

Table of Contents

Keynote Lectures

Sense of Direction in Distributed Computing <i>P. Flocchini, B. Mans, N. Santoro</i>	1
Top-Down Considerations on Distributed Computing <i>R. van der Meyden, Y. Moses</i>	16
Inter-Task Co-ordination in Long-Lived Distributed Applications <i>S. K. Shrivastava</i>	20

Contributed Papers

Seamlessly Selecting the Best Copy from Internet-Wide Replicated Web Servers <i>Y. Amir, A. Peterson, D. Shaw</i>	22
Wait-Free Synchronization in Quantum-Based Multiprogrammed Systems <i>J. H. Anderson, R. Jain, D. Ott</i>	34
Computing in Totally Anonymous Asynchronous Shared Memory Systems <i>H. Attiya, A. Gorbach, S. Moran</i>	49
Transient Fault Detectors <i>J. Beauquier, S. Delaët, S. Dolev, S. Tixeuil</i>	62
Directed Virtual Path Layouts in ATM Networks <i>J.-C. Bermond, N. Marlin, D. Peleg, S. Perennes</i>	75
A Decision-Theoretic Approach to Reliable Message Delivery <i>F. Chu, J. Halpern</i>	89
Propagation and Leader Election in a Multihop Broadcast Environment <i>I. Cidon, O. Mokryn</i>	104
The Arrow Distributed Directory Protocol <i>M. J. Demmer, M. P. Herlihy</i>	119
Efficient Byzantine Agreement Secure against General Adversaries <i>Matthias Fitzi, Ueli Maurer</i>	134
Long-Lived, Fast, Waitfree Renaming with Optimal Name Space and High Throughput <i>W. Eberly, L. Higham, J. Warpechowska-Gruca</i>	149

The Compactness of Interval Routing for Almost All Graphs <i>C. Gavoille, D. Peleg</i>	161
A Wait-Free Classification of Loop Agreement Tasks <i>M. Herlihy, S. Rajsbaum</i>	175
A Stabilizing Repair Timer <i>T. Herman</i>	186
Java: Memory Consistency and Process Coordination <i>L. Higham, J. Kawash</i>	201
A Complete and Constant Time Wait-Free Implementation of CAS from LL/SC and Vice Versa <i>P. Jayanti</i>	216
Failure Detection and Consensus in the Crash-Recovery Model <i>M. K. Aguilera, W. Chen, S. Toueg</i>	231
A More Committed Quorum-Based Three Phase Commit Protocol <i>T. Kempster, C. Stirling, P. Thanisch</i>	246
Multicast Group Communication as a Base for a Load-Balancing Replicated Data Service <i>R. Khazan, A. Fekete, N. Lynch</i>	258
Efficient Deadlock-Free Multi-dimensional Interval Routing in Interconnection Networks <i>R. Kráľovič, B. Rován, P. Ružička and D. Štefankovič</i>	273
A New Protocol for Efficient Cooperative Transversal Web Caching <i>J.-M. Menaud, V. Issarny, M. Banâtre</i>	288
Fairness of Shared Objects <i>M. Merritt, G. Taubenfeld</i>	303
Optimistic Atomic Broadcast <i>F. Pedone, A. Schiper</i>	318
Approximate Agreement with Mixed Mode Faults: Algorithm and Lower Bound <i>R. Plunkett, A. Fekete</i>	333
Using Remote Access Histories for Thread Scheduling in Distributed Shared Memory Systems <i>A. Schuster, L. Shalev</i>	347
The Bancomat Problem: An Example of Resource Allocation in a Partitionable Asynchronous System <i>J. Sussman, K. Marzullo</i>	363

Lifetime Based Consistency Protocols for Distributed Objects <i>F. J. Torres-Rojas, M. Ahamad, M. Raynal</i>	378
Deriving a Scalable Algorithm for Mutual Exclusion <i>Y.-K. Tsay</i>	393
OFC: A Distributed Fossil-Collection Algorithm for Time-Warp <i>C. H. Young, N. B. Abu-Ghazaleh, P. A. Wilsey</i>	408
Author Index	419