

Europass Curriculum Vitae

Personal information

Name	Alberto Boscaggin
Date and place of birth	21/08/1984, Torino, Italy
Work address	Department of Mathematics, University of Torino via Carlo Alberto 10, 10123 Torino, Italy
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Current position

March 2021 - present	Associate Professor in Mathematical Analysis, Department of Mathematics, University of Torino
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Past positions

March 2018 - February 2021	Assistant Professor (tenured) in Mathematical Analysis, Department of Mathematics, University of Torino
November 2017 - February 2018	Research Fellow, Department of Mathematics, University of Torino
November 2014 - October 2017	Assistant Professor (untenured) in Mathematical Analysis, Department of Mathematics, University of Torino
January 2014 - October 2014	Post-doc, Department of Mathematics and Applications, University of Milano-Bicocca
January 2013 - December 2013	Post-doc, Department of Mathematics, University of Torino

Qualifications

November 9, 2020	Abilitazione scientifica nazionale – prima fascia, SC 01/A3, SSD MAT/05 (italian qualification for full professorship in Mathematical Analysis)
March 28, 2017	Abilitazione scientifica nazionale – seconda fascia, SC 01/A3, SSD MAT/05 (italian qualification for associate professorship in Mathematical Analysis)
October 26, 2012	Ph.D. in Mathematical Analysis, SISSA - International School for Advanced Studies, Trieste Title of the thesis: <i>Periodic solutions to planar Hamiltonian systems: high multiplicity and chaotic dynamics</i> Supervisor: Prof. F. Zanolin
July 24, 2008	Master Degree in Mathematics, University of Torino Graduation mark: 110/110 cum laude et mentione Title of the thesis: <i>Global bifurcation and topological invariants for nonlinear boundary value problems</i> Supervisor: Prof. A. Capietto
July 18, 2006	Bachelor Degree in Mathematics, University of Torino Graduation mark: 110/110 cum laude Title of the thesis: <i>Topological degree theory in finite dimension and applications</i>

July 4, 2003

Supervisor: Prof. A. Capietto

Scientific high school degree, Liceo Scientifico Tecnologico "E. Ferrari", Torino
Graduation mark: 100/100 cum laude

Fellowships and awards

Supported by the Italian grant FFABR (Fondo per il finanziamento di base delle attività di ricerca) in the category "Researchers", 2017

"CELMEC Article Prize 2017" - Prize for the best original research paper with young coauthor on Celestial Mechanics and Astrodynamics, CELMEC VII

Ph.D. fellowship, SISSA, 2008-2011

"Medaglia d'Argento 2008" - Prize for the best Master Degree Thesis in Mathematics, University of Torino

Bachelor degree fellowship, Istituto Nazionale di Alta Matematica "F. Severi" INDAM, 2003-2006

Research activity

I am interested in Differential Equations, Dynamical Systems, Nonlinear Analysis.

Below is a summary of my main achievements in these fields:

- *Equations from Celestial Mechanics*: the existence of entire parabolic solutions, having prescribed asymptotic directions, to the planar and spatial N -centre problem has been studied using critical point theory; recently, a partial extension of this result to a time-dependent equation has been obtained by a perturbative topological argument. The existence of periodic solutions to perturbed planar and spatial Kepler problems has been investigated using symplectic methods and regularization techniques; recently, these results have been extended to a non-perturbative setting by a variational argument.
- *Positive solutions to equations with indefinite weight*: boundary value problems and chaotic dynamics for equations of the type

$$u'' + q(t)g(u) = 0,$$

with $q(t)$ sign-changing and $g(u)$ either superlinear or super-sublinear, have been investigated using various tools (topological degree theory, variational methods, shooting arguments, topological horseshoes theory). Recently, equations driven by the mean curvature operator in the Minkowski space have been also considered.

- *Periodic solutions to planar Hamiltonian systems*: a quite general description of the dynamics of planar Hamiltonian systems (with special emphasis on the existence of subharmonic solutions) has been obtained by the use of the Poincaré-Birkhoff fixed point theorem. Applications have then been given to some second order ODEs (e.g., pendulum equation, Ambrosetti-Prodi problems) and to Hamiltonian systems in fluid mixing theory. Partial extensions to systems in higher dimension have also been obtained.
- *Radial solutions to elliptic PDEs*: the existence of multiple radial solutions with prescribed oscillatory behavior has been recently proved for various elliptic PDEs on radial domains, by the use of shooting arguments.

Publications

Regular articles

Preprint	<p>A. Boscaggin, F. Colasuonno, B. Noris and T. Weth, <i>A supercritical elliptic equation in the annulus</i>, submitted, arXiv:2102.07141</p> <p>A. Boscaggin, W. Dambrosio and G. Feltrin, <i>Periodic solutions to a perturbed relativistic Kepler problem</i>, submitted, arXiv:2003.03110</p> <p>A. Boscaggin, W. Dambrosio and D. Papini, <i>Unbounded solutions to a system of coupled asymmetric oscillators at resonance</i>, submitted, arXiv:2103.06699</p> <p>A. Boscaggin, G. Feltrin and F. Zanolin, <i>Positive solutions for a Minkowski-curvature equation with indefinite weight and super-exponential nonlinearity</i>, submitted, arXiv:2007.00338</p>
Online first	<p>A. Boscaggin, W. Dambrosio, G. Feltrin and S. Terracini, <i>Parabolic orbits in Celestial Mechanics: a functional-analytic approach</i>, Proc. London Math. Soc.</p> <p>A. Boscaggin, W. Dambrosio and D. Papini, <i>Unbounded solutions to systems of differential equations at resonance</i>, J. Dynam. Differential Equations</p> <p>A. Boscaggin, G. Feltrin and F. Zanolin, <i>Uniqueness of positive solutions for boundary value problems associated with indefinite φ-Laplacian type equations</i>, Open Math.</p>
2021	<p>A. Boscaggin, F. Colasuonno and C. De Coster, <i>Multiple bounded variation solutions for a prescribed mean curvature equation with Neumann boundary conditions</i>, J. Differential Equations 285, 607–639</p>
2020	<p>V. Barutello, A. Boscaggin and W. Dambrosio, <i>On the minimality of Keplerian arcs with fixed negative energy</i>, Qual. Theory Dyn. Syst. 19</p> <p>A. Boscaggin, F. Colasuonno and B. Noris, <i>A priori bounds and multiplicity of positive solutions for p-Laplacian Neumann problems with sub-critical growth</i>, Proc. Roy. Soc. Edinburgh Sect. A, 150 73–102</p> <p>A. Boscaggin, F. Colasuonno and B. Noris, <i>Positive radial solutions for the Minkowski-curvature equation with Neumann boundary conditions</i>, Discrete Contin. Dyn. Syst. Ser. S, DOI 10.3934/dcdss.2020150</p> <p>A. Boscaggin, W. Dambrosio and D. Papini, <i>Periodic solutions to a forced Kepler problem in the plane</i>, Proc. Amer. Math. Soc. 148, 301–314</p> <p>A. Boscaggin and G. Feltrin, <i>Pairs of positive radial solutions for a Minkowski-curvature Neumann problem with indefinite weight</i>, Nonlinear Anal. 196, 111807</p> <p>A. Boscaggin and G. Feltrin, <i>Positive periodic solutions to an indefinite Minkowski-curvature equation</i>, J. Differential Equations 269, 5595–5645.</p> <p>A. Boscaggin, G. Feltrin and E. Sovrano, <i>High multiplicity and chaos for an indefinite problem arising from genetic models</i>, Adv. Nonlinear Stud. 20, 675–699.</p> <p>A. Boscaggin, A. Fonda and M. Garrione, <i>An infinite-dimensional version of the Poincaré-Birkhoff theorem on the Hilbert cube</i>, Ann. Sc. Norm. Super. Pisa Cl. Sci. 20, 751–770.</p>
2019	<p>A. Boscaggin and M. Garrione, <i>A counterexample to a-priori bounds under the Ahmad-Lazer-Paul condition</i>, Rend. Istit. Mat. Univ. Trieste 51, 33–39</p> <p>A. Boscaggin and M. Garrione, <i>Pairs of nodal solutions for a Minkowski-curvature boundary value problem in a ball</i>, Commun. Contemp. Math. 21, 18 pp.</p> <p>A. Boscaggin, R. Ortega and L. Zhao, <i>Periodic solutions and regularization of a Kepler problem with time-dependent perturbation</i>, Trans. Amer. Math. Soc. 372, 677–703</p>
2018	<p>A. Boscaggin, A. Bottois and W. Dambrosio, <i>The spatial N-centre problem: scattering at positive energies</i>, Calc. Var. Partial Differential Equations 57, 23 pp.</p> <p>A. Boscaggin, F. Colasuonno and B. Noris, <i>Multiple positive solutions for a class of p-Laplacian Neumann problems without growth conditions</i>, ESAIM Control Optim. Calc. Var. 24, 1625–1644</p> <p>A. Boscaggin, W. Dambrosio and D. Papini, <i>Parabolic solutions for the planar N-centre problem: multiplicity and scattering</i>, Ann. Mat. Pura Appl. (4) 197, 869–882</p> <p>A. Boscaggin and G. Feltrin, <i>Positive subharmonic solutions to nonlinear ODEs with indefinite weight</i>, Commun. Contemp. Math. 20, 26 pp.</p>

- A. Boscaggin, G. Feltrin and F. Zanolin, *Positive solutions for super-sublinear indefinite problems: high multiplicity results via coincidence degree*, Trans. Amer. Math. Soc. **370**, 791–845
- 2017 A. Boscaggin, W. Dambrosio and D. Papini, *Multiple positive solutions to elliptic boundary blow-up problems*, J. Differential Equations **262**, 5990–6017
A. Boscaggin, W. Dambrosio and S. Terracini, *Scattering parabolic solutions for the spatial N -centre problem*, Arch. Ration. Mech. Anal. **223**, 1269–1306
- 2016 A. Boscaggin, G. Feltrin and F. Zanolin, *Pairs of positive periodic solutions of nonlinear ODEs with indefinite weight: a topological degree approach for the super-sublinear case*, Proc. Roy. Soc. Edinburgh Sect. A **146**, 449–474
A. Boscaggin and M. Garrione, *Multiple solutions to Neumann problems with indefinite weight and bounded nonlinearities*, J. Dynam. Differential Equations **28**, 167–187
A. Boscaggin and M. Garrione, *Positive solutions to indefinite Neumann problems when the weight has positive average*, Discrete Contin. Dyn. Syst. **36**, 5231–5244
A. Boscaggin and M. Garrione, *Resonant Sturm-Liouville boundary value problems for differential systems in the plane*, Z. Anal. Anwend. **35**, 41–59
A. Boscaggin and R. Ortega, *Periodic solutions of a perturbed Kepler problem in the plane: from existence to stability*, J. Differential Equations **261**, 2528–2551
- 2015 V. Barutello, A. Boscaggin and G. Verzini, *Positive solutions with a complex behavior for superlinear indefinite ODEs on the real line*, J. Differential Equations **259**, 3448–3489
A. Boscaggin and W. Dambrosio, *Highly oscillatory solutions of a Neumann problem for a p -laplacian equation*, Nonlinear Anal. **122**, 58–82
A. Boscaggin, W. Dambrosio and D. Papini, *Asymptotic and chaotic solutions of a singularly perturbed Nagumo-type equation*, Nonlinearity **28**, 3465–3485
A. Boscaggin and F. Zanolin, *Second order ordinary differential equations with indefinite weight: the Neumann boundary value problem*, Ann. Mat. Pura Appl. (4) **194**, 451–478
- 2014 A. Boscaggin and W. Dambrosio, *A note on the existence of multiple solutions for a class of systems of second order ODEs*, J. Math. Anal. Appl. **415**, 610–622
A. Boscaggin and R. Ortega, *Monotone twist maps and periodic solutions of systems of Duffing type*, Math. Proc. Cambridge Philos. Soc. **157**, 279–296
A. Boscaggin, R. Ortega and F. Zanolin, *Subharmonic solutions of the forced pendulum equation: a symplectic approach*, Arch. Math. (Basel) **102**, 459–468
- 2013 A. Boscaggin and M. Garrione, *Planar Hamiltonian systems at resonance: the Ahmad-Lazer-Paul condition*, NoDEA Nonlinear Differential Equations Appl. **20**, 825–843
A. Boscaggin and P.J. Torres, *Periodic motions of fluid particles induced by a prescribed vortex path in a circular domain*, Phys. D **261**, 81–84
A. Boscaggin and F. Zanolin, *Pairs of nodal solutions for a class of nonlinear problems with one-sided growth conditions*, Adv. Nonlinear Stud. **13**, 13–53
A. Boscaggin and F. Zanolin, *Subharmonic solutions for nonlinear second order equations in presence of lower and upper solutions*, Discrete Contin. Dyn. Syst. **33**, 89–110
- 2012 A. Boscaggin, *One-signed harmonic solutions and sign-changing subharmonic solutions to scalar second order differential equations*, Adv. Nonlinear Stud. **12**, 445–463
A. Boscaggin, *Periodic solutions to superlinear planar Hamiltonian systems*, Port. Math. **69**, 127–140
A. Boscaggin, A. Fonda and M. Garrione, *A multiplicity result for periodic solutions of second order differential equations with a singularity*, Nonlinear Anal. **75**, 4457–4470
A. Boscaggin and F. Zanolin, *Pairs of positive periodic solutions of second order nonlinear equations with indefinite weight*, J. Differential Equations **252**, 2900–2921

A. Boscaggin and F. Zanolin, *Positive periodic solutions of second order nonlinear equations with indefinite weight: multiplicity results and complex dynamics*, J. Differential Equations **252**, 2922–2950

2011 A. Boscaggin, *A note on a superlinear indefinite Neumann problem with multiple positive solutions*, J. Math. Anal. Appl. **377**, 259–268

A. Boscaggin, *Subharmonic solutions of planar Hamiltonian systems: a rotation number approach*, Adv. Nonlinear Stud. **11**, 77–103

A. Boscaggin and M. Garrione, *Resonance and rotation numbers for planar Hamiltonian systems: multiplicity results via the Poincaré-Birkhoff theorem*, Nonlinear Anal. **74**, 4166–4185

2010 A. Boscaggin and M. Garrione, *A note on a linear spectral theorem for a class of first order systems in \mathbb{R}^{2N}* , Electron. J. Qual. Theory Differ. Equ. **75**, 22 pp.

Proceedings (research papers)

2020 A. Boscaggin, F. Colasuonno and B. Noris, *Multiplicity of solutions for the Minkowski-curvature equation via shooting method*, Bruno Pini Mathematical Analysis Seminars **11**, 1–17.

2013 A. Boscaggin and M. Garrione, *Sign-changing subharmonic solutions to unforced equations with singular ϕ -Laplacian*, Differential and Difference Equations with Applications, Springer Proceedings in Mathematics and Statistics **47**, 321–329

2009 A. Boscaggin and A. Capietto, *Infinitely many solutions to superquadratic planar Dirac-type systems*, Discrete Contin. Dyn. Syst., Dynamical Systems, Differential Equations and Applications, 7th AIMS Conference, 72–81

Proceedings (survey papers)

2016 A. Boscaggin, *Positive periodic solutions to nonlinear ODEs with indefinite weight: an overview*, Rend. Sem. Mat. Univ. Politec. Torino, Bruxelles-Torino Talks in PDEs (Turin, May 2-5, 2016), **74** (2016), 71 – 80

2011 A. Boscaggin, *Subharmonic solutions of planar Hamiltonian systems via the Poincaré-Birkhoff theorem*, Matematiche (Catania) **66**, 115–122

Lecture Notes

2013 A. Boscaggin, A. Capietto and W. Dambrosio, *The Maslov index and global bifurcation for nonlinear boundary value problems*, Stability and bifurcation theory for non-autonomous differential equations (Cetraro, 2011), Lecture Notes in Math. **2065**, Springer, Berlin, 1–34

Invited talks in conferences

September 16-20, 2019 “Dynamics, Equations and Applications (DEA 2019)”, Kracow - Poland
Title: *Generalized periodic solutions to perturbed Kepler problems*

September 10-11, 2019 “Non-Autonomous Dynamical Systems and Applications”, Ancona - Italy
Title: *Generalized periodic solutions to perturbed Kepler problems*

September 2-7, 2019 “XXI Congresso Unione Matematica Italiana”, Pavia - Italy
Title: *Generalized periodic solutions to perturbed Kepler problems*

November 8-9, 2018 “Workshop on dynamical systems, calculus of variations and control”, Firenze - Italy
Title: *Scattering parabolic solutions for the N -centre problem*

March 28-30, 2018 “Mini-workshop on Extra-Ordinary Differential Equations”, Foz do Arelho - Portugal
Title: *Periodic solutions to perturbed Kepler problems*

December 11-15, 2017 “Intensive week of PDEs at Spa”, Spa - Belgium

- Title: *Periodic solutions to second order ODEs: from variational methods to dynamics*
- Jan. 31 - Feb. 3, 2017 “New Directions in Nonautonomous Dynamical Systems”, Firenze - Italy
Title: *Scattering parabolic solutions for the N -centre problem in the three-dimensional space*
- October 28-29, 2016 “3rd Weekend on Variational Methods and Differential Equations”, Catania - Italy
Title: *Scattering parabolic solutions for the N -centre problem in the space*
- June 20-23, 2016 “Convegno Scientifico GNAMPA 2016”, Montecatini Terme - Italy
Title: *A singularly perturbed Nagumo-type equation: from boundary value problems to symbolic dynamics*
- May 2-5, 2016 “Bru-To PDE’s Conference”, Torino - Italy
Title: *Positive solutions to indefinite ODEs: high multiplicity and chaotic dynamics*
- September 7-12, 2015 “XX Congresso Unione Matematica Italiana”, Siena - Italy
Title: *ODEs with indefinite weight: from oscillatory solutions to constant-sign solutions*
- May 29, 2015 “Mini-workshop on Dynamical Systems”, Udine - Italy
Title: *Subharmonic solutions of the forced pendulum equation: a dynamical approach*
- July 7-11, 2014 “The 10th AIMS Conference on Dynamical Systems, Differential Equations and Applications”, Madrid - Spain
Title: *Boundary value problems for second order ODEs with indefinite weight*
Title: *Periodic solutions of second order ODEs: a symplectic approach*
- June 20-21, 2013 “Giornate fiorentine su dinamica non autonoma e metodi topologici in equazioni differenziali”, Firenze - Italy
Title: *Periodic solutions of superlinear systems of ODEs: a symplectic approach*
- Jan. 30 - Feb. 1, 2013 “Qualitative Theory of Nonlinear Differential Equations 2013”, Trieste - Italy
Title: *Pairs of solutions to supersublinear boundary value problems*
- July 1-5, 2012 “The 9th AIMS Conference on Dynamical Systems, Differential Equations and Applications”, Orlando - Florida - USA
Title: *Positive solutions to second order ODEs with indefinite weight: multiplicity and complex dynamics*
- April 16-17, 2012 “Topological and Variational Methods in Differential Equations”, Torino - Italy
Title: *Periodic solutions to planar Hamiltonian systems via the Poincaré-Birkhoff fixed point theorem*

Talks in conferences

- June 18-22, 2018 “Perspectives in Hamiltonian Dynamics”, Venezia - Italy
Titolo: *Periodic solutions to perturbed Kepler problems*
- September 3-9, 2017 “CELMEC VII - The Seventh International Meeting on Celestial Mechanics”, San Martino al Cimino - Italy
Titolo: *Scattering parabolic solutions for the N -centre problem in the three-dimensional space*
- January 23-26, 2017 “Nonlinear Meeting in Udine 2017”, Udine - Italy
Title: *Differential equations with solutions in pairs: an overview*
- July 4-8, 2011 “International Conference on Differential and Difference Equations and Applications”, Ponta Delgada - Acores - Portugal
Title: *Positive periodic solutions of second order nonlinear ODEs with indefinite weight*

- September 15-17, 2010 “International Conference on Ordinary Differential Equations and Applications - ODEA 2010”, Ancona - Italy
Title: *Subharmonic solutions of planar Hamiltonian systems*
- April 14-16, 2010 “International Workshop on Variational, Topological and Set-valued Methods for Non-linear Differential Problems”, Messina - Italy
Title: *Subharmonic solutions of planar Hamiltonian systems: a rotation number approach*

Invited seminars

- December 20, 2019 *Differential equations with solutions in pairs: the story goes on*, University of Udine
- December 3, 2019 *Generalized periodic solutions to perturbed Kepler problems*, University of Roma Tor-Vergata
- May 22, 2018 *Periodic solutions to perturbed Kepler problems*, Politecnico of Milano
- March 26, 2018 *Periodic solutions to perturbed Kepler problems*, University of Torino
- July 3, 2017 *Positive solutions to indefinite ODEs: high multiplicity and chaotic dynamics*, University of Amiens
- May 29, 2017 *Scattering parabolic solutions for the N -centre problem in the three-dimensional space*, University of Venezia
- January 17, 2017 *Scattering parabolic solutions for the N -centre problem in the three-dimensional space*, University of Bruxelles
- December 6, 2016 *Scattering parabolic solutions for the N -centre problem in the three-dimensional space*, University of Milano Bicocca
- May 30, 2016 *Periodic solutions to perturbed Kepler problems: from existence to stability*, SISSA
- April 1, 2014 *Twist maps and periodic solutions to systems of ODEs*, University of Milano Bicocca
- November 13, 2013 *Second order differential equations with indefinite weight: the Neumann problem*, University of Torino
- November 6, 2013 *The Neumann problem for ODEs with indefinite weight: existence and multiplicity*, University of Granada
- July 11, 2013 *Periodic solutions of superlinear systems of ODEs*, University of Trieste
- May 29, 2013 *The Neumann problem for ODEs with indefinite weight: existence and multiplicity*, University of Marche
- March 20, 2013 *Pairs of nodal solutions to supersublinear boundary value problems*, University of Milano Bicocca
- November 19, 2012 *Pairs of solutions to supersublinear boundary value problems*, University of Granada
- October 9, 2012 *An introduction to ODEs with indefinite weight: from sign-changing solutions to positive solutions*, University of Trieste
- December 22, 2011 *Complex dynamics for second order ODEs with indefinite weight*, University of Torino
- December 20, 2010 *The Poincaré-Birkhoff fixed point theorem and applications to ordinary differential equations*, University of Torino
- July 6, 2010 *The Poincaré-Birkhoff fixed point theorem and applications to ordinary differential equations*, University of Trieste

Research visits

- 2013 - present University of Udine, University of Trieste (many short visits)
- July 3-7, 2017 University of Amiens, Department of Mathematics

January 16-20, 2017	University of Bruxelles, Department of Mathematics
July 4-8, 2016	University of Bruxelles, Department of Mathematics
June 13-18, 2016	University of Granada, Department of Applied Mathematics
November 4-8, 2013	University of Granada, Department of Applied Mathematics
Nov. 12 - Dec. 7, 2012	University of Granada, Department of Applied Mathematics

Schools attended

November 24-27, 2015	“Autumn School on ODEs and Dynamical Systems”, Torino - Italy
June 20-25, 2011	CIME School “Stability and Bifurcation for Nonautonomous Differential Equations”, Cetraro - Italy

Projects

	<u>As principal investigator</u>
2020	GNAMPA project “Problemi ai limiti per l’equazione della curvatura media prescritta”
2015	GNAMPA project “Equazioni differenziali ordinarie sulla retta reale”
	<u>As member</u>
2019	GNAMPA project “Il modello di Born-Infeld per l’elettromagnetismo nonlineare: esistenza, regolarità e molteplicità di soluzioni” (P.I. F. Colasuonno, University of Torino)
2017	GNAMPA project “Dinamiche complesse per il problema degli N -centri” (P.I. W. Dambrosio, University of Torino)
2016	GNAMPA project “Problemi differenziali non lineari: esistenza, molteplicità e proprietà qualitative delle soluzioni” (P.I. M. Garrione, University of Milano-Bicocca)
2014 - 2019	ERC Advanced Grant “Complex Patterns for Strongly Interacting Dynamical Systems - COMPAT” (P.I. S. Terracini, University of Torino)
2012	GNAMPA project “Problemi al contorno per equazioni differenziali nonlineari” (P.I. F. Obersnel, University of Trieste)
2011	GNAMPA project “Soluzioni periodiche di alcune classi di equazioni differenziali ordinarie” (P.I. F. Obersnel, University of Trieste)
2010	GNAMPA project “Equazioni differenziali e applicazioni” (P.I. P. Omari, University of Trieste)

Organizations of scientific activities

June 7-11, 2021	INdAM Workshop <i>Nonlinear Phenomena: between ODEs and PDEs</i> , Roma (co-organizers F. Colasuonno and B. Noris; invited talks by 25 experts in the field of Nonlinear Analysis) Web-page: https://sites.google.com/view/nop2020/home
June 24-28, 2019	<i>New Trends in Celestial Mechanics</i> , Cogne (co-organizers V. Barutello, G. Canneori and W. Dambrosio; invited talks by 33 experts in the field of Celestial Mechanics) Web-page: https://sites.google.com/view/ntcm2019
Jan. 31 - Feb 1, 2019	<i>Nonlinear Meeting in Turin 2019</i> , Torino (co-organizers F. Colasuonno and G. Feltrin; invited talks by L. Brasco, M. Grossi, A. Malchiodi, S. Mosconi, R. Musina, B. Noris) Web-page: https://sites.google.com/view/nlmt2019

- December 18-19, 2017 *Miniworkshop in Celestial Mechanics*, Torino (co-organizers V. Barutello and W. Dambrosio; invited talks by A. Celletti, T. Dondè, J. Montaldi, A. Simões, G. Yu, L. Zhao)
Web-page: <https://sites.google.com/view/mwcm17turin/home>
- July 11-12, 2016 *Nonlinear Meeting in Milan 2016*, Milano (co-organizer M. Garrione; invited talks by V. Barutello, M. Berti, A. Fonda, M. Ghimenti, M. Tarallo and G. Tarantello)
Web-page: <https://sites.google.com/site/nonmil16/home>
- November 24-27, 2015 *Autumn School on ODEs and Dynamical Systems*, Torino (mini-courses by T. Bartsch, D. Offin and R. Ortega)
Web-page: <https://sites.google.com/site/asodys2015/home>
- June 16-17, 2015 *Nonlinear Meeting in Turin 2015*, Torino (co-organizer M. Garrione; invited talks by M.J. Esteban, M. Franca, F. Gazzola, P. Montecchiari, S. Terracini and F. Zanolin)
Web-page: <https://sites.google.com/site/nlmt2015/home>

Referee activity

Referee for *Advanced Nonlinear Studies*, *Boundary Value Problems*, *Bullettin of the London Mathematical Society*, *Communications on Pure and Applied Analysis*, *Discrete and Continuous Dynamical Systems B*, *Electronic Journal of Qualitative Theory of Differential Equations*, *Electronic Journal of Differential Equations*, *Journal of Dynamics and Differential Equations*, *Journal of Differential Equations*, *Journal of Mathematical Analysis and Applications*, *Mathematische Nachrichten*, *Nonlinear Analysis TMA*, *Nonlinear Analysis RWA*, *NoDEA*, *Nonlinearity*, *Proceedings of the American Mathematical Society*, *Proceedings on the Royal Society of Edinburgh*, *ZAMP*

Reviewer for Zentralblatt MATH

Teaching activity

Ph.D. courses

- 2016-2017 *Topological Methods in Nonlinear Analysis*, Ph.D in Pure and Applied Mathematics, University of Torino and Politecnico of Torino

Post-graduate Master courses

- 2019-2020 *Celestial Mechanics and Astrodynamics*, Master “Mathematical and Physical Methods for Space Sciences”, University of Torino

Degree courses

- 2020-2021 Teacher of the course *Mathematical Analysis 1*, Degree in Physics, University of Torino
Teacher of the course *Mathematical Analysis*, Degree in Computer Science, University of Torino
Teacher of the course *Differential Equations and Nonlinear Analysis*, Master Degree in Mathematics, University of Torino
- 2019-2020 Teacher of the course *Mathematical Analysis 1*, Degree in Physics, University of Torino
Teacher of the course *Differential Equations and Nonlinear Analysis*, Master Degree in Mathematics, University of Torino
Teaching Assistant of the course *Mathematical Analysis*, Degree in Computer Science, University of Torino
- 2018-2019 Teacher of the course *Advanced Analysis*, Master Degree in Mathematics, University of Torino
Teacher of the course *Differential Equations and Nonlinear Analysis*, Master Degree in Mathematics, University of Torino
Teacher of the course *Mathematics I*, Degree in Chemistry, University of Torino

2017-2018	Teaching Assistant of the course <i>Mathematical Analysis</i> , Degree in Computer Science, University of Torino
2016-2017	Teaching Assistant of the course <i>Mathematical Analysis</i> , Degree in Computer Science, University of Torino Teaching Assistant of the course <i>Mathematical Analysis</i> , Degree in Optics and Optometry, University of Torino
2015-2016	Teaching Assistant of the course <i>Mathematical Analysis</i> , Degree in Computer Science, University of Torino
2014-2015	Teaching Assistant of the course <i>Mathematical Analysis</i> , Degree in Computer Science, University of Torino
2013-2014	Teaching Assistant of the course <i>Mathematical Analysis</i> , Degree in Optics and Optometry, University of Torino

Linguistic skills

Italian, mother tongue
English, fluent
Spanish, elementary