Georg Bökman

boekman@outlook.com
https://georg-bn.github.io
https://scholar.google.com/citations?user=FUE3Wd0AAAAJ

Timeline

(2024–2025)	Researcher in the Computer vision group Chalmers University of Technology, Gothenburg
(2021–2024)	Leader of the Geometric Deep Learning cluster, a group of PhD students from universities around Sweden within the Wallenberg AI, Autonomous Systems and Software Program (WASP). Organized study trips to Amsterdam and Zürich/Lausanne, as well as research discussions and study groups.
(2019–2024)	PhD in the Computer vision group Chalmers University of Technology, Gothenburg Research on equivariant deep learning for computer vision applications Supervised by Fredrik Kahl
(2016–2019)	Master of Science in Engineering mathematics Chalmers University of Technology, Gothenburg
(2016–2017)	Exchange year at the Master's programme in Mathematics Technical University of Munich, Munich
(2013–2016)	Bachelor of Science in Engineering mathematics Chalmers University of Technology, Gothenburg

First author publications

ICML 2025 Spotlight	*Flopping for FLOPs: Leveraging equivariance for computational efficiency* Georg Bökman, David Nordström, Fredrik Kahl arXiv:2502.05169
ECCV 2024	*Affine steerers for structured keypoint description* Georg Bökman, Johan Edstedt, Michael Felsberg, Fredrik Kahl arXiv:2408.14186
CVPR 2024 Oral	*Steerers: A framework for rotation equivariant keypoint descriptors* Georg Bökman, Johan Edstedt, Michael Felsberg, Fredrik Kahl arXiv:2312.02152
TMLR 2024	*In search of projectively equivariant networks* Georg Bökman*, Axel Flinth*, Fredrik Kahl arXiv:2209.14719
NeurIPS 2023	*Investigating how ReLU-networks encode symmetries* Georg Bökman, Fredrik Kahl arXiv:2305.17017
SCIA 2023	*Rigidity preserving image transformations and equivariance in perspective* Lucas Brynte*, Georg Bökman*, Axel Flinth, Fredrik Kahl arXiv:2201.13065
CVPR 2022 Oral	*ZZ-Net: A universal rotation equivariant architecture for 2D point clouds* Georg Bökman, Fredrik Kahl, Axel Flinth arXiv:2111.15341
CVPRW 2022	*A case for using rotation invariant features in state of the art feature matchers* Georg Bökman, Fredrik Kahl arXiv:2204.10144

*Equal contribution

Other publications

CVPR 2024	*RoMa: Robust Dense Feature Matching* Johan Edstedt, Qiyu Sun, Georg Bökman, Mårten Wadenbäck, Michael Felsberg
CVPRW 2024	*DeDoDe v2: Analyzing and Improving the DeDoDe Keypoint Detector* Johan Edstedt, Georg Bökman, Zhenjun Zhao
3DV 2024 Oral	*DeDoDe: Detect, Don't Describe—Describe Don't Detect for Local Feature Matching* Johan Edstedt, Georg Bökman, Mårten Wadenbäck, Michael Felsberg
ICPR 2022 Oral	*Azimuthal Rotational Equivariance in Spherical CNNs* Carl Toft, Georg Bökman, Fredrik Kahl

Awards/Achievements

March 2024	Most Industry Relevant Paper, Swedish Symposium on Image Analysis, Luleå
August 2023	Winner AISG/SLA Visual Localization Challenge ($20 000), IJCAI, Macao
January 2023	Best Poster Award, WASP Winter Conference, Norrköping

Students

2024–	David Nordström (co-supervisor with Fredrik Kahl as main supervisor) PhD student, Chalmers University of Technology, Gothenburg

Teaching

2019, 2020, 2021, 2022 & 2023	Teaching assistant for a master's level course in computer vision (EEN020).
2021, 2022 & 2023	Teaching assistant for single variable calculus (TMV225) in the mechanical engineering programme.
2021	Teaching assistant for linear algebra (MVE470) in the computer science programme.
2020	Teaching assistant for a course in computational mathematics (TMA683) in the chemical engineering programme. Assisted with computer labs covering the finite elements method.
	Teaching assistant for multivariate calculus course for chemical engineering students (MVE470).
2017 & 2019	Teaching assistant for a course in computational mathematics (MVE515) in the civil engineering programme. Assisted with computer labs covering the finite elements method.
2019	Teaching assistant for a calculus course for mechatronics engineering students (MVE585).
2017 & 2018	Teaching assistant for the first real analysis courses (TMA970, TMA976) of the engineering mathematics programme.

Languages

Swedish:	Native
German:	Native
English:	Fluent
Spanish:	Basic

Hobbies

I currently sing in two choirs and enjoy playing the piano and guitar in my free time.

Last updated: May 30, 2025