Dr. rer. nat. Christopher Wayne Wächtler

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ACADEMIC POSITIONS

12/2024 – present
Mardid, ESP
Instituto de Ciencias de Materiales de Madrid (ICMM-CSIC), Postdoc
New Platforms and Nanodevices for Quantum Simulation and Quantum Computation
Postdoc advisor: Prof. Dr. Gloria Platero

06/2022 – 12/2024
Berkeley, USA
University of California Berkeley, Postdoc
Department of Physics, Condensed Matter Theory Center
Postdoc advisor: Prof. Dr. Joel E. Moore

11/2020 – 05/2022
Dresden, GER
Max Planck Institute for the Physics of Complex Systems, Postdoc
Finite Systems Division, Quantum Aggregates
Postdoc advisor: Dr. Alexander Eisfeld

01/2017 – 11/2020
Berlin, GER
Technical University Berlin, PhD Candidate
Institute of Theoretical Physics, Computergestützte Materialphysik
Supervisor: Dr. habil. Gernot Schaller (Prof. Dr. Tobias Brandes †2017)

10/2019 – 03/2020
Atsugi, JPN
NTT Basic Research Laboratories, Intern
Theoretical Quantum Physics Research Group
Supervisors: Prof. Dr. William J. Munro and Dr. Victor M. Bastidas

10/2017 – 10/2017
10/2016 – 12/2016
College Park, USA
University of Maryland, Visiting Researcher
Institute for Physical Science and Technology
Supervisor: Prof. Dr. Christopher Jarzynski

EDUCATION

01/2017 – 11/2020
Berlin, GER
PhD in Theoretical Physics (Dr. rer. nat.), *Technical University Berlin*
Nonequilibrium thermodynamics of critical phenomena (Summa Cum Laude)
Supervisor: Dr. habil. Gernot Schaller (Prof. Dr. Tobias Brandes †2017)

10/2014 – 09/2016
Berlin, GER
Master of Science in Physics (M. Sc.), *Technical University Berlin*
Stochastic thermodynamics based on incomplete information
Supervisors: Dr. Philipp Strasberg and Prof. Dr. Tobias Brandes

10/2010 – 09/2014
Berlin, GER
Bachelor of Science in Physics (B. Sc.), *Technical University Berlin*
Heteroepitaxial growth of C60 on substrates: A kinetic Monte Carlo study
Supervisors: Dr. Nicola Kleppmann and Prof. Dr. Sabine H. L. Klapp

09/2012 – 12/2012
San Diego, USA
University of California San Diego
Exchange student

TEACHING EXPERIENCE

07/2024 **Guest Lecturer**, *Physics for Scientists and Engineers*, UC Berkeley

- Independently designed and taught two lectures on magnetism for 50 students
- Collaborated with the main lecturer on course objectives

04/2015 – 03/2016 **Teaching assistant**, *Mathematical Methods and Electrodynamics*, TU Berlin

- Led discussion sessions and provided additional instruction to 40 students
- Graded assignments and exams, offering detailed feedback

GRANTS AND FELLOWSHIPS

(12/2024 – 11/2026)	*Marie-Skłodowska Curie Fellowship* from the European Commission	€165k
08/2024	*Exchange Program* from the Challenge Institute for Quantum Computing	€4k
07/2024 & 11/2024	*Leadership Academy Fellowship* from the German Scholars Organization	€11k
06/2022 – 05/2024	*Walter Benjamin Fellowship* from the German Research Foundation (DFG)	€90k
11/2020 – 05/2022	*Next Step Fellowship* from the Max-Planck-Gesellschaft	€100k
03/2020 – 03/2020	*Conference Stipend* from the German Academic Exchange Service (DAAD)	€2k
04/2013 – 10/2016	Studienstiftung des deutschen Volkes	€25k
09/2012 – 12/2012	*Student Exchange* from the German Academic Exchange Service (DAAD)	€20k

PUBLICATIONS (SUMMARY)

By now, I have authored 16 scientific journal articles, 11 of which I was the first and corresponding author, including three Letters. My publications span diverse journals, encompassing broad-scope ones like Physical Review Letters, Physical Review Research, and the New Journal of Physics, as well as specialized journals such as Physical Review A, B, and E and Physical Review Applied.

SCIENTIFIC MEETINGS (SUMMARY)

I have presented my research at leading international conferences, including the APS March Meeting and the DPG Frühjahrstagung, as well as at specialized workshops and extended programs such as the KITP program. Notably, I was invited to speak at the International Workshop for Young Researchers on the Future of Quantum Science and Technology (FQST2020) in Tokyo, and I am an invited speaker at the upcoming APS Global Physics Summit 2025 in Anaheim. Beyond conferences, I have been invited to present my work over 25 times in departmental colloquia and group seminars across Europe, the USA, and Asia. Furthermore, Christoph Bruder (Basel), Andreas Nunnenkamp (Vienna), and I recently secured funding to organize the first workshop on Quantum Synchronization at the MPI-PKS in Dresden in 2025.

LEADERSHIP AND OUTREACH

2024	*Leadership Academy* from the German Scholars Organization	2 weeks
	Selected as participant of UC Berkeley's *Pathways to Scientific Teaching*	2 Days
	Workshop on *Successful Job Interviews and Networking* (UC Berkeley)	1 Day
2023	Selected as participant of UC Berkeley's *Scientific Leadership and Management Course*	3 Days
2021	*Wenn Elektronen den Bus nehmen – Effekte und Anwendungen des Elektronen-Shuttles* Popular science talk as part of Dresden's Long Night of Science.	

MENTORING AND SUPERVISION

01/2024 – present	Meabh Allen (PhD Student), *Dissipation in critical spin chains*, UC Berkeley
02/2023 – present	Yi Zhao (PhD Student), *Quantum synchronization*, UC Berkeley
06/2024 – 07/2024	Chester Su (Summer Student), *Boundary-driven quantum systems*, UC Berkeley
06/2021 – 05/2022	Juan Nicolas Moreno (PhD Student), *Dissipatively induced synchronization*, MPI-PKS