

Loïc Paulevé

<http://www.irccyn.ec-nantes.fr/~pauleve>

loic.pauleve@irccyn.ec-nantes.fr

Birth: April 1985, 11th in Perpignan (France).

3rd year PhD student, normalien.

Supervised by Professor Olivier F. Roux and PhD Morgan Magnin.

Laboratory: IRCCyN, Nantes (France).



Current external collaborations

- Andrew Phillips (Microsoft Research, Cambridge, United Kingdom).
- Adrien Richard (CR CNRS, I3S Nice, France).

Research keywords — systems biology, abstract interpretation, static analysis, stochastic processes.

Main results

- Very large scale (static) analysis of discrete reachability properties within biological regulatory networks.
- Definition of the *Process Hitting* framework to model large dynamical complex systems.
- Modelling technique to tune temporal features within stochastic models but keeping a CTMC semantics.
- Non-markovian generic simulation of process calculi (joint work with Andrew Phillips).
- Development of the software *Pint* (Process Hitting related tools) — a static analyser for concurrent complex systems (<http://process.hitting.free.fr>) (OCaml + Python languages).

Education

- 2007-2009: École Normale Supérieure de Cachan, Brittany extension.
- 2007-2008: Université de Rennes I, Master in Computer Science sp. Computer Science and Telecommunications (rank first).
- 2002-2007: Université de Provence I, Licence and Master 1 in Computer Science (rank first).

Research Experience

- Sept. 2008-until now: PhD student at the École Centrale de Nantes in Computer Science supervised by Olivier F. Roux and Morgan Magnin: Modelling, simulation and large-scale model checking of biological regulatory networks.
- Feb.-Jul. 2008: internship at IRISA (INRIA/Rennes, France): Large-scale multimedia database indexation.
- Scientific visits:
 - 22-25 June 2009: Microsoft Research, Cambridge, UK; main contact: Andrew Phillips.
 - 19-21 January 2011: LIENS, Paris, France; main contact: Jerome Feret.
 - 9-11 March 2011: DTU, Lyngby, Denmark; main contact: Flemming Nielson.
- Implication in research projects: QuantOursin (PEPS CNRS, 2010-11) and BioTempo (ANR, 2011-14).
- 7 publications (4 peer-reviewed international journals; 1 peer-reviewed international conference; 1 peer-reviewed international workshop; 1 invited paper); 8 co-authors.
- 3 invited seminars: DTU, Lyngby, Denmark; LIENS, Paris, France; LIF, Marseille, France.
- 5 oral presentations in workshops (abstract-based selection); 1 poster.
- 2009: Member of the organizing committee of JOBIM'09 conference (Journées Ouvertes en Biologie, Informatique et Mathématiques).
- 2009-until now: Member of the committee of JeBIF association promoting bioinformatics to students.

Awards and Grants

- 2010: Best oral presentation award at Journée des Doctorants 2010 workshop.
- 2009-2011: PhD scholarship from École Normale Supérieure de Cachan.

Past Employment

- 2003-2007: Software developer in the 3G International company, (Marseille, France); conception of a distributed information system; web applications development; system and network administration.
- 2003-2006: Software developer in the ProListe company (Pertuis, France); web application generator.