Research	Geometric Analysis, Minimal Surfaces, Partial Differential Equations		
Employment	University of Pennsylvania, Department of Mathematics		
	Hans Rademacher Instructor of Mathematics2017-Present		
Education	Brown University, Department of Mathematics		
	Ph.D. May 2017 Advisor: Nikolaos Kapouleas		
	Lafayette College		
	B.S. in Mathematics, Summa Cum Laude, May 2011		
PREPRINTS AND PUBLICATIONS	1. Symmetry and isoperimetry for riemannian surfaces, (with J. Hoisington).		
	2. Generalizing the linearized doubling approach and new minimal surfaces and self- shrinkers via doubling, (with N. Kapouleas).		
	3. An isoperimetric deficit formula, J. Geom. Anal. (2020)		
	 Minimal surfaces in the round three-sphere by doubling the equatorial two-sphere II, (with N. Kapouleas). Comm. Pure Appl. Math. 72 (2019), 2121-2195 		
	 Area bounds for free boundary minimal surfaces in a geodesic ball in the sphere, (with B. Freidin). J. Funct. Anal. 277 No. 11 (2019), 108276 		
	6. Sharp area bounds for free boundary minimal surfaces in conformally euclidean balls, (with B. Freidin). International Mathematics Research Notices		
	 Rotational symmetry of asymptotically conical mean curvature flow self-expanders (with F. Fong). Comm. Anal. Geom. 27 No. 3 (2019), 599-618 		
	 A characterization of the critical catenoid Indiana Univ. Math. J. 67 No. 2 (2018), 889-897. 		
	 Free boundary minimal surfaces in the unit ball with low cohomogeneity (with B. Freidin, M. Gulian). Proc. Amer. Math. Soc. 145 (2017), 1671-1683 		
Other	1. A note regarding Hopf's umlaufsatz, Am. Math. Mon. 125, No. 6 541-544 (2018)		
Publications	 Newton's shell theorem via Archimedes's hat box and single-variable calculus, College Math. J. 49 (2018), no. 2, 109-113. 2019 George Pólya award Winner 		
	3. On the smooth Jordan Brouwer separation theorem, Am. Math. Mon. 123, No. 3 292-295 (2016).		
	4. An extremely short proof of the hairy ball theorem, Am. Math. Mon. 123, No. 5 502-503 (2016).		
	5. Another proof of Clairaut's theorem, Am. Math. Mon. 121, No. 2, 165-166 (2014).		
	6. The Poincaré-Hopf index theorem and the fundamental theorem of algebra, The Princeton Undergraduate Mathematics Journal, Summer 2016, pp. 34-38.		
	 Trigonometric derivatives made easy, The College Mathematics Journal, vol. 47, no. 5, 2016, pp. 365-366. In Hebrew: Aléh - Bulletin for the Mathematics Teacher (Israel), 55, pp. 60-61. 		

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	8. An alternative approach to the product rule, Am. Math (2016).	. Mon. 123, No. 5 470	
	9. Problem 361 (with Brian Freidin) Math Horizons Vol. 25	5, Issue 1 pp. 28. (2017)	
	10. Problem 1889 (with Gary Gordon) Mathematics Magazi	ne, 85, 61-68 (2012).	
	11. Problem 11593, Am. Math. Mon. 118, No. 8 747-754 (2	011).	
Service	• Contributor, Mathematical Reviews (Mathscinet)		
	• Referee: Journal of Differential Geometry, Math. Nachriematical Monthly.	ichten, American Math-	
	• Organizer: graduate student geometry-topology seminar	. 2018-Present.	
	• Committee assignments: Advanced Placement exam, Pro	eliminary exam	
Teaching	• Math 420 (Differential Equations)	Fall 2019	
	• Math 114E (Multivariable Calculus)	Fall 2019	
	• Math 240 (Linear Algebra + ODE)	Spring 2019, Fall 2018	
	• Math 661 (Topics in Differential Geometry)	Spring 2019	
	• Math 241 (Calculus IV)	Spring 2018, Fall 2017	
	• Math 360 (Advanced Calculus)	Spring 2018	
Honors and	• AMS-Simons Travel Grant (\$4,000)	2017-2019	
Awards	• George Pólya Award (Mathematical Association of America, \$1,000) 2019		
	• Brown Graduate International Colloquium Fund (\$10,00	0) 2015-2016	
	– Organizer: "Connections in Geometric Analysis and	d PDE"	
	 Speakers: Simon Brendle, William Minicozzi, Robe tiol, Roice Nelson, Galina Perelman, Mohsen Zayer 	ert Kusner, Renato Bet- nouri	
	• Wesley Mitman Prize (Lafayette College)	2011	
	- Awarded to the senior most outstanding in Mathem	natics.	
	• James P. Crawford Prize in Mathematics (Lafayette Col	lege) 2011	
	 Awarded to a student who has made a special con matics community. 	tribution to the mathe-	
Academic Activities			
	Invited Talks:		
	• Differential Geometry Seminar, University of Muenster	June 22, 2020	
	• Texas Geometry and Topology Conference	April 25, 2020	
	• Geometric Analysis Seminar, University of Chicago	February 25, 2020	
	• North Carolina State University Colloquium	January 13, 2020	
	• Rutgers Geometric Analysis Seminar	November 12, 2019	
	• CUNY Geometric Analysis Seminar	October 10, 2019	

- Syracuse Geometry Seminar September 27, 2019
- PIMS Geometry Workshop May 18, 2019

• Lafayette-Lehigh Geometry-Topology Seminar,	March 30, 2019
• Geometry Topology Seminar, University of Pennsylvania	Jan. 31, 2019
• Geometry Seminar, Dartmouth College	October 9, 2018
• Geometric Analysis Seminar, University of Tennessee	September 20, 2018
• Analysis and PDE Seminar, Johns Hopkins University	March 12, 2018
• Geometric Analysis Seminar, Princeton University	Dec. 13, 2017
• Minimal Surfaces Seminar, University of Pennsylvania	Oct. 17, 2017
• Geometry Topology Seminar, University of Pennsylvania	Sept. 7, 2017
• Colloquium, Lafayette College	April 5, 2017
• Geometric Analysis Seminar, University of Chicago	Nov. 15, 2016
• Geometry and PDE Seminar, University of Connecticut	Nov. 7, 2016
• Geometric Analysis Seminar, Brown University	Oct. 10, 2016
• Differential Geometry Seminar, Fordham University	Oct. 5, 2016
• Graduate Student Seminar, Brown University	Sept. 21, 2016
• Differential Geometry Seminar, UC San Diego	Mar. 1, 2016
• Differential Geometry Seminar, UC Irvine	Jan. 19, 2016
• Geometric Aspects of Capillary Problems Conference, Gran	ada Dec. 14, 2015
• AMS special session on Geometric Analysis, Rutgers Univer	rsity Nov. 15 2015
• Graduate Student Geometry Seminar, Brown University	Sep. 16, 2015
• AMS Graduate Student Math Conference, Brown University	y Feb. 21, 2015
• Informal PDE Seminar, Brown University	Sep. 26, 2014

Conferences and Schools Attended:

• Southern California Geometric Analysis Seminar	Jan. 30-31, 2016
• School and workshop on Geometric Analysis at KIAS	Dec. 7-11, 2015
Rutgers-CUNY Symposium on Geometric Analysis	Mar. 27-29, 2015
• Southern California Geometric Analysis Seminar	Feb. 7-8, 2015
• Hyperbolic Geometry and Minimal Surfaces (IMPA)	Jan. 4-10, 2015
• Workshop on Uniqueness in Analysis and Geometry, MIT	Dec. 10-11, 2014
• AMS Graduate Student Math Conference, Brown Universit	y Mar. 1, 2014
• Distinguished lecture series, University of Connecticut	Oct. 2-4, 2013
• MSRI graduate summer school, Cortona, Italy J	ful. 29-Aug. 09, 2013
- Teaching assistant for a school on Mathematical Gener	ral Relativity.

• PCMI graduate summer school on Geometric Analysis Jun. 30-Jul. 20, 2013