

LOTTE MERTENS MSC

PhD student at the university of Amsterdam and Leibniz Institute Dresden. After obtaining exceptional study results while balancing theoretical physics with foreign exchanges, extra curricular interdisciplinary courses, summer schools and teaching, I am now doing research to understand general relativity from a condensed matter perspective by studying analogue black holes.



PERSONAL INFORMATION

- L.mertens@uva.nl
- Dutch
- Lotte Mertens

AWARDS & GRANTS

- Faculty winner of the Uva Thesis Prize, February 2021
- Lorentz Graduation Award for Theoretical Physics, awarded by the Royal Holland Society of Sciences and Humanities, November 2020
- Cultural Foundation Grant awarded by the Prins Bernhard Cultural Foundation for the short research program in Dresden, September 2020
- Sander Bais prize for outstanding academic performance in the first year of study, September 2019

ARTICLES

- The impossibility of objective linear collapse in a two state systems
- L. Mertens, M. Wesseling, N. Vercauteren, A. Coralles, J. van Wezel
- 2021
- To be published

SKILLS

Programming

HTML	● ● ● ● ●
LaTeX	● ● ● ● ●
Mathematica	● ● ● ● ●
Origin	● ● ● ● ●
Python	● ● ● ● ●

Languages

Dutch	● ● ● ● ●
English	● ● ● ● ●
French	● ● ● ● ●
German	● ● ● ● ●
Spanish	● ● ● ● ●
Swedish	● ● ● ● ●

RESEARCH & EDUCATION

- December 2020 - present
 - Leibniz Institute for Solid State and Materials research, Dresden & the University of Amsterdam PhD student under the supervision of Prof. Dr. Jeroen van den Brink and Dr. Jasper van Wezel in the area of theoretical solid state physics.
- September 2020 - December 2020
 - Leibniz Institute for Solid State and Materials research, Dresden Short research program on analogue black holes in materials, supervision by Prof. dr. Jeroen van den Brink.
- September 2018 - August 2020
 - University of Amsterdam Master in Theoretical Physics, Cum Laude with a 9.4 average. Masters thesis on "Spontaneous Unitary Violations and Effective Non-linearity in Relation to Quantum State Reduction", supervision by Dr. J. van Wezel.
- September 2015 - August 2018
 - University of Amsterdam Bachelor in Physics and Astronomy, Cum Laude Honours with a 9.2 average. Erasmus Exchange to Lund University Sweden. Interdisciplinary courses in the areas of philosophy, gender studies, theatre and archaeology. Bachelors thesis on "Postulates on Holographic Complexity", supervision by Prof. dr. J. de Boer.
- September 2017- October 2017
 - Space Generation Advisory Council Asteroid Search Campaign: Analysing data from telescopes in Hawaii to contribute to the asteroid data base.
- June 2017
 - European Space Agency & European Low Gravity Research Association - Redu centrum Belgium Research Related Summer School, an overview of research at different g-levels and an introduction to the design of prospective experiments.
- September 2013 - August 2014
 - Van Hall Larenstein, University of Applied Sciences, Leeuwarden Propaedeutic year of biotechnology, VWO certificates in Physics, English and Chemistry. Working safe in the laboratory, according to the standards of "Safe microbiological Techniques".

JOB HISTORY

- September 2018- September 2019
 - University of Amsterdam. Secretary of the program commission. Improving the bachelor physics and astronomy program by organizing feedback sessions for both students and the program commission.
- March 2018 - June 2019
 - Stichting studiebegeleiding Leiden. Assistant teacher. Tutoring high school students to prepare for their final exam in mathematics. The focus of the company lays on offering structure, confidence and pedagogical support.
- March 2013 - October 2015
 - Venturix, Combalin-au-Pont, Belgium. Outdoor instructor and event organisation. Responsibility of facilitating groups in the practice of outdoor sports including climbing, mountain biking, wild water kayaking and the organizing of these events.
- October 2011 - October 2013
 - Yosemite, Zwolle. Climb and outdoor instructor. Instructing groups of all ages in multiple climb and outdoor related activities as well as training the youth group.