

# Thomas Tony | Curriculum vitae

Institut für Mathematik – Universität Potsdam – Karl-Liebknecht-Str. 24-25 – 14476 Potsdam, Germany

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## Positions

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- 04/2025 – present    Doctoral Research Associate, University of Potsdam.  
09/2022 – 03/2025    Doctoral Research Associate, University of Münster.

## Education

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- 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

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- 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

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- 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

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

## Organized conferences and workshops

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

## Participation in conferences and workshops

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- 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, Cluster of Excellence Mathematics Münster.

04/2023 *Higher Structures in Geometry and Mathematical Physics* [↗](#), Centre International de Rencontres Mathématiques, Marseille.

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## 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.

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## Teaching experience

### University of Münster

Winter 2024/25 *Differential Geometry PhD Seminar*.  
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](#).

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## 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](#).

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## Academic services

Reviewer: Science China Mathematics, zbMATH

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## Language skills

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

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## Technical skills

Latex, Python, HTML, Linux

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## 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. *A note on 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.