Thomas Tendron

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EDUCATION

• University of Oxford, Oxford, UK

September 2020 - August 2024 (expected)

PhD at the Centre for Doctoral Training (CDT) in Mathematics of Random Systems

Advisor: Julien Berestycki.

• McGill University, Montréal, Canada

January 2019 - June 2020

M. A. in Mathematics

Advisors: Louigi Addario-Berry and Jessica Lin.

B. A. Honours Mathematics, Minor in Computer Science

September 2015 - December 2018

First Class Honours in Mathematics.

PUBLICATIONS

L. Addario-Berry, J. Lin, T. Tendron, (2021) Barycentric Brownian Bees, *Annals of Applied Probability*, to appear, AAP.

WORK EXPERIENCE AND OTHER PROJECTS

• Freelance Mathematician and Programmer

June 2021-

9 relevant short projects with 5 star reviews by clients. Applications of graph algorithms, probability theory, statistics, and coding in Python, C++ and Javascript to implement solutions to real world problems for engineering companies, start-ups, econometrics researchers, and students in quantitative fields. Clients from the UK, the US, Australia, France, Germany, and Canada.

• DataSig - Data Preprocessing for Automated Lip Reading based on Landmarks

May 2021

Two week project as part of the CDT in Year 1. Normalization of 2D face and lip landmarks for lip-reading task. Improved the testing accuracy of a deep learning model by 3.9% on average. Language: Python.

• Ericsson - Software Developer Intern

Summer 2017

Developed continuous integration pipelines as code to automate the build, testing, SonarQube analysis, test coverage reports, code-review scores and publishing. Technologies used: Jenkins 2, Docker containers, Groovy, Bash, YAML, XML and Java. Pipelines helped teams to adopt CI practices and increased code quality and testing by up to 50%.

• McGill University Health Center - Software Developer Intern

Summers 2016 and 2018

2018: Developed the front-end for a questionnaire system in the Opal app, an application which connects cancer patients with their treatment team. 2016: Developed a web portal to connect cancer patients with their treatment team. Languages: JavaScript, HTML, CSS, Angular, Bootstrap, Firebase Database.

INVITED (I) AND CONTRIBUTED (C) TALKS AND POSTERS

- Title: A Central Limit Theorem for a Spatial Logistic Branching Process in the Slow Coalescence Regime. 2022 PIMS-CRM Summer School in Probability University of British Columbia June 23, 2022. (C) Etheridge Group Seminar Department of Statistics University of Oxford, July 7, 2021. (I) Spring Retreat CDT in Mathematics of Random Systems University of Oxford, June 10, 2021. (I)
- Poster title: *Barycentric Brownian Bees*. Workshop: Branching Systems, Reaction-Diffusion Equations and Population Models CRM Montréal, May 3, 2022. (C)

TEACHING EXPERIENCE

University of Oxford: Probability on Graphs and Lattices, Applied Probability, Probabilistic Combinatorics. **McGill University:** Differential Equations, Calculus, Advanced Probability Theory 1, Honours Probability.

HONOURS AND AWARDS

Research Travel Grant - University College - University of Oxford

Oxford-Radcliffe Graduate Scholarship - University College - University of Oxford

Graduate Excellence Award - Dept of Maths & Stats - McGill University

Arts Undergraduate Research Internship Award - McGill University

HackHarvard Grand Prize, Wolfram Overall Winner - Harvard University

November 2015

LANGUAGES

French (native), English (fluent), Spanish (CEFR B1), Mandarin (CEFR A1).