Stéphane Le Roux

leroux@lsv.fr

Main research interest:
Game theory in connection with economics, logic, and theoretical computer science.

Student supervision

1. 2019-present, PhD thesis, Nathan Thomasset (with Patricia Bouyer)

2. 2020 - present, PhD thesis and master thesis, Benjamin Bordais (with Patricia Bouyer)

3. 2020-2021, L3 (bachelor thesis), Édouard Némery.

4. 2014, master's thesis of Robin Hesse, on game theory. (At TU Darmstadt, with Martin Ziegler).

5. 2012, master's thesis of Selim Dogruel: revisiting and tailoring auction theory for Eurex Clearing. (At TU Darmstadt, with Martin Ziegler)

Reviewing

- PC member : Computability in Europe 2019, Strategic Reasonning 2017 and 2020.

- Reviewer for journals: Discrete Mathematics, Economic Theory, Journal of Formalized Reasoning, Journal of Logical and Algebraic Methods in Programming, Logical Methods in Computer Science, Mathematics of Operations Research.

- Subreviewer for conferences: CCC, CSL, CONCUR, FOSSACS, FSTTCS, ICALP, ITP, LiCS, MFCS, STACS, TYPES, VMCAI.

- For Austrian Science Fund.

Employement history

2018-present	maître de conférences at ens paris-saclay, LMF.
2017-2018	teaching at TU-Darmstadt (**stochastic group, maths department**).
2017/09	Interdisciplinary Center Herzliya (**game theory and verification**).
2014-2017	Postdoc at Université Libre de Bruxelles, verification group.
2010-2014	Teaching at TU Darmstadt, logic group, maths department.
2009	Postdoc at LIX, École Polytechnique.
2007-2008	Postdoc at INRIA-Microsoft Research, Orsay.
2004-2007	PhD candidate and teacher at ENS Lyon.
2002-2003	Representative for Gerflor in China.
2001	Engineer intern (5 months) at France Telecom R&D.
1998	Factory worker intern (1 month) at Polyclad , France.

Education

2004-2007	Ph.D. (informatics)	École Normale Supérieure de Lyon.
2003-2004	M.Sc (informatics)	École Normale Supérieure de Lyon.
1997-1999	Master of general engineering	École Centrale de Lyon.
2008	Economics (no degree expected)	École Polytechnique.
1999-2001	Chinese (no degree expected)	Xi'An JiaoTong University.

- Ph.D. dissertation title: Generalisation and formalisation in game theory.
  Awarded on: 16 January 2008.
  Awarded by: École Normale Supérieure de Lyon, France.
  Supervisor: Pierre Lescanne, ENS Lyon.
  Jury: Pierre Castéran, Jean-Paul Delahaye, Sylvain Sorin.
  Referees: Franck Delaplace, Jean-François Monin.

- M.Sc dissertation title: Solving equations in a calculus that is related to classical logic
  Awarded on: July 2004.
  Awarded by: École Normale Supérieure de Lyon, France.
  Supervisor: Pierre Lescanne, ENS Lyon.

- Here, general engineering means: first, basics of Mathematics, Physics and Chemistry; second, broad studies of engineering techniques (electrical, material, mechanics, etc). Third, one internship in France Telecom R&D. Engineer dissertation title: Fare sharing and QoS for an ADSL Internet connection.

- Economics: four master courses.

- Three semesters of Chinese studies, plus one semester of four computer science master courses and passed exams in Chinese.

Scholarships and traveling grants

- PhD scholarship from the French government, namely MENRT.

- Additional PhD teaching contract, namely "Monitorat".

- Joint Japanese-French scholarship for one semester in Japan, namely bourse du collége doctoral franco-japonais.

- Eurodoc scholarship for one semester in Japan.

- I benefited from the German Research Foundation (DFG) through the German-South African project (DFG, 445 SUA-1 13/20/0) for two trips to Cape Town.

- I benefited from the Marie Curie International Research Staff Exchange Scheme Computable Analysis, PIRSES-GA-2011- 294962 for trips to Pretoria and Novosibirsk.

- I benefited from the Royal Society International Exchange Grant IE111233 for three trips to Cambridge.

- I benefited from ESI for one trip to Vienna.

Visits and seminars

- University of Aalborg (2016, 1 seminar, invited by Kim Larsen)

- LIRMM, Université Montpellier 2 (2016, 1 seminar, invited by Victor Poupet)

- TU Darmstadt, department of mathematics (2014-2016, several visits, invited by Volker Betz)

- University of Ghent (2015, 1 seminar, invited by Paul Shafer and Andreas Weiermann)

- Ershov/Sobolev Institutes (2014, 5 weeks, invited by Victor Selivanov and Sergei Odintsov)

- University of Cambridge, computer science department (2014, 1 week, invited by Arno Pauly)

- LSV, ENS Cachan (2014, one seminar, invited by Dietmar Berwanger)

- LIRMM, Université Montpellier 2 (2013, 1 week, invited by Victor Poupet)

- Kurt Gödel Research Center and ESI (2013, 1 week, invited by Sy Friedmann)

- Ershov Institute (8 weeks, invited by Victor Selivanov)

- University of Cambridge, computer science department (2013, 1 week, invited by Arno Pauly)

- University of South Africa, decision science departement (2013, 5 weeks, invited by Willem Fouché)

- University of Aachen (RWTH), computer science departement (2012, 2 days, invited by Wolfgang Thomas)

- University of Cambridge, computer science department (2012, 1 week, invited by Arno Pauly)

- University of Cape Town, maths department (2011, 4 weeks, invited by Vasco Brattka)

- University of Nanjing, software institute (2010, 2 weeks, invited by Chen Zhenyu)

- University of Edinburgh, school of informatics (2010, 2 weeks, invited by Jacques Fleuriot)

- IRIT, university of Toulouse Paul Sabatier (2010, 1 seminar, invited by Ralph Matthes)

- University of Cape Town, maths department (2010, 6 weeks, invited by Vasco Brattka)

- University of Edinburgh, school of informatics (2009, 2 weeks, invited by Jacques Fleuriot)

- TU Darmstadt, department of mathematics (2009, 1 seminar, invited by Martin Ziegler)

- CIRM - Université de Luminy (2009, 1 seminar, invited by Eric Goubault)

- Université Denis Diderot - Paris 7 (2008, 1 seminar, invited by Arnaud Durand and Guillaume Malod)

- LABRI (2008, 1 seminar, invited by Olivier Ly and Yvan Le Borgne)

- IRISA (2008, 1 seminar, invited by Loic Helouet and Anne Bouillard)

- LIAFA (2008, 1 seminar, invited by Emmanuelle Lebhar)

- LIF (2008, 1 seminar, invited by Victor Poupet)

- LORIA (2007, 1 seminar, invited by Olivier Bournez)

- University of Cambridge (2007, one week, invited by Timothy Griffin)

- INRIA-Microsoft Research (2007, 1 seminar, invited by Georges Gonthier)

- University of Paderborn/Heinz Nixdorf Institute (2007, one week, invited by Martin Ziegler)

- Japan Advanced Institute of Science and technology (2006, 5 months, invited by René Vestergaard)

- Japan Advanced Institute of Science and technology (2005, 1 month, invited by René Vestergaard)

- Japan Advanced Institute of Science and technology (2004, 1 month, invited by René Vestergaard)

Teaching experience

As a lecturer   introduction to game theory, fall 2010 (48h, English)

As an assistant

- Linear Algebra I, spring 2014 (20h, German, TU Darmstdat)

- Linear Algebra I, fall 2013 (20h, English, TUD)

- Fundamental informatics, spring 2013 (20h, German, TUD)

- Introduction to mathematical logic, fall 2012 (40h, English, TUD)

- Analysis I, fall 2012 (20h, English, TUD)

- Analysis II, spring 2012 (40h, German, TUD)

- Statistics I, fall 2011 (40h, German, TUD)

- Linear algebra II, spring 2011 (40h, English, TUD)

- Linear algebra I, fall 2010 (40h, German, TUD)

- Axiomatic geometry, spring 2010 (40h, German, TUD)

- Introduction to Java, spring 2009 (15h, French, École Polytechnique)

- Master student tutoring as complement to one master course, fall 2006 (English, ENS Lyon)

- Logic, proof theory, and lambda calculus, fall 2004 and 2005 (32h, French, ENS Lyon)

- Programming in O'Caml and C, fall 2005 (32h, French, ENS Lyon)

- Basics in database, operating system, text editing... fall 2005 (32h, French, INSA Lyon)

- Formal languages and automata, fall 2004 (32h, French, ENS Lyon)

Languages

- French: mother tongue.

- English: fluent in various work and social environments, I can lecture in English.

- German: almost fluent in work and social environments, I need preparation to lecture in German.

- Chinese: it was my working language when a salesperson in China.

- Spanish: once basic conversation.

- Japanese and Russian: once very basic conversation.

- Latin: two years in middle school.

- Arabic: 20-hour course.

- Dutch: 16-hour course.