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Nota di contenuto	Early experiences with Olden -- Arbitrary order operations on trees -- Analysis of dynamic structures for efficient parallel execution -- On automatic data structure selection and code generation for sparse computations -- Synchronization issues in data-parallel languages -- ZPL: An array sublanguage -- Event-based composition of concurrent programs -- Adaptive parallelism on multiprocessors: Preliminary experience with Piranha on the CM-5 -- Slicing analysis and indirect accesses to distributed arrays -- Do&Merge: Integrating parallel loops

and reductions -- Automatic support for data distribution on distributed memory multiprocessor systems -- A compilation approach for Fortran 90D/HPF compilers -- A framework for exploiting data availability to optimize communication -- The alignment-distribution graph -- An overview of a compiler for scalable parallel machines -- Toward a compile-time methodology for reducing false sharing and communication traffic in shared virtual memory systems -- Program transformation for locality using affinity regions -- Maximizing loop parallelism and improving data locality via loop fusion and distribution -- Align and distribute-based linear loop transformations -- Extending software pipelining techniques for scheduling nested loops -- A methodology for generating efficient disk-based algorithms from tensor product formulas -- Loop transformations for Prolog programs -- A multithreaded implementation of Id using P-RISC graphs -- Acceleration of first and higher order recurrences on processors with instruction level parallelism -- Efficient compile-time/run-time contraction of fine grain data parallel codes -- VISTA: The Visual Interface for Scheduling Transformations and Analysis -- Efficiently computing ?-nodes on-the-fly -- Construction of thinned gated single-assignment form -- Automatic array privatization -- FIAT: A framework for interprocedural analysis and transformation -- An exact method for analysis of value-based array data dependences -- Symbolic analysis: A basis for parallelization, optimization, and scheduling of programs -- Towards a non-intrusive approach for monitoring distributed computations through perturbation analysis -- Efficient computation of precedence information in parallel programs -- Trace size vs parallelism in trace-and-replay debugging of shared-memory programs -- Parallel Program Graphs and their classification.

Sommario/riassunto

This book contains papers selected for presentation at the Sixth Annual Workshop on Languages and Compilers for Parallel Computing. The workshop washosted by the Oregon Graduate Institute of Science and Technology. All the major research efforts in parallel languages and compilers are represented in this workshop series. The 36 papers in the volume aregrouped under nine headings: dynamic data structures, parallel languages, High Performance Fortran, loop transformation, logic and dataflow language implementations, fine grain parallelism, scalar analysis, parallelizing compilers, and analysis of parallel programs. The book represents a valuable snapshot of the state of research in the field in 1993.