

Lorenzo Sarnataro

Curriculum Vitæ

Personal information

ADDRESS Department of Mathematics
Princeton University
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Education

- 2017 – 2018 AND 2020 – 2024 **Ph.D in Mathematics**, Princeton University, USA.
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 Davide Parise), in preparation
- 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

- FALL 2023 *Geometry and Topology Seminar at Caltech*
FALL 2023 *Geometric Analysis Seminar at UCSD*
FALL 2023 *Geometric Analysis Seminar at Rutgers University*
FALL 2023 *Geometry Seminar at Rice University*
MARCH 2023 *Graduate Student Seminar at Princeton University*

Participation to Workshops, Schools and Courses

- 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