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

10/2022 – PhD in Mathematics, University of Hamburg

funded by the Cluster of Excelence "Quantum Universe"

thesis: Defects in non-semisimple 3d topological field theory and 2d log-

arithmic 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

2024 November Simons Lectures on Categorical Symmetries

(Notes for David Jordans lecture, with Jonte Gödicke and Anja Švraka),

available at https://arxiv.org/abs/2411.09082

2024 May Modular functors from non-semisimple 3d TFTs

(with Ingo Runkel), available at https://arxiv.org/abs/2405.18038

2022 February TQFTs with additional structure

Master's thesis, available at https://utheses.univie.ac.at/detail/62030/

Talks

December 2024 Creutzing and Meusburger Group Seminar, Erlangen (planned):

CFT/TFT correspondence beyond semisimplicity

November 2024 TQFT Club Seminar, Lisbon Online (planned):

CFT/TFT correspondence beyond semisimplicity

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 represen-
	tation 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 Inns-

bruck

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 the-
	ory 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 "Zentrum für Mathematische Physik" Seminar
January 2023 –	Cluster of Excelence "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.