

CURRICULUM VITAE**Prof. Dr. Christof Weitenberg**

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**Research Focus**

Ultracold atoms, Optical lattices, Quantum many-body systems, Quantum gas microscopy, Floquet engineering, Topological quantum matter, Machine learning in quantum physics

Academic Appointments

Since 2024 Professorship (W2) at TU Dortmund University, Germany
2013 - 2024 Group Leader, University of Hamburg, Germany
2011 - 2013 Postdoc, Ecole Normale Supérieure, Paris, France

Education

2007 - 2011 PhD student at Johannes Gutenberg University Mainz, Germany. Since 2009 at Max Planck Institute of Quantum Optics, Garching and Ludwig Maximilian University of Munich, Germany. Thesis on „Single-atom-resolved imaging and single-spin addressing in an atomic Mott insulator“, Advisor: Immanuel Bloch
2001 - 2007 Diploma in Physics at Saarland University, Saarbrücken, Germany
2001 - 2005 Diploma in Musical Composition at University of Music Saar, Saarbrücken, Germany
1992 - 2001 Gymnasium Remigianum, Borken, Germany

Awards and Scholarships

2026 ERC Advanced Grant InToCold
2018 ERC Starting Grant ANYON
2012 Marie Curie IEF Scholarship of the European Commission
2011 Fellow of the Alexander von Humboldt Foundation (Feodor Lynen-Program)
2011 Otto Hahn Medal of the Max Planck Society
2002 - 2007 Scholarship holder of the Studienstiftung des deutschen Volkes

Acquired Third-Party Funds

2027 - 2031	ERC Advanced Grant "Interaction-induced topology with ultracold atoms" (InToCold)
2026 - 2030	DFG Research Unit FOR 5919 "Machine learning for complex quantum states"
2025 - 2028	DFG Research Unit FOR 5688 "Driven-dissipative many-body systems of ultracold atoms"
2019 - 2024	ERC Starting Grant "Engineering and probing anyonic quantum gases" (ANYON)
2019 - 2025	Young Investigator in the DFG Cluster of Excellence "Advanced Imaging of Matter"
2016 - 2024	DFG Research Unit FOR 2414 "Artificial gauge fields and interacting topological phases in ultracold atoms"
2015 - 2023	DFG Collaborative Research Center SFB 925 "Light-induced dynamics and control of correlated quantum system"
2012	Marie Curie Scholarship of the European Commission
2011	Feodor-Lynen Scholarship of the Alexander von Humboldt Foundation

Referee Activities

Scientific Journals: Science, Nature, Nature Physics, Nature Communications, Physical Review Letters, Physical Review X, PRX Quantum, Annals of Physics, Optics Express, Physical Review A, New Journal of Physics, Advanced Photonics, Quantum, Phil. Trans. A.

Funding Agencies: DFG (German Research Foundation), ANR (French National Research Agency), FWF Der Wissenschaftsfonds (Austrian Science Fund), ERC (European Research Council)

International PhD Commissions: University of Trento, University of Aarhus, ICFO Barcelona, Sorbonne University Paris, Ecole Normale Supérieure Paris, University of Cambridge

Co-Organization of Conferences

- Benasque EMMI Workshop: Synthetic Topological Matter, Centro de Ciencias de Benasque Pedro Pascual, September 2025, Benasque, Spain.
- Joint ICTP-WE Heraeus School and Conference on Frontiers at the Intersection of Quantum Simulation and Machine Learning, April 2024, Trieste, Italy.
- BEC 2023 Conference, Sant Feliu de Guixols, Spain.
- International Conference "Machine Learning in Natural Sciences: From Quantum Physics to Nanoscience and Structural Biology", September 2022, Hamburg University, Germany.
- Summer School Machine Learning in Quantum Physics and Chemistry 2021, Warsaw, Poland.
- Conference NTTI2019/BEC 2019, Hiroshima, Japan.
- International PhD school "Topological Matter in Artificial Gauge Fields", February 2018, MPI PKS Dresden, Germany.
- Annual workshops of the Research Unit FOR 2414 in Hamburg, Germany (2017 and 2023).
- Symposium "Machine learning in atomic and molecular physics" at the DPG spring meeting 2023 in Hannover, Germany.

Language Skills

German (mother tongue), English (fluent), French (fluent)

LIST OF PUBLICATIONS AND INVITED TALKS

Publication Metrics

I am coauthor of 42 articles in peer-reviewed journals, 4x as first author, 15x as last author. Among them, 3 appeared in Science, 3 in Nature, 5 in Nature Phys., 2 in Phys. Rev. X, 5 in Phys. Rev. Lett., 1 in Rev. Mod. Phys., 23 in other journals. In total, these articles collected 4718 citations, the most cited article has 1151 citations. My h-index is 23 (Web of Science) or 29 (Google Scholar) (July 2026).

Publications in Peer-Reviewed Journals

1. J. C. Brüggenjürgen, M. S. Fischer, and C. Weitenberg, *A phase microscope for quantum gases*, Science 393, 167 (2026).
2. Z. Jalali-Mola, N. Käming, L. Asteria, U. Bhattacharya, R. W. Chhajlany, K. Sengstock, M. Lewenstein, T. Grass, C. Weitenberg, *Anomalous fluctuations of Bose-Einstein condensates in optical lattices*, Phys. Rev. Lett. 136, 083401 (2026).
3. T. Grass, D. Bercioux, U. Bhattacharya, M. Lewenstein, H. S. Nguyen, C. Weitenberg, *Colloquium: Synthetic quantum matter in nonstandard geometries*, Rev. Mod. Phys. 97 (1), 011001 (2025).
4. K. Gallego-Lizarribar, S. Julià-Farré, M. Lewenstein, C. Weitenberg, L. Barbiero, J. Argüello-Luengo, *Probing spontaneously symmetry-broken phases with spin-charge separation through noise correlation measurements*, Phys. Rev. Research 6 (4), L042048 (2024).
5. A. Schnell, C. Weitenberg, A. Eckardt, *Dissipative preparation of a Floquet topological insulator in an optical lattice via bath engineering*, SciPost Phys. 17, 052 (2024).
6. I. Morera Navarro, C. Weitenberg, K. Sengstock, E. Demler, *Exploring kinetically induced bound states in triangular lattices with ultracold atoms: Spectroscopic Approach*, SciPost Phys. 16, 081 (2024).
7. A. Katsaris, I. A. Englezos, C. Weitenberg, F. K. Diakonov, P. Schmelcher, *Restoring the topological edge states in a finite optical superlattice*, Phys. Rev. A 110, 013316 (2024).
8. V. V. Flambaum, A. J. Mansour, I. B. Samsonov, C. Weitenberg, *Searching for scalar field dark matter with hyperfine transitions in alkali atoms*, Phys. Rev. D 107, 015008 (2023).
9. M. N. Kosch, L. Asteria, H. P. Zahn, K. Sengstock, C. Weitenberg, *Multi-frequency optical lattice for dynamic lattice-geometry control*, Phys. Rev. Research 4, 043083 (2022).
10. H. P. Zahn, V. P. Singh, M. N. Kosch, L. Asteria, L. Freystatzky, K. Sengstock, L. Mathey, C. Weitenberg, *Formation of spontaneous density-wave patterns in DC driven lattices*, Phys. Rev. X 12, 021014 (2022).
11. L. Asteria, H. P. Zahn, M. N. Kosch, K. Sengstock, C. Weitenberg, *Quantum gas magnifier for sub-lattice-resolved imaging of three-dimensional quantum systems*, Nature 599, 571 (2021).
12. C. Weitenberg and J. Simonet, *Tailoring quantum gases by Floquet engineering*, Nature Phys. 17, 1342 (2021).
13. N. Käming, A. Dawid, K. Kottmann, M. Lewenstein, K. Sengstock, A. Dauphin, C. Weitenberg, *Unsupervised machine learning of topological phase transitions from experimental data*, Machine Learning: Science and Technology 2, 035037 (2021).
14. B. Andrade, V. Kasper, M. Lewenstein, C. Weitenberg, T. Groß, *Preparation of the Laughlin state with atoms in a rotating trap*, Phys. Rev. A 103, 063325 (2021).
15. J.-H. Zheng, B. Irsigler, L. Jiang, C. Weitenberg, W. Hofstetter, *Measuring the topological phase transition via the single-particle density matrix*, Phys. Rev. A 101, 013631 (2020).

16. B. S. Rem, N. Käming, M. Tarnowski, L. Asteria, N. Fläschner, C. Becker, K. Sengstock, C. Weitenberg, *Identifying quantum phase transitions using artificial neural networks on experimental data*, Nature Phys. 15, 917-922 (2019).
17. P. Cheng, P. W. Klein, K. Plekhanov, K. Sengstock, M. Aidelsburger, C. Weitenberg, K. Le Hur, *Topological proximity effects in a Haldane graphene bilayer system*, Phys. Rev. B 100, 081107(R) (2019).
18. L. Asteria, D. T. Tran, T. Ozawa, M. Tarnowski, B. S. Rem, N. Fläschner, K. Sengstock, N. Goldman, and C. Weitenberg, *Measuring quantized circular dichroism in ultracold topological matter*, Nature Phys. 15, 449 (2019).
19. M. Pyzh, S. Krönke, C. Weitenberg, and P. Schmelcher, *Quantum point spread function for imaging trapped few-body systems with a quantum gas microscope*, New J. Phys. 21, 053013 (2019).
20. M. Tarnowski, F. N. Ünal, N. Fläschner, B. S. Rem, A. Eckardt, K. Sengstock, and C. Weitenberg, *Measuring topology from dynamics by obtaining the Chern number from a linking number*, Nature Commun. 10, 1728 (2019).
21. T. Qin, A. Schnell, K. Sengstock, C. Weitenberg, A. Eckardt, and W. Hofstetter, *Charge density wave and charge pump of interacting fermions in circularly shaken hexagonal optical lattices*, Phys. Rev. A 98, 033601 (2018).
22. N. Fläschner, D. Vogel, M. Tarnowski, B. S. Rem, D.-S. Lühmann, M. Heyl, J. C. Budich, L. Mathey, K. Sengstock, and C. Weitenberg, *Observation of dynamical vortices after quenches in a system with topology*, Nature Phys. 14, 265 (2018).
23. N. Fläschner, M. Tarnowski, B. S. Rem, D. Vogel, K. Sengstock, and C. Weitenberg, *High-precision multiband spectroscopy of ultracold fermions in a nonseparable optical lattice*, Phys. Rev. A 97, 051601(R) (2018).
24. M. Pyzh, S. Krönke, C. Weitenberg, and P. Schmelcher, *Spectral properties and breathing dynamics of a few-body Bose-Bose mixture in a 1D harmonic trap*, New J. Phys. 20, 015006 (2018).
25. A. Quelle, C. Weitenberg, K. Sengstock, and C. Morais Smith, *Driving protocol for a Floquet topological phase without static counterpart*, New J. Phys. 19, 113010 (2017).
26. M. Lahrz, C. Weitenberg, and L. Mathey, *Implementing supersymmetric dynamics in ultracold atomic systems*, Phys. Rev. A 96, 043624 (2017).
27. M. Tarnowski, M. Nuske, N. Fläschner, B. S. Rem, D. Vogel, L. Freystatzky, K. Sengstock, L. Mathey, and C. Weitenberg, *Observation of topological Bloch-state defects and their merging transition*, Phys. Rev. Lett. 118, 240403 (2017).
28. V. P. Singh, C. Weitenberg, J. Dalibard, and L. Mathey, *Superfluidity and relaxation dynamics of a laser-stirred 2D Bose gas*, Phys. Rev. A 95, 043631 (2017).
29. N. Fläschner, B. S. Rem, M. Tarnowski, D. Vogel, D.-S. Lühmann, K. Sengstock, and C. Weitenberg, *Experimental reconstruction of the Berry curvature in a Floquet Bloch band*, Science 352, 1091 (2016).
30. D.-S. Lühmann, C. Weitenberg, and K. Sengstock, *Emulating molecular orbitals and electronic dynamics with ultracold atoms*, Phys. Rev. X 5, 031016 (2015).
31. L. Chomaz, L. Corman, T. Bienaimé, R. Desbuquois, C. Weitenberg, S. Nascimbène, J. Beugnon, and J. Dalibard, *Emergence of coherence in a uniform quasi-two-dimensional Bose gas*, Nature Commun. 6, 6172 (2015).
32. L. Corman, L. Chomaz, T. Bienaimé, R. Desbuquois, C. Weitenberg, S. Nascimbène, J. Dalibard, and J. Beugnon, *Quench-induced supercurrents in an annular Bose gas*, Phys. Rev. Lett. 113, 135302 (2014).

33. R. Desbuquois, T. Yefsah, L. Chomaz, C. Weitenberg, L. Corman, S. Nascimbène, and J. Dalibard, *Fit-free determination of scale invariant equations of state: application to the two-dimensional Bose gas*, Phys. Rev. Lett. 113, 020404 (2014).
34. M. Endres, M. Cheneau, T. Fukuhara, C. Weitenberg, P. Schauß, C. Gross, L. Mazza, M. C. Bañuls, L. Pollet, I. Bloch, and S. Kuhr, *Single-site- and single-atom resolved measurement of correlation functions*, Appl. Phys. B 113, 27 (2013).
35. R. Desbuquois, L. Chomaz, T. Yefsah, J. Léonard, J. Beugnon, C. Weitenberg, and J. Dalibard, *Superfluid behavior of a two-dimensional Bose gas*, Nature Phys. 8, 645 (2012).
36. M. Endres, M. Cheneau, T. Fukuhara, C. Weitenberg, P. Schauß, C. Gross, L. Mazza, M. C. Bañuls, L. Pollet, I. Bloch, and S. Kuhr, *Observation of correlated particle-hole pairs and string order in low-dimensional Mott insulators*, Science 334, 200 (2011).
37. C. Weitenberg, S. Kuhr, K. Mølmer, and J. F. Sherson, *A quantum computation architecture using optical tweezers*, Phys. Rev. A 84, 032322 (2011).
38. C. Weitenberg, P. Schauß, T. Fukuhara, M. Cheneau, M. Endres, I. Bloch, and S. Kuhr, *Coherent light scattering from a two-dimensional Mott insulator*, Phys. Rev. Lett. 106, 215301 (2011).
39. C. Weitenberg, M. Endres, J. F. Sherson, M. Cheneau, P. Schauß, T. Fukuhara, I. Bloch, and S. Kuhr, *Single-spin addressing in an atomic Mott insulator*, Nature 471, 319 (2011).
40. J. F. Sherson*, C. Weitenberg*, M. Endres, M. Cheneau, I. Bloch, and S. Kuhr, *Single-atom resolved fluorescence imaging of an atomic Mott insulator*, Nature 467, 68 (2010). (*contributed equally to this work)
41. M. Bellion, L. Santen, H. Mantz, H. Hähl, A. Quinn, A. Nagel, C. Gilow, C. Weitenberg, Y. Schmitt, and K. Jacobs, *Protein adsorption on tailored substrates: long-range forces and conformational changes*, J. Phys. Cond. Mat. 20, 404226 (2008).
42. R. Peter, M. Hilt, F. Ziebert, J. Bammert, C. Erlenkämper, N. Lorscheid, C. Weitenberg, A. Winter, M. Hammele, and W. Zimmermann, *Stripe-hexagon competition in forced pattern-forming systems with broken up-down symmetry*, Phys. Rev. E 71, 046212 (2005).

Publications under Review (Preprints)

43. L. Asteria, M. N. Kosch, H. P. Zahn, J. Bracker, A. Eckardt, K. Sengstock, C. Weitenberg, *Adiabatic realization of anomalous Floquet topological systems*, arXiv:2606.16942 (2026).
44. A. Tabarelli de Fatis, C. Weitenberg, A. Schnell, A. Eckardt, I. Carusotto, *Adiabatic preparation of a fractional quantum Hall fluid by coherently pumping atoms from a Bose-Einstein condensate*, arXiv:2606.15951 (2026).
45. N. R. Cooper, Y. Yang, C. Weitenberg, *Phase-space microscopes for quantum gases: Imaging conjugate variables and momentum-weighted densities*, arXiv:2603.29568 (2026).
46. L. Asteria, K. Sengstock, A. Eckardt, C. Weitenberg, *Micromotion area as proxy for anomalous Floquet topological systems*, arXiv:2603.25347 (2026).
47. C. Weitenberg, L. Asteria, O. Carlsson, A. Bohrdt, F. Grusdt, *Protocols for a many-body phase microscope: From coherences and d-wave superconductivity to Green's functions*, arXiv:2602.12142 (2026).
48. A. Katsaris, I. A. Englezos, C. Weitenberg, F. K. Diakonov, P. Schmelcher, *Mechanisms of localization in a finite harmonically confined optical superlattice*, arXiv:2602.04395 (2026).
49. G. Acampora et al., *Quantum computing and artificial intelligence: status and perspectives*, arXiv:2505.23860 (2025).

Other Publications

50. C. Weitenberg, *Microscopes go molecular*, News & Views, Nature Phys. 18, 963 (2022).
51. M. Aidelsburger and C. Weitenberg, *Topologische Materie – ultrakalt. Ultrakalte Atome liefern neue Einblicke in topologische Quantenmaterie*, Physik Journal 20(7), 46-51 (2021).
52. C. Weitenberg, *Fluorescence imaging of quantum gases*, Chapter 7 in “Quantum gas experiments: exploring many-body states”, P. Törmä, K. Sengstock, Editors (Imperial College Press, 2014).
53. C. Weitenberg, *Suprafluidität in zwei Dimensionen*, Physik in unserer Zeit 43, 266 (2012).

Invited Talks

1. Humboldt Kolleg on Quantum Technologies, Krakow, 06.07.2026, “Phase microscopes for quantum gases: from weakly to strongly correlated regimes”.
2. International Workshop “Engineered Strongly-Interacting Lattice Models with Atomic Quantum Simulators”, MPI PKS Dresden, 29.06.2026, “Phase microscopes for quantum gases: from weakly to strongly correlated regimes”.
3. 859. WEH-Seminar “New Trends in Degenerate Gases: Quantum Computation and Simulation”, Bad Honnef, 23.06.2026, “Phase microscopes for quantum gases: from weakly to strongly correlated regimes”.
4. Workshop of FOR 5522, Göttingen, 18.05.2026, “Phase microscopes for quantum gases: from weakly to strongly correlated regimes”.
5. Quantum Seminar, University of Mainz, 18.12.2025, “A phase microscope for quantum gases”.
6. Sino-German Symposium on Physics & the 34th GCPD Annual Meeting, Hannover, 6.12.2025, “Advanced microscopy of quantum gases”.
7. Cambridge University, 23.09.2025, “A phase microscope for quantum gases”.
8. Workshop on unconventional optical lattices (UCOL2025), 27.-30.06.2025, Vilnius. Lithuania, “A phase microscope for quantum gases”.
9. Strathclyde University, 13.06.2025, “A phase microscope for quantum gases”.
10. Workshop Machine Learning for Quantum Matter, MPI-PKS Dresden, 24.-28.02.2025, “Machine learning and ultracold quantum gases”.
11. Washington State University Colloquium, 23.01.2025, “A phase microscope for quantum gases” (online).
12. 2nd Workshop “Machine Learning for Quantum Technology”, MPL Erlangen, 6.-8.11.2024, “Machine learning and ultracold quantum gases”.
13. OSCAR Mini-Symposium, University of Bonn, 18.-19.11.2024, “A phase microscope for quantum gases”.
14. 47th NNV AMO Meeting, Egmond aan Zee, 15.-16.10.2025, “A phase microscope for quantum gases”.
15. Italian-German WE-Heraeus-Seminar on Quantum Simulation with Ultracold Atoms, Galileo Galilei Institute Florence, 30.09.-02.10.2024, “A phase microscope for quantum gases”.
16. IQOQI Quantum Seminar 20.03.2024, Innsbruck, “Matter-wave microscopy of ultracold atoms in tunable optical lattices”.
17. BEC 2023 Conference, 09.-15.09.2023, Sant Feliu de Guixols, Spanien, “Matter-wave microscopy of ultracold atoms in tunable optical lattices”.

18. Humboldt Kolleg on Synthetic Quantum Matter, 02.-06.07.2023, Vilnius, "Matter-wave microscopy of ultracold atoms in tunable optical lattices".
19. Seminar at Collège der France Paris, 23.05.2023, "Matter-wave microscopy of ultracold atoms in tunable optical lattices".
20. DPG spring meeting Dresden, 27.-31.03.2023, Hauptvortrag "Machine learning of phase transitions".
21. DLR online workshop on quantum simulation, 12.01.2023, "Hardware: Analog quantum simulation, a cold-atom perspective".
22. Round Table on Deep Learning at DESY, 25.11.2022, "Machine learning in quantum physics".
23. Quantum Universe Day, University of Hamburg, 22.11.2022, "Dark matter searches with cold atoms".
24. 27th Young Atom Opticians conference (YAO) Stuttgart, 31.07.-05.08.2022, "A view into optical lattices – a quantum gas magnifier".
25. International Conference CT.QMAT22 Würzburg, 25.07.-29.07.2022, "Novel tools for studying lattice physics with ultracold atoms".
26. DAMOP Conference, Orlando, Florida, 31.05.-03.06.2022, "Accessing new optical-lattice regimes with a matter-wave microscope".
27. DPG Spring Meeting Erlangen, 14.-18.03.2022 (online), "Matter-wave microscope for sub-lattice-resolved imaging of 3D quantum systems".
28. Cold-atom Online Meeting CoOLMe 2021, 17.-19.11.2021 ([online](#)), "Studying optical lattice physics with a quantum gas magnifier".
29. Center for Quantum Dynamics Colloquium, 10.11.2021, Heidelberg, "Quantum gas magnifier for sub-lattice-resolved imaging of three-dimensional quantum systems".
30. Annual SFB Workshop 2021, 01.-02.11.2021 (online), Highligh Talk "Tailoring quantum gases by Floquet engineering".
31. Workshop "Non-equilibrium dynamics and exotic phases in quantum gases", 02.07.2021-05.07.2021, Renmin University of China & University of Bonn (online), "Observation of spontaneous density-wave patterns via engineering of pair tunneling".
32. KITP program "Interacting topological matter: atomic, molecular and optical systems (topology21)", 01.06.2021-13.08.2021, Kavli Institute for Theoretical Physics ([online](#)), "Experimental Floquet techniques for realizing topological models with ultracold atoms".
33. Workshop "Correlations in mesoscopic Fermi systems", 21.05.2021, Universität Heidelberg (online), "Preparation and detection tools for mesoscopic quantum systems of cold atoms".
34. Group Seminar Quantum Optics Group LMU Munich, 04.05.2021 (online), "Quantum gas magnifier for sub-lattice-resolved imaging of three-dimensional quantum systems".
35. 735. WE-Heraeus-Seminar "Exploring quantum many-body physics with ultracold atoms and molecules" (online), 14.-18.12.2020, "Unsupervised machine learning of topological phase transitions from cold-atom data".
36. IMPRS Seminar MPI-PKS Dresden (online), 22.04.2020, "Prospects for engineering anyons in atomic few-body systems".
37. CUI Young Researchers Workshop "Frontiers in nonequilibrium dynamics of multicomponent systems in the few to many-body crossover" 10.02.-12.02.2020, Universität Hamburg, "Prospects for engineering anyons in atomic few-body systems".
38. QPQI Colloquium at University of Science and Technology of China, 19.12.2019, Hefei, China, "Topological effects in Floquet-engineered ultracold matter".

39. Colloquium, Universität Bonn, 29.10.2019, "Quanten-Vielteilchen-Physik mit ultrakalten Atomen: von topologischer Materie zu anyonischen Teilchen".
40. BEC 2019, 07.-13.09.2019, San Feliu de Guixols, Spain, "Topological effects in Floquet-engineered ultracold matter".
41. YAO: Young Atom Opticians 2019, 28.07.-02.08.2019, University of Hamburg, "Ultracold topological matter engineered by Floquet driving".
42. International Conference NTTI 2019 and BEC 2019, 15.-19.07.2019, Hiroshima, Japan, "Topological phases of ultracold atoms in Floquet-driven optical lattices".
43. DAMOP Meeting, 27.-31.05.2019, Milwaukee, Wisconsin, USA, "New approaches to topological phases with ultracold atoms".
44. Colloquium am MPIPKS Dresden, Germany, 25.04.2019, "New approaches to topological states with ultracold atoms".
45. Cecam Workshop "Condensed matter analogies in mechanics, optics and cold atoms", 01.-04.04.2019, Tel Aviv, Israel, "New approaches to topological phases with ultracold atoms".
46. APS March Meeting, 04.-08.03.2019, Boston, USA, "Identifying quantum phase transitions using artificial neural networks on experimental data".
47. International School/Workshop "Anyon physics of ultracold atomic gases", 10.-14.12.2018, Kaiserslautern, Germany, "Prospects for engineering anyons with ultracold atoms".
48. UQUAM Seminar, 08.11.2018, MPQ Garching, Germany, "New approaches to topological states with ultracold atoms".
49. International Conference on Quantum Optics 2018, 25.02.-03.03.2018, Obergurgl, Austria, "Topology and dynamics in driven hexagonal lattices".
50. Mini Symposium "Periodically driven systems in theory and experiment", 28.11.2017, Kaiserslautern, Germany, "Topology and dynamics in driven hexagonal lattices".
51. 4th international UQUAM Workshop, 16.-19.10.2017, Venice, Italy, "Topology and dynamics in driven hexagonal lattices".
52. DAMOP Meeting, 05.06.-09.06.2017, Sacramento, USA, "Observation of a dynamical topological phase transition in the non-equilibrium dynamics of ultracold quantum gases in driven optical lattices".
53. Conference "Quantum science approaches to strongly correlated systems", 29.05.-02.06.2017, Galileo Galilei Institute, Florence, Italy, "Berry curvature, quench dynamics and topological indices in driven optical lattices".
54. Colloquium Optics and Condensed Matter, 02.05.2017, University of Bonn, Germany, "Observation of a dynamical phase transition in the non-equilibrium dynamics of ultracold quantum gases in driven optical lattices".
55. APS March Meeting, 13.-17.03.2017, New Orleans, USA, "Observation of a dynamical phase transition in the non-equilibrium dynamics of ultracold quantum gases in driven optical lattices".
56. Workshop "Topological Effects in Ultra-Cold Atoms", 14.-18.11.2016, IIP Natal, Brazil, "Observation of a dynamical topological phase transition".
57. Colloquium of the SFB/TR 49, 10.11.2016, Frankfurt, Germany, "Observation of a dynamical topological phase transition".
58. Conference "Light induced dynamics and control of correlated quantum systems", 20.-22.09.2016, Hohwacht, Germany, "Few-atom systems as simulators for attosecond physics".

59. Workshop “Interacting Quantum Systems Driven out of Equilibrium”, 05.-06.05.2016, Rice University, Houston, Texas, USA “Experimental reconstruction of the Berry curvature in a Floquet Bloch band”.
60. AMOP-Colloquium, University of Cambridge, UK, 25.04.2016 “Experimental reconstruction of the Berry curvature in a Floquet Bloch band”.
61. Workshop “Geometry and Quantum Dynamics”, International Institute of Physics, Natal, Brazil, 26.-30.10.2015, “Experimental reconstruction of the Berry curvature in a topological Bloch band”.
62. Conference “Topological Phases in Condensed Matter and Cold Atomic Systems”, Institute for Advances Study, The Hong Kong University of Science and Technology, Hong Kong, 11.-19.12.2015, “Floquet engineering of artificial gauge fields and topological band structures”.
63. Workshop “Quantum Simulations with Ultracold Atoms”, Trieste, Italy, 16.-20.07.2012, “Superfluid behavior of a two-dimensional Bose gas”.
64. Conference “Newspin2”, Texas A&M University, College Station, Texas, 12.-17.12.2011, “Single-atom-resolved imaging and manipulation in an atomic Mott insulator”.
65. 20th International Laser Physics Workshop, Seminar on Physics of Cold Trapped Atoms, Sarajevo 12.07.2011, “Single-spin addressing in an atomic Mott Insulator”.

Lectures at International Schools

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| 06/2026 | International Summer School on Driven-Dissipative Many-Body Systems, FOR 5688, TU Dortmund, lecture on “Ultracold atoms in optical lattices” |
| 02/2023 | International school on open quantum many-body systems, Tutzing, two lectures on “Detecting topology with ultracold atoms”. |
| 09/2020 | Online PhD school “Topology and interactions in optical lattices”, FOR 2414, lecture on “Detecting topology with ultracold atoms” |
| 03/2017 | Tutorial “Topological physics with cold atoms” at the APS March Meeting |
| 01/2017 | PhD school “School on interaction of light with cold atoms”, ICTP-SAIFR/IFT-UNESP, São Paulo, Brazil, three lectures & exercise class “Ultracold atoms in optical lattices” |