Ralph Sarkis
he/him

cv@ralph.sarkis.cc
ralphs16.github.io

PUBLICATIONS

International Conferences:

- Matteo Mio, Ralph Sarkis, and Valeria Vignudelli. *Beyond Nonexpansive Operations in Quantitative Algebraic Reasoning*. In: LICS '22.
- Daniela Petrişan and Ralph Sarkis. *Semialgebras and Weak Distributive Laws*. In: MFPS '21.
- Matteo Mio, Ralph Sarkis, and Valeria Vignudelli. *Combining Nondeterminism, Probability and Termination: Equational and Metric Reasoning*. In: LICS '21.

Journals:

- Matteo Mio, Ralph Sarkis, and Valeria Vignudelli. *Universal Quantitative Algebra for Fuzzy Relations and Generalised Metric Spaces*. To appear in: LMCS.

EDUCATION

Theoretical Computer Science (PhD)	*September 2024*
ENS de Lyon	Lyon, France
Thesis title: *Lifting Algebraic Reasoning to Generalized Metric Spaces*. Available here.	
Theoretical Computer Science (Master)	*June 2021*
ENS de Lyon	Lyon, France
Funded by two 10000€ scholarships from Labex MiLyon.	
Joint Honours in Math and Computer Science (BSc)	*April 2019*
McGill University	Montreal, QC

WORK EXPERIENCE

Academic Positions:

- Postdoctoral research fellow at PPLV (University College London). *October 2024 – Ongoing*
- Research internship at IRIF (Université de Paris). *February – June 2021*
  - Work on weak distributive laws supervised by Daniela Petrişan.
- Research internship at LIP (ENS de Lyon). *April – July 2020*
  - Work on algebraic presentations of monads supervised by Matteo Mio and Valeria Vignudelli.

Teaching:

- Teaching assistant at ENS de Lyon. *2021 – 2024*
  - Tutorials for *Semantics and Verification* and *Proofs and Programs* (total of 100 hours).
- Teacher and organizer for a category theory student seminar. *2018 – 2023*
  - Lectures, course notes, and homeworks for a semester-long introduction to category theory at McGill and ENS de Lyon.
  - Supervision of two cohorts of student lecturers at ENS de Lyon.
- Teaching assistant at McGill University. *September – Decemeber 2018*
  - Office hours and grading for *Theory of Computation*.

Outreach:

- Volunteer animator at MMI. *2023 – 2024*
  - Workshops and exhibition *Dans ma cuisine* (on maths and CS) for students ages 13 to 18.
- Volunteer internship supervisor for UPBS. *April 2022, 2023, and 2024*
  - Week-long initiation to research on string diagrams for students ages 16 to 17.
- Instructor and teaching assistant at DMA. *July 2015 and 2017*
  - Programming and electronics summer camp classes for students ages 8 to 17.

INVITED AND CONTRIBUTED TALKS

- *Quantitative Algebraic Semantics*, InfoMaths doctoral school days. *June 2024*
- *Universal Quantitative Algebra*, LIMD team seminar. *October 2023*
- *Universal Quantitative Algebra*, LoVE team seminar. *September 2023*
- *Lifting Algebraic Presentations to* **Met**, Bellairs workshop *Quantitative Logic and Reasoning*. *May 2023*
- *Tape diagrams*, ACT adjoint school. *July 2022*
- *Quotienting a Monad via Projective Algebras*, RAMiCS conference. *November 2021*
- *Semialgebras and Weak Distributive Laws*, MFPS conference. *September 2021*

- *Modelling Nondeterminism, Probability, and Termination*, LiCS conference. *July 2021*
- *Modelling Nondeterminism, Probability, and Termination*, CaCS workshop. *June 2021*