

# Simon Briend

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 🔗 <https://simon-briend.github.io>

## Research interests

Statistics, probability theory, random trees, Random graphs, Network archaeology, Graph inference, Data analysis, Information propagation.

## Education

<b>PhD</b>	<b>Université Paris-Saclay and Universitat Pompeu Fabra</b> , Mathematics Supervised by Gábor Lugosi and Christophe Giraud. <i>Inference of the past of random structures and other random problems.</i> <a href="#">pdf</a> <a href="#">🔗</a>	Sept 2021 – June 2024
<b>MS</b>	<b>Université Paris-Saclay</b> , Mathematics for Artificial Intelligence Master degree with a focus on statistical learning and high dimension statistics	Sept 2019 – July 2021
<b>BS</b>	<b>Université Paris-Saclay</b> , Pure Mathematics Generalist mathematics training, with a focus on Probability and Statistics	Sept 2018 – July 2019
<b>BS</b>	<b>Lycée Thiers, Marseille</b> , Classes préparatoires MP* Generalist scientific training with a strong focus on Mathematics and Physics	Sept 2016 – July 2018

## Professional experience

<b>Unidistance</b> , Postdoctoral researcher in the Mathematics and Computer Science department, under the supervision of David Belius	Sept 2024 – Present Brig, CH
<b>SL-Math (MSRI)</b> , Postdoc Fellow in the Probability and Statistics of Discrete Structures program	Jan 2025 – May 2025 Berkeley, CA
<b>Universitat Pompeu Fabra</b> , Research assistant in the Economics department	Oct 2021 – Sept 2024 Barcelona, ES
<b>Universitat Pompeu Fabra</b> , Research internship, supervised by Gábor Lugosi	May 2021 – July 2021 Barcelona, ES

## Publications

On all publications authors are listed in alphabetical order.

### Published

<b>Estimating the history of a random recursive tree.</b>	2025
<b>Simon Briend</b> , Christophe Giraud, Gábor Lugosi, Déborah Sulem, Bernoulli. <a href="#">pdf</a> <a href="#">🔗</a>	
<b>Broadcasting in random recursive dags.</b>	2025
<b>Simon Briend</b> , Luc Devroye, Gábor Lugosi, ESAIM probability and statistics. <a href="#">pdf</a> <a href="#">🔗</a>	
<b>Archaeology of random recursive dags and Cooper-Frieze random networks.</b>	2023
<b>Simon Briend</b> , Francisco Calvillo, Gábor Lugosi, Combinatorics, Probability and Computing. <a href="#">pdf</a> <a href="#">🔗</a>	

### Submitted

<b>Leaf Stripping on Uniform Attachment Trees.</b>	2024
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Louigi Addario-Berry, Anna Brandenberger, **Simon Briend**, Nicolas Broutin, Gábor Lugosi, arXiv:2410.06481. [pdf](#)

**Random Friend Trees.** Louigi Addario-Berry, **Simon Briend**, Luc Devroye, Serte Donderwinkel, Céline Kerriou, Gábor Lugosi, arXiv:2403.20185. [pdf](#) 2024

**On the quality of randomized approximations of Tukey's depth.** 2023  
**Simon Briend**, Roberto I. Oliveira, Gábor Lugosi, arXiv:2309.05657. [pdf](#)

**Does freezing impede the growth of random recursive trees?** 2025  
Hanna Abigail Cairns, Anna Brandenberger, **Simon Briend**, Robin Khanfir, Igor Korthchemski, arXiv:2505.16571. [pdf](#)

## Talks and invitations

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Invited talk at the Detection, Estimation, and Reconstruction in Networks workshop. SL-Math, Berkeley, US.	May 2025
PSDS seminar at SL-Math, Berkeley, US.	Feb 2025
Contributed talk at the PSYR seminar, Unidistance, Brig, CH.	Nov 2024
Invited talk at the ASCAI workshop, University of Potsdam, DE	Feb 2024
Invited talk at Biennal RSME, Pamplona, ES.	Jan 2024
Invited talk at the Sfs-PhD presentations at ETHZ, Zürich, CH.	Nov 2023
Invited talk at the APS conference, Nancy, FR.	June 2023
Invited participant. Bellairs workshop on Probability and Combinatorics, McGill Bellairs institute, Holeytown, BB.	2023, 2024 & 2025
Two month long research visits at McGill university, working with Prof Louigi Addario-Berry, Prof Luc Devroye and Prof Serte Donderwinkel. Montréal, CA.	2022 & 2023
Two month long research visits at IMPA, working with Prof Roberto Imbuzeiro Oliveira. Rio de Janeiro, BR.	2022 & 2023
Invited talk at the LIMDA seminar in Universitat Politècnica de Catalunya, Barcelona, ES.	Nov 2022
Invited talk at the department of economics seminar, Universitat Pompeu Fabra, Barcelona, ES	Oct 2022
Contributed talk at the RandNET workshop on random graphs, Eindhoven, NL.	Aug 2022

## Teaching

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Mentoring role in the preparation of an undergraduate research seminar at Unidistance, Brig, CH.	2025
Teaching assistant for the undergraduate course Ordinary Differential Equations, Unidistance, Brig, CH.	2025
Teaching assistant for the undergraduate courses Mathematics II and Real Analysis, Universitat Pompeu Fabra, Barcelona, ES.	2024

## Funding

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Centre de Recherche Mathématiques travel grant, funding a research visit to McGill University.	2023
DimMathInnov PhD grant from Région Île de France.	2021-2024
Sophie Germain master's scholarship, from the Foundation Mathématiques Jacques Hadamard.	2019-2021

## Organization role

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Founder and organizer of the PSYR seminar at Unidistance, a research seminar geared towards the young researcher community.

2024 - 2025

## Technical skills

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- Python
- R
- Pytorch, Tensorflow

## Languages

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- French and English: C2
- Spanish: B1
- German: A2

## Citizenship and work status

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- French citizen
- B-permit (work authorized)