

Damaris Meier

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I am a Hermann-Weyl-Instructor at ETH Zurich. My research interests lie at the intersection of several active areas of mathematics, including geometric analysis, metric and differential geometry, geometric measure theory, and analysis on metric spaces.

Education

- 09/2024 - 06/2025 **Certificate of Advanced Studies in Higher Education and Educational Technology**, University of Fribourg, Switzerland
- 10/2020 - 05/2025 **PhD in Mathematics** under the supervision of Stefan Wenger, University of Fribourg, Switzerland
- 09/2019 - 09/2020 **Master of Science in Mathematics**, University of Bern, Switzerland
- 09/2015 - 09/2019 **Bachelor of Science in Mathematics**, Minor in Computer Science and Physics, University of Bern, Switzerland

Employment

- 09/2025 - today **Hermann-Weyl-Instructor**, ETH Zurich, Switzerland
- 10/2020 - 06/2025 **Diploma assistant**, University of Fribourg, Switzerland
- 02/2021 - 12/2022 **ICT technician**, University of Fribourg, Switzerland
- 09/2017 - 05/2020 **Teaching assistant**, University of Bern, Switzerland

Funding and awards

- 01/2023 - 07/2023 **Doc.Mobility** grant of the University of Fribourg (7 months research stay at Stony Brook University and travel funds for conferences)

Extended research stays

- 06/2026 - 07/2026 **Simons Semester in Geometric Analysis**, Institute of Mathematics of the Polish Academy of Sciences, Warsaw, Poland
- 01/2025 - 04/2025 **Trimester Program: Metric Analysis**", Hausdorff Research Institute for Mathematics, Bonn, Germany
- 01/2023 - 07/2023 **Doc.Mobility research stay**, Stony Brook University, New York, USA

Publications and preprints

- [7] with Noa Vikman and Stefan Wenger: *Energy minimizing harmonic 2-spheres in metric spaces*, Preprint arXiv: 2503.08553.
- [6] with Kai Rajala: *Definitions of quasiconformality on metric surfaces*, Potential Anal (2025), published online first.
- [5] with Stefan Wenger: *Quasiconformal almost parametrizations of metric surfaces*, J. Eur. Math. Soc. (2024), published online first.
- [4] with Kai Rajala: *Mappings of finite distortion on metric surfaces*, Math. Ann. **391** (2025), 2479–2507.
- [3] *Quasiconformal uniformization of metric surfaces of higher topology*, Indiana Univ. Math. J. **73** (2024), no. 5, 1689–1713.
- [2] with Dimitrios Ntalampekos: *Lipschitz-Volume rigidity and Sobolev coarea inequality for metric surfaces*, J. Geom. Anal. **34** (2024), No. 5, Paper No. 128.
- [1] with Martin Fritzi: *Canonical parametrizations of metric surfaces of higher topology*, Ann. Fenn. Math. **48** (2023), No. 1, 67–80.

Invited Conference and Workshop talks

- 05/2026 *Workshop on Potential Theory and Geometric Function Theory in Metric Spaces*, Instituto de Ciencias Matemáticas Madrid
- 09/2025 *Milan-Grenoble-Turin meeting in geometry and topology*, Université Grenoble Alpes
- 07/2025 *Differentialgeometrie im Grossen*, Mathematisches Forschungsinstitut Oberwolfach
- 06/2025 *Quasiweekend III*, University of Helsinki
- 03/2025 *Differential geometry beyond Riemannian manifolds*, Hausdorff Research Institute for Mathematics Bonn
- 01/2025 *Geometric structures and infinite-dimensional manifolds*, Erwin Schrödinger International Institute for Mathematics and Physics (ESI) Vienna
- 08/2024 *Metric Geometry and Geometric Measure Theory*, University of Fribourg
- 07/2024 *Geometry and Analysis on metric surfaces*, IMPAN, Warsaw
- 04/2024 *AMS Spring Eastern Sectional Meeting*, Howard University, Washington DC
- 04/2023 *AMS Spring Eastern Sectional Meeting*, online

Invited Seminar talks

- 02/2025 *Trimester Seminar Series*, Hausdorff Research Institute for Mathematics Bonn
- 11/2024 *Geometrie Seminar*, Karlsruher Institut für Technologie
- 04/2024 *Analysis Seminar*, Stony Brook University
- 04/2024 *Geometric Analysis and Topology Seminar*, New York University
- 02/2024 *Geometric analysis seminar*, University of Jyväskylä
- 03/2023 *Differential Geometry and Geometric Analysis Seminar*, Princeton University
- 03/2023 *Analysis Seminar*, University of Tennessee, Knoxville

- 02/2023 *Analysis Seminar*, Stony Brook University
 09/2022 *Geometry Graduate Colloquium*, ETH Zürich
 05/2022 *Oberseminar Differentialgeometrie*, Max Planck Institute Bonn
 12/2021 *Bernoullis Tafelrunde*, University of Basel
 11/2021 *Quasiworld Seminar*, online

Organized research activities

- 03/2025 Co-organizer of the *CUSO career day*, University of Fribourg
 02/2022 - 01/2025 Co-founder and co-organizer of the *Bern–Fribourg graduate seminar*, University of Bern and University of Fribourg
 11/2023 Co-organizer of the *22th CUSO Graduate Colloquium*, University of Fribourg

Teaching

- Fribourg: Teaching assistant for analysis, introduction to numerical analysis, propedeutic analysis, analysis on metric spaces
 Bern: Teaching assistant for analysis, differential geometry, mappings of metric spaces, mathematics for biology students, numerical analysis

Outreach activities

- 10/2025 *Leonardo Math Camp - A camp for highschool students*, Les Diablerets
 09/2024 *Preparatory course in mathematics*, University of Fribourg
 10/2023 *Leonardo Math Camp - A camp for highschool students*, Les Diablerets
 2017 - today Organizer and speaker at several outreach events annually for high school students, prospective students and general public: TecDay, Science for youth, Explora, national future day, Infoday, ...

Personal skills

- Languages: (Swiss) German: Native, English: Proficiency, French: Upper-Intermediate
 Programming: LaTeX, Java, Python, Mathematica, MatLab, R