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Soggetti	Computers Software engineering Computer logic Mathematical logic Artificial intelligence Theory of Computation Software Engineering/Programming and Operating Systems Logics and Meanings of Programs Mathematical Logic and Formal Languages Software Engineering Artificial Intelligence
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Nota di contenuto	Semantics and laws of man-made infrastructure systems -- The language lola, FPGAs, and PLDs in teaching digital circuit design -- Calculating digital counters -- Generic programming -- Algebraic semantics of the Oberon target machine -- The making of Algol 68 -- Artificial life and pollution control: Explorations of a genetic algorithm system on the highly parallel connection machine -- Application of subdefinite models for solving constraint satisfaction problems -- Problem solving in the object-oriented technological environment NeMo+ -- What a universal semantic interlingua can and cannot do -- Understanding short texts with integration of knowledge representation

methods -- Co-learning of recursive languages from positive data -- Automatic analysis, verification and synthesis of rule-based real-time decision making systems with machine learning assistance -- Processes in cause-effect structures -- On the power of recursion in dataflow Schemes -- Derivation of explicitly parallel code from declarative program by transformations -- Actors as a coordinating model of computation (extended abstract) -- An associative version of the Prim-Dijkstra algorithm and its application to some graph problems -- Adding design strategies to fork algebras -- Supercompilation: Techniques and results -- Program transformation with metasystem transitions: Experiments with a supercompiler -- Fast binding-time analysis for multi-level specialization -- BTA Algorithms to ensure termination of off-line partial evaluation -- Polyvariant expansion and compiler generators -- The disjunctive constrained lambda calculus -- Efficient metaobject control using mediators -- Framework component systems: Concepts, design heuristics, and perspectives -- Prototype of a run-time actaptable, object-oriented system -- The tree equivalence problem for linear recursion schemes -- A mode analysis of logic programs by abstract interpretation -- A semantics-based determinacy analysis for prolog with cut -- Communicating functional agents and their application to graphical user interfaces -- The design of a functional GUI library using constructor classes -- Merging relational database technology with constraint technology -- On homeostatic behavior of dynamic deductive data bases -- On transformations into linear database logic programs.

Sommario/riassunto

This book constitutes the refereed post-conference proceedings of the Second International Andrei Ershov Memorial Conference on System Informatics, held in Akademgorodok, Novosibirsk, Russia, in June 1996. The 27 revised full papers presented together with 9 invited contributions were thoroughly refereed for inclusion in this volume. The book is divided in topical sections on programming methodology, artificial intelligence, natural language processing, machine learning, dataflow and concurrency models, parallel programming, supercompilation, partial evaluation, object-oriented programming, semantics and abstract interpretation, programming and graphical interfaces, and logic programming.