CURRICULUM VITAE of SILVIA CINGOLANI

Department of Mathematics,

University of Bari Aldo Moro,

Via Orabona 4, 70125 Bari, Italy

phone: +39 080 5442660

e-mail: silvia.cingolani@uniba.it

website: https://www.dm.uniba.it/members/cingolani

ORCID iD https://orcid.org/0000-0002-3680-9106

Education:

• Degree in Mathematics, University of Bari. Degree thesis: *Teoria di Morse e sistemi dinamici asintoticamente lineari*. Supervisor Prof. Dino Fortunato. Vote: 110/110 *cum laude* (December 14, 1993)

• Winner of C.N.R. (Consiglio Nazionale delle Ricerche) fellowship in Mathematics. Supervisor: Prof. Donato Fortunato (1993–1994).

• Winner of I.N.d.A.M. (Istituto Nazionale di Alta Matematica) fellowship, Rome (1994)

• First place ex-aequo at the selection of Ph.D. scholarship at Scuola Normale of Pisa. Vote: 158/160 (December 1994)

• Ph.D. student in Mathematics at Scuola Normale Superiore of Pisa (1995–1996)

• Ph.D. in Mathematics, Scuola Normale Superiore of Pisa. Ph.D.Thesis: *Variational Methods and Nonlinear Schrödinger Equations*. Supervisor Prof. Antonio Ambrosetti. Vote: 70/70 *cum laude* (November 10, 1998)

Awards:

• Winner of *Benedetto Sciarra* Prize, Scuola Normale Superiore of Pisa (1996)

Appointments:

• Researcher in Mathematical Analysis, Polytechnic University of Bari (May 8, 1996 – November 30, 2002)

• Associate Professor in Mathematical Analysis, Polytechnic University of Bari (December 1, 2002 – June 11, 2017)

• National Scientific Habilitation to Full Professorship (scientific disciplinary sector: 01/A3 - Mathematical Analysis, Probability and Mathematical Statistics) (December 30, 2013)

• Full Professor in Mathematical Analysis, University of Bari Aldo Moro (June 12, 2017 – present)

Research Interests: Nonlinear Partial Differential Equations, Variational and topological methods in nonlinear analysis, Critical Point theory

Bibliometric Data (updated October 2026):

Silvia Cingolani has authored over 90 peer-reviewed scientific publications in international journals.

2831 citations on Mathscinet by 1590 authors (h-index 27)

2861 citations on Scopus (h-index 25)

2770 citations on Web of Science (h-index 25)

4054 citations on Google Scholar (h-index 29)

She is in the list of "Worlds Top 2% Scientists 2024, 2025, 2026, Stanford University ed Elsevier"

(https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/9)

Editor Activity:

• (2012/2016) Editorial Board Member of

"Abstract and Applied Analysis", Hindawi Publishing Corporation.

• (2018/−) Editorial Board Member of

"Mediterranean Journal of Mathematics" (MedJM), Birkhauser Basel

https://www.springer.com/birkhauser/mathematics/journal/9

• (2020/−) Editorial Board Member of

"Advanced Nonlinear Studies", De Gruyter

https://www.degruyter.com/view/j/ans?lang=en

• (2021/−) Editorial Board Member of

"Differential and Integral Equations", Khayyam Publishing, Inc.

http://www.aftabi.com/DIE/die.html

• (2022/−) Editorial Board Member of

"Journal of Fixed Point Theory and Applications", Springer

https://www.springer.com/journal/11784/

PhD Supervision and Mentoring:

• Sara Barile, PhD Thesis, University of Bari, *Existence of solutions for some nonlinear elliptic problems*, 2006 (co-advisor David Arcoya, University of Granada)

• Marco Gallo, PhD Thesis, University of Bari, *Nonlocal Elliptic PDEs with General Nonlinearities*, 2023 (co-advisor Denis Bonhuere, University libre de Bruxelles) (October 1, 2019/December 2022; Thesis defense March 21, 2023)

Marco Gallo's PhD thesis has been awarded by *Enrico Jannelli Prize*, sponsored by Unione Matematica Italiana (UMI), for the best PhD thesis in Mathematics on Partial Differential Equations, A.A. 2002/2023 (https://umi.dm.unibo.it/2023/04/24/premio-enrico-jannelli/)

• Natalino Borgia, PhD Thesis, University of Bari, *Variational and Geometric Analysis for Quasilinear Elliptic Equations and Systems*, 2026 (PhD student, February 1, 2022/January 31, 2026; Thesis defense May 4, 2026)

• Alessandro Cannone, PhD Thesis, University of Bari, *Variational Methods and Nonlinear PDEs in Quantum Science* (PhD student, October 1,2022/September 30,2026; Thesis discussion December 14, 2026)

2025-2026: Postdoc: Shunneng Zhao (Zhejiang Normal University, China)

2025, 2026 PhD visiting: Ruben Aranega Finana (University of Almeria, Spain)

2026 PhD visiting: Ruowen Li (Zhejiang Normal University, China)

Invited Speaker at Selected International Workshops:

1997 Title of the seminar: *Positive solutions for a class of equations with discontinuous nonlinearities in unbounded domains*, Workshop "Nonlinear Boundary Value problems", Torino (September 10–12).

1998 Title of the seminar: *Asymmetric standing waves in symmetric nonlinear optical waveguides*, International Workshop on "Variational Methods and Partial Differential Equations in Mathematical Physics", Scuola Normale Superiore di Pisa, Pisa (February 17–26).

1999 Title of the seminar: *Metodi variazionali e topologici nello studio delle equazioni di Schrödinger nonlineari agli stati stazionari*, XVI Congresso Unione Matematica Italiana, (invited talk for young researcher), Napoli (September 13–16).

2000 Title of the seminar: *Asymmetric solutions for symmetric problems arising in Nonlinear Optics*, "Third World Congress of Nonlinear Analysts", Catania (July 19–26).

2001 Title of the seminar: *Critical groups computations on a class of functional defined on Banach Spaces*, International Workshop "Nonlinear Differential equations", Bergamo (July 9–13).

2002 Title of the seminar: *Morse theory for a class of functionals associated to quasilinear elliptic problems*, International Workshop "Calculus of Variations in Nonlinear Phenomena", Martina Franca (September 23–27).

2003 Title of the seminar: *Multiple solutions for quasilinear elliptic problems via Morse theory*, "Equadiff 2003", International Conference on Differential Equations, Hasselt (Belgium) (July 22–26) .

2004 Title of the seminar: *Morse theory and nontrivial solutions for p-laplace equations*, "Variational methods and Nonlinear Schrödinger equations", Bernouilli Centre, Ecole Polytechnique Federale de Lausanne, Lausanne (Switzerland) (February 9–13).

2006 Title of the seminar: *Quasilinear field equations and Morse theory*, International Workshop "Current Trends in Nonlinear Analysis". Conference in honor of the 60-th birthday of Prof. Donato Fortunato, Otranto (June 12–16).

2009 Title of the seminar: *Intertwining semiclassical bound states for Nonlinear magnetic Schrödinger equation*, 6th European Conference on Elliptic and Parabolic Problems, Gaeta (May 3–6).

2009 Title of the mini-course: *Morse index estimates and applications to quasilinear elliptic problems* Part I. Part II, The first Bicocca Junior Workshop on Nonlinear PDE's and Variational Methods, Università di Milano-Bicocca (June 18–19).

2010 *Gender Equality in Science*, Le prospettive del Progetto "STReGA", Lecce (January 21).

2010 Title of the seminar: *Intertwining semiclassical solutions for the Schrödinger-Newton equations*, International Workshop on "Variational Methods in Nonlinear Differential equations", Oaxaca (Mexico) (October 17–22).

2011 Title of the seminar: *Intertwining solutions for a magnetic nonlinear Choquard equation*, International Workshop on "Nonlinear Differential Equations", Pienza (November 7–11).

2012 Title of the seminar: *Multiple solutions to a magnetic nonlinear Choquard equation*, 7th European Conference of Elliptic and Parabolic Problems, Gaeta (May 21–25).

2012 Title of the seminar: *Local Morse theory for quasilinear elliptic problems*, Nonlinear PDE Days: Variational Methods in Mathematical Physics, Karlshruer Institut fur Technologie, Karlshrue (Germany) (July 17–18).

2013 Title of the seminar: *Morse index estimates and uniform Sobolev inequalities for p-Laplace equations*, Variational and Topological Methods in the study of Nonlinear Phenomena, Alghero (June 24–28).

2013 Title of the seminar: *Morse index estimates for p-Laplace equations via uniform Sobolev inequalities*, Variational Methods and Partial Differential Equations, Workshop on the occasion of Michel Willem's 60th birthday, Louvain-la-Neuve (Belgium) (July 11–12).

2013 Title of the seminar: *Semiclassical bound states for nonlinear Schrödinger equations via the topology of a potential well*, Dispersive PDEs: models and dynamics, Pisa (September 18-20).

2014 Title of the seminar: *Multiple positive solutions of nonlinear Schrödinger equations concentrating at a potential well*, 8th European Conference of Elliptic and Parabolic Problems, Gaeta (May 26–30).

2015 Title of the seminar: *Concentration on circles for magnetic Nonlinear Schrödinger Equations*, Variational and Topological Methods in the study of nonlinear problems, Workshop on the occasion of Charles Stuart's 70th birthday, Besancon (France) (June 29– July 1).

2016 Title of the seminar: *Some results for a planar Choquard type equation*, Achievements and Perspectives in Nonlinear Analysis, on the occasion of Donato Fortunato's 70th birthday, Bari (June, 14–17).

2017 Title of the seminar: *On the Logarithmic Choquard Equation Sharp asymptotics and nondegeneracy of the groundstate of the logarithmic Choquard equation*, Rome CAPUT PDE, Roma (January 23–26).

2017 Title of the seminar: *Sharp asymptotics and nondegeneracy of the groundstate of the logarithmic Choquard equation*, Nonlinear days in Turin, Torino (September 21-22).

2018 Title of the seminar: *Some new results on the nonlinear Choquard equations* Variational Problems arising from Physics and Geometry, on the occasion of the 60th birthday of Thomas Bartsch Rauischholzhausen Castle, Germany (July 16-19).

2018 Title of the seminar: *A new variational approach for the nonlinear Choquard equation*, New Advances in PDE, Workshop on the occasion of Annamaria Micheletti's birthday, Riemann International School of Mathematics, Varese (September 6-7).

2018 Title of the seminar: *A new variational approach for the nonlinear Choquard equation*, Nonlinear Analysis & PDEs, Caserta (September 10-14).

2019 Title of the seminar: *Multiplicity results for nonlocal equations without Nehari constraint*, VI Italian-Japanese Workshop Geometric Properties for Parabolic and Elliptic PDE's, Cortona-Palazzone della Scuola Normale (May 20-24)

2019 Title of the seminar: *Normalized solutions for the planar Schrödinger-Poisson system*, XI Brazilian-Italian Workshop on Nonlinear Differential Equations, Riemann International School of Mathematics, Varese (July 29 – August 2)

2021 Title of the seminar: *Concentration phenomena for a fractional problem without Nehari constraint*, PDE's Italia vs Espana (February 25)

2021 Title of the seminar: *Some nonlocal problems with Logarithmic convolution potentials*, Nonlinear meeting, Manfredonia (November 6)

2022 Title of the seminar: *On a topological construction for a fractional elliptic problem*, Modern Aspects of PDE, Bari (June 23-24)

2023 Title of the seminar: *Nonlocal Interaction Energy Functionals in 2D*, Nonlinear PDEs in Cosenza, Cosenza, Italy (May 16-19)

2023 Title of the seminar *On Some Nonlocal Interaction Energy Functionals,* INdAM - Puglia Summer Trimester 2023 Singularities, Asymptotics Limiting Models (June 27)

2023 Title of the seminar *Extremal functions for Logarithmic Trudinger-Moser type Inequalities*, Three days of Nonlinear PDEs A workshop to celebrate Massimo Grossi and Enrico Serra's birthday (September 17-20)

2023 Title of the seminar *Nonlocal NLS equations: concentration around a saddle point in a degenerate setting*, 50 years of Mountain Pass Theorem, a conference to celebrate the theorem and its authors, SISSA (November 23-25)

2024 Title of the seminar *On some nonlocal interaction problems*, Symposium on the occasion of the International Day of Women and Girls in Science, Urbino (February 8)

2024 Title of the seminar *On the concentration around a critical point in a degenerate setting: a new variational approach*, Highlights in Nonlinear PDEs A workshop to celebrate Monica Clapp's birthday, Gaeta. (April 8-11)

2024 Title of the seminar *Weighted Sobolev spaces and Morse estimates for quasilinear elliptic equations*, Nonlinear PDEs: Theory and Modelling of Real Phenomena On the occasion of Filippo Gazzola's 60th birthday, RISM Varese (June 26-28)

2024 Title of the seminar *Weighted Sobolev spaces and Morse estimates for p-Laplace type equations*, Nonlinear analysis and elliptic pdes, On the occasion of David Arcoya's 60th birthday, San José-Almeria, Spain (September 26-28)

2025 Title of the seminar *Weighted Sobolev spaces and Morse estimates for p-Laplace type equations*, Nonlinear Viterbo 2025 (May 11-15, 2025)

2025 Title of the seminar *On N-Euclidean Logarithmic Moser-Trudinger-Onofri Inequality and some geometrical variants*, Nonlinear Elliptic PDE in Hauts-de-France (4th edition) Calais (France) (June 16-19, 2025)

2025 Title of the seminar *A New Relaxed Morse Index and Its Applications to p-Laplace Equations* , Recent advances and challenges in partial differential equations, On the occasion of Andrzej Szulkin's 80th birthday Institute of Mathematics of Polish Academy of Sciences, Warsaw (September 2-5, 2025)

2026 Title of the seminar *The Euclidean Onofri Inequality in higher dimensions*, New directions in nonliner PDEs, Ettore Majorana Foundation and Centre for Scientific Culture in Erice https://ettoremajoranafoundation.it/ (May 20-27, 2026)

2026 Title of the seminar *Morse theory beyond Hilbert spaces*, Incontri Scientifici Unione Matematica Italiana, Universit'a degli Studi Federico II di Napoli, Naples (July 9, 2026)

2026 Title of the seminar *Normalized solutions for NLS equations: the purely L^2-critical case*, Qualitative Aspects Elliptic PDEs and beyond On the occasion of Filomena Pacella's birthday, Alghero (21-25 September, 2026)

Selected Visits:

1997 Universidad de Granada, Departamento de Análisis Matemático, invited by Prof. David Arcoya. Title of the seminar: *Multiple positive solutions for nonlinear Schrödinger equations*.

2000 University of Rome III, Department of Mathematics, invited by Prof. Gianni Mancini. Title of the seminar: *Soluzioni asimmetriche per una classe di problemi ellittici non lineari*.

2001 SISSA (Scuola Internazionale Superiore di Studi Avanzati), Trieste, invited by Prof. Antonio Ambrosetti. Title of the seminar: *Multiple semiclassical stationary states of nonlinear Schrödinger equations with electromagnetic fields*.

2001 Universidad Autonoma de Madrid, invited by Prof. Ireneo Peral. Title of the seminar: *Critical groups computations for a class of functional associated to quasilinear elliptic problems via Morse index*.

2002 University of Pisa, Department of Mathematics, invited by Prof. Antonio Marino. Title of seminar: *Stime di gruppi critici per una classe di funzionali associati a equazioni ellittiche che coinvolgono il p-laplaciano*.

2002 Ecole Polytechnique Federale de Lausanne, invited by Prof. Charles Stuart. Title of the seminar: *Morse theory and critical groups computations for a class of functionals defined in Banach spaces*.

2003 University of Rome "La Sapienza", Department of Mathematics, invited by Prof. Filomena Pacella.

2004 University of Rome "La Sapienza", Department of Mathematical Methods and Models, invited by Prof. Angela Pistoia. Title of the semimar: *Morse index and nontrivial solutions for p-Laplace equations*.

2007 University of Rome "La Sapienza", Department of Mathematical Methods and Models, invited by Prof. Angela Pistoia. Title of the seminar: *Critical groups estimates for a class of functionals defined in Banach spaces*.

2011 University of Milan, Department of Mathematics, invited by Prof. Bernhard Ruf. Title of the seminar: *Some results on a magnetic nonlinear Choquard equation.*

2011 Université de Franche-Comté, Laboratoire de Mathématiques UMR CNRS, Besancon Cedex, France, invited by Prof. Louis Jeanjean. Title of the seminar: *Intertwining standing waves for magnetic nonlinear Choquard equation.*

2012 Karlsruher Institut fur Technologie, invited by Prof. Wolfgang Reichel. Title of the seminar: *Morse theory for quasilinear elliptic problems.*

2013 University of Calabria, invited by Prof. A. Canino. Title of the seminar: *Morse index estimates and uniform Sobolev inequalities for p-Laplace equations.*

2014 Université Libre de Bruxelles, invited by Prof. Denis Bonheure. Title of the seminar: *Semiclassical standing waves for Nonlinear Schrödinger Equations via the topology of a potential well.*

2015 Université Libre de Bruxelles, invited by Prof. Denis Bonheure (September 2015).

2016 University of Stockholm, invited by Prof. Andrzej Szulkin (July 2016).

2017 Waseda University of Tokyo, invited by Prof. Kazunaga Tanaka (February 2017).

2018 Université Libre de Bruxelles, invited by Prof. Denis Bonheure (October 2018).

2022 Goethe University of Frankfurt, invited by Prof. Tobias Weth. Title of the seminar *The effect of a potential well's topology on a fractional NLS equation* (September 2022)

2023 On the planar Schrödinger-Newton System, Geometric and Functional Inequalities and Applications, USA (May 8) https://researchseminars.org/seminar/GeomInequAndPDEs

Organization of International Conferences and Scientific events:

• Organization Committee Member of the XXVIII Congresso dell' Unione Matematica Italiana, September 24-29 (2007) Bari, Italy

• Scientific Committee Member of the Workshop *Primo Incontro delle Donne del Laplaciano*, June 13-16 (2008), Cortona, Italy

• Organization Committee Member of the International Workshop *Second Meeting of Women of the Laplacian*, June 3-6 (2010), Monopoli (Bari), Italy • Scientific Committee Member of the International Workshop *Critical Point Theory and Nonlinear Differential Problems*, September 02-04 (2015), Canazei (Dolomites), Italy

• Organizer of the Thematic Section "Schrödinger equations", International Workshop *Workshop in Nonlinear PDEs*, September 07-11 (2015), Université libre de Bruxelles, Bruxelles, Belgium

• Organizer of the Mini-Symposium "PDEs around the world", International Workshop *European Women in Mathematics General Meeting 2018"*, September 03-7 (2018), University of Graz, Austria

• Organizer of the International Workshop *Advances and Challenges in Nonlinear Analysis ... and Beyond! On the occasion of Vieri Benci's 70th birthday*, September 24-27 (2019), University of Bari and Polytechnic University of Bari, Italy

• Organizer of the International Workshop *RoMAnS: Research On Mathematical Analysis aNd Semingroups, On the occasion of Silvia Romanelli's 70th birthday*, July 7-8 (2021), University of Bari, Italy

• Organizer of Thematic Session *Variational Equations and Applications to Differential Equations*, 33^o Colóquio Brasileiro de Matemática, IMPA, August 2-5 (2021)

• Organizer of the International Workshop *Geom&tric PDEs @ Caserta*, September 13-16 (2021), University of Vanvitelli, Caserta, Italy

• Organizer of the International Workshop *Recent Developments in Mathematical Analysis, On the occasion of Francesco Altomare's 70th birthday*, September 23-24 (2021), University of Bari, Italy

• Organizer of *First Adriatic Meeting of Nonlinear Differential Equations*, May 12-14 (2022), Marche Polytechnic University, Ancona, Italy

• Organizer of the International Conference *Qualitative and Quantitative aspects of nonlinear PDEs*, September 5-9 (2022), University of Bari Aldo Moro, Bari, Italy

• Organizer of the International Workshop *Nonlinear Analysis in the Court of the General Relativity, On the occasion of Antonio Masiello's 60th birthday*, February 9-10 (2023), Polytechnic University of Bari, Italy

• Organizer (with Manuel Del Pino and Serena Di Pierro) of the section "Singular limits in elliptic and parabolic PDEs", 13th AIMS Conference on Dynamical Systems, June 2023, Wilmington, NC USA

• Organizer of the Summer School "Variational methods in applications to PDEs", Warsaw (Poland), June 10-14 (2024)

• Organizer of the International Conference "Variational methods in applications to PDEs", Bedlewo (Poland), August 26-30 (2024)

https://www.mimuw.edu.pl/ bartoszb/tpb/conference/

• Organizer of the Conference "Nonlinearity, Complexity and Foundations in Mathematics", Centro di Ricerca Matematica Ennio De Giorgi, Pisa (Italy), September 11-13, 2024

http://www.crm.sns.it/event/529/

• Organizer of Mini-Workshop on Nonlinear PDEs, University of Bari Aldo Moro, January 16, 2025

• Organizer of Mini-Workshop on Nonlocal PDEs, June 6, 2025, Ore 14:30 Department of Mathematics, University of Bari

https://www.dm.uniba.it/it/ricerca/convegni/2025/20250606-nonlocal-pdes.pdf

Invited speakers: Serena Dipierro (University of Western Australia), Minbo Yang (Zhejiang Normal University), Enrico Valdinoci (University of Western Australia)

• Organizer of the International Workshop "PDEs in Bari New directions and applications", University of Bari Aldo Moro and Polytechnic University of Bari, July 7-9, 2025

https://sites.google.com/view/pdesbari2025/

• Organizer of Conference "Advances in Calculus of Variations and Nonlinear Analysis" A workshop in honor of Marco Degiovanni's 70th birthday, Catholic University of the Sacred Heart, Brescia, September 18-19, 2025

https://www.unicatt.it/eventi/ateneo/brescia/2025/advances-in-calculus-of-variations-and-nonlinear-analysis.html

• Organization of INDAM Day 2025, (November 21, 2025)

• Organizer of Conference "New trends in elliptic PDEs", Institute of Matematics of Polish Academy of Sciences, Bedlewo, Poland, July 12-18, 2026

https://sites.google.com/impan.pl/ntepde2026

Organizer of the Miniworkshop on "Geometric and Variational Analysis", Department of Mathematics, University of Bari Aldo Moro, Italy, 12 October 2026.

• Organizer of Conference "Structural and Geometric Features of PDE & Systems", Institute of Matematics of Polish Academy of Sciences, Bedlewo Conference Center, Poland November 23-27, 2026

https://www.impan.pl/en/other-information/bedlewo-conference-center

Research Evaluation Activity:

Referee for journals: Acta Mathematica Scientia; Advances in Mathematics; Advanced Nonlinear Studies; Advances in Nonlinear Analysis; Annali di Matematica Pura e Applicata; Archiv der Mathematik; Boundary Value Problems; Calculus of Variations and Partial Differential Equations; Canadian J. Mathematics; Communications in Applied Analysis; Communications in Contemporary Mathematics; Communications on Partial Differential Equations; Communications on Pure and Applied Analysis; Complex Variables and Elliptic Equations; Differential and Integral Equations; Electronic Journal of Differential Equations; ESAIM: Control, Optimisation and Calculus of Variations; Funkcialaj Ekvacioj; International Journal of Mathematics and Mathematical Sciences;Israel Journal of Mathematics; Journal of Differential Equations; Journal of Fixed Point Theory and Applications; Journal of Functional Analysis; Journal of London Mathematical Society; Journal of Mathematical Analysis and Applications; Journal of Optimization Theory and Applications; Manuscripta Mathematica; Mathematische Zeitschrift; Mediterranean Journal of Mathematics; Memoirs of the American Mathematical Society; Nonlinear Analysis Theory, Methods and Applications; Nonlinear Differential Equations and Applications NoDea; Nonlinearity; Quarterly of Applied Mathematics; Pacific Journal of Mathematics; Proceeding of the Royal Society of Edinburgh; Rendiconti del Seminario Matematico dell' Università di Padova; SIAM Journal Mathematical Analysis; Topological Methods in Nonlinear Analysis; Zeitschrift für angewandte Mathematik und Physik (ZAMP).

Referee for Mathematical Reviews.

On the behalf of the National Chilean Commission for Scientific and Technological Development (CONICYT) and the Superior Council of the National Fund for Scientific & Technological Development (FONDECYT), referee for a proposal 2012, a proposal 2013 and a proposal 2017

On the behalf of M.I.U.R., referee for a Firb Project 2012.

Grants:

• Co-investigator in PRIN Projects: *Variational Methods and nonlinear differential equations* by MIUR (Ministero Istruzione Università e Ricerca, Italy), P.I.: Prof. A. Ambrosetti (1995/1996, 1997/98).

• Co-investigator of a Project "Azione Integrata Italia-Spagna" (2001).

• Co-investigator in PRIN Projects: *Variational and topological methods in the study of nonlinear phenomena* by MIUR (Ministero Istruzione Università e Ricerca, Italy), P.I.: Prof. V. Benci. (2001/2002, 2003/2004, 2005/2006,2007/2008, 2009/2010).

• Co-investigator of a Project: "Azione Integrata Italia-Spagna" (2009).

• Principal investigator of Gnampa's Project *Problemi ellittici con termini non locali*, by Istituto Nazionale Alta Matematica, Italy (2011/12).

• Principal investigator of Gnampa's Project *Metodi Variazionali e problemi ellittici non lineari*, by Istituto Nazionale Alta Matematica, Italy (2012/13).

• Principal investigator of Gnampa's Project *Problemi differenziali di tipo ellittico nei fenomeni fisici non lineari*, by Istituto Nazionale Alta Matematica, Italy (2013/14).

• Principal investigator of Gnampa's Project *Aspetti differenziali e geometrici nello studio di problemi ellittici quasilineari*, by Istituto Nazionale Alta Matematica, Italy (2014/15).

• Co-investigator of the European Project MIS F.4508.14 (FNRS) *Spatial patterns in higher order models of phase transitions, Fourth order Nonlinear Schrödinger Equations and Solutions of Maxwell-Born-Infeld equations with sources*. P.I. Prof. Denis Bonheure (2014/2016) (http://www.fnrs.be/index.php)

• Principal investigator of Gnampa's Project *Analisi variazionale di modelli fisici non lineari*, by Istituto Nazionale Alta Matematica, Italy (2015/16).

• Principal investigator of Gnampa's Project *Studio variazionale di problemi fisici non lineari*, by Istituto Nazionale Alta Matematica, Italy (2016/17).

• Co-investigator of Gnampa's Project *Metodi variazionali nei problemi fisici non lineari*, by Istituto Nazionale Alta Matematica, Italy (2017/18).

• Co-investigator of PRIN Project *Qualitative and quantitative aspects of nonlinear PDEs* (2019/21) (P.I.: B.Sciunzi)

• Co-investigator PNRR project (2023-2026): "Machine learning, Quantum Computing and AI platform to design and exploit Digital Twins", Centro Nazionale HPC, Big Data e Quantum Computing, Spoke 5: "Environment and Natural Disasters", CODE:CN00000013, CUP: H93C22000450007.

• Co-investigator of PNRR project (2023-2026): "National Quantum Science and Technology Institute- NQSTI", Spoke 1: "Foundations and architectures for quantum information processing and communication". CODE:PE00000023, CUP: H93C22000670006

• Principal Investigator of the Local Research Unit UNIBA, PRIN PNRR 2022 project (2023-2026): "Linear and Nonlinear PDE's: New directions and Applications" CODE: P2022YFAJH, ERC Sector: PE1 "Mathematics", CUP: H53D23008950001 (National PI: Prof. Cristina Trombetti)

• 2026 — International Exchanges 2026, Global Round 1- Royal Society Grant reference: $IES\%R1\%261518$. Lead applicant: Manuel del Pino, University of Bath, UK. Italian Co-applicant : Silvia Cingolani

UK Organisation: University of Bath. Overseas Organisation: University of Bari Aldo Moro (Italy) Project Title: Concentration phenomena and singularity formation in nonlinear PDEs arising in geometry and physics.

Scientific Committees

• 2021/2025 Designated Member of the Scientific Council of GNAMPA-INdAM (National Group of Mathematical Analysis and Probability - Istituto Nazionale di Alta Matematica, Roma)

• 2025/2029 Elected Member of the Scientific Council of GNAMPA-INdAM (National Group of Mathematical Analysis and Probability - Istituto Nazionale di Alta Matematica, Roma)

• 2026 present Member of the Scientific Committee of the *Laboratoire Ypatie des Sciences Mathématiques* (LYSM) (September 2026- December 2030).

Academic Responsabilities

• 2005/2012 Member of the Directing Board of the PhD program in Mathematics. Cycles: XXI, XXII, XXIII, XXIV, XXV, XXVI, XXVII, XXVIII, XXIX University of Bari

• 2013/2017 Director the INdAM (Istituto Nazionale di Alta Matematica) Unit of Polytechnic University of Bari

• 2014/2016 Member of the Directing Board of the PhD program in Mechanical Engineering, Polytechnic University of Bari. Cycle: XXX

• 2017/2026 Member of the Directing Board of the PhD program in Computer Sciences and Mathematics, University of Bari Aldo Moro, Cycles: XXXV, XXXVI, XXXVII, XXXVIII, XXXIX, XL, XLI

• 2019/2022 Vice Director Department of Mathematics - University of Bari

• 2022/2026 Coordinator of the Bachelor's Degree Programme in Mathematics (L-35), Department of Mathematics, University of Bari Aldo Moro

• 2022/2026 Coordinator of the Master's Degree Programme in Mathematics (LM-40), Department of Mathematics, University of Bari Aldo Moro

• 2013/2025 Member of the pool of eligible evaluators for the National Scientific Habilitation (ASN)

• 2024 Referent for the ANVUR visit to Bachelor's Degree (L-35), University of Bari Aldo Moro

• 2025/– Referent for Research Infrastructure for shared enhancement - Scientific and Technological macroarea, University of Bari (DR 3599, November 11, 2025)

• 2025/2029 Member of the Executive Board of the Department of Mathematics

• 2026/2030 Coordinator of the PhD Programme in Mathematics (Cycle XLII), University of Bari Aldo Moro

Selection Committees

• Member of the Committee for Researcher position, University of Bari (2011)

• Member of the Committee for Full Professor position, University of Calabria (2017)

• Member of the Committee for Associate Professor position, University of Naples “Federico II” (2018)

• Member of the Committee for RTDB position, University of Naples “Federico II” (2019)

• Member of the Committee for Associate Professor position, University of Calabria (2019)

• Member of the Committee for Associate Professor position, University of Pisa (2020)

• Member of the Committee for a Tenure-Track position, University of Naples “Federico II” (2020)

• Member of the Committee for two RTD-A positions, University of Naples “Federico II” (2021)

• Member of the Committee for a Tenure-Track position, SISSA- Trieste (2021)

• Member of the Committe for the prize ”E. Jannelli” for the best PhD thesis on PDEs, A.A. 2020/2021

• Reviewer for an individual assessment (Full Professor)- University of Vienna (2021)

• Member of the Committee for a RTD-B position, University of Bicocca- Milan (2021)

• Member of the Committee for a RTD-A position, University of Camerino (2021)

• Member of the Committee for Tenure-Track position, University of Salento (2021)

• Member of the Committee for Associate Professor position, University of Bari (2021)

• Member of the Committee for Tenue-Track position, University of Modena and Reggio Emilia (2022)

• Member of the Committee for Full Professor position, Sapienza University of Roma (2022)

• Member of the Committee for Full Professor position, Polytechnic of Bari (2022)

• Member of the Committee for two RTDB positions, University of Calabria (2022)

• Reviewer for a Ph.D. thesis, University Milano Bicocca (2022)

• Member of the Committee for two RTDB positions, University Cattolica del Sacro Cuore, Brescia (2023)

• Member of the Commitee of the ”Vinti Prize 2023”, awarded by the Italian Mathematical Union.

• Member of the Committee for Tenue-Track position, University of Bari (2024)

• Member of the Committee for Full Professor position, University of Calabria (2024)

• Member of the Committee for a Postdoc position, University of Bari Aldo Moro (2024)

• Member of the Committee for RTDB position, University of Bari Aldo Moro (2025)

• Member of the Committee for Associate Professor position, SISSA (2025)

• Member of the Committee for a position of Associate Professor, University of Florence (2025)

• Reviewer for a Ph.D. thesis and member of the PhD Commitee for University of Frankfurt (2025)

- Member of the Committee for RTDB position, University of Bari (2025)
- Member of the Committee for a RTT position, University of Catania (2025)
- Member of the Committee for a RTT position, University of Calabria (2025)
- Member of the Commitee for a RTT position, University of Camerino (2026)

Teaching Activity:

Mathematical Analysis I, Mathematical Analysis II, Differential Equations: as Assistant Professor for students in Mechanicall Engineering, Building Engineering, Electronic Engineering, Management Engineering, Computer Engineering, Civil Engineering at Polytechnic University of Bari (May 1996 – November 2002).

Mathematical Analysis I, Mathematical Analysis II as Professor for students in Computer and Authomatic Engineering, Mechanical Engineering, Electric Engineering, Electric Engineering, Building Engineering, Architectural-Building Engineering, Management Engineering, Medical Systems Engineering, Polytechnic University of Bari (Dicember 2002 – May 2017).

Mathematics for students in Geology (2017/2018; 2018/2019)

Mathematical Analysis II as Professor for students in Materials Science, University of Bari Aldo Moro (2017/2018; 2018/2019; 2019/2020)

Mathematical Analysis I as Tutor for students in Mathematics, University of Bari Aldo Moro (2019/2020)

Nonlinear Analysis as Professor for students in Mathematics (L-35, LM-40), University of Bari Aldo Moro (2018/2019; 2019/2020; 2020/2021; 2021/22; 2022/23; 2023/24; 2024/25; 2025/26; 2026/27)

Mathematical Analysis I-II as Professor for students in Mathematics (L-35), University of Bari Aldo Moro (2020/2021; 2021/22; 2022/23; 2023/24; 2024/25; 2025/26; 2026/27)

Elements of Advanced Analysis as Professor for students in Mathematics (LM-40), University of Bari Aldo Moro (2025/26; 2026/27)

Outreach:

2026, Galileo's Calling, Teatro Forma, Bari (November 24)

2026 Jury Member of Art & Science (April 24) (https://artandscience.infn.it/la-mostra-atomi-di-immaginazione-apre-a-bari/)

2026, Speaker at the STEAM Festival, delivering a public lecture entitled *"L'infinito sotto la lente: la matematica racconta il mondo"* to promote public engagement with mathematics, Modugno (October 19)

Membership:

Member of Unione Matematica Italiana

https://umi.dm.unibo.it/

Member of Istituto Nazionale di Alta Matematica

https://www.altamatematica.it/

Member of the European Mathematical Society

https://euromathsoc.org/

Member of European Women in Mathematics http://www.europeanwomeninmaths.org/

Scientific publications:

92. Alessandro CANNONE, Silvia CINGOLANI, Serena DIPIERRO, Ground state solutions for Hartree type equations driven by superposition operators and Pohozaev Identity, https://arXiv:2607.19076

91. Luca ASSELLE, Silvia CINGOLANI, Maciej STAROSTKA, Morse homology for strongly indefinite functionals on Banach spaces, https://arxiv.org/pdf/2602.20863

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PhD Thesis

Silvia CINGOLANI, *Variational Methods and Nonlinear Schrödinger equations*, PhD Thesis, Scuola Normale Superiore di Pisa, 1998 (PhD Advisor: Antonio AMBROSETTI)