

Published papers

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1 PhD Thesis

1. I. Drămnesc *Case Studies on Algorithm Synthesis and Theory Exploration in Theorema*, Faculty of Mathematics and Computer Science, West University of Timișoara, Romania, December 2012, Scientific advisor: Prof. Dr. Tudor Jebelean, Johannes Kepler University of Linz, Austria.

2 Journal Articles

1. I. Drămnesc, T. Jebelean, S. Stratulat *Mechanical Synthesis of Sorting Algorithms for Binary Trees by Logic and Combinatorial Techniques*, Journal of Symbolic Computation, Elsevier, 2018 ⟨hal-01590654⟩
2. I. Drămnesc, T. Jebelean, *Synthesis of List Algorithms by Mechanical Proving*, Journal of Symbolic Computation, Volume 69, Issue 1, 2015, Pages 61-92, 2015, ISSN 0747-7171, <http://dx.doi.org/10.1016/j.jsc.2014.09.030>.
3. I. Drămnesc, T. Jebelean, *Proof Based Synthesis of Algorithms: A Case Study on Monotone Lists*, Scientific Bulletin of The “Politehnica” University of Timișoara, Romania, Transactions on Automatic Control and Computer Science, 2015, Vol. 60(74), Issue 2, 2015, ISSN 1224-600X, pp. 97-104.
4. I. Drămnesc, T. Jebelean, *Systematic Exploration of List Theory in Theorema*, Scientific Bulletin of The “Politehnica” University of Timișoara, Romania, Transactions on Automatic Control and Computer Science, ISSN 1224-600X, Vol. 57(71), No.4/2012, pp. 203-210.

5. I. Drămnesc, T. Jebelean, *A Case Study in Proof Based Synthesis of Sorting Algorithms*, Pre-Proceedings of SYNASC 2010: the 12th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing, Analele Universității de Vest, Timișoara, Seria Matematica - Informatica XLVIII/3, pp. 47-58, September 2010, ISSN 1841-3293, <http://www.math.uvt.ro/anmath/index.php/ami/article/view/76>.

3 Articles in Conference Proceedings

1. I. Drămnesc, T. Jebelean, S. Stratulat, *A case study on algorithm discovery from proofs: The insert function on binary trees*, In: Proceedings of SACI 2016: 11th IEEE International Symposium on Applied Computational Intelligence and Informatics, pp. 231-236, May 12-14, 2016, Timisoara, Romania, <http://dx.doi.org/10.1109/SACI.2016.7507376>.
2. I. Drămnesc, T. Jebelean, S. Stratulat, *Proof-based Synthesis of Sorting Algorithms for Trees*, In: Proceedings of LATA 2016: 10th International Conference on Language and Automata Theory and Applications, pp. 562-575, March 14-18, 2016, Prague, Czech Republic, Springer, http://dx.doi.org/10.1007/978-3-319-30000-9_43.
3. I. Drămnesc, T. Jebelean, S. Stratulat, *Combinatorial Techniques for Proof-based Synthesis of Sorting Algorithms*, In: Proceedings of SYNASC 2015: the 17th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing, pp. 137-144, 21-24 September 2015, IEEE Computer Society, <http://dx.doi.org/10.1109/SYNASC.2015.30>.
4. I. Drămnesc, T. Jebelean, S. Stratulat, *Theory Exploration of Binary Trees*, In: Proceedings of SISY 2015: the 13th IEEE International Symposium on Intelligent Systems and Informatics, pp. 139-144, 17-19 September 2015, IEEE Xplore, <http://dx.doi.org/10.1109/SISY.2015.7325367>.
5. I. Drămnesc, T. Jebelean, *A Case Study in Proof Based Synthesis of Algorithms on Monotone Lists*, In: Proceedings of SACI 2015: the 10th IEEE International Symposium on Applied Computational Intelligence and Informatics, pp. 483-488, 21-23 May 2015, IEEE Xplore, <http://dx.doi.org/10.1109/SACI.2015.7208252>.

6. I. Drămnesc, T. Jebelean, *Theory Exploration of Sets Represented as Monotone Lists*, In: Proceedings of SISY 2014: the IEEE 12th Jubilee International Symposium on Intelligent Systems and Informatics, pp. 163-168, 11-13 September 2014, IEEE Xplore, <http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=6923579>.
7. I. Drămnesc, T. Jebelean, *Automated Synthesis of Some Algorithms on Finite Sets*, In: Proceedings of SYNASC 2012: the 14th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing, D. Wang, V. Negru, T. Ida, T. Jebelean, D. Petcu, S. Watt and D. Zaharie (ed.), 26-29 September 2012, IEEE Computer Society, pp. 143 - 151 <http://ieeexplore.ieee.org/xpl/mostRecentIssue.jsp?punumber=6480928>.
8. I. Drămnesc, T. Jebelean, *Discovery of Inductive Algorithms through Automated Reasoning: A Case Study on Sorting*, In: Proceedings of SISY 2012: the IEEE 10th Jubilee International Symposium on Intelligent Systems and Informatics, pp. 293-298, 20-22 September 2012, IEEE Xplore, ISBN 978-1-4673-4751-8, <http://ieeexplore.ieee.org/xpl/mostRecentIssue.jsp?punumber=6330717>.
9. I. Drămnesc, T. Jebelean, *Theory Exploration in Theorema: Case Study on Lists*, In: Proceedings of SACI 2012: the 7th IEEE International Symposium on Applied Computational Intelligence and Informatics, pp. 421-426, 24-26 May 2012, IEEE Xplore, ISBN 978-1-4673-1013-0, <http://ieeexplore.ieee.org/xpl/mostRecentIssue.jsp?punumber=6226926>.
10. I. Drămnesc, T. Jebelean, *Proof Techniques for Synthesis of Sorting Algorithms*, In: Proceedings of SYNASC 2011: the 13th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing, D. Wang, V. Negru, T. Ida, T. Jebelean, D. Petcu, S. Watt and D. Zaharie (ed.), pp. 101-109, September 2011, IEEE Computer Society, ISBN 978-0-7695-4630-8, <http://www.computer.org/csdl/proceedings/synasc/2011/4630/00/4630a101-abs.html>.
11. I. Drămnesc, T. Jebelean, A. Crăciun, *A Case Study in Systematic Exploration of Tuple Theory*, Proceedings of SCSS 2010: Symbolic Computation in Software Science (Hagenberg, Austria), RISC Report Series, No 10-10, pp. 82-95, editors: Tudor Jebelean, Mohamed Mosbah and Nikolaj Popov, University of Linz, Austria, 29-30 July 2010,

http://www.risc.jku.at/publications/download/risc_4191/Proceedings-SCSS-2010.pdf.

4 Technical Reports

1. I. Drămnesc, T. Jebelean, S. Stratulat, *Synthesis of Some Algorithms for Trees: Experiments in Theorema*, Technical report no. 15-04 in RISC Report Series, Research Institute for Symbolic Computation, University of Linz, Schloss Hagenberg, 4232 Hagenberg, Austria, 2015, http://www.risc.jku.at/publications/download/risc_5147/ISA-TR6-2015.pdf
2. I. Drămnesc, T. Jebelean, *Systematic Exploration of the Theory of Lists in Theorema*, Technical report no. 12-02 in RISC Report Series, Research Institute for Symbolic Computation (RISC), University of Linz, Schloss Hagenberg, 4232 Hagenberg, Austria, January 2012, http://www.risc.jku.at/publications/download/risc_4411/ISA-TR5.pdf.
3. I. Drămnesc, T. Jebelean, *Semi-automatic Synthesis of Some Sorting Programs in Theorema*, Technical report no. 12-01 in RISC Report Series, Research Institute for Symbolic Computation (RISC), University of Linz, Schloss Hagenberg, 4232 Hagenberg, Austria, January 2012, http://www.risc.jku.at/publications/download/risc_4410/12-01-ISA-TR4-2012.pdf.
4. I. Drămnesc, T. Jebelean, *Automated Reasoning on Tuples - Case Studies in Proof Based Synthesis*, Technical report no. 11-08 in RISC Report Series, Research Institute for Symbolic Computation (RISC), University of Linz, Schloss Hagenberg, 4232 Hagenberg, Austria, July 2011, http://www.risc.jku.at/publications/download/risc_4365/ISA-TR3-2011.pdf.
5. I. Drămnesc, T. Jebelean, *Proof Based Synthesis of Sorting Algorithms*, RISC Report Series, No 10-17 in RISC Report Series, Research Institute for Symbolic Computation (RISC), University of Linz, Schloss Hagenberg, 4232 Hagenberg, Austria, July, 2010, http://www.risc.jku.at/publications/download/risc_4050/TechnicalReport10-17.pdf.
6. I. Drămnesc, T. Jebelean, A. Crăciun, *Case Studies in Systematic Exploration of Tuple Theory*, Technical report no. 10-09 in RISC Report

Series, Research Institute for Symbolic Computation (RISC), University of Linz, Schloss Hagenberg, 4232 Hagenberg, Austria, May 2010, http://www.risc.jku.at/publications/download/risc_4021/TechnicalReportIsabelaDramnesc.pdf.

5 Books

1. Mircea Marin, Viorel Negru, Isabela Drămnesc, *Principles and Practice of Functional Programming*, Editura Universităţii de Vest, Timișoara, 2016, ISBN 978-973-125-451-7.