

List of Publications

Dr. Mădălina Erăscu

Note: This list compiles the refereed up-to-date publications.
Refereed publications have been published in proceedings and presented at conferences/workshops.
All co-authored publications present work done in an equally distributed joint collaboration.

Journal Articles

- [1] M. Erăscu and H. Hong. The Secant-Newton Map is Optimal Among Contracting Quadratic Maps for Square Root Computation. *Journal of Reliable Computing*, 18:73–81, 2013.

Refereed Publications in Conference Proceedings

- [1] M. Erăscu and H. Hoon. Synthesis of Optimal Numerical Algorithms Using Real Quantifier Elimination (Case Study: Square Root Computation). In *Proceedings of the 39th International Symposium on Symbolic and Algebraic Computation (ISSAC)*, pages 162–169. ACM.
- [2] M. Erăscu and T. Jebelean. Soundness of a Logic-Based Verification Method for Imperative Loops. In A. Voronkov, V. Negru, T. Ida, T. Jebelean, D. Petcu, S. Watt, and D. Zaharie, editors, *Proceedings of the 14th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing (SYNASC)*, pages 127–134. IEEE Computer Society, 2012.
- [3] M. Erăscu and T. Jebelean. A Purely Logical Approach to the Termination of Imperative Loops. In T. Ida, V. Negru, T. Jebelean, D. Petcu, S. M. Watt, and D. Zaharie, editors, *Proceedings of the 12th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing (SYNASC)*, pages 142–149. IEEE Computer Society, 2010.
- [4] M. Erăscu and T. Jebelean. A Calculus for Imperative Programs: Formalization and Implementation. In S. Watt, V. Negru, T. Ida, T. Jebelean, D. Petcu, and D. Zaharie, editors, *Proceedings of the 11th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing (SYNASC)*, pages 77 – 84. IEEE Computer Society, 2009.

Refereed Publications in Workshop Proceedings

- [1] M. Erăscu and T. Jebelean. A Purely Logical Approach to Program Termination. In Peter Schneider-Kamp, editor, *Proceedings of the 11th International Workshop on Termination (WST)*, 2010.
- [2] M. Erăscu and T. Jebelean. Practical Program Verification by Forward Symbolic Execution: Correctness and Examples. In B. Buchberger, T. Ida, and T. Kutsia, editors, *Austrian-Japan Workshop on Symbolic Computation in Software Science (SCSS)*, pages 47–56, 2008.

Theses

- [1] M. Erascu. *Computational Logic and Quantifier Elimination Techniques for (Semi-) automatic Static Analysis and Synthesis of Algorithms*. PhD thesis, Research Institute for Symbolic Computation, 2012. RISC Technical Report 12-16.
- [2] M. Erascu. Automated Formal Static Analysis and Retrieval of Source Code. Master's thesis, International School for Informatics, Johannes Kepler University, 2008. RISC Technical report 08-21.