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Titolo	Partial-Order Methods for the Verification of Concurrent Systems [[electronic resource]] : An Approach to the State-Explosion Problem / / edited by Patrice Godefroid
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 1996
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Descrizione fisica	1 online resource (IV, 143 p.)
Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 1032
Disciplina	005.2
Soggetti	Computer logic Software engineering Architecture, Computer Computer communication systems Computers Logics and Meanings of Programs Software Engineering/Programming and Operating Systems Computer System Implementation Software Engineering Computer Communication Networks Computation by Abstract Devices
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
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Nota di contenuto	Concurrent systems and semantics -- Using partial orders to tackle state explosion -- Persistent sets -- Sleep sets -- Verification of safety properties -- Model checking -- Experiments -- Conclusions.
Sommario/riassunto	This monograph is a revised version of the author's Ph.D. thesis, submitted to the University of Liège, Belgium, with Pierre Wolper as thesis advisor. The general pattern of this work, is to turn logical and semantic ideas into exploitable algorithms. Thus, it perfectly fits the modern trend, viewing verification as a computer-aided activity, and as algorithmic as possible, not as a paper and pencil one, dealing exclusively with semantic and logical issues. Patrice Godefroid uses

state-space exploration as the key technique, which, as such or elaborated into model checking, is attracting growing attention for the verification of concurrent systems. For most realistic examples, the methods presented provide a significant reduction of memory and time requirements for protocol verification.

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