Qi Zhu

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in Qi Zhu

Education

2023 – ongoing	**Max Planck Institute for Mathematics**, *Bonn* Ph.D. Mathematics Supervisor: Markus Hausmann
2020 – 2023	**University of Bonn**, *Bonn* M.Sc. Mathematics Grade: 1.1 (Best possible grade: 1.0)
2017 – 2020	**Technical University of Munich**, *Munich* B.Sc. Mathematics, Minor in Computer Science Grade: 1.0 (Best possible grade: 1.0)
Fall 2019	**University of Minnesota**, *Minneapolis* Exchange Semester Grade: 4.0 (Best possible grade: 4.0)

Academic Work

2023	**Master's Thesis**, *University of Bonn* Thesis title: Fractured Structure on Condensed Anima Supervisor: Nima Rasekh
2020	**Project Thesis**, *Technical University of Munich* Thesis title: Tannakian Formalism Supervisor: Claudia Scheimbauer
2020	**Bachelor's Thesis**, *Technical University of Munich* Thesis title: Die p-adischen komplexen Zahlen als Periodenring Supervisor: Eva Viehmann

Selected Awards

2018	Silver Medal at the International Mathematics Competition (IMC)
2018	Medal at the Vojtěch Jarník International Mathematical Competition (VJIMC)
2018	Special Prize at the final round of the Bundeswettbewerb Mathematik (3 of 1142)
2017	DMV Abiturpreis (1 of 107)
2017	First Prize at the Bundeswettbewerb Mathematik, Round 2 (44 of 1142)
2016	First Prize at the Bundeswettbewerb Mathematik, Round 2 (59 of 1426)
2015	First Prize at the Bundeswettbewerb Informatik

Selected Scholarships

2022/23	Deutschlandstipendium Bonn (3600€)
2019/20	Deutschlandstipendium TUM (3600€)
2018/19	Deutschlandstipendium TUM (3600€)
2019	TUMExchange (exchange semester at the University of Minnesota, tuition waiver)

Teaching Experience

Seminars

2025	**University of Bonn**, *Bonn*
	Reading seminar in Six Functor Formalisms (joint with Kaif Hilman & Lucas Piessevaux)
2025	**University of Bonn**, *Bonn*
	Reading seminar in Motivic Homotopy Theory (joint with Fabio Neugebauer & Lucas Piessevaux)

Courses

2025	**University of Bonn**, *Bonn*
	Teaching assistant in *Einführung in die Geometrie und Topologie*
2024/25	**University of Bonn**, *Bonn*
	Tutor in *Algebraic Topology 1*
2024	**University of Bonn**, *Bonn*
	Teaching assistant in *Einführung in die Geometrie und Topologie*
2023/24	**University of Bonn**, *Bonn*
	Tutor in *Topology 1*
2023	**University of Bonn**, *Bonn*
	Tutor in *Einführung in die Geometrie und Topologie*
2018/19	**Technical University of Munich**, *Munich*
	Homework grading in *Analysis 1*
2018	**Technical University of Munich**, *Munich*
	Tutor in a precourse for mathematics

Supervision

2025	**Twoples**, *International*
	Mentor of Khai Bin Chan in the Twoples project *Universal Properties of Semidirect Products*

Work Experience

2015	**ReliaTec GmbH**, *Garching*
	System and Software – Development, Electrical Engineering, Computer Science

Talks and Presentations

Invited Talks

January 2026	**Peking Homotopy Theory Seminar**, *Online*
	Title: Multiplicative Equivariant Thom Spectra & Structured Real Orientations
January 2026	**Research Seminar Homotopy Theory**, *Bonn*
	Title: Orientations in the Real world
December 2024	**Topology Seminar**, *EPFL*
	Title: Condensed Anima as a Fractured Topos

Contributed Talks

February 2026	**IMPRS Seminar**, *Max Planck Institute for Mathematics*
	Title: Trace Methods & Localization Sequences
November 2025	**Six Functor Formalisms Seminar**, *Max Planck Institute for Mathematics*
	Title: Applications to Representation Theory
October 2025	**Motivic Homotopy Theory Seminar**, *Max Planck Institute for Mathematics*
	Title: Slice Filtration and K-Theory
October 2025	**Kleine AT**, *Max Planck Institute for Mathematics*
	Title: Evenness 1
September 2025	**European Autumn School in Topology 2025 (EAST)**, *Den Dolder*
	Title: Spectral Sequences

July 2025	**European Talbot**, *Kolding* Title: Equivariant Multiplicative Thom Spectra
May 2025	**IMPRS Seminar**, *Max Planck Institute for Mathematics* Title: The Hopf Invariant One Problem and the Adams Spectral Sequence
September 2024	**European Autumn School in Topology 2024 (EAST)**, *Den Dolder* Title: Equivariant Highly Commutative Orientations
September 2024	**European Autumn School in Topology 2024 (EAST)**, *Den Dolder* Title: Equivariant Homotopy Theory
September 2024	**Yatsugatake Workshop**, *Kobuchizawa* Title: Thick Subcategories and v_n-Self Maps
February 2024	**WIQI**, *Max Planck Institute for Mathematics* Title: What is a Fractured Topos?
November 2023	**Young-HOM**, *Online Seminar* Title: Fractured Structure on Condensed Anima. Video: `youtube.com/watch?v=V-IOIscWim4`
November 2023	**Category Theory Seminar**, *University of Bonn* Title: Kan Extensions: Kan You Extend?
October 2023	**IMPRS Theme Day**, *Max Planck Institute for Mathematics* Title: Fractured Structure on Condensed Anima.
October 2023	**Homotopy Theory Seminar**, *University of Bonn* Title: Fractured Structure on Condensed Anima.
May 2023	**Infinity Category Seminar**, *University of Bonn* Title: A Trip to Higher Topoi.
April 2023	**Master Thesis Seminar**, *University of Bonn* Title: Generalizations of Topology – Fractured Structure on Condensed Spaces.
February 2023	**Seminar on Abstract Homotopy Theory**, *Max Planck Institute for Mathematics* Title: When Homotopy Theory meets Topos Theory... Amazing!
November 2022	**Graduate Seminar on Topology: Enhancements of Triangulated Categories**, *University of Bonn* Title: Derivators.
July 2020	**Project Thesis Talk**, *Technical University of Munich* Title: Tannakian Formalism.
June 2020	**Advanced Seminar Course: From Homotopical Algebra towards Higher Categories**, *Technical University of Munich* Title: First Steps Into the Realm of Infinity Categories.
December 2019	**Directed Reading Program (DRP)**, *University of Minnesota* Title: On the beach of algebraic geometry.

Poster Presentations

July 2025	**IMPRS Poster Session**, *MPIM* Title: Multiplicative Equivariant Thom Spectra
June 2024	**IMPRS Poster Session**, *MPIM* Title: Global Equivariant Ultracommutative Orientations: An Obstruction Theory
July 2023	**Young Topologists Meeting 2023 (YTM)**, *EPFL* Title: Fractured Structure on Condensed Anima

Publications & Preprints

Preprint	**Multiplicative Equivariant Thom Spectra & Structured Real Orientations** joint with Ryan Quinn, 91 pages, `https://arxiv.org/abs/2512.15573`

Academic Service

April 2026	**Workshop Organization**, *Wuppertal*
	Kleine AT on Topological Cyclic Homology (joint with Jordi Cardiel & Bhavna Joshi)

Conference Attendance

April 2026	**Kleine AT**, *Wuppertal*
November 2025	**36th NRW Topology Meeting**, *Bonn*
October 2025	**Kleine AT**, *Bonn*
September 2025	**European Autumn School in Topology**, *Den Dolder*
June, July 2025	**European Talbot**, *Kolding*
May 2025	**35th NRW Topology Meeting**, *Osnabrück*
May 2025	**New Horizons for Equivariance in Homotopy Theory**, *Cambridge*
January 2025	**Introductory Workshop for Equivariant Homotopy Theory in Context**, *Cambridge*
November 2024	**34th NRW Topology Meeting**, *Bielefeld*
November 2024	**Workshop on Unstable Homotopy Theory**, *Bonn*
September 2024	**European Autumn School in Topology**, *Den Dolder*
September 2024	**Yatsugatake Workshop: Chromatic Homotopy Theory**, *Kobuchizawa*
June 2024	**Interactions between Algebra, Equivariance and Homotopy Theory**, *Regensburg*
July 2023	**Young Topologists Meeting (YTM)**, *Lausanne*
March 2023	**Masterclass on Higher Representation Theory**, *Copenhagen*
September 2018	**TopMath Summer School**, *Munich*

Bonn, January 28, 2026