Record Nr. UNISA996465311203316 **Titolo** Foundational and Practical Aspects of Resource Analysis: Second International Workshop, FOPARA 2011, Madrid, Spain, May 19, 2011, Revised Selected Papers / / edited by Ricardo Peña, Marko van Eekelen, Olha Shkaravska Pubbl/distr/stampa Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, 2012 **ISBN** 3-642-32495-9 Edizione [1st ed. 2012.] Descrizione fisica 1 online resource (VII, 143 p. 30 illus.) Programming and Software Engineering;; 7177 Collana Disciplina 004.24 Soggetti Computer system failures Algorithms Computer logic Software engineering Programming languages (Electronic computers) Computers System Performance and Evaluation Algorithm Analysis and Problem Complexity Logics and Meanings of Programs Software Engineering Programming Languages, Compilers, Interpreters Computation by Abstract Devices Conference papers and proceedings. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Bibliographic Level Mode of Issuance: Monograph Note generali Nota di bibliografia Includes bibliographical references and author index. Nota di contenuto Implicit Complexity -- A Higher-Order Characterization of Probabilistic Polynomial Time -- Typing a Core Binary-Field Arithmetic in a Light

Analysis and Verification of Cost Expressions -- Interpolation-Based Height Analysis for Improving a Recurrence Interval-Based Resource Usage Verification: Formalization and Prototype -- Certifying and Reasoning on Cost Annotations of Functional Worst Case Execution

Time Analysis -- On Abstractions for Timing Analysis in the K

Certifying Execution -- Counter Automata for Parameterised Timing Analysis of Box-Based Systems. Implicit Complexity -- A Higher-Order Characterization of Probabilistic Polynomial Time -- Typing a Core Binary-Field Arithmetic in a Light Analysis and Verification of Cost Expressions -- Interpolation-Based Height Analysis for Improving a Recurrence Interval-Based Resource Usage Verification: Formalization and Prototype -- Certifying and Reasoning on Cost Annotations of Functional Worst Case Execution Time Analysis -- On Abstractions for Timing Analysis in the K Certifying Execution -- Counter Automata for Parameterised Timing Analysis of Box-Based Systems. Implicit Complexity -- A Higher-Order Characterization of Probabilistic Polynomial Time -- Typing a Core Binary-Field Arithmetic in a Light Analysis and Verification of Cost Expressions -- Interpolation-Based Height Analysis for Improving a Recurrence Interval-Based Resource Usage Verification: Formalization and Prototype -- Certifying and Reasoning on Cost Annotations of Functional Worst Case Execution Time Analysis -- On Abstractions for Timing Analysis in the K Certifying Execution -- Counter Automata for Parameterised Timing Analysis of Box-Based Systems. Implicit Complexity -- A Higher-Order Characterization of Probabilistic Polynomial Time -- Typing a Core Binary-Field Arithmetic in a Light Analysis and Verification of Cost Expressions -- Interpolation-Based Height Analysis for Improving a Recurrence Interval-Based Resource Usage Verification: Formalization and Prototype -- Certifying and Reasoning on Cost Annotations of Functional Worst Case Execution Time Analysis -- On Abstractions for Timing Analysis in the K Certifying Execution -- Counter Automata for Parameterised Timing Analysis of Box-Based Systems. Implicit Complexity -- A Higher-Order Characterization of Probabilistic Polynomial Time -- Typing a Core Binary-Field Arithmetic in a Light Analysis and Verification of Cost Expressions -- Interpolation-Based Height Analysis for Improving a Recurrence Interval-Based Resource Usage Verification: Formalization and Prototype -- Certifying and Reasoning on Cost Annotations of Functional Worst Case Execution Time Analysis -- On Abstractions for Timing Analysis in the K Certifying Execution -- Counter Automata for Parameterised Timing Analysis of Box-Based Systems.

## Sommario/riassunto

This book constitutes the refereed post-proceedings of the Second International Workshop on Foundational and Practical Aspects of Resource Analysis, FOPARA 2011, held in Madrid, Spain, in May 2011. The 8 revised full papers were carefully reviewed and selected from the papers presented at the workshop and papers submitted following an open call for contributions after the workshop. The papers are organized in the following topical sections: implicit complexity, analysis and verfication of cost expressions, and worst case execution time analysis.