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Descrizione fisica	1 online resource (469 pages)
Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 12846
Disciplina	004.24
Soggetti	Computer science Computer science - Mathematics Mathematical statistics Artificial intelligence Software engineering Algorithms Machine theory Theory of Computation Probability and Statistics in Computer Science Artificial Intelligence Software Engineering Formal Languages and Automata Theory
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Keynote Speaker -- Performance Evaluation: Model-Driven or Problem-Driven? -- Probabilistic Model Checking -- A Modest Approach to Dynamic Heuristic Search in Probabilistic Model Checking -- Tweaking the Odds in Probabilistic Timed Automata -- Quantifying Software Reliability via Model-Counting -- Quantitative Models and Metamodels: Analysis and Validation -- Compositional safe approximation of response time distribution of complex workflows -- Transient Analysis of Hierarchical Semi-Markov Process Models with Tool Support in Stateflow -- Evaluating the Effectiveness of Metamodels in Emulating

Quantitative Models -- Queueing Systems -- Network Calculus for Bounding Delays in Feedforward Networks of FIFO Queueing Systems -- SEH: Size Estimate Hedging for Single-Server Queues -- An Approximate Bribe Queueing Model for Bid Advising in Cloud Spot Markets -- Learning and Verification -- DSMC Evaluation Stages: Fostering Robust and Safe Behavior in Deep Reinforcement Learning -- Active and sparse methods in smoothed model checking -- Safe Learning for Near-Optimal Scheduling -- Simulation -- Symbolic Simulation of Railway Timetables under Consideration of Stochastic Dependencies -- Simulation of n-dimensional second-order fluid models with different absorbing, reflecting and mixed barriers -- Performance Evaluation -- Queue Response Times with Server Speed Controlled by Measured Utilizations -- Service Demand Distribution Estimation for Microservices Using Markovian Arrival Processes -- Performance analysis of work stealing strategies in large scale multi-threaded computing -- Abstractions and Aggregations -- Stationary Distribution Approximations of Markovian Population Models using Aggregation -- Reasoning about Proportional Lumpability -- Lumpability for Uncertain Continuous-Time Markov Chains -- Stochastic Models -- Accurate Approximate Diagnosis of (Controllable) Stochastic Systems -- Optimizing reachability probabilities for a restricted class of Stochastic Hybrid Automata via Flowpipe-Construction -- Attack Trees vs. Fault Trees: two sides of the same coin from different currencies.

Sommario/riassunto

This book constitutes the proceedings of the 18th International Conference on Quantitative Evaluation Systems, QEST 2021, held in Paris, France, in August 2021. The 21 full papers and 2 short papers presented together with 2 keynote papers were carefully reviewed and selected from 47 submissions. The papers are organized in the following topics: probabilistic model checking; quantitative models and metamodels: analysis and validation; queueing systems; learning and verification; simulation; performance evaluation; abstractions and aggregations; and stochastic models.
