Curriculum Vitae et Studiorum

Marco Gipo Ghimenti,
born in Lucca on 19/02/1976,
resident in Piazzale Sicilia 15, 56123 Pisa (PI).
email: marco.ghimenti@unipi.it
fiscal code: GHMMCG76B19E715N
position: Associate Professor at the Department of Mathematics, University of Pisa

Education and Academic Qualifications

- March 2017 National Scientific Qualification for Full Professor according to art. 16 of Law 240/2010, for the disciplinary sector 01/A3, Mathematical Analysis, Probability and Mathematical Statistics, obtained on 28/11/2023

- **2004: PhD in Mathematics** at the University of Pisa. PhD advisor: Prof. Vieri Benci.

- 2001: admitted with scholarship to the PhD program in Mathematics at the University of Pisa

- late 2000: admission to the DEA "Equations aux Dérivées Partielles et Applications" at Université Paris Dauphine

- **2000: Master's degree in Mathematics** at the Department of Mathematics of the University of Pisa, final grade 110/110 cum laude Thesis title: *Existence of Brachistochrones in a Generic Potential*

- **1994: Scientific High School Diploma**

- Language skills: English and French

- Computer skills: Fortran, Pascal, Basic, Word, Latex

Teaching Activity in the Last 5 Years

- since November 1st 2025 member of the PhD board in Mathematics of the University of Pisa

- 2025 member of the organizing committee of the *Italo-Japanese summer school to be held in Pisa from late August to early September 2026*

- 2024 lecturer for the summer school *HPRT 2024 Hokkaido-Pisa-Roma Tor Vergata-Torino* with an 8-hour course titled "Introduction to the Lusternik Schnirelmann category and application to nonlinear elliptic PDE"

- 2023/2024 30-hour PhD course in Mathematics titled "Nonlinear Analysis"

- from a.y. 2020/2021 to a.y. 2025/2025 lecturer of the course Analysis II and Complements of Mathematical Analysis for Chemical Engineering

- a.y. 2019/2020 co-lecturer of the course Probability Calculus and Statistics for Computer Science

Thesis Supervision

- a.y. 2022/2023 supervisor of the Master's thesis *The Obstacle Problem for a High-Order Fractional Laplacian*, candidate Matteo Talluri

- a.y. 2015/2016 supervisor of the thesis *An anisotropic Yamabe type problem*, candidate Marco Aime

- a.y. 2015/2016 co-supervisor of the thesis *Gagliardo-Nirenberg inequality and applications to PDEs*, candidate Francesco Sapio

- a.y. 2014/2015 co-supervisor of the thesis *Dispersive phenomena and well-posedness for NLS in dimension 1*, candidate Matteo Nincheri

Awards

- *Young Researchers Award*, University of Pisa, March 2013

Research Activity in the Last 5 Years

- member of the organizing committee of the conference *PDE days in Maremma*, Sorano, 28-30 October 2024

- member of the scientific and organizing committee of the conference *Nonlinearity, Complexity and Foundations in Mathematics*, Centro De Giorgi, Pisa, September, 11-13, 2024

- principal investigator of the GNAMPA project *Double curvature problems on manifolds with boundary and links with elliptic-type PDEs*, funded in 2024

- member of the PRA project *Nonlinear dispersive equations and dynamics of fluids*, funded in 2022

- member of the GNAMPA project *Mathematical models with singularities for interaction phenomena*, funded in 2022 (PI: Dovetta)

- member of the scientific and organizing committee of the conference *Three days of PDEs, friendship, love and nonlinearities*, Pisa, September, 11-13, 2021

Seminars in the Last 5 Years

- presentation of the seminar "The effect of perturbations on the multiplicity of eigenvalues for the fractional Laplacian on bounded domain ", University of Rome Tor Vergata, April, 15th, 2025

- presentation of the seminar "The effect of perturbations on the multiplicity of eigenvalues for the fractional Laplacian on bounded domain ", University of Bologna, March, 25th 2025

- presentation of the seminar "The effect of perturbations on the multiplicity of eigenvalues for the fractional Laplacian on bounded domain ", Politecnico di Bari, January, 22th 2025

- presentation of the seminar "The effect of perturbations on the multiplicity of eigenvalues for the fractional Laplacian on bounded domain ", at the conference *The 49th Sapporo Symposium on Partial Differential Equations*, Sapporo, Japan, August,19-21, 2024

- presentation of the seminar "The effect of perturbations on the multiplicity of eigenvalues for the fractional Laplacian on bounded domains", at the conference *Highlights in Nonlinear PDEs*, Gaeta, April, 8-11 2024

- presentation of the seminar "Compactness and stability for solutions of the Escobar-Yamabe problem ", Justus Liebig University, Giessen, September, 13th 2023

- presentation of the seminar "Compactness and blow up for Yamabe boundary problem", University of Tor Vergata, December, 6th 2022

- presentation of the seminar "Compactness and blow up for Yamabe boundary problem", at the *Summer School in Nonlinear Analysis*, Viterbo June, 20-24 2022

- presentation of the seminar "Affinities and differences between the Yamabe problem and us", at the conference *Tutti insieme... nonlinearmente*, Manfredonia, November, 5-7 2021

PUBLICATIONS AND SCIENTIFIC WORKS OF THE LAST 5 YEARS

1. Marco G. Ghimenti, Xiaomeng Huang, Angela Pistoia *Bubble solution for the critical Hartree equation in a pierced domain*, Discrete Contin. Dyn. Syst. **45** (2025), no. 7, 2180–2214.

2. Marco G. Ghimenti, Anna Maria Micheletti, Angela Pistoia *A note on the persistence of multiplicity of eigenvalues of fractional Laplacian under perturbations*, Nonlinear Anal. TMA **245**, Article number: 113558 (2024)

3. Mouhamed M. Fall, Marco G. Ghimenti, Anna Maria Micheletti, Angela Pistoia *Generic properties of eigenvalues of the fractional Laplacian*, Calculus of Variations and Partial Differential Equations **62**, Article number: 233 (2023)

4. Marco G. Ghimenti, Anna Maria Micheletti *Yamabe boundary problem with scalar-flat manifolds target*, Electronic Journal of Differential Equations , Special Issue 02 (2023), pp. 125–133

5. Marco G. Ghimenti, Min Liu, Zhongwei Tang, *Multiple solutions for a fractional Choquard problem with slightly subcritical exponents on bounded domains*, Nonlinear Differ. Equ. Appl. **30** (2023) Paper No. 28, 27 pp

6. Marco G. Ghimenti, Anna Maria Micheletti, *Compactness and blow up results for doubly perturbed Yamabe problems on manifolds with umbilic boundary*, Nonlinear Analysis **229** (2023) Paper No. 113206, 28 pp

7. Marco G. Ghimenti, Anna Maria Micheletti, *Blowing-up solutions for supercritical Yamabe problems on manifolds with non-umbilic boundary*, Comm. Cont. Math. **24** (2022) Paper No. 2150035, 23 pp.

8. Pietro d'Avenia, Marco G. Ghimenti, *Multiple solutions and profile description for a nonlinear Schrödinger-Bopp-Podolsky-Proca system on a manifold*, Calc. Var. PDE **61** (2022) Paper No. 223, 30 pp.

9. Marco G. Ghimenti, Anna Maria Micheletti, *Compactness and blow up results for doubly perturbed Yamabe problems on manifolds with non umbilic boundary*, Electronic Research Archive **30** (2022), 1209–1235.

10. Marco G. Ghimenti, Anna Maria Micheletti, *Blowing-up solutions for supercritical Yamabe problems on manifolds with umbilic boundary*, J. Differential Equations **309** (2022), 265–290.

11. Marco G. Ghimenti, Anna Maria Micheletti, *A compactness result for scalar-flat metrics on low dimensional manifolds with umbilic boundary*, Calc. Var. Partial Differential Equations **60** (2021), Paper No. 119, 24 pp.

12. Marco Ghimenti, Anna Maria Micheletti, *Compactness results for linearly perturbed Yamabe problem on manifolds with boundary*, Discrete and Continuous Dynamical Systems Series S, **14** (2021) 1757–1778

13. Marco Ghimenti, Anna Maria Micheletti, *Compactness for conformal scalar-flat metrics on umbilic boundary manifolds*, Nonlinear Anal. **200** (2020) 30 p.

14. Simone Dovetta, Marco Ghimenti, Anna Maria Micheletti, Angela Pistoia, *Peaked and low action solutions of NLS equations on graphs with terminal edges*, SIAM J. An. Math. (2020) **52** 2874–2894