

Samuel Tréton

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📄 Samuel-Treton

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PhD Student in Applied Mathematics

3rd year

Short biography

2021 – **PhD Student**, University of Rouen Normandy
Mathematical models for fast diffusion channels in population dynamics and epidemiology
Advisor: Matthieu Alfaro

2015 – 2021 **Bachelor's and Master's degrees**, University of Rouen Normandy

Publications

2023 M. ALFARO, R. DUCASSE, AND S. TRÉTON,
The field-road diffusion model: Fundamental solution and asymptotic behavior,
arXiv:2207.01859, published in *Journal of Differential Equations* (DOI:10.1016/j.jde.2023.05.002)

Preprints

2023 S. TRÉTON,
Blow-up vs. global existence for a Fujita-type Heat exchanger system,
arXiv:2307.00843 (to appear in SIAM Journal on Mathematical Analysis (SIMA))

Teaching

2022 – 2023 **Mathematical Tools in Python (24h)**, *Bachelor's Degree in Chemistry, 1st year*, University of Rouen

GeoGebra Practical Work (13h), *Bachelor's Degree in Mathematics, 1st year*, University of Rouen

Statistical Modeling for Biology (27h), *Master's Degree in Biology, 1st year*, University of Rouen

2021 – 2022 **Analysis (37h)**, *Bachelor's Degree in Mathematics/Physics/Computer Science, 1st year*, University of Rouen

Statistical Modeling for Biology (27h), *Master's Degree in Biology, 1st year*, University of Rouen

Conferences and workshops

2023 **Normandy BioMaths Working Group**, Rouen

Cellular Automata, Particle Systems, and Self-Organization, Rouen

CIRM 3067 – Ecology, epidemiology and evolution, Marseille

Probability Meeting 2023 on Particle Systems, Rouen

15th Normandy Mathematics Federation Day, Le Havre (poster and presentation)

RMR 2023: Mathematical models for biology and health, Rouen (presentation)

Research school organized by Polytechnique, Aussois (presentation)

Normandy BioMaths Working Group, Le Havre

PDE and Applications Day, Le Havre

- ReaDiNet 2023: International conference on parabolic and stochastic models in mathematical biology**, *online*
- 2022 **Normandy BioMaths Working Group**, *Le Havre* (presentation)
PDE and Applications Day, *Le Havre*
Parabolic and kinetic models in population dynamics, *Toulouse*
CANUM 2022, *Évian-les-Bains*
14th Normandy Mathematics Federation Day, *Caen* (poster)
CIRM Research School, *Marseille*
IHP Quarter – Mathematical models and organization of living matter, *Paris*
- 2021 **CIRM 2396 – Nonlocal Models in Biology**, *Marseille*
Normandy BioMaths Working Group, *Online and in Rouen*
PDE and Applications Day, *Online*
MBMC 2021: Mathematical Biology on the Mediterranean Coast, *Online*

Collective Responsibilities

- 2023 – University Coordinator for the Doctoral Workshop between the INSA Mathematics Laboratory (LMI) and Raphaël Salem Mathematics Laboratory (LMRS)
- 2023 – PhD student and ATER representative at the Mathematics Department Council of the University of Rouen

Other

- Programming and Software** Python – Matlab – Scilab – R – FreeFem – AutoHotKey – HTML – Inkscape – L^AT_EX
- English** Scientific
- Interests** Hiking (Albâtre Coast in 2018: 130 km) and cycling (crossing Normandy in 2019: 300 km)