

Delande Lois

Last update: 11/09/2025

Born on 07/05/1999, French

CERMICS, Ecole nationale des Ponts et Chaussées - Institut Polytechnique de Paris

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Research Interests

Semiclassical analysis, Spectral theory, Microlocal analysis

Employment

INRIA Postdoctoral Fellow	Ecole nationale des Ponts et Chaussées	2025-2026
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Education & Internships

Education

Ph.D. thesis	Semiclassical hypocoercivity and Eyring-Kramers laws for degenerate Fokker-Planck type operators. Advisor: L. Michel .	University of Bordeaux	2022-2025
Master-Magistère	Analyse, Modélisation, Simulation.	University Paris-Saclay	2022
Agrégation	French Teaching degree, rank 99/326		2021
Licence	Mathématiques fondamentales et appliquées.	University Paris-Saclay	2019

Intertnships

Master	Semiclassical hypocoercivity and Eyring-Kramers laws for degenerate Fokker-Planck type operators. Advisor: L. Michel .	University of Bordeaux	2022
Agrégation	Modelling and simulations of traffic jams. Advisor: B. Maury.	University Paris-Saclay	2021
Master	On the Gelfond-Schneider's proof of the transcendence of e and π . Advisor: S. Fischler.	University Paris-Saclay	2020
Agrégation	On the Perron-Frobenius theorem Advisor: H. H. Rugh.	University Paris-Saclay	2019

Research Papers

L. DELANDE, <i>Hypocoercivity and metastability of degenerate KFP equations at low temperature.</i>	Work in progress	2026
L. DELANDE, <i>Sharp spectral gap for some degenerate Witten Laplacians.</i>	arXiv:2410.21899	2025
L. DELANDE, <i>Sharp spectral gap of adaptive Langevin dynamics.</i>	Asymptot. Anal.	2025

Talks in conferences and seminars

★ Semiclassical hypocoercivity and Eyring-Kramers laws for some degenerate Fokker-Planck operators.

The 5-th Korea-France Conference in Mathematics.	IMB	Jul. 2025
“New trends and applications around generalized Fokker-Planck operators”	Bernoulli Center	Jun. 2025

★ Sharp spectral gap for some degenerate Witten Laplacian.

Spectral geometry in the clouds.	CRM	Jan. 2025
“Kinetic equation, Mathematical Physics and Probability”	BCAM	Jun. 2024
Spectral theory working group.	IMB	Mar. 2024
Ph.D. students in PDEs working group.	IMB	Dec. 2023

★ A snowflake of dimension 1.26...

Ph.D. students seminar	IMB	Apr. 2024
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★ Sharp spectral gap of adaptive Langevin dynamics.

“Analysis, modeling and numerical method for kinetic and related models”	IMB	Nov. 2023
Spectral theory working group.	IMB	Jun. 2023
Ph.D. students in PDEs working group.	IMB	Apr. 2023

★ Petit catalogue des différents modes de convexités.

Ph.D. students seminar	IMB	May 2024
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Attended conferences and seminars

The 5-th Korea-France Conference in Mathematics	IMB	Jul. 2025
“New trends and applications around generalized Fokker-Planck operators”	Bernoulli Center	Jun. 2025
“Kinetic equation, Mathematical Physics and Probability”	BCAM	Jun. 2024
“Journées Équations aux dérivées partielles”	Centre Paul Langevin	Jun. 2024
“Paris-Saclay conference in Analysis and PDE an occasion to celebrate Maciej Zworski’s 60th birthday”	IMO	May 2024
“Mathematical Aspects of Quantum Mechanics”	IMT	Jan. 2024
“Journées Équations aux dérivées partielles”	Centre Paul Langevin	Jun. 2023
“Analyse et simulation de systèmes métastables”	CIRM	Apr. 2023
“Workshop EDP et Probabilités” of the ANR QuAMProcs	IMB	Oct. 2022

Teaching

Mathematical tools	TA	29.33h × 2	IMB	2023-2025
Differential calculus & ODEs	TA	34.67h × 2	IMB	2023-2025