

# Georg-Joachim FRENCK

## *Curriculum Vitae*

### PERSONAL DATA

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PLACE AND DATE OF BIRTH: Kassel, Germany — October, 3rd 1990  
NATIONALITY: German  
MARITAL STATUS: married, 2 children (age 4 and 1)  
SEX: male

EMAIL: [Math@Frenck.net](mailto:Math@Frenck.net)  
HOMEPAGE: [Frenck.net/Math](http://Frenck.net/Math)

### POSITIONS

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OCT. 2019 -	<b>Postdoc</b> Karlsruhe Institute of Technology
JAN. 2016 - SEP. 2019	<b>Research associate</b> University of Münster

### EDUCATION

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JUL. 2019	<b>PhD in Mathematics</b> , WWU Münster, Grade: Magna cum laude.
SEP. 2015	<b>Master of Science, Mathematik</b> , WWU Münster, Grade: 1.1 (with distinction).
JUL. 2013	<b>Bachelor of Science, Mathematik</b> , WWU Münster, Grade: 1.7, Minor in Physics.
JUL. 2009	<b>Abitur</b> , Otto-Hahn-Gymnasium, Saarbrücken, Grade: 1.3.

### ARTICLES AND PREPRINTS

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- [Fre21] G. Frenck. *Diffeomorphisms and positive curvature*. 2021. arXiv: [2104.10595](https://arxiv.org/abs/2104.10595) [[math.DG](https://arxiv.org/abs/2104.10595)].
- [FK21] G. Frenck and J.-B. Kordaß. “Spaces of positive intermediate curvature metrics”. In: *Geometriae Dedicata* (June 2021). DOI: [10.1007/s10711-021-00635-w](https://doi.org/10.1007/s10711-021-00635-w).
- [FR21] G. Frenck and J. Reinhold. “Bundles with Non-multiplicative  $\hat{A}$ -Genus and Spaces of Metrics with Lower Curvature Bounds”. In: *International Mathematics Research Notices* (Jan. 2021). DOI: [10.1093/imrn/rnaa361](https://doi.org/10.1093/imrn/rnaa361).
- [FGGR20] G. Frenck, F. Galaz-Garcia, and P. Reiser. *Cohomogeneity One Manifolds and Homogeneous Spaces of Positive Scalar Curvature*. accepted for publication in Bull. London Math. Soc. 2020. arXiv: [2009.13142](https://arxiv.org/abs/2009.13142) [[math.DG](https://arxiv.org/abs/2009.13142)].
- [Fre20] G. Frenck. *H-Space structures on spaces of metrics of positive scalar curvature*. accepted for publication in Trans. Am. Math. Soc. 2020. arXiv: [2004.01033](https://arxiv.org/abs/2004.01033) [[math.GT](https://arxiv.org/abs/2004.01033)].
- [Fre19] G. Frenck. *The action of the mapping class group on metrics of positive scalar curvature*. accepted for publication in Math. Ann. 2019. arXiv: [1912.08613](https://arxiv.org/abs/1912.08613) [[math.AT](https://arxiv.org/abs/1912.08613)].
- [EF21] J. Ebert and G. Frenck. “The Gromov-Lawson-Chernysh surgery theorem”. In: *Bol. Soc. Mat. Mex. (3)* 27.2 (2021), Paper No. 37, 43. DOI: [10.1007/s40590-021-00310-w](https://doi.org/10.1007/s40590-021-00310-w).

## SCIENTIFIC TALKS

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JUN. 29TH, 2021	<b>Analysis, Geometry and Topology of Positive Scalar Curvature Metrics (hybrid meeting)</b> , Mathematisches Forschungsinstitut Oberwolfach. “Diffeomorphisms and positive curvature”
JUN 9TH, 2021	<b>Geometry and topology seminar</b> , University of Oregon. “Diffeomorphisms and positive curvature”
MAY. 17TH, 2021	<b>Geometry and topology seminar</b> , University of Toronto. “Diffeomorphisms and positive curvature”
DEC. 9TH, 2020	<b>Oberseminar Global Analysis and Geometry</b> , Universität Regensburg. “The space of positive Ricci curvature metrics”
NOV. 28TH, 2020	<b>Oberseminar Geometrie und Topologie</b> , Ludwigs-Maximilians-Universität München. “The action of $\text{Diff}(M)$ on $\mathcal{R}^+(M)$ ”
NOV. 17TH, 2020	<b>Oberseminar Differentialgeometrie</b> , Karlsruher Institut für Technologie. “The space of positive Ricci curvature metrics”
OCT. 29TH, 2020	<b>Geometry and Topology Seminar</b> , Durham University. “The space of positive Ricci curvature metrics”
OCT. 28TH, 2020	<b>Topology/Geometry Zoom Seminar</b> , University of Oregon. “The space of positive Ricci curvature metrics”
MAY 19TH, 2020	<b>OberZOOMinar Topologie</b> , Georg-August-Universität Göttingen. “ $H$ -Space multiplications on metrics of positive scalar curvature”
JAN. 23RD, 2020	<b>Spaces and moduli spaces of Riemannian metrics with curvature bounds – A-Fri-Ka</b> , KIT Karlsruhe. “ $H$ -Space multiplications on metrics of positive scalar curvature”
NOV. 27TH, 2019	<b>Department of Mathematics &amp; Statistics Colloquium</b> , NUI Maynooth “The action of $\text{Diff}(M)$ on $\mathcal{R}^+(M)$ ”
APR. 29TH, 2019	<b>Oberseminar Differentialgeometrie</b> , Universität Augsburg. “The action of $\text{Diff}(M)$ on $\mathcal{R}^+(M)$ ”
APR. 25TH, 2019	<b>Oberseminar Differentialgeometrie</b> , Karlsruher Institut für Technologie. “The action of $\text{Diff}(M)$ on $\mathcal{R}^+(M)$ ”
APR. 16TH, 2019	<b>Oberseminar Topologie</b> , Georg-August-Universität Göttingen. “The action of $\text{Diff}(M)$ on $\mathcal{R}^+(M)$ ”
MAR. 11TH, 2019	<b>Oberseminar Topologie</b> , Université de Fribourg. “The action of $\text{Diff}(M)$ on $\mathcal{R}^+(M)$ ”
JUL. 11TH, 2018	<b>Young Topologists Meeting</b> , Kopenhagen. “Topology and Scalar curvature”
JUL. 24TH, 2016	<b>Surgery and Geometry</b> , Workshop, Banff. “Surgery and positive scalar curvature”

## CONFERENCES AND SCHOOLS ATTENDED

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JULY 2021	<b>Oberwolfach workshop: Analysis, Geometry and Topology of Positive Scalar Curvature Metrics (hybrid meeting)</b>
AUG. 2020	<b>Virtual workshop on Ricci and scalar curvature,</b>
JAN. 2020	<b>Spaces and moduli spaces of Riemannian metrics with curvature bounds – A-Fri-Ka, KIT Karlsruhe, coorganizer.</b>
NOV. 2018	<b>Riemann Topology Meeting, Fribourg.</b>
JUL. 2018	<b>Young Topologists Meeting, Kopenhagen.</b>
JUL. 2016	<b>Surgery and Geometry, Workshop, Banff.</b>
JUL. 2016	<b>Summer School on Surgery and Classification of Manifolds, Calgary.</b>
JUL. 2016	<b>Young Topologists Meeting, Kopenhagen.</b>

## TEACHING AND ORGANISATION

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SUMMER TERM 2021	<b>Lecture course “Cobordism Theory”, lecturer.</b>
SUMMER TERM 2020	<b>Lecture course “Differential geometry”, teaching assistant.</b>
WINTER TERM 2019/20	<b>Lecture course “Elementary geometry”, teaching assistant.</b>
SUMMER TERM 2019	<b>PhD-Seminar of the Topology group, organizer.</b>
WINTER TERM 2018/19	<b>Lecture course “Differential equations”, teaching assistant.</b>
WINTER TERM 2017/18	<b>Lecture course “Topology II”, teaching assistant.</b> <b>Reading seminar on index theory, organizer.</b>
WINTER TERM 2016/17	<b>Lecture course “Topology I”, teaching assistant</b>
2012 - 2015	<b>Tutorial assistant</b> Weekly exercise sessions and sheet corrections for various courses in theoretical mathematics, both undergraduate and graduate.

## LANGUAGES

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GERMAN:	<b>Mother-tongue</b>
ENGLISH:	<b>Fluent</b> Education partially in English
FRENCH:	<b>Good</b> 6 Years in School
JAPANESE:	<b>Basic</b>