

# Clara C. Wanjura

## Curriculum Vitae

Max Planck Institute for the Science of Light | Staudtstraße 2 | 91058 Erlangen | Germany

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### Academic Background

August 2024 – present November 2022 – July 2024	<b>Minerva Fast Track Fellow, Max Planck Institute for the Science of Light</b> <b>Postdoctoral fellow, Max Planck Institute for the Science of Light</b> Working with Prof. Florian Marquardt Topics: neuromorphic computing; phenomena associated with non-Hermitian topology
October 2018 – July 2022	<b>PhD Student, Cavendish Laboratory, University of Cambridge</b> Member of Trinity College, Winton Scholar Thesis: <i>Non-Hermitian Topology and Directional Amplification in Driven-Dissipative Cavity Arrays</i> Supervisor: Prof. Andreas Nunnenkamp, University of Cambridge
October 2017 – March 2018	<b>Visiting Student, Cavendish Laboratory, University of Cambridge</b> Research project as a part of the master's thesis
October 2016 – July 2018	<b>Master's Studies in Physics, Ulm University</b> Overall grade 1.0 (very good with distinction) Master's thesis 1.0 (very good) Thesis: <i>Structural Evolution in Quasi-Static Flow of Dense Granular Matter</i> Supervisors: Prof. Othmar Marti, Ulm University Prof. Rafi Blumenfeld, University of Cambridge
October 2013 – October 2016	<b>Bachelor's Studies in Physics, Ulm University</b> Overall grade 1.3 (very good) Bachelor's thesis 1.0 (very good) Supervisor: Prof. Othmar Marti, Ulm University

### Recent Academic Awards, Scholarships and Prizes

March 2024	<b>Winner of the DPG SAMOP Thesis Prize</b> (1,500 €) for outstanding scientific research selected as winner from four finalists who presented their work at the <a href="#">DPG March Meeting's Prize Symposium</a>
June 2023	<b>Sam Edwards Thesis Prize</b> (£200) awarded annually by the TCM Group of the IOP for the PhD thesis in the UK that contributed most strongly to the advancement of theoretical condensed matter physics
June 2022	<b>CSAR PhD Students Award</b> (£1,000) awarded by the Cambridge Society for the Application of Research (CSAR) to recognise outstanding research with real world application and to assist students to pursue their research or careers
November 2020	<b>Cavendish PhD Prize in Theoretical Physics</b> (£500) awarded annually by the Department of Physics at the University of Cambridge to recognise outstanding work by PhD students
October 2018 – March 2022	<b>Winton Scholarship</b> (ca. £14,777 p.a.) at the University of Cambridge additional travel/ conference allowance of £5,000
October 2018 – present	<b>EPSRC fees-only stipend</b> (£8,094 p.a.) additional travel/ conference allowance of £3,000
October 2017 – March 2018	<b>International Scholarship, Studienstiftung des Deutschen Volkes</b> (2,225 €) for a research project at the Cavendish Laboratory
October 2017 – March 2018	<b>Erasmus+ Traineeship</b> (2,059 €) for a research project at the Cavendish Laboratory
December 2013 – July 2018	<b>Scholarship of the Studienstiftung des Deutschen Volkes</b> (3,600 € p.a.)

### Selected Conferences, Workshops, and Talks

Most relevant talks are highlighted with ★

Upcoming: April 2025	★ <b>Invited talk</b> at a Hooke discussion meeting in the Royal Society London on alternative AI computing paradigms
Upcoming: January 2025	★ <b>Invited talk</b> at SPIE Photonics West (San Francisco)
Upcoming: December 2024	★ <b>Invited talk</b> at NeurIPS (Vancouver)
June 2024	★ <b>Invited talk</b> at the Symposium of the Collaborative Research Centre 'OSCAR' (Kaiserslautern)
June 2024	Contributed talk at Workshop on Quantum Geometry Max Planck Institute for the Physics of Complex Systems (Dresden)

June 2024	Two <b>Invited seminars</b> at Max Planck Institute for the Physics of Complex Systems (Dresden)
March 2024	<b>Invited seminar</b> at University of Basel
March 2024	★ <b>Prize talk</b> at the DPG SAMOP Meeting (Freiburg)
March 2024	★ <b>Invited talk</b> at the APS March Meeting (Minneapolis)
March 2024	Contributed talk at APS March Meeting (Minneapolis)
January 2024	<b>Invited seminar</b> at Institute of Fundamental Physics, Madrid (online, available on <a href="#">YouTube</a> )
November 2023	<b>Invited seminar</b> at the University of Birmingham
November 2023	<b>Invited seminar</b> at the University of Warwick
September 2023	Poster at 'Frontiers of Neuromorphic Computing' (Erlangen)
August 2023	Contributed talk at 'Non-Hermitian Topology: from Classical Optics to Quantum Matter' (Dresden)
July 2023	★ <b>Invited talk</b> at META Conference (Paris)
June 2023	Seminar at the Theory of Condensed Matter Group (Cambridge)
June 2023	★ <b>Prize talk</b> at the Cambridge Society for the Application of Research (Cambridge) <b>CSAR prize winner</b> (available on <a href="#">YouTube</a> )
June 2023	★ <b>Prize talk</b> at the Theory of Condensed Matter Day (Warwick) <b>Sam Edwards Thesis Prize Winner</b>
January 2022	<b>Invited seminar</b> at the Max Planck Institute for the Science of Light (Online)
June 2021	Poster at Topology meets Quantum Optics (online)
May 2021	★ <b>Invited UniKORN Frontiers Talk</b> (online, available on <a href="#">YouTube</a> )
November 2020	★ <b>Prize talk</b> at the Cavendish Graduate Conference, Cambridge (online) <b>Cavendish PhD Prize in Theoretical Physics</b>
November 2020	<b>Invited seminar</b> at the Max Planck Institute for Quantum Optics (online)
January 2020	★ <b>Invited talk</b> at the OMT-HOT 2019 Annual Conference (Saanen, Switzerland)
November 2019	<b>Invited seminar</b> at the Institute for Complex Quantum Systems, Ulm University
September 2019	★ <b>Invited talk</b> at ECT* Workshop (Trento, Italy)
August 2019	Contributed talk at CCPQ Workshop (Windsor, United Kingdom)
July 2019	Poster at HOT 2019 Conference (Ascona, Switzerland)
May 2019	Poster at Workshop Synthetic Topological Matter (Dresden)

## Work and Research Experience

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April 2018 – September 2018	<b>Research Assistant (Institute of Quantum Physics, Ulm University)</b>
June 2015 – October 2018	<b>Research Assistant (Institute for Experimental Physics, Ulm University)</b>

## Teaching Experience

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April 2023 – present	<b>External Master Supervisor and Second Examiner (Ulm University)</b>
October 2020 – November 2021	<b>Assistant Master Supervisor (Ulm University)</b>
October 2018 – March 2020	<b>Undergraduate Supervisions (University of Cambridge)</b> Supervisions in <i>Theoretical Physics 2</i> , and <i>Advanced Quantum Physics</i>
June 2018 – September 2018	<b>Assistant Bachelor Supervisor (Ulm University)</b>

## Academic Service

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January 2023 – September 2023	<b>Workshop Co-Organiser: 'Frontiers of Neuromorphic Computing'</b> ( <a href="#">website</a> )
January 2023 – present	<b>Member of the Selection Committee for the CSAR Student Awards (Cambridge Society for the Application of Research)</b>
December 2022 – present	<b>Founder and organiser of an online seminar series on non-Hermitian physics</b> More information available <a href="#">on our website</a> and our <a href="#">YouTube Channel</a>
August 2022 – present	<b>Reviewer</b> for <i>Physical Review A</i> , <i>Physical Review Letters</i> and <i>Nature Communications</i>
October 2021 – July 2022	<b>Member of the UniKORN Organizing Committee</b>

## Further Interests

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- Piano (playing since 1999; since 2001 a student of Igor Beketov; various concerts in Ulm, Germany, and Cambridge, UK; repertoire includes works by Rachmaninoff, Liszt, Chopin, and Khachaturian).
- Sports; in particular, triathlon (consistent training since 1999, multiple competitions) and surfing.
- Photography (my work on [flickr](#); recent prize: [finalist in a category of IGPTY 14](#)).
- Scientific illustrations (e.g., the illustration in this [press release on SkyNews](#); or the second illustration [in this press release](#)).
- Art and graphic design (recent project: illustration of a picture book in the Art Class of Ulyana Gumeniuk-Parker, Trinity College, Cambridge (2021)).