

Research interests

- Representation theory of reductive groups
- Non-commutative harmonic analysis
- Connections to analytic number theory

Academic Career

- since 08/2019 **Aarhus University, Denmark**
Associate Professor
- 09/2015 – 07/2019 **Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany**
Juniorprofessor
- 08/2014 – 08/2015 **Ohio State University, Columbus, Ohio, USA**
Ross Assistant Professor
- 07/2011 – 08/2014 **Aarhus University, Denmark**
Postdoctoral Researcher

Education and Qualification

- 07/2008 – 11/2010 **Universität Paderborn, Germany, PhD in Mathematics**
Final grade: summa cum laude (with distinction)
Thesis title: "Minimal representations of conformal groups and generalized Laguerre functions"
Supervisors: Joachim Hilgert, Toshiyuki Kobayashi
- 10/2004 – 04/2008 **Universität Paderborn, Germany, Diploma in Mathematics**
Final grade: sehr gut mit Auszeichnung (very good with distinction)
Thesis title: "The Dirichlet-to-Neumann Map as a Pseudodifferential Operator"
Supervisor: Sönke Hansen
- 02/2007 – 07/2007 **Auckland University, New Zealand, Semester abroad**

Administrative Responsibilities

- since 04/2026 Vice Chair for Research, Department of Mathematics, Aarhus University
- 10/2025 – 03/2026 Section coordinator (Mathematics), Aarhus University
- 02/2024 – 03/2026 Member of the Academic Council (Natural Sciences), Aarhus University
- 02/2024 – 03/2026 Union representative substitute, Department of Mathematics, Aarhus University
- since 10/2023 Managing Editor for the Journal of Lie Theory
- 08/2019–09/2023 Sectional Editor for the Journal of Lie Theory
- 08/2019–09/2023 Sectional Editor for Forum Mathematicum

Scholarships and Prizes

- 11/2017 FAU Teaching Award for Young Researchers
- 02/2015 The Journal of the Mathematical Society of Japan Outstanding Paper Prize
- 01/2012 Prize of the Universität Paderborn for an outstanding PhD thesis
- 10/2008 - 11/2010 PhD scholarship of the International Research Training Group "Geometry and Analysis of Symmetries"
- 04/2005 - 04/2008 Fellowship of the Studienstiftung des deutschen Volkes

Grants

- 01–04/2025 Institut Henri Poincaré funding for thematic trimester "Representation Theory and Noncommutative Geometry" (100.000 €)
- 12/2022 AUFF Nova Grant "Spectral Correspondences for Trees and Buildings" (2.043.800 kr)
- 01/2019 Villum Young Investigator Grant "Symmetry Breaking in Mathematics" (9.995.000 kr)
- 09/2017 DFG project "Conference Symmetries in Geometry, Analysis and Spectral Theory" (19.500 €)
- 11/2016 DFG projekt "Symmetry breaking for real reductive groups and applications to automorphic forms" (192.200 €)
- 03/2014 DAAD international postdoc stipend (12 months), not used due to alternative job offer

Organization of Scientific Events (selected)

- 01–04/2025 Organizer of the thematic trimester programme "Representation theory and noncommutative geometry" at the Institut Henri Poincaré, Paris, France
- 07/2023 Organizer of the session "Harmonic analysis and representation theory" at the 29th Nordic Congress of Mathematicians, Aalborg University
- 03/2023 Co-organizer of the conference "58th Seminar Sophus Lie" at the FAU Erlangen-Nürnberg, Germany
- 02/2022 Co-organizer of the conference "Spectra and Dynamics on (Locally) Symmetric Spaces" at Paderborn University, Germany
- 07/2018 Organizer of the conference "Symmetries in Geometry, Analysis and Spectral Theory" at Paderborn University, Germany
- 11/2011 Co-organizer of the workshop "Lie Theory" at Aarhus University, Denmark

International Relations

- Collaborations (international)** Sigiswald Barbier (Belgium), Leo Benard (France), Joachim Hilgert (Germany), Eyal Kaplan (Israel), Toshiyuki Kobayashi (Japan), Quentin Labriet (Canada), Karl-Hermann Neeb (Germany), Gestur Ólafsson (USA), Yoshiki Oshima (Japan), Polyxeni Spilioti (Germany), Feng Su (China), Genkai Zhang (Sweden)
- Foreign Stays (selected)** IHP Paris, France (01/2025 and 03/2025); Kanpur and Guwahati, India (12/2023); Marseille, France (06/2023); Singapore (07/2022); Vienna, Austria (04/2022); Strasbourg, France (03/2018); Nancy, France (01/2017 and 03/2017); Sanya, China (12/2016); Bedlewo, Poland (09/2016); Cornell, USA (04/2015); Oklahoma, USA (02/2015), Gent, Belgium (07/2013); Gothenburg, Sweden (02/2013); Tokyo, Japan (10/2008, 01/2009 and 11/2009)

Referee Work

- Journals**
- Advances in Mathematics
 - Algebras and Representation Theory
 - Archiv der Mathematik
 - Cambridge Journal of Mathematics
 - Communications in Mathematical Physics
 - Complex Analysis and Operator Theory
 - Compositio Mathematica
 - Contemporary Mathematics
 - Differential Geometry and its Applications
 - Duke Mathematical Journal
 - Forum Mathematicum
 - Indagationes Mathematicae
 - International Mathematics Research Notices (IMRN)
 - Journal of Algebra
 - Journal of Functional Analysis
 - Journal of Geometric Analysis
 - Journal of Geometry and Physics
 - Journal of Lie Theory
 - Journal of Mathematical Analysis and Applications
 - Journal of Mathematical Physics
 - Journal of Mathematical Sciences, the University of Tokyo
 - Kyoto Journal of Mathematics
 - Mathematische Zeitschrift
 - New York Journal of Mathematics
 - Representation Theory (AMS)
 - Reviews in Mathematical Physics
 - SIAM Journal on Numerical Analysis
 - SIGMA (Symmetry, Integrability and Geometry: Methods and Applications)
 - Transactions of the AMS
- Reviews**
- Mathematical Reviews (MathSciNet), Zentralblatt Math (zbMATH)

- PhD committees**
- Christian Arends (2023), Paderborn University, Germany
 - Lasse Wolf (2023), Paderborn University, Germany
 - Simon Roby (2021), University of Lorraine, France
 - Quentin Labriet (2021), University of Reims, France
 - Sigiswald Barbier (2018), Universiteit Gent, Belgium

- Others**
- Hiring committee member for an Assistant Professor position (2023), Utrecht University, Netherlands
 - Referee for the habilitation thesis of Petr Somberg (2013), Charles University in Prague, Czech Republic

Supervision

- PhD Students**
- Clemens Weiske**, 08/2017 – 07/2020
- Jonathan Ditlevsen**, 02/2020 – 07/2023
- Frederik Juul Bang-Jensen**, 08/2020 – 07/2023
- Postdocs**
- Clemens Weiske**, 08/2020 – 12/2020
- Polyxeni Spilioti**, 01/2020 – 09/2022
- Quentin Labriet**, 01/2022 – 02/2024
- Christian Arends**, 04/2023 – 05/2026