Record Nr. UNISA996466000703316 Theory and Practice of Formal Methods [[electronic resource]]: Essays **Titolo** Dedicated to Frank de Boer on the Occasion of His 60th Birthday // edited by Erika Ábrahám, Marcello Bonsangue, Einar Broch Johnsen Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2016 **ISBN** 3-319-30734-7 Edizione [1st ed. 2016.] 1 online resource (XII, 427 p. 112 illus. in color.) Descrizione fisica Theoretical Computer Science and General Issues, , 2512-2029;; 9660 Collana Disciplina 004.0151 Soggetti Computer science Software engineering Algorithms Machine theory Compilers (Computer programs) Artificial intelligence Computer Science Logic and Foundations of Programming Software Engineering Formal Languages and Automata Theory Compilers and Interpreters Artificial Intelligence Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Bibliographic Level Mode of Issuance: Monograph Note generali Program Verification: to Err is Human -- Fond (and Frank) Memories of Nota di contenuto Frank -- Warmest Congratulations, Frank -- Conformance Checking of Real-Time Models: Symbolic Execution vs. Bounded Model Checking --Resource Analysis of Distributed Systems -- Comparing Trace Expressions and Linear Temporal Logic for Runtime Verification --Proper Protocol -- A Compositional Approach to the Verification of Hybrid Systems -- Array Abstraction with Symbolic Pivots -- Modeling Role-Based Systems with Exogenous Coordination -- Vats: A Safe, Reactive Storage Abstraction -- Denotational and Operational Preciseness of Subtyping: A Roadmap -- A Sound and Complete Hoare

Logic for Dynamically-Typed, Object-Oriented Programs -- Self-

Reconfiguring Microservices -- Statically and Dynamically Verifiable SLA metrics -- Effectively Eliminating Auxiliaries -- Towards a Proof Method for Paradigm -- Toward a Formal Foundation for Time Travel in Stories and Games -- Industrial Application of Formal Models Generated from Domain Specific Languages -- Formal Verification of Open Normative Multi-Agent System -- Moessner's Theorem: An Exercise in Coinductive Reasoning in Coq -- Towards a Kool Future -- On the Expressiveness of Synchronization in Component Deployment -- Characterisation of Simulation by Probabilistic Testing -- On Time Actors -- A Small-Step Semantics of a Concurrent Calculus with Goroutines and Deferred Functions -- Quicksort Revisited - Verifying Alternative Versions of Quicksort.

## Sommario/riassunto

This Festschrift volume has been published in honor of Frank de Boer. on the occasion of his 60th birthday. Frank S. de Boer is a prominent member of the research community in formal methods and theoretical computer science. A brief look at his lengthy publication list reveals a broad area of interest and a versatile modus operandi with: logic and constraint programming; deductive proof systems, soundness, and completeness; semantics, compositionality, and full abstraction; process algebra and decidability; multithreading and actor-based concurrency; agent programming, ontologies, and modal logic; realtime systems, timed automata, and schedulability; enterprise architectures, choreography, and coordination; testing and runtime monitoring; and cloud computing and service-level agreements. For a while, he also liked failures, especially in semantics, and optimistically concluded with the failure of failures. In fact, Frank has an opportunistic approach to research. Rather than seeing obstacles, he finds opportunities.