Invited Papers

Coordination models and languages for parallel programming

Explosive advances in computational chemistry--Applications of parallel computing in biomedical and material science research

The challenge of massively parallel computing

Applications

A communication library to couple simulation codes on distributed systems for multi-physics computations

Cellular automata model for parallel simulation of contamination processes by oil in porous soils

Hiperplast: An HPCN simulator for reinforced thermoplastics injection processes

Parallel non linear electromagnetic modelling with FEM

Hipercirc: A scalable PC-based parallel system for medical imaging

Bayesian image restoration: Parallel implementation on a SGI origin multiprocessor

A framework for parallel multithreaded implementation of domain decomposition methods

Performance evaluation of a FD-TD parallel code for microwave ovens design

MPEG1 and MPEG2 compression based on a workstation cluster

Parallel implementation of a 3D BJT device simulator

Implementation and performance evaluation for a computation-intensive climate simulation application

Modelling head biomechanics on parallel platforms

Hiperwater: A high performance computing demonstrator for water network analysis

Parallel ground water flow modelling

Parallel computational magneto-fluid dynamics

Parallel processing of natural language parsers

Three-dimensional direct numerical simulation of flow problems with electromagnetic control on parallel systems

Using PVM on computer network to perform fast pre-processing of large medical data set

Fine grain parallelization of multibody system equations of motion

Vehicle routing with time windows and stochastic demand

Parallel cloud modeling

Hybrid scheduling for realistic image synthesis

A parallel architecture for interactive FEM computations in a surgery simulator

Algorithms

Hiperbuild: An efficient parallel software for 3D structural analysis of buildings

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