
Curriculum Vitæ: Aaron Hofer

Contact details

Pronouns: he/him/his
Room 335
Fachbereich Mathematik
Universität Hamburg
Bundesstraße 55
20146 Hamburg, Germany
aaron.hofer@uni-hamburg.de
<https://aaron-hofer.github.io/>

Education

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| 10/2022 – | PhD in Mathematics, University of Hamburg
funded by the Cluster of Excellence Quantum Universe
thesis: Defects in non-semisimple 3d topological field theory and 2d logarithmic conformal field theory
supervisor: Ingo Runkel |
| 10/2019 – 02/2022 | MSc in Physics, University of Vienna
Vienna Master Class Mathematical Physics
thesis: TQFTs with additional structure
supervisor: Nils Carqueville |
| 10/2015 – 08/2018 | BSc in Physics, University of Innsbruck
thesis: Phononic excitations of nanoscale solids
supervisor: Oriol Romero-Isart |

Preprints and theses

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| 2025 | Non-semisimple CFT/TFT correspondence
(with Ingo Runkel), in preparation |
| 2024 | Modular functors from non-semisimple 3d TFTs
(with Ingo Runkel), available at https://arxiv.org/abs/2405.18038 |
| 2022 | TQFTs with additional structure
Master's thesis, available at https://theses.univie.ac.at/detail/62030/ |

Talks

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| April 2024 | Carqueville group seminar , Vienna:
CFT/TFT correspondence beyond semisimplicity |
| March 2024 | Workshop on New Directions in Conformal Field Theory , Hamburg:
Modular functors from non-semisimple 3d TFTs |
| September 2023 | QU Day 3 2023 , Hamburg:
CFT/TFT correspondence beyond semisimplicity |
| April 2023 | Seminar Quantum Physics and Geometry , Hamburg:
Topological defects in the 2d Ising CFT |

March 2023	Carqueville group seminar , Vienna: Lyubashenko's modular functor via holography
June 2022	Erlangen-Wien-Würzburg Meeting 2022, Würzburg: Closed spin TQFTs in two dimensions

Teaching experience

Winter term 2025	Exercise classes: Advanced algebra, University of Hamburg
Winter term 2024	Exercise classes: Mathematik I für Studierende der Geophysik /Ozeanographie, Meteorologie und Physik und der Computing in Science , University of Hamburg
Summer term 2023	Exercise classes: Advanced algebra - homological algebra and representation theory , University of Hamburg
Winter term 2022/23	Exercise classes: Hopf Algebras, quantum groups and topological field theory , University of Hamburg
Winter term 2018/19	Tutor in Theoretical Physics I: Classical Mechanics, University of Innsbruck

Attended Schools and Conferences

25.10.2024	17th Seminar on Conformal Field Theory
10 – 14.06.2024	Categorical Symmetries in Quantum Field Theories (School)
18 – 22.03.2024	Workshop on New Directions in Conformal Field Theory
19.01.2024	16th Seminar on Conformal Field Theory
08 – 10.11.2023	WPC Theoretical Physics Symposium
04 – 08.09.2023	Categorical Symmetries in Quantum Field Theories (School)
14 – 18.08.2023	Higher structures in Functorial Field Theory
19 – 23.06.2023	Hausdorff School: “TQFTs and their connections to representation theory and mathematical physics”
18 – 22.07.2022	Strings 2022 (student volunteer)
03 – 06.09.2020	Vienna Summer School 2020 on Gravitational Quantum Physics

Organisational work

Summer term 2024 –	Organiser Junior ZMP Seminar
January 2023 –	Quantum Universe Research School Student Council

Awards and prizes

In 2022, I received the [Alfred-Wehrl award](#) for outstanding Master students in theoretical or mathematical physics at the University of Vienna for my Masters's thesis.