

# Luca Scarpa, PhD

Assistant Professor - RTDa  
 Department of Mathematics, Politecnico di Milano  
 Via E. Bonardi 9, 20133 Milano, Italy

Personal Data: born 09.03.1991 (Pavia, Italy), Italian nationality  
 E-mail: [luca.scarpa@polimi.it](mailto:luca.scarpa@polimi.it)  
 Website: <http://www.mat.univie.ac.at/~scarpa/>  
 ORCID Id: [0000-0001-6928-8944](https://orcid.org/0000-0001-6928-8944)

## RESEARCH INTERESTS

---

**Main:** Variational methods for stochastic evolution equations.  
 Nonlinear PDEs and stochastic PDEs, nonlinear evolution systems.  
 Phase-field models (deterministic and stochastic), tumour growth dynamics.

**Specific:** Well-posedness, regularity, asymptotics, long-time behaviour, optimal control.

## WORK EXPERIENCE

---

**Assistant Professor** *Mar 2021 - Present*  
 Ricercatore a Tempo Determinato RTDa - MAT/06  
 Department of Mathematics, Politecnico di Milano, Italy

**Project Leader – Postdoctoral Researcher** *Jul 2020 - Feb 2021*  
 PI of the Research Grant: [Stochastic Cahn-Hilliard equation: analysis and applications](#)  
 Lise Meitner Grant M 2876, Austrian Science Fund (FWF)  
 Faculty of Mathematics, University of Vienna, Austria

**Postdoctoral University Assistant** *Jul 2019 - June 2020*  
 Faculty Assistant: Applied Mathematics and Modelling Group (Prof. U. Stefanelli)  
 Faculty of Mathematics, University of Vienna, Austria

**Postdoctoral Researcher** *Sep 2018 - Jun 2019*  
 Project participant: Applied Mathematics and Modelling Group (Prof. U. Stefanelli)  
 Faculty of Mathematics, University of Vienna, Austria

**Teaching Assistant** *Sep 2015 - Jul 2018*  
 Department of Mathematics, University College London, UK

**Tutor and Teaching Assistant** *Sep 2012 - Jul 2015*  
 University of Pavia, Italy

## EDUCATION

---

**Italian National Abilitation – Associate Professor** *9 Nov 2020 - 9 Nov 2029*  
 Abilitazione Scientifica Nazionale: seconda fascia  
 Settore Concorsuale 01/A3: analisi matematica, probabilità e statistica matematica

**PhD in Mathematics** *Sep 2015 - 28 Jul 2018*  
 University College London, London, UK  
 Supervisor: Prof. Carlo Marinelli  
 Thesis: [“A variational approach to some classes of singular stochastic PDEs”](#)

**Master’s Degree in Mathematics** *Oct 2013 - 14 Jul 2015*  
 University of Pavia, Italy - 110/110 cum laude  
 Supervisor: Prof. Pierluigi Colli  
 Thesis: “Global existence results for PDE problems arising from a model of microwave heating”

**Bachelor’s Degree in Mathematics** *Oct 2010 - 15 Jul 2013*  
 University of Pavia, Italy - 110/110 cum laude

Supervisor: Prof. Gianni Maria Gilardi  
Thesis: “Funzioni di variabile complessa e applicazioni”

### High School Diploma

Scientific High School “T. Taramelli”, Pavia, Italy - 100/100 cum laude

Sep 2005 - Jul 2010

## GRANTS, HONOURS AND AWARDS

---

### Grants.

- Research grant: “[Stochastic Cahn-Hilliard equation: analysis and applications](#)”.  
*Principal Investigator. Lise-Meitner project M-2876 N, Austrian Science Fund (FWF), 2020-2022.*  
*Value: 159K EUR. Duration: 2 years. Peer-reviewed.*
- Grant for organization of the workshop: “[Stochastic Partial Differential Equations](#)”.  
Together with: Sandra Cerrai, Martin Hairer, Carlo Marinelli, Eulalia Nualart, Ulisse Stefanelli.  
*Erwin Schrödinger International Institute for Mathematics and Physics, 7–11 March 2022, Vienna, Austria.*  
*Value: 13K EUR.*
- Research grant: “Sistemi con interazione spaziale: convergenza, controllo e applicazioni”.  
*Project participant (PI: Giovanni Alessandro Zanco). Indam-Gnampa project, 2020.*  
*Value: 2475 EUR. Duration: 1 year.*
- Research grant: “Trasporto ottimo per dinamiche con interazione”.  
*Project participant (PI: Carlo Orrieri). Indam-Gnampa project, 2019.*  
*Value: 4300 EUR. Duration: 1 year.*

### Awards.

- “Wren Fund Scholarship” award: academic excellence in the academic year 2017-2018.  
*University College London (UK), 2018. Value: 1000 GBP.*
- “Premio di laurea Prof. Luigi Berzolari” award: best Master’s thesis in Mathematics in 2015-2016-2017.  
*University of Pavia (Italy), 2018. Value: 2400 EUR.*
- Contribution costs of attendance: 4th Barcelona Summer School on Stochastic Analysis.  
*9-13 July 2018, Centre de Recerca Matemàtica, Barcelona (Spain).*
- Contribution costs of attendance: International Workshop on BSDEs, SPDEs and their Applications.  
*3-7 July 2017, University of Edinburgh (UK).*
- Contribution costs of attendance: 3rd Barcelona Summer School on Stochastic Analysis.  
*27 June - 2 July 2016, Centre de Recerca Matemàtica, Barcelona (Spain).*
- Contribution costs of attendance: “Optimal Control for Evolutionary PDEs and Related Topics”.  
*Indam meeting, 20-24 June 2016, Cortona (Italy).*
- “Lighthill Scholarship” award: academic excellence in the academic year 2015-2016.  
*University College London (UK). Value: 500 GBP.*
- Teaching assistantship. *Years 2015-2019, University College London, UK.*
- “Premio Andreani-Manna” award: best average mark in Mathematics, Physics and Natural Sciences.  
*“T. Taramelli” High School (Pavia, Italy), 2011.*
- “Premio maturità 2010” award: honours in the final score of the High School Diploma.  
*Ministero della Pubblica Istruzione (Italy), 2010.*
- “Dote merito” award: honours in the final score of the High School Diploma.  
*Regione Lombardia (Italy), 2010.*

### Honours.

- Honours in the final score of the Master’s Degree. *University of Pavia (Italy), 2015.*
- Honours in the final score of the Bachelor’s Degree. *University of Pavia (Italy), 2013.*

- Honours in the final score of the High School Diploma. “*T. Taramelli*” High School (Pavia, Italy), 2010.

## PROFESSIONAL SERVICE

---

### Referee activity.

- |            |   |
|------------|---|
| since 2021 | Annales de l’Institut Henri Poincaré - Probabilités et Statistiques, IMS<br>Zeitschrift für Angewandte Mathematik und Mechanik, Wiley-VCH<br>Interfaces and Free Boundaries, EMS<br>Journal of Mathematical Analysis and Applications, Elsevier   |
| since 2020 | International Journal of Control, Taylor & Francis<br>Journal of Functional Analysis, Elsevier<br>Zeitschrift für Analysis und Ihre Anwendungen, EMS<br>Nonlinear Analysis Real World Applications, Elsevier<br>Open Mathematics, De Gruyter<br>Potential Analysis, Springer<br>Bollettino dell’Unione Matematica Italiana, Springer<br>Discrete and Continuous Dynamical Systems (A and B), AIMS<br>Asymptotic Analysis, IOS Press<br>Mathematical Control and Related Fields, AIMS<br>Mathematics, MDPI |
| since 2019 | Mathematics, AIMS<br>Nonlinearity, IOP Publishing<br>Stochastic Processes and their Applications, Elsevier  |
| since 2018 | Applied Mathematics and Optimization, Springer<br>Journal of Evolution Equations, Springer  |
| since 2017 | Nonlinear Analysis Theory Methods and Applications, Elsevier<br>Mathematical Methods in the Applied Sciences, John Wiley & Sons Ltd   |

### Organizational activity.

- Organizer workshop “[Stochastic Partial Differential Equations](#)”.  
Together with: Sandra Cerrai, Martin Hairer, Carlo Marinelli, Eulalia Nualart, Ulisse Stefanelli.  
*Erwin Schrödinger International Institute for Mathematics and Physics, 7–11 March 2022, Vienna, Austria.*
- Organizer special session “Stochastic systems with interaction”.  
Together with: Carlo Orrieri.  
*Second Italian Meeting on Probability and Mathematical Statistics, 17-20 June 2019, Vietri (SA), Italy.*

## INTERNATIONAL COLLABORATION

---

### Visiting affiliations.

- |                |   |
|----------------|---|
| 07–10 Jan 2020 | Università di Pavia and Milano (Italy)                                  |
| 04–06 Sep 2019 | University College London (UK)  |
| 11–13 Jul 2019 | Department Mathematik, Universität Erlangen-Nürnberg (Germany)          |
| 24–28 Apr 2018 | Max Planck Institute for Mathematics in the Sciences, Leipzig (Germany) |
| 16–20 Apr 2018 | Applied Mathematics and Modelling Group, University of Vienna (Austria) |
| 13–15 Nov 2017 | Sapienza Università di Roma (Italy)                                     |
| 06–10 Nov 2017 | Università di Pavia (Italy)   |
| 26–30 Sep 2016 | Laboratoire de Probabilités et Modèles Aléatoires, Paris (France)       |

### Main cooperation partners.

- |                        |   |
|------------------------|---|
| Prof. Dr. P. Colli     | Università di Pavia, <a href="mailto:pierluigi.colli@unipv.it">pierluigi.colli@unipv.it</a> |
| Prof. Dr. C. Marinelli | University College London, <a href="mailto:c.marinelli@ucl.ac.uk">c.marinelli@ucl.ac.uk</a> |
| Dr. C. Orrieri         | Università di Trento, <a href="mailto:carlo.orrieri@unitn.it">carlo.orrieri@unitn.it</a>    |
| Prof. Dr. E. Bonetti   | Università di Milano, <a href="mailto:elena.bonetti@unimi.it">elena.bonetti@unimi.it</a>    |

Prof. Dr. G. Tomassetti	Università “Roma Tre”, <a href="mailto:giuseppe.tomassetti@uniroma3.it">giuseppe.tomassetti@uniroma3.it</a>
Prof. Dr. E. Rocca	Università di Pavia, <a href="mailto:elisabetta.rocca@unipv.it">elisabetta.rocca@unipv.it</a>
Prof. Dr. U. Stefanelli	University of Vienna, <a href="mailto:ulisse.stefanelli@univie.ac.at">ulisse.stefanelli@univie.ac.at</a>
Dr. E. Davoli	Technical University of Vienna, <a href="mailto:elisa.davoli@tuwien.ac.at">elisa.davoli@tuwien.ac.at</a>
Dr. H. Ranetbauer	University of Vienna, <a href="mailto:helene.ranetbauer@univie.ac.at">helene.ranetbauer@univie.ac.at</a>
Dr. L. Trussardi	University of Vienna, <a href="mailto:lara.trussardi@univie.ac.at">lara.trussardi@univie.ac.at</a>
Dr. A. Signori	Università di Pavia, <a href="mailto:andrea.signori02@universitadipavia.it">andrea.signori02@universitadipavia.it</a>
Dr. A. Molchanova	University of Vienna, <a href="mailto:anastasia.molchanova@univie.ac.at">anastasia.molchanova@univie.ac.at</a>
Dr. A. Menovschikov	University of Hradec Králové, <a href="mailto:alexander.menovschikov@uhk.cz">alexander.menovschikov@uhk.cz</a>
Dr. M. Zanella	Politecnico di Milano, <a href="mailto:margherita.zanella@polimi.it">margherita.zanella@polimi.it</a>

## FULL LIST OF PUBLICATIONS

---

### Submitted papers.

35. P. Colli, T. Fukao, L. Scarpa.  
[The Cahn-Hilliard equation with forward-backward dynamic boundary condition via vanishing viscosity.](#)  
 Submitted (2021), arXiv:2106.01010
34. L. Scarpa, U. Stefanelli.  
[Doubly nonlinear stochastic evolution equations II.](#)  
 Submitted (2020), arXiv:2009.08209

### Accepted and published papers.

33. L. Scarpa, U. Stefanelli.  
[The Energy-Dissipation Principle for stochastic parabolic equations.](#)  
*Adv. Math. Sci. Appl.* (to appear). arXiv:2109.05882
32. E. Rocca, L. Scarpa, A. Signori.  
[Parameter identification for nonlocal phase field models for tumor growth via optimal control and asymptotic analysis.](#)  
*Math. Models Methods Appl. Sci.* (to appear). arXiv:2009.11159
31. C. Marinelli, L. Scarpa.  
[Well-posedness of monotone semilinear SPDEs with semimartingale noise.](#)  
*Séminaire de Probabilités* (to appear). arXiv:1805.07562
30. A. Menovschikov, A. Molchanova, L. Scarpa.  
[An extended variational theory for nonlinear evolution equations via modular spaces.](#)  
*SIAM J. Math. Anal.* 53 (2021), no. 4, 4865–4907. DOI: [10.1137/20M1385251](https://doi.org/10.1137/20M1385251)
29. L. Scarpa.  
[The stochastic viscous Cahn-Hilliard equation: well-posedness, regularity and vanishing viscosity limit.](#)  
*Appl. Math. Optim.* 84 (2021), no. 1, 487–533. DOI: [10.1007/s00245-020-09652-9](https://doi.org/10.1007/s00245-020-09652-9)
28. L. Scarpa.  
[The stochastic Cahn-Hilliard equation with degenerate mobility and logarithmic potential.](#)  
*Nonlinearity* 34 (2021), no. 6, 3813–3857. DOI: [10.1088/1361-6544/abf338](https://doi.org/10.1088/1361-6544/abf338)
27. L. Scarpa, A. Signori.  
[On a class of non-local phase-field models for tumor growth with possibly singular potentials, chemotaxis, and active transport.](#)  
*Nonlinearity* 34 (2021), no. 5, 3199–3250. DOI: [10.1088/1361-6544/abe75d](https://doi.org/10.1088/1361-6544/abe75d)
26. E. Davoli, L. Scarpa, L. Trussardi.  
[Local asymptotics for nonlocal convective Cahn-Hilliard equations with  \$W^{1,1}\$  kernel and singular potential.](#)  
*J. Differential Equations* 289 (2021), 35–58. DOI: [10.1016/j.jde.2021.04.016](https://doi.org/10.1016/j.jde.2021.04.016)
25. L. Scarpa.  
[Analysis and optimal velocity control of a stochastic convective Cahn-Hilliard equation.](#)  
*J. Nonlinear Sci.* 31 (2021), no. 2, 45. DOI: [10.1007/s00332-021-09702-8](https://doi.org/10.1007/s00332-021-09702-8)

24. C. Marinelli, L. Scarpa, U. Stefanelli.  
[An alternative proof of well-posedness of stochastic evolution equations in the variational setting.](#)  
*Rev. Roumaine Math. Pures Appl.* 66 (2021), no. 1, 209–221.
23. E. Davoli, L. Scarpa, L. Trussardi.  
[Nonlocal-to-local convergence of Cahn-Hilliard equations: Neumann boundary conditions and viscosity terms.](#)  
*Arch. Ration. Mech. Anal.* 239 (2021), no. 1, 117–149. DOI: [10.1007/s00205-020-01573-9](#)
22. L. Scarpa, U. Stefanelli.  
[Stochastic PDEs via convex minimization.](#)  
*Comm. Partial Differential Equations* 46 (2021), no. 1, 66–97. DOI: [10.1080/03605302.2020.1831017](#)
21. C. Orrieri, E. Rocca, L. Scarpa.  
[Optimal control of stochastic phase-field models related to tumor growth.](#)  
*ESAIM Control Optim. Calc. Var.* 26 (2020), Paper No. 104, 46 pp. DOI: [10.1051/cocv/2020022](#)
20. L. Scarpa, U. Stefanelli.  
[An order approach to SPDEs with antimonotone terms.](#)  
*Stoch. Partial Differ. Equ. Anal. Comput.* 8 (2020), no. 4, 819–832. DOI: [10.1007/s40072-019-00161-7](#)
19. C. Marinelli, L. Scarpa.  
[Refined existence and regularity results for a class of semilinear dissipative SPDEs.](#)  
*Infin. Dimens. Anal. Quantum Probab. Relat. Top.* 23 (2020), no. 2, 2050014. DOI: [10.1142/S0219025720500149](#)
18. C. Marinelli, L. Scarpa.  
[Fréchet differentiability of mild solutions to SPDEs with respect to the initial datum.](#)  
*J. Evol. Equ.* 20 (2020), no. 3, 1093–1130. DOI: [10.1007/s00028-019-00546-0](#)
17. L. Scarpa, U. Stefanelli.  
[Doubly nonlinear stochastic evolution equations.](#)  
*Math. Models Methods Appl. Sci.* 30 (2020), no. 5, 991–1031. DOI: [10.1142/S0218202520500219](#)
16. E. Davoli, H. Ranetbauer, L. Scarpa, L. Trussardi.  
[Degenerate nonlocal Cahn-Hilliard equations: well-posedness, regularity and local asymptotics.](#)  
*Ann. Inst. H. Poincaré Anal. Non Linéaire* 37 (2020), no. 3, 627–651. DOI: [10.1016/j.anihpc.2019.10.002](#)
15. E. Bonetti, P. Colli, L. Scarpa, G. Tomassetti.  
[Bounded solutions and their asymptotics for a doubly nonlinear Cahn-Hilliard system.](#)  
*Calc. Var. Partial Differential Equations* 59 (2020), no. 2, Paper no. 88, 25 pp. DOI: [10.1007/s00526-020-1715-9](#)
14. C. Marinelli, L. Scarpa.  
[Ergodicity and Kolmogorov equations for dissipative SPDEs with singular drift: a variational approach.](#)  
*Potential Anal.* 52 (2020), no. 1, 69–103. DOI: [10.1007/s11118-018-9731-5](#)
13. L. Scarpa.  
[Optimal distributed control of a stochastic Cahn-Hilliard equation.](#)  
*SIAM J. Control Optim.* 57 (2019), no. 5, 3571–3602. DOI: [10.1137/18M1222223](#)
12. S. Melchionna, H. Ranetbauer, L. Scarpa, L. Trussardi.  
[From nonlocal to local Cahn-Hilliard equation.](#)  
*Adv. Math. Sci. Appl.* 28 (2019), no. 1, 197–211.
11. C. Orrieri, L. Scarpa.  
[Singular stochastic Allen-Cahn equations with dynamic boundary conditions.](#)  
*J. Differential Equations* 266 (2019), no. 8, 4624–4667. DOI: [10.1016/j.jde.2018.10.007](#)
10. L. Scarpa.  
[Existence and uniqueness of solutions to singular Cahn-Hilliard equations with nonlinear viscosity terms and dynamic boundary conditions.](#)  
*J. Math. Anal. Appl.* 469 (2019), no. 2, 730–764. DOI: [10.1016/j.jmaa.2018.09.034](#)
9. C. Marinelli, L. Scarpa.  
[A note on doubly nonlinear SPDEs with singular drift in divergence form.](#)  
*Accad. Naz. Lincei Rend. Lincei Mat. Appl.* 29 (2018), no. 4, 619–633. DOI: [10.4171/RLM/825](#)

8. C. Marinelli, L. Scarpa.  
[Strong solutions to SPDEs with monotone drift in divergence form.](#)  
*Stoch. Partial Differ. Equ. Anal. Comput.* 6 (2018), no. 3, 364–396. DOI: [10.1007/s40072-018-0111-3](#)
  7. E. Bonetti, P. Colli, L. Scarpa, G. Tomassetti.  
[A doubly nonlinear Cahn-Hilliard system with nonlinear viscosity.](#)  
*Commun. Pure Appl. Anal.* 17 (2018), no. 3, 1001–1022. DOI: [10.3934/cpaa.2018049](#)
  6. C. Marinelli, L. Scarpa.  
[A variational approach to dissipative SPDEs with singular drift.](#)  
*Ann. Probab.* 46 (2018), no. 3, 1455–1497. DOI: [10.1214/17-AOP1207](#)
  5. L. Scarpa.  
[On the stochastic Cahn-Hilliard equation with a singular double-well potential.](#)  
*Nonlinear Anal.* 171 (2018), 102–133. DOI: [10.1016/j.na.2018.01.016](#)
  4. L. Scarpa.  
[Well-posedness for a class of doubly nonlinear stochastic PDEs of divergence type.](#)  
*J. Differential Equations* 263 (2017), no. 4, 2113–2156. DOI: [10.1016/j.jde.2017.03.041](#)
  3. P. Colli, L. Scarpa.  
[From the viscous Cahn-Hilliard equation to a regularized forward-backward parabolic equation.](#)  
*Asympt. Anal.* 99 (2016), no. 3–4, 183–205. DOI: [10.3233/ASY-161380](#)
  2. P. Colli, L. Scarpa.  
[Existence of solutions for a model of microwave heating.](#)  
*Discrete Contin. Dyn. Syst. Ser. A* 36 (2016), no. 6, 3011–3034. DOI: [10.3934/dcds.2016.36.3011](#)
  1. L. Scarpa.  
[A doubly nonlinear evolution problem related to a model for microwave heating.](#)  
*Adv. Math. Sci. Appl.* 24 (2014), no. 2, 251–275.
- Proceedings.**
- P2. C. Marinelli, L. Scarpa.  
[On the positivity of local mild solutions to stochastic evolution equations.](#)  
*Geometry and Invariance in Stochastic Dynamics*,  
 S. Ugolini, M. Fuhrman, E. Mastrogiacono, P. Morando, B. Rüdiger, eds.  
 Springer International Publishing (to appear). arXiv:1912.13259
- P1. C. Marinelli, L. Scarpa.  
[On the well-posedness of SPDEs with singular drift in divergence form.](#)  
*Stochastic Partial Differential Equations and Related Fields*,  
 A. Eberle, M. Grothaus, W. Hoh, M. Kassmann, W. Stannat, and G. Trutnau, eds.  
 Springer International Publishing (2018), 225–235. DOI: [10.1007/978-3-319-74929-7\\_12](#)
- Theses.**
- T3. L. Scarpa. [A variational approach to some classes of singular stochastic PDEs.](#)  
*PhD Thesis* (2018)
- T2. L. Scarpa. Global existence results for PDE problems arising from microwave heating.  
*Master's Degree Thesis* (2015)
- T1. L. Scarpa. Funzioni di variabile complessa e applicazioni.  
*Bachelor's Degree Thesis* (2013)

## DISSERTATIONS, TALKS AND SEMINARS

---

### 2021

- Invited talk. “On a class of nonlocal phase-field models for tumour growth”.  
*15th International Conference on Free Boundary Problems*,  
 13-17 September 2021, Humboldt-Universität, Berlin, Germany

- Invited talk. “Weighted Energy-Dissipation principle for nonlinear stochastic evolution equations”.  
*8th European Congress of Mathematics, Minsymposium on Stochastic Evolution Equations, 20-26 June 2021, Portorož, Slovenia*

- Invited talk. “Optimal control of stochastic phase-field models for tumor growth”.  
*Oberwolfach Workshop - Challenges in Optimization with Complex PDE-Systems, 14-20 February 2021, Mathematisches Forschungsinstitut Oberwolfach (MFO), Germany*

## 2020

- Invited talk. “From nonlocal to local phase-field models: asymptotic analysis and applications”.  
*Deutsche Mathematiker-Vereinigung (DMV) meeting, 14-17 September 2020, Technical University Chemnitz, Germany*

- Invited talk. “Nonlocal-to-local convergence of phase-field models: asymptotic analysis and applications”.  
*13th AIMS Conference on Dynamical Systems, Differential Equations and Applications, 5-9 June 2020 (postponed), Atlanta, United States of America*

- Invited talk. “Weighted Energy-Dissipation principle for nonlinear stochastic evolution equations”.  
*Second Edinburgh-Vienna Workshop on Advances in PDEs, 25-28 May 2020 (postponed), International Centre for Mathematical Sciences (ICMS), Edinburgh, United Kingdom*

- Invited lecture. “Analisi matematica di alcune equazioni non lineari alle derivate parziali”.  
*University of Pavia, 6 April 2020 (postponed), Pavia, Italy*

- Invited seminar. “From nonlocal to local phase-field models: asymptotic analysis and applications”.  
*University of Milano, 9 January 2020, Milano, Italy*

## 2019

- Invited seminar. “Nonlocal-to-local convergence of viscous Cahn-Hilliard equations with Neumann boundary conditions”.  
*University of Pavia, 3 October 2019, Pavia, Italy*

- Invited seminar. “Existence and regularity results for the stochastic Cahn-Hilliard equation”.  
*Universität Erlangen-Nürnberg, 2 July 2019, Erlangen, Germany*

- Invited lecture. “A variational approach to singular stochastic PDEs: methods and applications”.  
*Technische Universität Wien, Interview for tenure-track position, 1 July 2019, Vienna, Austria*

- Invited talk. “Optimal control of a stochastic phase-field model for tumor growth”.  
*Second Italian Meeting on Probability and Mathematical Statistics, 17-20 June 2019, Vietri (SA), Italy*

- Invited talk. “Nonlocal-to-local convergence of Cahn-Hilliard equations”.  
*Recent advances in Phase-Field modeling: from Engineering to Biology, 6-10 May 2019, Pavia, Italy*

- Invited seminar. “Optimal control of a stochastic phase-field model for tumor growth”.  
*Technische Universität Wien, 6 March 2019, Vienna, Austria*

## 2018

- Contributed talk. “A variational approach to some classe of singular SPDEs”.  
*4th Barcelona Summer School on Stochastic Analysis, 9-13 July 2018, Barcelona, Spain*

- Invited talk. “A doubly nonlinear Cahn-Hilliard system with nonlinear viscosity”.  
*12th AIMS Conference on Dynamical Systems, Differential Equations and Applications, 5-9 July 2018, Taipei, Taiwan*

- Invited talk. “A variational approach to some classe of singular SPDEs”.  
*12th AIMS Conference on Dynamical Systems, Differential Equations and Applications, 5-9 July 2018, Taipei, Taiwan*

- PhD dissertation. “A variational approach to some classes of singular stochastic PDEs”.  
*University College London, 14 June 2018, London, UK*

- Invited seminar. “Well-posedness of semilinear SPDEs with singular drift: a variational approach”.  
*Max Planck Institute for Mathematics in the Sciences, 27 April 2018, Leipzig, Germany*

- Invited seminar. “Well-posedness of semilinear SPDEs with singular drift: a variational approach”.  
*University of Vienna, 17 April 2018, Austria*

### 2017

- Invited seminar. “Well-posedness of semilinear SPDEs with singular drift: a variational approach”.  
*Sapienza Università di Roma, 14 November 2017, Roma, Italy*
- Invited seminar. “Well-posedness of semilinear SPDEs with singular drift: a variational approach”.  
*University of Pavia, 7 November 2017, Pavia, Italy*
- Contributed talk. “Well-posedness of semilinear SPDEs with singular drift: a variational approach”.  
*International Workshop on BSDEs, SPDEs and Applications, 3-7 July 2017, University of Edinburgh, UK*
- Contributed talk. “Well-posedness of semilinear SPDEs with singular drift: a variational approach”.  
*ICL-UCL Day, 3 April 2017, Imperial College London, UK*

### 2016

- MPhil-PhD transfer. “Well-posedness of semilinear SPDEs with singular drift: a variational approach”.  
*University College London, 19 October 2016, London, UK*
- Invited seminar. “Well-posedness of semilinear SPDEs with singular drift: a variational approach”.  
*Laboratoire de Probabilités et Modèles Aléatoires, 28 September 2016, Paris, France*
- Invited seminar. “Parabolic stochastic partial differential equations”.  
*University College London, 10 March 2016, London, UK*

### 2015

- MSc dissertation. “Global existence results for PDE problems arising from a model of microwave heating”.  
*University of Pavia, 14 July 2015, Pavia, Italy*

### 2013

- BSc dissertation. “Funzioni di variabile complessa e applicazioni”.  
*University of Pavia, 15 July 2013, Pavia, Italy*

## SUPERVISION

---

### Master students

- Federico Bertacco: University of Trento (Italy), Internship at University of Vienna (Austria), a.y. 2019-2020.  
Thesis: “On the Stochastic Allen-Cahn Equation with Logarithmic Potential”.  
Currently: PhD student in stochastic analysis at Imperial College London (with Prof. Hairer).
- Laura Galvagni: University of Trento (Italy), Internship at University of Vienna (Austria), a.y. 2019-2020.  
Thesis: “Continuous-time Optimal Stochastic Control with Financial Applications”.

## TEACHING

---

### Academic year 2021-2022

- Problem classes: Esercitazioni di Probabilità (to be confirmed)  
*BSc Degree in Ingegneria Matematica, Politecnico di Milano, Italy*
- Problem classes: Esercitazioni di Probabilità e Statistica Matematica (to be confirmed)  
*BSc Degree in Ingegneria Gestionale, Politecnico di Milano, Italy*

### Academic year 2020-2021

- MSc course: [Stochastic Partial Differential Equations](#)  
*MSc Degree in Mathematics, Faculty of Mathematics, University of Vienna, Austria*

### Academic year 2019-2020

- MSc-PhD course: [Nonlinear Evolution Equations](#)  
*MSc-PhD-level course in Mathematics, Faculty of Mathematics, University of Vienna, Austria*



- Problem Classes: [Mathematical Analysis](#)  
*BSc degree in Mathematics, Faculty of Mathematics, University of Vienna, Austria*

#### **Academic year 2017-2018**

- Lectures and Problem Classes: Stochastic Processes, Interest Rates and Credit Modelling  
*MSc degree in Financial Mathematics, Department of Mathematics, University College London, UK*
- Pure and Applied Tutorials: Analysis, Algebra, Mathematical Methods, Applied Mathematics  
*BSc degree in Mathematics, Department of Mathematics, University College London, UK*
- Marking (scripts and exams): Analysis 1-2-3, Mathematics for related disciplines  
*Department of Mathematics, University College London, UK*

#### **Academic year 2016-2017**

- Lectures and Problem Classes: Stochastic Processes, Interest Rates and Credit Modelling  
*MSc degree in Financial Mathematics, Department of Mathematics, University College London, UK*
- Applied Tutorials: Mathematical Methods, Applied Mathematics  
*BSc degree in Mathematics, Department of Mathematics, University College London, UK*
- Marking (scripts and exams): Analysis 1-2-3, Mathematics for related disciplines  
*Department of Mathematics, University College London, UK*

#### **Academic year 2015-2016**

- Lectures and Problem Classes: Stochastic Processes, Interest Rates and Credit Modelling  
*MSc degree in Financial Mathematics, Department of Mathematics, University College London, UK*
- Applied Tutorials: Mathematical Methods, Applied Mathematics  
*BSc degree in Mathematics, Department of Mathematics, University College London, UK*
- Marking (scripts and exams): Analysis 1-2-3, Mathematics for related disciplines  
*Department of Mathematics, University College London, UK*

#### **Academic year 2014-2015**

- Lectures and Problem Classes: Mathematical Analysis 4 (Measure Theory, Functional Analysis)  
*BSc degree in Mathematics, Department of Mathematics, University of Pavia, Italy*
- Tutorials and Problem Classes: General Mathematics  
*BSc degree in Economics, Department of Economics, University of Pavia, Italy*
- Tutorials and Problem Classes: Decision and Choices  
*MSc degree in Economics, Department of Economics, University of Pavia, Italy*

#### **Academic year 2013-2014**

- Tutorials and Problem Classes: Mathematical Analysis  
*Department of Biotechnology, University of Pavia, Italy*
- Tutorials and Problem Classes: Probability  
*BSc degree in Mathematics, Department of Mathematics, University of Pavia, Italy*

#### **Academic year 2012-2013**

- Tutorials and Problem Classes: General Mathematics  
*Department of Natural Sciences, University of Pavia, Italy*

### **ATTENDED CONFERENCES, SCHOOLS AND WORKSHOPS**

---

- 15th International Conference on Free Boundary Problems.  
*13-17 September 2021, Humboldt-Universität, Berlin, Germany*
- 8th European Congress of Mathematics.  
*20-26 June 2021, Portorož, Slovenia*

- Oberwolfach Workshop - Challenges in Optimization with Complex PDE-Systems.  
*14-20 February 2021, Mathematisches Forschungsinstitut Oberwolfach (MFO), Germany*
- 1st Austrian Calculus of Variations Day.  
*17-18 October 2019, Faculty of Mathematics, University of Vienna, Austria*
- Second Italian Meeting on Probability and Mathematical Statistics.  
*17-20 June 2019, Vietri sul Mare (SA), Italy*
- Recent advances in Phase-Field modeling: from Engineering to Biology.  
*8-10 May 2019, University of Pavia, Italy*
- 4th Barcelona Summer School on Stochastic Analysis.  
*9-13 July 2018, Centre de Recerca Matemàtica, Barcelona, Spain*
- 12th AIMS Conference on Dynamical Systems, Differential Equations and Applications.  
*5-9 July 2018, Taipei, Taiwan*
- International Workshop on BSDEs, SPDEs and their Applications.  
*3-7 July 2017, University of Edinburgh, UK*
- 3rd Barcelona Summer School on Stochastic Analysis.  
*27 June - 2 July 2016, Centre de Recerca Matemàtica, Barcelona, Spain*
- Indam meeting on “Optimal Control for Evolutionary PDEs and Related Topics”.  
*20-24 June 2016, Cortona (Arezzo), Italy*
- 10th International meeting on “Stochastic Partial Differential Equations and Applications”.  
*29 May - 3 June 2016, Levico Terme, Italy*

## GENERAL SKILLS AND METRICS

---

<b>Languages</b>	Italian (native speaker), English (fluent, IELTS 7.5, C1-C2 equivalent), French (upper intermediate, DELF B2), Spanish (lower intermediate, DELE B1) German (elementary, A1 Sprachenzentrum Wien)
<b>Programming</b>	MatLab, C, L <sup>A</sup> T <sub>E</sub> X, R
<b>IT Softwares &amp; Tools</b>	Windows, OS, Microsoft Office, iWork, Web browsers
<b>Google Scholar</b>	217 Citations, h-index 9
<b>Scopus</b>	152 Citations, h-index 8