Lucas D'ALIMONTE

Curriculum Vitae

PERSONAL DETAILS

Address Room 16-26.102, LPSM, campus Pierre et Marie Curie.

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Birthdate 02/04/1998 Citizenship French

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EDUCATION

Postdoc 2024-

LPSM, Sorbonne Université, Paris, France Hosted by Pr. Piet Lammers, funded by CNRS.

PhD in Mathematics 2020–2024

Université de Fribourg, Fribourg, Switzerland

Under the supervision of Pr. Ioan Manolescu.

Defended on October 7th, 2024

Title of the dissertation: Contributions to the phase separation problem and Ornstein–Zernike theory.

Research internship 2020

Université de Fribourg, Fribourg, Switzerland

6 months research internship under the supervision of Pr. Ioan Manolescu.

Title of the thesis: Ornstein-Zernike theory and Brownian scaling limits for interfaces of subcritical models of statistical mechanics.

Masters in Probability 2019–2020

Université d'Orsay, Paris, France

Research internship 2019

University of California, Berkeley, USA

5 months research internship under the supervision of Pr. Alan Hammond.

Title of the thesis: Oriented random walks constrained by area trapping and their link with the KPZ universality class.

Student of ENS Paris 2017–2020

Ecole Normale Supérieure, Paris, France

Preparatory classes 2015–2017

Lycée Louis le Grand, Paris, France

MPSI/MP. Admission after national examination in ENS Paris.

PREPRINTS AND ARTICLES

- [3] Near-critical Ornstein–Zernike theory for planar random-cluster models. (Joint with Ioan Manolescu). In preparation
- [2] Exact cube-root fluctuations in an area-constrained random walk model. (Joint with Romain Panis). Submitted, arXiv:2311.12780
- [1] Entropic repulsion and scaling limit for a finite number of non-intersecting subcritical FK interfaces. Electronic Journal of Probability, Vol. 29, paper no. 68, 1-53.

RESEARCH TALKS

January 2025 Séminaire "Les probas du Vendredi", Sorbonne Université, Paris

July 2024 Probability seminar, Institut Fourier, Grenoble
April 2024 Mathematical Physics seminar, University of Geneva
December 2023 Probability and Analysis seminar, IHES, Paris
August 2023 Percolation and interactions workshop, CIRM

March 2023 Bern-Fribourg graduate seminar

February 2023 Workshop on Mathematical physics, Les Diablerets

July 2022 Saint-Flour probability summer school

May 2022 Mathematical Physics seminar, University of Geneva

March 2022 Bern-Fribourg graduate seminar

SCIENTIFIC ACTIVITES

Reviewer for: Electronic Communications in Probability.

TEACHING ACTIVITIES

Teaching assistant at the university of Fribourg

2020 -

Full teaching load, corresponding to 96 hours/year. In charge of the exercises sessions for the following courses:

- Linear Algebra I and II (first year course)
- Algebra and Geometry I and II (second year course)
- Introduction to probability theory (second year course)

Volunteer teaching in a non-profit organization

2017-2018

Association Talens, Paris

Mathematics and Physics courses to High School students with an underprivileged background.

"Colleur" (oral examinator)

2016-2018

Lycée Louis le Grand preparatory classes MPSI class

ORGANIZATIONAL RESPONSIBILITIES

2023 Co-organizer of the CUSO graduate colloquium (seminar gathering PhD students of Western Switzerland)

2022— Founder and organizer of the Young Swiss Probabilists Meeting (semiannual gathering between PhD and Post-Doctoral students in probability-related fields, with talks and informal discussions)

VISITS AND INVITATIONS

November 2023 Short-term (1 week) visit in LPSM, Paris. Invited by Pr. Piet Lammers