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Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 666
Disciplina	005.13/1
Soggetti	Programming languages (Electronic computers) Data structures (Computer science) Computer logic Computer programming Software engineering Programming Languages, Compilers, Interpreters Data Structures and Information Theory Logics and Meanings of Programs Programming Techniques Software Engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Predicate transformers and higher order logic -- Trace Nets -- Proving total correctness of programs in weak second-order logic -- On blocks: locality and asynchronous communication -- Semantics, orderings and recursion in the weakest precondition calculus -- A categorical model for logic programs: Indexed monoidal categories -- A categorical view of process refinement -- Compact metric information systems -- Asynchronous rendez-vous in distributed logic programming -- New semantic tools for logic programming -- Temporal preconditions of recursive procedures -- Towards an epistemic approach to reasoning about concurrent programs -- A fully abstract model for a nonuniform concurrent language with parameterization and locality -- SPCF: its model, calculus, and computational power -- Infinite behaviour and

fairness in concurrent constraint programming -- Full abstraction and unnested recursion -- On the action semantics of concurrent programming languages -- Layered predicates -- A hyperdoctrinal view of concurrent constraint programming -- On the foundations of final semantics: Non-standard sets, metric spaces, partial orders -- Infinite systems of equations over inverse limits and infinite synchronous concurrent algorithms -- Some issues in the semantics of facile distributed programming -- On the relation between unity properties and sequences of states -- Expressiveness results for process algebras -- Compiling joy into Silicon: An exercise in applied structural operational semantics.

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## Sommario/riassunto

Researchers working on the semantics of programming languages came together in The Netherlands in June 1992 for a workshop on Semantics - Foundations and Applications. This volume is based on the meeting and contains material prepared by the lecturers after the meeting took place. The volume includes papers on a wide range of topics in both foundations and applications, including: - Comparative domain theory, category theory, information systems, - Concurrency: process algebras, asynchronous communication, action semantics, trace nets, process refinement, concurrent constraint programming, - Predicate transformers, refinement, weakest preconditions, - Comparative semantics of programming concepts, full abstraction, - Reasoning about programs: total correctness, epistemic logic, - Logic programming, - Functional programming: sequentiality, integration with concurrency, applied structured operational semantics. The workshop was an activity of the project REX (Research and Education in Concurrent Systems) sponsored by the Netherlands NFI (Nationale Faciliteit Informatica) Programme.

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