Anna Maria Candela Curriculum Vitae

Born on June 1, 1967, in Putignano (Bari, Italy). **Business address:** Dipartimento di Matematica

Università degli Studi di Bari Aldo Moro

via E. Orabona 4 70125 Bari, Italy

Tel. +39 0805442669

e-mail: annamaria.candela@uniba.it actually, also: Palazzo Ateneo Piazza Umberto I, 1 70121 Bari, Italy

Tel. +39 0805714005 e-mail: prorettore@uniba.it

Work experience

- October 1, 2019 present: **Vice Rector** (*Pro Rettore Vicario*) of *Università degli Studi di Bari Aldo Moro* (Bari, Italy)
- December 3, 2018 present: **Full Professor** in Mathematical Analysis at *Dipartimento di Matematica* of *Università degli Studi di Bari Aldo Moro* (Bari, Italy)
- December 30, 2013: Italian National Scientific Abilitation as **Full Professor** in Mathematical Analysis
- January 1, 2004 December 2, 2018: **Associate Professor** in Mathematical Analysis at *Dipartimento di Matematica* of *Università degli Studi di Bari Aldo Moro* (Bari, Italy)
- August 5, 1992 July 14, 2004: **Assistant Professor** in Mathematical Analysis at *Facoltà di Scienze MM FF NN* of *Università degli Studi di Bari* (Bari, Italy)

Education

- January 25, 1996: Ph.D. Degree in Mathematics defending a thesis in Nonlinear Analysis, supervisor Donato Fortunato
- 1991 1994: Ph.D. student in Mathematics at *Università degli Studi di Pisa* (Pisa, Italy)
- May 1, 1990 October 31, 1990: postgraduate scholarship of *Consiglio Nazionale delle Ricerche* at *Scuola Normale Superiore* (Pisa, Italy), advisor Antonio Ambrosetti
- November 20, 1989: Degree in Mathematics with full marks *Cum Laude* at the *Università degli Studi di Bari* (Bari, Italy)
- July 1985: high school diploma at the Liceo Scientifico (scientific oriented high school) in Putignano (Bari, Italy)

Languages

Italian (mother tongue), English (proficient user), French (basic user), Spanish (basic user).

October - December 2021: **Coordinator** of the GEP Team for writing the *Gender Equality Plan* 2022-2024 of *Università degli Studi di Bari Aldo Moro* (D.R. n. 3350 del 11.10.2021). The *Gender Equality Plan* 2022-2024 was signed by the Rector on 23.12.2021 (D.R. n. 4781).

May - December 2021: **Member**, and **Coordinator** on behalf of the Rector, of the working group on *Bilancio di Genere 2021* (Gender Report 2021) of *Università degli Studi di Bari Aldo Moro* (D.R. n. 1607 del 10.05.2021). The *Bilancio di Genere 2021* was signed by the Rector on 23.12.2021 (D.R. n. 4782).

December 22, 2020 - present: **Scientific Director** of the Framework Agreement for the Scientific Cooperation between *Università degli Studi di Bari Aldo Moro* and *Fondazione E. Amaldi* (Prot. N. 3777/III/14).

Research activity (last update April 14, 2022)

She is author of **61 research papers** on international journals (already published or in press), **1 chapter** on an EMS book, **3 preprints** submitted for publication on an international journal and **19 proceeding** papers, with more than **400 citations** (databases *MathSciNet MR Author ID 321613*, *Web of Science Researcher ID I-6545-2012*, *Scopus Author ID 7005848392*) and **h-index 12** (see WoS).

She gave: **34 invited talks** at conferences both in Italy and abroad, **15 invited talks** at universities or research centers both in Italy and abroad, **16 short communications** both at national and international workshops.

Visiting Professor for short periods at the following universities or research centers: Universidad de Granada (Granada, Spain), International Erwin Schrödinger Institute for Mathematical Physics (Wien, Austria), Peking University (Beijing, China), Chern Institute of Mathematics (Nankai University, Tianjin, China), Università degli Studi del Salento (Lecce, Italy), Università degli Studi di Perugia (Perugia, Italy), Humboldt-Universität zu Berlin (Berlin, Germany), Universidad de Málaga (Málaga, Spain), Universidad de Sevilla (Sevilla, Spain), Università degli Studi di Milano - Bicocca (Milano, Italy), Università degli Studi di Roma "Tor Vergata" (Roma, Italy).

She was/is member of the **Scientific** and/or the **Organizing Committee** of **27** workshops (3 forthcoming).

Grants

Actually:

- **local coordinator** of the granted national research project MIUR-PRIN project 2017JPCAPN "Qualitative and quantitative aspects of nonlinear PDEs" (P.I. B. Sciunzi)
- **co-investigator** of the granted Spanish project "Geometría semi-Riemanniana y flujos geométricos en Física-Matemática", PID2020-116126GB-I00, Ministerio de Ciencia e Innovación (P.I. M. Sánchez Caja and F. Martín Serrano)
- **co-investigator** of the granted project *Fondi di Ricerca d'Ateneo 2017/18*, supported by University Research Funds (P.I. A. Salvatore)

In the past, **Principal Investigator** of the following granted projects:

- INdAM GNAMPA Project 2018 "Problemi ellittici semilineari: alcune idee variazionali";
- INdAM GNAMPA Project 2015 "Metodi variazionali e topologici applicati allo studio di problemi ellittici non lineari".

Editor activity

For the *Mediterranean Journal of Mathematics* (Birkhäuser, Editor-in-Chief Francesco Altomare):

- Assistant Managing Editor (2013 present)
- Member of the **Editorial Board** (2010 present)
- Member of the **Editorial Staff** (2004 2012).

Associate Editor of the journal *Boundary Value Problems* (Springer, Editor-in-Chief Kanishka Perera, Vicentiu D. Radulescu, Xianhua Tang) (2014 – present).

Guest Editor or **co-Editor** of the following *Special Issues*:

- Recent Advances in Mathematical Analysis (A.M. Candela, M. Cappelletti Montano & E. Mangino Eds.), Trends in Mathematics (in preparation)
- Partial Differential Equations and Semigroups in Applied Analysis (A.M. Candela, G. Fragnelli, G.R. Goldstein, S. Lucente, A. Rhandi & S. Romanelli Eds), Discrete Contin. Dyn. Syst. Ser. S (in preparation)
- Analysis Motivated by Applications (A.M. Candela, G. Ruiz Goldstein, J.A. Goldstein & S. Romanelli Eds), Discrete Contin. Dyn. Syst. Ser. S (in preparation)
- Evolution Equations and Mathematical Models in the Applied Sciences (S. Romanelli, A.M. Candela, R.M. Mininni, A. Pugliese & M. De Giosa Eds), Discrete Contin. Dyn. Syst. Ser. S 6 (2013).

Editor of the book "*Il Castello Aragonese di Taranto in 3D nell'evoluzione del paesaggio naturale*" (G. Mastronuzzi, L. Boccardi, A.M. Candela, C. Colella, G. Curci, F. Giletti, M. Milella, C. Pignatelli, A. Piscitelli, F. Ricci & P. Sansò Eds), DIGILABS s.a.s., Bari, 2013. *ISBN 978-88-7522-047-1*

Referee of some international journals in Mathematics.

1998 - present: Reviewer of the Mathematical Reviews, issue of the American Mathematical Society.

April 30, 2021 - present: Socio Ordinario della Classe di Scienze Fisiche, Mediche, Naturali of Accademia Pugliese delle Scienze

November 14, 2019 - April 29, 2021: Socio Corrispondente della Classe di Scienze Fisiche, Mediche, Naturali of Accademia Pugliese delle Scienze

Member of

- *INdAM G.N.A.M.P.A.*,
- Unione Matematica Italiana.
- European Mathematical Society,
- European Women in Mathematics.

PhD Students:

2019 – present: **Advisor of the Ph.D. student** Caterina Sportelli (XXXV cycle)

2005 - 2007: **Advisor of the Ph.D. student** Valeria Luisi (XIX cycle, Ph.D. Degree in Mathematics got on May 18, 2007 at *Università degli Studi di Bari*).

2013 - present: Member of the **Boarding School of the Ph.D. in Computer Science and Mathematics** of her university

2005 - 2015: Member of the **Boarding School of the Ph.D. in Mathematics** of her university.

February 26, 2004: **Member of the jury** for the defence of the PhD thesis of Miguel Angel Javaloyes Victoria (*Doctorado en Matemáticas*, *Universidad de Murcia*, Murcia, Spain).

In 2008: *referee* of the PhD thesis of Magdalena Caballero (*Doctorado en Matemáticas*, *Universidad de Granada*, Granada, Spagna).

September 13, 2010 - December 15, 2010: **Scientific Advisor** of Verónica Martín Molina, Ph.D. student of the *Doctorado en Matemáticas* della *Universidad de Sevilla* (Siviglia, Spain), during her visit at the *Dipartimento di Matematica* of the *Università degli Studi di Bari Aldo Moro* (*Programa Nacional de Formación de Profesorado Universitario* nº AP2007-04195).

September 30, 2014 - October 11, 2014: **Proposer Professor** of the "Junior" Visiting Professor Nils Waterstraat, "*Dirichlet Postdoc*" of *Berlin Mathematical School* at *Humboldt-Universität zu Berlin* (*Programma Visitatore GNAMPA 2014-2015*).

March 12, 2018: **Member of the jury** for the defence of the PhD thesis of José Antonio Sánchez Pelegrín (*Doctorado en Matemáticas*, *Universidad de Granada*, Granada, Spain).

In 2020: *referee* of the PhD thesis of Giulio Colombo (Dottorato in Scienze Matematiche, Università degli Studi di Milano).

Advisor of some degree thesis of students in *Mathematics* both of first level and of second level degree and of some first level degree thesis in *Science and Technical Nautical Management*.

Member of the some **Selection Boards** for positions as Associate Professor or Researcher in Italian universities.

Teaching experience at PhD students

At the School of the Ph.D. in Computer Science and Mathematics of her university, she gave the following courses:

- Finsler Geometry and Spacetimes, in cooperation with Miguel Angel Javaloyes Victoria (a.y. 2020/21)
- *Elements of Calculus of Variations with Applications to the Study of Geodesics* (a.y. 2010/11, 2012/13, 2014/15, 2015/16, 2017/18, 2018/19).

She gave two mini courses to PhD and/or Master students during some Erasmus Teaching Staff Mobilities:

- Variational tools and geodesics, invited by Miguel Sánchez at Universidad de Granada (September 2014)
- Variational and topological methods applied to Differential Geometry, invited by María Angustias Cañadas Pinedo at Universidad de Málaga (May 2016).

February 23, 2022: **Lecturer** for the 2-hour lesson "Gender Equality Plan", PhD Seminars a.y. 2021/22 on *Promozione della ricerca/Project Management*, open to all the PhD students of her university.

In the a.y. 2021/2022, she is giving the following courses:

- Analisi Superiore 2 (Advanced Mathematical Analysis) at the second level degree in Mathematics,
- Fondamenti di Matematica per la Data Science (Principles of Mathematics for Data Science) at the second level degree in Data Science,
- Analisi Matematica n.3 (Mathematical Analysis no. 3) at the first level degree in Mathematics,
- Analisi Matematica n.4 (Mathematical Analysis no. 4) at the first level degree in Mathematics.

Furthermore, she has an intense activity in the popularization of Mathematics at different levels, mainly giving lectures for high school students, undergraduates in scientific faculties and older people attending universities of the third age.

Research Field

Variational and Topological Methods applied to the study of Nonlinear Differential Equations.

Research Topics

Geodesics and trajectories in semi-Riemannian manifolds; elliptic equations in open bounded domains of IR^N with either homogeneous or nonhomogeneous boundary conditions; elliptic equations in unbounded domains of IR^N; semi-linear elliptic problems of p-Laplacian type both in bounded and unbounded domains; existence and multiplicity theorems for unbounded functionals in Banach spaces.