

Lorenzo Sarnataro

Curriculum Vitæ

Personal information

ADDRESS Department of Mathematics
Princeton University
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Education

- 2017 – 2018 AND **Ph.D in Mathematics**, *Princeton University*, USA.
2020 – 2024 *Advisor*: Prof. Fernando Codá Marques.
2013 – 2017 **Master of Mathematics (MMath)**, *University of Oxford*, UK.
Distinction in Prelims (first year exams)
First class Honours in Part A and Part B (second and third year exams)
First class Honours in Part C (fourth year exams)

Publications and Preprints

- 2023 *Allen-Cahn construction of free boundary minimal hypersurfaces* (with Martin Li and Davide Parise), in preparation
2023 *Boundary behavior of limit-interfaces for the Allen-Cahn equation on Riemannian manifolds with Neumann boundary condition* (with Martin Li and Davide Parise), arXiv:2312.07210
2023 *Existence of closed embedded curves of constant curvature via min-max* (with Douglas Stryker), arXiv:2306.04840
2023 *Optimal regularity for minimizers of the prescribed mean curvature functional over isotopies* (with Douglas Stryker), arXiv:2304.02722

Scholarships and Awards

- 2021-PRESENT *Bradford H. Arnold *42 and Mary Ellen Arnold Fellowship* (Princeton University)
2016 *Junior Mathematical Prize* (Mathematical Institute, University of Oxford) for combined performance in Part A and Part B
2014 - 2017 *Worcester College's Scholarship* for Distinction in Prelims, Part A and Part B
2014 *Fondazione M. Gaia Scholarship* for outstanding academic performance, worth €10,000 over five years

Teaching

Princeton University:

- FALL 2023 *Teaching assistant for MAT 300: Multivariable Analysis I*
SPRING 2023 *Precept instructor for MAT 175: Mathematics for Economics and Life Sciences*
FALL 2022 *Precept instructor for MAT 175: Mathematics for Economics and Life Sciences*
SPRING 2022 *Precept instructor for MAT 201: Multivariable Calculus*
FALL 2021 *Precept instructor for MAT 201: Multivariable Calculus*
SPRING 2021 *Teaching assistant for MAT 201: Multivariable Calculus*
FALL 2020 *Teaching assistant for MAT 300: Multivariable Analysis I*

Invited Talks

- SPRING 2024 *Geometry Seminar at University of Pennsylvania (TBC)*
- SPRING 2024 *Geometric Analysis Seminar at UTK (TBC)*
- MARCH 2024 *Geometric Analysis Seminar at CUNY*
- JANUARY 2024 *Geometry Seminar at University of Copenhagen*
- DECEMBER 2023 *Analysis Seminar at ETH*
- DECEMBER 2023 *Differential Geometry Seminar at UCSD*
- DECEMBER 2023 *Geometry and Topology Seminar at Caltech*
- NOVEMBER 2023 *Geometric Analysis Seminar at University of Chicago*
- NOVEMBER 2023 *Geometric Analysis Seminar at MIT*
- NOVEMBER 2023 *Recent advances in geometric analysis at CIRM*
- OCTOBER 2023 *Geometric Analysis Seminar at Rutgers University*
- OCTOBER 2023 *Geometry Seminar at Rice University*
- SEPTEMBER 2023 *Analysis and Geometric Analysis Seminar at Cornell University*
- APRIL 2023 *Graduate Student Seminar at Princeton University*

Participation to Workshops and Summer Schools

- JUNE 2023 *Regularity Theory for Free Boundary and Geometric Variational Problems III (Levico Terme, Italy)*
- MAY 2023 *Geometric Analysis Conference (Rutgers University, USA)*
- MARCH 2023 *The 28th Southern California Geometric Analysis Seminar (University of California Irvine, USA)*
- OCTOBER 2022 *Yamabe Memorial Symposium (University of Minnesota, USA)*
- MAY 2022 *Geometric Analysis Conference (Rutgers University, USA)*
- MARCH 2022 *Recent Developments in Geometric Measure Theory and its Applications (Rice University, USA)*
- JULY 2018 *CIME Summer School on Geometric Analysis (Cetraro, Italy)*
- JUNE 2018 *International School on Extrinsic Curvature Flows (ICTP Trieste, Italy)*
- NOVEMBER 2017 *Geometric Analysis Conference (Rutgers University, USA)*
- JULY 2016 *LMS Undergraduate Summer School - selective summer school aimed at introducing modern mathematics to the best 50 UK undergraduates who are not in their final year of study*