Curriculum Vitae. Clément Cosco

Education

2022 - today	Maître de conférences (Associate Professor)
	CEREMADE, Université Paris-Dauphine
2019 - 2022	Postdoctoral studies in mathematics.
	Direction: Prof. Ofer Zeitouni
	Weizmann Institute of Science, Israel
2016 - 2019	PhD in mathematics. Direction : Prof. Francis Comets
	Subjet : *Directed polymers in random environment*
	LPSM, Université Paris-Diderot
2015 - 2016	Master 2 : Probabilités et Modèles Aléatoires
	Université Pierre et Marie Curie, Paris
2012 - 2014	Master 1 et Licence 3 de Mathématiques
	École Normale Supérieure de Cachan

List of publications

- C. Cosco, S. Nakajima and O. Zeitouni, The maximum of the two dimensional Gaussian directed polymer in the subcritical regime, (2025), *arXiv:2503.17236*

- C. Cosco and S. Nakajima, High moments of 2d directed polymers up to quasi-criticality, (2025), *arXiv:2503.17232*

- C. Cosco and A. Donadini, On the central limit theorem for the log-partition function of 2D directed polymers, (2024), *arXiv:2402.14647*

- C. Cosco and O. Zeitouni, Moments of partition functions of 2D Gaussian polymers in the weak disorder regime -II, *Electron. J. Probab.* 29: 1-26 (2024)

- C. Cosco and O. Zeitouni, Moments of partition functions of 2D Gaussian polymers in the weak disorder regime – I, *Commun. Math. Phys.* 403, 417–450 (2023)

- C. Cosco, S. Nakajima and F. Schweiger, Asymptotics of the p-capacity in the critical regime, *arXiv:2112.03661.* (2021). To appear in *Journal of Convex Analysis*

- C. Cosco and S. Nakajima, A variational formula for large deviations in First-passage percolation under tail estimates. *Ann. Appl. Probab.* 33(3): 2103-2135 (2023)

- C. Cosco and I. Seroussi and O. Zeitouni, Directed polymers on infinite graphs. *Comm. Math. Phys.* 386(4):1-38. (2020)

- C. COSCO, S. NAKAJIMA and M. NAKASHIMA, Law of large numbers and fluctuations in the sub-critical and L^2 regions for SHE and KPZ equation in dimension $d \geq 3$, *Stochastic Process. Appl.* 151: 127-173 (2022)

- C. COSCO and A. SHAPIRA, Topologically induced metastability in periodic XY chain, *Jour. Math. Phy.* 62, 043301. (2021)

- F. COMETS, C. COSCO and C. MUKHERJEE, Space-time fluctuation of the Kardar-Parisi-Zhang equation in $d \geq 3$ and the Gaussian free field, *arXiv:1905.03200. Ann. Inst. H. Poincaré Probab. Statist.* Vol. 60, No. 1, 82–112 (2024)

- C. COSCO and S. NAKAJIMA, Gaussian fluctuations for the directed polymer partition function for $d \geq 3$ and in the whole L^2-region, *Ann. Inst. H. Poincaré Probab. Statist.* 57(2): 872-889. (2021)

- F. COMETS, C. COSCO and C. MUKHERJEE, Renormalizing the Kardar-Parisi-Zhang equation in weak disorder in $d \geq 3$. *J. Stat. Phys.* 179, 713-728. (2020)

- F. COMETS and C. COSCO, Brownian Polymers in Poissonian Environment: a survey. arXiv:1805.10899 (2018)

- C. COSCO, The Intermediate Disorder Regime for Brownian Directed Polymers in Poisson Environment, *Indagationes Mathematicae*, 30(5), 805-839. (2019)

- L. BENIGNI, C. COSCO, A. SHAPIRA and K. WIESE, Hausdorff dimension of the record set of a fractional Brownian motion. *Electron. Commun. Probab.* 23(22). (2018)

Given talks

2024	Séminaire de Probabilités de Paris-Nanterre
	Séminaire de Probabilités du LAGA, Université Sorbonne Paris Nord
2023	Heilbronn FRG meeting: KPZ Equations in Higher Dimension, workshop at Durham University, UK
	Tohoku University Probability seminar, Japan
	SPA conference in Lisboa, Portugal
	Séminaire de Probabilités-statistique de l'université de Lille
	Séminaire de Probabilités d'Orsay, Université Paris-Saclay
	Séminaire Modal'X, Université Paris-Nanterre
	Séminaire Probabilités MAP5, Université Paris-Descartes
	Les Probas du vendredi, Jussieu
2022	Worshop Asymmetry in Interacting Particle Systems, INRIA Lille
	Oberwolfach Workshop Large Scale Stochastic Dynamics
	Séminaire du CEREMADE, Université Paris-Dauphine
	Équipe Paradyse, INRIA Lille
2021	Workshop Directed polymers and Folding. CIRM
	Groupe de travail modélisation du LPSM
	Geneva Mathematical Physics Seminar
	Probability Seminar of the Weizmann Institute. Rehovot, Israel
2020	Purdue Probability Seminar
	Joint Israeli Probability Seminar
	Columbia Online Probability Seminar
	Workshop Random Polymers and Networks in Porquerolles
	Bristol online probability seminar
2019	Nantes Probability Seminar
	Münster Probability Seminar, Germany
	Orsay (Paris-Sud university) Probability Seminar
	Workshop Random walks and Polymers at Domaine des Treilles
	Münich (TUM) Probability Seminar, Germany
2018	Colloque Jeunes Probabilistes et Statisticiens
2017 & 2018	Groupe de Travail des thésards

Awards and distinctions

- FGS (Feinberg Graduate School) prize for outstanding achievements in postdoctoral research

- Agrégation de mathématiques, option probabilités, rang 19/274

Internship supervision (2023)

- Supervision of the Master thesis of Anna Donadini. Subject: *The CLT for 2D directed polymers*

- Supervision of an internship of 3rd year undergraduate students (Yago Aguado, Augustin Puel and Andreas Simatos). Subject: *The planar random walk*

Editorial work

I wrote reviews for the Journal of the European Mathematical Society, Annals of Probability, Probability Theory and Related Fields, Communications in Mathematical Physics, Electronic Journal of Probability and Annales de l'Institut Poincaré.

Participation to the department activity

- (2024) Organizer of the Analysis-Probability Seminar of the Ceremade, Université Paris-Dauphine

- (2024) Organizer of the "matinée du Ceremade" and "matinée des doctorants du Ceremade", Université Paris-Dauphine

- (2024) Member of the board of the Ceremade, Université Paris-Dauphine

- (2018-2019) Organizer of the student seminar LPSM, Université Paris-Diderot

- (2017-2019) Member of the board of the LPSM, Université Paris-Diderot

- (2016) Organizer of a reading group on *Combinatorics and Random Matrix Theory*. Baik, Deift, Suidan, AMS 2016 au LPSM, Univeristé Paris-Diderot

Teaching

- 2024-2025 (120h): TA for Stochastic Calculus (M2), Lebesgue theory (L3), Université Paris-Dauphine. Course of probability theory for 2nd year undergraduate students (parcours CPES de PSL), École Normale Supérieure - campus Jourdan.

- 2023-2024 (120h): In charge of a course of probability theory for 2nd year undergraduate students (parcours CPES de PSL), École Normale Supérieure - campus Jourdan. TA for Lebesgue theory, TA for probability theory, Université Paris-Dauphine

- 2022-2023 (120h): TA for Lebesgue theory, TA for probability theory, Teacher training, Université Paris-Dauphine

- 2016-2019 (64h*3), TA for undergraduate students, Université Paris-Diderot