

Matteo Talluri

PHD STUDENT · MATHEMATICS

Alma Mater Studiorum Università di Bologna, Piazza di Porta San Donato 5, 40126 Bologna, Italy

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Education

Alma Mater Studiorum Università di Bologna

PHD STUDENT IN MATHEMATICS

- Advisor: Professor Eleonora Cinti.
- Expected defense date: December 2026.

Bologna

1/11/2023 – present

University of Pisa

MASTER'S DEGREE IN MATHEMATICS

- Advisors: Professor Donatella Danielli (Arizona State University) and Professor Marco Ghimenti (University of Pisa).
- Title of the Thesis: The obstacle problem for higher order fractional Laplacian.
- Final Grade: 110/110 cum laude.

Pisa

18/12/2020 – 22/09/2023

University of Pisa

BACHELOR'S DEGREE IN MATHEMATICS

- Advisor: Professor Giovanni Alberti (University of Pisa).
- Title of the Thesis: Complex Minimal Surfaces.
- Final Grade: 108/110.

Pisa

15/09/2017 – 18/12/2020

Publications & Preprints

1. E. Cinti, **M. Talluri**, and T. Weth, Existence and non-existence results for a fractional Lane-Emden equation with nonlocal Neumann conditions, preprint: <https://arxiv.org/pdf/2608.11842>.
2. C. Gambicchia, E. M. Merlino, B. Ruffini, and **M. Talluri**, Barycentric stability of nonlocal perimeters: the convex case, accepted for publication in the Journal of Convex Analysis, preprint: <https://arxiv.org/pdf/2506.03776>.
3. F. Bozzola, and **M. Talluri**, Maz'ya-type bounds for sharp constants in fractional Poincaré-Sobolev inequalities. Calc. Var, **65**, 87 (2026), 45 pp.
4. E. Cinti, and **M. Talluri**, On a fractional semilinear Neumann problem arising in Chemotaxis, Journal of Differential Equations, **452** (2026), Paper No. 113779, 32 pp.
5. **M. Talluri**, A multiplicity result for a double perturbed Schrödinger-Bopp-Podolsky-Proca system, J. Math. Anal. Appl. **540** (2024), no. 2, Paper No. 128648, 13 pp.

Awards, Fellowships, & Grants

- 2026 **Conference Organization Grant**, INdAM-GNAMPA.
- 2024 **Travel Grant**, INdAM-GNAMPA.
- 2024 **Marco Polo Scholarship**, Alma Mater Studiorum Università di Bologna, a scholarship to fund a three-month visiting period at the Goethe University in Frankfurt.
- 2023 **University of Pisa-ISSNAF scholarship**, University of Pisa and ISSNAF, a scholarship to fund a three-month visiting period at the Arizona State University.

Research Projects

- 2026 **Problemi di ottimizzazione di forma in contesti anisotropi e non-locali**, INdAM–GNAMPA, grant number E53C25002010001, (Member).
- 2025 **Ottimizzazione Spettrale, Geometrica e Funzionale**, INdAM–GNAMPA, grant number E5324001950001, (Member).
- 2025 **NO³–Nodal Optimization, NOnlinear elliptic equations, NOnlocal geometric problems, with a focus on regularity**, PRIN 2022 R537CS, grant number J53D23003850006, (Member).

Presentations and Posters

- 09/2026. Third Ph.D. symposium of the University of Bologna, poster presentation (University of Bologna).
- 09/2026. Young Researchers Meeting on PDEs III, invited speaker (University of Milano–Bicocca).
- 07/2026. New trends in elliptic PDEs, poster presentation, (Będlewo).
- 06/2026. Calculus of Variations in Modena, invited speaker (University of Modena & Reggio Emilia).
- 02/2026. XXXV Convegno Nazionale di Calcolo delle Variazioni, poster presentation (Riccione).
- 02/2026. GeoVar Winter School on PDEs, poster presentation (INdAM center, Rome).
- 01/2026. Regularity and geometric aspects of nonlinear PDEs II, invited speaker (University of Pisa).
- 09/2025. Second Ph.D. symposium of the University of Bologna, poster presentation (University of Bologna).
- 09/2025. Young Researchers Meeting on PDEs II, contributed talk (University of Milano–Bicocca).
- 10/2024. First Ph.D. symposium of the University of Bologna, poster presentation (University of Bologna).

Seminar

- 09/07/2026. *On a fractional Lin–Ni–Takagi type problem with Neumann boundary conditions*. Seminari di Analisi Matematica Bruno Pini, University of Bologna.
- 13/11/2025. *On a fractional Lin–Ni–Takagi type problem with Neumann boundary conditions*. Analysis Seminars, University of Pisa.
- 30/09/2025. *A Nonlocal Semilinear Neumann Problem and Applications to a Chemotaxis System*. ASK Seminars, University of Bologna.
- 12/12/2024. *A Nonlocal Semilinear Neumann Problem and Applications to a Chemotaxis System*. Oberseminar Funktional-analysis und partielle Differentialgleichungen, Goethe–Universität, Frankfurt.

Conference Organization

- 09/2026. ASK 2026, A conference in Geometric Analysis and PDEs, (Bologna).
- 12/2026. ASK Conference 2024, Interaction between different areas of Mathematical Analysis and Probability, (Bologna).

Teaching Experiences

2026	Teaching Assistant for the course “Mathematical Analysis 3”, 30 hours , Alma Mater Studiorum Università di Bologna, Bachelor’s degree in Mathematics.
2026	Teaching Assistant for the course “Mathematical Analysis 2B”, 30 hours , Alma Mater Studiorum Università di Bologna, Bachelor’s degree in Mathematics.
2025	Teaching Assistant for the course “Mathematical Analysis 3”, 30 hours , Alma Mater Studiorum Università di Bologna, Bachelor’s degree in Mathematics.
2025	Teaching Assistant for the course “Mathematical Analysis T2”, 30 hours , Alma Mater Studiorum Università di Bologna, Bachelor’s degree in Engineering Management.
2025	Teaching Assistant for the course “Mathematical Analysis 1B”, 30 hours , Alma Mater Studiorum Università di Bologna, Bachelor’s degree in Mathematics.
2024	Teaching Assistant for the course “Mathematical Analysis T2”, 30 hours , Alma Mater Studiorum Università di Bologna, Bachelor’s degree in Automation Engineering.
2022	Teaching Assistant for the course “Mathematics 0”, 40 hours , University of Pisa, Bachelor’s degree in Engineering.
2021 – 2022	Teaching Assistant for the course “Analysis 1”, 30 hours , University of Pisa, Bachelor’s degree in Physics.
2020 – 2021	Teaching Assistant for the course “Analysis 1”, 50 hours , University of Pisa, Bachelor’s degree in Energy Engineering.

Visiting

Goethe University,

VISITING PHD STUDENT

- Supervisor: Professor Tobias Weth.

Frankfurt

13/09/2024 – 15/12/2024

Arizona State University,

VISITING MASTER’S STUDENT

- Supervisor: Professor Donatella Danielli.

Phoenix

20/03/2023 – 11/06/2023

School Attended

06/2025	School in Geometric Measure Theory and related topics. , De Giorgi’s Center.	Pisa
08/2023	HPRT Hokkaido–Pisa–Roma Tor Vergata–Torino Summer School , University of Turin.	Turin
11/2022	Second Edition of the School ”Machine Learning of Dynamic Processes and Time Series Analysis” , Scuola Normale Superiore.	Pisa

Other Activities

02/2026	Math Ph.D. OPEN DAY , A seminar on Nonlocal variational problems for prospective Ph.D. students.
12/2025	Guest Lecturer , A two–hour workshop on Recurrence Sequences for high school students.
02/2023	Math Week Tutor , University of Pisa, Department of Mathematics.
2021–2023	Student Representative , University of Pisa, Department of Mathematics.

Language and Skills

- Italian: Native. English: C1.
- Programming: Python, C, R, MatLab.