

ALAN RIQUEIR

Ph.D.
Applied Mathematics

`ariquier.gitlab.io`

✉ Paris, France
@ alan.riquier@gmail.com

Languages

English

French

Interests

Applied Mathematics

Fluid Mechanics

Numerical analysis

Geophysical flows

Partial Differential Equations

Mathematical modeling

Parallel computing

Mathematical Physics

Teaching

Science popularisation

Ethics and research integrity

Education and positions

2026	Post-doctoral fellow Fields Postdoctoral Fellow – Fields Institute <i>Advisor: Prof. Catherine Sulem</i>	Toronto, CA
2025	Post-doctoral fellow David Crighton Fellow – Department of Applied Mathematics and Theoretical Physics, University of Cambridge. <i>Advisor: Prof. Jerome Neufeld</i>	Cambridge, UK
2022-2025	Doctoral student Département de Mathématiques et Applications [Department of Mathematics and Applications], École Normale Supérieure (ENS) - PSL <i>Advisor: Prof. Emmanuel Dormy</i>	Paris, FR
2019-2022	ENS diploma End of study diploma from the ENS - PSL (one of the most prestigious educational institutions in France)	Paris, FR
2020-2021	Second year of the MATH MSc Mathematical Physics Master jointly awarded by the ENS - PSL and the Université Paris-Dauphine. Curriculum: <i>Numerical physics and mathematical modeling</i>	Paris, FR
2019-2020	First year of the ICFP MSc MSc in Physics at the International Center of Fundamental Physics of the ENS - PSL	Paris, FR
2016-2019	BSc in Physics University of Geneva (UNIGE)	Geneva, CH

Publication list

Riquier, A. & Dormy, E. (2024) Numerical study of a viscous breaking water wave and the limit of vanishing viscosity. *J. Fluid Mech.* **984**, R5.

Riquier, A. & Dormy, E. (2025) Do irrotational Water Waves remain irrotational in the limit of a vanishing viscosity? *Accepted in Proc. Roy. Soc. A, in press.* [arxiv:2411.09291](#).

Presentations in conferences and seminars

Nov 2025	ITG Seminar DAMTP, University of Cambridge	Cambridge, UK
Nov 2025	Séminaire ANUM IRMAR - Université de Rennes	Rennes, FR
Sep 2025	Séminaire Mécanique des Fluides Institut Jean le Rond d'Alembert - Sorbonne Université	Paris, FR
May 2025	CIMAV 2025 Centre Paul-Langevin - CNRS	Aussois, FR
Dec 2024	16th FreeFEM days Sorbonne Université	Paris, FR
Nov 2024	19th Hydrodynamics Days École Centrale Nantes	Nantes, FR
Sep 2024	European Fluid Dynamics Conference (EFDC1) Rheinisch-Westfälische Technische Hochschule (RWTH)	Aachen, DE
May 2024	CANUM (Numerical Analysis Congress) Société de Mathématiques Appliquées et Industrielles (SMAI)	Île de Ré, FR
Jan 2024	EDPs2 seminar Université Savoie Mont-Blanc	Chambéry, FR
Nov 2023	Conference for young researchers in mathematics applied to geophysics Université Picardie Jules Verne	Amiens, FR

ALAN RIQUIER

Ph.D.

Applied Mathematics

`ariquier.gitlab.io`



Paris, France



`alan.riquier@gmail.com`

Languages

English

French

Interests

Applied Mathematics

Fluid Mechanics

Numerical analysis

Geophysical flows

Partial Differential Equations

Mathematical modeling

Parallel computing

Mathematical Physics

Teaching

Science popularisation

Ethics and research integrity

Teaching

2024-2025	ENS - PSL Teaching assistant – <i>Numerical methods for Partial Differential Equations</i> (1st year of MSc).	Paris, FR
2023	ENS - PSL Substitute teacher – <i>Computational Fluid Dynamics</i> (2nd year of MSc).	Paris, FR
2018-2019	University of Geneva Teaching assistant – <i>Physique générale A</i> addressed to first year medical students.	Geneva, CH

Poster presentations

apr. 2024	Wind Waves in the Earth System meeting	Cargèse, FR
jan. 2024	Bourgeons project two-day meeting	Paris, FR
june 2023	Mathematical Fluid Dynamics summer school	Cargèse, FR

Presentations in doctoral seminars

may. 2024	Séminaire doctoral du LAMFA Université Picardie Jules Verne	Amiens, FR
mar. 2024	Séminaire doctoral du DMA École Normale Supérieure – PSL	Paris, FR

Scientific knowledge transmission

2022-2025	Palais de la Découverte Popularization of general mathematics in front of an audience.	Paris, FR
2024	Salon des Jeux et de la Culture Mathématique Presentation of my research topics to a non-scientific audience: Mathematical modeling, Fluid Mechanics and Numerical Analysis.	Paris, FR
2024	La Découverte Article in the magazine <i>La Découverte</i> about bifurcations, catastrophes, tipping points and the thermohaline circulation.	Publication
2024	Université Populaire 92 An introduction to Fluid Mechanics from the point of view of both Physics and Mathematics, addressed to a non-scientific audience.	Paris, FR
2023	La Découverte Article in the magazine <i>La Découverte</i> about Partial Differential Equations and the Navier-Stokes millenium problem.	Publication
2018-2019	Physiscope, University of Geneva Popularisation of broad physical concepts in front of a young audience.	Geneva, CH