Record Nr. UNISA996465434303316 Applications and Theory of Petri Nets 2004 [[electronic resource]]: **Titolo** 25th International Conference, ICATPN 2004, Bologna, Italy, June 21-25, 2004, Proceedings / / edited by Jordi Cortadella, Wolfgang Reisig Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, Pubbl/distr/stampa 2004 **ISBN** 3-540-27793-5 Edizione [1st ed. 2004.] 1 online resource (XI, 505 p.) Descrizione fisica Lecture Notes in Computer Science, , 0302-9743;; 3099 Collana 511.35 Disciplina Soggetti Mathematical logic Computers Computer science—Mathematics Software engineering Operating systems (Computers) Computer communication systems Mathematical Logic and Foundations Theory of Computation Discrete Mathematics in Computer Science Software Engineering **Operating Systems** Computer Communication Networks Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph Nota di bibliografia Includes bibliographical references at the end of each chapter and index. Invited papers -- Positive Non-interference in Elementary and Trace Nota di contenuto Nets -- Reachability Set Generation for Petri Nets: Can Brute Force Be Smart? -- Embedded Software: Better Models, Better Code --Specification and Model Checking of Temporal Properties in Time Petri Nets and Timed Automata -- Formal Tools for Modular System Development -- Stochastic Methods for Dependability, Performability, and Security Evaluation -- Full papers -- Composition of Temporal Logic Specifications -- On the Use of Coloured Petri Nets for Object-

Oriented Design -- Qualitative Modelling of Genetic Networks: From

Logical Regulatory Graphs to Standard Petri Nets -- Finite Unfoldings of Unbounded Petri Nets -- Compositional Modeling of Complex Systems: Contact Center Scenarios in OsMoSys -- Generalised Soundness of Workflow Nets Is Decidable -- Petri Net Based Model Validation in Systems Biology -- Synthesis of Controlled Behavior with Modules of Signal Nets -- New Canonical Representative Marking Algorithms for Place/Transition-Nets -- Properties of Object Petri Nets -- LTL Model Checking for Modular Petri Nets -- Covering Fairness against Conspiracies -- Modeling and Analysis of Margolus Quantum Cellular Automata Using Net-Theoretical Methods -- A Framework for the Modelling and Simulation of Distributed Transaction Processing Systems Using Coloured Petri Nets -- Time Petri Nets with Inhibitor Hyperarcs. Formal Semantics and State Space Computation -- Transit Case Study -- Eliminating Internal Behaviour in Petri Nets -- Infinity of Intermediate States Is Decidable for Petri Nets -- Operation Net System: A Formal Design Representation Model for High-Level Synthesis of Asynchronous Systems Based on Transformations -- Tool Papers --EMiT: A Process Mining Tool -- 3D-Visualization of Petri Net Models: Concept and Realization -- An Approach to Distributed State Space Exploration for Coloured Petri Nets -- An Extensible Editor and Simulation Engine for Petri Nets: Renew -- Web Supported Enactment of Petri-Net Based Workflows with XRL/Flower.

## Sommario/riassunto

This volume contains the proceedings of the 25th International Conference on Application and Theory of Petri Nets (ICATPN 2004). The aim of the Petri net conferences is to create a forum for discussing progress in the application and theory of Petri nets. Typically, the conferenceshave 100–150participants, one third of these c- ing from industry, whereas the others are from universities and research institions. The conferences always take place in the last week of June. The conference and a number of other activities are coordinated by a steing committee with the following members: Wil van der Aalst (The Neth-lands), Jonathan Billington (Australia), Jrg Desel (Germany), SusannaDonatelli (Italy), SergeHaddad(France), KurtJensen(Denmark), MaciejKoutny(United Kingdom), Sadatoshi Kumagai(Japan), GiorgioDe Michelis (Italy), Tadao- rata (USA), Carl Adam Petri (Germany, Honorary Member), Wolfgang Reisig (Germany), Grzegorz Rozenberg (TheNetherlands, Chairman) and Manuel Silva (Spain). The 2004 conference was organized by the Department of Computer Science of the University of Bologna, Italy. We would like to thank the organizing c- mittee, chaired by Roberto Gorrieri, for the e?ort invested in making the event successful. We are also grateful to the following sponsoring institutions and - ganizations: Associazione Italiana per l'Informatica ed il Calcolo Automatico (AICA), Microsoft Research, and Network Project & Solutions (NPS Group). We received a total of 62 submissions from 26 di?erent countries. The p- gramcommittee? nallyselected19regularpapersand5toolpresentationpapers. This volume comprises the papers that were accepted for presentation. Invited lectures were given by Gianfranco Ciardo, Roberto Gorrieri, Thomas A. H- zinger, Wojciech Penczek, Lucia Pomello and William H. Sanders. Their papers are also included in this volume.