Curriculum Vitæ: Aaron Hofer

Contact details

Pronouns: he/him/his

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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 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

2025	Non-semisimple CFT/TFT correspondence
	(with Ingo Runkel), in preperation
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://utheses.univie.ac.at/detail/62030/

Talks

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 "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.