# Martin Bodin

30, rue de Stalingrad, 38 100 Grenoble France Born the 30<sup>th</sup> of December 1989. Phone Number: +33 6 27 00 58 84 martin.bodin@ens-lyon.org https://mbodin.github.io/

### **Employment**

2020 – Researcher (chargé de recherche) in the Spades team, at Inria (Grenoble).

2018–2020 Postdoc at the Imperial College, in London (United Kingdom) on the theoretical foundations of the analysis of real-world languages.

2017–2018 Postdoc at the CMM (the Center of Mathematical Modeling, part of the Universidad de Chile), in Santiago (Chile) on the formalisation of the R programming language in the Coq proof assistant.

#### Education

Ph.D. in Computer Sciences at IRISA, in Rennes (France), under the direction of Alan Schmitt and Thomas Jensen on certified analyses of JavaScript.

Master d'Informatique (i.e. a Computer Science Master) in the École Normale Supérieure de Lyon (a French grande École—i.e. a leading institution of higher education—specialized in the formation of searchers).

2009–2010 Licence d'Informatique, mention très bien (i.e. a Computer Science Licence degree, magna cum laude) in the École Normale Supérieure de Lyon.

2007–2009 Classes préparatoires aux grandes Écoles in the lycée Henri IV in Paris (a twoyears intensive course preparing to the competitive entrance of grandes Écoles).

Baccalauréat Scientifique, mention très bien (equivalent to British A-levels with a major in Mathematics, Physics and Biology, magna cum laude).

### Languages

• Native in French;

• Good level of English;

• Fluent in Esperanto;

• Average level of Portuguese (Brazil);

• Notions of German.

• Basic level of Spanish;

#### Conferences

- Martin Bodin, Philippa Gardner, Thomas Jensen, and Alan Schmitt. *Skeletal Semantics and Their Interpretations.* In POPL.
- Martin Bodin, Tomás Diaz, and Éric Tanter. *A Trustworthy Mechanized Formalization of R.* In DLS.
- Martin Bodin, Thomas Jensen, and Alan Schmitt. *Certified Abstract Interpretation with Pretty-Big-Step Semantics*. In CPP.
- Martin Bodin, Arthur Charguéraud, Daniele Filaretti, Philippa Gardner, Sergio Maffeis, Daiva Naudžiūnienė, Alan Schmitt, and Gareth Smith. *A Trusted Mechanised JavaScript Specification*. In POPL.
- Jörg Endrullis, Dimitri Hendriks, and Martin Bodin. *Circular Coinduction in Coq Using Bisimulation-up-to Techniques*. In ITP.
- David Monniaux and Martin Bodin. *Modular Abstractions of Reactive Nodes using Disjunctive Invariants.* In APLAS.

### Workshops

- Martin Bodin, Tomás Diaz, and Éric Tanter. *A Trustworthy Mechanized Formalization of R.* In FMfSS.
- 2018 Martin Bodin. *A Coq Formalisation of a Core of R.* In CoqPL.
- Martin Bodin, Thomas Jensen, and Alan Schmitt. *An Abstract Separation Logic* for Interlinked Extensible Records. In JFLA.
- Martin Bodin, Thomas Jensen, and Alan Schmitt. *Certified Abstract Interpretation with Pretty-Big-Step Semantics*. In JFLA.
- Martin Bodin, Thomas Jensen, and Alan Schmitt. Pretty-big-step-semantics-based Certified Abstract Interpretation (Preliminary version). In Semantics, Abstract Interpretation, and Reasoning about Programs: Essays Dedicated to David A. Schmidt
- Martin Bodin and Alan Schmitt. A Certified JavaScript Interpreter. In JFLA.

### Other Publications

2016 Martin Bodin. Certified semantics and analysis of JavaScript. Ph.D. thesis.

#### Miscellaneous

- 2019 Member of the Artifact Evaluation Committe for POPL.
- 2012, 2014 Monitoring the algorithmic practice examination for the entrance of the École Normale Supérieure.

## Supervising

2020	Rao Xiaojia, cosupervised with Philippa Gardner

2019 Benjamin Gunton, cosupervised with Philippa Gardner

2017–2018 Tomás DIAZ, cosupervised with Éric TANTER

### **Teaching**

2019	Separation Logic. M1 tutoring at the Imperial College London.
2018	Models of Computation. L2 tutoring at the Imperial College London.
2017	Introduction to Coq: Logic, Types, and Verification. M2 tutoring at the Universidad de Chile.
2014	Software Design and Verification. M1 tutoring at the École Normale Supérieure.
2013-2014	Formal Languages. L3 tutoring at the École Normale Supérieure.
2013-2014	Introduction to Functional Programming. L1 tutoring at the université Rennes 1.
2012	Introduction to Scheme. L1 tutoring at the Insa of Rennes.

### **Other Experiences**

2013-2016	Member of the SecCloud project: www.seccloud.cominlabs.ueb.eu/.
2012-2016	Member of the JsCert project: jscert.org/.
2012	Internship in Inria at Rennes with Alan Schmitt and Thomas Jensen: <i>A Certified JavaScript Interpreter</i> .
2011	Internship in Vrije Universiteit at Amsterdam with Dimitri Hendriks and Jörg Endrullis: <i>Proving Stream Equalities in Coq.</i>
2011	Internship in PPS at Paris with Stéphane GIMENEZ and Christine TASSON: Sequentialization of proof nets to structures.
2010	Internship in Vérimag at Grenoble with David Monniaux: Détection de modes

# **Computer Proficiencies**

- Good commands in the following programming languages: Coq, OCaml, JavaScript, ETFX, etc.
- Familiar with GNU/Linux as an operating system.

de fonctionnements d'un programme LUSTRE.

• Familiar with Vim, Git, Inkscape, etc.

## **Association Experience**

2017 Esperanto Meetups in Santiago.

2014–2015 Active member of Espéranto-Rennes.

Treasurer of the theater association ASCREB in Rennes.

2010 Secretary of the INFO-ENS association in Lyon.

### **Personnal Interests**

• Board games, card games, improvisation games, role playing games, etc.

• Esperanto related activities.