Parallel Algorithms for Queries with Aggregate Functions in the Presence of Data Skew p. 207

A Deterministic On-Line Algorithm for the List-Update Problem p. 212

Mobile Computing - I

Link-State Aware Traffic Scheduling for Providing Predictive QoS in Wireless Mobile Multimedia Networks p. 219

Enhancing Mobile IP Routing Using Active Routers p. 229

Adaptive Scheduling at Mobiles for Wireless Networks with Multiple Priority Traffic and Multiple Transmission Channels p. 234

An Analysis of Routing Techniques for Mobile and Ad Hoc Networks p. 239

MobiDAT: Mobile Data Access and Transactions p. 246

Parallel Algorithms - II

Optimal k-ary Divide and Conquer Computations on Wormhole 2-D and 3-D Meshes p. 253

Parallel Real Root Isolation Using the Descartes Method p. 261

Cellular Automata Based Transform Coding for Image Compression p. 269

A Parallel Branch-and-Bound Algorithm for the Classification Problem p. 274

Parallel Implementation of Tomographic Reconstruction Algorithms on Bus-Based Extended Hypercube p. 279

An Optimal Hardware-Algorithm for Selection Using a Fixed-Size Parallel Classifier Device p. 284

Mobile Computing - II

A Novel Frame Structure and Call Admission Control for Efficient Resource Management in Next Generation Wireless Networks p. 291

Harmony - A Framework for Providing Quality of Service in Wireless Mobile Computing Environment p. 299

Stochastic Modeling of TCP/IP over Random Loss Channels p. 309

Accurate Approximate Analysis of Dual-Band GSM Networks with Multimedia Services and Different User Mobility Patterns p. 315

Paging Strategies for Future Personal Communication Services Network p. 322

Parallel Applications

A Framework for Matching Applications with Parallel Machines p. 331

A Parallel Monte Carlo Algorithm for Protein Accessible Surface Area Computation p. 339

Parallelisation of a Navier-Stokes Code on a Cluster of Workstations p. 349

I/O Implementation and Evaluation of Parallel Pipelined STAP on High Performance Computers p. 354

Efficient Parallel Adaptive Finite Element Methods Using Self-Scheduling Data and Computations p. 359

Avoiding Conventional Overheads in Parallel Logic Simulation: A New Architecture p. 364

Interconnection Networks

Isomorphic Allocation in k-ary n-cube Systems p. 373

Unit-Oriented Communication in Real-Time Multihop Networks p. 381

Counter-Based Routing Policies p. 389

Minimizing Lightpath Set-up Times in Wavelength Routed All-Optical Networks p. 394

Design of WDM Networks for Delay-Bound Multicasting p. 399