

OSCAR BENDIX HARR

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Figure 1: Me

RESEARCH INTERESTS

I am broadly interested in algebraic and geometric topology, homotopy theory, and higher category theory. More specifically, I am currently thinking about

- stable and unstable phenomena in the cohomology of moduli spaces; and
- ∞ -categories of sheaves and their applications to geometric topology.

EMPLOYMENT

Oct 2025–Oct 2027 Postdoctoral Fellow in Algebra and Geometry (mentor: Dan Petersen)
Stockholm University

EDUCATION

2022–2025 PhD in Mathematics (“Sheaves and moduli spaces of manifolds,” adv. Jesper Grodal and Nathalie Wahl)
University of Copenhagen

2017–2022 BSc & MSc in Mathematics
University of Copenhagen

PUBLICATIONS AND PREPRINTS

1. **Disordered arcs and Harer stability** (with Max Vistrup and Nathalie Wahl), in *High. Struct.* 8(1), 193–223 (2024).
2. **Compact sheaves on a locally compact space**, in *Proc. Amer. Math. Soc.* 153(1), 55–68 (2025).
3. **Twisted homology stability of O_n for valuation rings**, in *J. Algebra* 690, 304–339 (2026).
4. **The derived category of a locally compact space is rarely smooth**, preprint 2023 (<https://arxiv.org/abs/2311.03121>).
5. **Whitehead torsion and the kernel of assembly**, preprint 2026 (<https://arxiv.org/abs/2604.19208>).
6. **Topological fixed point theory revisited** (with Florian Riedel), in preparation.
7. **Reconstruction of a graph from the derived category**, in preparation.
8. **Improved homological stability for handlebody mapping class groups**, in preparation.

CONFERENCE TALKS

1. “ E_2 -cells and handlebody mapping class groups,” *Topology of Moduli Spaces aka Ulrike Tillmann’s 60th birthday conference* (Copenhagen), Aug 2024.
2. “The tautological ring of the moduli space of handlebodies,” *Young Topologist Meeting* (Stockholm), Jun 2025.

RESEARCH TALKS

1. “Improved homological stability for the moduli of handlebodies,” QM Research Seminar @ SDU Centre for Quantum Mechanics, Oct 2024.
2. “The tautological ring of the moduli space of handlebodies,” Oberseminar @ Münster University, May 2025.
3. “Stokes theorem and characteristic classes for handlebody bundles,” Bonn Topology Seminar @ Bonn University, Jun 2025
4. “Stokes theorem and characteristic classes of manifold bundles,” Geometry and Topology Seminar @ Uppsala University, Oct 2025.
5. “Stokes theorem and characteristic classes of manifold bundles,” Topological Activities @ Stockholm University, Oct 2025.
6. “Lefschetz–Nielsen fixed point theory in dualizable categories,” Algebra & Geometry Seminar @ Stockholm University and KTH, Dec 2025.

TEACHING EXPERIENCE

1. **Teaching assistant** @ University of Copenhagen (2019–2024). Directed exercise sessions and graded assignments + exams in various courses in topology, analysis, algebra, geometry, and discrete mathematics at the undergraduate, advanced undergraduate, and graduate level.
2. **Research internship co-supervisor** @ University of Copenhagen (2023). Co-supervised Tyra Cortinez Samenius’s research internship together with Nathalie Wahl, based on our joint work with Max Vistrup.
3. **SPS Academic Mentor** @ University of Copenhagen (2023–2025). I provided one-on-one mentoring in the *Specialpædagogisk støtte* (“Special pedagogical aid”) program, which supports university students with disabilities.

ORGANIZATION

1. **Mini-workshop on Bergström–Diaconu–Petersen–Westerland** @ University of Copenhagen, May 2023.
2. **Exit paths and stratified homotopy types** (conference) @ University of Copenhagen, Jun 2024.
3. **Cool-loquium** @ University of Copenhagen, 2024–2025 (biweekly research seminar).

OUTREACH

1. De unge forskere (2024), video interview ([link](#)) by the Danish National Research Fund (DNRF).
2. PhD-studier i matematik (2024), career talk for incoming first-year students.
3. Culture night (2024), presented homotopical puzzles to non-mathematicians.

MISCELLANEOUS

Between the ages of 8 and 15, I lived in Singapore, where I met my now wife Bella. I speak English and Danish, and like many mathematicians I can read French and—as long as it’s about math—German.¹ My non-math interests include philosophy, history, cooking, eating, *X-files*, *Star Trek*, and above all spending time with friends and family.

Last updated: May 3, 2026

¹*Es ist offenbar daß...*