

Benjamin MONMEGE
Aix-Marseille Université
Laboratoire d'Informatique et Systèmes (LIS)
Parc Scientifique de Luminy
163, avenue de Luminy - Case 901
F-13288 Marseille Cedex 9, FRANCE

Birth date: 09/21/1985
French citizen

Office 05.38 (TPR2 building, 5th floor)
+33 (0)4 91 82 93 70

benjamin.monmege@univ-amu.fr

<http://pageperso.lis-lab.fr/~benjamin.monmege>

Positions

-
- | | |
|------------|--|
| sept. 2015 | Associate Professor at Aix-Marseille Université (AMU) , in the team Modelisation and Verification of the Laboratoire d'Informatique et Systèmes (LIS)
2020-2021 CNRS delegation |
| 2013 | Post doctoral researcher in the Formal Methods and Verification group, at Université libre de Bruxelles (ULB) |

Education

-
- | | |
|-----------|---|
| 2010-2013 | PhD in Computer Science <i>mention Very Honorable</i> , Laboratoire Spécification et Vérification (LSV) , École Normale Supérieure de Cachan (ENS de Cachan) under the supervision of Benedikt Bollig and Paul Gastin, <i>Specification and Verification of Quantitative Properties: Expressions, Logics, and Automata</i>
Thesis defended on October 24, 2013, at Cachan. Jury members:
Benedikt Bollig (Co-advisor), Olivier Carton (Examiner), Manfred Droste (Reviewer), Paul Gastin (Co-advisor), Sylvain Lombardy (Reviewer), Jean-Marc Talbot (Examiner), Jacques Sakarovitch (President) |
| 2006-2010 | Student at ENS de Cachan
2009-2010 Master's degree (M2) in Computer Science with <i>high distinction</i> , Parisian Master for Research in Computer Science (MPRI)
2008-2009 Agrégation in Mathematics - Computer Science Rank: 45 (over 252) |

Teaching

Introduction to Computer Science (L1) lectures/tutorials, since 2018
Introduction to research in Computer Sciences (L2) lectures/tutorials, 2015-2017
Theory and applications of verification (L3) lectures/tutorials/practical sessions, 2019
Computability and Semantics (L3) lectures/tutorials/practical sessions, 2018 and 2019
Advanced algorithms (L3) lectures, 2018
Networks and communication (L3) lectures/tutorials/practical sessions, 2015-2017
Probabilistic Aspects for Computer Science (M1) lectures/tutorials/practical sessions, 2018 and 2019
Option Computer Science for future maths teachers (M1) lectures/tutorials/practical sessions, since 2017
Verification and synthesis (M2) lectures, 2018 and 2019
Diploma to teach computer science in secondary schools lectures/tutorials/practical sessions, 2019 and 2020

Supervision

PhD students Julie Parreaux (started in 2020), Théodore Lopez (started in 2018), Damien Busatto-Gaston (2016-2019, now postdoc at Université libre de Bruxelles, Belgium)
Post-doctoral fellows Louis-Marie Dando (started in 2020)
Master students Julie Parreaux (2019, 2020), Théodore Lopez (2017), Gabriel Shako Ekanga (2015), Samuel Dehouck (2014-2015), Ondřej Svoboda (2014-2015)
Other students Thomas Galland (2019, L3 internship), Madhur Gupta (2016, Bachelor internship from Thapar University, India), Peter Gjøøl Jensen (2013, Erasmus students in Master 1), Jakob Haahr Taankvist (2013, Erasmus students in Master 1)

Projects

- ANR TickTac**: Efficient Techniques and Tools for the Verification and Synthesis of Real-Time Systems. 2018-2022. Local coordinator, responsible of task (new approaches for analysis of timed systems). Consortium : IRISA (Rennes), LaBRI (Bordeaux), LIS, LSV (Cachan), ISIR (Paris), LRDE (Paris)
- ANR DeLTA**: *Défis pour la Logique, les Transducteurs et les Automates*. Responsible of task (tools). 2016-2020. Consortium: LaBRI (Bordeaux), IRIF (Paris), LIF, CRISTAL (Lille)
- Project PEPS INS2I JCJC SensAS: *Sensitivity Analysis of Timed Systems*, 2017, with Ocan Sankur (IRISA, Rennes)
- Project PEPS INS2I SoSI: *Security of Timed Systems with Partial Information: Vulnerability and Robustness*. 2016. Consortium: LIF, LSIS (Marseille), IRISA (Rennes)
- Project PHC Tournesol VAST: *Verification And Synthesis of Transformations*. 2016. Consortium: LIF, ULB (Belgique)
- European project **Cassting**: *Collective Adaptive Systems Synthesis with Non-Zero-Sum Games*. 2013-2015. Consortium: LSV (ENS Cachan, CNRS), ULB (Belgique), UMONS (Belgique), Aalborg University (Danemark), RWTH Aachen University (Allemagne), Seluxit (Danemark, partenaire industriel), Energi Nord (Danemark, partenaire industriel)
- Projet PHC Procope LeMon: *Learning Monitors for Refactoring Legacy Systems*. 2012-2013. Consortium: LIAFA (Paris, CNRS), Lübeck University (Allemagne), LSV (ENS Cachan, CNRS)

Collective tasks

Programme committees and editorial committees:

Membre of the Programme Committee of the conference CAI 2022

Co-chair of the Programme Committee of the conference STACS 2022, Marseille (France)

Co-chair of the Programme Committee of the conference STACS 2021, Saarbrücken (Allemagne)

Editor of the Special Issue WATA 2020/2021

Member of the Programme Committee of the conference STACS 2020, Montpellier (France)

Member of the Programme Committee of the workshop MoRe 2019, Vancouver (Canada)

Member of the Programme Committee of the conference CAI 2019, Nis (Serbie)

Member of the Programme Committee of the conference ICLA 2019, Delhi (Inde)

Member of the Programme Committee of the conference RP 2018, Marseille (France)

Member of the Programme Committee of the summer school MOVEP 2016, Genova (Italy)

Member of the Programme Committee of the workshop CASSTING 2016, Eindhoven (Netherlands)

Organisation of scientific events:

President of the organisation committee of the conference STACS 2022, Marseille (France)

Organisation of the workshop WATA 2020/2021, Marseille (France)

Member of the organisation committee of the conference RP 2018, Marseille (France)

Member of the organisation committee of the conference CSL 2016, Marseille (France)

Member of the organisation committee of the meeting of working group GT-ALGA 2016, Marseille (France)

Member of the organisation committee of the conferences Petri Nets 2015 and ACSD 2015, Bruxelles (Belgique)

Pedagogical responsibilities:

Licence 3 Computer Science (Campus St Charles), 2018-2020

Option Computer Science of M1 MEEF Second degré parcours Mathématiques, 2017-2019

Diploma Teaching Computer Science in Secondary Schools, 2018-2020

Jurys of recruitment contests:

Second contest for ENS Paris-Saclay and ENS Rennes, 2017-2022

CAPES Computer Science, 2021-2022

Recruitment committees:

Associate professor Université Paris-Est Créteil, LACL and Faculté de droit, 2020

Associate professor Université Paris-Est Créteil, LACL and FST, 2020

Associate professor Aix-Marseille Université, LIS and ESPE, 2018

Associate professor Aix-Marseille Université, LIS and IUT Arles, 2019

ATER Aix-Marseille Université, LIS and Faculté des Sciences, 2019

Elected as a member of the Council of Department Computer Science and Interactions at AMU since 2017

Organization of the weekly Seminar MOVE from 2015 to 2021

Organization of the bi-monthly PhD Seminar at LSV from 2010 to 2013

Representative of first year PhD students at LSV in 2010/2011

Conference and Journal refereeing

DLT 2011, LATA 2011, CONCUR 2012, LATA 2012, ICALP 2012, CIAA 2012, RV 2012, FSTTCS 2012, STACS 2014, LATA 2014, CAV 2014, ICALP 2014, MFCS 2014, CSR 2014, FSTTCS 2014, FORMATS 2015, LICS 2015, SETTA 2015, FSTTCS 2015, FoSSaCS 2016, LATA 2016, STACS 2016, ICALP 2016, CSL 2016, MFCS 2016, DLT 2016, FSTTCS 2016, DLT 2017, FCT 2017, GandALF 2017, FORMATS 2017, CONCUR 2017, ICALP 2017, LICS

2017, FoSSaCS 2018, HSCC 2018, STACS 2018, LICS 2019, FSTTCS 2019, CAI 2019, CONCUR 2019, FORMATS 2019, ICLA 2019, STACS 2019, DFCS 2020, FSTTCS 2020, LICS 2020, STACS 2020, STACS 2021

Journal of Logic and Algebraic Programming, Formal Methods in System Design, ACM Transactions on Computational Logic, Theoretical Computer Science, Soft Computing, Information and Processing Letters, Journal of Systems and Software, Discrete Mathematics and Theoretical Computer Science, Information and Computation

Mathematical Reviews/MathSciNet (American Mathematical Society)

Publications

Articles in international journals with reading committee

- [1] Thomas Brihaye, Gilles Geeraerts, Axel Haddad, and Benjamin Monmege. Pseudopolynomial Iterative Algorithm to Solve Total-Payoff Games and Min-Cost Reachability Games. *Acta Informatica*, 54(1):85–125, February 2017. DOI: [10.1007/s00236-016-0276-z](https://doi.org/10.1007/s00236-016-0276-z).
- [2] Serge Haddad and Benjamin Monmege. Interval Iteration Algorithm for MDPs and IMDPs. *Theoretical Computer Science*, 735:111–131, July 2018. DOI: [10.1016/j.tcs.2016.12.003](https://doi.org/10.1016/j.tcs.2016.12.003).
- [3] Paul Gastin and Benjamin Monmege. A Unifying Survey on Weighted Logics and Weighted Automata. *Soft Computing*, 22(4):1047–1065, February 2018. DOI: [10.1007/s00500-015-1952-6](https://doi.org/10.1007/s00500-015-1952-6).
- [4] Benedikt Bollig, Peter Habermehl, Martin Leucker, and Benjamin Monmege. A Robust Class of Data Languages and an Application to Learning. *Logical Methods in Computer Science*, 10(4:19), December 2014. DOI: [10.2168/LMCS-10\(4:19\)2014](https://doi.org/10.2168/LMCS-10(4:19)2014).
- [5] Paul Gastin and Benjamin Monmege. Adding Pebbles to Weighted Automata: Easy Specification and Efficient Evaluation. *Theoretical Computer Science*, 534:24–44, May 2014. DOI: [10.1016/j.tcs.2014.02.034](https://doi.org/10.1016/j.tcs.2014.02.034).
- [6] Benedikt Bollig, Paul Gastin, Benjamin Monmege, and Marc Zeitoun. Pebble Weighted Automata and Weighted Logics. *ACM Transactions on Computational Logic*, 15(2:15), April 2014. DOI: [10.1145/2579819](https://doi.org/10.1145/2579819).
- [7] Pierre Ganty, Rupak Majumdar, and Benjamin Monmege. Bounded Underapproximations. *Formal Methods in System Design*, 40(2):206–231, April 2012. DOI: [10.1007/s10703-011-0136-y](https://doi.org/10.1007/s10703-011-0136-y).

International conferences with selection committee

- [8] Nicolas Baudru, Louis-Marie Dando, Nathan Lhote, Benjamin Monmege, Pierre-Alain Reynier, and Jean-Marc Talbot. Weighted Automata and Expressions over Pre-Rational Monoids. In *30th EACSL Annual Conference on Computer Science Logic (CSL 2022)*. Florin Manea and Alex Simpson, editors. Volume 216. (6) in Leibniz International Proceedings in Informatics (LIPIcs). Schloss Dagstuhl - Leibniz-Zentrum für Informatik, February 2022, pages 1–16. DOI: [10.4230/LIPIcs.CSL.2022.6](https://doi.org/10.4230/LIPIcs.CSL.2022.6).
- [9] Benjamin Monmege, Julie Parreaux, and Pierre-Alain Reynier. Playing Stochastically in Weighted Timed Games to Emulate Memory. In *48th International Colloquium on Automata, Languages, and Programming (ICALP 2021)*. Nikhil Bansal, Emanuela Merelli, and James Worrell, editors. Volume 198. In Leibniz International Proceedings in Informatics (LIPIcs). Schloss Dagstuhl–Leibniz-Zentrum für Informatik, 2021, 137:1–137:17. DOI: [10.4230/LIPIcs.ICALP.2021.137](https://doi.org/10.4230/LIPIcs.ICALP.2021.137).
- [10] Benjamin Monmege, Julie Parreaux, and Pierre-Alain Reynier. Reaching Your Goal Optimally by Playing at Random with No Memory. In *Proceedings of the 31st International Conference on Concurrency Theory (CONCUR 2020)*. Igor Konnov and Laura Kovács, editors. Volume 171. In LIPIcs. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, September 2020, 26:1–26:21. DOI: [10.4230/LIPIcs.CONCUR.2020.26](https://doi.org/10.4230/LIPIcs.CONCUR.2020.26).
- [11] Thomas Brihaye, Gilles Geeraerts, Marion Hallet, Benjamin Monmege, and Bruno Quoitin. Dynamics on Games: Simulation-Based Techniques and Applications to Routing. In *Proceedings of the 39th IARCS Annual Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS'19)*. Arkadev Chattopadhyay and Paul Gastin, editors. Volume 150. In LIPIcs. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, December 2019, 35:1–35:14. DOI: [10.4230/LIPIcs.FSTTCS.2019.35](https://doi.org/10.4230/LIPIcs.FSTTCS.2019.35).
- [12] Damien Busatto-Gaston, Benjamin Monmege, Pierre-Alain Reynier, and Ocan Sankur. Robust Controller Synthesis in Timed Büchi Automata: A Symbolic Approach. In *31st International Conference on Computer Aided Verification (CAV 2019)*. Isil Dillig and Serdar Tasiran, editors. Volume 11561. In Lecture Notes in Computer Science. Springer, July 2019, pages 572–590. DOI: [10.1007/978-3-030-25540-4_33](https://doi.org/10.1007/978-3-030-25540-4_33).
- [13] Théodore Lopez, Benjamin Monmege, and Jean-Marc Talbot. Determinisation of Finitely-Ambiguous Copyless Cost Register Automata. In *44th International Symposium on Mathematical Foundations of Computer Science (MFCS 2019)*. Peter Rossmanith, Pinar Heggernes, and Joost-Pieter Katoen, editors. Volume 138. In Leibniz International Proceedings in Informatics (LIPIcs). Schloss Dagstuhl–Leibniz-Zentrum fuer Informatik, Dagstuhl, Germany, September 2019, 75:1–75:15. DOI: [10.4230/LIPIcs.MFCS.2019.75](https://doi.org/10.4230/LIPIcs.MFCS.2019.75).

- [14] Damien Busatto-Gaston, Benjamin Monmege, and Pierre-Alain Reynier. Symbolic Approximation of Weighted Timed Games. In *Proceedings of the 38th IARCS Annual Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS'18)*. Sumit Ganguly and Paritosh Pandya, editors. Volume 122. In Leibniz International Proceedings in Informatics (LIPIcs). Schloss Dagstuhl–Leibniz-Zentrum für Informatik, December 2018, 28:1–28:16. DOI: [10.4230/LIPIcs.FSTTCS.2018.28](https://doi.org/10.4230/LIPIcs.FSTTCS.2018.28).
- [15] Thomas Brihaye, Arthur Milchior, Gilles Geeraerts, Hsi-Ming Ho, and Benjamin Monmege. Efficient algorithms and tools for MITL model-checking and synthesis. In *Proceedings of the 23rd International Conference on Engineering of Complex Computer Systems (ICECCS'18)*. CPS, December 2018, pages 180–184. DOI: [10.1109/ICECCS2018.2018.00027](https://doi.org/10.1109/ICECCS2018.2018.00027).
- [16] Thomas Brihaye, Gilles Geeraerts, Hsi-Ming Ho, and Benjamin Monmege. Timed-Automata-Based Verification of MITL over Signals. In *Proceedings of the 24th International Symposium on Temporal Representation and Reasoning (TIME'17)*. Sven Schewe, Thomas Schneider, and Jef Wijsen, editors. Volume 90. In LIPIcs. Schloss Dagstuhl–Leibniz-Zentrum für Informatik, Dagstuhl, Germany, October 2017, 7:1–7:19. DOI: [10.4230/LIPIcs.TIME.2017.7](https://doi.org/10.4230/LIPIcs.TIME.2017.7).
- [17] Thomas Brihaye, Gilles Geeraerts, Hsi-Ming Ho, and Benjamin Monmege. MightyL: A Compositional Translation from MITL to Timed Automata. In *Proceedings of the 29th International Conference on Computer Aided Verification, Part I (CAV'17)*. Rupak Majumdar and Viktor Kunčák, editors. Volume 10426. In Lecture Notes in Computer Science. Springer, Heidelberg, Germany, July 2017, pages 421–440. DOI: [10.1007/978-3-319-63387-9_21](https://doi.org/10.1007/978-3-319-63387-9_21).
- [18] Damien Busatto-Gaston, Benjamin Monmege, and Pierre-Alain Reynier. Optimal Reachability in Divergent Weighted Timed Games. In *Proceedings of the 20th International Conference on Foundations of Software Science and Computation Structures (FoSSaCS'17)*. Javier Esparza and Andrzej S. Murawski, editors. Volume 10203. In Lecture Notes in Computer Science. Springer, Uppsala, Sweden, April 2017, pages 162–178. DOI: [10.1007/978-3-662-54458-7_10](https://doi.org/10.1007/978-3-662-54458-7_10).
- [19] Thomas Brihaye, Morgane Estiévenart, Gilles Geeraerts, Hsi-Ming Ho, Benjamin Monmege, and Nathalie Sznajder. Real-Time Synthesis is Hard! In *Proceedings of the 14th International Conference on Formal Modeling and Analysis of Timed Systems (FORMATS'16)*. Martin Fränzle and Nicolas Markey, editors. Volume 9884. In Lecture Notes in Computer Science. Springer, Quebec city, Canada, August 2016, pages 105–120. DOI: [10.1007/978-3-319-44878-7_7](https://doi.org/10.1007/978-3-319-44878-7_7).
- [20] Thomas Brihaye, Amit Kumar Dhar, Gilles Geeraerts, Axel Haddad, and Benjamin Monmege. Efficient Energy Distribution in a Smart Grid Using Multi-Player Games. In *Proceedings of the Cassting Workshop on Games for the Synthesis of Complex Systems (Cassting'16) and the 3rd International Workshop on Synthesis of Complex Parameters (SynCoP'16)*. Thomas Brihaye, Benoît Delahaye, Nicolas Markey, and Jiří Srba, editors. Volume 220. EPTCS, Eindhoven, Netherlands, April 2016, pages 1–12. DOI: [10.4204/EPTCS.220.1](https://doi.org/10.4204/EPTCS.220.1).
- [21] Thomas Brihaye, Gilles Geeraerts, Axel Haddad, Benjamin Monmege, Guillermo A. Pérez, and Gabriel Renault. Quantitative Games under Failures. In *Proceedings of the 35th IARCS Annual Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS'15)*. Prahladh Harsha and G. Ramalingam, editors. Volume 45. In Leibniz International Proceedings in Informatics (LIPIcs). Schloss Dagstuhl–Leibniz-Zentrum für Informatik, Bangalore, India, December 2015, pages 293–306. DOI: [10.4230/LIPIcs.FSTTCS.2015.293](https://doi.org/10.4230/LIPIcs.FSTTCS.2015.293).
- [22] Thomas Brihaye, Gilles Geeraerts, Axel Haddad, Engel Lefauchaux, and Benjamin Monmege. Simple Priced Timed Games Are Not That Simple. In *Proceedings of the 35th IARCS Annual Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS'15)*. Prahladh Harsha and G. Ramalingam, editors. Volume 45. In Leibniz International Proceedings in Informatics (LIPIcs). Schloss Dagstuhl–Leibniz-Zentrum für Informatik, Bangalore, India, December 2015, pages 278–292. DOI: [10.4230/LIPIcs.FSTTCS.2015.278](https://doi.org/10.4230/LIPIcs.FSTTCS.2015.278).
- [23] Thomas Brihaye, Gilles Geeraerts, Axel Haddad, and Benjamin Monmege. To Reach or not to Reach? Efficient Algorithms for Total-Payoff Games. In *Proceedings of the 26th International Conference on Concurrency Theory (CONCUR'15)*. Luca Aceto and David de Frutos Escrig, editors. Volume 42. In LIPIcs. Schloss Dagstuhl–Leibniz-Zentrum für Informatik, Madrid, Spain, September 2015, pages 297–310. DOI: [10.4230/LIPIcs.CONCUR.2015.297](https://doi.org/10.4230/LIPIcs.CONCUR.2015.297).
- [24] Thomas Brihaye, Gilles Geeraerts, Shankara Narayanan Krishna, Lakshmi Manasa, Benjamin Monmege, and Ashutosh Trivedi. Adding Negative Prices to Priced Timed Games. In *Proceedings of the 25th International Conference on Concurrency Theory (CONCUR'14)*. Paolo Baldan and Daniele Gorla, editors. Volume 8704. In Lecture Notes in Computer Science. Springer, Roma, Italy, September 2014, pages 560–575. DOI: [10.1007/978-3-662-44584-6_38](https://doi.org/10.1007/978-3-662-44584-6_38).
- [25] Serge Haddad and Benjamin Monmege. Reachability in MDPs: Refining Convergence of Value Iteration. In *Proceedings of the 8th International Workshop on Reachability Problems (RP'14)*. Joël Ouaknine, Igor Potapov, and James Worrell, editors. Volume 8762. In Lecture Notes in Computer Science. Springer, Oxford, United Kingdom, September 2014, pages 125–137. DOI: [10.1007/978-3-319-11439-2_10](https://doi.org/10.1007/978-3-319-11439-2_10).

- [26] Benedikt Bollig, Paul Gastin, Benjamin Monmege, and Marc Zeitoun. Logical Characterization of Weighted Pebble Walking Automata. In *Proceedings of the joint meeting of the 23rd EACSL Annual Conference on Computer Science Logic (CSL) and the 29th Annual ACM/IEEE Symposium on Logic in Computer Science (LICS)*. Thomas A. Henzinger and Dale Miller, editors. ACM, Vienna, Austria, July 2014. DOI: [10.1145/2603088.2603118](https://doi.org/10.1145/2603088.2603118).
- [27] Benedikt Bollig, Peter Habermehl, Martin Leucker, and Benjamin Monmege. A Fresh Approach to Learning Register Automata. In *Proceedings of the 17th International Conference on Developments in Language Theory (DLT'13)*. Marie-Pierre Béal and Olivier Carton, editors. Volume 7907. In Lecture Notes in Computer Science. Springer, Marne-la-Vallée, France, June 2013, pages 118–130. DOI: [10.1007/978-3-642-38771-5_12](https://doi.org/10.1007/978-3-642-38771-5_12).
- [28] Benedikt Bollig, Paul Gastin, and Benjamin Monmege. Weighted Specifications over Nested Words. In *Proceedings of the 16th International Conference on Foundations of Software Science and Computation Structures (FoSSaCS'13)*. Frank Pfenning, editor. Volume 7794. In Lecture Notes in Computer Science. Springer, Roma, Italy, March 2013, pages 385–400. DOI: [10.1007/978-3-642-37075-5_25](https://doi.org/10.1007/978-3-642-37075-5_25).
- [29] Benedikt Bollig, Paul Gastin, Benjamin Monmege, and Marc Zeitoun. A Probabilistic Kleene Theorem. In *Proceedings of the 10th International Symposium on Automated Technology for Verification and Analysis (ATVA'12)*. Madhavan Mukund and Supratik Chakraborty, editors. Volume 7561. In Lecture Notes in Computer Science. Springer, Thiruvananthapuram, India, October 2012, pages 400–415. DOI: [10.1007/978-3-642-33386-6_31](https://doi.org/10.1007/978-3-642-33386-6_31).
- [30] Paul Gastin and Benjamin Monmege. Adding Pebbles to Weighted Automata. In *Proceedings of the 17th International Conference on Implementation and Application of Automata (CIAA'12)*. Nelma Moreira and Rogério Reis, editors. Volume 7381. In Lecture Notes in Computer Science. Springer, Porto, Portugal, July 2012, pages 28–51. DOI: [10.1007/978-3-642-31606-7_4](https://doi.org/10.1007/978-3-642-31606-7_4).
- [31] Benedikt Bollig, Paul Gastin, Benjamin Monmege, and Marc Zeitoun. Pebble Weighted Automata and Transitive Closure Logics. In *Proceedings of the 37th International Colloquium on Automata, Languages and Programming (ICALP'10) – Part II*. Samson Abramsky, Friedhelm Meyer auf der Heide, and Paul Spirakis, editors. Volume 6199. In Lecture Notes in Computer Science. Springer, Bordeaux, France, July 2010, pages 587–598. DOI: [10.1007/978-3-642-14162-1_49](https://doi.org/10.1007/978-3-642-14162-1_49).
- [32] Pierre Ganty, Rupak Majumdar, and Benjamin Monmege. Bounded Underapproximations. In *Proceedings of the 22nd International Conference on Computer Aided Verification (CAV'10)*. Byron Cook, Paul Jackson, and Tayssir Touili, editors. Volume 6174. In Lecture Notes in Computer Science. Springer, Edinburgh, Scotland, UK, July 2010, pages 600–614. DOI: [10.1007/978-3-642-14295-6_52](https://doi.org/10.1007/978-3-642-14295-6_52).

Books and book chapters

- [33] Markus Bläser and Benjamin Monmege, editors. *Proceedings of the 38th International Symposium on Theoretical Aspects of Computer Science (STACS'21)*. Volume 187. In Leibniz International Proceedings in Informatics (LIPIcs). Leibniz-Zentrum für Informatik, Saarbrücken, Germany, March 2021.

Thesis and internship reports

- [34] Benjamin Monmege. Specification and Verification of Quantitative Properties: Expressions, Logics, and Automata. Thèse de doctorat. Laboratoire Spécification et Vérification, ENS Cachan, France, October 2013. URL: <http://www.lsv.ens-cachan.fr/~monmege/download/thesis.pdf>.
- [35] Benjamin Monmege. Propriétés quantitatives des mots et des arbres – Applications aux langages XML. Rapport de Master. Master Parisien de Recherche en Informatique, Paris, France, September 2010.
- [36] Benjamin Monmege. Parikh-equivalent bounded languages for software verification. Master 1 Internship Report at UCLA (USA). ENS de Cachan, 2008.
- [37] Benjamin Monmege. Validation d’algorithmes de recalage non rigide appliqués aux images médicales. Licence 3 Internship Report in Rainbow Team, Polytech’Nice Sophia Antipolis (France). ENS de Cachan, 2007.

Technical reports

- [38] Axel Haddad and Benjamin Monmege. Why Value Iteration Runs in Pseudo-Polynomial Time for Discounted-Payoff Games. Technical note. Université libre de Bruxelles, June 2015.
- [39] Benedikt Bollig, Paul Gastin, Benjamin Monmege, and Marc Zeitoun. Weighted Expressions and DFS Tree Automata. Research Report (LSV-11-08). 32 pages. Laboratoire Spécification et Vérification, ENS Cachan, France, April 2011. URL: http://www.lsv.ens-cachan.fr/Publis/RAPPORTS_LSV/PDF/rr-lsv-2011-08.pdf.

Selection of invited talks

- [40] Conference FORMATS 2021 (online). Robust Controller Synthesis in Timed Büchi Automata: A Symbolic Approach. August 2021.
- [41] FSTTCS Workshop GALA. Logics for Weighted Automata. December 2019.
- [42] FSTTCS Workshop Trends in Transformations. Copyless Cost Register Automata: Bounded Ambiguity vs Determinism. 2019.

- [43] Seminar ENS Rennes. Quantitative Games on Graphs. October 2019.
- [44] Seminar of the Centre Fédéré en Vérification (Bruxelles). Robust Controller Synthesis in Timed Büchi Automata: A Symbolic Approach. May 2019.
- [45] 1st International Workshop on Multi-objective Reasoning in Verification and Synthesis MoRe (Oxford). A journey through negatively-weighted timed games: undecidability, decidability, approximability. Exposé invité. July 2018.
- [46] 9th International Workshop on Weighted Automata, Theory and Applications WATA (Leipzig). A journey through negatively-weighted timed games: undecidability, decidability, approximability. Exposé invité. May 2018.
- [47] GT SDA² (Marseille). [Quantitative Evaluation of Systems via Weighted Logics and Weighted Automata](#). July 2017.
- [48] Seminar of the Centre Fédéré en Vérification (Bruxelles). [Optimal Reachability in Divergent Weighted Timed Games](#). May 2017.
- [49] Seminar LACL (Créteil). To Reach or not to Reach? Efficient Algorithms for Total-Payoff Games. May 2016.
- [50] Workshop AVeRTS (Bangalore). [Efficient Reactive Synthesis of MITL Properties](#). December 2015.
- [51] Workshop Infinity (Bangalore). [Logics for Weighted Automata and Transducers](#). December 2015.
- [52] Workshop Non-Zero-Sum Games and Control (Dagstuhl). [Why Negatively-Priced Timed Games are Hard?](#) February 2015.
- [53] National meeting of the Research Group Computer Science Mathematics (Paris). [Spécification et vérification de propriétés quantitatives](#). January 2014.