1. Record Nr. UNINA9910767578703321

Titolo	Model Checking Software : 11th International SPIN Workshop, Barcelona, Spain, April 1-3, 2004, Proceedings / / edited by Susanne Graf, Laurent Mounier
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2004
ISBN	1-280-30719-6 9786610307197 3-540-24732-7
Edizione	[1st ed. 2004.]
Descrizione fisica	1 online resource (X, 314 p.)
Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 2989
Disciplina	005.14
Soggetti	Software engineering Programming languages (Electronic computers) Computer logic Software Engineering/Programming and Operating Systems Software Engineering Programming Languages, Compilers, Interpreters Logics and Meanings of Programs
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 and index.
Nota di contenuto	Invited Paper -- Formal Analysis of Processor Timing Models -- Heuristics and Probabilities -- Typical Structural Properties of State Spaces -- State Caching Reconsidered -- Directed Error Detection in C++ with the Assembly-Level Model Checker StEAM -- Fast and Accurate Bitstate Verification for SPIN -- Improvements of SPIN -- Model-Driven Software Verification -- Minimization of Counterexamples in SPIN -- Validation of Timed Systems -- Black-Box Conformance Testing for Real-Time Systems -- Validation of UML Models via a Mapping to Communicating Extended Timed Automata -- Tool Papers -- Explicit State Model Checking with Hopper -- SEQ.OPEN: A Tool for Efficient Trace-Based Verification -- Model Checking Genetic Regulatory Networks Using GNA and CADP -- Abstraction and Symbolic Methods -- Verification of Java Programs Using Symbolic Execution and

Invariant Generation -- Polynomial Time Image Computation with Interval-Definable Counters Systems -- Using Fairness to Make Abstractions Work -- A Scalable Incomplete Test for Message Buffer Overflow in Promela Models -- Applications -- Translation from Adapted UML to Promela for CORBA-Based Applications -- Verifying Commit-Atomicity Using Model-Checking -- Analysis of Distributed Spin Applied to Industrial-Scale Models -- Verification of MPI-Based Software for Scientific Computation -- Tutorials -- Advanced SPIN Tutorial -- IF Validation Environment Tutorial.

Sommario/riassunto

Since 1995, when the SPIN workshop series was instigated, SPIN workshops have been held on an annual basis in Montreal (1995), New Brunswick (1996), Enschede (1997), Paris (1998), Trento (1999), Toulouse (1999), Stanford (2000), Toronto (2001), Grenoble (2002) and Portland (2003). All but the first SPIN workshop were organized as satellite events of larger conferences, in particular of CAV (1996), TACAS (1997), FORTE/PSTV (1998), FLOC (1999), the World Congress on Formal Methods (1999), FMOODS (2000), ICSE (2001, 2003) and ETAPS (2002). This year again, SPIN was held as a satellite event of ETAPS 2004. The co-location of SPIN workshops with conferences has proven to be very successful and has helped to disseminate SPIN model checking technology to wider audiences. Since 1999, the proceedings of the SPIN workshops have appeared in Springer-Verlag’s Lecture Notes in Computer Science series. The history of successful SPIN workshops is evidence for the maturing of model checking technology, not only in the hardware domain, but increasingly also in the software area. While in earlier years algorithms and tool development around the SPIN model checker were the focus of this workshop series, for several years now the scope has been widened to include more general approaches to software model checking techniques and tools as well as applications. The SPIN workshop has become a forum for all practitioners and researchers interested in model checking based techniques for the validation and analysis of communication protocols and software systems.