Patricia BOUYER-DECITRE

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E-mail: bouyer@lsv.fr Homepage: http://www.lsv.fr/~bouyer/ Birth date: October 18, 1976 French citizenship Two kids (2010, 2013)

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Positions

Since 2010 —	Senior researcher at CNRS (LSV, CNRS & ENS Paris-Saclay, France) Vice-head of LSV since June 2009
2007 —	On sabbatical leave at Oxford University (England)
2002 - 2010	Junior researcher at CNRS (LSV, CNRS & ENS de Cachan, France) Head of the TEMPO group at LSV (with Nicolas Markey) from 2007 to 2009
2002 —	Post-doctoral researcher at BRICS, Aalborg University (Denmark) in the team "Distributed Systems and Semantics"
Education	
2009 —	Habilitation Thesis defended on January 12, 2009
	Title: From Qualitative to Quantitative Analysis of Timed Systems
	University: Université Paris 7 (France)
	Committee: Rajeev Alur (referee), Ahmed Bouajjani, Joost-Pieter Katoen
	(referee), Kim G. Larsen, Anca Muscholl (referee), Antoine Petit, Jean-François Raskin
1999 - 2002 —	PhD Thesis defended on April 5, 2002
	<i>Title:</i> Modèles et algorithmes pour la vérification des systèmes temporisés (Models and Algorithms for the Verification of Timed Systems)
	Department: LSV, CNRS & ENS de Cachan
	Supervisor: Antoine Petit
	<i>Committee:</i> Claude Jard (referee), Kim G. Larsen (referee), Antoine Petit, Olivier Roux, Joseph Sifakis (referee), and Pascal Weil
1998 - 1999 —	"Agrégation" in Mathematics
1997 - 1998 —	"Maîtrise" in Computer Science (with distinction TB)
	"DEA" in Computer Science (with distinction TB)
1996 - 1997 —	"Maîtrise" in Mathematics (with distinction TB)
Sept. 1996 —	Entrance at "École Normale Supérieure de Cachan" Admission at "École Polytechnique"

Awards

- 2018 Best paper award at the conference FM'18
- 2013-2019 PI of ERC project EQualIS
 - 2011 Presburger Award (given by the EATCS)
 - 2007 Bronze medal (given by the CNRS)
 - 2006 Marie Curie fellowship for a one year stay at Oxford University
 - 2003 PhD Thesis awarded by Specif, the french association of computer scientists

Responsibilities in Schools, Conferences and Journals

— Editorial boards —

- Journal of Logical and Algebraic Methods in Programming since early 2014
- Acta Informatica since the end of 2014

- Program chairs -

- LICS'19 (34th ACM/IEEE Symposium on Logic in Computer Science), Vancouver, Canada, July 2019
- SR'18 (6th International Workshop on Strategic Reasoning), Oxford, UK, July 2018: cochair with Nicolas Markey
- GandALF'17 (8th International Symposium on Games, Automata, Logics and Formal Verification), Roma (Italy), September 2017: co-chair with Pierluigi San Pietro
- FORMATS'06 (4th Int. Conf. on Formal Modelling and Analysis of Timed Systems), Paris, September 2006: co-chair with Eugene Asarin
- GDV'06 (3rd Int. Workshop Games in Design and Verification), Seattle, August 2006: cochair with Madhusudan P.

- Program committees -

- CONCUR'13'08'06

- LICS'17'15'12'11 (ACM/IEEE Symp. on Logic in Computer Science)
- TACAS'19'16'15'11'08'05

(Int. Conf. on Tools and Algorithms for the Construction and Analysis of Systems)

- (Int. Conf. on Concurrency Theory)
- ICALP'13'10 Track B (Int. Coll. on Automata, Languages and Programming)
- CSL'17'15'09 (Annual Conf. on Computer Science Logic)
- FSTTCS'16

(IARCS Annual Conf. on Foundations of Software Technology and Theoretical Computer Science)

- STACS'09 (Int. Symp. on Theoretical Aspects of Computer Science)
- MFCS'18'17'10 (Int. Symp. on Mathematical Foundations of Computer Science)

- FORMATS'18'17'11'08'07'05'04

	(Int. Conf. on Formal Modeling and Analysis of Timed Systems)
- QEST'10'09'08	(Int. Conf. on Quantitative Evaluation of Systems)
- FoSSaCS'10	(Int. Conf. on Foundations of Software Science and Computation Structures)
- VMCAI'15	(Int. Conf. on Verification, Model Checking, and Abstract Interpretation)
- HSCC'14	(Int. Conf. on Hybrid Systems: Computation and Control)
- GandALF'18'16	(Int. Symp. on Games, Automata, Logics, and Formal Verification)
- TIME'18	(Int. Symp. on Temporal Representation and Reasoning)
- CiE'18	(Computability in Europe)
- RP'17	(Int. Workshop on Reachability Problems)
- FCT'17	(Int. Symp. on Fundamentals of Computation Theory)
- SOFSEM'17'09	(Int. Conf. on Current Trends in Theory and Practice of Computer Science)
- SYNT'16	(Workshop on Synthesis)
- SR'16	(Int. Workshop on Strategic Reasoning)
- FSCD'16	(Int. Conf. on Formal Structures for Computation and Deduction)
- MSR'15'11'09'07	(Modélisation des systèmes réactifs)
- MEMICS'12	(Doctoral Workshop on Math. and Engineering Methods in Comp. Science)
- LATA'12	(Int. Conf. on Language and Automata Theory and Applications)
- QAPL'10'09'08	(Workshop on Quantitative Aspects of Programming Languages)
- EMSOFT'09	(International Conference on Embedded Software)
- SPIN'09	(Int. SPIN Workshop on Model Checking of Software)
- JESA'08 (Journal E	uropéen des Systèmes Automatisés, special issue on formal real-time methods)
- AVoCS'07'06	(Int. Workshop on Automated Verification of Critical Systems)

- Other responsibilities -

- Member of steering committee of LICS (IEEE Symposium on Logic in Computer Science) since 2013
- Invited session organizer at Highlights'17
- Workshop chair of LICS (IEEE Symposium on Logic in Computer Science) from 2013 to 2015, and from 2016 to 2018
- FORMATS'06 (4th International Conference on Modelling and Analysis of Timed Systems), Paris, September 2006: chair of the organizing committee
- 32nd Spring School of Computer Science in 2004 "Theory of concurrency and applications": member of the organizing committee
- CSL'01 (Annual Conference of the European Association for Computer Science Logic): member of the organizing committeee

- CAV'01 (13th International Conference on Computer Aided Verification): member of the organizing committee

Invited talks

- Invited talks at conferences and workshops -
 - Invited talk at ATVA'19 (Taipei, Taiwan, October 2019)
 - Average-energy games. KimFest (workshop for the 60th birthday of Kim G. Larsen, Aalborg, Denmark, August 2017)
 - *On the optimal reachability problem in weighted timed automata and games.* Invited talk at MFCS'16 (Krakow, Poland, August 2016)
 - Stochastic timed automata. Invited talk at TRENDS'15 (Madrid, Spain, September 2015)
 - *On the optimal reachability problem in weighted timed automata and games.* Invited talk at NCMA'15 (Porto, Portugal, August 2015)
 - On the optimal reachability problem in weighted timed games. Invited talk at AutoMathA'15 (Leipzig, Germany, May 2015)
 - On the optimal reachability problem in weighted timed games. CFV Seminar (Brussels, Belgium, March 2015)
 - *On the optimal reachability problem in weighted timed games.* QuantLA seminar (Dresden, Germany, January 2015)
 - Robustness in timed automata. Invited talk at RP'13 (Uppsala, Sweden, September 2013)
 - *Robust control of timed systems*. Invited talk at "LCCC Workshop on Formal Verification of Embedded Control Systems" (Lund, Sweden, April 2013)
 - *Quantitative models for verification*. Invited talk at "IFIP WG 2.2 (Formal Description of Programming Concepts)" day (Paris, France, September 2011)
 - *Nash Equilibria in Timed Games*. Invited talk at the National Day of GDR IM (Paris, France, January 2011)
 - *Energy Management in Timed Systems*. Invited talk at WATA'10 (Leipzig, Germany, May 2010)
 - *Modelling, analyzing, and managing resources in timed systems.* Invited talk at MSR'09 (Nantes, France, November 2009)
 - On the Model Checking of Timed and Weighted Temporal Logics. Invited talk at QUANT-LOG'09 (Rhodes, Greece, July 2009)
 - Quantitative Timed Games. Invited talk at ACTS'09 (Chennai, India, January 2009)
 - *Quantitative timed games.* Tutorial (1h30) at the GAMES'08 annual meeting (Warsaw, Poland, September 2008)
 - *Model-Checking Timed Temporal Logics*. Invited talk at TFIT'08 (Taipei, Taiwan, March 2008)

- *Model-Checking Timed Temporal Logics*. Invited talk at M4M-5 (Cachan, France, November 2007)
- Weighted Timed Automata: Model-Checking and Games. Invited talk at CORTOS'06 (Bonn, Germany, August 2006)
- Weighted Timed Automata: Model-Checking and Games. Invited talk at MFPS XXII (Genova, Italy, May 2006)
- Optimal Timed Games. Invited talk at AVoCS'05 (Warwick, England, September 2005)
- *Optimal Reachability Timed Games*. Invited talk at INFINITY'05 (San Francisco, CA, USA, August 2005)
- *Partial Observation of Timed Systems*. Invited talk at GDV'05 (Edinburgh, Scotland, July 2005)
- *Timed Automata and Extensions: Decidability Limits.* Invited talk at JSI'05 (Cachan, France, March 2005)
- *Automates temporisés, de la théorie à l'implémentation*. Invited talk at FAC'04 (Toulouse, France, March 2004)
- *Timed Automata From Theory to Implementation*. Invited talk at the workshop on Automata, Concurrency and Logic (Chennai, India, January 2003)
- Invited tutorials and lectures -
 - On the verification of timed sytems... and beyond. Tutorial (3h) at the Logic Colloquium (Stockholm, Sweden, August 2017)
 - *Timed automata and beyond: On the quantitative analysis of timed systems.* Lecture (3h) at the Digicosme spring school (Palaiseau, France, May 2016)
 - *Robustness in Timed Systems*. Lecture (2h) at the EATCS summer school (Telč, Czech Republic, July 2014)
 - An introduction to timed automata. Lecture (3h) at MOVEP'14 (Nantes, France, July 2014)
 - From timed automata to complex systems Stochastic timed games. Lecture (1h30) at the AVACS spring school (Oldenburg, Gemany, March 2010)
 - *Real-time model-checking.* Lecture at the QMC Spring School (Copenhagen, Denmark, March 2010)
 - On the verification and control of timed systems. Lecture (6h) at Summer School VTSA'09 (Nancy, France, October 2009)
 - *Energy consumption in timed systems*. Lecture (1h) at the Farman Institute at ENS Cachan (Cachan, France, November 2008)
 - *Foundations for Timed Systems*. Lecture (1h30) at Summer School of European Project ARTIST2 (Nässlingen, Sweden, September 2005)
 - Vérification de systèmes temporisés et hybrides. Lecture (1h) at École Temps-Réel 2005 (Nancy, France, September 2005)

- *Synthesis of Timed Systems*. Lecture (2h30) at Spring School of European Project GAMES (Bonn, Germany, March 2005)
- *Timed Automata From Theory to Implementation*. Lecture (2h30) at MOVEP'04 (Brussels, Belgium, December 2004)
- *Timed Automata From Theory to Implementation*. Tutorial (1h30) at QEST'04 (Twente, The Netherlands, September 2004)
- *Timed Models for Concurrent Systems*. Lecture (3h) at the 32nd Spring School of Theoretical Computer Science (Luminy, France, April 2004)
- *Introduction à la modélisation et à la vérification Sous un angle temporisé…* Lecture (3h) at the department of computer science of ENS Cachan (September 2003)

Teaching

2018 – 2019 — Option Modélisation de l'agrégation à l'ENS Paris-Saclay (few hours)
2017 – 2018 — Option Modélisation de l'agrégation à l'ENS Paris-Saclay (few hours)
2017 - 2018 - Verification of Timed Systems in "Master Parisien de Recherche en Informatique"
2015 - 2016 — Verification of Timed Systems in "Master Parisien de Recherche en Informatique"
2012 - 2013 — Verification of Timed Systems in "Master Parisien de Recherche en Informatique"
2011 - 2012 — Verification of Timed Systems in "Master Parisien de Recherche en Informatique"
2008 - 2009 — Verification of Timed Systems in "Master Parisien de Recherche en Informatique"
2005 - 2006 — Verification of Timed Systems in "Master Parisien de Recherche en Informatique"
2003 - 2004 — Verification of Timed Systems in "DEA Algorithmique"
2002 - 2003 — Verification of Timed Systems in "DEA Algorithmique"
2002 - 2003 — Algorithmics in "magistère de mathématiques et informatique" (ENS de Cachan)
2001 - 2002 — Computability in "magistère de mathématiques et informatique" (ENS de Cachan)
2001 - 2002 — Algorithmics in "prépa agreg d'économie et gestion" (ENS de Cachan)
2000 - 2001 — Computability in "magistère de mathématiques et informatique" (ENS de Cachan)
2000 - 2001 — Programmation (C++) in "licence de génie électrique" (ENS de Cachan)
1999 - 2000 — Programmation (CAML) and finite automata in Lycée Louis Le Grand, Paris

Projects I am/was involved in

- International projects -

- Participation to the P2R Timed-DISCOVERI: Timed and distributed models for control and verification, 2005 – 2008

http://www.labri.fr/perso/weil/frindien/modiste.html

- ERC project -

- Principal Investigator of the ERC Starting grant project EQualIS (Jan. 2013 – Feb. 2019)

http://www.lsv.fr/~bouyer/equalis/

- European collaborative projects -

- Participation to the european project GASICS on Games for analysis and synthesis of interactive computational systems, 2009 – 2011
- Participation to the european project Quasimodo (program of the European Commission, part of FP7) on quantitative system properties in model-driven-design of embedded systems, 2008 2011
- Participation to the european network of excellence Artist2 (FP6)
- Participation to european project Ametist in 2002

- French collaborative projects -

- Participation to the ANR project Ticktac (2019 2023)
- Participation to the ANR project ImpRo on implementability and robustness of timed systems, 2011 2014
- Participation to the ARA DOTS (program of the French ministry of research) on distributed, open and timed systems, 2006 2011
- Coordinator of the ACI CORTOS (program of the French ministry of research) on control of timed systems, 2003 - 2006 (web site: http://www.lsv.ens-cachan.fr/ aci-cortos/)
- Participation to RNRT project Calife (program of the French ministriy of research) on verification of telecommunication protocols, 1999 2002
- Participation to ACI CHRONO (program of the French ministry of research) on scheduling of (coordinators: Franck Cassez (IRCCyN) and François Laroussinie (LSV))
- Locally responsible of AS Automates (program of the French ministry of research) on automata, distributed systems and timed systems, 2003 (coordinator: Pascal Weil (LaBRI))

- Local (ENS Cachan) collaborative projects -

- Participation to the TOAST project (program of the ENS de Cachan), 2006 2009
- Participation to project VSMT (program of the ENS de Cachan) on the verification of industrial automation controllers, 2002 - 2004

- In 2007, one year at Oxford University
- One stay at the Indian Institute of Science (Bangalore, India) in December 2007.
- One stay at the Institute of Mathematical Science (Chennai, India) in January 2003.
- One year post-doc at Aalborg University (BRICS & CISS, Denmark) in 2001-2002
- Six short stays at Aalborg University (BRICS & CISS, Denmark), excluding my post-doct: in August 1997 (four weeks), in May/June 2000 (three weeks), in December 2002 (ten days), in August 2003 (two weeks), in December 2003 (two weeks), and in February 2005 (one week).

Misc

— Reviews —

- Numerous reviews for CAV, CONCUR, STACS, SCODES, DLT, JALC, TACAS, HSCC, IJFCS, APLAS, FSTTCS, IPL, FOSSACS, RTA, LICS, EXPRESS, FORMATS, Fundamenta Informaticae, MSR, FM, ICALP, PODC... around 25/30 each year!
- Reviewer for the French projects ANR in 2018, ARA SSIA in 2005, SETIN in 2006, and SESUR in 2007
- Reviewer for the Dutch NWO computer science open competition in 2005
- Reviewer for the British EPSRC projects in 2009
- Reviewer for the Czech GAČR projects in 2011
- Reviewer for the National Science Centre (Poland) in 2015
- Reviewer for the ULB-ARC project in 2016
- Reviewer for the ERC projects in 2014 and 2015
- AERES expert in 2011 (LITA, Metz), in 2012 (DI/ENS, Paris), in 2014 (LAAS, Toulouse), and in 2015 (LaBRI, Bordeaux)
- PhD committees:
 - Referee for P. Vijay Suman (Tata Institute of Fundamental Research, Mumbai, India, July 2009), Vojtěch Forejt (Masaryk University, Brno, Czech Republic, December 2009), Karin Quaas (University of Leipzig, Germany, March 2010), B. Srivathsan (Université Bordeaux 1, France, June 2012), Raj Mohan Mitteplackel (Indian Institute of Science, Bangalore, India, November 2012), Jan Krčál (Masaryk University, Brno, Czech Republic, December 2013), and Shibashis Guha (IIT Delhi, India, 2016), Rodica Bozianu Condurache (Université de Créteil-Paris Est, France & Université Libre de Bruxelles, Belgique, December 2016)

- Committee member for Pritha Mahata (Uppsala University, Sweden, March 2005), Thomas Brihaye (Université de Mons-Hainaut, Belgium, June 2006), Anders Hessel (Uppsala University, Sweden, May 2007), Amélie Stainer (Université de Rennes, France, November 2013), Marie van den Bogaard (Université Paris-Saclay, France, November 2016), Dogan Ulus (Université Grenoble Rhône-Alpes, France, January 2018)
- Habilitation committees:
 - Referee for Didier Lime (Université de Nantes, France, December 2012), Blaise Genest (Université de Rennes, France, March 2016) and Martin Zimmermann (Universität des Saarlandes, Germany, 2017), Étienne André (Université Paris-Nord, 2018)
 - Committee member for Peter Niebert (Université de Provence, Marseille, France, December 2011)

- Supervision -

- PhD students:
 - Anirban Majumdar (2018 ??). Co-supervised by Nathalie Bertrand (IRISA, Inria)
 - Mauricio Gonzalez (2016 ??). Co-supervised by Nicolas Markey (IRISA) and Samson Lasaulce (L2S)
 - Samy Jaziri (2015 ??). Co-supervised by Nicolas Markey (IRISA)
 - Pierre Carlier (2014 2017). *Verification of Stochastic Timed Automata*. Co-supervised (joint agreement) by Thomas Brihaye (University of Mons, Belgium)
 - Patrick Gardy (2013 2017). *Semantics of Strategy Logic*. Co-supervised by Nicolas Markey. Patrick is now a post-doctoral researcher in the groupe of Fu Song at ShanghaiTech University
 - Daniel Stan (2013 2017). *Randomized Strategies in Concurrent Games*. Co-supervised by Nicolas Markey. Daniel is now a post-doctoral researcher in the group of Holger Hermanns (Saarland University, Germany)
 - Eleni-Maria Vretta (2013). Abandoned after five months. Co-supervised by Nicolas Markey
 - Ocan Sankur (2010 2013). *Robustness in Timed Automata: Analysis, Synthesis, Implementation*. Co-supervised by Nicolas Markey. Ocan is now a CNRS researcher at IRISA (Rennes, France)
 - Romain Brenguier (2009 2012). *Nash Equilibria in Concurrent Games Application to Timed Games.* Co-supervised by Nicolas Markey. Romain is now working in the company DiffBlue (Oxford, UK)
 - Fabrice Chevalier (2004 2007): *Logiques pour les systèmes temporisés : contrôle et expressivité*. Fabrice is now maths teacher in "classes préparatoires aux grandes écoles".
 - Pierre-Alain Reynier (2004 2007): Vérification de systèmes temporisés et distribués : modèles, algorithmes et implémentabilité. Co-supervised by François Laroussinie. Pierre-Alain is now university professor in Marseille.

- Post-doc:
 - Fabian Reiter (will start in January 2018). Co-supervised by Benedikt Bollig
 - Vincent Jugé (Feb. 2016 August 2017). Co-supervised by Nicolas Markey
 - Maximilien Colange (Sept. 2015 August 2016). Co-supervised by Nicolas Markey
 - Mickael Randour (Oct. 2014 Sept. 2015). Co-supervised by Nicolas Markey
 - Raj Mohan M (May 2013 April 2015). Co-supervised by Nicolas Markey
 - Michael Ummels (Feb. 2010 Jan. 2012). Co-supervised by Nicolas Markey
 - Delphine Longuet (Sep. 2008 Aug. 2009). Co-supervised by Nicolas Markey
 - Thomas Brihaye (Oct. 2006 Sept. 2007). Co-supervised by Nicolas Markey
 - Laura Bozzelli (Oct. 2005 May 2006)
- Master students: Fabrice Chevalier (2004), Pierre-Alain Reynier (2004), Agnès Robin (2004), Guyslain Naves (2006), Romain Brenguier (2009), Ocan Sankur (2010), Steen Vester (2012), Erwin Fang (2013), Daniel Stan (2013), Samy Jaziri (2014), Mauricio Gonzalez (2015), Nathan Thomasset (2018)
- Other: Gabriel Renault (L3 internship), Vojtěch Forejt (PhD student at Brno University, Czech Republic), Francesco Donnarumma (PhD student at Napoli, Italy), Claus Thrane (PhD student at Aalborg University, Denmark), Jörg Olschewski (PhD student at RWTH Aachen, Germany), Bhargav N. Bhatt (student at IIT Kanpur, India), Simon Laursen (PhD student at Aalborg University, Denmark), Sourabh Ghurye (student at IIT Bombay, India), Soumyajit Paul (student at CMI, Chennai, India)

- Scientific responsabilities -

- Member of the scientific council of FSMP (Fondation Sciences Mathématiques de Paris), 2018 – 2023
- Elected member of the EATCS council, 2017 2021
- Member of the committee for the "Prix de thèse Gilles Kahn" in 2014 and 2015. President of the committee, 2016 2018
- Elected member of the "Comité National" of CNRS, section 6 (2012 2016)
- Representant of LSV at Institut Farman (2011 2013)
- Member of the selection committee for CR2 and CR1 at INRIA Rennes Bretagne Atlantique (2009)
- Member of the "Comité de sélection" at Université Paris 7 (Paris, 2009, 2018), at Université Joseph Fourier (Grenoble, 2010), at Université de Provence (Marseille, 2010 and 2015), Université Paris-Sud (2018, 2019), ENS Paris-Saclay (2018), Université Paris-Est Marne-la-Vallée (2019)
- Elected member of the "Conseil scientifique" of ENS de Cachan (from October 2005 to October 2008)
- Member of the "Commission de spécialistes" at Université Paris 7 and ENS de Cachan (from March 2004 to August 2008)

- Other responsabilities and memberships -

- Member of the jury for the TIPE at ENS competition (2018 2020)
- Member of the IFIP WG 1.8 on Concurrency
- Member of the "Commission régionale d'interclassement de la BAP E" of the DR1, 2016
- Member of the committee for the selection of students at ENS Cachan (oral examination, 2008)
- Responsible of the working group on timed systems at LSV (2002 2004)
- Webmaster at LSV (1999 2001) and webmaster of the internal web site of LSV (2002 2007)
- PhD student representant in LSV (1999 2001)

Publications

All publications can be downloaded on http://www.lsv.fr/~bouyer/

Chapter in a book

- [1] Patricia Bouyer. An introduction to timed automata. *In Handbook of Automata Theory*. 2018. To appear.
- [2] Patricia Bouyer, Uli Fahrenberg, Kim G. Larsen, Nicolas Markey, Joël Ouaknine, and James Worrell. Model checking real-time systems. *In Handbook of Model Checking*, pages 1001– 1046. Springer, 2018.
- [3] Patricia Bouyer, François Laroussinie, Nicolas Markey, Joël Ouaknine, and James Worrell. Timed temporal logics. *In Models, Algorithms, Logics and Tools: Essays Dedicated to Kim Guldstrand Larsen on the Occasion of His 60th Birthday*, volume 10460 of *Lecture Notes in Computer Science*, pages 211–230. Springer, August 2017.
- [4] Patricia Bouyer and Antoine Petit. On extensions of timed automata. *In Perspectives in Concurrency Theory*, IARCS-Universities, pages 35–63. Universities Press, January 2009.
- [5] Patricia Bouyer and François Laroussinie. Model checking timed automata. *In Modeling and Verification of Real-Time Systems*. ISTE Ltd and John Wiley & Sons Inc., January 2008.
- [6] Patricia Bouyer and François Laroussinie. Vérification par automates temporisés. *In Systèmes temps-réel 1 : techniques de description et de vérification*, pages 121–150. Hermès, June 2006.

Edited book

- [7] Patricia Bouyer, Andrea Orlandini, and Pierluigi San Pietro, editors. *Proceedings of the 8th International Symposium on Games, Automata, Logics and Formal Verification (GandALF'17),* volume 256 of *Electronic Proceedings in Theoretical Computer Science.*
- [8] Eugène Asarin and Patricia Bouyer, editors. *Proceedings of the 4th International Conference on Formal Modelling and Analysis of Timed Systems (FORMATS'06)*, volume 4202 of *Lecture Notes in Computer Science*. Springer.

Articles in international journals

- [9] Nathalie Bertrand, Patricia Bouyer, Thomas Brihaye, and Pierre Carlier. When are stochastic transition systems tameable? *Journal of Logic and Algebraic Methods in Programming*, 99:41–96, October 2018.
- [10] Patricia Bouyer, Nicolas Markey, Nicolas Perrin, and Philipp Schlehuber-Caissier. Timed automata abstraction of switched dynamical systems using control funnels. *Real-Time Systems*, 53(3):327–353, 2017.
- [11] Patricia Bouyer, Nicolas Markey, and Steen Vester. Nash equilibria in symmetric graph games with partial observation. *Information and Computation*, 254(2):238–258, June 2017.
- [12] Patricia Bouyer, Nicolas Markey, Mickael Randour, Kim G. Larsen, and Simon Laursen. Average-energy games. *Acta Informatica*, pages 1–37, July 2016.
- [13] Patricia Bouyer, Patrick Gardy, and Nicolas Markey. On the semantics of strategy logic. *Information Processing Letters*, 116(2):75–79, February 2016.
- [14] Patricia Bouyer, Romain Brenguier, Nicolas Markey, and Michael Ummels. Pure Nash equilibria in concurrent games. *Logical Methods in Computer Science*, 11(2:9), June 2015.
- [15] Patricia Bouyer, Nicolas Markey, and Ocan Sankur. Robust reachability in timed automata and games: A game-based approach. *Theoretical Computer Science*, 563:43–74, January 2015.
- [16] Nathalie Bertrand, Patricia Bouyer, Thomas Brihaye, Quentin Menet, Christel Baier, Marcus Größer, and Marcin Jurdziński. Stochastic timed automata. *Logical Methods in Computer Science*, 10(4:6), December 2014.
- [17] Patricia Bouyer, Kim G. Larsen, and Nicolas Markey. Lower-bound constrained runs in weighted timed automata. *Performance Evaluation*, 73:91–109, March 2014.
- [18] Ocan Sankur, Patricia Bouyer, and Nicolas Markey. Shrinking timed automata. *Information and Computation*, 234:107–132, February 2014.
- [19] Patricia Bouyer, Nicolas Markey, Joël Ouaknine, Philippe Schnoebelen, and James Worrell. On termination and invariance for faulty channel systems. *Formal Aspects of Computing*, 24(4-6):595–607, July 2012.
- [20] Patricia Bouyer, Uli Fahrenberg, Kim G. Larsen, and Nicolas Markey. Quantitative analysis of real-time systems using priced timed automata. *Communications of the ACM*, 54:78–87, September 2011.
- [21] Patricia Bouyer, Franck Cassez, and François Laroussinie. Timed modal logics for real-time systems: Specification, verification and control. *Journal of Logic, Language and Information*, 20(2):169–203, April 2011.
- [22] Patricia Bouyer, Fabrice Chevalier, and Nicolas Markey. On the expressiveness of TPTL and MTL. *Information and Computation*, 208(2):97–116, February 2010.

- [23] Patricia Bouyer, Thomas Brihaye, and Fabrice Chevalier. O-minimal hybrid reachability games. *Logical Methods in Computer Science*, 6(1:1), January 2010.
- [24] Patricia Bouyer, Serge Haddad, and Pierre-Alain Reynier. Undecidability results for timed automata with silent transitions. *Fundamenta Informaticae*, 92(1-2):1–25, 2009.
- [25] Patricia Bouyer, Thomas Brihaye, and Fabrice Chevalier. Weighted o-minimal hybrid systems. *Annals of Pure and Applied Logics*, 161(3):268–288, December 2009.
- [26] Patricia Bouyer, Kim G. Larsen, and Nicolas Markey. Model checking one-clock priced timed automata. *Logical Methods in Computer Science*, 4(2:9), June 2008.
- [27] Patricia Bouyer, Ed Brinksma, and Kim G. Larsen. Optimal infinite scheduling for multipriced timed automata. *Formal Methods in System Design*, 32(1):2–23, February 2008.
- [28] Patricia Bouyer, Serge Haddad, and Pierre-Alain Reynier. Timed Petri nets and timed automata: On the discriminating power of Zeno sequences. *Information and Computation*, 206(1):73–107, January 2008.
- [29] Patricia Bouyer, Thomas Brihaye, Véronique Bruyère, and Jean-François Raskin. On the optimal reachability problem on weighted timed automata. *Formal Methods in System Design*, 31(2):135–175, October 2007.
- [30] Gerd Behrmann, Patricia Bouyer, Kim G. Larsen, and Radek Pelánek. Lower and upper bounds in zone-based abstractions of timed automata. *International Journal on Software Tools for Technology Transfer*, 8(3):204–215, June 2006.
- [31] Patricia Bouyer, Thomas Brihaye, and Nicolas Markey. Improved undecidability results on priced timed automata. *Information Processing Letters*, 98(5):188–194, June 2006.
- [32] Patricia Bouyer and Fabrice Chevalier. On the control of timed and hybrid systems. *EATCS Bulletin*, 89:79–96, June 2006.
- [33] Patricia Bouyer and Fabrice Chevalier. On conciseness of extensions of timed automata. *Journal of Automata, Languages and Combinatorics*, 10(4):393–405, 2005.
- [34] Patricia Bouyer, Catherine Dufourd, Emmanuel Fleury, and Antoine Petit. Updatable timed automata. *Theoretical Computer Science*, 321(2-3):291–345, August 2004.
- [35] Béatrice Bérard, Patricia Bouyer, and Antoine Petit. Analysing the PGM protocol with Uppaal. *International Journal of Production Research*, 42(14):2773–2791, July 2004.
- [36] Patricia Bouyer. Forward analysis of updatable timed automata. *Formal Methods in System Design*, 24(3):281–320, May 2004.
- [37] Luca Aceto, Patricia Bouyer, Augusto Burgueño, and Kim G. Larsen. The power of reachability testing for timed automata. *Theoretical Computer Science*, 300(1-3):411–475, May 2003.
- [38] Patricia Bouyer, Antoine Petit, and Denis Thérien. An algebraic approach to data languages and timed languages. *Information and Computation*, 182(2):137–162, May 2003.

- [39] Patricia Bouyer and Antoine Petit. A Kleene/Büchi-like theorem for clock languages. *Journal of Automata, Languages and Combinatorics*, 7(2):167–186, 2002.
- [40] Patricia Bouyer. A logical characterization of data languages. *Information Processing Letters*, 84(2):75–85, October 2002.

Articles in proceedings of international conferences

- [41] Patricia Bouyer, Benedikt Bollig, and Fabian Reiter. Identifiers in registers describing network algorithms with logic. In Proceedings of the 22nd International Conference on Foundations of Software Science and Computation Structures (FoSSaCS'19), Prague, Czech Republic, April 2019, Lecture Notes in Computer Science. Springer.
- [42] Patricia Bouyer, Samy Jaziri, and Nicolas Markey. Efficient timed diagnosis using automata with timed domains. *In Proceedings of the 18th International Conference on Runtime Verification (RV'18), Limassol, Cyprus, November 2018*, volume 11237 of *Lecture Notes in Computer Science*, pages 205–221.
- [43] Béatrice Bérard, Patricia Bouyer, and Vincent Jugé. Finite bisimulations for dynamical systems with overlapping trajectories. In Proceedings of the 27th Annual EACSL Conference on Computer Science Logic (CSL'18), Birmingham, UK, September 2018, volume 119 of Leibniz International Proceedings in Informatics, pages 26:1–26:17. Leibniz-Zentrum für Informatik.
- [44] Patricia Bouyer, Maurico González, Nicolas Markey, and Mickael Randour. Multi-weighted Markov decision processes with reachability objectives. In Proceedings of the 9th International Symposium on Games, Automata, Logics, and Formal Verification (GandALF'18), Saarbrücken, Germany, September 2018, volume 277 of Electronic Proceedings in Theoretical Computer Science, pages 250–264.
- [45] Giovanni Bacci, Patricia Bouyer, Uli Fahrenberg, Kim G. Larsen, Nicolas Markey, and Pierre-Alain Reynier. Optimal and robust controller synthesis using energy timed automata with uncertainty. *In Proceedings of the 22nd International Symposium on Formal Methods (FM'18), Oxford, UK, July 2018*, Lecture Notes in Computer Science, pages 203–221. Springer. Best paper award.
- [46] Patricia Bouyer. Games on graphs with a public signal monitoring. In Proceedings of the 21st International Conference on Foundations of Software Science and Computation Structures (FoSSaCS'18), Thessaloniki, Greece, April 2018, Lecture Notes in Computer Science, pages 530–547. Springer.
- [47] Patrick Gardy, Patricia Bouyer, and Nicolas Markey. Dependences in strategy logic. In Proceedings of the 35th Annual Symposium on Theoretical Aspects of Computer Science (STACS'18), Caen, France, February 2018, volume 96 of Leibniz International Proceedings in Informatics, pages 34:1–34:15. Leibniz-Zentrum für Informatik.

- [48] Patricia Bouyer, Serge Haddad, and Vincent Jugé. Unbounded product-form Petri nets. In Proceedings of the 28th International Conference on Concurrency Theory (CONCUR'17), Berlin, Germany, September 2017, volume 85 of Leibniz International Proceedings in Informatics, pages 31:1–31:16. Leibniz-Zentrum für Informatik.
- [49] Patricia Bouyer, Samy Jaziri, and Nicolas Markey. On the determinization of timed systems. In Proceedings of the 15th International Conference on Formal Modelling and Analysis of Timed Systems (FORMATS'17), Berlin, Germany, September 2017, volume 10419, pages 25–41. Springer.
- [50] Patricia Bouyer, Piotr Hofman, Nicolas Markey, Mickael Randour, and Martin Zimmermann. Bounding average-energy games. In Proceedings of the 20th International Conference on Foundations of Software Science and Computation Structures (FoSSaCS'17), Uppsala, Sweden, April 2017, Lecture Notes in Computer Science, pages 179–195. Springer.
- [51] Patricia Bouyer and Vincent Jugé. Dynamic complexity of the dyck reachability. In Proceedings of the 20th International Conference on Foundations of Software Science and Computation Structures (FoSSaCS'17), Uppsala, Sweden, April 2017, Lecture Notes in Computer Science, pages 265–280. Springer.
- [52] Patricia Bouyer, Nicolas Markey, and Daniel Stan. Stochastic equilibria under imprecise deviations in terminal-reward concurrent games. In Proceedings of the 7th International Symposium on Games, Automata, Logics, and Formal Verification (GandALF'16), Catania, Italy, 2016, volume 226 of Electronic Proceedings in Theoretical Computer Science, pages 61–75.
- [53] S. Akshay, Patricia Bouyer, Shankara Narayanan Krishna, Lakshmi Manasa, and Ashutosh Trivedi. Stochastic timed games revisited. In Proceedings of the 41st International Symposium on Mathematical Foundations of Computer Science (MFCS'16), Krakow, Poland, August 2016, volume 58 of Leibniz International Proceedings in Informatics, pages 8:1–8:14. Leibniz-Zentrum für Informatik.
- [54] Nathalie Bertrand, Patricia Bouyer, Thomas Brihaye, and Pierre Carlier. Analysing decisive stochastic processes. In Proceedings of the 43rd International Colloquium on Automata, Languages and Programming (ICALP'16) – Part II, Rome, Italy, July 2016, volume 55 of Leibniz International Proceedings in Informatics, pages 101:1–101:14. Leibniz-Zentrum für Informatik.
- [55] Patricia Bouyer, Maximilien Colange, and Nicolas Markey. Symbolic optimal reachability in weighted timed automata. In Proceedings of the 28th International Conference on Computer Aided Verification (CAV'16) – Part I, Toronto, Canada, July 2016, volume 9779 of Lecture Notes in Computer Science, pages 513–530. Springer.
- [56] Patricia Bouyer, Nicolas Markey, Mickael Randour, Arnaud Sangnier, and Daniel Stan. Reachability in networks of register protocols under stochastic schedulers. In Proceedings of the 43rd International Colloquium on Automata, Languages and Programming (ICALP'16) – Part II, Rome, Italy, July 2016, volume 55 of Leibniz International Proceedings in Informatics, pages 106:1–106:14. Leibniz-Zentrum für Informatik.

- [57] Patricia Bouyer, Thomas Brihaye, Pierre Carlier, and Quentin Menet. Compositional design of stochastic timed automata. In Proceedings of the 11th International Computer Science Symposium in Russia (CSR'16), St Petersburg, Russia, June 2016, volume 9691 of Lecture Notes in Computer Science, pages 117–130. Springer.
- [58] Patricia Bouyer, Patrick Gardy, and Nicolas Markey. Weighted strategy logic with boolean goals over one-counter games. In Proceedings of the 35th Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS'15), Bangalore, India, December 2015, volume 45 of Leibniz International Proceedings in Informatics, pages 69–83. Leibniz-Zentrum für Informatik.
- [59] Patricia Bouyer, Samy Jaziri, and Nicolas Markey. On the value problem in weighted timed games. In Proceedings of the 26th International Conference on Concurrency Theory (CON-CUR'15), Madrid, Spain, September 2015, volume 42 of Leibniz International Proceedings in Informatics, pages 311–324. Leibniz-Zentrum für Informatik.
- [60] Patricia Bouyer, Nicolas Markey, Nicolas Perrin, and Philipp Schlehuber. Timed automata abstraction of switched dynamical systems using control funnels. In Proceedings of the 13th International Conference on Formal Modelling and Analysis of Timed Systems (FORMATS'15), Madrid, Spain, September 2015, volume 9268 of Lecture Notes in Computer Science, pages 60–75. Springer.
- [61] Patricia Bouyer, Nicolas Markey, Mickael Randour, Kim G. Larsen, and Simon Laursen. Average-energy games. In Proceedings of the 6th International Symposium on Games, Automata, Logics, and Formal Verification (GandALF'15), Genova, Italy, September 2015, volume 193 of Electronic Proceedings in Theoretical Computer Science, pages 1–15.
- [62] Patricia Bouyer, Nicolas Markey, and Daniel Stan. Mixed Nash equilibria in concurrent games. In Proceedings of the 34th Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS'14), New Dehli, India, December 2014, volume 29 of Leibniz International Proceedings in Informatics, pages 351–363. Leibniz-Zentrum für Informatik.
- [63] Patricia Bouyer, Patrick Gardy, and Nicolas Markey. Quantitative verification of weighted Kripke structures. In Proceedings of the 12th International Symposium on Automated Technology for Verification and Analysis (ATVA'14), Sydney, Australia, November 2014, volume 8837 of Lecture Notes in Computer Science, pages 64–80. Springer.
- [64] Patricia Bouyer, Nicolas Markey, and Raj Mohan Matteplackel. Averaging in LTL. In Proceedings of the 25th International Conference on Concurrency Theory (CONCUR'14), Rome, Italy, September 2014, volume 8704 of Lecture Notes in Computer Science, pages 266–280. Springer.
- [65] Patricia Bouyer, Nicolas Markey, and Steen Vester. Nash equilibria in symmetric games with partial observation. *In Proceedings of the 2nd International Workshop on Strategic Reasoning (SR'14), Grenoble, France, April 2014*, volume 146 of *Electronic Proceedings in Theoretical Computer Science*, pages 49–55.

- [66] Patricia Bouyer, Nicolas Markey, and Ocan Sankur. Robust weighted timed automata and games. In Proceedings of the 11th International Conference on Formal Modelling and Analysis of Timed Systems (FORMATS'13), Buenos Aires, Argentina, August 2013, volume 8053 of Lecture Notes in Computer Science, pages 31–46. Springer.
- [67] Ocan Sankur, Patricia Bouyer, Nicolas Markey, and Pierre-Alain Reynier. Robust controller synthesis in timed automata. In Proceedings of the 24th International Conference on Concurrency Theory (CONCUR'13), Buenos Aires, Argentina, August 2013, volume 8052 of Lecture Notes in Computer Science, pages 546–560. Springer.
- [68] Patricia Bouyer, Thomas Brihaye, Marcin Jurdziński, and Quentin Menet. Almost-sure model-checking of reactive timed automata. In Proceedings of the 9th International Conference on Quantitative Evaluation of Systems (QEST'12), London, UK, September 2012, pages 138–147. IEEE Computer Society Press.
- [69] Patricia Bouyer, Kim G. Larsen, and Nicolas Markey. Lower-bound constrained runs in weighted timed automata. In Proceedings of the 9th International Conference on Quantitative Evaluation of Systems (QEST'12), London, UK, September 2012, pages 128–137. IEEE Computer Society Press.
- [70] Patricia Bouyer, Nicolas Markey, and Ocan Sankur. Robust reachability in timed automata: A game-based approach. In Proceedings of the 39th International Colloquium on Automata, Languages and Programming (ICALP'12) – Part II, Warwick, UK, July 2012, volume 7392 of Lecture Notes in Computer Science, pages 128–140. Springer.
- [71] Patricia Bouyer, Romain Brenguier, Nicolas Markey, and Michael Ummels. Concurrent games with ordered objectives. In Proceedings of the 15th International Conference on Foundations of Software Science and Computation Structures (FoSSaCS'12), Tallinn, Estonia, March 2012, volume 7213 of Lecture Notes in Computer Science, pages 301–315. Springer.
- [72] Patricia Bouyer, Romain Brenguier, Nicolas Markey, and Michael Ummels. Nash equilibria in concurrent games with Büchi objectives. In Proceedings of the 31st Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS'11), Mumbai, India, December 2011, volume 13 of Leibniz International Proceedings in Informatics, pages 375–386. Leibniz-Zentrum für Informatik.
- [73] Ocan Sankur, Patricia Bouyer, and Nicolas Markey. Shrinking timed automata. In Proceedings of the 31st Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS'11), Mumbai, India, December 2011, volume 13 of Leibniz International Proceedings in Informatics, pages 90–102. Leibniz-Zentrum für Informatik.
- [74] Patricia Bouyer, Nicolas Markey, Jörg Olschewski, and Michael Ummels. Measuring permissiveness in parity games: Mean-payoff parity games revisited. In Proceedings of the 9th International Symposium on Automated Technology for Verification and Analysis (ATVA'11), Taipei, Taiwan, October 2011, volume 6996 of Lecture Notes in Computer Science, pages 135–149. Springer.

- [75] Patricia Bouyer, Kim G. Larsen, Nicolas Markey, Ocan Sankur, and Claus Thrane. Timed automata can always be made implementable. In Proceedings of the 22nd International Conference on Concurrency Theory (CONCUR'11), Aachen, Germany, September 2011, volume 6901 of Lecture Notes in Computer Science, pages 76–91. Springer.
- [76] Patricia Bouyer, Nicolas Markey, and Ocan Sankur. Robust model-checking of timed automata via pumping in channel machines. In Proceedings of the 9th International Conference on Formal Modelling and Analysis of Timed Systems (FORMATS'11), Aalborg, Denmark, September 2011, volume 6919 of Lecture Notes in Computer Science, pages 97–112. Springer.
- [77] Nathalie Bertrand, Patricia Bouyer, Thomas Brihaye, and Amélie Stainer. Emptiness and universality problems in timed automata with positive frequency. In Proceedings of the 38th International Colloquium on Automata, Languages and Programming (ICALP'11) – Part II, volume 6756 of Lecture Notes in Computer Science, pages 246–257. Springer, July 2011.
- [78] Paul Hunter, Patricia Bouyer, Nicolas Markey, Joël Ouaknine, and James Worrell. Computing rational radical sums in uniform TC⁰. In Proceedings of the 30th Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS'10), volume 8 of Leibniz International Proceedings in Informatics, pages 308–316. Leibniz-Zentrum für Informatik, December 2010.
- [79] Patricia Bouyer, Romain Brenguier, and Nicolas Markey. Computing equilibria in two-player timed games via turn-based finite games. In Proceedings of the 8th International Conference on Formal Modelling and Analysis of Timed Systems (FORMATS'10), volume 6246 of Lecture Notes in Computer Science, pages 62–76. Springer, September 2010.
- [80] Patricia Bouyer, Romain Brenguier, and Nicolas Markey. Nash equilibria for reachability objectives in multi-player timed games. In Proceedings of the 21st International Conference on Concurrency Theory (CONCUR'10), volume 6269 of Lecture Notes in Computer Science, pages 192–206. Springer, August-September 2010.
- [81] Patricia Bouyer, Uli Fahrenberg, Kim G. Larsen, and Nicolas Markey. Timed automata with observers under energy constraints. In Proceedings of the 13th International Conference on Hybrid Systems: Computation and Control (HSCC'10), pages 61–70. ACM Press, April 2010.
- [82] Patricia Bouyer, Marie Duflot, Nicolas Markey, and Gabriel Renault. Measuring permissivity in finite games. In Proceedings of the 20th International Conference on Concurrency Theory (CONCUR'09), Bologna, Italy, September 2009, volume 5710 of Lecture Notes in Computer Science, pages 196–210. Springer.
- [83] Christel Baier, Nathalie Bertrand, Patricia Bouyer, and Thomas Brihaye. When are timed automata determinizable? In Proceedings of the 36th International Colloquium on Automata, Languages and Programming (ICALP'09), Rhodes, Greece, July 2009, volume 5556 of Lecture Notes in Computer Science, pages 43–54. Springer.
- [84] Patricia Bouyer and Vojtěch Forejt. Reachability in stochastic timed games. In Proceedings of the 36th International Colloquium on Automata, Languages and Programming (ICALP'09),

Rhodes, Greece, July 2009, volume 5556 of *Lecture Notes in Computer Science*, pages 103–114. Springer.

- [85] Nathalie Bertrand, Patricia Bouyer, Thomas Brihaye, and Nicolas Markey. Quantitative model-checking of one-clock timed automata under probabilistic semantics. In Proceedings of the 5th International Conference on Quantitative Evaluation of Systems (QEST'08), Saint Malo, France, September 2008, pages 55–64. IEEE Computer Society Press.
- [86] Patricia Bouyer, Thomas Brihaye, Marcin Jurdziński, Ranko Lazić, and Michał Rutkowski. Average-price and reachability-price games on hybrid automata with strong resets. In Proceedings of the 6th International Conference on Formal Modelling and Analysis of Timed Systems (FORMATS'08), volume 5215 of Lecture Notes in Computer Science, pages 63–77. Springer, September 2008.
- [87] Patricia Bouyer, Uli Fahrenberg, Kim G. Larsen, Nicolas Markey, and Jiří Srba. Infinite runs in weighted timed automata with energy constraints. In Proceedings of the 6th International Conference on Formal Modelling and Analysis of Timed Systems (FORMATS'08), Saint-Malo, France, September 2008, volume 5215 of Lecture Notes in Computer Science, pages 33–47. Springer.
- [88] Patricia Bouyer, Nicolas Markey, Joël Ouaknine, and James Worrell. On expressiveness and complexity in real-time model checking. In Proceedings of the 35th International Colloquium on Automata, Languages and Programming (ICALP'08) – Part II, Reykjavik, Iceland, July 2008, volume 5126 of Lecture Notes in Computer Science, pages 124–135. Springer.
- [89] Christel Baier, Nathalie Bertrand, Patricia Bouyer, Thomas Brihaye, and Marcus Größer. Almost-sure model checking of infinite paths in one-clock timed automata. In Proceedings of the 23rd Annual IEEE Symposium on Logic in Computer Science (LICS'08), Pittsburgh, Pennsylvania, USA, June 2008, pages 217–226. IEEE Computer Society Press.
- [90] Patricia Bouyer, Nicolas Markey, and Pierre-Alain Reynier. Robust analysis of timed automata via channel machines. In Proceedings of the 11th International Conference on Foundations of Software Science and Computation Structures (FoSSaCS'08), Budapest, Hungary, March-April 2008, volume 4962 of Lecture Notes in Computer Science, pages 157–171. Springer.
- [91] Patricia Bouyer, Nicolas Markey, Joël Ouaknine, Philippe Schnoebelen, and James Worrell. On termination for faulty channel machines. *In Proceedings of the 25th Annual Symposium on Theoretical Aspects of Computer Science (STACS'08), Bordeaux, France, February 2008*, pages 121–132.
- [92] Christel Baier, Nathalie Bertrand, Patricia Bouyer, Thomas Brihaye, and Marcus Größer. Probabilistic and topological semantics for timed automata. In Proceedings of the 27th Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS'07), New Delhi, India, December 2007, volume 4855 of Lecture Notes in Computer Science, pages 179–191. Springer.

- [93] Patricia Bouyer and Nicolas Markey. Costs are expensive! In Proceedings of the 5th International Conference on Formal Modelling and Analysis of Timed Systems (FORMATS'07), Salzburg, Austria, October 2007, volume 4763 of Lecture Notes in Computer Science, pages 53–68. Springer.
- [94] Patricia Bouyer, Nicolas Markey, Joël Ouaknine, and James Worrell. The cost of punctuality. In Proceedings of the 22nd Annual IEEE Symposium on Logic in Computer Science (LICS'07), Wrocław, Poland, July 2007, pages 109–118. IEEE Computer Society Press.
- [95] Patricia Bouyer, Thomas Brihaye, and Fabrice Chevalier. Weighted o-minimal hybrid systems are more decidable than weighted timed automata! In Proceedings of the Symposium on Logical Foundations of Computer Science (LFCS'07), New-York, NY, USA, June 2007, volume 4514 of Lecture Notes in Computer Science, pages 69–83. Springer.
- [96] Patricia Bouyer, Kim G. Larsen, and Nicolas Markey. Model-checking one-clock priced timed automata. In Proceedings of the 10th International Conference on Foundations of Software Science and Computation Structures (FoSSaCS'07), Braga, Portugal, March 2007, volume 4423 of Lecture Notes in Computer Science, pages 108–122. Springer.
- [97] Patricia Bouyer, Kim G. Larsen, Nicolas Markey, and Jacob Illum Rasmussen. Almost optimal strategies in one-clock priced timed automata. In Proceedings of the 26th Conference on Fundations of Software Technology and Theoretical Computer Science (FSTTCS'06), Kolkata, India, December 2006, volume 4337 of Lecture Notes in Computer Science, pages 345–356. Springer.
- [98] Houda Bel Mokadem, Béatrice Bérard, Patricia Bouyer, and François Laroussinie. Timed temporal logics for abstracting transient states. In Proceedings of the 4th International Symposium on Automated Technology for Verification and Analysis (ATVA'06), Beijing, ROC, October 2006, volume 4218 of Lecture Notes in Computer Science, pages 337–351. Springer.
- [99] Patricia Bouyer, Serge Haddad, and Pierre-Alain Reynier. Timed unfoldings for networks of timed automata. In Proceedings of the 4th International Symposium on Automated Technology for Verification and Analysis (ATVA'06), Beijing, ROC, October 2006, volume 4218 of Lecture Notes in Computer Science, pages 292–306. Springer.
- [100] Patricia Bouyer, Laura Bozzelli, and Fabrice Chevalier. Controller synthesis for MTL specifications. In Proceedings of the 17th International Conference on Concurrency Theory (CON-CUR'06), Bonn, Germany, August 2006, volume 4137 of Lecture Notes in Computer Science, pages 450–464. Springer.
- [101] Patricia Bouyer, Thomas Brihaye, and Fabrice Chevalier. Control in o-minimal hybrid systems. In Proceedings of the 21st Annual IEEE Symposium on Logic in Computer Science (LICS'06), Seattle, Washington, USA, August 2006, pages 367–378. IEEE Computer Society Press.
- [102] Patricia Bouyer, Serge Haddad, and Pierre-Alain Reynier. Timed Petri nets and timed automata: On the discriminating power of Zeno sequences. In Proceedings of the 33rd International Colloquium on Automata, Languages and Programming (ICALP'06) – Part II,

Venice, Italy, July 2006, volume 4052 of *Lecture Notes in Computer Science*, pages 420–431. Springer.

- [103] Patricia Bouyer, Serge Haddad, and Pierre-Alain Reynier. Extended timed automata and time Petri nets. In Proceedings of the 6th International Conference on Application of Concurrency to System Design (ACSD'06), Turku, Finland, June 2006, pages 91–100. IEEE Computer Society Press.
- [104] Patricia Bouyer, Nicolas Markey, and Pierre-Alain Reynier. Robust model-checking of linear-time properties in timed automata. In Proceedings of the 7th Latin American Symposium on Theoretical Informatics (LATIN'06), Valdivia, Chile, March 2006, volume 3887 of Lecture Notes in Computer Science, pages 238–249. Springer.
- [105] Patricia Bouyer, Fabrice Chevalier, and Nicolas Markey. On the expressiveness of TPTL and MTL. In Proceedings of the 25th Conference on Fundations of Software Technology and Theoretical Computer Science (FSTTCS'05), Hyderabad, India, December 2005, volume 3821 of Lecture Notes in Computer Science, pages 432–443. Springer.
- [106] Patricia Bouyer, François Laroussinie, and Pierre-Alain Reynier. Diagonal constraints in timed automata: Forward analysis of timed systems. In Proceedings of the 3rd International Conference on Formal Modelling and Analysis of Timed Systems (FORMATS'05), Uppsala, Sweden, September-October 2005, volume 3829 of Lecture Notes in Computer Science, pages 112–126. Springer, November 2005.
- [107] Houda Bel Mokadem, Béatrice Bérard, Patricia Bouyer, and François Laroussinie. A new modality for almost everywhere properties in timed automata. In Proceedings of the 16th International Conference on Concurrency Theory (CONCUR'05), San Francisco, CA, USA, August 2005, volume 3653 of Lecture Notes in Computer Science, pages 110–124. Springer.
- [108] Patricia Bouyer, Franck Cassez, and François Laroussinie. Modal logics for timed control. In Proceedings of the 16th International Conference on Concurrency Theory (CONCUR'05), San Francisco, CA, USA, August 2005, volume 3653 of Lecture Notes in Computer Science, pages 81–94. Springer.
- [109] Patricia Bouyer, Fabrice Chevalier, and Deepak D'Souza. Fault diagnosis using timed automata. In Proceedings of the 8th International Conference on Foundations of Software Science and Computation Structures (FoSSaCS'05), Edinburgh, U.K., April 2005, volume 3441 of Lecture Notes in Computer Science, pages 219–233. Springer.
- [110] Patricia Bouyer, Franck Cassez, Emmanuel Fleury, and Kim G. Larsen. Optimal strategies in priced timed game automata. In Proceedings of the 24th Conference on Fundations of Software Technology and Theoretical Computer Science (FSTTCS'04), Chennai, India, December 2004, volume 3328 of Lecture Notes in Computer Science, pages 148–160. Springer.
- [111] Gerd Behrmann, Patricia Bouyer, Kim G. Larsen, and Radek Pelánek. Lower and upper bounds in zone based abstractions of timed automata. *In Proceedings of the 10th International Conference on Tools and Algorithms for Construction and Analysis of Systems (TACAS'04),*

Barcelona, Spain, March 2004, volume 2988 of *Lecture Notes in Computer Science*, pages 312–326. Springer.

- [112] Patricia Bouyer, Ed Brinksma, and Kim G. Larsen. Staying alive as cheaply as possible. In Proceedings of the 7th International Conference on Hybrid Systems: Computation and Control (HSCC'04), Philadelphia, Pennsylvania, USA, March 2004, volume 2993 of Lecture Notes in Computer Science, pages 203–218. Springer.
- [113] Patricia Bouyer, Deepak D'Souza, P. Madhusudan, and Antoine Petit. Timed control with partial observability. In Proceedings of the 15th International Conference on Computer Aided Verification (CAV'03), Boulder, Colorado, USA, July 2003, volume 2725 of Lecture Notes in Computer Science, pages 180–192. Springer.
- [114] Gerd Behrmann, Patricia Bouyer, Emmanuel Fleury, and Kim G. Larsen. Static guard analysis in timed automata verification. In Proceedings of the 9th International Conference on Tools and Algorithms for Construction and Analysis of Systems (TACAS'03), Warsaw, Poland, April 2003, volume 2619 of Lecture Notes in Computer Science, pages 254–277. Springer.
- [115] Patricia Bouyer. Untameable timed automata! In Proceedings of the 20th Annual Symposium on Theoretical Aspects of Computer Science (STACS'03), Berlin, Germany, February 2003, volume 2607 of Lecture Notes in Computer Science, pages 620–631. Springer.
- [116] Patricia Bouyer, Antoine Petit, and Denis Thérien. An algebraic characterization of data and timed languages. In Proceedings of the 12th International Conference on Concurrency Theory (CONCUR'01), Aalborg, Denmark, August 2001, volume 2154 of Lecture Notes in Computer Science, pages 248–261. Springer.
- [117] Patricia Bouyer, Catherine Dufourd, Emmanuel Fleury, and Antoine Petit. Expressiveness of updatable timed automata. In Proceedings of the 25th International Symposium on Mathematical Fundations of Computer Science (MFCS'00), Bratislava, Slovakia, August 2000, volume 1893 of Lecture Notes in Computer Science, pages 232–242. Springer.
- [118] Patricia Bouyer, Catherine Dufourd, Emmanuel Fleury, and Antoine Petit. Are timed automata updatable? In Proceedings of the 12th International Conference on Computer Aided Verification (CAV'00), Chicago, Illinois, USA, July 2000, volume 1855 of Lecture Notes in Computer Science, pages 464–479. Springer.
- [119] Patricia Bouyer and Antoine Petit. Decomposition and composition of timed automata. In Proceedings of the 26th International Colloquium on Automata, Languages and Programming (ICALP'99), Prague, Czech Republic, July 1999, volume 1644 of Lecture Notes in Computer Science, pages 210–219. Springer.
- [120] Luca Aceto, Patricia Bouyer, Augusto Burgueño, and Kim G. Larsen. The power of reachability testing for timed automata. In Proceedings of the 18th Conference on Fundations of Software Technology and Theoretical Computer Science (FSTTCS'98), Chennai, India, December 1998, volume 1530 of Lecture Notes in Computer Science, pages 245–256. Springer.

Invited contributions, tutorials...

- [121] Patricia Bouyer. Optimal reachability in weighted timed automata and games. In Proceedings of the 41st International Symposium on Mathematical Foundations of Computer Science (MFCS'16), Krakow, Poland, August 2016, volume 58 of Leibniz International Proceedings in Informatics, pages 3:1–3:3. Leibniz-Zentrum für Informatik.
- [122] Patricia Bouyer. On the optimal reachability problem in weighted timed automata and games. In Proceedings of the 7th Workshop on Non-Classical Models of Automata and Applications (NCMA'15), Porto, Portugal, August 2015, volume 318 of books@ocg.at, pages 11–36. Austrian Computer Society.
- [123] Patricia Bouyer, Nicolas Markey, and Ocan Sankur. Robustness in timed automata. In Proceedings of the 7th Workshop on Reachability Problems in Computational Models (RP'13), Uppsala, Sweden, September 2013, volume 8169 of Lecture Notes in Computer Science, pages 1–18. Springer.
- [124] Patricia Bouyer. Model-checking timed temporal logics. In Proceedings of the 4th Workshop on Methods for Modalities (M4M-5), Cachan, France, November 2007, volume 231 of Electronic Notes in Theoretical Computer Science, pages 323–341. Elsevier Science Publishers, March 2009.
- [125] Patricia Bouyer. Weighted timed automata: Model-checking and games. In Proceedings of the 22nd Conference on Mathematical Foundations of Programming Semantics (MFPS XXII), Genova, Italy, May 2006, volume 158 of Electronic Notes in Theoretical Computer Science, pages 3–17. Elsevier Science Publishers. Invited paper.
- [126] Karine Altisen, Patricia Bouyer, Thierry Cachat, Franck Cassez, and Guillaume Gardey. Introduction au contrôle des systèmes temps-réel. In Actes du 5ème Colloque sur la Modélisation des Systèmes Réactifs (MSR'05), Autrans, France, October 2005, pages 367– 380. Hermès.
- [127] Patricia Bouyer, Fabrice Chevalier, Moez Krichen, and Stavros Tripakis. Observation partielle des systèmes temporisés. In Actes du 5ème Colloque sur la Modélisation des Systèmes Réactifs (MSR'05), Autrans, France, October 2005, pages 381–393. Hermès.
- [128] Patricia Bouyer. Timed automata From theory to implementation. Invited tutorial, 6th Winter School on Modelling and Verifying Parallel Processes (MOVEP'04), Brussels, Belgium, December 2004. 27 pages.

Other publications

- [129] Mauricio González, Olivier Beaude, Patricia Bouyer, Samson Lasaulce, and Nicolas Markey. Stratégies d'ordonnancement de consommation d'énergie en présence d'information imparfaite de prévision. In Actes du XXVI^{ème} colloque GRETSI, Juan-les-Pins, France, September 2017.
- [130] Patricia Bouyer, Erwin Fang, and Nicolas Markey. Permissive strategies in timed automata and games. In Proceedings of the 15th International Workshop on Automated Verification of Critical Systems (AVoCS'15), Edinburgh, UK, September 2015, volume 72 of Electronic Communications of the EASST. European Association of Software Science and Technology.
- [131] Patricia Bouyer, Franck Cassez, Emmanuel Fleury, and Kim G. Larsen. Synthesis of optimal strategies using HyTech. In Proceedings of the Workshop on Games in Design and Verification (GDV'04), Boston, Massachusetts, USA, July 2004, volume 119(1) of Electronic Notes in Theoretical Computer Science, pages 11–31. Elsevier Science Publishers, February 2005.
- [132] Béatrice Bérard, Patricia Bouyer, and Antoine Petit. Une analyse du protocole PGM avec UPPAAL. In Actes du 4ème Colloque sur la Modélisation des Systèmes Réactifs (MSR'03), Metz, France, October 2003, pages 415–430. Hermès.
- [133] Béatrice Bérard, Patricia Bouyer, and Antoine Petit. Analysing the PGM protocol with UPPAAL. In Proceedings of the 2nd Workshop on Real-Time Tools (RT-TOOLS'02), Copenhagen, Denmark, August 2002. Uppsala University.

Theses

- [134] Patricia Bouyer. From qualitative to quantitative analysis of timed systems. Mémoire d'habilitation, Université Paris 7, Paris, France, January 2009.
- [135] Patricia Bouyer. Modèles et algorithmes pour la vérification des systèmes temporisés. Thèse de doctorat, Laboratoire Spécification et Vérification, ENS Cachan, France, April 2002.
- [136] Patricia Bouyer. *Automates temporisés et modularité*. Rapport de DEA, DEA Algorithmique, Paris, France, June 1998.

Rapports internes non publiés par ailleurs

- [137] Nathalie Bertrand, Patricia Bouyer, Thomas Brihaye, and Pierre Carlier. When are stochastic transition systems tameable? Research Report 1703.04806, Computing Research Repository, March 2017. 63 pages.
- [138] Patricia Bouyer, Nicolas Markey, and Vincent Jugé. Courcelle's theorem made dynamic. Research Report 1702.05183, Computing Research Repository, February 2017. 14 pages.
- [139] Patrick Gardy, Patricia Bouyer, and Nicolas Markey. Dependences in Strategy Logic. Research Report 1708.05849, Computing Research Repository, August 2017. 30 pages.
- [140] Patricia Bouyer, Nicolas Markey, and Vincent Jugé. Dynamic complexity of parity games with bounded tree-width. Research Report 1610.00571, Computing Research Repository, October 2016. 33 pages.