quantum Information: The Second Quantum Revolution?**
Brussels (Belgium), 30 March 2019
“Quantum Simulations of Condensed Matter Systems”
- 257 ITAMP Winterschool on Quantum Many-Body Systems**
Biosphere 2, Tucson (USA), 10-16 March 2019
“Probing Nonequilibrium Dynamics Using Ultracold Atoms”
- 256 Quantum Seminar**
Yale Quantum Institute (YQI), New Haven (USA), 26 February 2019
“From Topology to Many-Body Localization using Ultracold Atoms”
- 255 Hanan Rosenthal Lecture**
Yale University, New Haven (USA), 25 February 2019
“Realizing Richard Feynman’s Dream of a Quantum Simulator”

- 254 Solvay Workshop on Quantum Simulation**
Brussels (Belgium), 18-20 February 2019
“Controlling and Exploring Quantum Matter using Ultracold Atoms”
- 253 SFB FoQuS Symposium**
Innsbruck (Austria), 8 February 2019
“Controlling and Exploring Quantum Matter using Ultracold Atoms”
- 252 Nonequilibrium and transport in many-body systems**
Weizmann Institute of Science, Rehovot (Israel), 20-24 January 2019
“Probing Nonequilibrium Dynamics Using Ultracold Atoms”
- 251 Colloquium CERN**
Geneva (Switzerland), 9 November 2018
“Realizing Richard Feynman’s Dream of a Quantum Simulator”
- 250 Colloquium IST Austria**
Vienna (Austria), 29 October 2018
“Realizing Richard Feynman’s Dream of a Quantum Simulator”
- 249 Scott Lectures – Cambridge University**
Cambridge (UK), 22 October-26 October 2018
Three part lecture series
- 248 Colloquium – Instituto Fisica Teorica**
Madrid (Spain), 18 October 2018
“Exploring Quantum Matter Using Ultracold Atoms in Optical Lattices”
- 247 Paco Yndurain Lecture – Universidad Autonoma de Madrid**
Madrid (Spain), 17 October 2018
“Realizing Richard Feynman’s Dream of a Quantum Simulator”
- 246 Physics Colloquium – Weizmann Institute of Science**
Rehovot (Israel), 11 October 2018
“Probing and Exploring Quantum Matter Using Ultracold Atoms in Optical Lattices”
- 245 ICTP Summer School “Collective Behaviour in Quantum Matter”**
Trieste (Italy), 5-6 September 2018
“Introduction to Ultracold Atoms in Optical Lattices”

- 244 GRC Quantum Science**
Easton (USA), 29 July – 2 August 2018
“Large Scale Quantum Simulations Using Ultracold Atoms in Optical Lattices”
- 243 ICAP 2018**
Barcelona (Spain), 23-27 July 2018
“Probing Topological Order and Hidden Magnetism in Ultracold Quantum Gases”
- 242 CLEO – Invited Lecture**
San Jose (USA), 14-17 May 2018
“Large Scale Quantum Simulations Using Ultracold Atoms in Optical Lattices”
- 241 Symposium on Quantum Science and Engineering**
Technion, Haifa (Israel), 7-8 May 2018
“Large Scale Quantum Simulations Using Ultracold Atoms in Optical Lattices”
- 240 Statistical Mechanics Out Of Equilibrium**
Princeton (USA), 30 April – 2 May, 2018
“Probing Many-Body Localization using Ultracold Quantum Gases”
- 239 Nonthermal Quantum Systems**
Boston (USA), 11-15 March 2018
“Probing Many-Body Localization using Ultracold Quantum Gases”
- 238 APS March Meeting – Invited Talk**
Los Angeles (USA), 8 March 2018
“Probing Many-Body Localization using Ultracold Quantum Gases”
- 237 Boltzmann Lecture**
SISSA, Trieste (Italy), 20 February 2018
“Probing the Frontiers of Statistical Physics Using Ultracold Atoms”
- 236 Quantum Simulation & Computation**
Bilbao (Spain), 12-16 February 2018
“Large Scale Quantum Simulations Using Ultracold Atoms”
- 235 Summer School on Topological Matter**
ANU, Canberra (Australia), 15-18 January, 2018
“Realising and Probing Topology Using Ultracold Atoms in Optical Lattices”

- 234 Rutgers University, Physics Colloquium**
New Brunswick (USA), 6 December, 2017
“Large Scale Quantum Simulations Using Ultracold Atoms”
- 233 International Conference on Quantum Simulations**
Paris (France), 13-17 November 2017
“Large Scale Quantum Simulations Using Ultracold Atoms”
- 232 The Second Quantum Revolution – Symposium honouring Alain Aspect**
Berlin (Germany), 10 November 2017
“From Order to Disorder in Ultracold Quantum Gases”
- 231 Physics on Friday Colloquium**
Pisa (Italy), 3 November 2017
“Probing and Controlling Quantum Matter using Ultracold Atoms in Optical Lattices”
- 230 Onassis Lectures on Quantum physics frontiers explored with cold atoms, molecules and photons**
Heraklion (Greece), 24-27 July 2017
“Controlling and Exploring Quantum Matter using Ultracold Atoms in Optical Lattices”
- 229 Conference on Many-Body-Localization @ ICTP**
Trieste (Italy), 10-14 July 2017
“Probing Many-Body Localization from an Ultracold Atom Perspective”
- 228 Frontiers in Emergent Quantum Phenomena @ NYU**
New York (USA), 28-30 June 2017
“Large Scale Quantum Simulations Using Ultracold Atoms in Optical Lattices”
- 227 Blackboard Seminar @ KITP**
Santa Barbara (USA), 10 October 2016
“Controlling and Exploring Quantum Matter Using Ultracold Atoms in Optical Lattices”
- 226 Public Lecture @ KITP**
Santa Barbara (USA), 29 September 2016
“Realizing Richard Feynman’s Dream of a Quantum Simulator”

- 225 Workshop on Many-body Dynamics and Open Quantum Systems (DOQS) 2016**
Glasgow (UK), 30 August – 2 September 2016
“Fermionic Quantum Gas Microscopes and MBL with Ultracold Atoms”
- 224 European Science Open Forum (ESOF) 2016**
Manchester (UK), 25 July 2016
“Realizing Richard Feynman’s Dream of a Quantum Simulator”
- 223 Varenna Sumer School – Quantum Simulations**
Varenna (Italy), 21-23 June 2016
“Probing and Controlling Quantum Matter in Optical Lattices”
- 222 Les Houches Summer School – Current Trends in Atomic Physics**
Les Houches (France), 15-19 July 2016
“Probing and Controlling Quantum Matter in Optical Lattices”
- 221 Quantum Matter Workshop**
Benasque (Spain), 29 June – 3 July 2016
“Many-Body Localization from an Experimental Ultracold Atom Perspective”
- 220 Itzykson Conference on Dynamics & Disorder**
IPhT CEA-Saclay (France), 13-15 June 2016
“Many-Body Localization from an Experimental Ultracold Atom Perspective”
- 219 Quantum Science, Matter & Engineering Symposium**
Technion, Haifa (Israel), 1-2 June 2016
“Probing and Controlling Non-Equilibrium Dynamics using Ultracold Atoms”
- 218 Bar Ilan University - Physics Colloquium**
Ramat Gan (Israel), 30 May 2016
“Probing and Controlling Non-Equilibrium Dynamics using Ultracold Atoms”
- 217 APS March Meeting Focus Session – Recent Advances in Many-Body Localization**
Baltimore (USA), 18 March 2016
“Many-body localization of interacting fermions in quasi-random optical lattices”

- 216** **Gordon Research Conference – Ultrafast Phenomena in Cooperative Systems**
Il Ciocco (Italy) 17-19 February 2016
“Probing and Controlling Non-Equilibrium Dynamics using Ultracold Atoms”
- 215** **Solvay Workshop**
UBL Brussels (Belgium), 9-11 February 2016
“Many-Body Localization from an Experimental Ultracold Atom Perspective”
- 214** **Israeli Physical Society Meeting – Keynote Talk**
Bar Ilan University (Israel), 13 December 2015
“Probing and Controlling Quantum Matter at the Single Atom Level”
- 213** **Program on Many-Body Localization – Invited Seminar**
KITP (USA), 2 December 2015
“Probing Many-Body Localization Using Ultracold Atoms”
- 212** **Alba Nova and Nordita – Physics Colloquium**
AlbaNova University Center, Stockholm Center for Physics, Astronomy and Biotechnology (Sweden), 26 November 2015
“Probing and Controlling Quantum Matter at the Single Atom Level”
- 211** **University of Maryland – Physics Colloquium**
University of Maryland (USA), 3 November 2015
“Probing and Controlling Quantum Matter at the Single Atom Level”
- 210** **Joint Quantum Institute (JQI) – Seminar**
Maryland (USA), 2 November 2015
“From Many-Body Localization to Topology – New Frontiers for Ultracold Quantum Gases”
- 209** **Bose-Einstein Condensation 2015 – Frontiers in Quantum Gases**
Sant Feliu du Guixols (Spain), 5-11 September 2015
“From Many-Body Localisation to Thouless Quantum Pumps - New Frontiers for Ultracold Quantum Gases”
- 208** **Workshop on Interacting Fermions: Precision Theory and Experiment**
Trieste (Italy), 6-10 July 2015
“From Many-Body Localization to Long-Range Interacting Rydberg Gases - New Frontiers for Ultracold Quantum Gases”

- 207** **22nd International Conference on Laser Spectroscopy**
Singapore, 28 June - 3 July 2015
“From Many-Body Localization to Novel Rydberg Quantum Magnets - New Frontiers for Ultracold Quantum Gases”
- 206** **Quantum Frontiers Distinguished Lecture**
Waterloo (Canada), 24 June 2015
“From Topological Bloch Bands to Long-Range Interacting Rydberg Gases - New Frontiers for Ultracold Atoms”
- 205** **University of Strathclyde, Department of Physics, Optics Division seminars**
Glasgow (UK), 1 June 2015
“Probing and Controlling Ultracold Quantum Gases – from Single Atoms to Rydberg Dressing”
- 204** **CLEO: 2015 - Laser Science to Photonic Applications**
San Jose (USA), 10-15 May 2015
“Probing and Controlling Quantum Matter in Crystals of Light”
- 203** **Topological and Strongly Correlated Phases in Cold Atoms**
Princeton (USA), 30 April - 1 May 2015
“From Many-Body Localization to Novel Quantum Magnets: New Frontiers for Ultracold Gases”
- 202** **Physics Colloquium – Caltech**
Pasadena (USA), 12 February 2015
“Controlling and Exploring Quantum Matter at the Single Atom Level”
- 201** **Physics Colloquium – Oxford University**
Oxford (UK), 6 February 2015
“Probing and Controlling Quantum Matter in Artificial Crystals of Light”
- 200** **Fundamental physics with Light & Atoms**
Turin (Italy), 27 January 2015
“From topological Bloch bands to quantum magnetism with Rydberg atoms - New perspectives for ultracold gases”
- 199** **Accademia de Lincei – Challenges in Crystallography**
Rome (Italy), 13-14 October 2014
“Probing and Controlling Quantum Matter in Artificial Crystals of Light”

- 198 Okinawa School in Physics – 3 Lectures**
Okinawa (Japan), 15-18 September 2014
“Probing and Controlling Quantum Matter in Optical Lattices”
- 197 Erwin Schrödinger Institut – Topological Phases of Matter**
Vienna (Austria), 11 September 2014
“Realizing and Controlling Topological Bloch Bands in Optical Lattices”
- 196 Aspen Center for Physics – Colloquium**
Aspen (USA), 4 September 2014
“Controlling and Exploring Quantum Matter at the Single Atom Level”
- 195 Gordon Research Conference on Quantum Science**
Easton (USA), 27-31 July 2014
“Probing and Controlling Topological Bloch Bands”
- 194 Enrico Fermi Summer School on Cold Quantum Gases**
Varenna (Italy), 7-17 July 2014
“Probing and Controlling Quantum Matter in Optical Lattices”
(three course lecture series)
- 193 Non-Equilibrium Phenomena in Condensed Matter and String Theory – ICTP**
Trieste (Italy), 30 June – 2 July 2014
“Probing Non-Equilibrium Quantum Dynamics at the Single Atom Level”
- 192 Quantum Matter Workshop – Benasque Physics Center**
Benasque (Spain), 16-27 June 2014
“From Topological Bloch Bands to Long Range Interacting Rydberg Atoms”
- 191 Dynamics and Transport in Quantum Matter – Technion**
Haifa (Israel), 6-10 June 2014
“From Topological Bloch Bands to Long Range Interacting Rydberg Atoms”
- 190 BEC 2014 Workshop**
Levico (Italy), 29 May 2014
“Engineering and Probing Topological Bloch Bands in Optical Lattices”

- 189** **PLANCKS Symposium – Beatrix Theatre Utrecht**
Utrecht (Netherlands), 23 May 2014
“Controlling and Exploring Quantum Matter at the Single-Atom Level”
(Symposium speaker together with G. ‘t Hooft & S. Hawking)
- 188** **Collège de France Colloquium – Collège de France**
Paris (France), 14 May 2014
“Engineering and Probing Topological Bloch Bands in Optical Lattices”
- 187** **Milan Physics Colloquium – Milan University**
Milan (Italy), 15 April 2014
“Controlling and Exploring Quantum Matter at the Single Atom Level”
- 186** **Condensed Matter Physics Seminar – Harvard University**
Cambridge (USA), 10 April 2014
“From Topological Bloch Bands to Long-Range Interacting Rydberg Crystals”
- 185** **Vernon Hughes Memorial Lecture – Yale University**
New Haven (USA), 24 March 2014
“Controlling and Exploring Quantum Matter at the Single Atom Level”
- 184** **Workshop on New Perspectives on Thermalization - Aspen Physics Center**
Aspen (USA), 17-21 March 2014
“Probing Non-Equilibrium Quantum Dynamics at the Single Atom Level”
- 183** **Frontiers in the Quantum World Symposium**
Florence (Italy), 10 March 2014
“From Laser Assisted Tunneling to Rydberg Crystals”
- 182** **Einstein Colloquium – Weizmann Institute of Science**
Rehovot (Israel), 23 January 2014
„Controlling and Exploring Quantum Matter at the Single Atom Level“
- 181** **Physics Colloquium – University of Basel**
Basel (Switzerland), 22 November 2013
„Controlling and Exploring Quantum Matter at the Single Atom Level“

- 180** **Physics Colloquium@ MIT**
Cambridge (USA), 14 November 2013
„Controlling and Exploring Quantum Matter at the Single Atom Level“
- 179** **Innsbruck Physics Lecture**
Innsbruck (Austria), 22 October 2013
“Controlling and Exploring Quantum Matter at the Single Atom Level”
- 178** **The Quantum Century: 100 Years of the Bohr Atom**
Copenhagen (Denmark), 3-4 October 2013
“Probing and Exploring at the Single Atom Level”
- 177** **International BEC Conference**
San Feliu de Guixol (Spain), 8-12 September 2013
“Probing and Controlling Quantum Matter in New Parameter Regimes”
- 176** **Frontiers of Quantum Physics and Quantum Information**
ICFO Barcelona (Spain), 25-27 July 2013
“Ultracold Quantum Gases in Optical Lattices”
- 175** **International Conference on Quantum Technologies**
Moscow (Russia), 20-24 July 2013
“From Spin Dynamics to Topological Bloch Bands with Ultracold Atoms”
- 174** **Synthetic Gauge Fields for Atoms and Photons**
Trento (Italy), 8-12 July 2013
“Probing Quantum Matter in Topological Bloch Bands”
- 173** **QIPC Conference**
Florence (Italy), 1-5 July 2013
“Quantum Matter under the Microscope”
- 172** **Gordon Conference on Atomic Physics**
Newport (USA), 24-28 June 2013
“Realizing Quantum Matter with Ultracold Atoms and Ions”
- 171** **50 Years Hubbard Model**
University College London (UK), 18 June 2013
“Probing Quantum Matter at the Single Atom Level”
- 171** **Quantum Optics 8**
Jachranka (Poland), 30 May 2013
“Exploring Quantum Matter Using Ultracold Atoms in Optical Lattices”

- 170 IQEC/CLEO 2013 – Keynote Talk**
Munich (Germany), 14 May 2013
“Quantum Simulations Using Ultracold Atoms”
- 169 Workshop on New Magnetic Field Frontiers**
Les Houches (France), 10 May 2013
“Quantum Magnetism Using Ultracold Atoms in Optical Lattices”
- 168 Workshop on Light Matter Interactions**
Ein Gedi (Israel), 22-25 April 2013
“Probing Non-Equilibrium Dynamics Using Ultracold Atoms in Optical Lattices”
- 167 Collège de France**
Paris (France), 2 April 2013
“Probing Quantum Matter Using Ultracold Quantum Gases”
- 166 Solvay Colloquium – ULB Brussels**
Brussels (Belgium), 26 March 2013
“Probing and Controlling Quantum Matter at the Single Atom Level”
- 165 Anderson-Higgs Focus Session – APS March Meeting 2013**
Baltimore (USA), 18-22 March 2013
“The ‘Higgs’ Amplitude Mode at the Two-Dimensional Superfluid to Mott Insulator Transition”
- 164 Physics Days – Finnish Physical Society (Plenary Talk)**
Espoo (Finland), 15 March 2013
“Probing and Controlling Ultracold Quantum Matter”
- 163 IST Austria – Colloquium**
Klosterneuburg (Austria), 25 February 2013
“Probing and Controlling Ultracold Quantum Matter”
- 162 FINES 2013**
Queenstown (New Zealand), 17-20 February 2013
“Probing Non-Equilibrium Dynamics Using Ultracold Quantum Gases”
- 161 NORDITA Workshop – Pushing the Boundaries with Cold Atoms**
Stockholm (Sweden), 6-8 February 2013
“New Frontiers with Ultracold Quantum Gases in Optical Lattices”
- 160 Physics Colloquium at the Technion**
Haifa (Israel), 28 January 2013
“Probing Quantum Matter under Extreme Conditions”

- 159 **Physics@FOM, Focus Session “From Ultracold to Ultrahot”**
Veldhoven (Netherlands), 23 January 2013
“Probing Quantum Matter under Extreme Conditions”
- 158 **Quantum Information Meets Statistical Mechanics (QISM)**
Innsbruck (Austria), 22-25 September 2012
“Ultracold Quantum Gases under Extreme Conditions”
- 157 **Nanosciences: Soft, Solid, Alive and Kicking**
Venice (Italy), 17-21 September 2012
“Exploring Quantum Matter using Ultracold Quantum Gases”
- 156 **Dynamics and Thermodynamics in Isolated Quantum Systems - KITP**
Santa Barbara (USA), 20-24 August 2012
“Probing Non-Equilibrium Dynamics Using Ultracold Quantum Gases in Optical Lattices”
- 155 **Gordon Research Conference (GRC) on Quantum Science**
Easton (USA), 15-17 August 2012
“Exploring Static and Dynamical Properties of Quantum Gases at the Single Atom Level”
- 154 **Les Houches Physics School on Strongly Interacting Quantum Systems out of Equilibrium - Lecture Series**
Les Houches (France), 13-15 August 2012
“Probing Dynamical and Static Properties of Quantum Matter Using Ultracold Atoms”
- 153 **International Conference on Atomic Physics (ICAP) 2012 – Keynote Talk**
Paris (France), 23-27 July 2012
“Quantum Matter under Extreme Conditions”
- 152 **Princeton Workshop on Non-Equilibrium Phenomena in Ultracold Atoms and Strongly Interacting Photons**
Princeton (USA), 11-13 June 2012
“Exploring Static and Dynamic Properties of Quantum Matter at the Single Atom Level”
- 151 **New Quantum States of Matter In and Out of Equilibrium**
Florence (Italy), 21-25 May 2012
“Probing Quantum Gases In- and Out of Equilibrium”
- 150 **Quantum Interfaces**
Chicheley Hall (UK), 14-15 May 2012
“Probing Quantum Many-Body Systems at the Single Atom Level”

- 149 **Workshop on Quantum Gases**
Trento (Italy), 12 March 2012
“Observing and Controlling Quantum Matter at the Single Atom Level”
- 148 **AQUTE Winter School on Quantum Information Processing**
Obergurgl (Austria), 6-10 February 2012
“Observing and Controlling Quantum Matter at the Single Atom Level”
- 147 **Center for Quantum Technologies, 4th Anniversary**
National University of Singapore (Singapore), 7 December 2011
“Observing and Controlling Quantum Matter at the Single Atom Level”
- 146 **ITAMP/Harvard Quantum Optics Center Colloquium**
Harvard University (USA), 1 December 2011
“Observing and Controlling Quantum Matter”
- 145 **Ehrenfest Colloquium**
Leiden University (NL), 23 November 2011
“Observing and Controlling Quantum Matter”
- 144 **LENS Colloquium**
Florence (Italy), 20 October 2011
“Probing and Controlling Strongly Interacting Quantum Matter”
- 143 **Quantum Information Processing Conference**
Zurich (Switzerland), 5-7 September 2011
“Probing and Controlling Strongly Interacting Quantum Matter”
- 142 **Scottish University Summer School in Physics**
Glasgow (UK), 2-4 August 2011
“Introduction to Many-Body Physics with Ultracold Atoms”
- 141 **Frontiers of Quantum and Mesoscopic Thermodynamics (FQMT)**
Prague (Czech Republic), 27-29 July 2011
“Probing and Controlling Strongly Interacting Quantum Matter at the Single-Atom Level”
- 140 **Summer School on “Quantum Machines”**
Les Houches (France), 13-15 July 2011
“Ultracold Quantum Gases in Optical Lattices”

- 139 EGAS Conference**
Fribourg (Switzerland), 29 June-1 July 2011
“Probing and Controlling Strongly Interacting Quantum Matter at the Single-Atom Level”
- 138 DAMOP APS Meeting**
Atlanta (USA), 15-17 June 2011
“Probing and Controlling Strongly Interacting Quantum Matter at the Single-Atom Level”
- 137 Summer School on Disordered Quantum Systems**
Cargese (France), 30 May-5 June 2011
“Introduction to Many-Body Physics with Ultracold Atoms”
- 136 Workshop on Quantum Science and Technologies**
Rovereto (Italy), 10-11 May 2011
“Probing Strongly Interacting Quantum Matter using Ultracold Quantum Gases”
- 135 International Conference on Quantum Technologies**
Munich (Germany), 9 May 2011
“Ultracold Atoms in Optical Lattices”
- 134 Physics Colloquium, Southampton University**
Southampton (UK), 10 December 2010
“Exploring Strongly Correlated Quantum Matter in Artificial Crystals of Light”
- 133 Entanglement in Atomic Systems**
Weizmann Institute of Science (Israel), 21-25 November 2010
“Detecting and Controlling Correlations and Entanglement in Ultracold Atomic Gases”
- 132 JILA Seminar**
Boulder, CO (USA), 30 September 2010
“Non-equilibrium dynamics and single-site imaging of ultracold atoms in optical lattices”
- 131 Physics Colloquium, University of Colorado in Boulder**
Boulder, CO (USA), 29 September 2010
“Exploring Strongly Correlated Quantum Matter in Artificial Crystals of Light”
- 130 Beyond Optical Lattice – KITP program**
KITP Santa Barbara (USA), 21 September 2010
“Single Site and Single Atom Imaging of Strongly Correlated Quantum Gases”

- 129** **Controlled Quantum Dynamics and QUAMP Summer School**
London (UK), 31 August-3 September 2010
“Ultracold Bosonic and Fermionic Atoms in Optical Lattices”
- 128** **Quantum Solids, Liquids and Gases**
NORDITA Stockholm (Sweden), 23 August 2010
“Non-equilibrium Dynamics and Single Site Addressing in Strongly Interacting Quantum Gases in Optical Lattices”
- 127** **Many-body Physics with Ultracold Atoms**
Les Houches (France), 11-16 July 2010
“Ultracold Bosonic and Fermionic Atoms in Optical Lattices”
- 126** **Workshop on Dynamics of Strongly Correlated Quantum Systems**
ICTP Trieste (Italy), 21-25 June 2010
“Non-equilibrium Dynamics of Bosons and Fermions in Optical Lattices”
- 125** **OptETH Colloquium ETH Zurich**
ETH Zurich (Switzerland), 31 May 2010
“Exploring Quantum Matter with Ultracold Atoms”
- 124** **CIFAR Quantum Materials Program Meeting**
Montreal (Canada), 5-9 May 2010
“Non-Equilibrium Dynamics of Strongly Interacting Bosonic and Fermionic Quantum Gases”
- 123** **Kavli Colloquium (TU Delft & Kavli Institute for Nanoscience)**
Delft (Netherlands), 14-16 April 2010
“Exploring Quantum Matter with Ultracold Atoms”
- 122** **Physics Colloquium (Ohio State University OSU)**
Columbus (USA), 15-17 February 2009
“Exploring Quantum Matter with Ultracold Atoms”
- 121** **Physics Colloquium, Princeton University**
Princeton (USA), 10 October 2009
“Exploring Quantum Matter with Ultracold Atoms”
- 120** **JQI Seminar (University of Maryland & NIST)**
College Park (USA), 7 October 2009
“Non-Equilibrium Dynamics of Strongly Interacting Bosonic and Fermionic Quantum Gases”

- 119 KITPC Workshop on Cold Quantum Gases**
Beijing (China), 12-15 October, 2009
“Non-Equilibrium Dynamics of Strongly Interacting Bosonic and Fermionic Quantum Gases”
- 118 Frontiers of Science Plenary Talk at KITPC**
Beijing (China), 13 October 2009
“Exploring Quantum Matter with the Coldest Objects in the Universe”
- 117 Physics Colloquium Fribourg**
Fribourg (Switzerland), 30 September 2009
“Exploring Quantum Matter with Ultracold Atoms”
- 116 FET Seminar at the European Commission**
Brussels (Belgium), 17 September 2009
“Quantum Simulations”
- 115 BEC2009 Conference**
San Feliu (Spain), 6-10 September 2009
“Non-Equilibrium Dynamics of Strongly Interacting Bosonic and Fermionic Quantum Gases”
- 114 ICREA Workshop on Artificial Gauge Fields**
San Benet (Spain), 1-4 September 2009
“Preparing and Manipulating Exotic Quantum States in Optical Lattices”
- 113 SCALA Summer School on Quantum Optics & Quantum Information**
Cargèse (France), 22-25 August 2009
“Ultracold Bosonic and Fermionic Quantum Gases in Optical Lattices”
- 112 International Conference on Laser Spectroscopy (ICOLS09)**
Memanbetsu (Japan), 8-12 June 2009
“Strongly Correlated Bosons and Fermions in Optical Lattices”
- 111 Seminar Physics Department École Polytechnique**
Paris (France), 31 March-1 April 2009
“Strongly Correlated Quantum Matter in Optical Lattices”
- 110 LOWDIM KITP Conference**
St. Barbara (USA), 21-26 February 2009
“Strongly Correlated Quantum Matter in Optical Lattices”

- 109 NordForsk Meeting**
Copenhagen (Denmark), 15-16 January 2009
“New Light on Bosons, Fermions and Bose-Fermi Mixtures in Optical Lattices”
- 108 International Symposium on Physics of Quantum Technology**
Nara (Japan), 24-28 November 2008
“New Light on Bosons, Fermions and Bose-Fermi Mixtures in Optical Lattices”
- 107 Frontiers of Degenerate Quantum Gases**
Beijing (China), 20-24 October 2008
“New Light on Bosons, Fermions and Bose-Fermi Mixtures in Optical Lattices”
- 106 Solvay Conference on Condensed Matter Physics - (Rapporteur talk)**
Brussels (Belgium), 11-13 October 2008
“Strongly Correlated Quantum Systems with Ultracold Atoms in Optical Lattices”
- 105 Quantum Fluids and Strongly Correlated Systems**
Paris (France), 15-16 September 2008
“Strongly Correlated Fermions and Bose-Fermi Mixtures in Optical Lattices”
- 104 Low Temperature Physics LT25**
Amsterdam (Netherlands), 10-12 August 2008
“Strongly Correlated Fermions and Bose-Fermi Mixtures in Optical Lattices”
- 103 International Conference on Atomic Physics (ICAP) 2008**
University of Connecticut Storrs (USA), 26 July-1 August 2008
“Strongly Correlated Fermions and Bose-Fermi Mixtures in Optical Lattices”
- 102 DAMOP 2008**
Pennstate University (USA), 27-31 May 2008
“Towards Quantum Magnetism with Ultracold Atoms”
- 101 Workshop on Quantum Phenomena and Information: From Atomic to Mesoscopic System**
Trieste (Italy), 5-16 May 2008
“Exploring Quantum Matter with Ultracold Atom in Optical Lattices”

- 100** **Lecture Series at the Israel Institute of Technology (Technion)**
Haifa (Israel), 10-15 April, 2008
“Ultracold Quantum Gases”
- 99** **INTERF08 Meeting**
Levico (Italy), 3-5 April 2008
“Noise Correlations and Spin Squeezing with Ultracold Atoms”
- 98** **APS March Meeting**
New Orleans (USA), 10-14 March 2008
“Exploring Quantum Matter with Ultracold Atoms in Optical Lattices”
- 97** **ESF Conference on Quantum Optics**
Obergurgl (Austria), 25-27 February 2008
“Ultracold Atoms in Optical Lattices”
- 96** **Quantum Noise in Correlated Systems**
Rehovot (Israel), Weizmann Institute, 5-11 January 2008
“Probing Quantum Matter in Optical Lattices”
- 95** **Winter School on Theoretical Condensed Matter Physics**
Jerusalem (Israel), 26 December – 4 January 2008
“Ultracold Quantum Gases in Optical Lattices”
- 94** **Harvard Theory Seminar**
Harvard (USA), 25 October 2007
“Exploring Quantum Matter with Ultracold Atoms in Optical Lattices”
- 93** **Stanford Physics Colloquium**
Stanford (USA), 23 October 2007
“Exploring Quantum Matter with Ultracold Atoms”
- 92** **Opening of CoQus (Graduate School on Complex Quantum Systems)**
Vienna (Austria), 8 October 2007
“Exploring Quantum Matter with Ultracold Atoms in Optical Lattices”
- 91** **Bose-Einstein Condensation 2007 – Frontiers in Quantum Gases**
San Feliu des Guixols (Spain), 15-20 September 2007
“Towards Quantum Magnetism with Ultracold Atoms in Optical Lattices”

- 90 **Quantum, Atomic & Molecular Physics Conference (QuAMP)**
London (UK), 10-13 September 2007
“Towards Quantum Magnetism with Ultracold Atoms in Optical Lattices”
- 89 **Summer School on Novel Quantum Phases and Non-equilibrium Phenomena in Cold Atomic Gases**
Trieste (Italy), 27 August-7 September 2007
“Exploring Quantum Matter with Ultracold Atoms in Optical Lattices”
- 88 **International School on Quantum Fluids**
Brasilia (Brazil), 14-20 August 2007
“Ultracold Atoms in Optical Lattices”
- 87 **Conference on “Exploring Quantum Matter: Visions and Opportunities”**
St. Andrews (UK), 2-6 July 2007
“Exploring Quantum Matter with Ultracold Atoms in Optical Lattices”
- 86 **Conference on “Recent progress in the studies of quantum gases: theory and experiments”**
Paris (France), 28 June 2007
“Towards Quantum Magnetism with Ultracold Atoms in Optical Lattices”
- 85 **International Conference on Laser Spectroscopy – ICOLS**
Telluride (USA), 24-28 June 2007
“Towards Quantum Magnetism with Ultracold Atoms in Optical Lattices”
- 84 **International Conference on Quantum Electronics IQEC – Tutorial lecture**
Munich, 20 June 2007
“Ultracold Atoms in Optical Lattices”
- 83 **Center for Ultracold Atoms (CUA) Colloquium – Harvard University**
Boston (USA), 8 May 2007
“Towards Quantum Magnetism with Ultracold Atoms in Optical Lattices”
- 82 **Condensed Matter Physics Seminar Boston University**
Boston (USA), 7 May 2007
“Strongly Correlated Many Body Physics with Ultracold Atoms in Optical Lattices”

- 81 **Physics Colloquium – University of California Santa Barbara**
Santa Barbara (USA), 1 May 2007
“Experimenting with Ultracold Atoms in Optical Lattices”
- 80 **KITP Workshop on “Strongly Correlated Phases in Condensed Matter and Degenerate Atomic Systems”**
Santa Barbara (USA), 22-28 April 2007
“Strongly Correlated Quantum Phases with Ultracold Atoms in Optical Lattices”
- 79 **Gordon Research Conference on Quantum Information**
Il Ciocco (Italy), 16-20 April 2007
“Quantum Information Processing with Neutral Atoms”
- 78 **Measurement based Quantum Computing Workshop**
Oxford (UK), 21-23 March 2007
“Entangling Neutral Atoms in Optical Lattices”
- 77 **Symposium on Ultracold Quantum Gases – Talk with Elliot Lieb**
Aarhus (Denmark), 6-7 November 2006
“Strongly correlated atoms in optical lattices”
- 76 **Canadian Institute of Advanced Research – Quantum Materials Meeting**
Vancouver (Canada), 19-21 October 2006
“Strongly correlated atoms in optical lattices”
- 75 **7th European QIPC Workshop at the Royal Society**
London (UK), 13-14 October 2006
“Quantum Information Processing with Neutral Atoms”
- 74 **Theory Colloquium University of Geneva**
Geneva (Switzerland), 5 October 2006
“Strongly Correlated Quantum Matter in Optical Lattices”
- 73 **ICO (International Commission of Optics) Meeting, Plenary Talk**
St. Petersburg (Russia), 3-6 September 2006
“Exploring Quantum Matter in Artificial Crystals of Light”
- 72 **ICAP 2006 (International Conference on Atomic Physics)**
Innsbruck (Austria), 16-21 July 2006
“Strongly Correlated Quantum Matter in Optical Lattices”
- 71 **Varenna Summer School on “Ultracold Fermi Gases”**
Varenna (Italy), 29-30 June 2006
“Strongly Correlated Quantum Matter in Optical Lattices”

- 70 **Gordon Research Conference on Quantum Information Science**
Il Ciocco, Castelveccchio (Italy), 7-12 May 2006
“Entangling Neutral Atoms in Optical Lattices”
- 69 **Meeting of the Dutch and Belgian Physics Society, FYSICA 2006**
Plenary talk, Leiden (Netherlands), 28 April 2006
“New Light on Modern Optics”
- 68 **Stockholm University (KTP), Physics Colloquium**
Stockholm (Sweden), 23-24 March 2006
“Exploring Quantum Matter in Artificial Crystals of Light”
- 67 **Ehrenfest Colloquium**
Leiden (Netherlands), 15 February 2006
“Exploring Quantum Matter in Artificial Crystals of Light”
- 66 **Non-equilibrium Phenomena in Strongly Correlated Quantum Systems, ITAMP Workshop**
Boston (USA), 9-12 February 2006
“Coherence, Correlations & Counting Statistics of Ultracold Atoms in Optical Lattices”
- 65 **DAAD/DFG organized Promotional Lecture/Dinner Talk**
London (UK), 1 December 2005
“Ultracold Atoms – From Einstein’s Dream to Reality”
- 64 **KVDS Meeting on Quantum Information**
Copenhagen (Denmark), 18-19 November 2005
“Entangling Neutral Atoms in Optical Lattices”
- 63 **AMOP Meeting of the Dutch Physical Society, Plenary talk**
Lunteren (Netherlands), 11-12 November 2005
“Mott Insulators, Noise Correlations and Coherent Spin Dynamics in Optical Lattices”
- 62 **Technical University of Eindhoven, Physics Colloquium**
Eindhoven (Netherlands), 27-28 October 2005
“Exploring Quantum Matter in Crystals of Light”
- 61 **European Science Foundation Meeting on BEC**
San Feliu (Spain), 10-15 September 2005
“Mott Insulators, Noise Correlations and Coherent Spin Dynamics in Optical Lattices”
- 60 **Summer School on Quantum Information**
Kochi (Japan), 1-7 September 2005
Lecture Series on Quantum Information with Ultracold Atoms in Optical Lattices

- 59 **OSA Invited Lecturer for Developing Countries**
Yerevan (Armenia), 22-26 August 2005
Lecture Series on Ultracold Atoms
- 58 **Low Temperature Physics 24, Plenary talk**
Orlando (USA), 10-12 August 2005
“Mott Insulators, Noise Correlations and Coherent Spin Dynamics in Optical Lattices”
- 57 **Low-D Workshop Amsterdam**
Amsterdam (Netherlands), 28-30 July 2005
“Strongly Correlated Quantum Matter in Optical Lattices”
- 56 **International Conference on Quantum Electronics, IQEC 2006**
Tokyo (Japan), 13-16 July 2005
“Mott Insulators, Noise Correlations and Coherent Spin Dynamics in Optical Lattices”
- 55 **Quantum Optics VI, EQEC - Keynote Talk**
Munich (Germany), 17 June 2005
“Spatial Quantum Noise Interferometry and more...”
- 54 **Aspen Workshop on Ultracold Quantum Gases**
Aspen (USA), 4-6 June 2005
Lecture Series on “Correlations and Coherent Spin Oscillations”
- 53 **Annual Meeting Finnish Optical Society, Plenary talk**
Jvaskylä (Finland), 12-13 May 2005
“Exploring Quantum Matter in Artificial Crystals of Light”
- 52 **IOP – Einstein Year 2005 Symposium, Plenary talk**
Warwick (UK), 11-14 April 2005
“Exploring Quantum Matter with Ultracold Atoms in Optical Lattices”
- 51 **International Meeting on Mesoscopic Physics with Matter and Waves**
Orsay (France), 21-22 March 2005
“Exploring Strongly Correlated Quantum Systems with Neutral Atoms in Optical Lattices”
- 50 **International Seminar on Atomic Processes in Intense Laser Fields and Related Many-Body Phenomena**
Shonan Village Center (Japan), 21-23 January 2005
“From Quantum Simulators to Quantum Gates with Neutral Atoms in Optical Lattices”

- 49 **Van der Waals-Zeeman-Institute (University of Amsterdam)
Physics Colloquium**
Amsterdam (Netherlands), 11 January 2005
"Exploring Strongly Correlated Quantum Systems with Ultracold Atoms in Optical Lattices"
- 48 **University of Geneva - Physics Colloquium**
Geneva (Switzerland), 15 November 2004
"Exploring Strongly Correlated Quantum Matter with Ultracold Atoms in Optical Lattices"
- 47 **Les Houches Workshop 2004**
Les Houches (France) 20-23 September 2004
"Neutral Atoms in Optical Lattices – from Quantum Simulators to Multiparticle Entanglement"
- 46 **International Conference on Quantum Logic and Communications**
Cargese (Corse), 22-26 August 2004
"Neutral Atoms in Optical Lattices – from Quantum Simulators to Multiparticle Entanglement"
- 45 **International Conference on Atomic Physics - ICAP 2004**
IFSC, Rio de Janeiro, (Brazil) 24 July - 1 August 2004
"Engineering Multiparticle Entanglement with Neutral Atoms in Optical Lattices"
- 44 **EGAS 2004, Journal of Physics B Plenary Lecture**
Rennes (France), 4-11 July 2004
"Exploring quantum matter in artificial crystals of light"
- 43 **College de France**
College de France, Paris (France), 25-26 May 2004
"Exploring and controlling quantum matter in artificial crystals of light"
- 42 **Conference on Ultracold Quantum Gases**
Kavli Institute, Santa Barbara, (USA), 8-15 May 2004
"Tonks-Girardeau gas in an optical lattice"
- 41 **Plenary Talk at the Annual Spring Meeting of the American Physical Society**
Montreal (Canada), 20-26 March 2004
"Exploring quantum many body phases in optical lattice potentials"

- 40 QUEST-Meeting**
La Thuile (Suisse), 7-12 March 2004
"Engineering entanglement of ultra cold atoms in optical lattices"
- 39 Workshop on Ultra Cold Gases**
Levico (Italy), 3-6 March 2004
"Fermionizing bosons in optical lattices"
- 38 Arkadi Aronov Memorial Lecture at the Weizman Institute of Science**
Tel Aviv, (Israel), 25-29 February 2004
"Exploring quantum matter in optical lattices"
- 37 Plenary Talk at the Annual Spring Meeting of the AAAS**
Seattle, (USA), 13-16 February 2004
"Controlling matter at the quantum limit"
- 36 École-Normale-Superieure – Physics Colloquium**
Paris (France), 20 November 2003
"Exploring quantum matter in artificial crystals of light"
- 35 European Science Foundation - BEC2003**
San Feliu (Spain), 13-18 September 2003
"Controlled Collisions with Neutral Atoms in Optical Lattices"
- 34 Quantum Challenges Conference**
Warsaw (Poland), 4-7 September 2003
"Controlling Many-Body States of Neutral Atoms in Optical Lattices"
- 33 Gordon Research Conference – Quantum Control of Light and Matter**
Mount Holyoke College (USA), 3-8 August 2003
"Control of Matter in Lattices of Light"
- 32 Plenary Talk at the Annual Meeting of the French Physical Society SFP**
Lyon (France), 7-9 July 2003
"Bose-Einstein Condensates in Optical Lattices"
- 31 EQEC – European Quantum Electronics Conference 2003**
Munich (Germany), 26 June 2003
"Controlled Collisions for Multiparticle Entanglement"
- 30 University of Oxford – Physics Department Seminar**
Oxford (United Kingdom), 16 June 2003
"Controlled Collisions for Multiparticle Entanglement"

- 29 **IQEC-CLEO International Quantum Electronics Conference 2003**
Baltimore (USA), 4-7 June 2003
"Controlled Collisions with Neutral Atoms in Optical Lattices"
- 28 **HANSCOM Research Laboratories**
Boston (USA), 16 May 2003
"Bose-Einstein Condensates in Optical Lattices"
- 27 **Massachusetts Institute of Technology (MIT) – Physics colloquium**
Massachusetts Institute of Technology, Boston (USA) 15 May 2003
"Seeing the Particles beneath the Waves – Beyond Mean Field Physics with Bose-Einstein-Condensates in Optical Lattices"
- 26 **Center for Ultracold Atoms - Colloquium**
Center for Ultracold Atoms, Boston (USA), 13 May 2003
"Controlled Collisions with Neutral Atoms in Optical Lattices"
- 25 **Harvard University - Physics colloquium**
Harvard University, Boston (USA), 12 May 2003
"Seeing the Particles beneath the Waves – Beyond Mean Field Physics with Bose-Einstein-Condensates in Optical Lattices"
- 24 **Correlation Effects in Bose-Einstein Condensates and Degenerate Fermi Gases**
University of Minneapolis, Minneapolis (USA), 2-4 May 2003
"Controlled Collisions with Neutral Atoms in Optical Lattices"
- 23 **University of Strathclyde, Physics Department**
Glasgow (UK), 19 March 2003
"Seeing the particles beneath the waves – Beyond mean field physics with Bose-Einstein condensates in optical lattices"
- 22 **Obergurgl Quantum Optics Meeting 2003**
Obergurgl (Austria), 24 February 2003
"Controlled Collisions with Neutral Atoms in Optical Lattices"
- 21 **American Association for the Advancement of Science (AAAS) Quantum Phases and Quantum Phase Transitions**
Denver (USA), 15 February 2003
"Quantum phase transition from a superfluid to a Mott insulator in a gas of ultracold atoms"
- 20 **Collège de France Symposium "Cold atoms and quantum information"**
Paris (France), 7 February 2002
"Controlled collisions with neutral atoms in optical lattices"

- 19 **Royal Society workshop on “Practical realizations of quantum computing”** London (UK), 13-14 November 2002
“Controlled collisions with neutral atoms in optical lattices”
- 18 **NIST Seminar**
Gaithersburg (USA), 7 November 2002
“Controlled collisions with neutral atoms in optical lattices”
- 17 **Stanford University, Physics Colloquium**
Stanford (USA), 5 November 2002
“Seeing the particles beneath the waves”
- 16 **7th International Workshop on Atom Optics and Interferometry**
Lunteren (Netherlands), September/October 2002
“Beyond mean field physics with Bose-Einstein condensates in optical lattices”
- 15 **University of California Berkeley, Physics Department**
Berkeley (USA), August 2002
“Quantum phase transition from a superfluid to a Mott insulator in an ultracold gas of atoms”
- 14 **International Conference on Atomic Physics (ICAP)**
Boston (USA), August 2002
“Seeing the particles beneath the waves – Beyond mean field physics with Bose-Einstein condensates in optical lattices”
- 13 **International Conference on Laser Physics LPHYS 2002**
Bratislava (Slovakia), July 2002
“Quantum phase transition from a superfluid to a Mott insulator in an ultracold gas of atoms”
- 12 **NIST Workshop on Quantum Computing**
Gaithersburg (USA), June 2002
“Beyond mean field physics with Bose-Einstein condensates in optical lattices”
- 11 **DAMOP 2002 Meeting, Williamsburg**
Williamsburg (USA), May 2002
“Quantum phase transition from a superfluid to a Mott insulator in an ultracold gas of atoms”
- 10 **Stanford University, Physics & Applied Physics Department**
Stanford (USA), 6 May 2002
“Quantum phase transition from a superfluid to a Mott insulator in an ultracold gas of atoms”

- 9 **Yale Physics Club, (Physics Colloquium of Yale University)**
Yale, New Haven (USA), 22 February 2002
"Quantum phase transition from a superfluid to a Mott insulator in an ultracold gas of atoms"
- 8 **Physics Colloquium of the University of Trento**
Trento (Italy), 17 January 2002
"Quantum phase transition from a superfluid to a Mott insulator in an ultracold gas of atoms"
- 7 **CUA/ITAMP Workshop, Beyond BEC: Ultracold Atoms beyond Mean-Field Physics**
Harvard, Cambridge (USA), 2-3 November 2001
"Quantum phase transition from a superfluid to a Mott insulator"
- 6 **Physics Colloquium of the University of Innsbruck**
Innsbruck, 30 October 2001
"Quantum phase transition from a superfluid to a Mott insulator"
- 5 **Euresco Conference, Bose-Einstein condensation**
San Feliu de Guixols (Spain), 15-20 September 2001
"Quantum phase transition from a superfluid to a Mott insulator"
- 4 **5th RIKEN International Conference, Coherent Control in Matter**
Shonan Village Center, Hayama (Japan), 22-25 April 2001
"Atom lasers and phase coherence of Bose-gases"
- 3 **Quantum Optics and Spectroscopy Seminar**
Institute for Experimental Physics, University of Innsbruck,
Innsbruck (Austria), 17 January 2001
"Atom lasers"
- 2 **9th Annual International Laser Physics Workshop, LPHYS'2000**
Bordeaux (France), 17-21 July, 2000
"Atom lasers and phase coherence of Bose-gases"
- 1 **Les Houches Workshop, Atom Optics Applications**
Les Houches (France), 23-28 May 1999
"Atom lasers and coherence properties of BECs"

Further Invited Talks

- 151 GEIST - International Science Festival Heidelberg @ daium Spots 2023**
Heidelberg, 28 November, 2023
“Von den kältesten Atomen zu Feynman’s Quantensimulator & Quantencomputer”
- 150 BOSCH Forschungscampus, Internal Talk**
Renningen, 14 November, 2023
“Quantum Computing and Quantum Simulation using Ultracold Atoms”
- 149 Quantum Spots 2023**
Bad Driburg, 9 November, 2023
“New Avenues for Quantum Simulation with Ultracold Atoms, Molecules and Photons”
- 148 Steinbeis University, EASA, TUMint & IBM Quanten-Computer Symposium**
Munich, 9 April, 2023
“Von den kältesten Atomen zu Feynman’s Quantensimulator und Quantencomputer”
- 147 QUANTUM Seminar**
Mainz (Germany), 9 February, 2023
“Vom Quantencomputer zum Quantensensor”
- 146 Quantentechnologie Workshop BBAW**
Berlin, 26 November, 2022
“Quantencomputing und Quantensimulation – wo stehen wir?”
- 145 VDE/ZVEI Symposium Microelectronics for Future**
Berlin, 8 November, 2022
“Vom Quantencomputer zum Quantensensor”
- 144 WE-Heraeus-Symposium – Recent Progress in Quantum Computing**
Berlin, 3 November, 2022
“Quantum Simulation and Quantum Computing using Ultracold Atoms”
- 143 Werner Heisenberg und die Zukunft der Quantenphysik Heisenberg Gesellschaft**
Munich, 28 October, 2022
“Von den kältesten Atomen zu Feynman’s Quantensimulator und Quantencomputer”

- 142 Max Planck Förderstiftung**
Schloss Ringberg (Germany), 14 October 2022
"Vom Quantencomputer zum Quantensensor"
- 141 MQV Review Meeting**
Eichstätt, 4-6 October, 2022
- 140 FORSCHA - Münchner Wissenschaftstage**
Munich, 24 June, 2022
"Vom Quantensensor zum Quantencomputer"
- 139 727. WE-Heraeus-Seminar/ Frontiers of Quantum Gas Microscopy**
Bad Honnef (Germany), Invited Talk 4-8 April 2022
"Probing Quantum Matter In- and Out-of-Equilibrium using Quantum Gas Microscopes"
- 138 Hamburg Theory Symposium**
Hamburg, 10-12 November 2021
"Probing Quantum Matter In- and Out-Of-Equilibrium on a Large Scale Atomic Quantum Simulator"
- 137 Ergodicity Breaking and Anomalous Transport in Quantum Many-Body Systems**
Dresden MPIPES, Videoconference talk, 6 October 2021
"Probing Kardar-Parisi-Zhang Universality in Heisenberg Quantum Magnets"
- 136 Hamburg Photon Science Colloquium**
Hamburg, Videoconference colloquium, 4 June 2021
"Probing Quantum Matter on a Large-Scale Atomic Quantum Simulator"
- 135 PGI Colloquium, FZ Jülich**
Videoconference colloquium, 21 May 2021
"Probing Quantum Matter on a Large-Scale Atomic Quantum Simulator"
- 134 Hochschule München**
Videoconference, 19 March 2021
"Engineering and Probing Quantum Matter using Quantum Simulations & Munich Quantum Valley"
- 133 Fraunhofer Gesellschaft FhG**
Videoconference, 9 March 2021
"Quantum Simulation and Quantum Computing using Neutral Atoms in Optical Lattices"

- 132 ColOpt ITN Network Meeting, Münster**
18 February 2020
“Engineered Ultracold Quantum Matter - From Quantum Simulations to Novel Quantum Light-Atom Interfaces”
- 131 CAS Showcase**
LMU Munich, 16 January 2020
“Quantum Research”
- 130 Coherence in Fermionic Matter: Fermion Pairing in Cold Atoms and Superconductors**
WE Heraeus Seminar Bad Honnef, 15-16 October 2019
“Quantum Gas Microscopy of the (Fermi) Hubbard Model”
- 129 Spins in a Quantum 1D Multi-particle Environment**
2-5 September 2019
“Quantum Gas Microscopy of the (Fermi) Hubbard Model”
- 128 Colloquium University of Mainz**
Mainz, 2 June 2019
“Large Scale Quantum Simulations Using Ultracold Atoms”
- 127 Physik im Theater**
Public lecture, Mainz, 5 June 2019
„Kälter geht (fast) nicht“
- 126 Colloquium University of Stuttgart**
Stuttgart, 30 April 2019
“Realising Richard Feynman’s dream of a Quantum Simulator”
- 125 Colloquium @ MPIPES Workshop on “Anderson Localization and Interaction Effects”, 24-25 September 2018**
“Probing Many Body-Localization Using Ultracold Quantum Gases”
- 124 DOPPLERS Meeting - Deutsche Olympiade in Physik Problemen**
3 March 2018
“Probing and Controlling Quantum Matter at the Single Atom Level”
- 124 Inauguration MPQ-Harvard Quantum Center**
Munich, 12 January 2018
“Large Scale Quantum Simulations Using Ultracold Atoms in Optical Lattices”
- 123 University of Regensburg, Physik Kolloquium**
Regensburg, 11 December 2017
“Large Scale Quantum Simulations Using Ultracold Atoms in Optical Lattices”

- 122 Science Fair @ LMU**
Munich, 7 June 2017
“Ultracold Quantum Gases”
- 121 Workshop on Floquet Systems, MPIPKS Dresden**
Dresden, 8-9 August 2016
“Many-Body Localization from an Experimental Ultracold Atom Perspective”
- 120 Technische Universität Kaiserslautern, Physik Kolloquium**
Kaiserslautern, 27 June 2016
“Probing and Controlling Quantum Matter at the Single Atom Level”
- 119 Workshop on Topological Phenomena in Novel Quantum Matter, MPIPKS Dresden**
Dresden, 2-3 March 2016
“Probing and Controlling Bloch Band Topology with Ultracold Atoms”
- 118 DPG Symposium - Synthesized Gauge Fields and Experimental Realizations**,
1 March 2016
“Probing Bloch Band Topology using Ultracold Atoms”
- 117 University of Bayreuth, Physik Kolloquium**
Bayreuth, 19 January 2016
“Probing and Controlling Quantum Matter at the Single Atom Level”
- 116 Arnold Sommerfeld School**
Munich 21 October 2015,
“Realizing and Probing Artificial Gauge Fields with Ultracold Atoms”
- 115 Frontiers of Quantum Information and Quantum Simulation**
Heidelberg, 20 July 2015
“From Rydberg Gases to Many-Body Localisation - New Frontiers for Ultracold Atoms”
- 114 Physikalisches Kolloquium, Universität Bielefeld**
Bielefeld, 8 June 2015
“Controlling and Exploring Quantum Matter at the Single Atom Level”
- 113 DPG Spring Meeting – Berlin**
Berlin, 17 March 2015
“Probing Non-Equilibrium Dynamics with Ultracold Atoms”
- 112 Many-Body Dynamics Out Of Equilibrium – MPIK Dresden**
Dresden, 10 March 2015
„Probing Quantum Many-Body Systems Out Of Equilibrium”

- 111 Quo Vadis, BEC – Number 5?**
Bad Honnef, 15-19 December 2014
„From Topological Bloch Bands to Long-Range Interacting Rydberg Atoms“
- 110 Univ. of Toky-LMU Meeting**
Mainz, 27-28 October 2014
„Realizing and Probing Topological Bloch Bands with Ultracold Atoms“
- 109 CIFAR-MPG Quantum Materials Meeting**
Stuttgart, 16 October 2014
„Realizing and Probing Topological Bloch Bands with Ultracold Atoms“
- 108 Was machen unsere Nachbarn, die Forscher, in Garching**
Garching, 28 September 2014
„Experimentieren mit den kältesten Objekten des Universums“
- 107 Single Atoms Symposium – 60th Birthday D. Meschede**
Bad Honnef, 26 April 2014
„From Ultracold to Ultrahot – Probing ‚Higgs‘ Excitation with Ultracold Atoms“
- 106 DPG Frühjahrstagung – Dresden**
Dresden, 2 April 2014
„Probing Non-Equilibrium Quantum Dynamics at the Single Atom Level“
- 105 Wissenschaft für jedermann – Deutsches Museum**
Munich, 19 February 2014
„Experimentieren mit den kältesten Objekten des Universums“
- 104 Physics Colloquium – FU Berlin**
Berlin, 6 December 2013
„Controlling and Exploring Quantum Matter at the Single Atom Level“
- 103 Physics Colloquium – University of Ulm**
Ulm, 2 December 2013
„Controlling and Exploring Quantum Matter at the Single Atom Level“
- 103 Physics Colloquium – University of Bochum**
Bochum, 11 November 2013
„Controlling and Exploring Quantum Matter at the Single Atom Level“
- 102 Physics Colloquium – University of Duisburg/Essen**
7 November 2013
„Controlling and Exploring Quantum Matter at the Single Atom Level“

- 101 Körber Lecture – University of Hamburg**
Hamburg, 5 September 2013
„Probing Quantum Matter Atom-by-Atom in Artificial Crystals of Light“
- 100 Physics Colloquium – Karlsruhe Institute of Technology (KIT)**
Karlsruhe, 21 June 2013
„Probing and Controlling Quantum Matter at the Single Atom Level“
- 99 Physics Colloquium – University of Heidelberg**
Heidelberg 14 June, 2013
„Probing Quantum Matter at the Single Atom Level“
- 98 Colloquium – Max Planck Institute of Physics**
Garching, 4 June, 2013
„Probing and Controlling Ultracold Quantum Matter under Extreme Conditions“
- 97 Physics Colloquium – University of Halle**
Halle, 23 May, 2013
„Probing and Controlling Quantum Matter at the Single Atom Level“
- 96 DPG Condensed Matter Spring Meeting**
Regensburg, 11 March 2013,
„Probing Topological Bloch Bands using Ultracold Quantum Gases“
- 95 Physics Colloquium – University of Frankfurt**
Frankfurt, 6 December 2012
“Probing and Controlling Quantum Matter at the Single Atom Level“
- 94 Distinguished Lecturer – Max Planck Institute for the Science of Light**
Erlangen, 22 November 2012
„Probing and Controlling Quantum Matter at the Single Atom Level“
- 93 Grosses Physikalisches Kolloquium - University of Cologne**
Cologne, 16 October 2012
„Probing and Controlling Quantum Matter at the Single Atom Level“
- 92 Physics Colloquium – University of Göttingen**
Göttingen, 9 July 2012
„Probing and Controlling Quantum Matter at the Single Atom Level“
- 91 Quantum Matter from the Nano- to the Macroscale**
Dresden, 25-29 June 2012
„Exploring Static and Dynamical Properties of Quantum Gases at the Single Atom Level“

- 90 WE Heraeus Seminar – Highlights of Quantum Optics**
Bonn, 7-10 May 2012
„Probing Quantum Many-Body Systems at the Single Atom Level“
- 89 CPTS Sektionssitzung – Max-Planck Gesellschaft**
Berlin, 15 February 2012
„Observing and Controlling Quantum Matter at the Single Atom Level“
- 88 CFEL Seminar**
Hamburg, 20 January 2012
„Observing and Controlling Quantum Matter at the Single Atom Level“
- 87 Workshop on Engineering and Control of Quantum Systems**
Dresden, 13-14 October 2011
“Probing and Controlling Strongly Interacting Quantum Matter”
- 86 Physics Colloquium – Physikalisch Technische Bundesanstalt (PTB)**
Braunschweig, 6 October 2011
“Probing and Controlling Strongly Interacting Quantum Matter at the Single Atom Level”
- 85 Coherence and Decoherence at Ultracold Temperatures**
Garching, 8-9 September 2011
“Probing and Controlling Strongly Interacting Quantum Matter at the Single Atom Level”
- 84 Ruperto Carola Symposium - Pushing Frontiers in Quantum Information with Atoms and Photons**
Heidelberg, 1-3 September 2011
“Probing and Controlling Strongly Interacting Quantum Matter”
- 83 Physics Colloquium – University of Mainz**
Mainz, 12 July 2011
“Probing and Controlling Strongly Interacting Quantum Matter”
- 82 Physics Colloquium – University of Augsburg**
Augsburg, 13 December 2010
“Exploring Strongly Correlated Quantum Matter in Artificial Crystals of Light”
- 81 Laserfest Berlin**
Berlin, 23 March 2010
“Exploring Quantum Matter with the Coldest Objects in the Universe”

- 80 Quantum Criticality and Novel Phases (QCNP) 2009**
Dresden, 2-5 August 2009
“Strongly Correlated Fermionic Quantum Gases in Optical Lattices”
- 79 Physics Colloquium Stuttgart**
Stuttgart, 7 July 2009
“Exploring Quantum Matter with Ultracold Atoms in Optical Lattices”
- 78 FOR635 Workshop**
Bonn, 6-8 July 2009
“Controlling Light and Matter with Ultracold Atoms in Optical Lattices”
- 77 Invited Symposium Speaker, DPG Spring Meeting 2009**
Dresden, 23 March 2009
“Strongly Correlated Quantum Matter in Optical Lattices”
- 76 Joint Physics Colloquium TU Karlsruhe/University of Heidelberg**
Karlsruhe, 30 January 2009
“Exploring Quantum Matter with Ultracold Atoms in Artificial Crystals of Light”
- 75 Physics Colloquium - TU Chemnitz**
Chemnitz, 7 January 2009
“Experimentieren mit Ultrakalten Atomen in Künstlichen Kristallen aus Licht“
- 74 Max-von-Laue Colloquium – Physikalische Gesellschaft zu Berlin**
TU Berlin, 30 October 2008
„Experimentieren mit Ultrakalten Atomen in Künstlichen Kristallen aus Licht“
- 73 DPG Lehrerfortbildung**
Physikzentrum der DPG, 20 October 2008
„Experimentieren mit den kältesten Objekten des Universums“
- 72 SFB/TRR49 Annual Meeting**
Schloss Waldthausen, 25-26 September 2008
„Strongly Correlated Fermions and Bose-Fermi Mixtures in Optical Lattices“
- 71 Colloquium – University of Bremen**
Bremen, 19 June 2008
„Experimentieren mit Ultrakalten Atomen in Künstlichen Kristallen aus Licht“
- 70 Frontiers of Quantum Theory**
Berlin, 28-29 April 2008
„Entanglement and Quantum Simulations with Ultracold Atoms“
- 69 Colloquium – University of Saarbrücken**
Saarbrücken, 17 April 2008
„Experimentieren mit Ultrakalten Atomen in Künstlichen Kristallen aus Licht“

- 68 DPG Meeting Berlin – 150 Years Max-Planck: Physics Today**
Berlin, 27 February, 2008
„Atomphysik“
- 67 DPG Meeting Berlin – Symposium on Quantum Phase Transitions**
Berlin, 25 February 2008
„Quantum Phase Transitions with Ultracold Atoms“
- 66 Colloquium – University of Applied Sciences Fulda**
Fulda, 2 November 2007
„Experimentieren mit den kältesten Objekten des Universums“
- 65 Colloquium – University of Marburg**
Marburg, 2-4 Juli 2007
“Experimentieren mit Ultrakalten Atomen in Künstlichen Kristallen aus Licht”
- 64 Colloquium – University of Erlangen**
Erlangen, 21 Mai 2007
„Experimentieren mit Ultrakalten Atomen in Künstlichen Kristallen aus Licht“
- 63 NMLN Workshop – MPIKS Dresden**
Dresden, 28 March 2007
“Strongly Interacting Atoms in Optical Lattices”
- 62 DFG Rundgespräche**
Bad Honnef, 21-23 February 2007
“Strongly Interacting Quantum Gases in Optical Lattices”
- 61 Colloquium – University of Würzburg**
Würzburg, 11 December 2006
“New Light on Quantum Optics”
- 60 Colloquium – University of Ulm**
Ulm, 27 November 2006
“Experimenting with Strongly Interacting Ultracold Quantum Gases”
- 59 Colloquium – Max-Planck-Institute for Nuclear Physics**
Heidelberg, 9 November 2006
“Experimenting with Strongly Interacting Ultracold Quantum Gases”
- 58 Quo Vadis BEC Workshop**
FU Berlin, 28 October 2006
“Experimenting with Strongly Interacting Ultracold Quantum Gases”
- 57 Kepler Lecture at the University of Tübingen**
Tübingen, 12 July 2006
“New Light on Modern Optics”

- 56 **Otto-Stern Colloquium at the University of Hamburg**
Hamburg, 6 July 2006
“Exploring Quantum Matter in Artificial Crystals of Light”
- 55 **Public evening lecture with Anton Zeilinger**
Mainz, 30 May 2006
“Experimentieren mit den kältesten Objekten des Universums”
- 54 **Colloquium at the University of Bochum**
Bochum, 29 May 2006
“Exploring Quantum Matter in Artificial Crystals of Light”
- 53 **Quantum Information in Solid State Based Systems SFB Workshop**
Herrsching, 25 May 2006
“Entangling Neutral Atoms in Optical Lattices”
- 52 **Colloquium at the Max-Planck-Institute for Quantum Optics**
Garching, 23 May 2006
“Ultracold Quantum Gases in Optical Lattices”
- 51 **Graduate School on Physics of the University of Heidelberg, Honorary Colloquium**
Heidelberg, 20 April 2006
“Experimentieren mit ultrakalten Quantengasen”
- 50 **Naturwissenschaftliches Kolleg der Studienstiftung des deutschen Volkes**
Bad Honnef, 2-7 April 2006
„Lecture series on ultracold quantum gases“
- 49 **DPG Tagung 2006, Plenary Lecture**
Frankfurt, 15 March 2006
“100 Jahre Quantenoptik, von Planck und Einstein zur Quantenoptik heute”
- 48 **Ludwig-Maximilians-University, Physics Colloquium**
Munich, 23 January 2006
“Exploring Quantum Matter in Crystals of Light”
- 47 **Wissenschaftssommer Berlin, Invited Lecture by the DFG for the General Public**
Berlin, 20 June 2005
“Experimentieren mit den kältesten Objekten des Universums”
- 46 **University of Tübingen, Physics Colloquium**
Tübingen, 25 May 2005
“Materiewellen am Aufbruch – Neue Physik mit Bose-Einstein-Kondensaten“

- 45 **Einstein Year of Physics Lectures**
Bonn, 20 May 2005
"Bose-Einstein-Kondensation"
- 44 **RWTH Aachen, Physics Colloquium**
Aachen, 9 May 2005
"Exploring Quantum Matter in Crystals of Light"
- 43 **Physics on Saturday Morning**
Mainz, 7 May 2005
"Experimentieren mit den kältesten Objekten des Universums"
- 42 **New Trends in Nuclear, Atomic and Molecular Science**
Heidelberg, 12-13 March 2005
"Exploring Quantum Matter in Optical Lattices"
- 41 **Meeting of the German Physics Society – Plenary Talk**
Berlin, 4 March 2005
"From Einsteins Dream to Reality – Experimenting with the Coldest Objects in the Universe"
- 40 **Fritz Haber Institut of the Max-Planck-Society – Physics Colloquium**
Berlin, 25 February 2005
"Exploring Quantum Matter in Crystals of Light"
- 39 **Colloquium, Technische Universität Darmstadt**
Darmstadt, 26 November 2004
"Materiewellen am Aufbruch – neue Physik mit Bose-Einstein-Kondensaten"
- 38 **Colloquium at Graduation Department of Physics, Mainz University**
Mainz, 12 November 2004
"Von Einsteins Traum zur Realität – Experimentieren mit den kältesten Objekten des Universums"
- 37 **Inaugural Lecture, at Mainz University**
Mainz, 28 October 2004
"Von Einsteins Traum zur Realität – Experimentieren mit den kältesten Objekten des Universums"
- 36 **Physics Colloquium, University of Dresden**
Dresden, 18 October 2004
"Seeing Particles beneath the Waves"
- 35 **Workshop on "Quantum Phase Transitions"**
Bad Honnef, 12 October 2004
"Exploring strongly correlated quantum matter with ultracold atoms"

- 34 Workshop on Disordered Ultracold Quantum Gases**
Hannover, 28-28 June 2004
"From entanglement interferometry to molecule formation in optical lattices"
- 33 Physics Colloquium at the University of Bonn**
Bonn, 18 May 2004
"Materiewellen am Aufbruch – Neue Physik mit Bose-Einstein-Kondensaten"
- 32 DFG-SPP1116 Meeting**
Potsdam, 16-17 March 2004
"Photoassociation of neutral atoms in optical lattices"
- 31 Physics Colloquium at GSI Darmstadt**
Darmstadt, 13 January 2004
"Seeing the particles beneath the waves – New physics with Bose-Einstein condensates"
- 30 Physics Colloquium University of Karlsruhe**
Karlsruhe, 12 December 2003
"Materiewellen am Aufbruch – Neue Physik mit Bose-Einstein-Kondensaten"
- 29 Quantum Information Processing Workshop**
Bonn, 13-15 October 2003
"Controlled Collisions for Multiparticle Entanglement of Optically Trapped Atoms"
- 28 Physikalisches Kolloquium Universität Düsseldorf**
Düsseldorf, 3 July 2003
"Materiewellen am Aufbruch – Neue Physik mit Bose-Einstein-Kondensaten"
- 27 Graduiertenkolleg Universität Regensburg**
Regensburg, 22 May 2003
"Seeing the Particles beneath the Waves"
- 26 Forschergruppe Quantengase Meeting in Castle Reisenburg**
Günzburg, 3 April 2003
"Controlled Collisions with Neutral Atoms in Optical Lattices"
- 25 DPG-Spring Meeting Condensed Matter Physics – Eingeladener Hauptvortrag**
Dresden, 26 March 2003
"Materiewellen am Aufbruch – Neue Physik mit Bose-Einstein-Kondensaten"
- 24 Physics Colloquium University of Frankfurt**
Frankfurt, 29 January 2003
"Materiewellen am Aufbruch – Neue Physik mit Bose-Einstein-Kondensaten"

- 23 **Physics Colloquium University of Kaiserslautern**
Kaiserslautern, 27 January 2003
“Materiewellen am Aufbruch – Neue Physik mit Bose-Einstein-Kondensaten“
- 22 **Physics Colloquium University of Heidelberg**
Heidelberg, 24 January 2003
“Materiewellen am Aufbruch – Neue Physik mit Bose-Einstein-Kondensaten“
- 21 **Physics Colloquium Gerhard-Mercator University of Duisburg**
Duisburg, 20 January 2003
“Materiewellen am Aufbruch – Neue Physik mit Bose-Einstein-Kondensaten“
- 20 **Max-Planck-Institut für Quantenoptik, Laserseminar**
Garching, 26 November 2002
“Seeing the particles beneath the waves – New physics with Bose-Einstein condensates“
- 19 **Interactions in Ultracold Gases: From Atoms to Molecules**
Heidelberg, September 2002
“Beyond mean field physics with Bose-Einstein condensates in optical lattices“
- 18 **Physics Colloquium, TU and LMU Munich**
Munich, 15 July 2002
“Quantum phase transitions from a superfluid to a Mott insulator in an ultracold gas of atoms“
- 17 **Physics Colloquium, University of Cologne**
Cologne, 11 June 2002
“Quantum phase transitions from a superfluid to a Mott insulator in an ultracold gas of atoms“
- 16 **Theory Colloquium, University of Augsburg**
Augsburg, 25 April 2002
“From a weakly interacting Bose gas to a strongly correlated Bose system“
- 15 **Physics Department, University of Mainz**
Mainz, 14 May 2002
“From a weakly interacting Bose gas to a strongly correlated Bose system“
- 14 **Meeting of the SPP1116 program of the DFG “Interactions in ultracold atomic and molecular gases“**
Bonn, April 2002
“Quantum phase transitions from a superfluid to a Mott insulator in an ultracold gas of atoms“
- 13 **Quantum Optics Summer School, University of Bonn**
Bonn, April, 2002
“Bose-Einstein condensation“

- 12 **Spring Meeting of the German Physical Society 2002**
Osnabrück, 8 March 2002
"Quantum phase transitions from a superfluid to a Mott insulator in an ultracold gas of atoms"
- 11 **"Lattice days in Stuttgart", 5. Physikalisches Institut, University of Stuttgart**
Stuttgart, 28 February 2002
"Quantum phase transitions from a superfluid to a Mott insulator in an ultracold gas of atoms"
- 10 **Theoretical Quantum Optics Seminar, Ludwig-Maximilians University of Munich**
Munich, 11 February 2001
"Quantum phase transitions from a superfluid to a Mott insulator in an ultracold gas of atoms"
- 9 **Quantum Optics and Atomic Physics Seminar, University of Heidelberg,**
Heidelberg, 12 December 2001
"Quantum phase transition from a superfluid to a Mott insulator in an ultracold gas of atoms"
- 8 **SFB 407 Colloquium, University of Hannover**
Hannover, 21 November 2001
"Quantum phase transition from a superfluid to a Mott insulator"
- 7 **Quantum Optics Summer School, Universität Bonn**
Bonn, 20-21 August 2001
"Bose-Einstein condensation"
- 6 **Physics Colloquium of the University of Oldenburg**
Oldenburg, 14 Mai 2001
"Bose-Einstein condensation and atom lasers/Experimenting with the coldest objects in the universe"
- 5 **Seminar "Quantum Optics and Spectroscopy"**
Institute for Experimental Physics, University of Innsbruck, Innsbruck, 17
January, 2000
"Atom lasers"
- 4 **Advanced training for High School physics teachers organized by the
Germany Physical Society "100 years quantum physics"**
Bonn; August 2000
"Matter Waves"
- 3 **Max-Planck-Institute for Plasma Physics**
Garching, 3 February 2000
"Atom lasers"

- 2** **Physics Colloquium of the University of Göttingen**
Göttingen, April 1999
“Atom lasers“

- 1** **Spring Meeting of the German Physical Society 1999, Heidelberg, Invited
Main Talk**
Heidelberg, March 1999
“Atom lasers“