

## PUBLICATIONS

- Matteo Mio, Ralph Sarkis, and Valeria Vignudelli. “Combining Nondeterminism, Probability and Termination: Equational and Metric Reasoning”. In: *LICS’21*.
- Daniela Petrişan and Ralph Sarkis. “Semialgebras and Weak Distributive Laws”. In: *MFPS’21*.

## WORK EXPERIENCE

**Research Intern** February – June 2021  
**IRIF (Université de Paris)**

- Supervised by Daniela Petrişan
  - Worked on weak distributive laws and their relations to semialgebras for monads
- Achievement:** Published a paper at MFPS 2021 (see preprint here).

**Research Intern** April – July 2020  
**LIP (ENS de Lyon)**

- Supervised by Matteo Mio and Valeria Vignudelli
  - Worked on algebraic presentations for monads modelling nondeterministic and probabilistic choices with termination
- Achievement:** Published a paper at LICS 2021 (see preprint here).

**Teaching Assistant** September – December 2018  
**McGill University**

- Course: *Theory of Computation* taught by Prof. Prakash Panangaden
- Held weekly office hours to help students with the course material and homeworks
- Graded assignments and midterm

**Research Intern** May – August 2018  
**McGill University**

- Supervised by Prof. Hamed Hatami
- Received a grant from NSERC and supplement from FRQNT (CAD\$8500 total)
- Worked on the complexity of the rank median problem for permutations and genomes

**Instructor** July 2017  
**Digital Media Academy (DMA)** (*Multimedia focused summer camp*)

- Prepared and gave lectures for programming classes (*Game design* and *Electronics with Arduino* for 8–12 years old, *Computer science* for 13–17 years old)
- Helped the student finish their own projects

**Teaching Assistant** July 2015  
**Digital Media Academy (DMA)**

- Helped the teacher to prepare and lead 2 programming classes (*Game design* and *Minecraft modding*)
- Supported the students (8–12 years old) when learning concepts from the class
- Facilitated the extracurricular activities

## EDUCATION

**Theoretical Computer Science (PhD)** September 2021 – Expected June 2024  
**ENS de Lyon** Lyon, France

**Theoretical Computer Science (Master)** August 2019 – June 2021  
**ENS de Lyon** Lyon, France

**Achievement:** Obtained two 10000€ scholarships from Labex MiLyon

**Joint Honours in Math and Computer Science (BSc)** August 2016 – April 2019  
**McGill University** Montreal, QC

## PROGRAMMING EXPERTISE

- Proficient in Python, C, Javascript and  $\text{\LaTeX}$
- Website design in HTML5, CSS3, PHP and MySQL
- Basic knowledge in Arduino, OCaml, Java, Bash, BASIC and Coq