

ALLEGATO B

UNIVERSITÀ DEGLI STUDI DI MILANO

selezione pubblica per n. 1 posto di Ricercatore a tempo determinato ai sensi dell'art.24, comma 3, lettera b) della Legge 240/2010 per il settore concorsuale [01/A3 - ANALISI MATEMATICA, PROBABILITÀ E STATISTICA MATEMATICA](#), settore scientifico-disciplinare [MAT/05 - ANALISI MATEMATICA](#) presso il [Dipartimento di Matematica "Federigo Enriques"](#), (avviso bando pubblicato sulla G.U. n. 53 del 05/07/2019) Codice concorso 4139

Jonas Hirsch

CURRICULUM VITAE

INFORMAZIONI PERSONALI (NON INSERIRE INDIRIZZO PRIVATO E TELEFONO FISSO O CELLULARE)

COGNOME	HIRSCH
NOME	JONAS
DATA DI NASCITA	22.12.1984

INSERIRE IL PROPRIO CURRICULUM
(non eccedente le 30 pagine)

[Vedere pagine seguenti.](#)

Data

[03. agosto 2019](#)

Luogo

[Leipzig](#)



Profile	<p>Date of Birth: 22. Dec. 1984 Nationality: German Languages: German (native), English (excellent), Italian (learning)</p>
Work experience	<ul style="list-style-type: none">• Universität Leipzig, April 2018 substitute professor (professor for variational problems)• SISSA, Oct. 2016 - April 2018 Post-Doc, Supervisor: Prof. Dr. Guido De Philippis• KIT, Oct. 2014 - Oct. 2016 Post-Doc, Supervisor: Prof. Dr. Tobias Lamm
Education	<ul style="list-style-type: none">• KIT, Sept. 2012 - April. 2014 PhD in Mathematics and Guest of Prof. Dr. Tobias Lamm• University of Zürich, Sept. 2009 - June 2014 PhD in Mathematics - defended in April 2014 Advisor: Prof. Dr. Camillo De Lellis• University of Warwick, Sept. 2008 - Sept. 2009 Oct. 2009 - MSc in Mathematics with distinction Advisor: Prof. David Preiss• TU München, Oct. 2005 - Sept. 2008 Sept. 2008 - passed BSc Mathematics with high distinction Oct. 2007 - promoted to the elite graduate Program "TopMath" from the BSc course in Mathematics Nov. 2007 - passed Pre-diploma in Physics among the top 6 percent of my class• Secondary School: Bismarck Gymnasium Karlsruhe, Sept. 1995 - Jun. 2004 A level (Abitur) 1st Class
Publications	<ul style="list-style-type: none">• Dimensional estimates and rectifiability for measures satisfying linear PDE's constraints, with Adolfo Arroyo-Rabasa, Guido De Philippis and Filip Rindler, Geom. Funct. Anal. 29 (2019), no. 3, 639–658, https://arxiv.org/abs/1811.01847• The area blow up set for bounded mean curvature submanifolds with respect to elliptic surface energy functionals, with Guido De Philippis and Antonio De Rosa, Discrete & Continuous Dynamical Systems - A, 2019-6-4, https://arxiv.org/abs/1901.03514• Lower bound for the perimeter density at singular points of minimising cluster in \mathbb{R}^N, with Michele Marini, ESAIM: COCV (2019), arXiv 2018, https://arxiv.org/abs/1801.09298• Boundary regularity of mass-minimizing integral currents and a question of Almgren, with Camillo De Lellis, Guido De Philippis, and Annalisa Massaccesi, 2017 MATRIX ANNALS, https://arxiv.org/abs/1802.07496• Rectifiability of the singular set of multiple valued energy minimizing harmonic maps, with Salvatore Stuvard, Daniele Valtorta, Trans. Amer. Math. Soc., 2018, https://arxiv.org/abs/1708.02116• Non-existence of a Wente's L^∞ estimate for the Neumann problem, Anal. PDE, Volume 12, Number 4 (2019), 1049-1063, https://arxiv.org/abs/1707.03038• A note on Willmore minimising Klein Bottles in Euclidean space, with Elena Mäder-Baumdicker, Adv. Math. 319 (2017), 67–75, https://arxiv.org/abs/1606.04745• Existence of minimizing Willmore Klein bottles in Euclidean four-space, with Patrick Breuning and Elena Mäder-Baumdicker, Geom. Topol. 21 (2017), no. 4, 2485–2526, https://arxiv.org/abs/1604.01906• Examples of holomorphic functions vanishing to infinite order at the boundary, Trans. Amer. Math. Soc. 370 (2018), 4249-4271, https://arxiv.org/abs/1509.03749• Partial Hölder continuity for Q-valued energy minimizing maps, Comm. Partial Differential Equations 41 (2016), no. 9, 1347–1378, https://arxiv.org/abs/1402.2651• Boundary regularity of Dirichlet minimizing Q-valued functions, Ann. Sc. Norm. Super. Pisa Cl. Sci. (5) 16 (2016), no. 4, 1353–1407, https://arxiv.org/abs/1402.2559

Thesis

- PhD Thesis, “Report on my research on some regularity questions regarding multivalued/ Q-valued functions”, Advisor Camillo De Lellis, 2014
- MSc Thesis, “Varifolds and Vector-Valued Measures”, representation of 1-dimensional stationary varifolds in terms of second derivatives of convex functions, Advisor David Preiss, Sept. 2009
- BSc Thesis, “Coupled Cluster Theory”, a presentation of the Coupled Cluster Theory used in Quantum Chemistry for high-accuracy calculation from a mathematical point of view, Advisor Gero Friesecke, Sept. 2008

Publications
submitted or
in preparation

- Nonclassical minimizing surfaces with smooth boundary, with Camillo De Lellis, Guido De Philippis, <https://arxiv.org/abs/1906.09488>
- On the Index of Willmore spheres, submitted, with Elena Mäder-Baumdicker, <https://arxiv.org/abs/1905.04185>
- Regularity of minimizers for a model of charged droplets, with Guido De Philippis, and Giulia Vescovo, submitted, arXiv 2019, <https://arxiv.org/abs/1901.02546>
- Tangent cones to 2D almost minimizing integral currents at the boundary are unique, with Michele Marini
- On the boundary behavior of mass-minimizing integral currents, with Camillo De Lellis, Guido De Philippis, and Annalisa Massaccesi, submitted, arXiv 2018, <https://arxiv.org/abs/1809.09457>

Grants

- Mar. 2017 - DFG-funding for 24 month of an own position inside the SPP 2026 “Geometry at infinity” (175.400 € - transformed into a PhD position for 24 month. The PhD student will hopefully start in October 2019)

Research
Experience
and further
Education

- Sept 2019 (upcoming) - DEA 2019 held in Kraków, speaker in a mini symposia
- Juli 2019 (upcoming) - Workshop: Partial Differential Equations, held at the Mathematisches Forschungsinstitut Oberwolfach
- Feb 2019 - Conference “Geometric Measure Theory and Free Boundary Problems”, speaker
- Dec 2019 - Prague-Leipzig meeting, speaker
- Jun 2018 - Conference “Geometric Measure Theory in Verona”, speaker
- Aug 2017 - Workshop: Partial Differential Equations, held at the Mathematisches Forschungsinstitut Oberwolfach
- Nov 2015 - Oberwolfach Seminar: Min-Max Constructions of Minimal Surfaces organised by C. De Lellis, F. Marques, A. Neves
- Sept 2015 - Oberwolfach Seminar: Singularity Analysis for Geometric Flows, organised by Simon Brendle, and Gerhard Huisken
- Aug 2015 - Workshop „Partial Differential Equations“ held at the Mathematisches Forschungsinstitut Oberwolfach
- March/April 2015 - GR Spring School 2015 held in Brandenburg, contributed an evening lecture
- June/July 2014 - Summer School on Geometric Measure Theory and Geometric Analysis held in Basel
- July 2012 - Workshop „Calculus of Variations“ held at the Mathematisches Forschungsinstitut Oberwolfach
- Feb 2012 and April 2012 research visits at the MPI MIS in Leipzig
- July 2011 - Summer Graduate Workshop „Geometric Measure Theory and Applications“ held at the MSRI in Berkeley
- July 2010 - Workshop „Calculus of Variations“ held at the Mathematisches Forschungsinstitut Oberwolfach
- July 2010 - RSME School Lluís Santaló “Geometric Analysis” held in Granada
- June 2010 - GNAMPA - ERC Summer School held in Ischia
- Jan. 2010 - Winter School in Analysis held at the Hausdorff Research Institute for Mathematics HIM in Bonn
- June 2009 - Summer School/ conference “Nonlinear PDE & Free Boundary Problems” held at the Warwick Mathematical Institute
- Jan 2009 - UK-Japan Winter School “Dynamics and Complexity” held at the University of Bath

Jonas Hirsch

Mathematisches Institut
Universität Leipzig
Augustusplatz 10
04109 Leipzig
jonas.hirsch@math.uni-leipzig.de

- Mar. 2008 - Sept. 2009 - "Natur- und Ingenieurwissenschaftliches Kolleg II der Studienstiftung" about Lie-Groups
- Oct. 2003 - July 2004 - passed Introduction to Computer Science I& II at the Universität Karlsruhe along with my secondary school degree
- Feb. 2002 - Internship at the Universität Karlsruhe at the Institut für thermische Strömungsmaschinen (two weeks)

Teaching Experience

Universität Leipzig

- April 2019 - Funktionentheorie 1, lecture
- April 2019 - Seminar on "Mathematical Theory of Compressible Flows", with Jan Burczak
- Oct. 2018 - February 2019 Mathematics 3 for physicist, lecture
- Oct. 2018 - February 2019 ODE's and dynamical systems, lecture
- April 2018 - July 2018 Lecture on "Weak convergent methods in non-linear PDE's"
- April 2018 - July 2018 Seminar on the Plateau's Problem following the approach by Douglas-Rado

SISSA

- Okt. 2017 - Jan. 2018 teaching assistant for Master Students
- Jan. 2017 - April 2018 joint supervision with G. De Philippis of the PhD student G. Vescovo

KIT, Arbeitsgruppe Angewandte Analysis

- April 2016 - July 2016 Assistant for "boundary and eigenvalue problems" held by I. Anapolitanos, Seminar on papers by L. Simon
- Okt. 2015 - Feb. 2016 Lecture on the book "Minimal Surfaces and Functions of Bounded Variations" by E. Giusti; Assistant for Analysis III in charge for organisation of the central exercise class, the exercise sheets and the coordination of the tutorials
- April 2014 - July 2015 Assistant for Analysis II in charge for organisation of the central exercise class, the exercise sheets and the coordination of the tutorials
- Oct. 2014 - Feb. 2015 Assistant for the Student Seminar on Ricci flow in charge for the organisation of the seminar and giving several presentations
- June 2014 - Assistant of Prof. T. Lamm at the Summer School in Basel
- Feb. 2013 - July 2013 Reading seminar on "Generic mean curvature flow I" giving several presentations on the paper by T.H. Colding and W.P. Minicozzi II
- Oct. 2012 - Feb. 2013 leading the reading Seminar on Minimal Surfaces
In charge giving a weekly presentation

University of Zürich, Institut für Mathematik

- Feb. 2012 - Jun. 2012 - Teaching Assistant
Geometric Measure Theory taught by Prof. Dr. Camillo De Lellis
In charge of the exercises and exercise sessions
- Sept. 2011 - Dec. 2011 - Teaching Assistant
Analysis 3 taught by Prof. Dr. Camillo De Lellis
In charge of the exercise sheets and providing solutions
Student Seminar on the book „the geometry of fractal sets“ by K.J. Falconer
- Sept. 2010 - Dec. 2010 - Teaching Assistant
Analysis 1 taught by Prof. Dr. Camillo De Lellis
In charge of a support class of fifteen first year students
- Feb. 2010 - Jun. 2010 - Teaching Assistant
Analysis 4 taught by Prof. Dr. Camillo De Lellis
In charge of a support class of fifteen second to fourth year students
- Sept. 2009 - Dec. 2009 - Teaching Assistant
Analysis 1 taught by Prof. Dr. Stefan Sauter
In charge of a support class of twenty first year students

University of Warwick, Mathematics Institute

- Jan. 2009 - March 2009 - Teaching Assistant
Partial Differential Equations taught by Prof. José Rodrigo
In charge of a support class of thirty second year students
- Sept. 2008 - Dec. 2008 - Teaching Assistant
Qualitative Theory of Ordinary Differential Equations taught by Prof. Colin Sparrow.
In charge of two support classes each with twenty third and fourth year students.

TU München, Mathematics Department

- Oct. 2006 - March 2007 - Analysis for Computer Scientists
In charge of marking assignments

Internship
and Civil
Service

- Aug. 2013 - October 2014 - Internship at Hirsch & Sohn
- 2012 - Internship at Heemken Ateliers (carpenter for four weeks)
- 2012 - Internship at Wagner (timberman for four weeks)
- Sept. 2004 - March 2005 - Civil Service at the Bezirksstelle für Naturschutz und Landschaftspflege
(District office for nature protection and landscape conservation)

Scholarships
and Awards

- Dec. 2008 - Best Study Award for the best performance in BSc dissertation and exams
- Oct. 2007 - Sept. 2009 Scholarship through the Max-Weber Program
- Jun. 2004 - School's physic prize

Social
engagement

- since 2014 - designing the announcements and advertisements for the adult education
Mittwochsforum
- 2013 - 2016 - regular Clown improvisations at the Kinder- und Jugendzirkus Maccaroni
- Sept. 2013 & Sept. 2014 - Participation in a Bergwald project week

Interests and
Activities

- Activities: swing dance, clown-improvisations, Surfing and Snowboarding, WuShu - training at the
European WuShu Academy 2000-2005, DLRG - lifeguard training
- Musical education: saxophone, former member of a big band at the musical school in Ettlingen,
played clarinet as a member of a classical trio for 7 years

References

- Professor Dr. Camillo De Lellis
School of Mathematics Institute for Advanced Study
1, Einstein Drive Princeton, New Jersey, 08540 USA
+1 609 734 8042, camillo.delellis@math.ias.edu
- Professor Dr. Guido De Philippis
Scuola Internazionale Superiore di Studi Avanzati
via Bonomea 265, 34136 Trieste Italy
+39 (0)40 3787 463, guido.dephilippis@sissa.it
- Professor Dr. Tobias Lamm
KIT, Fakultät für Mathematik, Arbeitsgruppe Angewandte Analysis
Englerstraße 2, D-76131 Karlsruhe
+49 (0)721 608 41696, tobias.lamm@kit.edu

Leipzig, 03.08.2019

