
Curriculum Vitæ: Aaron Hofer

Contact details

Pronouns: he/him/his
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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' 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 |

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.