

# Curriculum Vitae April 9, 2023

## Personal data

Name: David Lindemann  
Date of birth: 23.01.1989  
Nationality: German  
Languages: German (native), English (fluent), Danish (beginner, proficiency level a2.2)  
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## Employment

2021 – 2023 German Research Foundation individual postdoc fellowship in the “Walter Benjamin Programme” (24 months, started 01.10.21), Department of Mathematics, Aarhus University, Denmark  
2018 – 2021 Postdoctoral researcher, Department of Mathematics, University of Hamburg, Germany

## Education

2014 – 2018 Ph.D. in mathematics, University of Hamburg  
Thesis title: “Structure of the class of projective special real manifolds and their generalisations”  
2011 – 2014 M.Sc. in mathematics, University of Hamburg  
Thesis title: “Completeness of projective special real manifolds generated by reducible polynomials”  
2008 – 2011 B.Sc. in mathematics, University of Hamburg  
Minor field: Biology  
Thesis title: “Geodesic completeness of a hypersurface generated by a hyperbolic homogeneous polynomial”

## Publications

2023 Classification of left-invariant Einstein metrics on  $SL(2, \mathbb{R}) \times SL(2, \mathbb{R})$  that are bi-invariant under a one-parameter subgroup (*with Vicente Cortés, Jeremias Ehler, and Alexander S. Haupt*), Ann. Glob. Anal. Geom. **63**, [arXiv:2201.07343](https://arxiv.org/abs/2201.07343)  
2023 Properties of the moduli set of complete connected projective special real manifolds, Math. Z. **303**(2), [arXiv:1907.06791](https://arxiv.org/abs/1907.06791)  
2021 A class of cubic hypersurfaces and quaternionic Kähler manifolds of co-homogeneity one (*with Vicente Cortés, Malte Dyckmanns, and Michel Jüngling*), Asian J. Math. Vol. **25**, No. 1, 1–30, [arXiv:1701.07882](https://arxiv.org/abs/1701.07882)

- 2018 Left-invariant Einstein metrics on  $S^3 \times S^3$  (with Florin Belgun, Vicente Cortés, and Alexander S. Haupt), J. Geom. Phys. **128**, [arXiv:1703.10512](#)
- 2014 Classification of complete projective special real surfaces (with Vicente Cortés, and Malte Dyckmanns), Proc. London Math. Soc. **109**, No. 2, 423–445, [arXiv:1302.4570](#)

## Preprints

- 2023 Special homogeneous surfaces (with Andrew Swann), [arXiv:2303.18228](#)
- 2022 Special homogeneous curves, [arXiv:2208.06890](#)
- 2022 Special geometry of quartic curves, [arXiv:2206.12524](#)
- 2020 Limit geometry of complete projective special real manifolds, [arXiv:2009.12956](#)

## Teaching

- 2022 Exercise class “Numerisk lineær algebra” (“Numerical linear algebra”)
- 2020 Exercise class “Mathematik 1 für Studierende der Informatik” (“Mathematics for computer scientists 1”)
- 2020 Lecture course “Differential Geometry” (B.Sc. level, online), accessible at [https://www.math.uni-hamburg.de/home/lindemann/diffgeo\\_SS2020\\_lindemann.html](https://www.math.uni-hamburg.de/home/lindemann/diffgeo_SS2020_lindemann.html)
- 2019 Exercise class “Mathematik 4 für Studierende der Physik” (“Mathematics for physicists 4”)  
Exercise class “Grundbildung Geometrie (für Grundschullehrer und Sonderpädagogen)” (“Basic geometry for elementary and special needs school teachers”)
- 2018 Seminar “Kurven und Flächen” (B.Sc. level) (“Curves and Surfaces”)  
Exercise class “Mathematik 3 für Studierende der Physik” (“Mathematics for physicists 3”)
- 2016 Exercise class “Differentialgeometrie” (“Differential Geometry”)
- 2015 Exercise class “Analysis 2”  
Grading of the exercises of the course “Mathematical Methods of Classical Physics”
- 2014 Exercise class “Lineare Algebra und analytische Geometrie 2” (“Linear algebra and analytic geometry 2”)  
Exercise class “Mathematik 3 für Studierende der Physik” (“Mathematics for physicists 3”)