Run-Time Support for Multi-tier Programming of Block-Structured Applications on SMP Clusters p. 1
Automatic Run-Time Code Generation in C++ p. 9
A Comparison of Performance-Enhancing Strategies for Parallel Numerical Object-Oriented Frameworks p. 17
Design and Performance Improvement of a Real-World, Object-Oriented C++ Solver with STL p. 25
Evaluating High Level Parallel Programming Support for Irregular Applications in ICC++ p. 33
Processing Sparse Vectors During Compile Time in C++ p. 41
Will C++ Be Faster than Fortran? p. 49
The Design and Evolution of the MPI-2 C++ Interface p. 57
Efficient Extensible Synchronization in Sather p. 65
Experiences with an Object-Oriented Parallel Language: The CORRELATE Project p. 73
Towards a Parallel C++ Programming Language Based on Commodity Object-Oriented Technologies p. 81
A Compile-Time Meta-Level Architecture Supporting Class Specific Optimization p. 89
An Object-Oriented Approach to the Implementation of a High-Level Data Parallel Language p. 97
A Framework for Parallel Adaptive Finite Element Methods and Its Template Based Implementation in C++ p. 105
Parallel Array Class Implementation Using C++ STL Adaptors p. 113
A Multithreaded Java Framework for Solving Linear Elliptic Partial Differential Equations in 3D p. 121
Automatic Binding of Native Scientific Libraries to Java p. 129
JAPE: The Java Parallel Environment p. 137
An Architecture in Java for Mobile Computation p. 145
The Extensible Java Preprocessor Kit and a Tiny Data-Parallel Java p. 153
Numerical Solution of PDEs on Parallel Computers Utilizing Sequential Simulators p. 161
The TRIO-Unitaire Project: A Parallel CFD 3-Dimensional Code p. 169
Overture: An Object-Oriented Framework for Solving Partial Differential Equations p. 177
Optimization of Data-Parallel Field Expressions in the POOMA Framework p. 185
MC++ and a Transport Physics Framework p. 195
The Role of Abstraction in High-Performance Computing p. 203
Design of a Data Class for Parallel Scientific Computing p. 211
Describing Objects in Parallel ECEM Image Reconstruction p. 218
Flow in Porous Media Using NAO Finite Difference Classes p. 225
An Object-Oriented Programming Suite for Electrostatic Effects in Biological Molecules p. 233
A Portable, Object-Based Parallel Library and Layered Framework for Real-Time Radar Signal Processing p. 241
Aspect-Oriented Programming of Sparse Matrix Code p. 249
Client/Server Architecture in the ADAMS Parallel Object-Oriented Database System p. 257
Pattern-Based Object-Oriented Parallel Programming p. 267