Preface p. vi
Committees p. vii
Programming Models
The MultiLoop Programming Construct p. 2
Rethinking the Pipeline as Object-Oriented States with Transformations p. 12
Modeling Master-Worker Applications in POETRIES p. 22
High-Level Data-Access Analysis for Characterisation of (Sub)task-Level Parallelism in Java p. 31
Language Abstractions
Abstractions for Dynamic Data Distribution p. 42
The Cascade High Productivity Language p. 52
Toward Efficient Compilation of User-Defined Extensible Fortran Directives p. 61
Component Frameworks
SCIRun2: A CCA Framework for High Performance Computing p. 72
DCA: A Distributed CCA Framework Based on MPI p. 80
XCAT3: A Framework for CCA Components as OGSA Services p. 90
Component-Based Applications and Environments
Techniques for Wrapping Scientific Applications to CORBA Components p. 100
ODEPACK++: Refactoring the LSODE Fortran Library for Use in the CCA High Performance Component Software Architecture p. 109
Arches: An Infrastructure for PSE Development p. 120
Author Index p. 129
Table of Contents provided by Blackwell's Book Services and R.R. Bowker. Used with permission.