

CURRICULUM VITAE

1 Personal Data

Surname and Name : PELLACCI BENEDETTA

Birth Date : 1972 November 23th

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2 Education

29/10/2001 Phd in Mathematics mark 70/70 (cum laude). Advisors: Antonio Ambrosetti e Marino Badiale. Thesis: *"Topological and Variational Methods for a Class of Quasi-Linear Elliptic Equations"*.

12/7/1995 Master's degree in Mathematics at University of Rome "La Sapienza" final mark: 110/110 cum laude. Advisor: Lucio Boccardo. Thesis: *"Punti Critici per Funzionali non Differenziabili"*.

3 Academic Position, Career.

30/06/2020 National Italian habilitation to Full Professor in Mathematical Analysis, Probability and Mathematical Statistics

29/12/2017 Associate Professor at Università della Campania "Luigi Vanvitelli".

13/3/2015 Associate Professor at the University of Naples "Parthenope".

1/7/2005-12/12/2005 Maternity leave.

13/1/2005-13/3/2005 Researcher at the University of Naples "Parthenope".

1/6/2002-31/5/2004 Post-doc position. University of Rome "La Sapienza". Advisor: Lucio Boccardo.

1/6/2001-31/5/2001 Post-doc position. University of Rome "La Sapienza". Advisor: Lucio Boccardo.

1/6/2000-31/5/2001 Scholarship. Istituto Nazionale di Alta Matematica, Francesco Severi (INdAM). Advisor: Antonio Ambrosetti.

1/1/1996-31/12/1998 Phd student in Mathematics at the "Scuola Normale Superiore di Pisa".

4 Academic Services

- 2011-2015 Member of the PhD school committee in “Geomatica, Navigazione e geodesia”.
- 2013-2016 Member of the PhD school committee in “Ambiente, Risorse e Sviluppo Sostenibile”.
- 2018-today Member of the PhD school committee in “Matematica, fisica e applicazioni per l’ingegneria”.
- 17/5/2022-today Coordinator of the Quality Academic Group for the Bachelor and Master school of Mathematics. Department of Mathematics and Physics. Università della Campania “Luigi Vanvitelli.”
- 7/1/2021-7/6/2021 Member of the Evaluation Quality Research Group for Department of Mathematics and Physics. Università della Campania “Luigi Vanvitelli.”

5 Evaluation activity

Members of the following evaluation committees.

- 2021 Ricercatore a tempo determinato (tipo B), settore MAT/05 (assistant professor in mathematical analysis, tenure track), Università della Campania “Luigi Vanvitelli.”
- 2021 Post-doc position settore MAT/05, “Equazioni alle derivate parziali non lineari”. Università della Campania “Luigi Vanvitelli.”
- 2020 Post-doc position “Variational Methods and Optimization problems”. Università della Campania “Luigi Vanvitelli.”
- 2020 Post-doc position settore MAT/05, “Equazioni alle derivate parziali non lineari”. Università della Campania “Luigi Vanvitelli.”

At other universities, for the selection of the following positions:

- 2021 Ricercatore a tempo determinato (tipo B), settore MAT/05 (assistant professor in mathematical analysis, tenure track), Politecnico di Milano.

6 Editorial Activity

2020-2022. Guest Editor (with Dario Mazzoleni) of the special volume “*Calculus of variations and nonlinear analysis: advances and applications*” of Mathematics in Engineering. The volume includes 14 research papers written by 30 authors.

2001-today Referee for

Abstract and Applied Analysis,
Applicable Analysis,
Asymptotic Analysis,
Calculus of variations and partial differential equations,
Communications in partial differential equation,
Communications in pure and applied analysis,
DCDS-series S,
Journal of Differential Equations,
Journal of Functional Analysis,
Journal Mathematical Analysis and Applications,
Journal of Nonlinear Analysis,
Journal of the London mathematical society,
NoDea: Nonlinear Differential Equations and Applications,
Zeitschrift fuer Angewandte Mathematik und Physik.

7 Invited Conferences at Universities

1. 2022 Juine. Mathematics department, Università degli studi di Milano (Italy). Conference on “*Asymptotical qualitative properties of the optimal principal eigenvalue in weighted Neumann problems*”.
2. 2022 Juine. Mathematics department, “Universidad Nacional Autónoma de México,” (Mexico city, Mexico). Conference on “*Asymptotical qualitative properties of the optimal principal eigenvalue in weighted Neumann problems*”.
3. 2022 March. Mathematics Department of ETH Zürich (Switzerland). Conference on “*Qualitative properties of the optimizers of the principal eigenvalue in indefinite weighted Neumann problems: A singular analysis*”.
4. 2022 February, Instituto Superior Tecnico, Universidade de Lisboa (Portugal). Conference on “*Qualitative properties of the optimizers of the principal eigenvalue in indefinite weighted Neumann problems: A singular analysis*”
5. 2021 August, University of Brasilia (Brasil), Mathematics department. Conference on “*Existence results for nonlinear Choquard equations with potentials*”

6. 2020 January, "Sapienza" University (Rome, Italy), Mathematic department. Conference on *"Shape optimization in some spectral Neumann problems: Asymptotic spherical shapes"*
7. 2018 December, Università degli studi di Roma "Tor Vergata" (Rome, Italy) Conference on *"Asymptotic spherical shapes in some spectral optimization problems"*.
8. 2018 January, "Sapienza" University (Rome, Italy). Conference on *"Nonlinear Helmholtz equations: some existence results"*.
9. 2017 December, "Sapienza" University (Rome, Italy). Conference on *"Existence of positive solutions for semilinear Dirichlet Problems in exterior domains"*
10. 2017 February, Melbourne University (Australia). Conference on *"Optimization of the positive principal eigenvalue for fractional Neumann problems"*.
11. 2016 November, Università degli studi della Campania "Luigi Vanvitelli" (Caserta, Italy). Conference on *"A positive bound state for asymptotically linear or superlinear equations in exterior domains"*.
12. 2016, October, Università di Napoli "Federico II". (Italy).
Conference on *"Optimization of the positive principal eigenvalue for fractional Neumann problems"*.
13. 2016 May, Politecnico di Milano. (Italy)
Conference on *"Nonlinear Problems in Exterior Domains"*
14. 2013 May, Department of Mathematic of the University of Milano Bicocca (Italy).
Conference on *"Saturable Schrödinger equations: Existence and concentration phenomena"*.
15. 2012 February, Department of Mathematic of the University of Brasilia (Brazil).
Conference on *"Elliptic Equations with natural growth in the gradient: A variational Approach"*.
16. 2011 May, Department of Mathematic of the University of Rome "La Sapienza" (Italy).
Conference on *"Sistemi di equazioni di Schrödinger debolmente accoppiate: Stabilità Orbitale e temi collegati"*.

17. 2010 February, Department of Mathematic of the University of Brasilia (Brazil).
Conference on *"Weakly coupled Schrödinger systems:orbital stability and related topics."*.
18. 2009 September, Department of Mathematic of the University of the state of Wisconsin-Madison. (Wisconsin USA).
Conference on *"Semiclassical limit for weakly coupled nonlinear Schrödinger Systems. New developments"*.
19. 2008 September, Department of Mathematic of the University of Brasilia (Brazil).
Conference on *"Semiclassical States for weakly coupled nonlinear Schrödinger Equations"* .
20. 2002 December, Department of Mathematic of the University of Rome "La Sapienza".
Conference on *"Punti critici e equazioni ellittiche quasi-lineari"*.
21. 2002 January, Department of Mathematic of the University of Brescia "Cattolica del Sacro Cuore" (Italy).
Conference on *"Punti critici per una classe di funzionali non differenziabili"*.
22. 2000, June, Department of Mathematic of the University of Rome 2 "Tor Vergata" .
Conference on *"Risultati di biforcazione locale per problemi ellittici non lineari in domini illimitati"*.
23. 2000 May, Department of Mathematical Analysis of the University of Granada.
Conference on *"Ecuaciones quasilineales no variacionales en \mathbb{R}^N : Resultados perturbativos"*.
24. 2000 May, Department of Mathematical Analysis of the University of Almeria (Spagna).
Conference on *"Resultados Perturbativos para Problemas Elípticos Semilineal en \mathbb{R}^N "*.
25. 1998 May, Department of Mathematical Analysis of the University of Granada.
Conference on *"Puntos Críticos de Funcionales no Diferenciables"*.

8 Talk at International Congress

1. 2022 July, Juliusz P. Schauder Center for Nonlinear Studies, Bedlewo (Polonia). Invited conference "*Existence results for nonlinear Choquard equations with potentials*". During the workshop "Topics in variational problems arising from models in physics".
2. 2021 November, Manfredonia (Italy). Invited conference "*Limite singolare per l'autovalore ottimo principale in problemi di Neumann*" during the workshop "Tutti insieme...nonlinearmente".
3. 2021 February, Brasilia (Brasil) "*Optimizing the principal eigenvalue for some weighted Neumann Problems*" Invited conference (on line) during the workshop "XIII Summer Workshop in Mathematic".
4. 2019 May, Gaeta (Italy) Invited conference on "*Spectral optimization in weighted Neumann problems: Asymptotic spherical shapes*". Durante il convegno internazionale "International Conference on Elliptic and Parabolic Problems".
5. 2018 November, Matrix Campus (Melbourne, Cresswick, Australia).
Invited Conference "*Asymptotic spherical shapes in some spectral optimization problems-Part 1.*" During the international meeting "Recent Trends on Nonlinear PDEs of Elliptic and Parabolic Type."
6. 2018 November, Sydney (Australia).
Invited Conference "*Quasi-Linear Schrödinger equations in bounded domains: Bounded, unbounded and singular coefficients.*" During the international meeting "Recent Trends in Nonlinear PDEs - MATRIX Satellite Workshop".
7. 2018 July, Taipei (Taiwan).
Invited Conference "*Nonlinear Helmholtz equations: Infinite energy solutions.*" During the international meeting "12th AIMS Conference on Dynamical Systems, Differential Equations and Applications."
8. 2018 July, Taipei (Taiwan).
Invited Conference "*Unbounded non-differentiable functionals and quasi-Linear Schrödinger equations in bounded domains.*" During the international meeting "12th AIMS Conference on Dynamical Systems, Differential Equations and Applications."
9. 2017 September, Federal University of Brasilia (Brazil).
Invited Conference "*Oscillating Solutions for nonlinear Helmholtz Equations.*" During the international meeting "10th Workshop on Nonlinear Differential Equations".

10. 2017 May, Gaeta (Italy).
Invited Conference "*Optimization of the positive principal eigenvalue for fractional Neumann problems.*" During the international meeting "International Conference on Elliptic and Parabolic Problems", Special Session "Theory and methods in nonlinear analysis".
11. 2016, October, Università di Cagliari (Italy).
Invited Conference "*A logistic equation with fractional diffusion: looking for the best choice for survival.*" During the international meeting "Research Meeting on non-local operators".
12. 2016 October, "Centro de Giorgi" Pisa (Italy).
Invited Conference "*Optimization of the positive principal eigenvalue for fractional Neumann problems.*" During the international meeting "New trends in Partial Differential Equations".
13. 2016, August, Rio de Janeiro (Brazil).
Invited Conference "*Optimization of the positive principal eigenvalue for fractional Neumann problems.*" During the international meeting "First joint meeting Italy-Brazil in mathematics".
14. 2016 July , Cogne (Aosta Valley, Italy).
Invited Conference "*Nonlinear Problems in Exterior Domains.*" During the international meeting "Pdes at the Grand Paradis".
15. 2016 Febraury, Instituto de Ciências Matemáticas e de Computação, Universidade de São Paulo (Brazil).
Invited Conference "*Quasi-Linear corrections of the Schrödinger equations in bounded domains.*" During the international meeting: "ICMC Summer Meeting on Differential Equations 2016".
16. 2016 January, Department of Mathematic of the University of Brasilia (Brazil).
Invited Conference "*Asymptotically linear Schrödinger equations and systems: Existence and related topics.*" "XLV Summer School in Mathematics".
17. 2015 September, Siena (Italy).
Invited Conference "*Existence and concentration results for saturable Schrödinger equations and systems.*" During the national workshop UMI 2015 (Unione Matematica Italiana)
18. 2015 June, Roma (Italy).
Invited Conference "*Quasi-Linear corrections of the Schrödinger equations in bounded domains.*" During the international workshop "3spalia 2015".

19. 2015 June, Porto (Portugal).
Invited Conference "*Saturable Schrödinger equation and systems: Existence and related topics.*" During the international workshop "2015 AMS-EMS International Meeting".
20. 2015 February, Granada (Spain).
Invited Conference "*Singularly perturbed elliptic problems with asymptotically linear nonlinearities.*" During the international workshop "Congreso de la Real Sociedad Matematica Espanole", special session session Nonlinear Analysis and Elliptic PDEs.
21. 2014 July 7-11, Universidad Autonoma di Madrid (Spain).
Invited Conference "*Neumann boundary value problems under the action of fractional diffusion.*" During the international workshop "10th AIMS Conference on Dynamical systems, Differential equations and Applications".
22. 2014 February 10-14, Department of Mathematic of the University of Brasilia (Brazil).
Invited Conference "*Neumann boundary value problems under the action of fractional diffusion.*" During the international workshop "XLIII Summer School in Mathematics".
23. 2014 February 3-7, Sao Carlos, Instituto de Ciências Matemáticas e de Computação, Universidade de São Paulo (Brazil).
Invited talk on "*The use of natural constraints in the search of solutions for non-linear Schrödinger systems.*" During the international workshop "ICMC Summer Meeting on Differential Equations-2014 Chapter, celebrating Djairo Guedes de Figueiredo'80th birthday".
24. 2013 February 4-7, Sao Carlos, Instituto de Ciências Matemáticas e de Computação, Universidade de São Paulo (Brazil).
Invited talk on "*Saturable Schrödinger equations: existence and concentration phenomena.*" During the international workshop "ICMC Summer Meeting on Differential Equations-2013 Chapter".
25. 2012 February 6-8, Sao Carlos, Instituto de Ciências Matemáticas e de Computação, Universidade de São Paulo (Brazil).
Invited talk on "*Populations dynamic under anomalous diffusion: The stationary Problem.*" During the international workshop "ICMC Summer Meeting on Differential Equations".

26. 2011 January 20-22, Venezia (Italy).
Invited talk on "*Elliptic systems with saturable interaction.*" During the international workshop "Variational and perturbative methods for nonlinear differential equations".
27. 2009 May 25-29, Gaeta (Italy).
Talk on "*Soliton dynamics for CNLS systems and related topics.*" During the international workshop "6th European conference on elliptic and parabolic problems".
28. 2008 September 14-19, Rio de Janeiro (Brazil).
Invited talk on "*Concentration phenomena for weakly coupled nonlinear Schrödinger systems.*" During the international workshop "VII Workshop nonlinear PDE".
29. 2005 June, Cortona (Italy).
Talk on "*Risultati di esistenza di soluzioni globalmente definite per problemi parabolici in tutto lo spazio con dati localmente integrabili.*" During the international workshop "Infinite energy solutions of Partial Differential Equations".
30. Settembre 2003, Milano (Italy).
Talk on "*Risultati di tipo perturbativo per una classe di equazioni ellittiche non lineari.*" Convegno UMI 2003.
31. 2000 July, Granada (Spain).
Invited talk on "*Bifurcation for some quasi-linear operators.*" During the international workshop "Alhambra 2000: Non Linear Problems".

9 Scientific Visits

- 5-17/6/2022 Visit at the Mathematics Department of the "Universidad Nacional Autónoma de México," (Mexico City, Mexico). Invited by M. Clapp.
- 6-11/2/2022 Visit at the Instituto Superior Tecnico. Lisbon (Portugal) Invited by H. Tavares.
- November 2019 Visit at the Mathematics and Statistics Department of the "The University of Western Australia" Perth (Australia). Invited by Enrico Valdinoci (one week).
- 2017, February Visit at The University of Melbourne (Australia). Invited by Enrico Valdinoci (one week).
- 17-20/5/2016 Visit at Politecnico di Milano (Italy). Invited by G. Verzini

- 25-29/1/2016 Visit at Department of Mathematic of the University of Brasilia (Brazil). Invited by L. Maia
- 2-11/2/2014 Visit at Department of Mathematic of the University of Brasilia (Brazil). Invited by L. Maia
- 30/1-3/2/2012 Visit at Department of Mathematic of the University of Brasilia (Brazil). Invited by L. Maia
- 3-10/2/2020 Visit at Department of Mathematic of the University of Brasilia (Brazil). Invited by L. Maia
- 2009, September Visit at Department of Mathematic of the University of the state of Wisconsin (Madison-Wisconsin-USA).Invited by P.H. Rabinowitz (one week).
- 9-19/9/2008 Visit at Department of Mathematic of the University of Brasilia (Brazil). Invited by L. Maia
- 2000, April Visit at Department of Mathematic of the University of Granada (Spain). Invited by D. Arcoya (one month)
- 1998 March Visit at Department of Mathematic of the University of Granada (Spain). Invited by D. Arcoya (three month).

10 Organization of International Meeting

- 3-7/7/2022 International workshop “*Summer school in Analysis and PDEs*” Università della Campania “Luigi Vanvitelli”. Member of the scientific and organizing committee with G. di Blasio and G. Pisante. Courses by E. Berchio, M. Morini, G. Verzini.
- 13-16/9/2021 International workshop “*Geometric PDEs @ Caserta*” Università della Campania “Luigi Vanvitelli”. Member of the scientific and organizing committee with S. Cingolani, A. Pistoia, and G. Vaira.
- 13-15/1/2020 International workshop “*Brescia winter school on reaction diffusion PDE’s and optimization*”, Università Cattolica del Sacro Cuore di Brescia. Member of the scientific and organizing committee with D. Mazzoleni and G. Verzini.
- 10-14/9/2018 International Workshop “*Nonlinear analysis and Pdes*”, Università della Campania “Luigi Vanvitelli”. Member of the organising committee with I. Ianni and G. Vaira.
- 3-7/9/2018 Mini-symposium “*Pdes around the world*”, durante “EWM general meeting 2018”. University of Graz (Austria). Member of the scientific committee with S. Cingolani and A. Pistoia.

- 1-7/7/2014 Special Session on “Recent Trends in Nonlinear Schrödinger Systems”, during “10th AIMS Conference on Dynamical systems, Differential equations and Applications”. Universidad Autonoma di Madrid. Member of the scientific committee with G. Verzini.
- 24-27/3/2014 “Spring school on nonlinear PDEs”. Sapienza, Università di Roma. Mini-courses held by: S.Le Coz, A.Malchiodi, L.Rossi, E.Valdinoci. Member of the scientific committee with E. Montefusco and G. Verzini.
- 20-22/2/2013 “Winter school on Fast and anomalous diffusion” Sapienza, Università di Roma. Course held by: H.Berestycki. Member of the scientific committee with E. Montefusco and G. Verzini.
- 17-20/9/2013 “P(n) School on recent trends on nonlinear PDE”. Sapienza, Università di Roma. Mini-Courses held by: C.De Lellis, M.J.Gursky, P.Quittner, K. Sandeep, T. Suzuki. Member of the scientific committee with M. Grossi, E. Montefusco, F. Pacella and A. Pistoia.
- 17-20/1/2012 “A week on fractional diffusion” Politecnico di Milano. Mini-Courses held by: X. Cabré, J.M.Roquejoffre. Member of the scientific committee with E. Montefusco, B. Noris and G. Verzini.

11 Grants

- 2019-2022 P.I. of the Project “Variational methods and Numerical techniques: sHape Optimization and nonlinear Partial differential EquationS” (Vain-Hopes). (Duration: three years).
- 2019-today Member of the Research Project of National Interest MIUR-PRIN-2017JP-CAPN_003 Grant “Qualitative and quantitative aspects of nonlinear PDEs” National P.I. Berardino Sciunzi; local leader: Isabella Ianni.
- 2018 Member of the project Gnampa (Gruppo Nazionale per l’analisi matematica, la probabilità e le loro applicazioni) 2018 Title of the research “Equazioni di Schrödinger nonlineari: soluzioni con indice di Morse alto o infinito” Principal Investigator: Riccardo Molle, Università di Roma “Tor Vergata”.
- 21/3/2016-21/3/2017 Principal Investigator of the research project Gnampa 2016 (Gruppo Nazionale per l’analisi matematica, la probabilità e le loro applicazioni) Title of the research “Problemi a diffusione locale e non-locale: esistenza e proprietà qualitative”.
- 1/11/2014-1/11/2016 Member of the research group “Metodologie e tecniche dell’analisi matematica e numerica e del calcolo scientifico per PDE ellittiche e paraboliche,

problemi inversi, data-fitting su larga scala." Leader: Giulio Giunta. Department of Science and Technology of the University of Naples. Parthenope.

- 2012-2013 Principal Investigator of the research project Gnampa 2012 (Gruppo Nazionale per l'analisi matematica, la probabilità e le loro applicazioni) Title of the research "Diffusione anomala e Diffusione standard: coerenze e contrasti in dinamica delle popolazioni"
- 2012-2014 Member of the research unit of Rome of the Firb Project 2012 "Dinamiche dispersive: Analisi di Fourier e metodi variazionali".
- 2011-2012 Member of the project Gnampa 2011 "Dinamica di popolazioni soggette a diffusione anomala, reazione ed interazione di tipo preda-predatore." Principal Investigator: Gianmaria Verzini, Politecnico di Milano
- 2010-2011 Member of the project Gnampa 2010. "Dinamica di popolazioni e interazioni saturabili: esistenza di soluzioni e aspetti asintotici." Principal Investigator : Eugenio Montefusco, Università di Roma "La Sapienza".)
- 2012-2015 Member of the Research Project of National Interest Prin 2012. "Aspetti variazionali e perturbativi nei problemi differenziali nonlineari". National Principal Investigator: Susanna Terracini. Local Leader: Filomena Pacella, Università di Roma "La Sapienza".
- 2009-2012 Member of the Research Project of National Interest Prin 2009. "Teoria dei punti critici e metodi perturbativi per equazioni differenziali nonlineari". National Principal Investigator: Susanna Terracini. Local Leader: Filomena Pacella, Università di Roma "La Sapienza".
- 2007-2010 Member of the Research Project of National Interest Prin 2007. "Esistenza e proprietà qualitative di soluzioni di problemi ellittici nonlineari", National Principal Investigator: Andrea Malchiodi. Local Leader: Filomena Pacella Dipartimento di Matematica, Università di Roma "La Sapienza".

12 Teaching Activity

- 2022-23 Analysis I (graduate level; Mathematics, 72 hours);
Analysis (graduate level; Data Analytics, 80 hours).
- 2021-22 Analysis I (graduate level; Mathematics, 108 hours);
Analysis (graduate level for Data Analytics, 84 hours);
- 2020-21 Analysis I (graduate level; Mathematics, 108 hours).
Analysis III (graduate level; Mathematics, 56 hours);
Analysis (graduate level, Data Analytics, 84 hours);

- 2019-20 Functional analysis (master degree level; Mathematics, 48 hours),
Nonlinear analysis (master degree level; Mathematics, 32 hours),
Analysis I (graduate level; Mathematics, 108 hours).
- 2018-19 Sobolev Spaces (master degree level; Mathematics 48 hours),
Analysis I (graduate level; Mathematics, 108 hours).
- 2006/07-2017/18 Analysis I (graduate Level, Informatics 72 hours). Academic years: 2006/07,
2007/08, 2008/09, 2009/10, 2010/11, 2012/13, 2014/15, 2015/16, 2016/17,
2017/18.
- 2005/06-2017/18 Analysis II (graduate Level Informatics 72 hours). Academic years: 2005/06,
2006/07, 2007/08, 2009/10, 2011/12, 2013/14, 2015/16, 2016/17, 2017/18.
- 2007/08 Complex Analysis and Fourier Tansform (graduate level, Informatics 72 hours).
- 2012-13 Complex Analysis and Fourier Tansform (PhD Course in the PhD Program
"Geomatica, Navigazione e Geodesia" 24 hours).
- 2007/08 "Partial Differential Equations" (Master course in the second level master
course of "Calcolo Scientifico") Mathematics department of "Sapienza", Uni-
versity of Rome.

13 Research Areas

- Variational methods, critical point theory, non-differentiable functionals ([7, 14, 22, 23, 25, 29, 31]).
- Existence, multiplicity, orbital stability concerning standing waves of Shrödinger equations and weakly coupled systems. In the nonlinear case: ([6, 20, 18, 17, 32]) and in the asymptotically linear case: ([10, 13]).
- Singularly perturbed elliptic systems and equations: existence of concentrat-
ing solutions ([11, 19, 24, 27]).
- Soliton dynamic for coupled nonlinear Schrödinger systems ([15, 16]).
- Fractional diffusion for the logistic equation ([8, 12]).
- Spectral optimization problems ([5, 30]).

13.1 Membership of scientific societies

January 2018-today Member of "European Mathematical Society".

January 2016-today Member of "European Women in Mathematics".

January 2002-today Member of “Unione Matematica Italiana”.

January 2009-today Member of National Research Group “Equazioni differenziali e sistemi dinamici” of “Gruppo Nazionale per l’Analisi Matematica, la Probabilità e le loro Applicazioni” (GNAMPA).

14 Publications

14.1 On Journals

1. L. Maia, B. Pellacci, D. Schiera “*Symmetric positive solutions to nonlinear Choquard equations with potentials*”. Calc. Var. 61, (2022). <https://doi.org/10.1007/s00526-021-02169-1>
2. L. Maia, B. Pellacci, D. Schiera “*Positive bound states to nonlinear Choquard equations in the presence of nonsymmetric potentials*”.
In corso di pubblicazione per un volume speciale della rivista “Minimax Theory and its Applications” Volume 7 (2022), No. 2. Guest Editors: Thomas Bartsch, Michel Willem, Andrzej Szulkin. <https://arxiv.org/pdf/2106.04519.pdf>.
3. L. Boccardo, L. Maia, B. Pellacci, “*Asymptotic behavior of positive solutions of semilinear elliptic problems with increasing powers*”
Proceedings of the Royal Society of Edinburgh: Section A Mathematics, 1-18.
doi:10.1017/prm.2021.54
<https://arxiv.org/pdf/2103.07269.pdf>
4. A. Pistoia, G. Verzini, B. Pellacci e G. Vaira “*Normalized concentrating solutions to nonlinear elliptic problems*”.
Journal of Differential Equations, (2021), 275, pp. 882-919. Codice Scopus: 2.0-85096398085, ISSN 00220396, DOI: 10.1016/j.jde.2020.11.003
5. “*Asymptotic spherical shapes in some spectral optimization problems.*” To appear on Journal de Mathématiques pures et appliquées. (in collaboration with Dario Mazzoleni and Gianmaria Verzini)
6. “*Positive multipeak solutions to a zero mass problem in exterior domains.*” To appear on Communications in Contemporary Mathematics. (in collaboration with Monica Clapp and Liliane Maia)
7. “*Critical points of non-regular integral functionals*” (in collaboration with L. Boccardo). Rev. Mat. Iberoam. (2018) 34, n.3 pp. 1001-1020. DOI: 10.4171/rmi/1013
8. “*Best dispersal strategies in spatially heterogeneous environments: optimization of the principal eigenvalue for indefinite fractional Neumann problems*”, (with Gian-

- maria Verzini) In corso di pubblicazione su Journal of Mathematical Biology, (2018) 76 p.1357-1386, DOI:10.1007/s00285-017-1180-z
9. *"Oscillating solutions for nonlinear Helmholtz Equations"* (with Rainer Mandel ed Eugenio Montefusco) Zeitschrift für angewandte Mathematik und Physik (2017) n.6 p-68-121. DOI:10.1007/s00033-017-0859-8.
 10. *"Positive solutions for asymptotically linear problems in exterior domains"*. (with L.A. Maia) Annali Di Matematica Pura Ed Applicata, (2017), p. 1399-1430, ISSN: 0373-3114, DOI: 10.1007/s10231-016-0621-4
 11. *"Singularly perturbed elliptic problems with nonautonomous asymptotically linear nonlinearities"*, with L.A. Maia ed E. Montefusco. J. Nonlinear Analysis **116** (2015) 193-209.
 12. *"Fractional diffusion with Neumann boundary conditions: The logistic equation"* with E. Montefusco e G. Verzini. Discrete and continuous dynamical systems, series B **18** 8 (2013) 857-865. Codice Scopus: 2-s2.0-84886059105 ISSN: 1531-3492 DOI: 10.3934/dcdsb.2013.18.2175
 13. *"Weakly coupled nonlinear Schrodinger systems: the saturation effect"*, with L.A. Maia ed E. Montefusco. Calc. Var. PDE. **46** (2013) 325-351. Codice Scopus: 2-s2.0-84856067317 ISSN: 0944-2669 doi: 10.1007/s00526-011-0484-x
 14. *"Mountain pass solutions for quasi-linear equations via a monotonicity trick"*. with M. Squassina. J. Math. Anal. Appl. **381** 4 (2011) 857-865. ISSN: 0022-247X, DOI: 10.1016/j.jmaa.2011.04.014
 15. *"Energy convexity estimates for non-degenerate ground states of nonlinear 1D Schrödinger systems"*. with E. Montefusco e M. Squassina. Communications on Pure and Applied Analysis **9** 4 (2010) 867-884. Codice SCOPUS: 2-s2.0-77957903254 ISSN: 1534-0392, DOI: 10.3934/cpaa.2010.9.867
 16. *"Soliton dynamics for CNLS systems with potentials"* with E. Montefusco e M. Squassina. Asymptotic Analysis **66** (2010) p.61-86. Codice Scopus: 2-s2.0-77049126858 ISSN: 0921-7134, DOI: 10.3233/ASY-2009-0959
 17. *"Orbital Stability of ground state solutions of coupled nonlinear Schrödinger equations"* with L.A. Maia ed E. Montefusco. Advanced Nonlinear Studies. **10** (2010), 681-705. Codice SCOPUS: 2-s2.0-77955876738, ISSN: 1536-1365

18. *"Infinitely many nodal solutions for a weakly coupled nonlinear Schrödinger system"*, with L.A. Maia ed E. Montefusco. *Communications in Contemporary Mathematics* **10**, 5 (2008). Codice Scopus: 2-s2.0-51449123648 ISSN: 0219-1997 DOI: 10.1142/S0219199708002934.
19. *"Semiclassical states for weakly coupled nonlinear Schrödinger systems"* , with E. Montefusco e M. Squassina. *Journal of the European Math. Soc.* **10** (2008) p.47-71.
Codice Scopus: 2-s2.0-36349003376 ISSN: 1435-9855 DOI: 10.4171/JEMS/103
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14.2 On Proceedings

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14.3 PhD Thesis

"Topological and Variational Methods for a Class of Quasi-Linear Elliptic Equations".