

Aurore Alcolei

Curriculum Vitæ

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Education

- 2016–2019 **PhD**, *Mathematics and Computer Science*, École Normale Supérieure de Lyon, Lyon.
Visiting researcher at the Computer Laboratory of the University of Cambridge, UK (8 months).
- 2013–2015 **Master of Science**, *Theoretical Computer Science*, École Normale Supérieure de Lyon, Lyon. (Year 1 as an exchange student at the University of Calgary, Canada).
- 2010–2013 **Bachelor of Science**, *Mathematics and Computer Science*.
Year 1 and 2 at Joseph Fourier University, Grenoble.
Year 3 at École Normale Supérieure de Lyon, Lyon.

Publications

Game semantics

- FOSSACS19 **Resource-Tracking Concurrent Games**, with P. Clairambault and O. Laurent.
- CSL18 **The True Concurrency of Herbrand’s Theorem**, with P. Clairambault, M. Hyland and G. Winskel.

Boolean automata networks

- SASB 2015 **On the flora of asynchronous locally non-monotonic Boolean automata networks.**, with K. Perrot and S. Sené.

Teaching

- Sept. 2019 Undergraduate supervisor for **Regular language theory**, ÉPITA Lyon.
- Feb.–May 2018 Graduate supervisor for **Proofs and Programs**, Computer science department, École Normale Supérieure de Lyon.
- March–June 2018 Undergraduate practical leader for **Introduction to networks and web programming**, Computer Science department, UCB Lyon 1.
- Sept. 2017–Jan. 2018 Graduate practical leader for **Compilers and program analysis**, Computer Science department, École Normale Supérieure de Lyon.
- Feb.–June 2017 Graduate supervisor for **Proofs and Programs**, Computer science department, École Normale Supérieure de Lyon.
- Agust 2017 Member of **jury** for undergraduate internships, Computer science department, École Normale Supérieure de Lyon.
- Feb.–June 2017 Supervisor for undergraduate **projects in OCaml**, Computer science department, École Normale Supérieure de Lyon.
- Oct.–Dec. 2016 Undergraduate supervisor for **Types**, Computer science department, University of Cambridge.

Popularisation

- Sept. 2018 Science festival: Workshop on connected objects, unplugged workshop on databases, talk on automatic proof search.

- Dec. 2018 Supervision of a middle school intern (1 week).
- May 2019 Science festival: Workshop on connected objects; Unplugged workshop on randomness.
- Aug. 2019 Summer school Mathinfoly 2019: Blockchain and Program verification.

Research Experience

- Nov. 2019 – **Differential program semantics (DIAPASoN project)**, *Post-doctoral position*,
Nov. 2021 *Computer science laboratory*, Università di Bologna, Director: U. Dal Lago.
- Sept. 2016 – **Enriched concurrent games: witnesses for proofs and resource analysis**, *Doc-*
Oct. 2019 *toral position, LIP laboratory*, École Normale Supérieure de Lyon, Supervisors: P.
Clairambault, O. Laurent and G.Winskel.
- March–Aug. **Concurrent game semantics for classical FO logic**, *Research internship*, *The*
2016 *Computer Laboratory*, University of Cambridge, Supervisor: G.Winskel.
- Sept. 2015– **Colouring problems in cubical graphs and counting problems of dense sub-**
Feb. 2016 **graphs**, *Research internship*, *Laboratoire Lorrain de Recherche en Informatique et ses*
Applications, Nancy, Supervisors: E. Jeandel and J-S. Sereni.
- Feb.–Aug. **Impact of local non-monotonicity in asynchronous Boolean automata net-**
2015 **works**, *Research internship*, *Laboratoire d’Informatique Fondamentale*, Marseille, Su-
pervisors: K. Perrot and S. Sené.
- June–Aug. **Concurrent program as proofs: compacting message passing logic**, *Research*
2014 *internship*, *Computer Science department*, *University of Calgary*, Canada, Supervisor:
R. Cockett.
- June–July **2-categorical semantics for programming languages**, *Research internship*,
2013 *Laboratoire de Mathématiques de l’Université de Savoie*, Chambéry, Supervisor:
T. Hirschowitz.
- June–July **Automata decentralised monitoring**, *Research internship*, *Laboratoire*
2012 *d’Informatique de Grenoble*, Grenoble, Supervisor: Y. Falcone.
- Juin 2011 **Signal noise removal in mass spectrometer datas.**, *Research internship*, *Institut de*
Planétologie et d’Astrophysique de Grenoble, Supervisors: V. Vuitton and Q. Mériçot.

Practical skills

- Programming Ocaml, C++, base de COQ, ADA, Java et Matlab.
- Tools Git, L^AT_EX, suite Office, Unix.
- Languages English (speaking and writing), basic of German.

Miscellaneous

- Respon- Student representative 2016-2017 (alternate member of Conseil Scientifique).
sibilities
- Event Organiser of an open-screening and debate on α -go (March 2018 and 2019).
organisation Organiser of the LIP laboratory PhD days 2018.
- Community Volunteering for Ladies Learning Code, Calgary, June 2014.
Volunteering for Filles et informatique : une équation lumineuse, Lyon, Mai 2018.