

## CURRICULUM VITÆ

SUSANNA TERRACINI

Dipartimento di Matematica “G. Peano”  
Università di Torino  
Via Carlo Alberto 10  
10123 Torino (Italy)  
e-m: [susanna.terracini@unito.it](mailto:susanna.terracini@unito.it)  
<https://sites.google.com/site/susannaterracini>

Via Rugabella, 8  
20122 Milano (Italy)

**Personal data.** Place and date of birth: Sutton and Cheam (U.K.), April 29th, 1963.

Marital status: married, one child.

Citizenship: italian.

Languages: italian, french (excellent), english (very good).

**Short CV.** Susanna Terracini obtained her PhD degree at SISSA (Trieste) in 1990. From 1992 to 2001 has been associate professor of Mathematical Analysis. She was full Professor at the University of Milano Bicocca since 2001 and moved to the University of Turin in 2012. She is member of the executive board of ANVUR. (agenzia nazionale di valutazione dell’universit e della ricerca) since 2015 until 2019. Her research interests include different directions in the field of nonlinear analysis with application to the variational approach to chaotic and complex trajectories in Hamiltonian dynamical systems, specially in celestial mechanics and pattern formation mechanisms for nonlinear reaction diffusion and Schrödinger systems. She is the author of about 95 papers, published on the major international mathematical journals. She is part of the editorial board of a number of national and international journals. She has been invited to speak in many Italian and foreign institutions such as MSRI, School of Mathematics in Minneapolis, Paris VI and IX, the Paris Astronomic Observatory, the Courant Institute in New York, Winsconsin University at Madison, Rutgers University, CMAF in Lisbon and EPF in Lausanne, Augsburg University. She was invited as plenary speaker in many international conferences and notably to the *Equadiff2003* meeting, the *IV and V International Meeting on Celestial Mechanics 2004–2006*. to the *Jean Leray Centennial Conference*, in 2006, *The XIV Rivière-Fabes Symposium*, the *XIX Congresso dell’Unione Matematica Italiana* and the *9<sup>th</sup> AIMS Conference on Dynamical Systems, Differential Equations and Applications* in 2012, The Joint UMI-SIMAI-PTM meeting, in 2019. She was awarded with the *C. Vinti* prize in 2003 and the *B. Finzi* prize in 2007.

She is the principal investigator of the Research Project of National Interest (PRIN2012) project *Variational and perturbative aspects of nonlinear differential problems*. She is the principal investigator of the ERC Advanced Grant No 339958 - COMPAT, *Complex Patterns for Strongly Interacting Dynamical Systems*.

The joint paper with D.L. Ferrario ”On the Existence of Collisionless Equivariant Minimizers for the Classical n-body Problem” published on *Inv. Math.* was selected as ”featured review” on Math Reviews.

### Education.

**1986** Laurea in Matematica (BA), Università di Torino, thesis advisor: F. Skof,

**1988** Magister Philosophiae, S.I.S.S.A. Trieste, thesis advisor: S. Solimini

**1990** Doctor Philosophiae, S.I.S.S.A. Trieste, thesis advisor: I. Ekeland

**Academic appointments.**

- 1988-89** Research fellowship C.N.R. at CEREMADE (University of Paris IX)  
**1990-92** *Ricercatore* of Mathematical Analysis (Tenured Assistant Professor), Politecnico of Milano, Italy  
**1992-01** Associate professor at the Department of Mathematics, Politecnico of Milano, Italy  
**2001-12** Full professor at the Department of Mathematics, University of Milano Bicocca, Italy  
**2012-** Full professor at the Department of Mathematics “Giuseppe Peano”, University of Torino

**Awards.**

- 2003** *Calogero Vinti* prize for Mathematics, 2002, (Unione Matematica Italiana)  
**2007** *Bruno Finzi* prize for Rational Mechanics, 2007, (Istituto Lombardo di scienze e lettere)

**Academic Services.**

- 2002– 2012:** member of the committee of the PhD school in Pure and Applied Mathematics, University of Milano Bicocca  
**2002– 2012:** vice-chairman of the Department of Mathematics, University of Milano Bicocca.  
**2013– now:** member of the committee of the PhD school in Mathematics, University of Torino.  
**2012–14:** member of the National Scientific Habilitation committee .  
**2014– now:** member of the Research Observatory, University of Torino.

**Grants.**

- 1998-08** Leader of the Milano research unit of the Project of National Interest “Variational Methods and nonlinear differential equations” (national leader: Prof. A. Ambrosetti). The Milano research unit consists of 3 full professors, 3 associate professor, 4 researchers, 2 post-docs and 5 PhD students, from Universities of Milano and Milano Bicocca and Torino, Politecnico of Milano and Torino.  
**2001-2012** Leader of the research unit “Calculus of Variations and Differential Equations”, University of Milano Bicocca. The research unit consists of 2 full professors, 5 *ricercatore*, 2 post-docs and 5 PhD students, from University Milano Bicocca.  
**2005-** Member of the GREFI-MEFI program (Gruppo di Ricerca Europeo Franco-Italiano: Mathematics and Physics).  
**2007-08** Principal investigator of the GNAMPA project “Esistenza e stabilità di onde solitarie per equazioni differenziali non lineari”  
**2011-13** Principal investigator of the Research Project of National Interest (PRIN2009) project *Critical Point Theory and Perturbative Methods for Nonlinear Differential Equations*, a network gathering four units in Italy (headed by M. Badiale, L. Chierchia, M. Berti and S. T.) and involving about 35 mathematicians.  
**2014-16** Principal investigator of the Research Project of National Interest (PRIN2012) project *Variational and perturbative aspects of nonlinear differential problems*, a network gathering eight local units in Italy (headed by L. Chierchia, M. Berti, A. Malchiodi, F. Pacella, P. Pucci, G. Tarantello, E. Valdinoci and S. T.) and involving about 75 mathematicians.  
**2014-19** Principal Investigator of the ERC Advanced Grant No 339958 - COMPAT, *Complex Patterns for Strongly Interacting Dynamical Systems*.

**Teaching.**

- Mathematical Analysis (graduate level),
- Calculus (graduate level),
- Differential Equations
- Measure Theory (graduate level),
- Advanced Calculus (Master level),
- Variational Methods
- Functional Analysis and Differential Equations (Master level),
- Functional Analysis applied to Material Sciences (Master level),
- Symmetry methods in PDE’s (post-graduate level),
- Ginzburg–Landau vortices (post-graduate level),
- Nonlinear analysis (post-graduate level),

**Master thesis supervised.**

- 2005** Roberto Castelli, *Moti periodici di filamenti vorticosi quasi-paralleli*
- 2005** Benedetta Noris, *Il lemma di monotonia di Alt–Caffarelli–Friedman*
- 2007** Cristina Sanvito, *Singolarità per problemi degli  $N$ -corpi*
- 2007** Chiara Todeschini, *L'educazione matematica nell'istituzione carceraria*
- 2009** Andrea Alemani, *Reaction diffusion equations: Some applications to ecology*
- 2010** Luca Galimberti, *Sulle migliori costanti delle immersioni di Sobolev*  
 Silvia Mosca, *La classificazione delle soluzioni dell'equazione di Lane-Emden*  
 Cristian Bruno, *Stabilità e instabilità asintotica di una crescita tumorale*
- 2011** Cristian Cesana, *Invasioni biologiche, sopravvivenza e fronti d'onda in un'ambiente periodicamente frammentato*  
 Giovanni Cattorini, *Transversality condition and utility maximization*  
 Marcello Mariotti, *Some Recent Results about Population Dynamics*  
 Simone Brusamolino, *Stabilità e instabilità di biforcazioni per un modello matematico di crescita tumorale*
- 2012** Ilaria Colombo, *Orbite periodiche simmetriche per il problema degli  $N$ -corpi*  
 Matteo Rizzi, *Qualitative properties of solutions of some nonlinear partial differential equations*, jointly supervised with Alberto Farina, Univ. de la Picardie  
 Ilaria Mondello, *Continuum limit for the discrete NLS equation*, jointly supervised with Gigliola Staffilani, MIT  
 Alice Ambrosio, *Singular Harmonic Maps In General Relativity*
- 2014** Luca Alasio, *Minimizers of the interaction energy on a space of probability measures*  
 Alessandro Audrito, *Classical Theory of Parabolic Equations and an Application to the Dynamics of Populations*  
 Stefano Burzio, *Vortices in Bose-Einstein Condensates*  
 Fabrizio Longo Vaschetti, *Symmetric solutions to the Allen-Cahn equation*
- 2015** Pamela Duodu, *The diffusion equation: modeling and qualitative analysis*, jointly supervised with Moustapha Fall, AIMS Sénégal.

**PhD thesis supervised.**

- 1994-98** Filippo Gazzola (now full professor, Politecnico di Milano), *Orbite periodiche in sistemi di moti periodici in catene di infinite particelle*. co-advised with G. Prouse
- 1995-99** Monica Conti (now associate professor, Politecnico di Milano), *Existence, non existence and multiplicity methods for elliptic systems*.
- 1995-99** Luca Merizzi, *Tecniche variazionali per problemi ellittici su uno spazio di Hilbert parzialmente ordinato*.
- 1995-99** David Pardo, *Simmetria per le soluzioni di equazioni subellittiche non lineari*.
- 1996-00** Gianmaria Verzini (now ricercatore, Politecnico di Milano), *Oscillating solutions to differential equations via the Nehari method*.
- 2002-04** Vivina Barutello (now ricercatore, Università di Torino), *On the  $n$ -body problem*.
- 2005-09** Roberto Castelli, *On the variational approach to the one and  $N$ -centre problem with weak forces*.
- 2005-09** Benedetta Noris, *On nonlinear Schrödinger systems with strong competition*.
- 2006-10** Hugo Tavares, *Nonlinear elliptic systems with a variational structure: existence, asymptotics and other qualitative properties*. ( with Miguel Ramos)
- 2007-11** Laura Abatangelo, *Multiplicity of solutions to elliptic equations*.
- 2010-13** Alessandro Zilio, *On monotonicity formul, fractional operators and strong competition*, co-advised with Gianmaria Verzini
- 2010-13** Nicola Soave, *Variational and Geometric Methods for Nonlinear Differential Equations*, co-advised with Alberto Farina (Univ. Picardie)
- 2011-15** Manon Nys, *Schrödinger equations with an external magnetic field: spectral problems semiclassical states*, co-advised with Denis Bonheure
- 2011-15** Riccardo Jadanza, *Morse index and linear stability of relative equilibria in singular mechanical systems*, co-advised with Paolo Tilli, V. Barutello, A. Portaluri, posizione attuale: post-doc

- 2013-17** Matteo Sacchet, Two Nonlinear Systems from Mathematical Physics, co-advised with Thomas Bartsch, attualmente borsista presso l'Universit di Torino
- 2014-18** Alessandro Audrito, Nonlinear and nonlocal diffusion equations. Qualitative theory and asymptotic behaviour, attualmente post-doc presso il Politecnico di Torino
- 2014-18** Giorgio Tortone, On the nodal set of degenerate-singular and nonlocal equations, attualmente borsista presso l'Universit di Torino
- 2014-18** Stefano Vita, Strong Competition Systems Ruled by Anomalous Diffusions, attualmente post-doc presso l'Universit di Bologna

I am currently supervising one PhD thesis (Gian Marco Canneori).

#### Post-doc mentoring.

- 2000-02** Davide L. Ferrario (now associate professor, University of Milano-Bicocca)
- 2000-01** Gianmaria Verzini (now ricercatore, Politecnico di Milano)
- 2002-03** Andrea Venturelli (now full professor, Universit d'Avignon)
- 2003-06** Veronica Felli (now associate professor, University of Milano-Bicocca)
- 2004-07** Vivina Barutello (now ricercatore, University of Torino)
- 2005-06** Elsa Maria Marchini (now ricercatore, Politecnico di Milano)
- 2008-10** Marco Ghimenti (now ricercatore, University of Pisa)
- 2008-10** Ana Primo Ramos (now post-doc, ICMAT Institute for the Mathematical Sciences, Madrid)
- 2010-12** Benedetta Noris (now Marie-Curie post-doc at the University of Versailles);
- 2012-13** Mouhamed Moustapha Fall (now holding a research position at the African Intinute of Mathematics)
- 2012-13** Laura Abatangelo (now post-doc, University of Milano-Bicocca)
- 2014-16** Dario Mazzoleni (University of Torino)
- 2015-17** Corentin Lena (University of Torino)
- 2015-17** Christos Sourdis (University of Torino)

#### Participation in Scientific Commitees of Conferences (from 2010).

- 2010** *Solitary and Dispersive Days* Milano, December 13–17, with R. Adami, D. Bambusi, D. Noja
- 2011** *Variational and perturbative methods for nonlinear differential equations*, Venice, January 20-22, with A. Malchiodi
- 2012** – *Workshop on Variational methods in N-body and Vortex Dynamics*, Lecce, May 28-June 8, with A. Portaluri
- *Singular limit problems in nonlinear PDEs*, CRM Luminy, November 26-30, with T. Bartsch, M. Del Pino, N. E Dancer
- 2013** – *New perspectives on the N-body problem*, BIRS Banff (Canada), January 13-18 2013 (a Mathematics for Planet Earth event), with L. Chierchia, V. Kaloshin and J.N. Mather
- *Workshop Concentration phenomena and compactness issues in nonlinear PDE*, May 19-25 2013, Institute Mittag Leffler (Djursholm), with M. Vlapp and A. Szulkin
- *The 5th EWM summer school*, ICTP, May 27- June 1 2013
- *The 16th EWM General Meeting*, Hausdorff Institute for Mathematics, Bonn, September 2-6, 2013
- 2014** – *Variational Methods in Elliptic Equations and Systems*, with Luis Sanchez, Hugo Tavares, Lisboa, January 7-10, 2014
- *2014 International Conference of Women Mathematicians*, Program Committee member, to be held in August 2014 in Seul, Korea
- 2015** – *Complex Patterns in Nonlinear Phenomena Conference*, Chair, Turin, January 24-30 2015
- *INDAM Meeting of European Women in Mathematics: the 17th EWM General Meeting*, Chair, to be held in Cortona in September 2015
- *Joint meeting of the AMS, EMS and SPM*, Program Committee member, June 9-13, 2015 in Porto, Portugal
- *XX Convegno dell'Unione Matematica Italiana*, Scientific Committee member, September 2015 6-11 2015, Siena

- VII Symposium on Nonlinear Analysis Toruún, Scientific Committee, Poland, September 14-18, 2015
- INdAM Meeting of European Women in Mathematics: the 17th EWM General Meeting, Thematic Session Nonlinear PDEs, Il Palazzone in Cortona, August 31st-September 4th, 2015 (<http://www.europeanwomeninmaths.org/activities/conference/17th-ewm-general-meeting-cortona-2015>)
- Autumn School on ODEs and Dynamical Systems, Università degli Studi di Torino, November 24-27, 2015. webpage: <https://sites.google.com/site/asodys2015/home>
- 2016** – Bruxelles-Torino talks in PDEs, Department of Mathematics “Giuseppe Peano”, Università degli studi di Torino, May 2-5, 2016. <https://brutopdes.wordpress.com/>
- Jornadas d’interacció entre sistemes dinàmics i equacions en derivades parcials, Barcelona, July 11 - 15, 2016 (<https://mat.upc.edu/ca/recerca/congressos-jornades-i-seminaris/jisd-summer-school/jisd2016>)
- PDEs at the Grand Paradis, International Conference on Variational Methods and non linear PDEs, Cogne, Auditorium Biblioteca, June 20-24, 2016. <http://www.mat.uniroma2.it/damascel/cogne2016/index.shtml>
- Women and Research in Mathematics: the contribution of SISSA. SISSA, Trieste, September 7-8-9, 2016.
- 2017** – Asymptotic Patterns in Variational Problems: PDE and Geometric Aspects (16w5065), Banff International Research Center, Casa Matematica Oaxaca, Mexico, september 25-30 2016 <http://www.birs.ca/events/2016/5-day-workshops/16w5065>
- Roma Caput PDE, Roma, January 23 - 26, 2017 <https://sites.google.com/site/romacaputpde/>
- James SERRIN: from His legacy to the new frontiers, Dipartimento di Matematica e Informatica, Università degli Studi di Perugia Perugia, January 30 - February 3, 2017 <http://www.dmi.unipg.it/serrinconference2017/>
- Workshop on Celestial Mechanics, Torino, April 4-7 2017
- Workshop Young PDE’s@Roma February 19-22, 2018, Dipartimento SBAI, La Sapienza Università di Roma <https://sites.google.com/a/uniroma1.it/young/>
- SDSM 2017 Satellite Dynamics and Space Missions: Theory and Applications of Celestial Mechanics, San Martino al Cimino August 28- September 1 2017, <http://adams.dm.unipi.it/simca/sdsm2017/>
- Intensive Week of PDEs at Spa, Spa (Belgium) from December 11, 2017 to December 15, 2017
- Miniworkshop in Celestial Mechanics Turin, 18-19/12/2017
- 2018** – Interaction models: Mean Field Games, pattern formation and related topics January 25-26, 2018 - Dipartimento di Matematica “Tullio Levi-Civita”, Università degli Studi di Padova (Gianmaria Verzini organizer)
- ICM 2018 Satellite conference on Nonlinear Partial Differential Equations , Fortaleza, Brazil, 23-27 July 2018 (Hugo Tavares organizer)
- 2019** – Intensive Week of PDEs@Cogne, Cogne (Italy), June 2-7, 2019
- New trends in Celestial Mechanics, Cogne (Italy), June, 24-28, 2019

**Editorial work.** Is member of the editorial committee of *NODEA: Nonlinear Differential Equations and Applications*, and associate editor of *Celestial Mechanics and Dynamical Astronomy*, *Nonlinearity*, *Acta Applicandæ-Mathematicæ*, *Discrete and Continuous Dynamical Systems - B*, *ESAIM-COCV*, *Functiones et Approximatio, Portugaliæ Mathematica*.

Has served as a referee for many international journals including: *Journal of the American Mathematical Society*, *Inventiones Mathematicæ*, *Advances in Mathematics*, *Communications in Mathematical Physics*, *Archive for Rational Mechanics and Analysis*, *Proceedings of the American Mathematical Society*, *Nonlinearity*, *Physics Letter A*, *Physica D*, *Interfaces and Free Boundaries*, *International Journal of Mathematics*, *Journal d’Analyse Mathématique*, *Astronomy*, *Celestial Mechanics and Dynamical Astronomy*, *Mathematical Models in Applied Sciences*, *Communications in Contemporary Mathematics* *Discrete and Continuous Dynamical Systems* sec.

*A, Journal of Differential Equations, Calculus of Variations, Annales de l'Institut Henri Poincaré, Analyse non linéaire, The Royal Society of Edinburgh Proceedings A, Communications in Partial Differential Equations, Mathematische Nachrichten, Nonlinear Analysis TMA, Differential and Integral equations, Advances in Differential Equations, Journal of Mathematical Analysis and Applications, Electronic Journal of Differential Equations, SIAM Journal on Scientific Computing, ZAMP, Mathematics of Computation.*

**Other services.** Member of the *Osservatorio per la Ricerca dell'Università di Torino*. Member of the ASN Committee 2013-14, the Italian national habilitation committee. Member of the AERES evaluation panel of the Mathematics Department of University of Paris Cretail-Marne-la-Vallée (2009), member of the evaluation panel of the Mathematics and IT Departments of Uppsala University. Has served as referee for several research funding agencies.

**Visiting positions (one month or more).**

- Centro de Matematica e Aplicações Fundamentais, Lisboa, June 1992, May 1994;
- Courant Institute for Mathematical Sciences, New York University, USA: November 1992– April 1993,
- CEREMADE, Université de Paris IX, May 1993, September 1996, March 1998, January–February 2004; February 2005; February 2007.
- Department of Mathematics, University of Southern California, USA: September–December 1994,
- Departamento di Matematica, University of Evora, Portugal, June 1996,
- Rutgers University, September 1998,
- Observatoire Astronomique de Paris, Bureaux de Longitudes, May 2000 and March 2001, February 2005
- MSRI Visiting member, April 2011

**Short courses.**

- *Nonlinear Analysis and Differential Equations'*, Lisboa, October 1998 (eight lectures);
- “IV Turin fortnight on nonlinear analysis”, Dipartimento di Matematica, Università di Torino, September 30th - October 3rd, 2003, short course (3 lectures) *Segregated states for some competition-diffusion problems: existence, uniqueness and the free boundary problem.*
- “Workshop GREFI-MEFI 2008: from Dynamical Systems to Statistical Mechanics”, CIRM, Marseille February 18–22, 2008, “A functional analytic approach to multi-modal periodic trajectories in Fermi-Pasta-Ulam chains”
- “The Spring School in Nonlinear Partial Differential Equations” Université Catholique de Louvain, Louvain-la-Neuve, Belgium, May 26–30, 2008, *Analytical aspects of optimal partition problems and segregation in reaction-diffusion systems*
- *Variational Methods and Nash-Moser*, Pacific Institute for Mathematical Sciences, Vancouver June 16–22 2008, *Symmetries and collisions in the n-body problem,*
- *South West Regional PDE Winter School'*, St Anne's College, University of Oxford, 12-13 December 2008 *Analytic aspects in spatial segregation for competition systems,*
- Bangalore (India), August 2010, *Spatial segregation for competition systems*
- Advanced school *Intensive two-month on boundary value problems for differential equations: models for the applied sciences and theoretical aspects.* Modena, April 15 -June 15 2012
- School *Variational and geometric methods in PDE's* - Ancona (Italy), April 18-27 2012
- INDAM-GNAMPA School *Differential equations and Dynamical Systems*, Serapo (Latina), June 11-15 2012
- Scuola Matematica Interuniversitaria, Equazioni alle Derivate Parziali, Cortona July 15-28 2012
- Summer School: *Mathematical Methods in Celestial Mechanics*, CIRM Marseille, September 9-13, 2013
- GNAMPA school on Nonlinear Elliptic Problems, University of Milano-Bicocca, January 20-24, 2014
- Primo Corso Intensivo di Calcolo delle Variazioni, Catania June 9-14, 2014
- WORKSHOP ON INTERACTIONS BETWEEN DYNAMICAL SYSTEMS AND PARTIAL DIFFERENTIAL EQUATIONS, Barcelona, June 16-20, 2014
- CIMPA Research School *Hamiltonian and Lagrangian Dynamics*, Salto, Uruguay, March 10 to 19, 2015
- Summer Course UIMP 2015 *Frontiers of Mathematics and Applications IV*, Santander (Spain), July 20-25, 2015

- African Institute for Mathematical Sciences, Sénégal, Spring School on nonlinear PDEs, February 15-19 2016, *Geometric aspects of phase separation*
- Focus Program on Nonlocal Partial Differential Equations, Fields Institute, Toronto, May 24-27 2016, *Geometric aspects of phase separation*
- Scuola Estiva GNFM, Ravello, September 5-10 2016, *Geometric aspects of phase separation*
- 2018 EWM-EMS Summer School on Nonlocal interactions in partial differential equations and geometry, Institut Mittag-Leffler, May 21-25, 2018 *Geometric Aspects of Phase Separation*
- Recent Trends on Nonlinear PDEs of Elliptic and Parabolic Type, 5-16 November 2018, MATRIX, Creswick (Australia), *Spatial segregation with non-standard diffusions*

#### Invited talks (from 2014).

- 2013**
- Seminario *Problemi Differenziali Non Lineari* Università di Roma “La Sapienza”, April 11 2013
  - *Seminari di Analisi Matematica* Università di Torino, 15 maggio 2013
  - Workshop *Concentration phenomena and compactness issues in nonlinear PDE*, Mittag-Leffler Institute May 21th 2013
  - *Geometric Methods in PDE*, INDAM Meeting in the occasion of the 70<sup>th</sup> birthday of Ermanno Lanconelli, Cortona, May 27-31 2013
  - *Nonlinear Elliptic and Parabolic Partial Differential Equations*, Politecnico di Milano, June 19-21 2013
  - *Mathematical Paradigms of Climate Science*, Istituto Nazionale di Alta Matematica Roma, June 14-28 2013
  - *Variational methods and partial differential equations*, Workshop on the occasion of Michel Willem’s 60th birthday, Université Catholique de Louvain, Louvain-la-Neuve, July 11–12 2013
  - CELMEC VI, *The Sixth International Meeting on Celestial Mechanics*, San Martino al Cimino, September 1-7, 2013
  - *Workshop on nonlinear PDE and calculus of variations* Chern Institute of Mathematics, Nankai University, Tianjin, September 16-20, 2013
  - *France-Taiwan Joint Conference on Nonlinear Partial Differential Equations*, National Taiwan University, Taipei, Taiwan, October 21-25, 2013
  - International conference on *Recent developments of nonlinear PDEs*, Australian National University, during November 25-29, 2013
- 2014**
- GNAMPA school on Nonlinear Elliptic Problems, January 20-24, 2014 Università di Milano-Bicocca
  - African Institute of Mathematical Sciences, Colloquium, February 2014
  - “Workshop on Symplectic Dynamics and Hamiltonian Systems” (SyHaS), Chern Institute of Mathematics (CIM), Nankai University, Tianjin, China, May 19-23, 2014
  - Workshop *Geometric Aspects of Semilinear Elliptic and Parabolic Equations: Recent Advances and Future Perspectives*, BIRS, Banff, May 25-30, 2014
  - *A meeting with Louis Nirenberg*, Riemann International School of Mathematics Varese, Villa Toeplitz, June 13 2014
  - *Partial differential equations and nonlinearities*. A conference in honor of Haïm Brezis, IHP Paris June 30-July 4 2014
  - *The 10<sup>th</sup> AIMS Conference on Dynamical Systems, Differential Equations and Applications*, Madrid, July 7 - 11,
  - Conference *Méthodes géométriques et variationnelles pour des EDPs non-linéaires*, Lyon (France), September 1-5, 2014.
  - Workshop *Symplectic Techniques in Topology and Dynamics* University of Cologne, September 22 - 26, 2014
  - Workshop *Navigare fra le stelle: il satellite Gaia, una nuova rivoluzione astrofisica?* Palazzo Lascaris, sede del Consiglio Regionale del Piemonte, Turin, november 14
  - Mathematics Colloquium, Justus Liebig Universität, Gießen
- 2015**
- Congreso de la Real Sociedad Matemática Española, special session *Nonlinear Analysis and Elliptic PDEs*, Granada, February 2–6 2015

- Winter School and Workshop *Spectral theory and shape optimization problems for elliptic PDEs* University of di Milano-Bicocca, February 9-13
- Conference *Nonlinear Elliptic PDEs at the end of the World*, Universidad de Magallanes, Punta Arenas, Chile February 2 - 6, 2015
- Seminar, Laboratoire Jean Kuntzmann, Université Joseph Fourier, Grenoble, March 26, 2015
- Workshop *Geometric and spectral Analysis* Université Aix-Marseille, April 13–15, 2015
- *One day in PDEs*, Gran Sasso Science Institute, L’Aquila, April 20, 2015
- Workshop *Recent trends in geometric analysis*, Carry-Le-Rouet (F), June 1-5, 2015
- AMS-EMS-SPM meeting, Porto (Portugal), June 10-13 2015,
- Workshop *Nonlinear meeting in Turin*, University of Turin, June 16-17, 2015
- Workshop *Shape optimization and spectral geometry*, ICMS, Edinburgh, 29 June 3 July 2015
- Workshop *New advances in PDE’s, Inverse Problems and Control Theory*, University of Parma, July 6-10, 2015
- BCAM Workshop on *Harmonic Analysis and PDEs*, Basque Center for Applied Mathematics, Bilbao, July 13-17 2015
- Symplectic Techniques in Topology and Dynamics 2015, Cologne, August 24-28 2015, *A variational approach to colliding solutions in celestial mechanics*
- Workshop on Nonlinear PDEs, September 7-11 2015, Université Libre de Bruxelles, *Existence and regularity of solutions to optimal partition problems involving Laplacian eigenvalues*
- VII Symposium on Nonlinear Analysis, Toruń, September 14-18, 2015, *Liouville theorems and qualitative properties of solutions to competitive systems with several components*
- PDE 2015 - Theory and Applications of Partial Differential Equations, November 30 to December 4, 2015, WIAS Berlin, *Entire solutions and spiralling asymptotic profiles of competition-diffusion systems*
- 2016** – Institut für Mathematik, Goethe-Universität Frankfurt, February 3, 2016, *Entire solutions and spiralling asymptotic profiles of competition-diffusion systems*
- Workshop on Symplectic Geometry, Contact Geometry, and Interactions, University of Augsburg, February 25-27 2016, *Scattering parabolic solutions for the spatial N-centre problem*
- Dipartimento di Matematica “Guido Castelnuovo”, Università Sapienza Roma, 11 Aprile 2016, *Entire solutions and spiralling asymptotic profiles of competition-diffusion systems*
- Recent Trends in Differential Equations, University of Aveiro, June 27-29 2016, *Scattering parabolic solutions for the spatial N-centre problem*
- Calculus of Variations, Mathematisches Forschungsinstitut Oberwolfach, July 10-16 2016, *Regularity of the optimal sets for spectral functionals*
- New trends in Partial Differential Equations, Centro di Ricerca Matematica Ennio De Giorgi, Pisa October 3-7 2016, *Entire solutions and spiraling asymptotic profiles of competition-diffusion systems*
- Shape Optimization, Isoperimetric and Functional Inequalities, Centre International de Rencontres Mathématiques, Luminy, Marseille, November 21-15, 2016, *Regularity of the optimal sets for spectral functionals - Part I*
- Università di Udine, Colloquim, November 8 2016, *Aspetti geometrici nella separazione di fase*
- Workshop in Mathematical Physics, ETH Hönggerberg, November 28-30, 2016, *Geometric Aspects of Phase Separation*
- Workshop on Nonlinear PDE’s and Mathematical Physics, Tsinghua Sanya International Mathematics Forum December 5-9, 2016, *Geometric Aspects of Phase Separation*
- 2017** – JAMES SERRIN: FROM HIS LEGACY TO THE NEW FRONTIERS, Perugia, January 30 - February 3, 2017, *Entire solutions and spiralling asymptotic profiles of competition-diffusion systems*
- Seminario di Analisi, Dipartimento di Matematica e Applicazioni “Renato Caccioppoli”, Napoli, 9 febbraio 2017, *Geometric Aspects of Phase Separation*
- A day in Nonlinear Analysis, Università di Napoli Federico II, March 2 2017, *Parabolic solutions for the spatial N-centre problem*

- Colloquium del Dipartimento di Matematica, Università di Roma Tor Vergata, March 7 2017, *A survey on the variational approach to the N-body problem*
- Università Cattolica del Sacro Cuore, Dipartimento di Matematica e Fisica “Niccolò Tartaglia”, Brescia, 7 aprile 2017 *On s-harmonic functions on cones*
- Women in PDEs@Karlsruhe, KIT, Karlsruhe, Germany, April 27-28 2017, *A survey on the variational approach to the N-body problem*
- Nonlinear diffusion and free boundary problems. A conference on the occasion of Juan Luis Vázquez 70th anniversary Universidad Autónoma de Madrid, May 16-19 2017 , *On s-harmonic functions on cones*
- Workshop Geometric Properties of Local and non-Local PDEs, CMO-BIRS program, Casa Matemática Oaxaca, Oaxaca, Mexico, May 22-26 2017, *On s-harmonic functions on cones*
- The First Joint IMU-INdAM Conference in Analysis Tel Aviv (Israel) May 29 - June 1, 2017, *Geometric Aspects of Phase Separation*
- Workshop Emerging issues in nonlinear elliptic equations: Singularities, singular perturbations and non local problems, June 18 - 23, 2017 Mathematical Research and Conference Center Będlewo, Poland, *Geometric Aspects of Phase Separation*
- Nonlinear Analysis Conference, University of Notre Dame Rome Gateway, Roma, June 26-30, 2017 *Regularity of the optimal sets for spectral functionals*
- Two nonlinear days in Urbino 2017 Università degli Studi di Urbino Carlo Bo, July 6-7 2017, *On s-harmonic functions on cones*
- CELMEC VII, The Seventh International Meeting on Celestial Mechanics, San Martino al Cimino (VT), September 3-9, 2017, Plenary conference, *Parabolic trajectories and symbolic dynamics: a survey on the variational approach to the N-body and N-centre problem*
- Faculdade de Ciências, Universidade de Lisboa, September 11, 2017 , *On s-harmonic functions on cones*
- Seminario Matematico e Fisico di Milano, Dipartimento di Matematica del Politecnico di Milano, 6 Ottobre 2017 *Spiralling solutions in limiting profiles of competition-diffusion systems*
- Analysis and Dynamics, Conference in occasion of Luigi Chierchia’s 60’ Birthday, Marina di San Gregorio, Lecce, 12-15 October 2017, *Parabolic trajectories and symbolic dynamics: a survey on the variational approach to the N-body and N-centre problem*
- Workshop on Hamiltonian Systems, October 29, to November 3, 2017, Centro Congressi Stefano Franscini (CSF), Ascona, Switzerland, *Parabolic trajectories and symbolic dynamics: a survey on the variational approach to the N-body and N-centre problem*
- Institut für Mathematik der Universität Augsburg, Oberseminar Differentialgeometrie, November 13, 2017, Augsburg, Germany, *Parabolic trajectories and symbolic dynamics: a survey on the variational approach to the N-body and N-centre problem*
- Gran Sasso Science Institute, Mathematics of Natural, Social and Life Sciences, December 7, 2017, *Spiralling and other solutions in limiting profiles of competition diffusion systems*
- 2018** – 2nd Italian-Chilean Workshop in PDE’s, INDAM, Rome, January 15-19, 2018, *The nodal set of solutions to some semilinear equations with sublinear, discontinuous, or singular nonlinearities*
- Hausdorff Kolloquium, Hausdorff Center for Mathematics, Bonn, January 24, 2018 *Spiralling and other solutions in limiting profiles of competition diffusion systems*
- Interaction models: Mean Field Games, pattern formation and related topics, Dipartimento di Matematica “Tullio Levi-Civita”, Università degli Studi di Padova, January 25-26, 2018 *Spiralling and other solutions in limiting profiles of competition diffusion systems*
- Séminaire d’Analyse Mathématique, École Polytechnique Fédérale de Lausanne, March 2nd, 2018, *Spiralling and other solutions in limiting profiles of competition diffusion systems*
- Nonlinear Days in New York, CUNY Graduate Center, April 25-27, 2018, *The nodal set of solutions to some semilinear equations with sublinear, discontinuous, or singular nonlinearities*
- Women in Applied and Computational Mathematics, GSSI, L’Aquila, May 9-11 2018, *Regularity of the free boundary for the vectorial Bernoulli problem*

- Eigenvalues and Inequalities, Institut Mittag-Leffler, May 14-19 2018, *Regularity of the free boundary for the vectorial Bernoulli problem*
  - Perspectives in Hamiltonian Dynamics, Centro Culturale Don Orione, Venezia, June 18-22, 2018, *An index theory for asymptotic solutions to the N-body and N-centre problem*
  - Two days on PDEs, Bruno Pini Centenary Conference, Accademia delle Scienze dell'Istituto di Bologna, June 21-22 2018, *Regularity of the free boundary for the vectorial Bernoulli problem*
  - Variational Problems arising from Physics and Geometry, Rauischholzhausen Castle, Germany, July 16-19, 2018, *The nodal set of solutions to some semilinear equations with sublinear, discontinuous, or singular nonlinearities*
  - ICM 2018 Satellite Conference on Nonlinear Partial Differential Equations, Fortaleza - Ceará (Brazil), July 23-27 2018, *Regularity of the free boundary for the vectorial Bernoulli problem*
  - Workshop for Women in Differential Equations, ICM 2018 Satellite Event, UFABC - Santo André (Brazil), July 25-27, 2018, *Spiralling and other solutions in limiting profiles of competition diffusion systems*
  - Connections for Women: Hamiltonian Systems, from topology to applications through analysis, August 16, 2018 - August 17, 2018, MSRI, Berkeley *Parabolic and collision trajectories: a survey on the variational approach to the N-body problem*
  - Nonlinear Analysis and PDEs in Caserta, Università della Campania, “Luigi Vanvitelli”, September 10-14, 2018, *On the nodal set of solutions to degenerate and singular elliptic and parabolic equations with applications to s-harmonic and s-caloric functions*
  - Joint UMI-SIMAI-PTM meeting, Wrocław, Poland, September 16-20 2018, Plenary Conference, *Spiralling and other solutions in limiting profiles of competition diffusion systems*
  - Joint UMI-SIMAI-PTM meeting, Wrocław, Session 11, Variational and Set-valued Methods in Differential Problems, September 18, 2018, *Regularity of the free boundary for the vectorial Bernoulli problem*
  - Joint UMI-SIMAI-PTM meeting, Session 21: New perspectives in singular Hamiltonian Systems, Wrocław, Poland, September 16-20 2018, *Parabolic and collision trajectories: a survey on the variational approach to the N-body problem*
  - Recent Trends in Nonlinear PDEs – MATRIX Satellite Workshop, School of Mathematics and Statistics, the University of Sydney, November 1-3, 2018, *Segregated configurations involving the square root of the laplacian and their free boundaries*
  - The University of Texas at Austin, Analysis Seminar, November 15, 2018, *Segregated configurations involving the square root of the laplacian and their free boundaries*
  - Courant Institute for Mathematical Sciences, New York University, Analysis Seminar, November 20, 2018, *Segregated configurations involving the square root of the laplacian and their free boundaries*
  - Incontri di Matematica allo SBAI, La Sapienza Università di Roma, 11 Dicembre 2018, *The nodal set of solutions to some semilinear equations with sublinear, discontinuous, or singular nonlinearities*
- 2019**
- Advances and Challenges in Nonlinear Elliptic Systems, The Riemann International School of Mathematics, February 7-8 2019, Villa Toeplitz, Varese, *Liouville theorems and uniform regularity estimates for a class of degenerate/singular elliptic operators*
  - Nonlinear Geometric PDE's, May 5-10 2019, the Banff International Research Station (Banff, Canada), *Liouville type theorems and local behaviour of solutions to degenerate or singular problems*
  - International Conference on Elliptic and Parabolic Problems, May 20-24 2019, Gaeta (Italy), *Spiralling and other solutions in limiting profiles of competition diffusion systems*
  - VI Italian-Japanese Workshop, May 20-24, Cortona, *Liouville type theorems and local behaviour of solutions to degenerate or singular problems*
  - Analytic and Geometric Aspects of PDEs, May 27-30 Politecnico di Milano, *The nodal set of solutions to sublinear, discontinuous and singular equations*
  - Women In Analysis - A Research Collaboration Conference for Women, June 9-14 2019, Banff International Research Station, *Spiralling and other solutions in limiting profiles of competition diffusion systems*

- Women in PDEs @ Vienna, June 17-18, 2019, University of Vienna *Spiralling and other solutions in limiting profiles of competition diffusion systems*
- New Trends in Celestial Mechanics 2019, June 24-28 2019, Cogne (Italy), *Symbolic Dynamics of the N-centre Problem*
- Session: Recent developments in the analysis of nonlocal operators, ICIAM 2019, July 17, Valencia (Spain) *Nodal sets and free boundaries of segregated critical configurations involving fractional laplacians*
- Partial Differential Equations, 21 July - 27 July 2019, Mathematisches Forschungsinstitut Oberwolfach (D)
- Mathematical Modeling for Science and Engineering, University of Naples, September 11-13, 2019, *Spiralling and other solutions in limiting profiles of competition diffusion systems*
- Nonlinear Days in Alghero, Università di Sassari, sede di Alghero, September 16-19, 2019, *The nodal set of solutions to sublinear, discontinuous and singular equations*
- ÖMG Conference 2019, University of Applied Sciences Vorarlberg, September 16-20, 2019, *Spiralling and other solutions in limiting profiles of competition diffusion systems*