Oscar Bendix Harr

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Figure 1

Personal information

Pronous	he/him
Date of birth	Apr 23, 1999
Citizenship	Danish

Employment

Oct 2025–Oct 2027	Postdoctoral Fellow in Algebra and Geometry *Stockholm University* (Mentored by Dan Petersen)

Education

2022–2025	PhD in Mathematics *University of Copenhagen* Thesis: "Sheaves and moduli spaces of manifolds" (Supervised by Jesper Grodal and Nathalie Wahl)
2020–2022	MSc in Mathematics *University of Copenhagen*
2017–2020	BSc in Mathematics *University of Copenhagen*

Research interests

Cohomology of moduli spaces, (categories of) sheaves. More broadly, algebraic topology.

Publications

1 (with Max Vistrup and Nathalie Wahl) *Disordered arcs and Harer stability*, in Higher Structures 8(1), 193-223 (2024).

2 *Compact sheaves on a locally compact space*, in Proceedings of the American Mathematical Society 153(1), 55–68 (2025).

Preprints

3 *Twisted homology stability of O_n for valuation rings*, preprint 2022 (`https://arxiv.org/abs/2212.03213`).

4 *The derived category of a locally compact space is rarely smooth*, preprint 2023 (`https://arxiv.org/abs/2311.03121`).

5 *Improved homological stability for handlebody mapping class groups*, in preparation.

6 *Reconstruction of a graph from the derived category*, in preparation.

Talks

Conferences

Aug 21, 2024 "E_2-cells and handlebody mapping class groups"
Topology of Moduli Spaces (Copenhagen)
[aka Ulrike Tillmann's 60th birthday conference]

June, 2025 "The tautological ring of the moduli space of handlebodies"
Young Topologists Meeting (Stockholm)

Research talks

Oct 7, 2024 "Improved homological stability for the moduli of handlebodies"
Presented at the QM Research Seminar
at the Centre for Quantum Mathematics (SDU)

May 12, 2025 "The tautological ring of the moduli space of handlebodies"
Presented at the Oberseminar at Münster University

June 3, 2025 "Stokes theorem and characteristic classes for handlebody bundles"
Presented at the Bonn Topology Seminar

Mentoring experience

Tyra Cortinez Samenius (2023)

Together with Nathalie Wahl, I supervised Tyra's research internship on arc complexes in Copenhagen during the summer break of 2023.

SPS academic mentor (2023–current)

I am an academic mentor in Denmark's *Specialpædagogisk støtte* ("Special pedagogical aid") program, which provides one-on-one support to university students with disabilities.

Teaching experience

2019 DisMat TA
Mathematical methods and discrete mathematics for 1st year math students

2020 Alg1 TA
Group theory class for 2nd year math students

2020 KomAn TA
Complex analysis class for 3rd year math students

2020 Diff TA

Differential equations class for 3rd year math students

2021 LIM TA
Class on measure theory and the Lesbegue integral for 2nd year math students

2022 Alg2 TA
Class on ring theory for 2nd year math students

2022 Geom TA
Class on the geometry of surfaces for 1st year math sudents

2022 MASO TA
Mathematical analysis class for 2nd year business students

2023 HomAlg TA
Homological algebra class for masters students

2024 CatTop TA
Class on categorical homotopy theory and ∞-categories

Outreach

***De unge forskere* (2023):** Video interview by the Danish National Research Fund (DNRF)

***PhD-studier i matematik* (2024):** Career talk for incoming first-year math students

Culture night (2024): Presenting homotopical puzzles to non-mathematicians

Conferences, seminars, and workshops organized

May 31, 2023	Bergström–Diaconu–Petersen–Westerland mini-workshop
Jun 24-28, 2024	Exit paths and stratified homotopy types (conference)
Sep 1, 2024–(ongoing)	Cool-loquium (seminar) Biweekly research seminar for PhD students and postdocs

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.

[1] *Es ist offenbar daß...*