Citations

Google Scholar lists 321 papers and 2802 citations for Dan C. Marinescu

Books

1. "Internet-Based Workflow Management: Towards a Semantic Web," 627+xxiii pages, ISBN 0-471-43962-2, Wiley, New York, N.Y., 2002.

2. "Process Coordination and Ubiquitous Computing," (D.C. Marinescu and C. Lee Editors), ISBN 0-8493-1470-4, CRC Press, New York, N.Y., 2002.

3. "Approaching Quantum Computing," (with G. M. Marinescu), 365+xvi pages, ISBN 0-13-15224-X, Prentice Hall, Upper Saddle River, N.J., 2004.

4. "Classical and Quantum Information," (with G. M. Marinescu), Academic Press (a division of Elsevier), 725 pages, 2011.

5. "Cloud Computing; Theory and Practice," Morgan Kaufmann, 400 pages, 2013.

6. "A Self-organizaing Cloud Ecosystem," 150 pages, Morgan Kaufmann (in preparation).

Book Chapters

1. "On-line Experiments," *Experiment Data Acquisition and Analysis System,* pp. 77–92, 136–147, (Vol. 1), 151–155, 209–213, and 252–255 (Vol. 2), 46 (Vol. 3), ISSN 0171–4546, 1983.

2. "Scheduling Protocols Based Upon Limited Contention Multiple Access," *Local Communication Systems: LAN and PBX,* (J.P. Cabanel, G. Pujolle, and A. Danthine, Eds.), North Holland, pp. 11–31, 1986.

3. "Analysis of a Two Level Asynchronous Algorithm for PDEs," (with J. R. Rice), in *Aspects of Computations on Asynchronous Parallel Processors,* (M. Wright, Ed.), North Holland, pp. 23–33, 1989.

4. "Synchronization of Nonhomogeneous Parallel Computations," (with J. R. Rice), *Parallel Processing for Scientific Computing,* (G. Rodrigue, Ed.), SIAM, pp. 362–367, 1989.

5. "Stochastic High Level Petri Nets and Applications," (with C.Lin), in *High Level Petri Nets*, (K. Jensen, Ed.), Springer Verlag, Heidelberg, pp. 459-470, 1991.

6. "Molecular Replacement Real Space Averaging," (with M.G.Rossmann, R. Mc.Kenna, L. Tong, D. Xia, J. Dai, H. Wu, H.K. Choi, and R.E. Lynch), in *Molecular Replacement*, (E. Dodson, S. Gover, and W. Wolf, Eds.), Science and Engineering Research Council, Daresbury, pp. 33-48, 1993.

7. "Models for Monitoring and Debugging Tools for Parallel and Distributed Software," (with J. E. Lumpp, T.L. Casavant, and H.J. Siegel), in *Monitoring and Debugging Distributed and/or Real-Time Systems,* (J.P. Tsai and S.J.H. Yang, Eds.), IEEE Computer Society Press, pp. 64 –76, 1994.

8. "An Alternative Model for Scheduling on a Computational Grid," (with L. Bölöni, R. Hao, and K.K. Jun), in *Advances in Computer and Information Sciences 98*, U. Giütükbay et al.(Eds.) IOS Press, pp. 473–489, 1998.

9. "Parallel/High-Performance Object-Oriented Scientific Computing," In *Object-Oriented Technology, ECOOP'99 Workshop,* (with B. Mohr, F. Bassseti, K. Davis, S. Hútemann, P. Launay, D. J. Miller, R. L. Vanderwart, A. Prodan, Lecture Notes in Computer Science, Springer Verlag, Heidelberg, Vol. 1586, pp. 275–283, 1999.

10. "Structural Biology Metaphors Applied to the Design of a Distributed Object System," (with L. Bölöni, R. Hao, and K.K. Jun), *Proc. Workshop Biologically Inspired Solutions to Parallel Processing Problems*, Lecture Notes in Computer Science, Springer Verlag, Heidelberg, Vol. 1586, pp. 275–283, 1999.

11. "An Object-Oriented Framework for Building Collaborative Network Agents," (with L. Bölöni), *Intelligent Systems and Interfaces*, (N.H. Teodorescu, D. Mlynek, A. Kandel, and H.J. Zimmerman, Eds.), Kluewer Publising House, pp. 31–65, 2000.

12. "Agent Surgery: The Case for Mutable Agents," (with L. Bölöni), *Parallel and Distributed Processing*, Lecture Notes in Computer Science, Springer–Verlag, Heidelberg, Vol. 1800, pp. 578–585, 2000.

13. "A Component-Based Architecture for Problem Solving Environments," (with L. Bölöni), *Computational Science, Mathematics and Software*, (R.F. Boisvert and E.N. Houstis Eds.), Purdue University Press, pp. 115–136, 2002.

14. "Temporal Logic Workflow Models," (with C. Lin) in *Process Coordination and Ubiquitous Computing*, (D. C. Marinescu and C. Lee, Eds.), CRC Press, London, pp. 53–76, 2002.

15. "The Complexity of Scheduling and Coordination in Computational Grids ," (with Y. Ji and G. M. Marinescu) in *Process Coordination and Ubiquitous Computing*, (D. C. Marinescu and C. Lee, Eds.), CRC Press, London, pp. 119–132, 2002.

16. "Performance Equivalent Analysis of Workflow Systems Based on Stochastic Petri Net Models," in Engineering and Development of Cooperative Information Systems, (with C. Lin, Y. Qu, F. Ren) Lecture Notes in Computer Science, Springer Verlag, Heidelberg, Vol. 2480, pp. 212–224, 2002.

17. "A Parallel `3D` Piecewise Constant Reconstruction Algorithm for Asymmetric Virus Structures," (with R. E. Lynch, Y. Ji, and H. Lin). Proc. Int. Conf. on Computational Science, St. Petersburg, Russia, Lecture Notes in Computer Science, Springer Verlag, Heidelberg, Vol 2657, pp. 437–446, 2003.

18. "Software Engineering Challenges for Mutable Agent Systems," (with L. Bölöni), M. A. Khan, X. Bai, G. Wang, and Y.Ji) *Advances in Software Engineering for Multi-Agent Systems*, (C. Lucena, Al. Garcia, Al. Romanovsky, J. Castro, and P. Alencar, Eds.), pp. 149-167, , 2004.

19. "Adaptation and Mutation in Multi-Agent Systems and Beyond," with (L. Bölöni) *Learning, Coordination and Communication in Multi-Agent Systems*, (R. Khosla, N. Ichalkaranje, and L Jain, Eds.), Studies in Fuziness and Soft Computing, Vol. 162, pp. 315–344, Springer Verlag, Heidelberg, 2005.

20. "The Challenges and the Promise of Quantum Parallelism," (with G. M. Marinescu) *Concurrent Processing*, NATO Science Series, Computer and System Sciences, Vol. 195, IOS Press, pp. 159–174, 2005.

21. "A Parallel Algorithm for Automatic Particle Identification in Micrographs," VECPAR 2004 (M. Dayde *et al.* Eds.) Lecture Notes in Computer Science, Springer Verlag, Heidelberg, Vol. 3402, pp. 354 – 367, 2005.

22. "Rapid distribution of tasks on a commodity grid," (with L. Bölöni, D. Turgut, T. Kocak, and Y. Ji). In *Advances in Grid Computing - EGC 2005.* Lecture Notes in Computer Science,Springer Verlag, Heidelberg, Vol. 3470, pp. 721–730, 2005.

23. "Computational Aspects of Virus Structure Determination at High Resolution," (with Y. Ji, V. Singh, and G.M. Marinescu), *Handbook of Theoretical and Computational Nanotechnologies*, American Scientific Publishers, Stevenson Ranch, Ca., 2005.

24. "Intelligent Grids," (with X. Bai, H. Yu, G. Wang, Y. Ji, G.M. Marinescu, and L. Bölöni), in Grid Computing: Software Environments and Tools (Jose C. Cunha and O.F. Rana Eds. Springer Verlag, Heidelberg, pp. 45–74, 2005.

25. "Quantum States and Quantum Measurements," (with G.M. Marinescu) NATO Science Publications, IOS Press, pp. 101–126, 2005.

26. "Location- and Power-Aware Protocols for Wireless Networks with Asymmetric Links," (with G. Wang, Y. Ji, D. Turgut, and L Bölöni), in *Computer System Performance Modeling in Perspective: A Tribute to the Work of Prof. Kenneth C. Sevcik.* E. Gelebe Ed., pp. 101–136, Imperial College Press, 2006.

27. "Quantum Error Correction in a Quantum Network," (with G.M. Marinescu) NATO Science Publications, IOS Press, 2007.

28. "Data Partitioning, Scheduling, and Coordination in Large-Scale Distributed Systems. Case Study: A Pipelined Data Staging Model for Optimal Data Partitioning on Multiple Parallel Systems," (with C. Yu), in *Grid Technology and Applications; Recent Developments*, Nova Science Publishers, Inc., pp. 32–64, April 2009.

29. "Options and Commodity Markets for Computing Resources," (with H. J. Siegel, and J. P. Morrison, in *Market Oriented Grid and Utility Computing,* R. Buyya and K. Bubendorf, Eds., Wiley, ISBN: 9780470287682, pp. 89–120, September 2009.

30. "Cloud Energy Consumption," Chapter 25 in Encyclopedia of Cloud Computing, Wiley, ISBN-13: 978-1118821978; ISBN-10: 1118821971, 2015.

Journal Papers

1. "Effectiveness of Virtual Storage Systems in Computational Physics," (with T. Radulescu), *Revue Roumaine de Physique,* Vol. 22, No. 2, pp. 223-224, 1977.

2. "Extended Data Acquisition Support at GSI," (with F. Busch, H. Hultzsch, J. Lowsky, and M. Richter), *IEEE Transactions on Nuclear Science,* Vol. NS-31, No. 2, pp. 914–924, 1984.

3. "Inter-Process Communication in MVS/XA and Applications for Scientific and Engineering Information Processing," *Software - Practice and Experience*, Vol. 16, No. 5, pp. 489–501, 1986.

4. "Domain Oriented Analysis of PDE Splitting Algorithms," (with J.R. Rice), *Journal of Information Sciences*, Vol. 43, No. 1–2, pp. 3–24, 1987.

5. "Approximate Analysis of Distributed Semi-Hard Real-Time Control Systems," *IEEE Transactions on Automatic Control,* Vol. AC-32, No. 12, pp. 1097–1100, 1987.

6. "Stochastic High Level Petri Nets and Applications," (with C. Lin), *IEEE Transactions on Computers,* Vol. 36, No. 7, pp. 815–825, 1988.

7. "Models for Monitoring and Debugging Tools for Parallel and Distributed Software," (with J. E. Lumpp, T.L. Casavant, and H.J. Siegel), *Journal of Parallel and Distributed Computing,* Vol. 9, No. 2, pp. 171–184, 1990.

8. "On the Analysis of Stochastic High Level Petri Net Models," (with C. Lin), *Microelectronics and Reliability,* Special Issue on Petri Nets, Pergamon Press, Vol. 31, No. 4, pp. 747-767, 1991.

9. "Petri Net Models of Concurrent Ada Programs," (with R. Stansifer), *Microelectronics and Reliability,* Special Issue on Petri Nets, Pergamon Press, Vol. 31, No. 4, pp. 577-594, 1991.

10. "CAPS- A Coding Aid used with the PASM Parallel Processing Systems," (with J. Lumpp, S.A. Finberg, W.G. Nation, E.C. Bronson, P.H. Pero, T. Schwederski, T.L. Casavant, and H.J. Siegel), *Communications of the ACM,* Vol. 34, No. 11, pp. 104-117, 1991.

11. "Synchronization and Load Imbalance Effects in Distributed Memory Multiprocessor Systems," (with J.R. Rice), *Concurrency - Practice and Experience,* Vol. 3, No. 6, pp. 593-625, 1991.

12. "An Approximate Delay Analysis of Transaction Oriented Communication in Distributed Systems," *Journal of Computer Simulation,* Vol. 2, pp. 315-342, 1992.

13. "Models and Algorithms for Co-Scheduling Compute-Intensive Tasks on a Network of Workstations," (with M.J. Atallah, C.L. Black, H.J. Siegel, and T.L. Casavant), *Journal of Parallel and Distributed Computing,* Vol. 16, No. 4, pp. 319-327, 1992.

14. "Net-Based Computational Models of Knowledge Processing Systems," (with A. B. Whinston and A. Chaudhury), *IEEE Expert - Intelligent Systems & Their Applications*, Vol. 8, No. 2, pp. 79-86, 1993.

15. "Logical Inference of Horn Clauses in Petri Net Models," (with A. B. Whinston, A. Chaudhury, and C. Lin), *IEEE Transactions on Knowledge and Data Engineering*, Vol. 5, No. 3, pp. 416-425, 1993.

16. "Performance of Iterative Methods for Distributed Memory Machines," (with J.R. Rice and E.M. Vavalis), *Applied Numerical Mathematics*, Vol. 12, No. 5, pp. 421-430, 1993.

17. "Macromolecular Electron Density Averaging on Distributed Memory MIMD Systems," (with J. R. Rice, M. A. Cornea-Hasegan, R. E. Lynch, and M. G. Rossmann), *Concurrency - Practice and Experience*, Vol. 5, No. 8, pp. 635-657, 1993.

18. "On High-Level Characterization of Parallelism," (with J.R. Rice), *Journal of Parallel and Distributed Computing,* Vol. 20, No. 1, pp. 107-113, 1994.

19. "Data Management for a Class of Iterative Computations on Distributed Memory MIMD Systems," (with M. A. Cornea-Hasegan and Z. Y. Zhang), *Concurrency - Practice and Experience*, Vol. 6, No. 3, pp. 205-229, 1994.

20. "On the Scalability of Asynchronous Parallel Computations," (with J.R.Rice), *Journal of Parallel and Distributed Computing,* Vol. 22, No. 3, pp. 538-546, 1994.

21. "Modeling Concurrent Programs with Colored Petri Nets," (with M. Beaven and R. Stansifer), *Journal of Systems and Software*, Vol. 26, No. 2, pp. 129-148, 1994.

22. "Phase Refinement and Extension by Means of Non-crystallographic Symmetry Averaging using Parallel Computers," (with M.A. Cornea-Hasegan, Z.Y. Zhang, A. Hadfield, J. K. Muckelbauer, R. E. Lynch, S. Munshi, L. Tong, and M. G. Rossmann), *Acta Crystallographica*, Vol. D51, pp. 749-759, 1995.

23. "A Distributed Memory Algorithm for 3-D FFT," (with C. Costian), *Journal of Computational and Applied Mathematics*, Vol. 66, No. 1-2, pp. 139-151, 1996.

24. "Identification of Spherical Virus Particles in Digitized Images of Entire Electron Micrographs," (with I. Martin, T. S. Baker, and R. E. Lynch), *Journal of Structural Biology,* Vol. 120, pp. 164-157, 1997.

25. "Dynamic Scheduling of Process Groups," (with K. Y. Wang and O.F. Carbunar), *Concurrency - Practice and Experience*, Vol. 10, No. 4, pp. 265-283, 1998.

26. "Concurrent Computation and Data Visualization for Spherical Virus Determination," (with I. M. Martin), *IEEE Computational Science & Engineering*, Vol. 5, No. 4, pp. 40-52, 1998.

27. "Widespread Acceptance of General-Purpose Large Scale Parallel Machines: Fact, Future or Fantasy" (with M.D. Theys, T.D. Brown, and H.J. Siegel), IEEE Concurrency, pp. 79-83, January-March 1998.

28. "Agent-Based Scientific Simulation and Modelling," (with L. Bölöni, J.R.Rice, P. Tsompanopoulou, and E.A Vavalis), *Concurrency - Practice and Experience*, Vol. 12, No. 9, pp. 845–861, 2000.

29. "A Component-Based Architecture for Problem Solving Environments," (with L. Bölöni), *Mathematics and Computers in Simulation*, Vol. 54, No. 4-5 pp. 279–293, 2000.

30. "Biological Metaphors in the Design of Complex Software Systems," (with L. Bölöni), *Future Generation Computer Systems*, Vol. 17, No. 4, pp. 345–360, 2001.

31. "Space-Time Tradeoffs for Parallel 3D Reconstruction Algorithms for Virus Structure Determination," (with Y. Ji and R. E. Lynch) *Concurrency and Computation - Practice and Experience*, Vol. 13, No. 12, pp. 1083–1106, 2001.

32. "Robust Scheduling of Metaprograms," (with L. Bölöni), *Journal of Scheduling*, Wiley, Vol. 5 No. 5, pp. 395–412, 2002.

33. "Modeling and Performance Analysis of QoS-Aware Load Balancing of Web-Server Clusters," (with Z. G. Shan, C. Lin, and Y. Yang), *Computer Networks - The International Journal of Computer and Telecommunications Networking* , Vol. 40, No. 2, pp. 235–256, 2002.

34. "An Algorithm for Disconnecting Particle Projections Joined Together in a Micrograph" (with O. F. Carbunar, G. M. Marinescu, and I. M. Martin), *Review Roumain de Physique*, 2003.

35. "A Sufficient Condition for Instability of Positive Feedback Loop Systems," (with C. Lin and M. Xu), *IEEE Trans. on Automatic Control*, Vol. 48, No. 7, pp. 1235–1238, July 2003.

36. "A Computational Framework for the `3D` Structure Determination of Viruses with Unknown Symmetry," (with Y. Ji), *Journal of Parallel and Distributed Computing,* Vol. 63, pp. 738–758, 2003.

37. "Image Segmentation for Automatic Particle Identification in Electron Micrographs Based on Hidden Markov Random Field Models and Expectation Maximization," (with V. Singh, and T. S. Baker), *Journal of Structural Biology,* Vol. 145, pp. 123-141, 2004.

38. "Resource Matching and a Matchmaking Service for an Intelligent Grid," (with X Bai, H. Yu, and Y. Ji). *International Journal on Computational Intelligence* (IJCI), Vol. 1, No. 3, pp. 197–205, 2004.

39. "Coordination in Intelligent Grid Environments," (with X. Bai, H. Yu, G. Wang, Y. Ji, G.M. Marinescu, and L. L. Bölöni), *Proc. of IEEE,* Vol. 93, No. 3, pp. 613-630, 2005.

40. "Workflow Management and Resource Discovery for an Intelligent Grid,", (with H. Yu, X. Bai). *Parallel Computing*, Vol 31, No. 7, pp. 797-811, 2005.

41. "Features of Reovirus Outer-Capsid Protein μ1 Revealed at 7.0-Å or Better by Electron Cryomicroscopy and Image Reconstruction of the Virion, (with X. Zhang, Y. Ji, L. Zhang, M. A. Agosto, S. C. Harrison, M. L. Niebert, and T., S. Baker), *Structure,* Vol. 13, pp. 1–13, 2005.

42. "Home Markings and Generalized Sound Workflow Nets," (with L. Tiplea). *Information Processing Letters,* Vol. 96, pp. 54–58, 2005.

43. "Parallel Computational Biology," with (S. Aluru, N. Amato, D. A. Bader, S. Bhandarkar, and L. Kale), *Parallel Processing for Scientific Computing, Software, Environments, and Tools*, Vol. 20, pp. 356–378, SIAM, 2006.

44. "A Model-based Parallel Origin and Orientation Refinement Algorithm for CryoTEM and its Application to the Study of Virus Structures," (with Y. Ji, W. Zhang, X. Zhang, X. Yan, and T. S. Baker). *Journal of Structural Biology*, Vol. 154, No. 1, pp. 1-19, 2006.

45. "Genetic-Based Planning with Recursive Subgoals," (with H. Yu, A. Wu, and H.J. Siegel), *International Journal on Computational Intelligence* (IJCI), Vol. 2 No. 3, pp. 192-198, 2006.

46. "Task Distribution with a Random Overlay Network."(with L. Bölöni and D. Turgut). *Future Generation Computer Systems,* Elsevier, Vol. 22, No. 6, pp. 676–687, 2006.

47. "Rotational and Translational Alignment Errors in `3D` Reconstruction of Virus Structures at High Resolution." (with Y. Ji). *Int. J. Bioinformatics Research and Applications,* Vol. 2, No. 4, pp. 350–370, 2006.

48. "An $R \mid\mid C_{max}$ Quantum Scheduling Algorithm," (with F. Lu) http://arxiv.org/abs/quant-ph/0511028, *Quantum Information Processing* Vol. 6, No. 3, pp:159-178, 2007.

49. "Quantum Information: a Glimpse at the Strange and Intriguing Future of Information," (with G. M. Marinescu), *The Computer Journal,* Vol. 50, No. 5, pp. 505–521, 2007.

50. "Quantum Error Correction of Time-Correlated Errors," (with F. Lu), http://arxiv.org/abs/quant-ph/0605226, *Quantum Information Processing.* Vol. 6, No. 4, pp. 273-293, 2007.

51. "A MAC Layer Protocol for Wireless Ad Hoc Networks with Asymmetric Links," (with G. Wang, D. Turgut, L. Bölöni), *Ad Hoc Networks Journal,* Vol. 6, No. 3, pp. 424–440, May 2008.

52. "A Macroeconomic Model for Resource Allocation in Large Scale Distributed Systems," (with X. Bai, L. Bölöni, H. J. Siegel, R. E. Daley, and I-J. Wang), *Journal of Parallel and Distributed Computing*, Vol. 68, pp. 182–199, 2008.

53. "Improving Routing Performance Through m-Limited Forwarding in Power-Constrained Wireless Networks," (with G. Wang, D. Turgut, L. Bölöni), *Journal of Parallel and Distributed Computing (JPDC)*, Vol. 68, pp. 501–514 2008.

54. "Time-parallel Simulation of Wireless Ad-hoc Networks with Compressed History,"(with G. Wang, D. Turgut, L. Bölöni), *Journal of Parallel and Distributed Computing (JPDC)*, Vol. 69, Nr. 2, pp. 168–179, 2008.

55. "Time-parallel Simulation of Wireless Ad Hoc Networks," (with G. Wang, D. Turgut, L. Bölöni), *Wireless Networks (WINET)*,463–480, 2008.

56. "Algorithms for Divisible Load Scheduling for Data Intensive Applications" (with C. Yu), *Journal of Grid Computing*, DOI 10.1007/s10723-009-9129-0, September 2009.

57. "Scale-free, Self-organizing Very Large Sensor Networks," (with C. Yu and G. M Marinescu), *Journal of Parallel and Distributed Computing, (JPDC)*, Vol. 70 Nr. 5 pp. 612-622, 2010.

58. "High Probability Trajectories in the Phase Space and System Complexity," *Complex Systems*, Vol 22, Nr. 3, pp. 233–246, 2013.

59. "A Cloud Service for Trust Management in Cognitive Radio Networks," (with S. Bhattacharjee, 2013), *International Journal of Cloud Computing,*, **3**(4):326– 353, 2014

60. "Energy-aware load balancing and application scaling for the cloud ecosystem." (with A. Paya) IDOI 10.1109TCC 2015.2306059, EEE Trans. on Cloud Computing, 2015 (in print)

61. "Distributed hierarchical control versus an economic model for cloud resource management," (with A. Paya, J. P, Morrison, and P. Healy) March 2015 (submitted) (also http://arxiv.org /pdf/ 1503.01061v4.pdf).

62. "Coalition formation and combinatorial auctions; applications to self-management in utility computing,"(with A. Paya, J. P, Morrison) April 2015, (submitted) (also arXiv:1406.7487v3. pdf, March 2015).

Papers in the Archive

1. "Clustering algorithms for scale-free networks and applications to cloud resource management," (with A. Paya), http://arxiv.org/pdf/1305.3031v1.pdf, May 2013.

2. "Energy-aware application scaling on a cloud." (with A. Paya). http://arxiv.org/pdf/1307.3306v1.pdf, July 2013.

3. "Energy-aware load balancing policies for the cloud ecosystem." (with A. Paya) http://arxiv.org/pdf /1307.3306v1.pdf, December 2013.

4. "An auction-driven, self-organizing cloud delivery model." (with A. Paya, J. P. Morrison, and Philip Healy) http://arxiv.org/pdf/1312.2998v1.pdf, December 2013.

5. "Bid-centric cloud service provisioning." (with P. Healy, S. Meyer, J. P. Morrison, T. Lynn, and A Paya) http://arxiv.org/pdf/1312.4853.pdf, December 2013.

Conference Proceedings–Refereed

1. "Information Flow in a Distributed Data Acquisition and Analysis System," (with F. Busch, H. Hultzsch, J. Lowsky,and M. Richter), *Proc. SEAS, European Scientific Computing Conf.*, Springer Verlag, Heidelberg, pp. 38–47, 1983.

2. "VSAM Data Sets in PL/I," *Proc. SEAS, European Scientific Computing Conf.*, Springer Verlag, Heidelberg, pp. 584–601, 1983.

3. "Alternative Architectures for Large Scale Scientific Computing and Performance Issues in Parallel Processing," *Proc. SEAS, European Scientific Computing Conf.*, Springer Verlag, pp. 453–471, 1986.

4. "A Communication Sub-System for MVS/XA," *Proc. SEAS, European Scientific Computing Conf.*, Springer Verlag, Heidelberg, pp. 1171–1177, 1986.

5. "Preliminary Results on Multiprocessor Modeling and Analysis Using Stochastic High Level Petri Nets," (with C. Lin), *Proc. 24-th Allerton Conf. on Communication, Control and Computing*, pp. 1136–1137, 1986.

6. "Translation of Modified Predicate Transition Nets Models of Communication Protocols into Simulation Programs," (with C. Lin), *Proc. Winter Simulation Conf.*, (J. R.Wilson, J.O. Henriksen, and S.D. Roberts eds.), pp. 760–768, IEEE Computer Society Press, Los Alamitos, Ca, 1986.

7. "Heterogeneous Local Networks Supporting Scientific and Knowledge Processing, Based upon a Token Passing ADMA System," (with V. Rego and W. Szpankowski), *Proc. Computer Networking Symp.*, IEEE Computer Society Press, Los Alamitos, Ca, pp. 38–46, 1986.

8. "On the Analysis of Semi-Hard Real-Time Control Systems," *Proc. 25-th IEEE Conf. Decision and Control*, IEEE Computer Society Press, Los Alamitos, Ca, pp. 1622–1628, 1986.

9. "On Stochastic High Level Petri Nets," (with C. Lin), *Proc. Intl. Workshop Petri Nets and Performance Models,* IEEE Computer Society Press, Los Alamitos, Ca, pp. 34–43, 1987.

10. "Availability Driven Multiple Access Network Architecture," (with V. Rego and W. Szpankowski), *Proc. INFOCOM 87 Conf. Computer Communications*, IEEE Computer Society Press, Los Alamitos, Ca, pp. 588–596, 1987.

11. "Modeling of an Availability Driven Computer Network Architecture," (with V. Rego and W. Szpankowski), *Proc. Symp. Simulation of Computer Networks*, IEEE Computer Society Press, Los Alamitos, Ca, pp. 2–10, 1987.

12. "Modeling of Programs With Remote Procedures," *Proc. 7-th Intl. Conf. Distributed Computing*, IEEE Computer Society Press, Los Alamitos, Ca, pp. 98–104, 1987.

13. "Analysis and Modeling of Schwartz Splitting Algorithms for Elliptic PDE's," (with J. R. Rice), *Advances in Computer Methods for Partial Differential Equations,* Vol. VI (R. S. Stepleman and R. Vishnevetsky, eds), IMACS, pp. 1–6, 1987.

14. "Reliability Aspects of Functional Communication," *Proc. MILCOM 1987 IEEE Military Communication Conf.,* IEEE Computer Society Press, Los Alamitos, Ca, pp. 393–397, 1987.

15. "Modeling Hardware-Software Interaction in Parallel and Distributed Systems using Stochastic High Level Petri Nets," (with J.R. Rice), *IEEE Technical Committee on Distributed Processing Newsletter*, pp. 28–34, 1988.

16. "Scheduled and Non-Scheduled Access in a Distributed System Based upon a Functional Communication Model," *Proc. 8-th Intl. Conf. Distributed Computing*, IEEE Computer Society Press, Los Alamitos, Ca, pp. 197–205, 1988.

17. "A Splitting Algorithm for Communication with Real-Time Delivery Constraints," *Proc. 26-th Allerton Conf. Communication, Control and Computing,* pp. 955–964, 1988.

18. "Embedding Feedback in Petri Net Models," (with A. B. Whinston and A. Chaudhury), *Proc. ICCON 89, IEEE Intl. Conf. Control and Applications*, pp. WP4.2.-4.2.6, 1989.

19. "A Safe State Approach in Real-Time Systems Scheduling," (with W. Szpankowski), *Proc. 6-th IEEE Workshop Real-Time Operating Systems,* pp. 54–60, 1989.

20. "A Formalism for Critical Path-Analysis of Real-Time Ada Programs," (with R. Stansifer), *Proc 32-nd Symp. Circuits and Systems,* IEEE Computer Society Press, Los Alamitos, Ca, pp. 144–149, 1989.

21. "CAPS- A Coding Aid used with the PASM Parallel Processing Systems," (with J. Lumpp, S.A. Finberg, W.G. Nation, E.C. Bronson, P.H. Pero, T. Schwederski, T.L. Casavant, and H.J. Siegel), *Proc. Workshop Experiences with Building Distributed and Multiprocessor Systems,* IEEE Computer Society Press, Los Alamitos, Ca, pp. 269–288, 1989.

22. "A Model for Monitoring and Debugging Parallel and Distributed Software," (with J. Lumpp, T.L. Casavant, and H.J. Siegel), *Proc. COMPSAC 89, 13-th Intl. Computer Software and Applications Conf.,* IEEE Computer Society Press, Los Alamitos, Ca, pp. 81–88, 1989.

23. "Petri Net Models of Concurrent Ada Programs," (with R. Stansifer), *Proc. Hawaii Intl. Conf. System Sciences,* IEEE Computer Society Press, Los Alamitos, Ca, pp. 400–409, 1990.

24. "Multi-Level Asynchronous PDEs," (with J. R. Rice), *Iterative Methods,* (D.R. Kincaid and L.J. Hayes eds), Academic Press, London, pp. 193–212, 1990.

25. "A Protocol for Multiple Access Communication with Real-Time Delivery Constraints," *Proc. INFOCOM 90, Conf. Computer Communications,* IEEE Computer Society Press, Los Alamitos, Ca, pp. 1119–1126, 1990.

26. "Specification and Identification of Events for Debugging and Performance Monitoring of Distributed Multiprocessor Systems," (with J. Lumpp, T.L. Casavant, and H.J. Siegel), *Proc. 10-th Distributed System Conf.,* IEEE Computer Society Press, Los Alamitos, Ca, pp. 476–483, 1990.

27. "Communication and Control in SPMD Parallel Numerical Computations," (with J. R. Rice), *Proc. 8-th Army Conf. on Applied Math and Computing*, ARO Report 91-1, pp. 37–70, 1990.

28. "Font Cache Design Issues in a Distributed Electronic Publishing System for Japanese Language Documents,"(with A. Kawabata), *Proc. DEXA90, Intl. Conf. Database and Expert Systems Applications,* Springer Verlag, Heidelberg, pp. 440–445, 1990.

29. "Colored Petri Net Models of Concurrent Ada Programs," (with R. Stansifer), *Proc. 33-nd Symp. Circuits and Systems,* IEEE Computer Society Press, Los Alamitos, Ca, pp. 766–770, 1990.

30. "Distributed Supercomputing," (with J. R. Rice, B. Waltsburger, E. Houstis, H. Waldschmidt, and T. Kunz), *Proc. 2-nd IEEE Workshop Future Trends of Distributed Computer Systems,* IEEE Computer Society Press, Los Alamitos, Ca, pp. 381–387, 1990.

31. "On Single Parameter Characterization of Parallelism," (with J. R. Rice), *Proc. Frontiers 90 Conf. Massively Parallel Computation,* IEEE Computer Society Press, Los Alamitos, Ca, pp. 235–238, 1990.

32. "The Effects of Communication Latency upon Synchronization and Load Balance on a Hypercube," (with J.R. Rice), *Proc. 5-th Intl. Parallel Processing Symp.,* IEEE Computer Society Press, Los Alamitos, Ca, pp. 18-25, 1991.

33. "Critical Path Analysis of Concurrent Ada Programs using Colored Petri Nets: Rewrite Rules," (with M. Beaven, and R. Stansifer), *Proc. ISCAS 1991, Intl. Symp. Circuits and Systems,* IEEE Computer Society Press, Los Alamitos, Ca, pp. 144–152, 1991.

34. "Performance of Iterative Methods on Distributed Memory Multiprocessor Systems," (with J. R. Rice and M. Vavalis), *Proc. IMACS 91,* pp. 694–695, 1991.

35. "VERT - Verification Tool for Timing Correctness of Real-Time Programs," (with, M. Beaven, B. Elmore, and R. Stansifer, *Proc. COMPSAC 91, Computer Software and Applications Conf.,* IEEE Computer Society Press, Los Alamitos, Ca, pp. 618–625, 1991.

36. "A Parallel Algorithm for Computing Invariants of Petri Net Models," (with M. Beaven and R. Stansifer, *Proc. Petri Nets and Performance Models 91*, IEEE Computer Society Press, Los Alamitos, Ca, pp. 136–143, 1991.

37. "Co-Scheduling Compute-Intensive Tasks on a Network of Workstations: Model and Algorithms," (with M.J. Atallah, C. Lock, H.J. Siegel, and T.L. Casavant), *Proc. 11-th Intl. Distributed System Conf.,* IEEE Computer Society Press, Los Alamitos, Ca, pp. 344–352, 1991.

38. "Speedup and Efficiency of 3-D FFT on Distributed Memory MIMD Systems," *Proc. FRONTIERS '92: The 4-th Symp. Frontiers of Massively Parallel Computation,* IEEE Computer Society Press, Los Alamitos, Ca, pp. 150–155, 1992.

39. "Macromolecular Electron Density Averaging on Distributed Memory MIMD Systems," (with J. R. Rice, M. A. Cornea-Hasegan, R. E. Lynch, and M. G. Rossmann), *Proc. Intel University Partners Workshop,* pp. 29–56, 1992.

40. "Methods for the Determination of Macromolecular Structures," *Proc. First Delta Workshop,* Caltech, pp. 91–104, 1992.

41. "Speedup, Communication Complexity and Blocking - A la Recherche du Temps Perdu," (with J. R. Rice), *Proc. Intl. Parallel Processing Symp.,* IEEE Computer Society Press, Los Alamitos, Ca, pp. 712–721, 1993.

42. "Phase Refinement and Extension for Macromolecular Structure Determination using DMIMD Systems," (with R. E. Lynch, J.R. Rice, M.C. Cornea-Hasegan, Z. Zhang, and M. G. Rossmann), *Proc. Second Delta Workshop,* Caltech, pp. 108–128, 1993.

43. "Towards Problem Solving Environments in High Performance Computing," (with C. Costian, I.M. Martin, M. A. Cornea-Hasegan, and J. R. Rice), *Proc. High Performance Computing Conf. '94,* IEEE Computer Society Press, Los Alamitos, Ca, pp. 354-366, 1994.

44. "Correlation of the Paging Activity of Individual Node Programs in the SPMD Execution Mode," (with K. Yu Wang), *Proc. HICSS 28, Hawaii Intl. Conf. System Sciences,* IEEE Computer Society Press, Los Alamitos, Ca, Vol. 1, pp. 61 - 71, 1995.

45. "Socrates: An Environment for High Performance Computing," (with C. Costian), *Proc. 4-th IEEE Workshop Enabling Technologies: Infrastructure for Collaborative Entreprises,* IEEE Computer Society Press, Los Alamitos, Ca, pp. 92–99, 1995.

46. "Adaptive Load Balancing Strategies for Solving Irregular Problems on Distributed Memory MIMD Systems," (with I. M. Martin and J. R. Rice), *Proc. IPPS95, Intl. Parallel Processing Symp.,* IEEE Computer Society Press, Los Alamitos, Ca, pp. 57–64, 1995.

47. "On Gang Scheduling and Demand Paging," (with K. Y. Wang), *Proc. Intl. Conf. High Performance Computing,* New Delhi, pp. 180–188, 1995.

48. "Characterization of the Paging Activity of NAS Benchmark Programs on the Intel Paragon," (with K. Y. Wang), *Proceedings of the Intel Supercomputer User's Group Meeting,* Sandia National Laboratory, 1995.

49. "Bond - A Parallel Virtual Environment," (with M. Sirbu), *Proc. HPCN 96, High Performance Computing and Networking,* Lecture Notes in Computer Science, Springer Verlag, Heidelberg, Vol. 1067, pp. 722–728, 1996.

50. "Exploiting Symmetry in Parallel Computations for Structural Biology," (with I. M. Martin), *Proc. Euro-Par'96, European Parallel Processing,* Lecture Notes in Computer Science, Springer Verlag, Heidelberg, Vol. 1124, pp. 255–259, 1996.

51. "Empirical Studies of Paging and I/O Activity of Parallel Programs," (with K. Yu Wang), *Proc. MASCOTS 97, the Fifth Intl. Symp. Modeling, Analysis, and Simulation of Computer and Telecommunication Systems,* IEEE Computer Society Press, Los Alamitos, Ca, pp. 177–184, 1997.

52. "A Scheduling Expert Advisor for Heterogeneous Environments," (with M. Sirbu), *Proc. HCW 97, Heterogeneous Computing Workshop,* IEEE Computer Society Press, Los Alamitos, Ca, pp. 74–83, 1997.

53. "A Visualization Environment for Electron Microscopy," (with I. M. Martin), *Proc. Pacific Graphics,* IEEE Computer Society Press, Los Alamitos, Ca, pp. 191–197, 1997.

54. "Software Development for Intranet Applications," *Proc. IFIP Workshop Dependable Computing and Its Applications,* Johannesburg, DCIA98, pp. 31–50, 1998.

55. "Combining Visualization and Computations for Interactive Analysis of Structural Biology Data," (with I. M. Martin), *Proc. IASTED Conf. Computer Graphics and Imaging,* pp. 170–174, 1998.

56. "An Alternative Model for Scheduling on a Computer Grid," (with L. Bölöni, R. Hao, and K.K. Jun), *Proc. ISCIS 98, 13-th Intl. Symp. Computer and Information Sciences*, pp. 473-480, 1998.

57. "Bond System Security and Access Control Model," (with R. Hao, and K.K. Jun), *Proc. IASTED Conf. Parallel and Distributed Computing and Networks,* pp. 520-524, 1998.

58. "Parallel Algorithms for 3D Reconstruction of Asymmetric Objects from Electron Micrographs," (with R.E. Lynch, H. Lin, and T.S. Baker), *Proc. 13th Intl. Parallel Processing Symp.,* IEEE Computer Society Press, Los Alamitos, Ca, pp. 632–637, 1999.

59. "On the Robustness of Metaprogram Schedules," (with L. Bölöni), *Proc. Heterogeneous Computing Workshop,* pp. 146–155, 1999.

60. "The Design of Software Agents for a Network of PDE Solvers," (with P. Tsompanipoulou, L. Bölöni, and J.R. Rice), *Proc. Workshop Agent Technologies for High Performance Computing*, at Agents 99, IEEE Computer Society Press, Los Alamitos, Ca, pp. 57–68, 1999.

61. "Three Theorems on Robustness of Metaprogram Schedules," (with L. Bölöni), *Proc. ACM ICS Workshop Scheduling Algorithms for Parallel/Distributed Computing*, Rhodes, IEEE Computer Society Press, Los Alamitos, Ca, pp. 1–6, 1999.

62. "An Aspect-Oriented Approach to Distributed Object Security," (with L. Bölöni, R. Hao, and K.K. Jun), *Proc. Fourth IEEE Symp. Computers and Communication, ISCC99*, IEEE Computer Society Press, Los Alamitos, Ca, pp. 23–31, 1999.

63. "An Agent-Based Design for Problem Solving Environments," *Proc. Workshop Parallel/High-Performance Object-Oriented Scientific Computing, POOSC'99*, pp. 24–34, 1999.

64. "Middleware QoS Agents and Native Kernel Schedulers for Adaptive Multimedia Services and Cluster Servers," (with D.K.Y. Yau, and K.K Jun), *Proc. Real-Time System Symp. 99,* IEEE Computer Society Press, Los Alamitos, Ca, 1999.

65. "An Agent-Based Workflow Management System," (with K. Palacz), *Proc. AAAI Spring Symp. Bringing Knowledge to Business Processes,* AAAI Press, Stanford, Ca, pp. 119–127, 2000.

66. "Intelligent QoS Support for an Adaptive Video Service," (with L. Bölöni, D.K.Y. Yau, and K.K Jun), *Proc. IRMA 2000 - Challenges of Information Technology Management in the 21st Century,* Idea Group Pub., Hershey, PA, pp. 1096–1098, 2000.

67. "Agent surgery: The case for mutable agents," (with L. Bölöni), *Proc. Workshop Biologically Inspired Solutions to Parallel Processing Problems,* Lecture Notes in Computer Science, Springer Verlag, Heidelberg, Vol. 1800, pp. 578–585, 2000.

68. "An Object-Oriented Approach for Semantic Understanding of Messages in a Distributed Object System," (with L. Bölöni, R. Hao, and K.K. Jun), *Proc. SNPD 2000, Software Engineering Applied to Networking and Parallel/Distributed Computing,* ACIS Press, Michigan, ISBN 0:9700776-0-2, pp. 157–164, 2000.

69. "Agent-Based Resource Discovery," (with K.K. Jun, L. Bölöni, and K. Palacz), *Proc. 9-th Heterogeneous Computing Workshop, HCW 2000,* Vol 1, IEEE Press, pp. 43–52, 2000.

70. "A Component Agent Model - from Theory to Implementation," (with L. Bölöni), *Second Intl. Symp. From Agent Theory to Agent Implementation,* in Proc. Cybernetics and Systems, Austrian Society of Cybernetic Studies, pp. 633–639, 2000.

71. "A Multi-plane Agent Model," (with L. Bölöni), *Proc. Fourth International Autonomous Agents, Agents 2000,* ACM Press, pp. 80–81,2000.

72. "An Efficient Algorithm for Parallel 3D Reconstruction of Asymmetric Objects from Electron Micrographs," (with R. E. Lynch and H. Lin), *EuroPar 2000, European Parallel Proc. Conf.,* Lecture Notes in Computer Science, Springer Verlag, Heidelberg, Vol 1900, pp. 481–490, 2000.

73. "The Bond Agent System and Applications," (with L. Bölöni, K.K. Jun, K. Palacz, and R. Sion). In *Agent Systems, Mobile Agents, and Applications,* (D. Kotz and F. Mattern, eds.), Lecture Notes on Computer Science, Springer Verlag, Heidelberg, Vol. 1882, pp. 99–112, 2000.

74. "Reflections on Qualitative Attributes of Mobile Agents for Computational, Data, and Service Grids," *Workshop on Agent-Based Cluster and Grid Computing 2001,* IEEE Computer Society Press, Los Alamitos, Ca, pp. 442–449, 2001.

75. "A Comparison of Three Algorithms for 3D Reconstruction of Virus Structures," *Proc. EuroPar2001*, Lecture Notes on Computer Science, Vol. 2110, Springer Verlag, Heidelberg, pp. 173–182, 2001.

76. "Petri Net Based Stability Analysis of Buffer Priority Scheduling Policies in Manufacturing Systems", (with C. Lin and M. Xu). *Proc. SMC2001, Int. Conf. on Systems, Man, and Cybernetics* IEEE Computer Society Press, Los Alamitos, Ca, pp. 1811–1816, 2001.

77. Performance Equivalent Analysis of Workflow Systems Based on Stochastic Petri Net Models," (with C. Lin, Y. Qu, F. Y. Ren), *Proc EDCIS 2002*, Lecture Notes on Computer Science, Vol. 2480, Springer Verlag, Heidelberg, pp.64-70, 2002.

78. "Genetic Economy, Symmetry, and Computational Complexity for Atomic Virus Structure Determination," (with C. Lin, Y. Ji, and G. M. Marinescu), *CD ROM Proc. IPDPS 2002, Int. Parallel and Distributed Processing Symp.*, 2002.

79. "On Synthetic Criteria for Evaluation of Network Traffic Control Policies," (with C. Lin, Y. Ji, and G. M. Marinescu), *Proc ISCC02*, IEEE Press, pp. 63-68, 2002.

80. "Scalable Benchmarking and Performance Monitoring: a Coordination and Mobility Perspective," (with K.K. Jun, Y. Ji, and G. M. Marinescu), *International Workshop on Web Engineering, Networking 2002*, Lecture Notes on Computer Science, Springer Verlag, Heidelberg, Vol. 2376, pp. 158–160, 2002.

81. "Grid Computing and Applications to Computational Biology," (with Y. Ji, and G. M. Marinescu), Invited Paper at the *Int. Symp. on Parallel and Distributed Computing*, Analele Stiintifice ale Universitati Al.I.Cuza, Iasi, ISSN 1224-2268, vol XI, pp. 11-46, 2002.

82. "Physical Awareness and Embedded Software Agents," (with Y. Ji, G. M. Marinescu, and X. Bai), *Workshop on Embedded Software Agents; Agents 2002*,2002.

83. "Ad Hoc Grids: Communication and Computing in a Power Constrained Environment," (with G. M. Marinescu, Y. Ji, L. Bölöni, and H. J. Siegel) *Workshop on Energy-Efficient Wireless Communications and Networks 2003 (EWCN 2003), Proc. 22nd Int. Performance, Computing, and Communications Conf. (IPCCC)*, IEEE Computer Society Press, Los Alamitos, Ca, pp. 113–122, 2003.

84. "A Genetic Approach to Planning in Heterogeneous Computing Environments," (with H. Yu, A. S. Wu, and H. J. Siegel), 12-th Heterogeneous Computing Workshop (HCW 2003), CD-ROM proceedings of the 17-th Int. Parallel and Distributed Processing Symposium (IPDPS 2003), IEEE Computer Society, Los Alamitos, Ca, ISBN 0-7695-1926-1, 2003.

85. "Orientation Refinement of Virus Structures with Unknown Symmetry," (with Y. Ji, W. Zhang, and T. S. Baker), CD-ROM proceedings of the 17-th Int. Parallel and Distributed Processing Symposium (IPDPS 2003), IEEE Computer Society, Los Alamitos, Ca, ISBN 0-7695-1926-1, 2003.

86. "Software Engineering Challenges for Mutable Agent Systems," (with L. Bölöni, M. Ali Khan, X. Bai, Guoqiang Wang, and Y. Ji) Proc. SELMAS-03, Software Engineering Challenges for Mutable Agent Systems, at ICSE03, Int. Conf. on Software Engineering, (2003).

87. "Model Checking and Abstraction for Workflow Net Verification," (with F.L. Tiplea and C. Lin) Proc. 1-st Int. Workshop on Coordination and Petri Nets, Bologna, pp. 131–145, 2004.

88. "Metainformation and Workflow Management for Solving Complex Problems in Grid Environments," (with H. Yu, X. Bai, G. Wang, and Y. Ji), 13-th Heterogeneous Computing Workshop (HCW 2004), CD-ROM proceedings of the 18-th Int. Parallel and Distributed Processing Symposium (IPDPS 2004), IEEE Computer Society, Los Alamitos, Ca., 2004.

89. "A Routing Protocol for Power Constrained Networks with Asymmetric Links," (with G. Wang, Y. Ji, and D. Turgut) Proc. ACM Workshop on Performance Evaluation of Wireless Ad Hoc, Sensor, and Ubiquitous Networks (PE-WASUN 2004), pp. 69–76, IEEE Press, 2004.

90. "Resource Matching and a Matchmaking Service for an Intelligent Grid," (with X. Bai, H. Yu, and Y. Ji). Proc. Int. Conf. on Computational Intelligence (ICCI 2004), pp. 262–265, 2004.

91. "Planning with Recursive Sub-Goals," (with H. Yu, A. Wu, and H.J. Siegel) KES 2004, Eight Int. Conf. on Knowledge-Based Intelligent Information and Engineering Systems, Lecture Notes in Computer Science, Vol. 3214, pp. 17–27, 2004.

92. "n-Cycle: a Set of Algorithms for Task Distribution on a Commodity Grid," (with D. Turgut, and L. Bölöni), Proc. IEEE Int. Symp. on Cluster Computing and the Grid, CCGrid CD-Proceedings, 2005.

93. "Rapid Distribution of Tasks on a Commodity Grid," (with L. Bölöni, D. Turgut, T. Kocak, and Y. Ji). Proc. European Grid Conference EGC, Lecture Notes in Computer Science, Vol. 3470, pp. 721 – 730, 2005.

94. "Rotational and Translational Alignment for `3D` Reconstruction of Virus Structures at High Resolution," (with Y. Ji), 1st IEEE Workshop on High Performance Computing in Medicine and Biology, 2005.

95. "A Brokerage Framework for Large-Scale Distributed Systems," (with X. Bai, L. Bölöni, and H. J. Siegel), HCW06, Heterogeneous Computing Workshop, CD-ROM Proceedings, 2006.

96. "Plan Switching: An Approach to Plan Execution in Changing Environments," (with H. Yu, A. Wu, and H. J. Siegel), HCW06, Heterogeneous Computing Workshop, CD-ROM Proceedings, 2006.

97. "A Simulation Study of a MAC Layer Protocol for Wireless Networks with Asymmetric Links," (with G. Wang, D. Turgut, L. Bölöni, Y. Ji), Proc. IWCMC 2006, (Int. Wireless Comm. and Mobile Computing Conf.), IEEE Press, pp. 929-936, 2006.

98. "Are Utility, Price, and Satisfaction Based Models Resource Allocation Models Suitable for Large-Scale Distributed Computing?" (with X. Bai, L. Bölöni, H. J. Siegel, R. E. Daley, and I-J. Wang) Proc. GECON 2006, 3rd Int. Workshop on Grid Economics and Business Models, Imperial College Press, pp. 113–122, 2006.

99. "Speedup-Precision Tradeoffs for a Time-Parallel Simulation of Wireless Ad Hoc Networks," (with G. Wang, D. Turgut, L. Bölöni), Proc. 10-th Int Symp. Distrib, Sim. and Real-Time Appl., IEEE Press. pp. 265-268, 2006.

100. "Challenges and Benefits of Time-Parallel Simulation of Wireless Ad Hoc Networks," (with G. Wang, D. Turgut, L. Bölöni), Proc. 1-st Int. Conf. on Perf. Eval. Methodologies and Tools (Valuetools), IEEE Press, 2006.

101. "Accuracy-Speedup Tradeoffs for a Time-Parallel Simulation of Wireless Ad hoc Networks," (with G. Wang, D. Turgut, L. Bölöni). Proc. 2-nd IEEE Int. Workshop on Performance and Management of Wireless and Mobile Networks (P2MNet), pp. 730-737, 2006.

102. "Time-Parallel Simulation with Compressed History," (with G. Wang, D. Turgut, L. Bölöni). Proc ICWMC, 3-rd Int. Conf. on Wireless and Mobile Communications, pp. 48-56, 2007.

103. "An Automated Data Processing Pipeline for Virus Structure Determination at High Resolution," (with C. Yu, J. P. Morrison, B. C. Clayton, D. A. Power), Proc. HiCOMB, 6th Int. Workshop on High Performance Structural Biology, March 2007, CD Proceedings.

104. "A Simulation Study of Data Partitioning Algorithms for Multiple Clusters," (with C. Yu, H.J. Siegel, and J. P. Morrison), Proc. CCGrid 2007 (7th Int. Symp. on Cluster Computing and the Grid), Rio de Janeiro, pp. 259 – 266, 2007.

105. "A Reputation Algorithm for a Self-organizing System Based upon Resource Virtualization," (with C. Yu, G. M. Marinescu, J. P. Morrison, C. Norvik), Proc. HCW 2008 (Heterogeneous Computing Workshop), CD Procedings, 2008.

106. "Cross-layer Communication of Power and Location Aware MAC and Network Layer Protocols for Ad-Hoc Networks with Asymmetric Links," (with G. Wang), Proc. ISWPC 2008 (Int. Symp. on Wireless Pervasive Computing), Santorini, (CD Proceedings, 2008.

107. "Self-organizing Sensor Networks," (with G. M. Marinescu), Proc. ISWPC 2008 (Int. Symp. on Wireless Pervasive Computing), Santorini, CD Proceedings, 2008.

108. "Managing Contracts in Pleiades using Trust Management." (with C. Yu, G. M. Marinescu, J. P. Morrison, C. Norvik, and H. J. Siegel), Proceedings of ATC 08 Conference, Lecture Notes in Computer Science (LNCS), Vol. 5060 pp. 470–480, 2008.

109. "A parallel simulator for quantum fault-tolerance in the presence of correlated errors." (with G. M. Marinescu), Proceedings of the 22nd Workshop on Principles of Advanced and Distributed Simulation, pp. 152, 2008.

110. "Load Distribution and Co-termination Scheduling Algorithms for Large-Scale Distributed Applications," (with C. Yu), Proc. Int. Conf. Parallel and Distributed Computing and Communication Systems, September 24-26, New Orleans, 2008.

111. "A Model for Self-Organization of Complex Computing and Communication Systems," (with J. Morrison, C. Yu, C. Norvik, and H.J. Siegel), Proc. Second IEEE Int. Conf. on Self-Adaptive and Self-Organizing Systems Venice (I), October 20-24, IEEE Press, pp. 149–160, 2008.

112. "A Secure Self-Organizing Sensor Network," (with C. Yu, and G. M. Marinescu), Proc. Workshop on Pervasive Adaptation (PERADA), Venice, October 2008.

113. "Self-organization of Very Large Sensor Networks Based on Small-worlds Principles," (with C. Yu, and G. M. Marinescu), Proc. Third IEEE Int. Conf. on Self-Adaptive and Self-Organizing Systems (SASO), San Francisco, IEEE Press pp. 115-125, 2009.

114. "Social Networks-based Virtual Organizations for Biomedical Research, (with L. Böloni). Proc. 12th Int. Conf. on E-health Networking, Applications and Services (HealthCom'10), pp. 631-640, 2010.

115. "A Cloud Service for Adaptive Digital Music Streaming," (with A. Paya), Proc 8th Int. Conf on Signal Image Technology and Internet-based System, CD Proceedings, 2012.

116. "Cloud-based simulation of a smart power grid." (with A. Paya), 2014 IEEE 28th IPDPS, Proc. High Performance Grid and Cloud Computing Workshop, DOI 10.1109/IPDPSW.2014.100, pp. 823–832, 2014.

117. "Energy-aware load balancing policies for the cloud ecosystem." (with A. Paya). 2014 IEEE 28th IPDPS Proc. High-Performance Power-aware Computing Workshop, DOI 10.1109/IPDPSW.2014.10 pp. 875–884, 2014.

118. "Security of applications involving multiple organization; Order-preserving encryption in hybrid cloud environments." (with A. Paya and Mohammad Ahmadian), 2014 IEEE 28th IPDPS Workshop, DOI.10.1109/IPDSPSW.2014.102, pp. 894–903, 2014.

119. "Bid-centric cloud service description." (with P. Healy, S. Mayer, T. Lynn, J. P. Morrison, and A. Paya), Proc. ISPDC 13, DOI 10.1109/ISPDC.2014.12 pp. 73 – 81, 2014.

120. "Is cloud self-organization feasible?" (with J. P. Morrison, and A. Paya) Proc. Adaptive Resource Management and Scheduling for Cloud Computing (ARMS), San Sebastian, 2015.

Other Publications

1. Six research reports written between 1967 and 1971 at the PIB and U.C. Berkeley on Error Correcting Codes, Codes with Algebraic Structure, and BCH codes.

2. A report on the "Design of an On-line Data Acquisition System for Multi-Dimensional EEG", U.C.Berkeley, 1972.

3. Twelve research reports written between 1973 and 1975 at the Institute for Atomic Physics of the Romanian Academy of Science on: job scheduling, paging algorithms, implementation of FORTRAN built-in functions in microcode, algorithms for FFT and applications in image processing.

4. Eight research reports produced between 1976 and 1977 at the Joint Institute for Nuclear Research Dubna (USSR) on structured programming, data acquisition and analysis systems for high energy physics, languages for real-time applications.

5. Ten research reports and papers published between 1977 and 1980 at the Institute for Physics and Nuclear Engineering, Bucharest on scientific computing, computational aspects of the design of magnetohydrodynamical systems, stability issues for magnetohydrodynamical systems, finite-element methods and applications, computer aided design of integrated circuits.

6. Four reports produced at GSI Darmstadt between 1980 and 1984 on data acquisition and analysis systems for high energy physics.

7. "Random Multiple Access Methods for Communication with Real-Time Delivery Constraints," *Joint National Meeting of Operations Research Society of America, CORS, TIMS*, Vancouver, 1989.

8. Some 70 Technical Reports of the Computer Science Department at Purdue University, SERC (Software Engineering Research Center), and CAPO from 1985 till 2000.

9. "Cluster and Grid Computing for the 3D Structure Determination of Viruses with Unknown Symmetry, at High Resolution", Mini-workshop on Computational Biology at the SIAM Parallel Processing Conference, San Francisco, February 2004.