Invited International Talks

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 (PASQuanS)
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 ICFQ/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 Quantum Computers**  
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”
<table>
<thead>
<tr>
<th>No.</th>
<th>Event Title</th>
<th>Location</th>
<th>Date</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>267</td>
<td>Ernest Kempton Adams Lecture – Columbia University</td>
<td>New York (USA), 18 November 2019</td>
<td>“Quantum Many-Body Dynamics under the Microscope”</td>
<td></td>
</tr>
<tr>
<td>265</td>
<td>Ordering and Dynamics of Correlated Quantum Systems</td>
<td>Évero (Portugal) 21-25 October 2019</td>
<td>“Fermi Hubbard Model under the Quantum Gas Microscope”</td>
<td></td>
</tr>
<tr>
<td>264</td>
<td>Les Houches Summer School - Dynamics and Disorder in Quantum Many Body Systems Far From Equilibrium</td>
<td>Les Houches (France), 17 July – 23 August 2019</td>
<td>“Nonequilibrium Dynamics with Ultracold Atoms”</td>
<td></td>
</tr>
<tr>
<td>263</td>
<td>Designing Quantum Matter</td>
<td>San Sebastian (Spain), 16-18 July 2019</td>
<td>“From Dynamical Spin Charge Deconfinement to Rydberg Macrodimers”</td>
<td></td>
</tr>
<tr>
<td>262</td>
<td>Quantum Connections - Summer School</td>
<td>Stockholm (Sweden), 17-20 June 2019</td>
<td>“Large Scale Quantum Simulations Using Ultracold Atoms in Optical Lattices”</td>
<td></td>
</tr>
<tr>
<td>261</td>
<td>GRC Atomic Physics</td>
<td>Newport Rhode Island (USA), 9-12 June 2019</td>
<td>“From Dynamical Spin Charge Deconfinement to Rydberg Macrodimers”</td>
<td></td>
</tr>
<tr>
<td>259</td>
<td>Quantum Information and Measurement (QIM) V: Quantum Technologies</td>
<td>Rome (Italy), 4-6 April 2019</td>
<td>“Quantum Simulations using Ultracold Atoms”</td>
<td></td>
</tr>
</tbody>
</table>
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
“Proning 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”
Boltzmann Lecture
SISSA, Trieste (Italy), 20 February 2018
“Probing the Frontiers of Statistical Physics Using Ultracold Atoms”

Quantum Simulation & Computation
Bilbao (Spain), 12-16 February 2018
“Large Scale Quantum Simulations Using Ultracold Atoms”

Summer School on Topological Matter
ANU, Canberra (Australia), 15-18 January, 2018
“Realising and Probing Topology Using Ultracold Atoms in Optical Lattices”

Rutgers University, Physics Colloquium
New Brunswick (USA), 6 December, 2017
“Large Scale Quantum Simulations Using Ultracold Atoms”

International Conference on Quantum Simulations
Paris (France), 13-17 November 2017
“Large Scale Quantum Simulations Using Ultracold Atoms”

The Second Quantum Revolution – Symposium honouring Alain Aspect
Berlin (Germany), 10 November 2017
“From Order to Disorder in Ultracold Quantum Gases”

Physics on Friday Colloquium
Pisa (Italy), 3 November 2017
“Probing and Controlling Quantum Matter using Ultracold Atoms in Optical Lattices”

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”

Conference on Many-Body-Localization @ ICTP
Trieste (Italy), 10-14 July 2017
“Probing Many-Body Localization from an Ultracold Atom Perspective”

Frontiers in Emergent Quantum Phenomena @ NYU
New York (USA), 28-30 June 2017
“Large Scale Quantum Simulations Using Ultracold Atoms in Optical Lattices”
<table>
<thead>
<tr>
<th>No.</th>
<th>Event Type</th>
<th>Location</th>
<th>Date</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>227</td>
<td>Blackboard Seminar @ KITP</td>
<td>Santa Barbara (USA)</td>
<td>10 October 2016</td>
<td>“Controlling and Exploring Quantum Matter Using Ultracold Atoms in Optical Lattices”</td>
</tr>
<tr>
<td>226</td>
<td>Public Lecture @ KITP</td>
<td>Santa Barbara (USA)</td>
<td>29 September 2016</td>
<td>“Realizing Richard Feynman’s Dream of a Quantum Simulator”</td>
</tr>
<tr>
<td>225</td>
<td>Workshop on Many-body Dynamics and Open Quantum Systems (DOQS) 2016</td>
<td>Glasgow (UK)</td>
<td>30 August – 2 September 2016</td>
<td>“Fermionic Quantum Gas Microscopes and MBL with Ultracold Atoms”</td>
</tr>
<tr>
<td>224</td>
<td>European Science Open Forum (ESOF) 2016</td>
<td>Manchester (UK)</td>
<td>25 July 2016</td>
<td>“Realizing Richard Feynman’s Dream of a Quantum Simulator”</td>
</tr>
<tr>
<td>223</td>
<td>Varenna Sumer School – Quantum Simulations</td>
<td>Varenna (Italy)</td>
<td>21-23 June 2016</td>
<td>“Probing and Controlling Quantum Matter in Optical Lattices”</td>
</tr>
<tr>
<td>221</td>
<td>Quantum Matter Workshop</td>
<td>Benasque (Spain)</td>
<td>29 June – 3 July 2016</td>
<td>“Many-Body Localization from an Experimental Ultracold Atom Perspective”</td>
</tr>
<tr>
<td>220</td>
<td>Itzykson Conference on Dynamics &amp; Disorder</td>
<td>IPht CEA-Saclay (France)</td>
<td>13-15 June 2016</td>
<td>“Many-Body Localization from an Experimental Ultracold Atom Perspective”</td>
</tr>
<tr>
<td>219</td>
<td>Quantum Science, Matter &amp; Engineering Symposium</td>
<td>Technion, Haifa (Israel)</td>
<td>1-2 June 2016</td>
<td>“Probing and Controlling Non-Equilibrium Dynamics using Ultracold Atoms”</td>
</tr>
<tr>
<td>218</td>
<td>Bar Ilan University - Physics Colloquium</td>
<td>Ramat Gan (Israel)</td>
<td>30 May 2016</td>
<td>“Probing and Controlling Non-Equilibrium Dynamics using Ultracold Atoms”</td>
</tr>
</tbody>
</table>
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  Academia 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“
<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Location</th>
<th>Date</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>178</td>
<td>The Quantum Century: 100 Years of the Bohr Atom</td>
<td>Copenhagen (Denmark), 3-4 October 2013</td>
<td>“Probing and Exploring at the Single Atom Level”</td>
<td></td>
</tr>
<tr>
<td>177</td>
<td>International BEC Conference</td>
<td>San Feliu de Guixol (Spain), 8-12 September 2013</td>
<td>“Probing and Controlling Quantum Matter in New Parameter Regimes”</td>
<td></td>
</tr>
<tr>
<td>176</td>
<td>Frontiers of Quantum Physics and Quantum Information</td>
<td>ICFO Barcelona (Spain), 25-27 July 2013</td>
<td>“Ultracold Quantum Gases in Optical Lattices”</td>
<td></td>
</tr>
<tr>
<td>175</td>
<td>International Conference on Quantum Technologies</td>
<td>Moscow (Russia), 20-24 July 2013</td>
<td>“From Spin Dynamics to Topological Bloch Bands with Ultracold Atoms”</td>
<td></td>
</tr>
<tr>
<td>174</td>
<td>Synthetic Gauge Fields for Atoms and Photons</td>
<td>Trento (Italy), 8-12 July 2013</td>
<td>“Probing Quantum Matter in Topological Bloch Bands”</td>
<td></td>
</tr>
<tr>
<td>173</td>
<td>QIPC Conference</td>
<td>Florence (Italy), 1-5 July 2013</td>
<td>“Quantum Matter under the Microscope”</td>
<td></td>
</tr>
<tr>
<td>172</td>
<td>Gordon Conference on Atomic Physics</td>
<td>Newport (USA), 24-28 June 2013</td>
<td>“Realizing Quantum Matter with Ultracold Atoms and Ions”</td>
<td></td>
</tr>
<tr>
<td>171</td>
<td>50 Years Hubbard Model</td>
<td>University College London (UK), 18 June 2013</td>
<td>“Probing Quantum Matter at the Single Atom Level”</td>
<td></td>
</tr>
<tr>
<td>171</td>
<td>Quantum Optics 8</td>
<td>Jachranka (Poland), 30 May 2013</td>
<td>“Exploring Quantum Matter Using Ultracold Atoms in Optical Lattices”</td>
<td></td>
</tr>
<tr>
<td>180</td>
<td>Physics Colloquium@ MIT</td>
<td>Cambridge (USA), 14 November 2013</td>
<td>„Controlling and Exploring Quantum Matter at the Single Atom Level“</td>
<td></td>
</tr>
</tbody>
</table>
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 FINESS 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”
<table>
<thead>
<tr>
<th>#</th>
<th>Event Description</th>
<th>Location/Details</th>
<th>Title/Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>149</td>
<td>Workshop on Quantum Gases</td>
<td>Trento (Italy), 12 March 2012</td>
<td>“Observing and Controlling Quantum Matter at the Single Atom Level”</td>
</tr>
<tr>
<td>148</td>
<td>AQUTE Winter School on Quantum Information Processing</td>
<td>Oberurgl (Austria), 6-10 February 2012</td>
<td>“Observing and Controlling Quantum Matter at the Single Atom Level”</td>
</tr>
<tr>
<td>147</td>
<td>Center for Quantum Technologies, 4th Anniversary</td>
<td>National University of Singapore, 7 December 2011</td>
<td>“Observing and Controlling Quantum Matter at the Single Atom Level”</td>
</tr>
<tr>
<td>146</td>
<td>ITAMP/Harvard Quantum Optics Center Colloquium</td>
<td>Harvard University (USA), 1 December 2011</td>
<td>“Observing and Controlling Quantum Matter”</td>
</tr>
<tr>
<td>145</td>
<td>Ehrenfest Colloquium</td>
<td>Leiden University (NL), 23 November 2011</td>
<td>“Observing and Controlling Quantum Matter”</td>
</tr>
<tr>
<td>144</td>
<td>LENS Colloquium</td>
<td>Florence (Italy), 20 October 2011</td>
<td>“Probing and Controlling Strongly Interacting Quantum Matter”</td>
</tr>
<tr>
<td>143</td>
<td>Quantum Information Processing Conference</td>
<td>Zurich (Switzerland), 5-7 September 2011</td>
<td>“Probing and Controlling Strongly Interacting Quantum Matter”</td>
</tr>
<tr>
<td>142</td>
<td>Scottish University Summer School in Physics</td>
<td>Glasgow (UK), 2-4 August 2011</td>
<td>“Introduction to Many-Body Physics with Ultracold Atoms”</td>
</tr>
<tr>
<td>141</td>
<td>Frontiers of Quantum and Mesoscopic Thermodynamics (FQMT)</td>
<td>Prague (Czech Republic), 27-29 July 2011</td>
<td>“Probing and Controlling Strongly Interacting Quantum Matter at the Single-Atom Level”</td>
</tr>
<tr>
<td>140</td>
<td>Summer School on “Quantum Machines”</td>
<td>Les Houches (France), 13-15 July 2011</td>
<td>“Ultracold Quantum Gases in Optical Lattices”</td>
</tr>
</tbody>
</table>
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 Correlate 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”
<table>
<thead>
<tr>
<th>#</th>
<th>Event Name</th>
<th>Location, Dates</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>119</td>
<td>KITPC Workshop on Cold Quantum Gases</td>
<td>Beijing (China), 12-15 October, 2009</td>
<td>“Non-Equilibrium Dynamics of Strongly Interacting Bosonic and Fermionic Quantum Gases”</td>
</tr>
<tr>
<td>118</td>
<td>Frontiers of Science Plenary Talk at KITPC</td>
<td>Beijing (China), 13 October 2009</td>
<td>“Exploring Quantum Matter with the Coldest Objects in the Universe”</td>
</tr>
<tr>
<td>117</td>
<td>Physics Colloquium Fribourg</td>
<td>Fribourg (Switzerland), 30 September 2009</td>
<td>“Exploring Quantum Matter with Ultracold Atoms”</td>
</tr>
<tr>
<td>116</td>
<td>FET Seminar at the European Commission</td>
<td>Brussels (Belgium), 17 September 2009</td>
<td>“Quantum Simulations”</td>
</tr>
<tr>
<td>115</td>
<td>BEC2009 Conference</td>
<td>San Feliu (Spain), 6-10 September 2009</td>
<td>“Non-Equilibrium Dynamics of Strongly Interacting Bosonic and Fermionic Quantum Gases”</td>
</tr>
<tr>
<td>114</td>
<td>ICREA Workshop on Artificial Gauge Fields</td>
<td>San Benet (Spain), 1-4 September 2009</td>
<td>“Preparing and Manipulating Exotic Quantum States in Optical Lattices”</td>
</tr>
<tr>
<td>113</td>
<td>SCALA Summer School on Quantum Optics &amp; Quantum Information</td>
<td>Cargèse (France), 22-25 August 2009</td>
<td>“Ultracold Bosonic and Fermionic Quantum Gases in Optical Lattices”</td>
</tr>
<tr>
<td>112</td>
<td>International Conference on Laser Spectroscopy (ICOLS09)</td>
<td>Memanbetsu (Japan), 8-12 June 2009</td>
<td>“Strongly Correlated Bosons and Fermions in Optical Lattices”</td>
</tr>
<tr>
<td>111</td>
<td>Seminar Physics Department École Polytechnique</td>
<td>Paris (France), 31 March-1 April 2009</td>
<td>“Strongly Correlated Quantum Matter in Optical Lattices”</td>
</tr>
<tr>
<td>110</td>
<td>LOWDIM KITP Conference</td>
<td>St. Barbara (USA), 21-26 February 2009</td>
<td>“Strongly Correlated Quantum Matter in Optical Lattices”</td>
</tr>
</tbody>
</table>
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”
<table>
<thead>
<tr>
<th>Page</th>
<th>Event Title</th>
<th>Location</th>
<th>Date</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>Lecture Series at the Israel Institute of Technology (Technion)</td>
<td>Haifa (Israel), 10-15 April, 2008</td>
<td>“Ultracold Quantum Gases”</td>
<td></td>
</tr>
<tr>
<td>99</td>
<td>INTERF08 Meeting</td>
<td>Levico (Italy), 3-5 April 2008</td>
<td>“Noise Correlations and Spin Squeezing with Ultracold Atoms”</td>
<td></td>
</tr>
<tr>
<td>98</td>
<td>APS March Meeting</td>
<td>New Orleans (USA), 10-14 March 2008</td>
<td>“Exploring Quantum Matter with Ultracold Atoms in Optical Lattices”</td>
<td></td>
</tr>
<tr>
<td>97</td>
<td>ESF Conference on Quantum Optics</td>
<td>Obergurgl (Austria), 25-27 February 2008</td>
<td>“Ultracold Atoms in Optical Lattices”</td>
<td></td>
</tr>
<tr>
<td>96</td>
<td>Quantum Noise in Correlated Systems</td>
<td>Rehovot (Israel), Weizmann Institute, 5-11 January 2008</td>
<td>“Probing Quantum Matter in Optical Lattices”</td>
<td></td>
</tr>
<tr>
<td>95</td>
<td>Winter School on Theoretical Condensed Matter Physics</td>
<td>Jerusalem (Israel), 26 December – 4 January 2008</td>
<td>“Ultracold Quantum Gases in Optical Lattices”</td>
<td></td>
</tr>
<tr>
<td>93</td>
<td>Stanford Physics Colloquium</td>
<td>Stanford (USA), 23 October 2007</td>
<td>“Exploring Quantum Matter with Ultracold Atoms”</td>
<td></td>
</tr>
<tr>
<td>92</td>
<td>Opening of CoQus (Graduate School on Complex Quantum Systems)</td>
<td>Vienna (Austria), 8 October 2007</td>
<td>“Exploring Quantum Matter with Ultracold Atoms in Optical Lattices”</td>
<td></td>
</tr>
</tbody>
</table>
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”
Gordon Research Conference on Quantum Information Science
Il Ciocco, Castelvecchio (Italy), 7-12 May 2006
“Entangling Neutral Atoms in Optical Lattices”

Meeting of the Dutch and Belgian Physics Society, FYSICA 2006
Plenary talk, Leiden (Netherlands), 28 April 2006
“New Light on Modern Optics”

Stockholm University (KTP), Physics Colloquium
Stockholm (Sweden), 23-24 March 2006
“Exploring Quantum Matter in Artificial Crystals of Light”

Ehrenfest Colloquium
Leiden (Netherlands), 15 February 2006
“Exploring Quantum Matter in Artificial Crystals of Light”

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”

DAAD/DFG organized Promotional Lecture/Dinner Talk
London (UK), 1 December 2005
“Ultracold Atoms – From Einstein’s Dream to Reality”

KVDS Meeting on Quantum Information
Copenhagen (Denmark), 18-19 November 2005
“Entangling Neutral Atoms in Optical Lattices”

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”

Technical University of Eindhoven, Physics Colloquium
Eindhoven (Netherlands), 27-28 October 2005
“Exploring Quantum Matter in Crystals of Light”

European Science Foundation Meeting on BEC
San Feliu (Spain), 10-15 September 2005
“Mott Insulators, Noise Correlations and Coherent Spin Dynamics in Optical Lattices”

Summer School on Quantum Information
Kochi (Japan), 1-7 September 2005
Lecture Series on Quantum Information with Ultracold Atoms in Optical Lattices
OSA Invited Lecturer for Developing Countries
Yerevan (Armenia), 22-26 August 2005
Lecture Series on Ultracold Atoms

Low Temperature Physics 24, Plenary talk
Orlando (USA), 10-12 August 2005
“Mott Insulators, Noise Correlations and Coherent Spin Dynamics in Optical Lattices”

Low-D Workshop Amsterdam
Amsterdam (Netherlands), 28-30 July 2005
“Strongly Correlated Quantum Matter in Optical Lattices”

International Conference on Quantum Electronics, IQEC 2006
Tokyo (Japan), 13-16 July 2005
“Mott Insulators, Noise Correlations and Coherent Spin Dynamics in Optical Lattices”

Quantum Optics VI, EQEC - Keynote Talk
Munich (Germany), 17 June 2005
“Spatial Quantum Noise Interferometry and more...”

Aspen Workshop on Ultracold Quantum Gases
Aspen (USA), 4-6 June 2005
Lecture Series on “Correlations and Coherent Spin Oscillations”

Annual Meeting Finnish Optical Society, Plenary talk
Jväskylä (Finland), 12-13 May 2005
“Exploring Quantum Matter in Artificial Crystals of Light”

IOP – Einstein Year 2005 Symposium, Plenary talk
Warwick (UK), 11-14 April 2005
“Exploring Quantum Matter with Ultracold Atoms in Optical Lattices”

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”

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”

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”
<table>
<thead>
<tr>
<th>No.</th>
<th>Event Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td><strong>QUEST-Meeting</strong></td>
<td>La Thuile (Suisse), 7-12 March 2004&lt;br&gt;“Engineering entanglement of ultra cold atoms in optical lattices”</td>
</tr>
<tr>
<td>39</td>
<td><strong>Workshop on Ultra Cold Gases</strong></td>
<td>Levico (Italy), 3-6 March 2004&lt;br&gt;“Fermionizing bosons in optical lattices”</td>
</tr>
<tr>
<td>38</td>
<td><strong>Arkadi Aronov Memorial Lecture at the Weizman Institute of Science</strong></td>
<td>Tel Aviv, (Israel), 25-29 February 2004&lt;br&gt;“Exploring quantum matter in optical lattices”</td>
</tr>
<tr>
<td>37</td>
<td><strong>Plenary Talk at the Annual Spring Meeting of the AAAS</strong></td>
<td>Seattle, (USA), 13-16 February 2004&lt;br&gt;“Controlling matter at the quantum limit”</td>
</tr>
<tr>
<td>36</td>
<td><strong>École-Normale-Supérieure – Physics Colloquium</strong></td>
<td>Paris (France), 20 November 2003&lt;br&gt;“Exploring quantum matter in artificial crystals of light”</td>
</tr>
<tr>
<td>35</td>
<td><strong>European Science Foundation - BEC2003</strong></td>
<td>San Feliu (Spain), 13-18 September 2003&lt;br&gt;“Controlled Collisions with Neutral Atoms in Optical Lattices”</td>
</tr>
<tr>
<td>34</td>
<td><strong>Quantum Challenges Conference</strong></td>
<td>Warsaw (Poland), 4-7 September 2003&lt;br&gt;“Controlling Many-Body States of Neutral Atoms in Optical Lattices”</td>
</tr>
<tr>
<td>33</td>
<td><strong>Gordon Research Conference – Quantum Control of Light and Matter</strong></td>
<td>Mount Holyoke College (USA), 3-8 August 2003&lt;br&gt;“Control of Matter in Lattices of Light”</td>
</tr>
<tr>
<td>32</td>
<td><strong>Plenary Talk at the Annual Meeting of the French Physical Society SFP</strong></td>
<td>Lyon (France), 7-9 July 2003&lt;br&gt;“Bose-Einstein Condensates in Optical Lattices”</td>
</tr>
<tr>
<td>31</td>
<td><strong>EQEC – European Quantum Electronics Conference 2003</strong></td>
<td>Munich (Germany), 26 June 2003&lt;br&gt;“Controlled Collisions for Multiparticle Entanglement”</td>
</tr>
<tr>
<td>30</td>
<td><strong>University of Oxford – Physics Department Seminar</strong></td>
<td>Oxford (United Kingdom), 16 June 2003&lt;br&gt;“Controlled Collisions for Multiparticle Entanglement”</td>
</tr>
</tbody>
</table>
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

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 MPIPKS, 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, 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 Univeristy of Stuttgart, 30 April 2019
“Realising Richard Feynman’s dream of a Quantum Simulator”

125 Colloquium @ MPIPKS 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, 12 January 2018
“Large Scale Quantum Simulations Using Ultracold Atoms in Optical Lattices”

123 University of Regensburg, Physik Kolloquium, 11 December 2017
“Large Scale Quantum Simulations Using Ultracold Atoms in Optical Lattices”

122 Science Fair @ LMU, 7 June 2017
“Ultracold Quantum Gases”

121 Workshop on Floquet Systems, MPIPKS Dresden, 8-9 August 2016
“Many-Body Localization from an Experimental Ultracold Atom Perspective”

120 Technische Universität Kaiserslautern, Physik Kolloquium, 27 June 2016
“Probing and Controlling Quantum Matter at the Single Atom Level”

“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, 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”

„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”

   „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 Walddhanssen, 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“

   „Atomphysik“

   „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“

Prof. Dr. Immanuel Felix Bloch
Ludwig-Maximilians-Universität München & Max-Planck-Institut für Quantenoptik
September 2022
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”

“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”

   “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 Reisensburg, Günzburg, 3 April 2003
“Controlled Collisions with Neutral Atoms in Optical Lattices”

“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 May 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"