

EDUCATION

University of Edinburgh

PhD in Probability and Stochastics

United Kingdom

2021–2025

- **Supervisor:** Dr. Ilya Chevyrev
- Thesis: *Analysis of 2D Yang-Mills Measure*

Eindhoven University of Technology

MSc in Industrial and Applied Mathematics (Cum Laude)

The Netherlands

2018–2021

- **Supervisor:** Dr. Alberto Chiarini and Dr. Oliver Tse
- Thesis: *Schrödinger Bridges with Multimarginal Constraints*

University of Bonn

Exchange year as part of my MSc in Mathematics

Germany

2019–2020

Eindhoven University of Technology

BSc in Applied Mathematics (Cum Laude)

The Netherlands

2015–2018

- **Supervisor:** Dr. Jim Portegies
- Thesis: *Convergence of Several Reinforcement Learning Algorithms*

TEACHING

- **Teaching assistant** at University of Edinburgh 2021–2024
 - **Undergraduate Courses:** Calculus and its Applications, Introduction to Linear Algebra, Honours Analysis
 - **Postgraduate Courses:** Stochastic Modeling
- **Teaching assistant** at Eindhoven University of Technology 2016–2021
 - **Undergraduate Courses:** Calculus, Advanced Calculus, Queueing Systems, Probability, Extreme Values and Large Deviations
 - **Additional contributions:** Enhanced study materials for Probability and Stochastics 1 by creating scripts and resources to support online lecture delivery

AWARDS AND GRANTS

- Laura Wisewell Fund Travel Grant - £800 2024
- 4-year-PhD-studentship fully funded from School of Mathematics, University of Edinburgh 2021–2025

RESEARCH VISITS

- TU Berlin, *Berlin, Germany* October 2024–March 2025
 - Visiting Dr. Ilya Chevyrev
- EPFL, *Lausanne, Switzerland* July 2024
 - Stayed as part of the program ‘New Developments and Challenges in Stochastic Partial Differential Equations.’

TALKS

- (Invited) PDG Kolloquium at University of Münster, *Münster, Germany* 19 November 2024
 - Title: *Rough Uhlenbeck Compactness with Application to 2D Yang-Mills Measure*
- (Invited) 19th Berlin-Oxford Meeting, *Berlin, Germany* 25 June 2024
 - Title: *Rough additive functions and application to Yang Mills theory*
- The SPDEvent 2024, *Bielefeld, Germany* 29 May 2024
 - Title: *Rough Uhlenbeck Compactness with Application to 2D Yang-Mills Measure*
- (Invited) Recent developments in Rough Paths, *Oslo, Norway* 6 March 2024
 - Title: *Rough Additive Functions and Application to Yang-Mills Theory*
- CIME Statistical Mechanics and Stochastic PDEs, *Cetraro, Italy* 11 September 2023
 - Title: *Rough Uhlenbeck Compactness and Additive Functions*

CONFERENCE AND WORKSHOPS

- New developments and challenges in Stochastic Partial Differential Equations, *Lausanne, Switzerland* July 2024
- 9th Annual Berlin-Oxford Young Researchers Meeting on Applied Stochastic Analysis, *Berlin, Germany* June 2024
- The SPDEvent 2024, *Bielefeld, Germany* May 2024
- Recent developments in Rough Paths, *Oslo, Norway* March 2024
- QFT and Stochastic PDEs, *Oberwolfach, Germany* December 2023
- Statistical Mechanics and Stochastic PDEs, *Cetraro, Italy* September 2023
- PDEs and Randomness, *Leipzig, Germany* May 2023
- Mathematics of Random Systems, *Oxford, United Kingdom* September 2022
- Geometry, Stochastics and Dynamics, *London, United Kingdom* September 2022
- The SPDEvent 2022, *Bielefeld, Germany* September 2022
- Sao Paulo School of Advanced Science on singular SPDEs, *Campinas, Brazil* August 2022

READING GROUPS

- Flow Equation Approach to Singular SPDEs, *FU Berlin* Spring 2023
 - Organiser: Dr. Lucio Galeati and Prof. Dr. Nicolas Perkowski
 - * Talk: *Bounds on cumulants*
- Large N -limit of 2D Yang-Mills, *University of Edinburgh* Spring 2023
 - Organiser: Dr. Theo Assiotis and Dr. Ilya Chevyrev
 - * Talk: *The Yang-Mills holonomy process*
- (Organiser) Rough Paths and Signatures for Machine Learning, *University of Edinburgh* Spring 2023
 - * Talk: *Introduction to rough paths theory*
 - * Talk: *Shuffle products, Chen's identity, log-signature, paths from discrete data and the lead-lag transformation*
- (Organiser) Malliavin Calculus, *University of Edinburgh* Summer/Fall 2022
 - * Talk: *Introduction to Malliavin calculus*
 - * Talk: *Integral representation and Clark-Ocone formula*
 - * Talk: *Study of densities*

SKILLS

- **Programming Language:** Python, Mathematica, Matlab, Latex, R, Java

LANGUAGES

- **Dutch:** Fluent
- **English:** Fluent
- **German:** Elementary
- **Somali:** Elementary

REFERENCES

- *Dr. Ilya Chevyrev*, Mercator Fellow at TU Berlin and Reader at University of Edinburgh
 - **E-mail:** ichevyrev@gmail.com
 - *He is my PhD supervisor*
- *Dr. Alberto Chiarini*, Associate Professor at University of Padova
 - **E-mail:** chiarini@math.unipd.it
 - *He was one of my joint supervisors for my Master's thesis*
- *Prof. Dr. Massimiliano Gubinelli*, Professor at University of Oxford
 - **E-mail:** gubinelli@maths.ox.ac.uk
 - *He is a collaborator*
- *Dr. Oliver Tse*, Associate Professor at University of Technology Eindhoven
 - **E-mail:** o.t.c.tse@tue.nl
 - *He was one of my joint supervisors for my Master's thesis*