

Thomas Tony | Curriculum vitae

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Positions

04/2025 – present Doctoral Research Associate, University of Potsdam.

09/2022 – 03/2025 Doctoral Research Associate, University of Münster.

Education

2022 – present PhD student in Mathematics (Dr. rer. nat.), University of Münster.

▪ Advisor: [R. Zeidler](#)

2019 – 2022 Master of Science in Mathematics, University of Freiburg.

2013 – 2019 First State Exam in Mathematics and Physics (teaching degree), University of Freiburg.

Scholarships, grants and awards

2025 Oberwolfach Leibniz Graduate Students travel grant.

2022 Doctoral position funded by the [Cluster of Excellence Mathematics Münster](#).

2020 Deutschlandstipendium, University of Freiburg.

2013 DMV-Abiturpreis, Deutsche Mathematiker-Vereinigung.

Research stays

11/2023 Visiting [Rafe Mazzeo](#) (four weeks), Stanford University.

Invited research seminar talks

11/2025 Differential Geometry Seminar, UC Berkeley.

11/2025 Noncommutative Geometry Seminar, Texas A&M University.

10/2025 Geometry Seminar, Columbia University.

07/2025 Oberseminar Topology and Geometry, University of Göttingen.

06/2025 Oberseminar Differentialgeometrie, University of Augsburg.

05/2025 Forschungsseminar Differentialgeometrie, University of Potsdam.

04/2025 Oberseminar Topologie, University of Münster.

04/2024 Arbeitsgruppenseminar Ammann, University of Regensburg.

01/2024 Oberseminar Differentialgeometrie, University of Freiburg.

11/2023 Geometric Analysis Seminar, The City University of New York.

01/2023 Arbeitsgruppenseminar Tuschmann, Karlsruhe Institute of Technology.

Invitations to conferences and workshops

06/2025 Oberwolfach workshop: Differentialgeometrie im Großen [🔗](#), talk given.

02/2024 Oberwolfach workshop: Analysis, Geometry and Topology of Positive Scalar Curvature Metrics [🔗](#).

Organized conferences and workshops

08/2024 Young Topologist Meeting (YTM) [🔗](#), Cluster of Excellence Mathematics Münster.

Participation in conferences and workshops

- 07/2025 Workshop on Curvature and Global Shape [↗](#), University of Münster.
05/2025 Geometric Moduli Spaces - Rigidity, Genericity, Stability [↗](#), poster presented, ICMS, Edinburgh.
11/2024 Curvature and Geometric Analysis in Rome [↗](#), poster presented, Sapienza Università di Roma.
03/2024 Mathematics Münster Mid-term Conference [↗](#), Cluster of Excellence Mathematics Münster.
12/2023 Workshop on Operator Algebras and Applications: Non-Commutative Geometry [↗](#), Fields Institute, Toronto.
10/2023 Autumn School on Large Scale Geometry [↗](#), Gong Talk given, University of Göttingen.
08/2023 Workshop on Curvature and Global Shape [↗](#), poster presented, University of Münster.
04/2023 *Higher Structures in Geometry and Mathematical Physics* [↗](#), Centre International de Rencontres Mathématiques, Marseille.

Teaching experience

University of Münster

- Winter 2024/25 *Differential Geometry PhD Seminar*, organizer.
Summer 2023 *Differential Equations*, Tutor, Lecture given by [T. de Laat](#).

University of Freiburg (as a tutor)

- 2015 – 2022 *Linear Algebra I and II (2x)*, *Analysis I and II*, *Multiple Integration* (teaching degree), *Complex Analysis*, *Differential Geometry*.

High School Teaching & Instruction

- 2016 – 2022 Learn coaching, [Das Lernteam](#).
2016 – 2020 Preparation for the General Certificate of Education in mathematics, [Abiturma](#).

Scientific memberships

- 2022 – present [Cluster of Excellence "Mathematics Münster: Dynamics – Geometry – Structure"](#).
2022 – present [SFB 1442 "Geometry: Deformations and Rigidity"](#).
2022 – present [Mathematics Münster Graduate School](#).

Academic services

Reviewer for Science China Mathematics and zbMATH.

Language skills

German (native), English (fluent), French (basic).

Technical skills

Latex, Python, HTML, Linux.

List of publications

Peer-reviewed articles

- [1] T. Tony. "Scalar curvature rigidity and the higher mapping degree." In: *Journal of Functional Analysis* 288.3 (2025). DOI: [10.1016/j.jfa.2024.110744](#).

Preprints

- [2] T. Tony. *Ricci-flat manifolds, parallel spinors and the Rosenberg index*. Preprint. 2024. arXiv: [2411.03882 \[math.DG\]](#).

Theses.....

- [3] T. Tony. *The End-Periodic Index Theorem for Dirac Operators and its Connection to the Classical Atiyah-Patodi-Singer Index Theorem*. <https://ttony.eu/documents/thesis-master.pdf>. Master's thesis, advisor: N. Große, University of Freiburg. 2022.
- [4] T. Tony. *Die Riemannsche Vermutung und die Primzahlverteilung*. <https://ttony.eu/documents/thesis-state-exam.pdf>. State exam's thesis (accepted as Bachelor's thesis as well), advisor: K. Wendland, University of Freiburg. 2019.