

## Education

- 2020 – 2023 **PhD in mathematics**, *Université Paris-Saclay / INRIA Saclay*, **Datashape team**.
- Ma – Ju 2020 **Master 2 internship**, *Inria Saclay, France*, under the supervision of Steve Oudot and François Petit.
- 2019 – 2020 **Senior civil servant internship**, *Ministry of Education, France*, under the supervision of Charles Torossian.
- 2018 – 2019 **Master 2 in Pure Mathematics**, *Sorbonne Université*.
- Fe – Ju 2018 **Research internship**, *Jyväskylä University, Finland*, under the supervision of Mikko Salo.
- 2016–2020 **"Elève" at Ecole Normale Supérieure (ENS Ulm)**, Paris, France.

## Publications and preprints

- 📄 2022 **Hybrid transforms of constructible functions**, *accepted in Foundations of Computational Mathematics*.
- 📄 2022 **On rectangle-decomposable persistence bimodules**, with M. Botnan and S. Oudot, *Discrete & Computational Geometry*, p. 1-24.
- 📄 2020 **Local characterization of indecomposable poset representations: the case of rectangle representations in the plane**, with M. Botnan and S. Oudot, *Arxiv preprint:2008.02345*, Submitted.
- 📄 2019 **Reconstruction of piecewise constant functions from x-ray data**, *Inverse Problems*, 35(9):095003.

## Contributed talks and posters

- Jun 2022 **ATMCS10 Conference (talk)**, *University of Oxford, England*.
- Jun 2022 **Young Researchers Forum of CGWeek 2022 (talk)**, *Berlin, Germany*.
- May 2022 **Computational Geometry Days (talk)**, *online*.
- May 2022 **DataShape team annual seminar (talk)**, *Porquerolles, France*.
- Apr 2022 **Applied Topology Seminar (talk)**, *EPFL, Lausanne, Switzerland*.
- Dec 2021 **DataShape team weekly seminar (talk)**, *Paris-Saclay University, France*.
- Jun 2020 **Symposium on Computational Geometry (talk)**, *ETH Zürich, Switzerland*.
- Aug 2018 **Inverse problems, PDE and geometry conference (poster)**, *Jyväskylä University, Finland*.

## Invitations

- Dec 2022 **Representation Theory: Combinatorial Aspects and Applications Workshop (invited to attend)**, *Center for Advanced Study, Oslo, Norway*.

## Teaching

- 2020 – 2023 **Teaching assistant**, *ENS Ulm*.  
“Maths for non-specialists” and supervision of reading groups on TDA, characteristic classes and O-minimal geometry.
- Mar 2019 **“How to get students interested?” (TEDx talk)**, *IMT Lille-Douai*, with L. Willems.
- 2017 – 2020 **Foundation of “Savoirs Pour Tous” (association)**, with Lucas Willems.  
Savoirs Pour Tous (Knowledge For All) is a non-governmental organization that introduces a wide range of academic subjects to secondary school students through problem-based talks, published on **YouTube** (more than 40 talks).

## Supervisions

- Ju – Au 2022 **Co-supervision of Hugo Passe’s Bachelor internship (ENS Lyon)**, with S. Oudot, Implementation of a Python and C++ software that computes topological and hybrid transforms on cubical complexes, **GitHub**.

## Organizing activities

- 2021 **Reading group on Sheaves on manifolds - Kashiwara, Schapira (co-organizer)**, *ENS Ulm*.
- 2020 **Reading group on Random Fields and Geometry - Adler, Taylor (co-organizer)**, *ENS Ulm*.

## Distinctions

- Sep 2021 **“Mathematics and Industry Challenge” (1st place)**, with O. Hacquard and E. Lasalle, **GitHub**.

## Languages

French (Native), English (Fluent) and German (B1)

## Programming skills

Python, GAP (Advanced)