# **Thomas Tony** | Curriculum vitae

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#### Education

2022 – present PhD 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

- 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

- 11/2024 Curvature and Geometric Analysis in Rome C, 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 **C**, 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, Cluster of Excellence Mathematics Münster.
- 04/2023 Higher Structures in Geometry and Mathematical Physics 2, 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.

Summer 2023 Differential Equations, Tutor, 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.

#### Extramural teaching

2016 – 2022 Learn coaching, Das Lernteam.

2016 – 2020 Preparation for the General Certificate of Education in mathematics, Abiturma.

## Scientific memberships

2024 - present Part of the ERC Starting Grant - COMSCAL "Comparison and rigidity for scalar curvature".

2022 - present Member of the Cluster of Excellence "Mathematics Münster: Dynamics - Geometry - Structure".

2022 - present Member of the SFB 1442 "Geometry: Deformations and Rigidity".

2022 - present Member of the Mathematics Münster Graduate School.

## Language skills

German (native), English (B2 in parts C1), French (B1)

#### Technical skills

Latex, Python, HTML, Linux

#### List of publications

## Preprints

[1] T. Tony. Scalar curvature rigidity and the higher mapping degree. To appear in J. Funct. Anal. 2024. arXiv: 2402.05834 [math.DG].

#### Theses

- [2] 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.
- [3] 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.