

Publications – Rodrigo Otoni

Last Update in January 2026

Journal Papers

5. *Approximate Logic Synthesis via Iterative SMT-based Subcircuit Rewriting*
M.Rezaalipour, M.Biasion, F.Costa, C.Tirelli, L.Ferretti, **R.Otoni**, G.Constantinides, and L.Pozzi
IEEE Trans. on Computer-Aided Design of Integrated Circuits and Systems (TCAD), Early Access
4. *A Language for Quantifying Quantum Network Behavior*
A. Buckley, P. Chuprikov, **R. Otoni**, R. Soulé, R. Rand, and P. Eugster
Proceedings of the ACM on Programming Languages (PACMPL), 9(OOPSLA2), 2025
3. *Validation of CHC Satisfiability with ATHENA*
R. Otoni, M. Blichla, P. Eugster, and N. Sharygina
Formal Aspects of Computing (FAC), 37(4), 2025
2. *An Algebraic Language for Specifying Quantum Networks*
A. Buckley, P. Chuprikov, **R. Otoni**, R. Soulé, R. Rand, and P. Eugster
Proceedings of the ACM on Programming Languages (PACMPL), 8(PLDI), 2024
1. *A Solicitous Approach to Smart Contract Verification*
R. Otoni, M. Marescotti, L. Alt, P. Eugster, A. Hyvärinen, and N. Sharygina
ACM Transactions on Privacy and Security (TOPS), 26(2), 2023

Conference Papers

7. *Unsatisfiability Proofs for Horn Solving*
R. Otoni, M. Blichla, M. Rivera, P. Eugster, J. Kofroň, and N. Sharygina
31st Int. Conf. on Tools and Algs. for the Construction and Analysis of Systems (TACAS'25)
Distinguished Paper Award 🏆 and EASST Best Paper Award 🏆
6. *Monomorphism-based CGRA Mapping via Space and Time Decoupling*
C. Tirelli, **R. Otoni**, and L. Pozzi
28th Design, Automation and Test in Europe Conference (DATE'25)
5. *CHC Model Validation with Proof Guarantees*
R. Otoni, M. Blichla, P. Eugster, and N. Sharygina
18th International Conference on integrated Formal Methods (iFM'23)
Best Paper Award candidate 🏆
4. *Symbolic Model Checking for TLA⁺ Made Faster*
R. Otoni, I. Konnov, J. Kukovec, P. Eugster, and N. Sharygina
29th Int. Conf. on Tools and Algs. for the Construction and Analysis of Systems (TACAS'23)
3. *Theory-Specific Proof Steps Witnessing Correctness of SMT Executions*
R. Otoni, M. Blichla, P. Eugster, A. Hyvärinen, and N. Sharygina
58th ACM/IEEE Design Automation Conference (DAC'21)
2. *Accurate Smart Contract Verification Through Direct Modelling*
M. Marescotti, **R. Otoni**, L. Alt, P. Eugster, A. Hyvärinen, and N. Sharygina
9th International Symposium on Leveraging Applications of Formal Methods (ISoLA'20)

1. *Local Analysis of Determinism for CSP*
R. Otoni, A. Cavalcanti, and A. Sampaio
20th Brazilian Symposium on Formal Methods (SBMF'17)

Other Papers

2. *Automatisierte Garantierte Blockchain-Technologie Verifizierung*
R. Otoni
GI Ausgezeichnete Informatikdissertationen 2023 (Band 24), 2024
1. *Towards an Algebraic Specification of Quantum Networks*
A. Buckley, P. Chuprikov, **R. Otoni**, R. Rand, R. Soulé, and P. Eugster
1st Workshop on Quantum Networks and Distributed Quantum Computing (QuNet'23)