Lucio Galeati – Curriculum vitae

Institute for Applied Mathematics
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Academic profiles: Scholar, ResearchGate, Orcid

Born: 01 September, 1994—Fano, Italy
Nationality: Italian
Languages: Italian (native), English (fluent), Spanish (basic), German (very basic)

Education

2018 - ongoing PhD in Mathematics, University of Bonn
PhD Supervisor: Prof. M. Gubinelli

2016-2018 MSc in Mathematics, University of Padova
Final grade: 110/110 cum laude, GPA: 30/30
Thesis title: *Stochastic Fluid Dynamics Equations with Multiplicative Noise*
Thesis Supervisor: Prof. D. Barbato

2017 SMI Summer School, July-August, Perugia
Attended courses: *Introduction to game theory, Mathematical Statistics*

2016-2017 Erasmus experience, University of Warwick

2013-2016 BSc in Mathematics, University of Padova
Final grade: 110/110 cum laude, GPA: 29.5/30
Thesis title: *Large Deviation Theory for Markov Chains with an application to Taylor's Law*
Thesis Supervisor: Prof. P. Dai Pra

Publications

2021 L. Galeati, M. Gubinelli: Noiseless regularisation by noise, *Rev. Mat. Iberoam.* link
F. Flandoli, L. Galeati, D. Luo: Delayed blow-up by transport noise, *Comm. PDEs* **46** (9), 1757–1788. link
L. Galeati: Nonlinear Young Differential Equations: A Review, *J. Dyn. Diff. Equ.*. link
F. Flandoli, L. Galeati, D. Luo: Scaling limit of stochastic 2D Euler equations with transport noises to the deterministic Navier–Stokes equations, *J. Evol. Equ.* **21**, 567–700. link

2020 L. Galeati: On the convergence of stochastic transport equations to a deterministic parabolic one, *Stoch. PDE: Anal. Comp.* **8**, 833–868. link

Submitted preprints

2021 L. Galeati, M. Gubinelli: Mixing for generic rough shear flows, arXiv:2107.12115
L. Galeati, F.A. Harang, A. Mayorcas: Distribution Dependent SDEs driven by additive fractional Brownian motion, arXiv:2105.14063
L. Galeati, F.A. Harang, A. Mayorcas: Distribution Dependent SDEs driven by additive continuous noise, arXiv:2105.14056

F. Flandoli, L. Galeati, D. Luo: Quantitative convergence rates for scaling limit of SPDEs with transport noise, arXiv:2104.01740

F. Flandoli, L. Galeati, D. Luo: Eddy heat exchange at the boundary under white noise turbulence, arXiv:2103.08098 (to appear on Philosoph. Trans. A Royal Soc.)

2020 L. Galeati, F.A. Harang: Regularization of multiplicative SDEs through additive noise, arXiv:2008.02335

L. Galeati, M. Gubinelli: Prevalence of ρ-irregularity and related properties, arXiv:2004.00872

Teaching

WS 2019-2020 Assistant for *Foundations of Stochastic Analysis*, B.Sc. Mathematics course, University of Bonn

SS 2017-2018 Tutor for *Introduction to Probability*, B.Sc. Mathematics course, University of Padova

SS 2017-2018 Tutor for *Linear Algebra 1*, B.Eng. Mechanical Engineering course, University of Padova

WS 2017-2018 Tutor for *Analysis 1*, B.Eng. Mechanical Engineering course, University of Padova

Refereeing activity

2021 Referee for Ann. Appl. Probab., Electron. J. Probab., Stoch. Dyn.

2020 Referee for Ann. Appl. Probab., Probab., Stoch. Dyn.

Research visits

2019 January, Scuola Normale Superiore di Pisa, 5 days, invitation by F. Flandoli

Talks and seminars

2021 3 December, Paris, GDR TRAG Young Researchers Meeting
Some recent advances on SDEs with fractional noise
26 November, Oslo, Workshop: Rough path techniques in stochastic analysis
Some recent advances on SDEs with fractional noise
29 October, Lausanne, EPFL Analysis seminar
Roughness of generic functions. Part II: prevalence of mixing and enhanced dissipation
30 September, German Probability and Statistics Days Mannheim, Prerecorded talk
Singular DDSDEs driven by additive fBm
1 July, Berlin, Rough Paths research unit seminar
Scaling limits of SPDEs with transport noise and applications
28 April, Imperial College, Junior Analysis Seminar
Scaling limits of SPDEs with transport noise
28 April, Oxford, Etheridge Group Seminar
Delayed blow-up by transport noise
19 March, Brasil, Stochastic Analysis seminar UNICAMP
Delayed blow-up by transport noise
8 March, CIRM Conference: Pathwise Stochastic Analysis and Applications
Distribution dependent SDEs driven by additive fBm
10 February, 14th Berlin-Oxford Meeting
Inviscid mixing and enhanced dissipation for generic rough shear flows

2020 10 December, Trondheim, Research seminar: Rough Paths and SPDEs
Regularisation by noise and nonlinear Young integrals

August: One World Symposium, Prerecorded talk
Noiseless regularisation by noise
26 June, Padova, Seminars in Probability and Finance
Regularisation by noise and notions of irregularity
25 June, Berlin, Rough Paths research unit seminar
Regularisation by noise and notions of irregularity
9 June, 13th Berlin-Oxford Meeting
Noiseless regularisation by noise (video)
5 June, Leipzig, AG Seminar
An analytic approach to regularisation by noise for ODEs
1 June, Paris, LPSM PhD seminar
An averaging (path-by-path) approach to regularisation by noise for ODEs

2019 4 Noverber, Delft, Probability PhD seminar
Regularisation by noise for ODEs: an averaging (path-by-path) approach

Attended events and conferences

2021 GDR TRAG Young Researchers Meeting, 3 December 2021, Paris
Workshop: *Rough path techniques in stochastic analysis*, 25-26 November 2021, Oslo
German Probability and Statistics Days Mannheim, 27 September - 01 October (fully online)
Summer School and Workshop: *PDE and randomness symposium*, 1-10 September 2021, Bath (fully online)
Workshop: *SPDEs and their friends*, 31 May - 2 June 2021 (fully online)
CIRM Conference: *Pathwise Stochastic Analysis and Applications*, 8-12 March (fully online)
Workshop: *14th Annual Berlin-Oxford Young Researchers Meeting*, 10-12 February (fully online)

2020 ICTS Program: *Turbulence: Problems at the Interface of Mathematics and Physics*, 7-18 December (fully online)
Research Seminar: *Rough paths and SPDEs*, 10-11 December, Trondheim (hybrid)
Symposium: *Bernoulli-IMS One World Symposium*, 24-28 August (fully online)
One World Summer school: *PDE and Randomness*, 20-24 July (fully online)
Workshop: *13th Annual Berlin-Oxford Young Researchers Meeting*, 8-10 June (fully online)
Winter School: *Turbulence in fluids and PDEs*, 27-31 January, Lausanne

2019 Workshop: *Particle systems and PDEs VIII*, 2-6 December, Lisbon
Trimester program: *Randomness, PDEs and Nonlinear Fluctuations*, September-December, Bonn
LMS Research School, *Mathematics of Climate*, 8-12 July, Reading
CIME Summer school: *Progress in Mathematical Fluid Dynamics*, 17-21 June, Cetraro
CIME Summer school: *Mean field games*, 10-14 June, Cetraro
Workshop: *Rough Paths, SPDEs and Related Topics*, 18-22 March, Berlin