Curriculum Vitae

Giacomo Canevari

Personal Details and Contact Information

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Current Position

Since 2024 — **Associate Professor** in Mathematical Analysis at the University of Verona (Italy).

I am a researcher in the Calculus of Variations and Partial Differential Equations, specialising in the analysis of problems motivated by physics or materials science. I obtained the *Abilitazione Scientifica Nazionale di I fascia* (i.e., I am eligible for full professorships in the Italian academic system) in Mathematical Analysis, Probability and Mathematical Statistics (validity period: 2023–2035) and Mathematical Physics (validity period: 2026–2038).

Previous Experience

2021–2024 — **Ricercatore a Tempo Determinato di tipo B** (tenure-track Assistant Professor) in Mathematical Analysis at the University of Verona (Italy).

2019–2021 — **Ricercatore a Tempo Determinato di tipo A** (Temporary Assistant Professor) in Mathematical Analysis at the University of Verona (Italy).

2017–2019 — **Postdoctoral Fellow** at the Basque Centre for Applied Mathematics (Bilbao, Spain), in the *Applied Analysis* group led by Prof. Arghir D. Zarnescu.

2015–2017 — **Postdoctoral Research Assistant** at the Mathematical Institute, University of Oxford (UK). The position depended on the ERC grant ref. 291053, on the *Mathematics of Solid and Liquid Crystals*. P.I.: Prof. Sir John M. Ball, FRS.

Education

2012–2015 **PhD in Mathematics** at the *Laboratoire Jacques Louis Lions, Université Pierre et Marie Curie — Paris 6.*
PhD Advisor: Prof. Fabrice Bethuel.
Title of the PhD thesis: Singularités dans le modèle de Landau-de Gennes pour les cristaux liquides. *Distinction:* très honorable.

2010–2012 **Laurea Magistrale** (master degree) in Mathematics at the University of Pavia (Italy).
Advisor for the Master thesis: Prof. Pierluigi Colli.
Title of the Master thesis: On a phase field model interconnecting the Green and Naghdi types.

2010–2013 **Degree in Science and Technology** at the *Istituto Universitario di Studi Superiori* (Pavia, Italy).

2007–2012 Student at **Collegio Ghislieri** (Pavia, Italy).

Prizes

2022 **SIAG/APDE Early Career Prize**, awarded at the 2022 SIAM Conference on Analysis of Partial Differential Equations (PD22).

Grants and Projects

2023–2025 Member of a project **PRIN 2022**, funded by the Italian Ministry of University and Research.
Principal Investigator: Prof. Alessandra Maria Bossi (University of Verona).
Title of the project: "nanoTRiCKS": tailor-made biopolymeric nanotraps for cytokines' storm suppression.
The main focus of this project is in the areas ERC PE11_1 (Engineering of biomaterials, biomimetic, bioinspired and bio-enabled materials) and PE4_5 (Analytical chemistry). However, the project also includes some mathematical modelling of the synthesis process, via variational techniques inspired by the Otha-Kawasaki model.

2023–2025 Co-Investigator of an **Isaac Newton Network grant**.
Principal Investigator: Prof. Apala Majumdar (University of Stratchlyde, Glasgow, UK).
Title of the project: Using Solution Landscapes to Engineer New Soft Material Devices.
Amount and duration: 15.000 GBP, from April 2023 to March 2025. This grant is mostly directed towards supporting workshops and other scientific events.

2022–2026 External collaborator in a **Projet ANR** (project of the French National Research Agency), ref. ANR-22-CE40-0006.
Principal Investigator: Dr. Xavier Lamy (Université Paul Sabatier — Toulouse III, France).
Title of the project: Singularities of energy-minimizing vector-valued maps.
Amount and duration: 204.731 EUR, from September 2022 to August 2026.

2022–2026 Co-Applicant of a **Leverhulme Trust** Research Project Grant, ref. ORPG-9787.
Principal Investigator: Prof. Apala Majumdar (University of Stratchlyde, Glasgow, UK).
Title of the project: Unravelling the Mysteries of Complex Nematic Solution Landscapes.
Amount and duration: 189.041 GBP, from October 2022 to March 2026.

2020–2021 **Coordinator** of a project funded by the **Gruppo Nazionale di Analisi Matematica, Probabilità e Applicazioni** (National Group for Mathematical Analysis, Probability and Applications).
Title of the project: Analysis of variational models for liquid crystals.

2018–2020 Member of a **Project of the Spanish Ministry of Economy and Competitiveness (MINECO)**, ref. MTM 2017-82184-R, a competitive grant for research, development and innovation.
Principal Investigator: Prof. Arghir D. Zarnescu (BCAM, Bilbao, Spain).
Title of the project: Fluidos diseñados: ferrofluidos y más allá.

July 2019 **CIRM Research in Pairs**, to support a two-weeks research period at the *Centro Internazionale per la Ricerca Matematica* (Trento, Italy).
Coordinator: Prof. Bianca Stroffolini.
Title of the project: Minimizers in the Landau-de Gennes theory for nematic liquid crystals.

September 2017 **ICMS Research in Groups**, to support a two-weeks research period at the International Centre for Mathematical Sciences (Edinburgh, UK).
Coordinator: Prof. Apala Majumdar.
Title of the project: Minimizers in the Landau-de Gennes theory for nematic liquid crystals — regularity, singularities and generalizations.

Supervision of PhD Students and Postdocs

2021–2023 **Le Van Phu Cuong**, *assegnista di ricerca* (postdoctoral researcher) at the University of Verona.

2020–2022 **Federico Dipasquale**, *assegnista di ricerca* (postdoctoral researcher) at the University of Verona.

Publications

1. D. Maniglio, A. Marinangeli, D. Moranduzzo, G. Canevari, M. Bonafini, C. Stranieri, E. Di Leo, G. Speranza, G. Orlandi, A. M. Fratta Pasini, and A. M. Bossi, Solid-phase synthesis of high affinity interleukin-6 binders made of gelatin-methacryloyl via a molecular imprinting technique. *Materials Today Bio* **38**, 2026. Available online.

2. G. Canevari, F. L. Dipasquale and G. Orlandi, The Yang-Mills-Higgs functional on complex line bundles: asymptotics for critical points. *Adv. Calc. Var.* **18** (1), 95–141, 2025. Preprint arXiv https://arxiv.org/abs/2304.11346

3. G. Canevari, Le Van P. C., Energy-minimizing torus-valued maps with prescribed singularities, Plateau's problem, and BV-lifting. *Ann. Sc. Norm. Super. Cl. Sci.* XXVII, 2026. Preprint arXiv https://arxiv.org/abs/2304.11349

4. G. Canevari, F. L. Dipasquale and G. Orlandi, The Yang-Mills-Higgs functional on complex line bundles: Γ-convergence and the London equation. *Arch. Ration. Mech. Anal.* **247** (104), 2023. Preprint arXiv 2206.03327

5. G. Canevari, A. Majumdar, B. Stroffolini and Y. Wang, Two-dimensional ferronematics, canonical harmonic maps and minimal connections. *Arch. Ration. Mech. Anal.* **247** (110), 2023. Preprint arXiv 2208.01586

6. G. Canevari and A. Segatti, Dynamics of Ginzburg-Landau vortices for vector fields on surfaces. *J. Funct. Anal.* **285** (11), 110156, 2023. Preprint arXiv 2108.01321

7. G. Canevari and J.M. Taylor, Hölder regularity and convergence for a non-local model of nematic liquid crystals in the large-domain limit. *Nonlinear Anal.* **215**, 112641, 2022. Preprint arXiv 2101.10288

8. G. Canevari and G. Orlandi, Topological singular set of vector-valued maps, II: Γ-convergence for Ginzburg-Landau type functionals. *Arch. Ration. Mech. Anal.* **241**, 1065–1135, 2021. Preprint arXiv 2003.01354

9. G. Canevari and G. Orlandi, Lifting for manifold-valued maps of bounded variation. *J. Funct. Anal.* **278** (10), 108453–108469, 2020. Preprint arXiv 1907.06395

10. G. Canevari and G. Orlandi, Improved partial regularity for manifold-constrained minimisers of subquadratic energies. *Comm. Math. Phys.* **374**, 1483–1495, 2020. Preprint arXiv 1810.12025

11. G. Canevari and A. D. Zarnescu, Design of effective bulk potentials for nematic liquid crystals via colloidal homogenisation. *Math. Mod. Meth. Appl. S.* **30** (2), 309–342, 2020. Preprint arXiv 1901.03541

12. Y. Wang, G. Canevari and A. Majumdar, Order Reconstruction for nematics on squares with isotropic inclusions: A Landau-de Gennes study. *SIAM J. Appl. Math.* **79** (4), 1314–1340, 2019. Preprint arXiv 1803.02597

13. G. Canevari, A. Majumdar and B. Stroffolini, Minimizers of a Landau-de Gennes energy with a subquadratic elastic energy. *Arch. Ration. Mech. Anal.* **233** (3), 1169–1210, 2019. Preprint arXiv 1807.00334

14. G. Canevari and G. Orlandi, Topological singular set of vector-valued maps, I: Applications to manifold-constrained Sobolev and BV spaces. *Calc. Var.* 58:72, 2019. Preprint arXiv 1712.10203

15. G. Canevari and A. Segatti, Defects in Nematic Shells: a Γ-convergence discrete-to-continuum approach. *Arch. Ration. Mech. An.* **229** (1), 125–186, 2018. Preprint ArXiv 1612.07720

16. G. Canevari, A. Majumdar and A. Spicer, Order reconstruction for nematics on squares and hexagons: A Landau-de Gennes study. *SIAM J. Appl. Math.* **77** (1), 267–293, 2017. Preprint ArXiv 1606.06575

17. G. Canevari, Line defects in the small elastic constant limit of a three-dimensional Landau-de Gennes model. *Arch. Ration. Mech. An.* **223** (2), 591–676, 2017. Preprint ArXiv 1501.05236

18. G. Canevari, M. Ramaswamy and A. Majumdar, Radial symmetry on three-dimensional shells in the Landau-de Gennes theory. *Physica D* **314**, 18–34, 2016. Preprint ArXiv 1409.0143

19. G. Canevari, A. Segatti and M. Veneroni, Morse's index formula in VMO for compact manifolds with boundary. *J. Funct. Anal.* **269** (10), 3043–3082, 2015. Preprint ArXiv 1407.1707

20. G. Canevari, Biaxiality in the asymptotic analysis of a 2D Landau-de Gennes model for liquid crystals. *ESAIM: Control Optim. Calc. Var.* **21** (1), 101–137, 2015. Preprint ArXiv 1307.8065

21. G. Canevari and P. Colli, Convergence properties for a generalization of the Caginalp phase field system. *Asymptot. Anal.* **82** (1-2), 139–162, 2013. Preprint ArXiv 1205.6093

22. G. Canevari and P. Colli, Solvability and asymptotic analysis of a generalization of the Caginalp phase field system. *Commun. Pure Appl. Anal.* **11** (5), 1959–198, 2012. Preprint ArXiv 1107.3950

Peer-reviewed special issues

23. G. Canevari and A. Segatti, Dimensional Reduction and emergence of defects in the Oseen-Frank model for nematic liquid crystals. *Discrete Cont. Dyn.–S* **17** (1), 98–130, 2024.
Preprint arXiv 2307.11396

24. G. Canevari and A. Segatti, Motion of vortices for the extrinsic Ginzburg-Landau flow for vector fields on surfaces. *Discrete Cont. Dyn.–S* **15** (8), 2087–2116, 2022. Preprint arXiv 2112.15080

25. G. Canevari and A. D. Zarnescu, Polydispersity and surface energy strength in nematic colloids. *Mathematics in Engineering* **2** (2), 290–312, 2020. Preprint arXiv 1910.03342

26. G. Canevari, J. Harris, A. Majumdar and Y. Wang, The Well Order Reconstruction Solution for three-dimensional wells, in the Landau-de Gennes theory. *Intl. J. Nonlinear Mech.* **119**, 103342, 2020. Preprint arXiv 1903.03873

Peer-reviewed conference proceedings

27. J.M. Ball, G. Canevari and B. Stroffolini, A free discontinuity model for smectic thin films. Proceedings of the *International Liquid Crystal Conference 2022. Liq. Cryst.* **50** (7–10), 1439–1448, 2023. Preprint arXiv 2211.11051

28. G. Canevari and A. Segatti, Variational analysis of nematic shells. *Trends in Applications of Mathematics to Mechanics*, 81–102, Springer-INdAM series.

Preprints

29. G. Canevari and G. Orlandi, Topological singular set of manifold-valued maps weakly approximable by smooth maps. Preprint arXiv 2605.28622.

30. G. Canevari, H. Fu, and W. Wang, Singular limits for three–dimensional global minimizers of Ginzburg–Landau-type functionals: uniform estimates and singular sets. Preprint arXiv 2606.27691.

31. G. Canevari, H. Fu, and W. Wang, Asymptotics of minimizers for Ginzburg–Landau-type functionals in high dimensions. Preprint arXiv 2605.04442.

32. G. Canevari, F. L. Dipasquale, and B. Stroffolini, Liftings of Sobolev maps into closed Riemannian manifolds via double coverings and minimal connections relative to planar sets, with an application to ferronematics. Preprint arXiv 2603.01985.

33. G. Canevari, F. L. Dipasquale, and B. Stroffolini, The formation of gradient-driven singular structures of codimension one and two in two-dimensions: The case study of ferronematics. Part II: Refined structure of the energy-concentration set Preprint arXiv 2606.12644.

34. G. Canevari, F. L. Dipasquale, and B. Stroffolini, The formation of gradient-driven singular structures of codimension one and two in two-dimensions: The case study of ferronematics. Part I: Energy estimates and compactness results Preprint arXiv 2505.07506.

35. G. Canevari, K. Cherednichenko, and A. Zarnescu, A not-so-strange term coming from somewhere. Preprint arXiv 2511.20071.

36. G. Canevari, V. P. C. Le, R. Oliver-Bonafoux, and G. Orlandi, Γ-convergence of the p-Dirichlet energy for manifold-valued maps. Preprint arXiv 2505.21257.

Visiting Positions

April–May 2025	Visiting Scientist at the **Centre International de Mathématiques et d'Informatique de Toulouse**, Institut de Mathématiques de Toulouse, Université Paul Sabatier — Toulouse III (France).
February 2023	Invited partecipant to the trimester programme *Mathematics for Complex Materials* at the **Hausdorff Institute for Mathematics**, Bonn (Germany). **Web page:** https://www.him.uni-bonn.de/complex-materials
January 2019, March–April 2019	Invited partecipant to the thematic programme *The mathematical design of new materials* at the **Isaac Newton Institute for Mathematical Sciences**, Cambridge (UK). **Web page:** https://www.newton.ac.uk/event/dnm
November 2017, January–February 2018	Guest at the **Institut de Mathématiques de Toulouse**, Université Paul Sabatier — Toulouse III (France).

Conferences and Seminars

Workshops and Conferences

1. **Workshop** *On the Bridge: Geometric Measure Theory and Calculus of Variations*, Università di Trento, September 2026. Invited speaker.
2. *Summer* ***Workshop*** *in the Calculus of Variations*, Technical University of Munich (Germany), July 2026. Invited speaker.
3. **Mini-symposium** *PDES in Variational Theories for Liquid Crystals and Allied Areas*, Equadiff 2026 (Prague, Czech Republic), July 2026.
4. **Workshop** *Topological textures: experiment, theory, simulation, and mathematical analysis*, organised within the COST action POLYTOPO (Topological textures in condensed media) at the Gheorghe Asachi Technical University of Iaşi (Romania), June 2026. Invited speaker.
5. **Workshop** *Calculus of Variations in Materials Science*, Institute of Mathematics of the Polish Academy of Sciences (Belewo, Poland), June 2026. Invited speaker.
6. **Workshop** *Nonlinear Analysis and the Physics of Materials*, Université Paul Sabatier (Toulouse, France), June 2026. Invited speaker.
7. **Workshop** *Smectics and Distorted Nematics: Analytics, Numerics, and Experiments*, École de Physique des Houches (Les Houches, France), May 2026. Invited speaker.
8. **Workshop** *When CalcVar meets Siena*, University of Siena, February 2026. Invited speaker.
9. **Workshop** *Variational methods for topological patterns arising in physics*, CNRS and Istituto Nazionale di Alta Matematica "F. Severi" (Roma), November 2025. Invited speaker.
10. **Workshop** *Local and nonlocal methods in geometric analysis*, Centro De Giorgi, Scuola Normale Superiore (Pisa), November 2025. Invited speaker.
11. **Workshop** *Recent challenges in the mathematical design of new materials*, Isaac Newton Institute (Cambridge, UK), August 2025. Invited speaker.
12. **INI network Workshop** *The Mathematics, Mechanics and Applications of Soft Matter*, organised within the INI network *Using Solution Landscapes to Engineer New Soft Material Devices*, University of Strathclyde (Galsgow, UK), June 2025. Invited speaker.
13. **Workshop** *Variational Models in Materials Science*, Università Federico II (Naples, Italy), February 2025. Invited speaker.
14. **Mini-symposium** *Calculus of Variations problems in Materials Science*, 9th European Congress of Mathematics (Sevilla, Spain), July 2024.
15. **Workshop** *Mathematical Analysis of Soft Matter*, Banff International Research Station (Banff, canada), June 2024. Invited speaker.
16. **Conference** *on Calculus of Variations in Lille, 4th edition*, Laboratoire Paul Painlevé, Université de Lille and CNRS (France), June 2024. Invited speaker.
17. **INdAM Workshop** in *Geometric Measure Theory and applications 2024*, Cortona, June 2024. Invited speaker.

18. **INI network workshop** on *Using Solution Landscapes to Engineer New Soft Material Devices*, University of Strathclyde (Glasgow, UK), February 2024. Invited speaker.
19. **Workshop** in *Geometric Measure Theory*, Bressanone, May-June 2023. Invited speaker.
20. **Workshop** *Nonlinear Analysis & PDE in Lille*, Centre INRIA de l'Université de Lille (France), February 2023. Invited speaker.
21. **Workshop** *Current challenges in complex materials: modelling and analysis*, Hausdorff research Institute for Mathematics, Bonn (Germany), January 2023. Invited speaker.
22. **Workshop** *YoungPeople4Math*, Seminario Matematico Bresciano, Brescia, June 2022. Invited speaker.
23. *SIAM* **Conference** *on the Analysis of Partial Differential Equations*, PD22, March 2022. Prize Lecture.
24. **Workshop** *Variational methods and applications*, Centro di Ricerca Matematica Ennio De Giorgi, Pisa (Italy), September 2021. Invited speaker.
25. **Mini-symposia** *Mathematical Analysis of Soft Materials* and *Recent analytical and numerical developments on Fluid and Solid Mechanics*, SIAM Conference on Mathematical Aspects of Materials Science (MS21), May 2021.
26. **Workshop** *On singularities in variational models*, Institut de Mathématiques de Toulouse (France). January 2020. Invited speaker (for a mini-course of 2 lectures).
27. **Workshop** *New Trends in the Variational Modeling and Simulation of Liquid Crystals*, Erwin Schroedinger Institute (Wien, Austria). December 2019. Invited speaker.
28. **Workshop** *Calculus of Variations and Applications in Trani* (Trani, Italy). October 2019. Invited speaker.
29. **Mini-symposium** *Variational and evolution problems for curves and networks*, Dynamics, Equations and Applications 2019, AGH University of Science and Technology (Kraków, Poland). September 2019.
30. **Mini-symposium** *Mathematical models for solid mechanics and soft structures*, International Congress of Industrial and Applied Mathematics 2019, Valencia (Spain). July 2019.
31. **Workshop** *Journée autour du calcul des variations*, on the occasion of the 50th anniversary of the foundation of the *Laboratoire Jacques Louis Lions* (Paris, France). June 2019. Invited speaker.
32. **Workshop** *Workshop on variational problems in physics*, International Centre for Mathematics and Computer Science in Toulouse, Université Paul Sabatier (Toulouse, France). May 2019. Invited speaker.
33. **Workshop** *International Workshop on PDEs*, Institute of Mathematical Science, Chinese University of Hong Kong. May 2019. Invited speaker.
34. **Workshop** *Optimal Design of Complex Materials*, organised at the Newton Institute (Cambridge, UK) within the thematic semester *The Mathematical Design of New Materials*. January 2019. Invited speaker.
35. **Workshop** *Jornada Cantábrica de EDPs* (Castro Urdiales, Spain). September 2018. Invited speaker.

36. **Workshop** *Transitions de phase et équations non locales*, in honour of Prof. Sir John M. Ball for his 70th birthday, Institut Simion Stoilow, Académie Roumaine (Bucharest, Romania). April 2018. Invited speaker.
37. **Workshop** *Partial Order in Materials: at the Triple Point of Mathematics, Physics and Applications*, Banff International Research Station (Banff, Canada). November 2017. Invited speaker.
38. **Mini-symposium** *Singularities and phase transitions in condensed matter*, Mathematical Congress of the Americas (Montreal, Canada). July 2017.
39. **Workshop** *Phase Transition Models*, Banff International Research Station (Banff, Canada). May 2017. Invited speaker.
40. **Workshop** *Oxbridge PDE Conference 2017*, Oxford. March 2017. Invited speaker.
41. **Workshop** *3rd Meeting of the South-West Network (Cardiff, Bath and Reading) in generalised solutions for nonlinear PDE*, Bath. July 2016. Invited speaker.
42. **Workshop** *Modeling Materials and Fluids using Variational Methods*, WIAS (Berlin, Germany). February 2016. Invited speaker.
43. **Mini-symposium** *Mathematical Analysis of Liquid Crystals*, SIAM Conference on Analysis of PDEs, Scottsdale (Arizona, US). December 2015.
44. **Mini-symposium** *The Ginzburg-Landau Model and Related Topics*, International Congress of Industrial and Applied Mathematics 2015, Beijing (China). August 2015.
45. **Summer school** *Mathematical Thermodynamics of Complex Fluids*, organised by the CIME foundation in Cetraro (Italy). June–July 2015. Invited speaker.
46. **Workshop** *Lions-Magenes Days*, Pavia. April 2015. Invited speaker.
47. **Workshop** *Two-days Workshop on LC-flows*, Pavia (Italy). March 2014. Invited speaker.
48. **Workshop** *PDEs for Multiphase Advanced Materials*, Cortona (Italy). September 2012. Invited speaker.

Seminars

1. **Seminar in Analysis**, Università di Firenze, November 2024. Invited speaker.
2. **Seminar in Mathematics in the Natural Sciences**, University of Würzburg, May 2024. Invited speaker.
3. **Seminar in Analysis**, Università di Siena. February 2024. Invited speaker.
4. **Seminar in Analysis**, Università Federico II, Napoli. November 2023. Invited speaker.
5. **Seminar in PDEs**, Konstanz Universität (Germany). January 2023. Invited speaker.
6. **Seminar in Analysis**, Sapienza Università, Roma. October 2022. Invited speaker.
7. **Seminar in Applied Mathematics**, University of Pavia (Italy). September 2021. Invited speaker.

8. **Seminar in Analysis**, University Federico II, Naples (Italy). June 2021. Invited speaker.
9. **Seminar in the Calculus of Variations and Geometric Measure Theory**, University of Pisa (Italy). February 2021. Invited speaker.
10. **Seminar in Asymptotics, Operators, and Functionals**, University of Bath (UK). January 2021. Invited speaker.
11. **Seminar in Harmonic Analysis and PDEs**, *BCAM and UPV/EHU* (Bilbao, Spain). February 2019. Invited speaker.
12. **Seminar in Geometry, PDEs and Mathematical Physics**, *Université de Cergy-Pontoise* (France). November 2018. Invited speaker.
13. **Analysis Seminar** at the *Heriot-Watt University* (Edinburgh, UK). October 2018. Invited speaker.
14. **PDEs Seminar** at the *Université Paris Est-Créteil* (France). May 2018. Invited speaker.
15. **Seminar on the analysis of singularities in PDEs** at the *Université Paul Sabatier — Toulouse 3* (France). February 2018. Invited speaker.
16. **Analysis and Probability Seminar** at the *TU München* (Germany). December 2016. Invited speaker.
17. **Analysis Seminar** at the *Università Federico II* (Naples, Italy). December 2016. Invited speaker.
18. **PDE Lunchtime Seminar** at the University of Oxford (UK). November 2015. Invited speaker.
19. **Analysis and PDEs Seminar** at the University of Sussex (Brighton, UK). November 2015. Invited speaker.
20. **Analysis Seminar** at the University of Reading (UK). October 2015. Invited speaker.
21. **Analysis Seminar** at the University of Bristol (UK). October 2015. Invited speaker.
22. **Nonlinear Analysis Seminar** at the *Université Catholique de Louvain* (Louvain-la-Neuve, Belgium). Invited speaker. November 2014.
23. **Seminar of the Centre for Nonlinear Mechanics** at the University of Bath (UK). Invited speaker. March 2014.
24. **Seminar on PDEs and applications** at the University of Poitiers (France). Invited speaker. November 2013.
25. **Analysis Seminar** at the University of Pavia (Italy). Invited speaker. October 2013.

Organisation of Scientific Events

1. **Co-chair** of the organising committee of *NumHyp 2027: Numerical methods for hyperbolic equations*, Verona. July 2027.

   Web page: https://elenagaburro.it/numhyp27.html

2. **Co-chair** of the organising committee of *ShaKER 2025: Sharing know-how, research lines and career tips: a symposium for early stage researchers*, Verona. December 2025.

   Web page: https://elenagaburro.it/shaker2025.html

3. **Co-organiser** of the workshop *One day — Young Researchers Seminars, Maths Applications & Models*, Università di Verona. July 2022.

   Web page: https://mathseminarsverona.wordpress.com/one-day-young-researchers-seminars-maths-applications-models/

4. **Co-organiser** of the *Workshop on Geometric Measure Theory*, Università di Verona, Alba di Canazei (Trento, Italy), with Dr. Annalisa Massaccesi and Prof. Davide Vittone. June 2019.

   Web page: https://annalisamassaccesi.wordpress.com/research/events/wgmt-canazei/

Teaching

Graduate level:

Since 2020	Member of the **Collegio docenti del dottorato interateneo UNIVR-UNITN in Matematica** (the faculty board of the joint PhD School of Mathematics in Verona and Trento).
March 2019	**Doctoral mini-course** at the Basque Centre for Applied Mathematics, together with Dr. Jamie M. Taylor. *Title of the course:* Variational theories of liquid crystals: Materials science at many length scales.
January–March 2017	Supervision of a **ten-week research project** by **Craig Robertson**, who at that time was a first-year student of the Centre for Doctoral Training in PDE at the University of Oxford. *Title of the project:* Density of smooth functions in manifold-valued functional spaces.
2015–2017	**Tutor** (responsible for the exercise section) of *Elliptic PDEs*, for first-year students of the EPSRC Centre for Doctoral training in PDEs at the University of Oxford.

Undergraduate level, at the University of Verona:

Since 2019	*Analisi Matematica 1* (univariate calculus), for first-year students in Bioinformatics and Informatics.
Since 2019	Part of the course in *Sistemi Dinamici* (qualitiative theory of ordinary differential equations), for second-year students in Applied Mathematics.
Since 2019	Exercises in *Analisi Matematica 3* (complex analysis), for third-year students in Applied Mathematics.
Since 2024	*Analisi Matematica 1* (univariate calculus), for first-year students in Applied Mathematics.

Undergraduate level, elsewhere:

2016/2017 — **Tutor** (responsible for the exercise section) of *Hilbert Spaces*, for third-year students in Mathematics at the Mathematical Institute, University of Oxford.

2012–2015 — **Chargé de TDs** at the *Université Pierre et Marie Curie — Paris 6*.
I led exercise sessions for second- and third-year students in Mathematics: *Intégration 2* (a follow-up course in Lebesgue Integration Theory), *Arithmétique* (arithmetics) and *Séries et Intégrales* (series and integrals).

Administration duties

October 2021 – September 2027 — Member of the **Giunta del Dipartimento di Informatica**, an internal committee within the Department of Computer Science of the University of Verona.

Since 2023 — Member of the **Commissione Ricerca del Dipartimento di Informatica**, a committee within the Department of Computer Science of the University of Verona.

October 2021 – September 2024 — Member of the **Senato Accademico** (Academic Senate) of the University of Verona, as a representative of researchers in Science and Engineering.