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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Memory-Constrained Communication Minimization for a Class of Array Computations -- Forward Communication Only Placements and Their Use for Parallel Program Construction -- Hierarchical Parallelism Control for Multigrain Parallel Processing -- Compiler Analysis and Supports for Leakage Power Reduction on Microprocessors -- Automatic Detection of Saturation and Clipping Idioms -- Compiler Optimizations with DSP-Specific Semantic Descriptions -- Combining Performance Aspects of Irregular Gauss-Seidel Via Sparse Tiling -- A Hybrid Strategy Based on Data Distribution and Migration for

Optimizing Memory Locality -- Compiler Optimizations Using Data Compression to Decrease Address Reference Entropy -- Towards Compiler Optimization of Codes Based on Arrays of Pointers -- An Empirical Study on the Granularity of Pointer Analysis in C Programs -- Automatic Implementation of Programming Language Consistency Models -- Parallel Reductions: An Application of Adaptive Algorithm Selection -- Adaptively Increasing Performance and Scalability of Automatically Parallelized Programs -- Selector: A Language Construct for Developing Dynamic Applications -- Optimizing the Java Piped I/O Stream Library for Performance -- A Comparative Study of Stampede Garbage Collection Algorithms -- Compiler and Runtime Support for Shared Memory Parallelization of Data Mining Algorithms -- Performance Analysis of Symbolic Analysis Techniques for Parallelizing Compilers -- Efficient Manipulation of Disequalities During Dependence Analysis -- Removing Impediments to Loop Fusion Through Code Transformations -- Near-Optimal Padding for Removing Conflict Misses -- Fine-Grain Stacked Register Allocation for the Itanium Architecture -- Evaluating Iterative Compilation.

Sommario/riassunto

The 15th Workshop on Languages and Compilers for Parallel Computing was held in July 2002 at the University of Maryland, College Park. It was jointly sponsored by the Department of Computer Science at the University of Ma- land and the University of Maryland Institute for Advanced Computer Studies (UMIACS). LCPC2002broughttogetherover60researchersfromacademiaand research institutions from many countries. The program of 26 papers was selected from 32 submissions. Each paper was reviewed by at least three Program Committee members and sometimes by additional reviewers. Prior to the workshop, revised versions of accepted papers were informally published on the workshop's website and in a paper proceedings that was distributed at the meeting. This year, the workshopwas organizedinto sessions of papers on related topics, and each session consisted of two to three 30-minute presentations.Based on feedback from the workshop,the papers were revised and submitted for inclusion in the formal proceedings published in this volume. Two papers were presented at the workshop but later withdrawn from the ? nal proceedings by their authors. We were very lucky to have Bill Carlson from the Department of Defense give the LCPC 2002 keynote speech on "UPC: A C Language for Shared M- ory Parallel Programming." Bill gave an excellent overview of the features and programming model of the UPC parallel programming language.