Publication List

Martin AVANZINI, PhD

Thesis

[1] M. Avanzini. "Verifying Polytime Computability Automatically". PhD thesis. University of Innsbruck, 2013.

[2] M. Avanzini. "Automation of Polynomial Path Orders". MA thesis. University of Innsbruck, 2009.

Articles

[1] M. Avanzini and G. Barthe U. Dal Lago. "On Continuation-passing Transformations and Expected Cost Analysis". In: *Proceedings of the ACM on Programming Languages* 5 (2021).

[2] M. Avanzini, U. Dal Lago, and A. Yamada. "On Probabilistic Term Rewriting". In: *Science of Computer Programming* 185 (2019), p. 102338.

[3] M. Avanzini and U. Dal Lago. "On Sharing, Memoization, and Polynomial Time". In: *Information and Computation* 261, part 1 (2018), pp. 3–22.

[4] M. Avanzini and U. Dal Lago. "Automating Sized-Type Inference for Complexity Analysis". In: *Proceedings of the ACM on Programming Languages* 1 (2017).

[5] M. Avanzini and G. Moser. "A Combination Framework for Complexity". In: *Information and Computation* 248 (2016), pp. 22–55.

[6] M. Avanzini, N. Eguchi, and G. Moser. "A new Order-theoretic Characterisation of the Polytime Computable Functions". In: *Theoretical Computer Science* 585 (2015), pp. 3–24.

[7] M. Avanzini and G. Moser. "Polynomial Path Orders". In: *Logical Methods in Computer Science* 9 (2013).

International Conference Proceedings

[1] M. Avanzini, G. Moser, and M. Schaper. "A Modular Cost Analysis for Probabilistic Programs". In: 2020, 172:1–172:30.

[2] M. Avanzini, A. Ghyselen, and U. Dal Lago. "Type-Based Complexity Analysis of Probabilistic Functional Programs". In: *Proceedings of the 34th Logics in Computer Science Symposium*. IEEE, 2019, pp. 1–13.

[3] M. Avanzini, U. Dal Lago, and A. Yamada. "On Probabilistic Term Rewriting". In: *Proceedings of the 14th International Symposium on Functional and Logic Programming*. Vol. 10818. Lecture Notes in Computer Science. Springer Verlag Heidelberg, 2018, pp. 132–148.

[4] M. Avanzini and G. Moser. "Complexity of Acyclic Term Graph Rewriting". In: *Proceedings of the 1th International Conference on Formal Structures for Computation and Deduction*. Vol. 52. Leibnitz International Proceedings in Informatics. Leibnitz Zentrum für Informatik, 2016, 10:1–10:18.

[5] M. Avanzini, G. Moser, and M. Schaper. "TcT: Tyrolean Complexity Tool". In: *Proceedings of the 22nd International Conference on Tools and Algorithms for the Construction and Analysis of Systems*. Vol. 9636. Lecture Notes in Computer Science. Springer Verlag Heidelberg, 2016, pp. 407–423.

[6] M. Avanzini and U. Dal Lago. "On Sharing, Memoization, and Polynomial Time". In: *Proceedings of the 32nd International Symposium on Theoretical Aspects of Computer Science*. Vol. 30. Leibnitz International Proceedings in Informatics. Leibnitz Zentrum für Informatik, 2015, pp. 62–75.

[7] M. Avanzini, U. Dal Lago, and G. Moser. "Analysing the Complexity of Functional Programs: Higher-Order Meets First-Order". In: *Proceedings of the 20th ACM SIGPLAN International Conference on Functional Programming*. Association for Computing Machinery, 2015, pp. 152–164.

[8] M. Avanzini, C. Sternagel, and R. Thiemann. "Certification of Complexity Proofs using CeTA". In: *Proceedings of the 26th International Conference on Rewriting Techniques and Applications*. Vol. 36. Leibnitz International Proceedings in Informatics. Leibnitz Zentrum für Informatik, 2015, pp. 23–39.

[9] M. Avanzini and G.Moser. "A Combination Framework for Complexity". In: *Proceedings of the 24th International Conference on Rewriting Techniques and Applications*. Vol. 21. Leibnitz International Proceedings in Informatics. Leibnitz Zentrum für Informatik, 2013, pp. 55–70.

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[11] M. Avanzini, N. Eguchi, and G. Moser. "A New Order-theoretic Characterisation of the Polytime Computable Functions". In: *Proceedings of the 10th Asian Symposium on Programming Languages and Systems*. Vol. 7705. Lecture Notes in Computer Science. Springer Verlag Heidelberg, 2012, pp. 280–295.

[12] M. Avanzini, N. Eguchi, and G. Moser. "A Path Order for Rewrite Systems that Compute Exponential Time Functions". In: *Proceedings of the 22nd International Conference on Rewriting Techniques and Applications*. Vol. 10. Leibnitz International Proceedings in Informatics. Leibnitz Zentrum für Informatik, 2011, pp. 123–138.

[13] M. Avanzini. "POP* and Semantic Labeling Using SAT". In: *Interfaces: Explorations in Logic, Language and Computation, ESSLLI 2008 and ESSLLI 2009 Student Sessions. Selected Papers.* Vol. 6211. Lecture Notes in Computer Science. Springer Verlag Heidelberg, 2010.

[14] M. Avanzini and G.Moser. "Closing the Gap Between Runtime Complexity and Polytime Computability". In: *Proceedings of the 21st International Conference on Rewriting Techniques and Applications*. Vol. 6. Leibnitz International Proceedings in Informatics. Leibnitz Zentrum für Informatik, 2010, pp. 33–48.

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Workshop Papers

[1] M. Avanzini, M. Schaper, and G. Moser. "Modular Runtime Complexity Analysis of Probabilistic While Programs". In: *Proceedings of the Workshop on Developments in Implicit Computational complExity and Workshop on Foundational and Practical Aspects of Resource Analysis 2019*. 2019.

[2] M. Avanzini and U. Dal Lago. "Automating Size Type Inference and Complexity Analysis". In: *Proceedings of the 8th Workshop on Developments in Implicit Computational complExity and 5th Workshop on Foundational and Practical Aspects of Resource Analysis*. 2017.

[3] M. Avanzini and M. Schaper. "GUBS Upper Bound Solver". In: *Proceedings of the 17th International Workshop on Developments in Implicit Complexity*. 2017.

[4] M. Avanzini, U. Dal Lago, and G. Moser. "Higher-Order Complexity Analysis: Harnessing First-Order Tools." In: *Proceedings of the 6th International Workshop on Developments in Implicit Complexity*. 2015.

[5] M. Avanzini and N. Eguchi. "A New Term Rewriting Characterisation of ETIME functions". In: *Proceedings of the 5th International Workshop on Developments in Implicit Complexity*. 2014.

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