

Niccolò Traverso Ziani

Associate Professor

EDUCATION AND TRAINING

2014

Ph.D in Physics

Luttinger liquid theory of local transport in correlated 1D structures (Excellent)
University of Genoa

2011

Master's Degree in Physics

Transport properties of correlated carbon nanotube quantum dots (110/110 cum laude)
University of Genoa

PROFESSIONAL HISTORY

2021-2024

Researcher (RTDb)

University of Genoa

2018-2021

Researcher (RTDa)

University of Genoa

2014-2018

Post-Doc Researcher

University of Wuerzburg

ACADEMIC APPOINTMENTS

2022-

Member of the Doctoral Commission in Physics and Nanosciences

University of Genoa

2025-

Member of the Research Commission of the Physics department

University of Genoa

EXPERIENCE

MAIN SEMINARS

- 2025** – Charging free fermion quantum batteries, TOPNESS conference, Erice, Italy
- 2024** – Tailoring topological superconductivity, Stellenbosch-Hamburg condensed matter symposium, Stellenbosch, South Africa
- 2024** – Novel effects in quantum spin Hall-based Josephson Junctions, CMD31 conference, Braga, Portugal
- 2023** – Anomalous Josephson effect in topological insulators, New Trends in Non-Equilibrium Statistical Mechanics, Erice, Italy
- 2023** – Manipulating edge states, 109th National Congress of the Italian Physical Society (SIF), Salerno, Italy
- 2022** – Open questions on topological edge channels, Northern Lights conference 2022, Reykjavik, Iceland
- 2021** – Quantum spin Hall constrictions, CONMAT2021, Valencia, Spain 2021 – Majorana fermions in quantum spin Hall trenches, Virtual 107th National Congress of the Italian Physical Society (SIF)
- 2021** – Majorana fermions in quantum spin Hall trenches, Virtual Symmetry 2021 conference
- 2020** – Quantum spin Hall quantum point contacts, DPG meeting 2020, Dresden, Germany
- 2020** – Dynamical quantum phase transitions in the XY model, SFB workshop, Würzburg, Germany
- 2019** – Quantum spin Hall quantum point contacts, FisMat 2019, Catania, Italy
- 2019** – Luttinger liquid aspects of quantum spin Hall constrictions, SFB seminar, Würzburg, Germany
- 2018** – Nonmonotonic response and light-cone freezing in fermionic systems under quantum quenches, NePhys 2018, Salerno, Italy
- 2018** – Odd frequency superconductivity at the helical edge, TOPOTRONICS meeting and workshop, Rothenburg, Germany
- 2018** – Fractional charges and chiral anomaly at the helical edge, DPG meeting 2018, Berlin, Germany
- 2017** – Signatures of interaction-induced helical gaps in nanowire quantum point contacts, SFB1170 workshop 2017, Münsterschwarzach, Germany
- 2017** – Signatures of interaction-induced helical gaps in nanowire quantum point contacts, FISMAT 2017, Trieste, Italy

2016 – Fractional charges at the helical edge, Workshop on topological insulators and VTI workshop 2016, Jülich, Germany

2016 – Fractional Wigner crystal in the helical Luttinger liquid, Conference Gauge/Gravity Duality and Condensed Matter Physics, Banff, Canada

2016 – Fractional crystallization in helical systems, SFB1170 retreat and workshop 2016, Münsterschwarzach, Germany

2016 – Fractional Wigner oscillations in two-dimensional topological insulators, DPG meeting 2016, Berlin, Germany

2015 – Fractional charges at the helical edge, First international workshop on topological electronics (Topotronics), Okinawa, Japan

2013 – Luttinger liquid theory of local transport in interacting one-dimensional systems, RTG 1570 Workshop (Electronic properties of carbon-based nanostructures), Kreuth, Germany

SCIENTIFIC RESPONSIBILITY FOR RESEARCH PROJECTS ACCEPTED FOR FUNDING ON THE BASIS OF COMPETITIVE CALLS INVOLVING PEER REVIEW

2021 Understanding even odd criticality

Curiosity driven 2021

University of Genoa