Bibliography

- [1] A. Chervenak, I. Foster, C. Kesselman, C. Salisbury, an S. Tuecke, *The Data Grid: Towards an Architecture for the Distributed Management and Analysis of Large Scientific Datasets*, Journal of Network and Computer Applications, Vol. 23, No. 3, July 2000.
- [2] A. Grimshaw and W. Wulf, *The Legion Vision of a Worldwide Virtual Computer*, Communications of the ACM, vol. 40(1), January 1997.
- [3] A. Lazar and N. Semret, *Auctions for Network Resource Sharing*, TR 468-97-02, Columbia University, Feb. 1997.
- [4] A. Oram (editor), *Peer-to-Peer: Harnessing the Power of Disruptive Technologies*, O'Reilly Press, USA, 2001.
- [5] A. Varga, *The OMNeT++ Discrete Event Simulation System*, Proceedings of the European Simulation Multiconference (ESM 2001), June 6-9, 2001, Prague, Czech Republic.
- [6] B. Allcock, I. Foster, V. Nefedova, A. Chervenak, E. Deelman, C. Kesselman, J. Lee, A. Sim, A. Shoshani, B. Drach and D. Williams, *High-Performance Remote Access to Climate Simulation Data: A Challenge Problem for Data Grid Technologies*, Proceedings of SC2001 Conference, Denver, USA, November 2001.
- [7] B. Carpenter, *IPv6* and the Future of the Internet, The Internet Society Member Briefing, 23 July 2001. http://www.isoc.org/briefings/001/
- [8] B. Chun and D. Culler, *Market-based proportional resource sharing for clusters*, Technical Report CSD-1092, University of California, Berkeley, USA, January 2000.
- [9] B. Chun, *Market-based Cluster Resource Management*, Ph.D. Dissertation, the University of California at Berkeley, USA, October 2001.
- [10] B. Cooper and H. Garcia-Molina, *Bidding for Storage Space in a Peer-to-peer Data Preservation System*, To appear in Proceedings of the 22nd International Conference on Distributed Computing Systems (ICDSC 2002), July 2-5, 2002 Vienna, Austria. http://www-db.stanford.edu/peers/
- [11] B. Shoichet, D. Bodian, and I. Kuntz, *Molecular docking using shape descriptors*, Journal of Computational Chemistry, 13(3): 380-397, 1992.
- [12] B. Knighten, *Peer to Peer Computing* Working Group, Intel Developer's Forum, August 24, 2000, http://www.peer-to-peerwg.org
- [13] C. Neuman and G. Medvinsky, *Requirements for Network Payment: The NetCheque Perspective*, Proceedings of IEEE COMPCON'95: Technologies for the Information Superhighway, San Francisco, USA, March 1995.
- [14] C. Waldspurger, T. Hogg, B. Huberman, J. Kephart, and W. Stornetta, *Spawn: A Distributed Computational Economy*, IEEE Transactions on Software Engineering, Vol. 18, No. 2, pp 103—117, IEEE CS Press, USA, February 1992.
- [15] CACI, Simscript: a simulation language for building large-scale, complex simulation models, CACI Products Company, San Diego, CA, USA, http://www.simscript.com/simscript.cfm

- [16] D. Abramson, A. Lewis, and T. Peachy, *Nimrod/O: A Tool for Automatic Design Optimization*, Proceedings of the 4th International Conference on Algorithms & Architectures for Parallel Processing (ICA3PP 2000), Hong Kong, China, December 2000.
- [17] D. Abramson, A. Lewis, Peachy, and C. Fletcher, *An Automatic Design Optimization Tool and its Application to Computational Fluid Dynamics*, Proceedings of the Super Computing 2001 Conference, Denver, USA, Nov. 2001.
- [18] D. Abramson, I. Foster, J. Giddy, A. Lewis, R. Sosic, R. Sutherst, N. White, *The Nimrod Computational Workbench: A Case Study in Desktop Metacomputing*, Australian Computer Science Conference (ACSC 97), Macquarie University, Sydney, Feb 1997.
- [19] D. Abramson, J. Giddy, and L. Kotler, *High Performance Parametric Modeling with Nimrod/G: Killer Application for the Global Grid?*, Proceedings of the International Parallel and Distributed Processing Symposium (IPDPS 2000), May 1-5, 2000, Cancun, Mexico, IEEE Computer Society (CS) Press, USA, 2000.
- [20] D. Abramson, P. Roe, L. Kotler, and D. Mather, *ActiveSheets: Super-Computing with Spreadsheets*. 2001 High Performance Computing Symposium (HPC'01), Advanced Simulation Technologies Conference, April 2001.
- [21] D. Abramson, R. Sosic, J. Giddy, and B. Hall, *Nimrod: A Tool for Performing Parametised Simulations using Distributed Workstations*, Proceedings of the 4th IEEE International Symposium on High Performance Distributed Computing, Virginia, August 1995, IEEE CS Press, USA, 1995.
- [22] D. Ferguson, C. Nikolaou, J. Sairamesh, and Y. Yemini, Economic Models for Allocating Resources in Computer Systems, In *Market-based Control: A Paradigm for Distributed Resource Allocation*, World Scientific Press, Singapore, 1996.
- [23] D. Reed, I. Pratt, P. Menage, S. Early, and N. Stratford, *Xenoservers; Accounted execution of untrusted code*, Proceedings of the 7th Workshop on Hot Topics in Operating Systems (HotOS-VII), Rio Rico, Arizona, USA, March 28-30, 1999, IEEE CS Press, USA, 1999.
- [24] Distributed.Net http://www.distributed.net/
- [25] E. Lunney, *Computing in Drug Discovery: The Design Phase*, IEEE Computing in Science and Engineering Magazine, http://computer.org/cise/homepage/2001/05Ind/05ind.htm
- [26] E. Meng, D. Gschwend, J. Blaney, and I. Kuntz, *Orientational sampling and rigid-body minimization in molecular docking*, Proteins, 17(3): 266-278, 1993.
- [27] Entropia, Fight AIDS at Home Project: A joint effort of Entropia and Scripps Research Institute, http://www.fightAIDSatHome.org/
- [28] F. Berman and R. Wolski, *The AppLeS Project: A Status Report*, Proceedings of the 8th NEC Research Symposium, Berlin, Germany, May 1997.
- [29] F. Howell and R. McNab, SimJava: A Discrete Event Simulation Package For Java With Applications In Computer Systems Modelling, First International Conference on Web-based Modelling and Simulation, San Diego, CA, Society for Computer Simulation, January 1998.
- [30] Foundation for Intelligent Physical Agents (FIPA), *Interaction and Negotiation Protocols*, http://www.fipa.org/
- [31] G. Allen et al, *Early Experiences with the European Grid (eGrid) Testbed*, Proceedings of the 1st IEEE/ACM International Symposium on Cluster Computing and the Grid (CCGrid 2001), May 15-18, 2001, Brisbane, Australia, IEEE CS Press, USA, 2001.
- [32] G. Fedak, C. Germain, V. Néri, and F. Cappello, *XtremWeb : A Generic Global Computing System*, Proceedings of the 1st IEEE/ACM International Symposium on Cluster Computing and the Grid (CCGrid 2001), May 15-18, 2001, Brisbane, Australia, IEEE CS Press, USA, 2001.
- [33] G. Heiser, F. Lam, and S. Russell, *Resource Management in the Mungi Single-Address-Space Operating System,* Proceedings of Australasian Computer Science Conference, February 4-6, 1998, Perth Australia, Springer-Verlag, Singapore, 1998.

- [34] G. Medvinsky and C. Neuman, *NetCash: A design for practical electronic currency on the Internet*. Proceedings of 1st the ACM Conference on Computer and Communication Security, November 1993.
- [35] G. Morris, D. Goodsell, R. Huey, and A. Olson, *Distributed automated docking of flexible ligands to proteins: Parallel applications of AutoDock 2.4*, Journal of Computer-Aided Molecular Design, Vol. 10, pp. 293-304., 1996.
- [36] G. Tesauro and J. Kephart, Foresight-based pricing algorithms in an economy of software agents, First International Conference on Information and Computation Economies, Charleston, South Carolina, October, 1998. http://www.ibm.com/iac/papers/ice98_fs/
- [37] Global Grid Forum, http://www.gridforum.org/, Accessed on Nov. 1, 2001.
- [38] Globus Testbeds http://www-fp.globus.org/testbeds/
- [39] Gnutella http://gnutella.wego.com/
- [40] H. Bal et al., *The distributed ASCI supercomputer project*, ACM Special Interest Group Operating Systems Review, Vol. 34, No. 4, October 2000. http://www.cs.vu.nl/das/
- [41] H. Casanova and J. Dongarra, *NetSolve: A Network Server for Solving Computational Science Problems*, International Journal of Supercomputing Applications and High Performance Computing, Vol. 11, No. 3, pp 212-223, Sage Publications, USA, 1997.
- [42] H. Casanova, G. Obertelli, F. Berman, R. Wolski, *The AppLeS Parameter Sweep Template: User-Level Middleware for the Grid*, IEEE Supercomputing Conference (SC 2000), November 2000, Dallas, TX, USA.
- [43] H. Casanova, *Simgrid: A Toolkit for the Simulation of Application Scheduling*, Proceedings of the First IEEE/ACM International Symposium on Cluster Computing and the Grid (CCGrid 2001), May 2001, Brisbane, Australia.
- [44] H. Dail, G. Obertelli, F. Berman, R. Wolski, and Andrew Grimshaw, *Application-Aware Scheduling of a Magnetohydrodynamics Application in the Legion Metasystem*, Proceedings of the 9th Heterogeneous Computing Workshop, May 2000.
- [45] H. Nakada, M. Sato, S. Sekiguchi, *Design and Implementations of Ninf: towards a Global Computing Infrastructure*, Future Generation Computing Systems, Metacomputing Special Issue, October 1999.
- [46] H. Song, X. Liu, D. Jakobsen, R. Bhagwan, X. Zhang, K. Taura, and A. Chien, *The MicroGrid: A Scientific Tool for Modeling Computational Grids*, Proceedings of IEEE Supercomputing (SC 2000), Nov. 4-10, 2000, Dallas, USA.
- [47] H. Stockinger, K. Stockinger, E. Schikuta, and I. Willers. *Towards a Cost Model for Distributed and Replicated Data Stores*, Proceedings of the 9th Euromicro Workshop on Parallel and Distributed Processing (PDP 2001), Feb. 7-9, 2001, Italy, IEEE CS Press, USA, 2001.
- [48] I. Foster and C. Kesselman (editors), *The Grid: Blueprint for a Future Computing Infrastructure*, Morgan Kaufmann Publishers, USA, 1999.
- [49] I. Foster and C. Kesselman, *Globus: A Metacomputing Infrastructure Toolkit*, International Journal of Supercomputer Applications, 11(2): 115-128, 1997.
- [50] I. Foster, A.. Roy, and V. Sander, *A Quality of Service Architecture that Combines Resource Reservation and Application Adaptation*, Proceedings of IEEE/IFIP 8th International Workshop on Quality of Service (IWQOS 2000), June 2000, Pittsburgh, USA.
- [51] I. Foster, C. Kesselman, and S. Tuecke, *The Anatomy of the Grid: Enabling Scalable Virtual Organizations*, International Journal of Supercomputer Applications, 15(3), Sage Publications, 2001, USA.
- [52] I. Kuntz, J. Blaney, S. Oatley, R. Langridge, and T. Ferrin, *A geometric approach to macromolecule-ligand interactions*, Journal of Molecular Biology, 161: 269-288, 1982.

- [53] ISO New England, *Electricity Trading Over the Internet Begins in Six New England States*, Business Wire, http://industry.java.sun.com/javanews/stories/story2/0,1072,15093,00.html, May 13, 1999.
- [54] J. Basney and M. Livny, *Deploying a High Throughput Computing Cluster*, High Performance Cluster Computing, R. Buyya (editor). Vol. 1, Chapter 5, Prentice Hall PTR, May 1999.
- [55] J. Bredin, D. Kotz, and D. Rus, *Utility Driven Mobile-Agent Scheduling*, Technical Report CS-TR98-331, Dartmouth College, Hanover, NH, USA, October 3, 1998.
- [56] J. Brooke, M. Foster, S. Pickles, K. Taylor, and T. Hewitt, *Mini-Grids: Effective Test-beds for Grid Application*, Proceedings of the First IEEE/ACM International Workshop on Grid Computing (GRID 2000), Dec. 17, 2000, Bangalore, India, Springer Verlag Press, Germany, 2000.
- [57] J. Frey, T. Tannenbaum, M. Livny, I. Foster, and S. Tuecke, *Condor-G: A Computation Management Agent for Multi-Institutional Grids*,. Proceedings of the Tenth International Symposium on High Performance Distributed Computing (HPDC-10), IEEE CS Press, August 2001.
- [58] J. Gehring and A. Streit, *Robust Resource Management for Metacomputers*, 9th IEEE International Symposium on High Performance Distributed Computing, Pittsburgh, USA, 2000.
- [59] J. Postel, C. Sunshine, and D. Cohen, The ARPA Internet Protocol, Computer Networks, Vol. 5, 1981.
- [60] J. Sairamesh and J. Kephart, *Price Dynamics of Vertically Differentiated Information Markets*, Proceedings of the First International Conference on Information and Computation Economies, Charleston, South Carolina, October, 1998.
- [61] J. Weissman, Grids in the Classroom, *IEEE Distributed Systems Online*, Volume 1, No. 3, 2000, http://www.computer.org/dsonline/archives/ds300/ds3eduprint.htm
- [62] K. Aida, A. Takefusa, H. Nakada, S. Matsuoka, S. Sekiguchi, and U. Nagashima, *Performance evaluation model for scheduling in a global computing system*, The International Journal of High Performance Computing Applications, Vol. 14, No. 3, Sage Publications, USA, 2000.
- [63] K. Czajkowski, I. Foster, N. Karonis, C. Kesselman, S. Martin, W. Smith, and S. Tuecke, A Resource Management Architecture for Metacomputing Systems, Proceedings of the 4th International Workshop on Job Scheduling Strategies for Parallel Processing, March 30, 1998, Orlando, Florida, USA, Springer Verlag Press, Germany, 1998.
- [64] K. Holtman, *CMS Data Grid System Overview and Requirements*, The Compact Muon Solenoid (CMS) Experiment Note 2001/037, CERN, Switzerland, 2001.
- [65] K. Krauter, R. Buyya, and M. Maheswaran, *A Taxonomy and Survey of Grid Resource Management Systems for Distributed Computing*, International Journal of Software: Practice and Experience (SPE), Wiley Press, New York, USA, May 2002. (to appear).
- [66] K. Reynolds, *The Double Auction*, Agorics, Inc., 1996. http://www.agorics.com/Library/Auctions/auction6.html
- [67] L. Camarinha-Matos and H. Afsarmanesh (editors), *Infrastructure For Virtual Enterprises:* Networking Industrial Enterprises, Kluwer Academic Press, 1999.
- [68] L. Gong, Project JXTA: A Technology Overview, Technical Report, Sun Microsystems Inc., April 2001, http://www.jxta.org/project/www/docs/TechOverview.pdf
- [69] L. Norskog, *A Personal Communication on Economics and Grid Allocation*, Enron Broadband Systems, March 14, 2001. Available at: http://www.buyya.com/ecogrid/comments/enron.txt
- [70] L. Silva and R. Buyya, *Parallel Programming Paradigms*, Chapter 2 in High Performance Cluster Computing: Programming and Applications (Vol. 2), Prentice Hall, NJ, USA, 1998.
- [71] L. W. McKnight and J. Boroumand, *Pricing Internet Services: Approaches and Challenges*, IEEE Computer, Vol. 33, No. 2, pp. 128-129, IEEE CS Press, USA, Feb. 2000.
- [72] M. Baker (editor), *Grid Computing*, IEEE DS Online, http://computer.org/dsonline/gc/

- [73] M. Baker and G. Fox, Metacomputing: Harnessing Informal Supercomputers, *High Performance Cluster Computing: Architectures and Systems*, Buyya, R. (ed.), Volume 1, Prentice Hall PTR, NJ, USA, 1999.
- [74] M. Baker, R. Buyya, and D. Laforenza, *The Grid: International Efforts in Global Computing*, International Conference on Advances in Infrastructure for Electronic Business, Science, and Education on the Internet (SSGRR 2000), 1'Aquila, Rome, Italy, July 31 August 6. 2000.
- [75] M. D. Brown, T. DeFanti, M. A. McRobbie, A. Verlo, D. Plepys, D. F. McMullen, K. Adams, J. Leigh, A. E. Johnson, I. Foster, C. Kesselman, A. Schmidt, and S. N. Goldstein, *The International Grid (iGrid): Empowering Global Research Community Networking Using High Performance International Internet Services*, April 1999, http://www.globus.org/research/papers.html
- [76] M. Frank, *The OCEAN Project: The Open Computation Exchange & Auctioning Network*, The University of Florida, http://www.cise.ufl.edu/research/ocean/, accessed on April 2002.
- [77] M. Huhns and L. Stephens, Mutiagent Systems and Societies of Agents, In *Multiagent Systems* (G. Weiss, editor), The MIT Press, 2000.
- [78] M. Kumar and S. Feldman, *Business negotiations on the Internet*, Technical Report, IBM Institute of Advanced Commerce March 11, 1998, http://www.ibm.com/iac/tech-paper.html
- [79] M. Litzkow, M. Livny, and M. Mutka, *Condor A Hunter of Idle Workstations*, Proceedings of the 8th International Conference of Distributed Computing Systems (ICDCS 1988), January 1988, San Jose, CA, IEEE CS Press, USA, 1988.
- [80] M. Miller and K. Drexler, Markets and Computation: Agoric Open Systems, The Ecology of Computation, B. Huberman (editor), Elsevier Science Publishers, The Netherlands, 1998.
- [81] M. Murshed, R. Buyya, and D. Abramson, *GridSim: A Portable and Scalable Toolkit for Modeling and Simulation of Application Scheduling for Parallel and Distributed Computing*, Technical Report, Monash University, Oct. 2001. Available from: http://www.buyya.com/gridsim/
- [82] M. Neary, A. Phipps, S. Richman, P. Cappello, *Javelin 2.0: Java-Based Parallel Computing on the Internet*, Proceedings of European Parallel Computing Conference (Euro-Par 2000), Germany, 2000
- [83] M. Stonebraker, R. Devine, M. Kornacker, W. Litwin, A. Pfeffer, A. Sah, and C. Staelin, An Economic Paradigm for Query Processing and Data Migration in Mariposa, Proceedings of 3rd International Conference on Parallel and Distributed Information Systems, Austin, TX, USA, 28-30 Sept. 1994. Los Alamitos, CA, USA: IEEE Computer Society Press, 1994.
- [84] Mojo Nation http://www.mojonation.net/, June 2001.
- [85] N. Kapadia and J. Fortes, *PUNCH: An Architecture for Web-Enabled Wide-Area Network-Computing*, Cluster Computing: The Journal of Networks, Software Tools and Applications, Vol. 2, No. 2, pp. 153-164, Baltzer Science Publishers, The Netherlands, Sept. 1999.
- [86] N. Kapadia, R. Figueiredo, and J. Fortes, *PUNCH: Web Portal for Running Tools*, IEEE Micro, May-June, 2000.
- [87] N. Nisan, S. London, O. Regev, and N. Camiel, *Globally Distributed computation over the Internet: The POPCORN project*, International Conference on Distributed Computing Systems (ICDCS'98), May 26 29, 1998, Amsterdam, The Netherlands, IEEE CS Press, USA, 1998.
- [88] Napster http://www.napster.com/
- [89] Paypal http://www.paypall.com, 2000.
- [90] R. Bagrodia, R. Meyer, M. Takai, Y. Chen, X. Zeng, J. Martin, B. Park, and H. Song, *Parsec: A Parallel Simulation Environment for Complex Systems*, Vol. 31(10), IEEE Computer, October 1998.
- [91] R. Buyya (editor), Grid Computing Info Centre, http://www.GridComputing.com/
- [92] R. Buyya (editor), *High Performance Cluster Computing*, Vol. 1 and 2, Prentice Hall PTR, NJ, USA, 1999.

- [93] R. Buyya (editor), *High Performance Cluster Computing: Architectures and Systems*, Volumes 1 and 2, Prentice Hall, NJ, USA, 1999.
- [94] R. Buyya and M. Murshed, A Deadline and Budget Constrained Cost-Time Optimize Algorithm for Scheduling Parameter Sweep Applications on the Grid, GridSim Toolkit Release Document, Dec. 2001.
- [95] R. Buyya and M. Murshed, *GridSim: A Toolkit for the Modeling and Simulation of Distributed Resource Management and Scheduling for Grid Computing*, Technical Report, Monash University, Nov. 2001. To appear in the Journal of Concurrency and Computation: Practice and Experience (CCPE), 1-32pp, Wiley Press, May 2002.
- [96] R. Buyya et. al., *The HEPGrid (High Energy Physics and the Grid Network) Project*, http://www.gridbus.org/hepgrid/
- [97] R. Buyya, *Commercial Peer to Peer (P2P) Computing Solution Provides*, Grid Computing Information Centre, http://www.gridcomputing.com/, 2000-2002.
- [98] R. Buyya, D. Abramson, and J. Giddy, *A Case for Economy Grid Architecture for Service-Oriented Grid Computing*, Proceedings of the International Parallel and Distributed Processing Symposium: 10th IEEE International Heterogeneous Computing Workshop (HCW 2001), April 23, 2001, San Francisco, California, USA, IEEE CS Press, USA, 2001.
- [99] R. Buyya, D. Abramson, and J. Giddy, *An Economy Driven Resource Management Architecture for Global Computational Power Grids*, Proceedings of the 2000 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA 2000), June 26-29, 2000, Las Vegas, USA, CSREA Press, USA, 2000.
- [100] R. Buyya, D. Abramson, and J. Giddy, *Nimrod-G: An Architecture for a Resource Management and Scheduling System in a Global Computational Grid*, The 4th International Conference on High Performance Computing in Asia-Pacific Region (HPC Asia 2000), May 2000, Beijing, China, IEEE Computer Society Press, USA.
- [101] R. Buyya, D. Abramson, and J. Giddy, *The Nimrod-G Grid Resource Broker Software*, http://www.csse.monash.edu.au/~davida/nimrod/
- [102] R. Buyya, D. Abramson, J. Giddy, and H. Stockinger, *Economic Models for Resource Management and Scheduling in Grid Computing*, The Journal of Concurrency and Computation: Practice and Experience (CCPE), Wiley Press, May 2002 (to appear). Available at: http://www.buyya.com/papers/emodelsgrid.pdf
- [103] R. Buyya, H. Stockinger, J. Giddy, and D. Abramson, Economic Models for Management of Resources in Peer-to-Peer and Grid Computing, In Proceedings of International Conference on Commercial Applications for High-Performance Computing, SPIE Press, August 20-24, 2001, Denver, Colorado, USA.
- [104] R. Buyya, Interactive Class Hierarchy Diagram of Economic Grid Resource Broker Simulated using the GridSim Toolkit, http://www.buyya.com/gridsim/doc/gridbroker/, Dec. 2001.
- [105] R. Buyya, J. Giddy, D. Abramson, *An Evaluation of Economy-based Resource Trading and Scheduling on Computational Power Grids for Parameter Sweep Applications*, Proceedings of the 2nd International Workshop on Active Middleware Services (AMS 2000), Kluwer Academic Press, August 1, 2000, Pittsburgh, USA.
- [106] R. Buyya, K. Branson, J. Giddy, and D. Abramson, *The Virtual Laboratory: Enabling Molecular Modelling for Drug Design on the World Wide Grid*, Technical Report, Monash-CSSE-2001-103, Monash University, Melbourne, Australia, December 2001.
- [107] R. Buyya, M. Murshed, and D. Abramson, A Deadline and Budget Constrained Cost-Time Optimization Algorithm for Scheduling Task Farming Applications on Global Grids, Technical Report, Monash University, March 2002. http://www.buyya.com/gridsim/
- [108] R. Buyya, S. Chapin, and D. DiNucci, *Architectural Models for Resource Management in the Grid*, First IEEE/ACM International Workshop on Grid Computing (GRID 2000), Springer Verlag LNCS Series, Germany, Dec. 17, 2000, Bangalore, India.

- [109] R. Buyya, The Virtual Lab Tools for Chemical Database (CDB) Management and Access, http://www.buyya.com/vlab/
- [110] R. Buyya, *The Virtual Laboratory Project: Molecular Modeling for Drug Design on Grid*, IEEE Distributed Systems Online, Vol. 2, No. 5, 2001. http://www.buyya.com/vlab/
- [111] R. Buyya, The World-Wide Grid (WWG), http://www.buyya.com/ecogrid/wwg/, 1999-2002.
- [112] R. Cocchi, S. Shanker, D. Estrin, and L. Zhang, *Pricing in Computer Networks: Motivation, Formulation, and Example*, IEEE/ACM Transactions on Networking, Vol. 1, No. 6, Dec. 1993.
- [113] R. Das, J. Hanson, J. Kephart, and G. Tesauro, *Agent-Human Interactions in the Continuous Double Auction*, Proceedings of the International Joint Conferences on Artificial Intelligence (IJCAI), August 4-10, 2001, Seattle, Washington, USA.
- [114] R. Metcalfe and D. Boggs, *Ethernet: Distributed Packet Switching for Local Computer Networks*, Proceedings of the ACM National Computer Conference Vol. 19, No. 5, July 1976.
- [115] R. Raman and M. Livny, *Matchmaking: Distributed Resource Management for High Throughput Computing*, Proceedings of the Seventh IEEE International Symposium on High Performance Distributed Computing, July 28-31, 1998, Chicago, IL.
- [116] R. Schneider, *Drug Design Using Parallel Processor*, http://www.cordis.lu/esprit/src/results/res_area/hpnc/hpnc15.htm
- [117] R. Smith and R. Davis, *The Contract Net Protocol: High Level Communication and Control in a Distributed Problem Solver*, IEEE Transactions on Computers, Vol. C-29, No. 12, pp. 1104-1113, Dec. 1980, IEEE CS Press, USA.
- [118] R. Wolski, J. Plank, J. Brevik, and T. Bryan, *Analyzing Market-based Resource Allocation Strategies for the Computational Grid*, International Journal of High-performance Computing Applications, Volume 15, Number 3, Sage Publications, USA, Fall 2001.
- [119] R. Zakon, *Hobbes' Internet Timeline v5.4*, http://www.zakon.org/robert/internet/timeline/, Nov. 5, 2001.
- [120] S. Bansal and G. Pal, *The Web at your (machine's) service*, JavaWorld Magazine, September 28, 2001, http://www.javaworld.com/javaworld/jw-09-2001/jw-0928-smsservice.html
- [121] S. Chapin, J. Karpovich, and A. Grimshaw, *The Legion Resource Management System*, Proceedings of the 5th Workshop on Job Scheduling Strategies for Parallel Processing, April 16, 1999, San Juan, Puerto Rico, USA, Springer Verlag Press, Germany, 1999.
- [122] S. Fitzgerald, I. Foster, C. Kesselman, G. von Laszewski, W. Smith, S. Tuecke, *A Directory Service for Configuring High-Performance Distributed Computations*, 6th IEEE Symp. on High-Performance Distributed Computing, 1997.
- [123] S. Harris, *The Tao of IETF A Novice's Guide to the Internet Engineering Task Force*, August 2001, http://www.ietf.cnri.reston.va.us/rfc/rfc3160.txt
- [124] S. Jackson, *QBank: A Resource Management Package for Parallel Computers*, Pacific Northwest National Laboratory, Washington, USA, 2000.
- [125] S. Lalis and A. Karipidis, *An Open Market-Based Framework for Distributed Computing over the Internet*, Proceedings of the First IEEE/ACM International Workshop on Grid Computing (GRID 2000), Dec. 17, 2000, Bangalore, India, Springer Verlag Press, Germany, 2000.
- [126] S. Smale, Dynamics in general equilibrium theory, *American Economic Review*, Vol. 66, No. 2, 284-294pp, May 1976.
- [127] S. Smallen, W. Cirne, J. Frey, F. Berman, R. Wolski, M. Su, C. Kesselman, S. Young, and M. Ellisman, *Combining Workstations and Supercomputers to Support Grid Applications: The Parallel Tomography Experience*, Proceedings of the 9th Heterogeneous Computing Workshop, May 2000.
- [128] SPEC, SPEC CPU2000 Results, http://www.specbench.org/osg/cpu2000/results/cpu2000.html, accessed on Jan. 30, 2002.
- [129] T. Berners-Lee, Weaving the Web: The Past, Present, and Future of the World Wide Web by its Inventor, Orion Publishing Group, UK, 1999.

- [130] T. Ewing (editor), *DOCK Version 4.0 Reference Manual*, University of California at San Francisco (UCSF), USA, 1998. Online version: http://www.cmpharm.ucsf.edu/kuntz/dock.html
- [131] T. Sandholm, Distributed Rational Decision Making, In *Multi-Agent Systems: A Modern Introduction to Distributed Artificial Intelligence*, G. Weiss, editor, The MIT Press, USA, 2000.
- [132] Tripos, Inc., SYBYL Mol2 File Format, http://www.tripos.com/services/mol2/, USA, Oct. 7, 2001.
- [133] Tripos, Inc., SYBYL Toolkit for molecular design and analysis, http://www.tripos.com/software/sybyl.html, USA, Oct. 7, 2001.
- TurboLinux, *Using Application Programming Interface*, Chapter 9, EnFuzion Manual, 2002. Available at: http://www.csse.monash.edu.au/cluster/enFuzion/api.htm
- [135] TurboLinux, EnFuzion Manual, http://www.csse.monash.edu.au/cluster/enFuzion/
- [136] United Devices, *The History of Distributed Computing*, http://www.ud.com/company/dc/history.htm, October 9, 2001.
- [137] V. Sunderam, A. Geist, J. Dongarra, and R. Manchek, *The PVM Concurrent Computing System: Evolution, Experiences, and Trends*, Parallel Computing Journal, Volume 20, Number 4, April 1994.
- [138] W. Gropp, E. Lusk, N. Doss, and A. Skjellum, *A High-Performance, Portable Implementation of the Message Passing Interface (MPI) Standard*, Parallel Computing Journal, Volume 22, Number 6, September 1996.
- [139] W. Hoschek, J. Jaen-Martinez, A. Samar, H. Stockinger, and K. Stockinger, *Data Management in an International Data Grid Project*, Proceedings of the First IEEE/ACM International Workshop on Grid Computing, (Springer Verlag Press, Germany), India, 2000.
- [140] W. Leinberger and V. Kumar, Information Power Grid: The new frontier in parallel computing? *IEEE Concurrency*, October-December 1999.
- [141] W. T. Sullivan, III, D. Werthimer, S. Bowyer, J. Cobb, D. Gedye, and D. Anderson, *A new major SETI project based on Project Serendip data and 100,000 personal computers*, Proceedings of the Fifth International Conference on Bioastronomy, 1997. http://setiathome.ssl.berkeley.edu/
- [142] W. Vickrey, *Counter-speculation, auctions, and competitive sealed tenders*, Journal of Finance, Vol. 16, No. 1, pp. 9-37, March 1961.
- [143] World Wide Web Consortium (W3C), http://www.w3c.org/, Accessed on Nov. 1, 2001.
- [144] Y. Amir, B. Awerbuch, and R. Sean Borgstrom, *A Cost-Benefit Framework for Online Management of a Metacomputing System*, Proceedings of 1st International Conference on Information and Computational Economy, October 25-28, 1998, Charleston, SC, USA.
- [145] Y. Amir, B. Awerbuch., A. Barak A., S. Borgstrom, and A. Keren, *An Opportunity Cost Approach for Job Assignment in a Scalable Computing Cluster*, IEEE Transactions on Parallel and Distributed Systems, Vol. 11, No. 7, pp. 760-768, IEEE CS Press, USA, July 2000.
- [146] Y. Aridor, M. Factor, and A. Teperman, *cJVM: a Single System Image of a JVM on a Cluster*, Proceedings of the 29th International Conference on Parallel Processing (ICPP 99), September 1999, Fukushima, Japan, IEEE Computer Society Press, USA.