Record Nr. UNISA996464511603316 Application and Theory of Petri Nets and Concurrency [[electronic **Titolo** resource] ]: 42nd International Conference, PETRI NETS 2021, Virtual Event, June 23–25, 2021, Proceedings / / edited by Didier Buchs, Josep Carmona Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2021 **ISBN** 3-030-76983-6 Edizione [1st ed. 2021.] Descrizione fisica 1 online resource (487 pages) Theoretical Computer Science and General Issues, , 2512-2029;; Collana 12734 Disciplina 511.3 Soggetti Computer science Algorithms Data structures (Computer science) Information theory Computer science—Mathematics Discrete mathematics Software engineering Computer Science Logic and Foundations of Programming Design and Analysis of Algorithms Data Structures and Information Theory Discrete Mathematics in Computer Science Software Engineering Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Includes index. Nota di contenuto Keynotes -- Topics in Region Theory and Synthesis Problems -- Flat Petri Nets -- Application of Concurrency to System Design -- Cost and Quality in Crowdsourcing Workflows -- Timed Petri Nets with Reset for Pipelined Synchronous Circuit Design -- A Turn-Based Approach for Qualitative Time Concurrent Games -- Games -- Canonical Representations for Direct Generation of Strategies in High-level Petri Games -- Automatic Synthesis of Transiently Correct Network Updates

via Petri Games -- Verification -- Computing Parameterized Invariants

of Parameterized Petri Nets -- On the Combination of Polyhedral Abstraction and SMT-based Model Checking for Petri nets -- Skeleton Abstraction for Universal Temporal Properties -- Reduction Using Induced Subnets To Systematically Prove Properties For Free-Choice Nets -- Model Checking of Synchronized Domain-Specific Multi-Formalism Models Using High-Level Petri Nets -- Synthesis and Mining -- Edge and event and state removal: the complexity of some basic techniques that make transition systems Petri net implementable --Synthesis of (Choice-Free) Reset Nets -- Synthesis of Petri Nets with restricted place-environments: classical and parameterized --Discovering Stochastic Process Models By Reduction and Abstraction --Reachability and Partial Order -- Efficient Algorithms for Three Reachability Problems in Safe Petri Nets -- A Lazy Query Scheme for Reachability Analysis in Petri nets -- Abstraction-based Incremental Inductive Coverability for Petri nets -- Firing Partial Orders in a Petri Net -- Semantics -- Deterministic concurrent systems -- Deciphering the Co-car Anomaly of Circular Traffic Queues using Petri Nets -- Tools -- Cortado — An Interactive Tool for Data-Driven Process Discovery and Modeling -- PROVED: A Tool for Graph Representation and Analysis of Uncertain Event Data.

## Sommario/riassunto

This book constitutes the proceedings of the 42nd International Conference on Application and Theory of Petri Nets and Concurrency, PETRI NETS 2021, which was held virtually in June 2021. The 22 full papers presented together with 2 keynote papers in this volume were carefully reviewed and selected from 39 submissions. The focus of the conference is on the following topics: application of concurrency to system design; games; verification; synthesis and mining; reachability and partial order; semantics; and tools.