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

2022	Doctoral position funded by the Cluster of Excellence Mathematics Münster.
2020	Deutschlandstipendium, University of Freiburg.
2013	DMV-Abiturpreis, Deutsche Mathematiker-Vereinigung.

Invited research seminar talks

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

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 ↗, 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.

Research stays

04/2024 Guest of the SFB Higher Invariants (one week), University of Regensburg.

11/2023 Visiting Renato G Bettiol (one week), The City University of New York.

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: *Jounal 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.