

CURRICULUM VITAE

Bastien Maubert, born February 26, 1987 in Nantes, France.

Education

2014 **PhD in Computer Science**, *Université de Rennes 1*

Title: *Logical foundations of games with imperfect information: uniform strategies.*

Committee:

Joseph Y. Halpern (president)	Professor, Cornell University
Christof Löding (referee)	Associate Professor, RWTH Aachen University
Ramanujam (referee)	Professor, IMSc Chennai
Dietmar Berwanger	Full-time researcher, CNRS-ENS Cachan
Thomas Bolander	Associate Professor, DTU Lyngby
Cătălin Dima	Professor, Université Paris-Est Créteil
Sophie Pinchinat (supervisor)	Professor, Université Rennes 1
Guillaume Aucher (co-supervisor)	Chaire INRIA-Université Rennes 1

2009 **Master's degree in Computer Science, with honours**

Ecole Normale Supérieure de Rennes

Current position

04/2018 - today **Postdoctoral researcher** at Università degli Studi di Napoli “Federico II”.

Past positions

04/2016 - 03/2018 **Marie Skłodowska-Curie fellow**

Project LoGICInMAS (Logics and Games for Imperfect Information in Multi-Agent Systems), Università degli Studi di Napoli “Federico II”, Naples.

09/2014 - 02/2015 **CNRS postdoctoral researcher**

ERC project Epistemic Protocol Synthesis, LORIA, Nancy.

Miscellaneous

04/2015 - 03/2016 **Chosen unemployment period**

After my position in Nancy I chose to stay in Rennes for some time.

Grants

2016 Marie-Curie Individual Fellowship for the project LoGICInMAS (168,277.20€).

2015 MEALS grant for a two months visit to Carlos Areces in Cordoba, Argentina (5320€).

2011 Rennes university grant for a one month visit to Prof. Ramanujam in Chennai, India (800€).

Research interests

Program verification and synthesis; logics of time, knowledge and strategic abilities; game theory, in particular games with imperfect information; automata theory; automatic and rational structures.

Publications

In international journals:

- 2018 Relating paths in transition systems: the fall of the modal mu-calculus**
C. Dima, B. Maubert and S. Pinchinat
ACM Transactions on Computational Logic. To appear.
- 2017 Reasoning about knowledge and messages in asynchronous multi-agent systems**
S. Knight, B. Maubert and F. Schwarzentruher
Mathematical Structures in Computer Science. Special issue for ICTAC 2015.
- 2015 Uniform strategies, rational relations and jumping automata**
L. Bozzelli, B. Maubert and S. Pinchinat
Information and Computation, vol. 242. Special issue for SR 2013.
- 2014 A general notion of uniform strategies**
B. Maubert and S. Pinchinat
International Game Theory Review, vol. 16(01). Special issue for LOFT 2012.

In international conferences with program committee:

- 2018 Reasoning about Knowledge and Strategies under Hierarchical Information**
B. Maubert and A. Murano
KR, 16th International Conference on Principles of Knowledge Representation and Reasoning
- Quantifying bounds in Strategy Logic**
N. Fijalkow, B. Maubert, A. Murano and S. Rubin
CSL, 27th Annual EACSL Conference on Computer Science Logic
- 2017 Strategy logic with imperfect information**
R. Berthon, B. Maubert, S. Rubin, A. Murano et M. Y. Vardi
LICS, 32th Annual ACM/IEEE Symposium on Logic in Computer Science
- Decidability results for ATL* with imperfect information and perfect recall**
R. Berthon, B. Maubert et A. Murano
AAMAS, 16th International Conference on Autonomous Agents and Multiagent Systems
- 2016 On the impact of modal depth in epistemic planning**
T. Charrier, B. Maubert and F. Schwarzentruher
IJCAI, International Joint Conference on Artificial Intelligence
- 2015 Games with Communication: from Belief to Preference Change**
G. Aucher, B. Maubert, S. Pinchinat and F. Schwarzentruher
PRIMA, Principles and Practice of Multi-Agent Systems
- Relating paths in transition systems: the fall of the modal mu-calculus**
C. Dima, B. Maubert and S. Pinchinat
MFCS, Mathematical Foundations of Computer Science
- Asynchronous announcements in a public channel**
S. Knight, B. Maubert and F. Schwarzentruher
ICTAC, International Colloquium on Theoretical Aspects of Computing
- Unifying Hyper Logic and Epistemic Temporal Logic**
L. Bozzelli, B. Maubert and S. Pinchinat
FoSSaCS, Foundations of Software Science and Computation Structures
- 2013 Jumping automata for uniform strategies**
B. Maubert and S. Pinchinat
FSTTCS, Foundations of Software Technology and Theoretical Computer Science

2012 Generalized DEL-sequents

G. Aucher, B. Maubert and F. Schwarzentruber
JELIA, European Conference on Logics in Artificial Intelligence

Uniform strategies

B. Maubert and S. Pinchinat
LOFT, Conference on Logic and the Foundations of Game and Decision Theory

In international workshops with program committee:

2015 Games with Communication: from Belief to Preference Change

G. Aucher, B. Maubert, S. Pinchinat and F. Schwarzentruber
SR, Strategic Reasoning (no published proceedings)

Dealing with imperfect information in Strategy Logic

S. Knight and B. Maubert
SR, Strategic Reasoning (no published proceedings)

2014 Automata techniques for epistemic protocol synthesis

G. Aucher, B. Maubert and S. Pinchinat
SR, Strategic Reasoning

2013 The complexity of synthesizing uniform strategies

B. Maubert, S. Pinchinat and L. Bozzelli
SR, Strategic Reasoning

2011 Tableau method and NEXPTIME-completeness of DEL-sequents

G. Aucher, B. Maubert and F. Schwarzentruber
M4M, Methods for Modalities

Opacity issues in games with imperfect information

B. Maubert, S. Pinchinat and L. Bozzelli
GandALF, Symposium on Games, Automata, Logics and Formal Verification

2009 Games with opacity condition

B. Maubert and S. Pinchinat
RP, Reachability Problems

Talks

Quantifying bounds in Strategy Logic

4/09/2018: CSL 2018 (Birmingham, England)
8/07/2018: SR 2018 (Oxford, England)

Strategy Logic with Imperfect Information

8/07/2018: SR 2018 (Oxford, England)
23/06/2017: LICS 2017 (Reykjavik, Iceland)

Decidability results for ATL* with imperfect information and perfect recall

12/05/2017: AAMAS 2017 (São Paulo, Brasil)

Games with Communication: from Belief to Preference Change

22/09/2015: SR 2015 (Oxford, England)

Dealing with imperfect information in Strategy Logic

21/09/2015: SR 2015 (Oxford, England)

Relating paths in transition systems: the fall of the modal mu-calculus

08/09/2016: ICTCS 2016 (Lecce, Italy)
17/09/2015: Highlights of Logic, Games and Automata (Prague, République Tchèque)
28/08/2015: MFCS 2015 (Milano, Italy)

Automata techniques for epistemic protocol synthesis in DEL

03/09/2014: Highlights of Logic, Games and Automata (Paris, France)

26/08/2014: Workshop Epistemic Protocol Synthesis (Rennes, France)

06/04/2014: SR 2014 (Grenoble, France)

Logical foundations of games with imperfect information: uniform strategies

17/01/2014: Thesis defense, IRISA (Rennes, France)

Uniform strategies, rational relations and jumping automata

07/12/2013: GImInAL, IMSc (Chennai, India)

Jumping automata for uniform strategies

12/12/2013: FSTTCS 2013 (Guwahati, India)

04/07/2013: GT FORWAL, Université Paris 6 (Paris, France)

18/06/2013: GT Vérif, ENS Cachan (Paris, France)

The complexity of synthesizing uniform strategies

17/03/2013: SR 2013 (Rome, Italy)

Uniform strategies

29/04/2013: Séminaire Dagstuhl VaToMAS, Schloss Dagstuhl (Germany)

21/11/2012: IRIT (Toulouse, France)

Introduction to Dependence Logic

20/07/2012: Formal methods update meeting, CMI (Chennai, India)

Towards a notion of uniform strategies

20/09/2012: GT Jeux 2012, ENS Cachan (Paris, France)

11/07/2012: TCS Colloquium, IMSc (Chennai, India)

18/06/2012: LOFT 2012 (Sevilla, Spain)

Tableau method and NEXPTIME-completeness of DEL-sequents

11/11/2011: M4M 7 (Osuna, Spain)

Uniform strategies

26/10/2011: GIPSy workshop, IRISA (Rennes, France)

Opacity issues in games with imperfect information

15/06/2011: GandALF 2011 (Minori, Italy)

Games with opacity condition

24/09/2009: RP 2009, Ecole Polytechnique (Palaiseau, France)

16/09/2009: Séminaire 68NQRT, IRISA (Rennes, France)

Other research activities

Events organisation

Co-chair:

- 5th International Workshop on Strategic Reasoning, Liverpool, England, July 26-27, 2017
- 1st Workshop on Formal Methods in AI, Naples, Italy, February 22-24, 2017

PC member:

- Conference AAAI'19, 33rd AAAI Conference on Artificial Intelligence

Local organisation:

- Conference ICTCS, Naples, Italy, September 26-28, 2017
- Conference CILC, Naples, Italy, September 26-28, 2017
- Workshop GIPSy, Rennes, France, October 25-27, 2011

External reviewer

Workshops and conferences:

- 2018: AAMAS, IJCAI, ICALP, MFCS, TIME, GandALF
- 2017: AAAI, FoSSaCS, AAMAS, IJCAI, GandALF, FORTE, LICS, CSL, MFCS
- 2016: KR, AAMAS, IJCAI, ECAI, CSL, MFCS, RV
- 2015: ICLA, TACAS, LICS, TARK, LORI, RV
- 2014: CLIMA, GandALF
- 2013: GandALF, AAMAS, WoLLIC

Journals:

- 2018: Information and Computation
- 2017: ACM Transactions on Computational Logic
- 2016: Information and Computation
- 2015: Information and Computation, ACM Transactions on Computational Logic
- 2014: Journal of Logic and Computation

Students supervision

- Aurèle Barrière (ENS Rennes, Master 1). September-December 2017.
- Raphaël Berthon (ENS Rennes, Master 1). June-July 2016.

Misc: Collector for a Dagstuhl report (Seminar 13181: VaToMAS, April 2013)

Teaching activities

2018	Lectures – Introduction to strategic logics University of Naples, postgraduate (4h)
2011-2012, 2012-2013	Tutorials – Program Design and Verification ENS Rennes, postgraduate (24h + 24h)
2011-2012, 2012-2013	Tutorials – Logic and Calculability ENS Rennes, undergraduate (12h + 24h)
2012-2013	Tutorials – Introduction to LaTeX ENS Rennes, undergraduate (4h)
2010-2011, 2011-2012	Lectures and tutorials – Introduction to Compilation Université de Rennes 1, undergraduate (40h + 40h)
2010-2011	Tutorials – Data Structures INSA de Rennes, undergraduate (20h)
2009-2010	Tutorials – Functional Programming INSA de Rennes, undergraduate (20h)

Languages

French: mother tongue

English, Spanish, Italian: fluent

Portuguese: intermediate