CURRICULUM VITAE
MICHELE MARINI

Personal Data

Date and place of birth May 27th 1985, Firenze
Nationality Italian
Address via F. Gianni 5, 50134 Firenze, Italy
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Current Position

Researcher (RTT) at DING–Dipartimento di Ingegneria - Università degli Studi del Sannio, Benevento. January 2026–Today.

Appointments

PostDoc at DING–Dipartimento di Ingegneria - Università degli Studi del Sannio, Benevento. January 2025–December 2025.

Researcher (RTD-a) at DING–Dipartimento di Ingegneria - Università degli Studi del Sannio, Benevento. January 2022–December 2024.

PostDoc at SISSA – Scuola Internazionale Superiore di Studi Avanzati. January 2019–January 2020.

PostDoc at SISSA – Scuola Internazionale Superiore di Studi Avanzati. November 2016–December 2018.

PostDoc at Università di Firenze. December 2015–November 2016.

PostDoc at Università di Pisa. May 2015–September 2015.

PhD student at Scuola Normale Superiore di Pisa

Education

April 2016 Ph.D. at Scuola Normale Superiore di Pisa.
ADVISOR Prof. Rolando Magnanini

April 2011 Master degree, magna cum laude, at Università di Firenze.
ADVISOR Prof. Rolando Magnanini

April 2008 Bachelor degree, at Università di Firenze.
ADVISOR Daniele Mundici

Research

My research interests are in the field of convex geometry, geometric measure theory, linear and nonlinear PDE's and shape optimization problems.

Publications and preprints

Publications

1. R. MAGNANINI, M. MARINI: *Characterization of ellipses as uniformly dense sets with respect to a family of convex bodies* , Ann. Mat. Pura Appl., **193** (2014), 1383–1395.

2. R. MAGNANINI, M. MARINI: *Characterization of ellipsoids as K-dense sets* , Proc. Roy. Edin. Soc. A, **146** (2016), 213–223.

3. G. DE PHILIPPIS, M.MARINI: *A note on Petty's Theorem*, Kodai Math. J., **37** (2014), 586–594.

4. M. MARINI, B. RUFFINI: *On a class of weighted Gauss-type isoperimetric inequalities and applications to symmetrization*, Rend. Sem. Mat. Univ. Padova, **133** (2014), 197–214.

5. R. MAGNANINI, M. MARINI: *The Matzoh Ball Soup Problem: a complete characterization*, Nonlinear Anal.-Theor., **131** (2016), 170-181.

6. G. BUTTAZZO, S. GUARINO LO BIANCO, M. MARINI: *Sharp estimates for the anisotropic torsional rigidity and the principal frequency* J. Math. Anal. Appl., **457** (2), (2018), 1153–1172.

7. J. HIRSCH, M. MARINI: *L*ower bound for the perimeter density at singular points of a minimizing cluster in $\mathbb{R}^N$, ESAIM Control Optim. Calc. Var., **26** (1), (2020).

8. G. DE PHILIPPIS, M.MARINI, E. MUKOSEEVA: *The sharp quantitative isocapacitary inequality*, Revista Matematica Iberoamericana **37** (6), (2021).

9. G. DE PHILIPPIS, M. MARINI, M. MAZZUCCHELLI, S. SUHR: *Closed geodesics on reversible Finsler 2-spheres*, Journal of Fixed Point Theory and Applications, **24** (19), (2022).

Preprints

1. J. HIRSCH, M. MARINI: *Uniqueness of tangent cones to boundary points of two-dimensional almost-minimizing currents*, submitted paper, arXiv:1909.13383.

2. D. BERTI, R. MAGNANINI, M. MARINI: *Short-time behavior and invariant surfaces for caloric functions with non-constant boundary values*, submitted paper, arXiv:2607.18784.

3. R. MAGNANINI, M. MARINI:*The Location of some extremal points on Riemannian manifolds*, in preparation.

Talks on international conferences

Characterization of ellipsoids as K-dense sets, 3rd Italian-Japanese workshop on geometric properties for parabolic and elliptic PDE's, Tokyo Institute of Technology, Tokyo, Japan, September 2013.

Characterization of ellipsoids as K-dense sets, Conference on Convex Geometry, CIEM, Castro Urdiales, Spain, September 2013.

Characterization of ellipsoids as K-dense sets, Joint Research Program on Nonlinear PDE's Università di Firenze and Tohoku University, DIMAI – Dipartimento di Matematica e Informatica "U. Dini", Università di Firenze, April 2014.

Sharp estimates for the anisotropic torsional rigidity and the anisotropic principal frequency of a convex domain, Geometric aspects of PDE's and functional inequalities, Cortona, April 2016.

Sharp estimates for the anisotropic torsional rigidity and the anisotropic principal frequency of a convex domain, 9th European Conference on Elliptic and Parabolic Problems, Gaeta, May 2016.

Stationary isothermic surfaces of the solutions of the anisotropic diffusion equation, Geometric and analytic inequalities, Banff, July 2016.

Existence of optimal domains for the eigenvalues of the Dirichlet Laplacian under anisotropic perimeter constraint, Geometric aspects of PDEs, Florence, October 2017.

Lower bound for the perimeter density at singular points of a minimizing cluster, Joint Firenze-Tohoku Research Workshop on Nonlinear PDEs, DIMAI, Firenze, October 2018.

The sharp quantitative isocapacitary inequality, 12th ISAAC Congress, University of Aveiro, August 2019.

The sharp quantitative isocapacitary inequality, NonPUB24, Nonlocal and nonlinear Partial Differential Equations University of Bologna, June 2024.

Short-time behavior of solutions to parabolic equations with non-constant boundary values, Nonlinear PDEs: Variational Methods, Regularity and Control, Salerno, September 2026.

Other public lectures

La concettualizzazione del perimetro e il problema isoperimetrico, part of the training course *La Matematica e i suoi Modelli* delivered by the Fondazione Lincei per la Scuola, Benevento, May 2025.

Matematica e intelligenza artificiale, part of the training course *Matematica, intelligenza artificiale e applicazioni*, delivered by the Fondazione Lincei per la Scuola, Benevento, March 2026.

Research periods abroad

Université de Montpellier, Montpellier, France. June 2016. Invited by Prof. Berardo Ruffini.

HIM - Hausdorff Research Institute for Mathematics, Bonn, Germany. Participant at the trimester program "Evolution of Interfaces". February 10, 2019–February 22, 2019.

Other experiences abroad

Participant at the "3rd Modelling Week" at the Faculty of Mathematics of Universidad Complutense de Madrid (UCM), Spain. June 2009.

Seminar/events organized

(co)-organizer of the "Seminario Verticale" at DIMAI, Firenze. December 2015–May 2016.

Member of the organizing committee of the international conference "MURPHYS 2024". June 18th–June 21st 2024, Benevento.

Education Project Officer for the training course *L?evoluzione del pensiero scientifico: un percorso interdisciplinare* delivered by the Fondazione Lincei per la Scuola, Benevento 2026–2027.

Institutional assignments

Member of the commission "commissione pratiche studenti", at DING - Dipartimento di Ingegneria - Università degli Studi del Sannio. CdS Ingegneria Elettronica per l'Automazione e le Telecomunicazioni. February 2022 – December 2024, and January 2026–today.

Member of the commission "commissione qualità", at DING - Dipartimento di Ingegneria - Università degli Studi del Sannio. CdS Ingegneria Elettronica per l'Automazione e le Telecomunicazioni. February 2022 – December 2024, and January 2026–today..

Member of the commission "gruppo di riesame", at DING - Dipartimento di Ingegneria - Università degli Studi del Sannio. CdS Ingegneria Elettronica per l'Automazione e le Telecomunicazioni. February 2022 – December 2024, and January 2026–today.

Teaching experiences

Tutorship for the course (given by Prof. F. Ricci) *Complementi di Matematica*, Scuola Normale Superiore, Pisa, November 2012 - June 2013.

Tutorship for the course (given by Prof. L. Ambrosio) *Complementi di Matematica*, Scuola Normale Superiore, Pisa, November 2013 - June 2014.

Teacher of the course *Elementi di Matematica e Statistica* (9CFU), Università degli studi di Firenze, October 2014 - April 2015.

Assistant for the course *Analisi Avanzata*, SISSA, November 2016–June 2017.

Assistant for the course *Analisi Avanzata*, SISSA, November 2017–June 2018.

Series of lectures for the course *Elementi di analisi avanzata*, SISSA, April 2019–May 2019.

Tutorship and exercises for the course *Matematica* (60h), DING - Dipartimento di Ingegneria - Università degli Studi del Sannio, Benevento. January 2022–February 2022.

Tutorship and exercises for the course *Matematica* (40h), DING - Dipartimento di Ingegneria - Università degli Studi del Sannio, Benevento. March 2022–July 2022.

Teacher of the second part (6CFU) of the course *Matematica*, Dipartimento di Ingegneria - Università degli Studi del Sannio, Benevento. March 2022–July 2022.

Teacher of the course *Matematica* (12CFU), Dipartimento di Ingegneria - Università degli Studi del Sannio, Benevento. September 2022–June 2023

Tutorship and exercises for the course *Matematica* (40h), DING - Dipartimento di Ingegneria - Università degli Studi del Sannio, Benevento. October 2022–June 2023.

Teacher of the course *Matematica* (12CFU), Dipartimento di Ingegneria - Università degli Studi del Sannio, Benevento. September 2023–June 2023.

Substitute Teacher of the course *Matematica* (50h) Dipartimento di Ingegneria - Università degli Studi del Sannio, Benevento. September 2023–December 2023.

Teacher of the course *Matematica* (12CFU), Dipartimento di Ingegneria - Università degli Studi del Sannio, Benevento. September 2024–June 2025.

Teacher of the course *Geometria e Algebra* (6CFU), Dipartimento di Ingegneria - Università degli Studi del Sannio, Benevento. September 2024–December 2024.

Teacher of the course *Matematica* (12CFU), Dipartimento di Ingegneria - Università degli Studi del Sannio, Benevento. September 2025–June 2026.

Teacher of the course *Geometria e Algebra* (6CFU), Dipartimento di Ingegneria - Università degli Studi del Sannio, Benevento. September 2025–December 2025.

Tutorship and exercises for the course *Matematica* (70h), DING - Dipartimento di Ingegneria - Università degli Studi del Sannio, Benevento. February 2026–July 2026.

Teacher of the course *Matematica* (12CFU), Dipartimento di Ingegneria - Università degli Studi del Sannio, Benevento. September 2026–Today.

Teacher of the course *Geometria e Algebra* (6CFU), Dipartimento di Ingegneria - Università degli Studi del Sannio, Benevento. September 2026–Today.

Languages

Italian Native

English Fluent

Benevento, October 28th, 2026 Michele Marini