# **Thomas Tony** | Curriculum vitae

Mathematisches Institut – Einsteinstrasse 62 – 48149 Münster, Germany

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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

- 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 Z, 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 Z, 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 ☑, 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.

1 1/2

# 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

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 (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). To appear. DOI: 10.1016/j.jfa.2024.110744.

#### Preprints.....

[2] T. Tony. A note on Ricci-flat manifolds, parallel spinors and the Rosenberg index. Preprint. 2024. arXiv: 2411.03882 [math.DG].

#### Theses

- [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.
- [4] 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.

2/2