

SILVIA GHINASSI

Curriculum Vitae et Studiorum

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Education

- Aug 2013 - May 2019 **Stony Brook University**, Stony Brook, NY. PhD in Mathematics. Advisor: Raanan Schul. Dissertation title: “Higher order rectifiability via Reifenberg theorems for sets and measures”.
- Oct 2011 - Jul 2013 **Sapienza - Università di Roma**, Rome, Italy. Master’s degree in Mathematics, 110/110 cum laude. Thesis advisor: Corrado De Concini. Thesis title: “Korteweg-de Vries type equations and Lie algebras”.
- Oct 2008 - Jul 2011 **Sapienza - Università di Roma**, Rome, Italy. Bachelor’s degree in Mathematics. 110/110 cum laude. Thesis advisor: Adriano Pisante. Thesis title: “Brouwer and Schauder Theorems and applications”.

Academic Appointments

- September 2020 - present **University of Washington**, Seattle, WA. Postdoctoral Scholar in the Mathematics Department
- September 2020 - present **Institute for Advanced Study**, Princeton, NJ. Visitor in the School of Mathematics
- Sept 2019 - August 2020 **Institute for Advanced Study**, Princeton, NJ. Postdoctoral member of the School of Mathematics

Research and publications

My research interests lie in **Geometric Measure Theory** and **Harmonic Analysis**.

- 2020 *Menger curvatures and $C^{1,\alpha}$ rectifiability of measures*, joint with Max Goering, *Archiv der Mathematik*, 114(4), 2020, 419-429, [10.1007/s00013-019-01414-6](https://doi.org/10.1007/s00013-019-01414-6)
- 2020 *Sufficient conditions for $C^{1,\alpha}$ parametrization and rectifiability*, *Annales Academiae Scientiarum Fennicae Mathematica*, Volumen 45, 2020, 1065-1094, [10.5186/aasfm.2020.4557](https://doi.org/10.5186/aasfm.2020.4557)

Seminar Talks

- June 2020 Princeton University **Differential Geometry and Geometric Analysis Seminar** (Zoom talk), Princeton, NJ
- March 2020 IAS **Analysis Seminar**, Princeton, NJ
- November 2019 CUNY **Harmonic Analysis and PDE Seminar**, New York, NY

- October 2019 UCLA **Analysis and PDE seminar**, Los Angeles, CA
- October 2019 Stanford University **Geometry seminar**, Stanford, CA
- June 2019 Università di Pisa **Calculus of Variations seminar**, Pisa, Italy
- March 2019 Worcester Polytechnic Institute **Analysis/PDE seminar**, Worcester, MA
- December 2018 University of Fribourg/University of Bern **Geometric Analysis seminar**, Fribourg, Switzerland
- November 2018 MIT **PDE/Analysis seminar**, Boston, MA
- October 2018 NYU **Geometry and Geometric Analysis working seminar**, New York, NY
- October 2018 University of Washington **Rainwater seminar**, Seattle, WA
- September 2018 Brown University **Analysis seminar**, Providence, RI
- September 2018 University of Minnesota **Analysis and PDE Working Seminar**, Minneapolis, MN
- May 2018 IMPAN **Geometric function and mapping theory seminar**, Warsaw, Poland
- April 2018 University of Connecticut **Analysis seminar**, Storrs, CT
- March 2018 Stony Brook **Analysis seminar**, Stony Brook, NY

Conference talks

- March 2020 “Analysis, Dynamics, Geometry, and Probability”, Chris Bishop’s **birthday conference**, Simons Center for Geometry and Physics, Stony Brook, NY
- July 2019 **School** "Geometric Analysis on Riemannian and Singular Metric Measure Spaces", Lake Como School of Advanced Studies, Como, Italy
- April 2019 Special Session on Regularity Theory of PDEs and Calculus of Variations on Domains with Rough Boundaries, **AMS Sectional Meeting**, University of Connecticut, Hartford, CT
- March 2019 Contributed talk at **Conference** “Geometric and Harmonic Analysis 2019”, University of Connecticut, Storrs, CT
- March 2019 Special Session on Topics at the Interface of Analysis and Geometry, **AMS Sectional Meeting**, University of Hawaii at Manoa, Honolulu, HI
- September 2018 Special Session on Modern Quasiconformal Analysis and Geometric Function Theory, **AMS Sectional Meeting**, University of Delaware, Newark, DE
- June 2018 Contributed talk at **Conference** “Geometric measure theory and its connections”, Helsinki, Finland
- April 2018 Special Session on Regularity of PDEs on Rough Domains, **AMS Sectional Meeting**, Northeastern University, Boston, MA
- April 2018 Special Session on Analysis and Geometry in Non-smooth Spaces, **AMS Sectional Meeting**, Northeastern University, Boston, MA

Outreach

- May 2020 Friends Lunch with a Member (Zoom talk), Institute for Advanced Study, Princeton, NJ
- February 2020 Afterhours Conversations, Institute for Advanced Study, Princeton, NJ

- November 2019 Mathematics Continued Conference, University of Connecticut, Storrs, CT
November 2019 Undergraduate Women and Math Speaker Series, Princeton University, Princeton, NJ
March 2018 Panelist at the Long Island Women Diversity Summit, SUNY Old Westbury, NY

Awards and honors

- June 2018 John W. Milnor Endowed Graduate Fund **Travel Award**
September 2014 Award for top female graduates in 2013 at Sapienza University of Rome
May 2014 Chairman's Award for **Excellence in Teaching** by a First or Second Year Graduate Student

Languages

English (fluent), **Italian** (native), **Spanish** (competent), **French** (basic).

Teaching Experience

- Spring 2019 **Grader** for MAT 533 - Real Analysis II (Graduate class for PhD students)
Spring 2019 **Grader** for MAT 512 - Algebra for Teachers (Graduate class for Master in Teaching)
Fall 2018 **TA** for MAT 598 - Teaching Practicum (Graduate class for PhD students about teaching)
Spring 2018 **TA** for MAT 125 - Calculus A
Fall 2017 **TA** for MAT 122 - Overview of calculus, with applications
Spring 2017 **Grader** for MAT 211 - Introduction to Linear Algebra (two sections)
Fall 2016 **Grader** for MAT 532 - Real Analysis I (Graduate class for PhD students)
Spring 2016 **TA** for MAT125 - Calculus A
Fall 2015 **TA** for MAT 320 - Introduction to Analysis (Advanced undergraduate class)
Spring 2015 **Grader** for MAT 550 - Real Analysis II (graduate class for PhD students)
Fall 2014 **TA** for MAT 125 - Calculus A (two sections)
Spring 2014 **TA** for MAT 126 - Calculus B (two sections)
Fall 2013 **Grader** for MAT 511 - Fundamental Concepts of Mathematics (Graduate class for Master in Teaching)
Fall 2013 **Grader** for MAT 515 - Geometry for Teachers (Graduate class for Master in Teaching)

Community and Extra-Curricular Activities

- Fall 2020 Member of the AMS Current Events Bulletin committee
Fall 2019-present **Organizer** of the Mathematical Conversations and MC@Home at IAS
Spring 2020 Co-organizer of Analysis Seminar at IAS
Spring 2019 **Mentor** in the DRP (Directed Reading Program) in Math at Stony Brook University
October 2016-May 2019 **Founder and organizer** of the Analysis Student Seminar at Stony Brook

- 2017-2018 **Teacher** for “Math in Jeans” high school program, Stony Brook
- 2016-2019 **Teacher** for Della Pietra High School Applied Math Program, Stony Brook
- October 2016-October 2018 **Founder and Treasurer/Secretary** of the AMS Student Chapter at Stony Brook
- July 2016, July 2017 **Teacher** for the Summer Math Camp for high school students, Stony Brook
- Aug 2015-Aug 2017 Graduate Student **Representative** for the Stony Brook Math Department
- Spring 2015 **Instructor** for WISE (Women in Science and Engineering) Program at Stony Brook
- 2014-2015 **Co-organizer** of the Graduate Students Seminar, Stony Brook Math Department, Stony Brook
- Oct 2013- Jan 2016 GSO (Graduate Student Organization) **representative** for the math department, Stony Brook
- 2010-2013 Student **representative** (bachelor and master), Rome, Italy