## List of invited talks

## International conferences and workshops

- 1. December 2022: MPG-QST Faculty meeting, Stuttgart, Germany *Quantum simulation with ultracold atoms in optical lattices*
- 2. December 2022: FermiQP 3rd project meeting meeting, Munich, Germany *FermiQP Data rate and Coherence time*
- 3. December 2022: Dynamite kick-off meeting in Barcelona, Spain, *Experimental tools at LMU*
- 4. November 2022: NQS2022 Novel Quantum States in Condensed Matter 2022 in Kyoto, Japan, *Anomalous Floquet topological systems with ultracold atoms*
- 5. November 2022: QMEL2022 Quantum Method for Lattice Gauge Theories in Mainz, Germany, *Towards simulating U(1) QLMs coupled to fermionic matter with Yb atoms*
- 6. October 2022: INTRIQ meeting in Bromont, Canada, *Quantum simulation with ultracold atoms from Hubbard models to gauge theories*
- 7. August 2022: Workshop on "Quantum Transport with ultracold atoms", Dresden, Germany, *Anomalous Floquet topological systems in periodically-driven hexagonal lattices*
- 8. August 2022: Solvay Workshop on "Quantum Simulation 2021", Brussels, Belgium, *Anomalous Floquet topological systems in periodically-driven hexagonal lattices*
- 9. August 2022: CMD29, Manchester, UK, *Quantum simulation with ultracold atoms emergent Hilbert-space fragmentation*
- 10. August 2022: YAO22 Young Atom Opticians conference, Stuttgart, Germany, *Anomalous Floquet topological systems with ultracold atoms*
- 11. July 2022: CT.QMAT22 International Conference on Complexity and Topology in Quantum Matter, Würzburg, Germany, *Anomalous Floquet topological systems with ultracold atoms*
- 12. July 2022: Gordon Research Conference Quantum Science, Easton, MA, USA, *Quantum Simulation of Synthetic Gauge Fields with Cold Atoms*
- 13. July 2022: ICAP2022, Toronto, Canada, *Towards simulating U(1) QLMs coupled to fermionic matter with Yb atoms*
- 14. June 2022: ECAMP14, Vilnius, Lithuania, Synthetic Gauge Fields with Ultracold Atoms
- 15. June 2022: FOR5522 Preparatory Scientific Meeting, Munich, Germany, E2: Non-ergodic dynamics in tunable Bose-Hubbard models and E4: Exploring non-ergodicity in lattice gauge theories with fermionic Yb
- 16. June 2022: ECT workshop on Connections between cold atoms and nuclear matter: From low to high energies, Trento, Italy, *Towards quantum simulation of U(1) LGTs with alkaline-earth-like atoms*

- 17. May 2022: Damop 2022, Orlando, Florida Synthetic gauge fields with ultracold atoms in optical lattices
- 18. May 2022: FermiQP 2nd project meeting meeting, Berlin, Germany *FermiQP Data rate and Coherence time*
- 19. May 2022: Gauge Workshop Munich 2022, *Towards simulating U(1) QLMs coupled to fermionic matter with Yb atoms*
- 20. April 2022: Ultracold Atoms Japan 2022, Okinawa, Synthetic gauge fields with ultracold atoms
- 21. March 2022: PCTS workshop "New era of two-dimensional quantum matter", Princeton USA, *Wavepacket dynamics in topological Floquet Bands*
- 22. March 2022: APS March Meeting, Chicago USA, Non-ergodicity and emergent Hilbert-space fragmentation in tilted Fermi-Hubbard chains
- 23. February 2022: Quenocoba Workshop, MPQ, Garching Germany, *Quantum simulation* with ultracold atoms from Hubbard models to gauge theories
- 24. December 2021: Virtual HKUST IAS focused program on Quantum Simulation of Novel Phenomena with Ultracold Atoms and Molecules, Hong Kong, *Non-ergodicity and emergent Hilbert-space fragmentation in tilted Fermi-Hubbard chains*
- 25. December 2021: Virtual ESI Workshop on Topology, Disorder, and Hydrodynamics in Non-equilibrium Quantum Matter, Vienna, Austria, *Non-ergodicity and emergent Hilbert-space fragmentation in tilted Fermi-Hubbard chains*
- 26. November 2021: FermiQP kick-off meeting, MPQ Garching, Germany FermiQP Data rate and Coherence time
- 27. September 2021: Virtual SAMOP DPG conference, *Emergent Hilbert-space fragmentation in tilted Fermi-Hubbard chains*
- 28. September 2021: BEC2021 Conference, Sant Feliu, Spain, Towards QS of interacting topological phases: A new Cs quantum gas microscope
- 29. September 2021: FOR1807 Conference, Göttingen, Germany, Non-ergodicity and emergent Hilbert-space fragmentation in tilted Fermi-Hubbard chains
- 30. August 2021: Virtual KITP Conference: Transport and Efficient Energy Conversion in Quantum Systems, *Non-ergodicity and emergent Hilbert-space fragmentation in tilted Fermi-Hubbard chains*
- 31. June 2021: Virtual QuaSi-2 workshop "Implementation Strategies for Gauge Theories", *Quantum simulation of lattice gauge theories with ultracold atoms*
- 32. June 2021: KITP lunch talk "Interacting Topological Matter: Atomic, Molecular and Optical Systems", *Simulating topological matter with cold atoms*

- 33. May 2021: Virtual ICE-6 "Quantum Information in Spain", *Floquet topological phases with ultracold atoms in periodically-driven lattices*
- 34. April 2021: MITP Virtual Workshop "Gravity and Emergent Gauge Fields in Condensed and Synthetic Matter", Mainz Germany, *Engineering gauge fields with ultracold atoms in optical lattices*
- 35. April 2021: Virtual PQI2021, Pittsburgh US, *Quantum simulation with ultracold atoms in optical lattices*
- 36. March 2021: CUNY/BU workshop on Correlated phases and hydrodynamics of driven systems, *Experimental evidence for Hilbert-space fragmentation in tilted Fermi-Hubbard chains*
- 37. March 2021: QPhot Network Meeting, *Quantum simulation with ultracold atoms in optical lattices*
- 38. February 2021: Virtual cold-atom day in Barcelona, *Ultracold atoms in optical lattices out*of-equilibrium
- 39. February 2021: Panelist at the virtual Royal Society Meeting on "New perspectives on quantum many-body chaos"
- 40. December 2020: 735. (virtual) WE-Heraeus-Seminar on "Exploring Quantum Many-Body Physics with Ultracold Atoms and Molecules", Bad Honnef, Germany, *Observing non-ergodicity due to kinetic constraints in tilted Fermi-Hubbard chains*
- 41. December 2020: PCTS virtual workshop Quantum Matter in the Age of Entanglement, Princeton, USA, Observing non-ergodicity due to kinetic constraints in tilted Fermi-Hubbard chains
- 42. November 2020: Cold-atom on-line meeting, Paris, France, *Floquet topological phases with ultracold atoms in periodically-driven lattices*
- 43. October 2020: Virtual Quantum 2020, China, Floquet topological phases with ultracold atoms *in periodically-driven lattices*
- 44. October 2020: Virtual TopDyn Workshop, Mainz, Germany, Floquet topological phases with ultracold atoms in periodicall-driven lattices
- 45. February 2020: The Batsheva de Rothschild Seminar on Quantum Simulations using Photons, Atoms, and Molecules, Tze'elim, Israel, *Anomalous Floquet topological phases with ultracold atoms*
- 46. February 2020: Workshop on Entanglement in Strongly Correlated Systems, Benasque, Spain, *Floquet topological phases with ultracold atoms in periodically-driven lattices*
- 47. November 2019: MCQST-Technion Symposium on QST, MPQ Garching, Germany, *Floquet topological phases with ultracold atoms in periodically-driven lattices*
- 48. September 2019: 1. DPG-Herbsttagung 2019, Freiburg, Germany, *Quantum simulation* with ultracold atoms in optical lattices

- 49. September 2019: Korrelationstage 2019, Dresden MPI-PKS, Germany, *Static and dynamical gauge fields with ultracold atoms in periodically-driven lattices*
- 50. September 2019: BEC 2019 Frontiers in Quantum Gases, Sant Feliu, Spain, *Synthetic gauge fields with ultracold atoms in periodically-driven lattices*
- 51. August 2019: QFS 2019 Quantum Fluids and Solids, Edmonton, Canada, *Synthetic gauge fields with ultracold atoms in periodically-driven lattices*
- 52. August 2019: Talk at Les Houches Summer School, Les Houches, France, *Synthetic gauge fields with ultracold atoms in periodically-driven lattices*
- 53. July 2019: Workshop on Quantum Simulation: Gauge fields, Holography, and Topology, Bilbao, Spain, *From static to dynamical gauge fields with ultracold atoms*
- 54. July 2019: MCQST conference, Munich, Germany, Synthetic gauge fields with ultracold atoms in periodically-driven lattices
- 55. June 2019: Workshop on Dynamical gauge fields and lattice gauge theories in quantum gases, ETH Zurich, Switzerland, *Floquet approach to*  $\mathbb{Z}_2$  *lattice gauge theories with ultracold atoms in optical lattices*
- 56. June 2019: ECT Workshop on High-energy physics at ultra-cold temperatures, Trento, Italy, *From static to dynamical gauge fields with ultracold atoms*
- 57. May 2019: DAMOP 2019, Milwaukee, Wisconsin, USA, Synthetic gauge fields with ultracold atoms in periodically-driven lattices
- 58. April 2019: CECAM workshop on Condensed Matter Analogies in Mechanics, Optics and Cold Atoms", Tel Aviv, Israel *From static to dynamical gauge fields with ultracold atoms*
- 59. March 2019: ICFO-IMPRS workshop joint PhD workshop, Barcelona, Spain *Synthetic* gauge fields with ultracold atoms in periodically-driven lattices
- 60. January 2019: Anyons in Quantum Many-Body Systems, Dresden, Germany *Static and dynamical gauge fields with ultracold atoms in periodically-driven lattices*
- 61. July 2018: Quantum Transport with Cold Atoms, Ascona, Switzerland Non-Equilibrium Mass Transport in the 1D Fermi-Hubbard Model
- 62. July 2018: Current trends in open and nonequilibrium quantum optical systems, Erlangen, Germany *Floquet Engineering with interacting atoms*
- 63. July 2018: Young Research Leaders Group Workshop, Mainz, Germany *Floquet Engineering with interacting atoms*
- 64. February 2018: International school on Topological Matter in Artificial Gauge Fields, Dresden, Germany *Experimental realization of Chern insulators*
- 65. January 2018: jDPG Theoretikerworkshop, Bacharach, Germany *The Hofstadter model: properties and experimental realizations*

- 66. October 2017: Quantum Innovators Workshop, University of Waterloo, Canada *Towards Floquet engineering with interacting atoms*
- 67. August 2017: Nordita program on Topological Phases in Cold Atom Systems, Stockholm, Schweden *Towards Floquet engineering with interacting atoms*
- 68. July 2017: Workshop Heisenberg-Gesellschaft "Quantenphysik an der Schule", Schloss Lautrach, Allgäu Germany *Experimente mit ultrakalten Quantengasen*
- 69. June 2017: Non-equilibrium symposium, Cologne, Germany *Floquet engineering with interacting atoms*
- 70. April 2017: IMPRS Workshop, Dresden, Germany Artificial magnetic fields with ultracold atoms in optical lattices using laser-assisted tunneling
- 71. December 2016: 632. WE-Heraeus Seminar on Gauge Field Dynamics with Ultracold Gas Systems, Bad Honnef, Germany *Artificial gauge fields with ultracold atoms in optical lattices using laser-assisted tunneling*
- 72. August 2016: KITPC/PKU Conference on Synthetic Topological Quantum Matter, Kavli Institute for Theoretical Physics, Beijing China *Artificial gauge fields with ultracold bosonic atoms in optical lattices*
- 73. July 2016: ITAMP-workshop Connecting Few-body and Many-body Pictures of Fractional Quantum Hall Physics", Cambridge, MA, USA *Artificial gauge fields with ultracold bosonic atoms in optical lattices*
- 74. June 2016: Conference on New Ideas for Engineering Quantum Matter, St. Andrews, Scotland Artificial gauge fields and topology with ultracold atoms in optical lattices
- 75. May 2016: DAMOP 2016, Providence, Rhode Island, USA *Artificial gauge fields and topology with ultracold atoms in optical lattices*
- 76. March 2016: DPG-Frühjahrstagung SAMOP, Hannover, Germany Artificial gauge fields and topology with ultracold atoms in optical lattices
- 77. December 2015: Workshop on Topological Phases in Condensed Matter and Cold Atomic Systems, Hong Kong University of Science and Technology, China *Chern-number Measurement and Topological Charge Pumping with Ultracold Bosonic Atoms*
- 78. June 2015: DAMOP 2015, Columbus, Ohio, USA *Artificial magnetic fields and Chern-number measurement*
- 79. April 2015: 17th Symposium on Topological Quantum Information, Max-Planck Institute of Quantum Optics, Garching, Germany, *Artificial magnetic fields and Chern-number measurement*
- 80. April 2015: Computational Many-Body physics in the era of artificial gauge fields, LMU Munich, Germany, *Artificial magnetic fields and Chern-number measurement*

- 81. March 2015: Topolight 2015, 8<sup>th</sup> optoelectronics and photonics winter school: Topological effects in Photonics, Fai della Paganella, Trento, Italy, Artificial magnetic fields and Chern-number measurement with cold atoms
- 82. May 2014: Quantum Gases and Quantum Coherence, BEC 2014, Levico Terme, Italy, *Artificial gauge fields with ultracold atoms using laser-assisted tunneling*
- 83. April 2013: Kavli-MPQ Workshop, TU Delft, Netherlands, *Strong effective magnetic fields and Zak-Berry phases in optical superlattices*
- 84. April 2013: International Workshop on Quantum Simulations with ultracold Atoms and Molecules, AG Bloch and International Guests, Ringberg Castle, Tegernsee, Germany, *Towards the realization of uniform effective magnetic fields*
- 85. March 2013: ITAMP-workshop Finite temperature and low energy effects in cold atomic and molecular few- and many-body systems", Cambridge, MA, USA *Direct measurement of the Zak phase in topological Bloch bands*
- 86. November 2012: Workshop DFG Forschergruppe 801, Frankfurt, Germany, Direct Measurement of the Zak phase in Topological Bloch Bands
- 87. August 2012: International Conference on Spontaneous Coherence in Excitonic Systems, Stanford, CA, USA *Strong effective magnetic fields and Zak-Berry phases in optical lattices*
- 88. July 2012: Workshop DFG Forschergruppe 635, Quantum Walks, Quantum Simulators, and Quantum Networks, Bonn, Germany, *Realization of strong effective magnetic fields with ultracold atoms in optical superlattices*
- 89. November 2011: Workshop DFG Forschergruppe 635, Quantum Control and Simulation with Distributed Neutral Atom Systems, Garching, Germany, *Artificial magnetic fields with ultracold atoms*