



Luca Martinoia

PH.D. STUDENT IN THEORETICAL PHYSICS

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Education

Ph.D. in Theoretical Physics

Genoa, Italy

UNIVERSITY OF GENOA, PHYSICS DEPARTMENT

October 2020 – to date

- Advisor: Andrea Amoretti
- Postgraduate school (online): *SFT 2021 – Lectures on Statistical Field Theories*, GGI – Florence, Italy – 8 to 19/02/21
- Workshop (online): *Emergent Hydrodynamics in Condensed Matter and High-energy Physics*, Max Planck Institute for the Physics of Complex Systems – Dresden, Germany – 2 to 6/05/22
- Workshop: *Holographic perspectives on chiral transport*, ECT* – Trento, Italy – 13 to 17/03/23
- Workshop: *Hydrodynamics at all scales*, NORDITA – Stockholm, Sweden – 16 to 23/09/23

Master's degree in Theoretical Physics

Genoa, Italy

UNIVERSITY OF GENOA, PHYSICS DEPARTMENT

2014 – 2020

- Mark: 110/110
- Thesis title: *Anomalous hydrodynamic description of thermoelectric transport in a Weyl semimetal*

Bachelor's degree in Physics

Genoa, Italy

UNIVERSITY OF GENOA, PHYSICS DEPARTMENT

2011 – 2014

- Mark: 110/110 *cum laude*

Publications – Google Scholar – INSPIRE

The authors are listed alphabetically. Titles are DOI links.

Relaxation terms for anomalous hydrodynamic transport in Weyl semimetals from kinetic theory

ARXIV PREPRINT: [HEP-TH] 2309.05692

September 2023

A. Amoretti, D.K. Brattan, L. Martinoia, I. Matthaiaakakis, J. Rongen

Restoring time-reversal covariance in relaxed hydrodynamics

PHYSICAL REVIEW D 108, 5 (2023)

September 2023

A. Amoretti, D.K. Brattan, L. Martinoia, I. Matthaiaakakis

Leading order magnetic field dependence of conductivities in anomalous hydrodynamics

PHYSICAL REVIEW D 108, 1 (2023)

July 2023

A. Amoretti, D.K. Brattan, L. Martinoia, I. Matthaiaakakis

Non-dissipative electrically driven fluids

JOURNAL OF HIGH ENERGY PHYSICS 05, 218 (2023)

May 2023

A. Amoretti, D.K. Brattan, L. Martinoia, I. Matthaiaakakis

Destroying superconductivity in thin films with an electric field

PHYSICAL REVIEW RESEARCH 4, 3 (2022)

September 2022

A. Amoretti, D.K. Brattan, N. Magnoli, L. Martinoia, I. Matthaiaakakis, P. Solinas

Hydrodynamic magneto-transport in holographic charge density wave states

JOURNAL OF HIGH ENERGY PHYSICS 11, 011 (2021)

November 2021

A. Amoretti, D. Areán, D.K. Brattan, L. Martinoia

Seminars and Posters

Cortona Young 2021

Florence, Italy

GALILEO GALILEI INSTITUTE

9 – 11 June 2021

- Video-poster: *Thermoelectric conductivities in Charge Density Waves states from hydrodynamics*

Department Retreat seminar

Bruxelles, Belgium

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8 November 2022

- Talk title: *A new class of hydrostatic theories*

CMD30-FisMat2023 joint conference

Milan, Italy

UNIVERSITY OF MILAN, PHYSICS DEPARTMENT

4-8 November 2022

- Talk title: *On Frames and Magneto-Transport in Anomalous Hydrodynamics*

Visiting periods and Memberships

Visiting Researcher

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- Visiting Ph.D. student, supervised by Riccardo Argurio

Bruxelles, Belgium

October 2022 – December 2022

Associate Researcher

ISTITUTO NAZIONALE FISICA NUCLEARE

- Associate Researcher with the Italian Institute for Nuclear Physics (INFN), Statistical physics program

Genoa, Italy

2020 – to date

Associate Researcher

EUROPEAN CENTER FOR THEORETICAL STUDIES IN NUCLEAR PHYSICS AND RELATED AREAS

- Associate Researcher with the European Center for Theoretical Studies in Nuclear Physics and Related Areas (ECT*)

Trento, Italy

2023 – to date