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Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 366
Disciplina	003.3
Soggetti	Architecture, Computer Programming languages (Electronic computers) Computer programming Operating systems (Computers) Microprocessors Computer communication systems Computer System Implementation Programming Languages, Compilers, Interpreters Programming Techniques Operating Systems Processor Architectures Computer Communication Networks
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Supporting multiparadigm programming on actor architectures -- Multiple tuple spaces in Linda -- Experiments in mimd parallelism -- GTS: Extracting full parallelism out of DO loops -- Dataflow analysis of term graph rewriting systems -- Towards a theory of simulation for verification of concurrent systems -- Eliminating redundant interleavings during concurrent program verification -- Dataflow programs for parallel computations of logic programs and their semantics -- RAPiD a data flow model for implementing parallelism

and intelligent backtracking in logic programs -- Pruning and scheduling speculative work in or-parallel Prolog -- Performance analysis of a Parallel Prolog: A correlated approach -- Visual concurrent object-based programming in GARP -- Parle: A parallel target language for integrating symbolic and numeric processing -- A method for refining atomicity in parallel algorithms -- Comparing two fully abstract dataflow models -- Learning by back-propagation: Computing in a systolic way -- Towards systolizing compilation: An overview -- Strategies for a massively parallel implementation of simulated annealing -- The compaction of acyclic terms -- A single-assignment language in a distributed memory multiprocessor -- Single-assignment semantics for imperative programs -- A compiling approach for exploiting and-parallelism in parallel logic programming systems -- Data structures for parallel execution of functional languages -- The typed  $\lambda$ -calculus with first-class processes -- ASPEN: A stream processing environment -- The expressive power of simple parallelism -- Compositionality in the temporal logic of concurrent systems -- A temporal-logic based compositional proof system for real-time message passing.

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### Sommario/riassunto

Since the first PARLE conference, PARLE '87, attracted more than 300 participants, it was considered a useful and successful forum and encouraged the organization of this second issue known as PARLE '89. The initiative for these conferences was taken by project 415 of ESPRIT (the European Strategic Programme for Research and Development in Information Technology of the Commission of the European Communities). Their scope covers central themes in the area of parallel architectures and languages, including such topics as concurrent, object-oriented, logic and functional programming; MIMD, dataflow, inference and reduction machines; design and verification of parallel systems; VLSI, WSI and RISC architectures; performance evaluation, memory management, systolic arrays, applications and special purpose architectures. The four invited lectures present the state of the art and advanced developments in major research areas related to the topics of the conference. Of the more than 150 submitted papers 45 were selected for presentation. Furthermore the program of PARLE '89 comprises presentations on the subprojects which together constitute ESPRIT project 415. Parallel architectures based on a variety of programming styles (object-oriented, logic, functional, dataflow) are represented in these overviews.

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