Record Nr. UNINA9910484047003321 SOFSEM 2017: Theory and Practice of Computer Science: 43rd **Titolo** International Conference on Current Trends in Theory and Practice of Computer Science, Limerick, Ireland, January 16-20, 2017, Proceedings // edited by Bernhard Steffen, Christel Baier, Mark van den Brand, Johann Eder, Mike Hinchey, Tiziana Margaria Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2017 3-319-51963-8 **ISBN** Edizione [1st ed. 2017.] Descrizione fisica 1 online resource (XVIII, 526 p. 109 illus.) Theoretical Computer Science and General Issues, , 2512-2029;; Collana 10139 Disciplina 004.015113 Soggetti Algorithms Information storage and retrieval systems Application software Software engineering Computer networks Artificial intelligence Information Storage and Retrieval Computer and Information Systems Applications Software Engineering Computer Communication Networks Artificial Intelligence Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Dependable and Optimal Cyber-Physical Systems -- Verifying Parametric Thread Creation -- Network Constructors: A Model for Programmable Matter -- Logical characterisations and compositionality of input-output conformance simulation -- A Linear-Time Branching-

Time Spectrum of Behavioral Specification Theories -- Symbolic semantics for multiparty interactions in the link-calculus -- Different Speeds Suffice for Rendezvous of Two Agents on Arbitrary Graphs --

Deciding structural liveness of Petri nets -- Distributed Network

Generation based on Preferential Attachment in ABS -- Completeness of Hoare Logic Relative to the Standard Model -- Configuration- and Residual-Based Transition Systems for Event Structures with Asymmetric Conflict -- Hardness of deriving invertible sequences from finite state machines -- A Graph-theoretical Characterisation of State Separation -- Selfish Transportation Games -- Decomposable Relaxation for Concurrent Data Structures -- Sufficient Conditions for a Connected Graph to have a Hamiltonian Path -- Enumerating Minimal Tropical Connected Sets -- Bamboo Garden Trimming Problem (Perpetual maintenance of machines with different attendance urgency factors) -- Exact quantum query complexity of EXACT {k,l}^n --Adjacent vertices can be hard to find by quantum walks -- Matrix semigroup freeness problems in SL(2,Z) -- Order-preserving 1-string representations of planar graphs -- How to Draw a Planarization --Finding Largest Common Substructures of Molecules in Quadratic Time -- Lower Bounds for On-line Interval Coloring with Vector and Cardinality Constraints -- Parameterized and Exact Algorithms for Class Domination Coloring -- The Approximability of Partial Vertex Covers in Trees -- Longest Common Subsequence in at Least k Length Order-isomorphic Substrings -- Computing longest single-armgapped palindromes in a string -- Edit-Distance between Visibly Pushdown Languages -- Trends and Challenges in Predictive Analytics -- Model-driven Development in Practice: From Requirements to Code -- Webpage Menu Detection Based on DOM -- A Hybrid Model for Linking Multiple Social Identities across Heterogeneous Online Social Networks -- Eco Data Warehouse Design Through Logical Variability --On Featured Transition Systems -- Domain-Specific Languages: A Systematic Mapping Study -- Characterising Malicious Software with High-Level Behavioural Patterns -- AErlang at work -- Software Systems Migration towards Cloud-native Architectures for SME-sized Software Vendors -- Using n-grams for the Automated Clustering of Structural Models.

## Sommario/riassunto

This book constitutes the refereed proceedings of the 43rd International Conference on Current Trends in Theory and Practice of Computer Science, SOFSEM 2017, held in Limerick, Ireland, in January 2017. The 34 papers presented in this volume were carefully reviewed and selected from 41 submissions. They were organized in topical sections named: foundations in computer science; semantics, specification and compositionality; theory of mobile and distributed systems; verification and automated system analysis; petri nets, games and relaxed data structures; graph theory and scheduling algorithms; quantum and matrix algorithms; planar and molecular graphs; coloring and vertex covers; algorithms for strings and formal languages; data, information and knowledge engineering; and software engineering: methods, tools, applications.