

Geoffrey Charles Fox



Phone: 8122194643(Cell), 8128567977(Informatics), 8128560927(Lab),
8123239196(Home)

Fax 8128567972(Lab)

Email: gcf@indiana.edu, gcf@cs.indiana.edu, Geoffrey.Fox@gmail.com

Web Site: <http://www.infomall.org>

School of Informatics and Computing
Room 207
901 E. 10th Street
Bloomington IN 47408

Community Grids Laboratory
Digital Science Center
Pervasive Technology Institute
2719 E. 10th St.
Bloomington, IN 47408

Date of Birth: June 7 1944 Dunfermline Scotland

Education:

B.A. in Mathematics from Cambridge Univ., Cambridge, England (1961-1964)

Ph.D. in Theoretical Physics from Cambridge University (1964-1967)

M.A. from Cambridge University (1968)

Professional Experience:

2009- Associate Dean for Graduate Studies and Research, School of Informatics and Computing, Indiana University Bloomington

2009- Professor of Informatics and Computing, Physics. Indiana University

2009- Director Digital Science Center of Pervasive Technology Institute

2008-2009 Chair Department of Informatics, Indiana University Bloomington

2006-2009 Vice President of eScience function for Open Grid Forum

2006- Senior Research Associate in the Center for Computational Science and Advanced Distributed Simulation at University of Houston Downtown

2005-2008 Visiting Scholar for Cyberinfrastructure Development at the Alliance for Equity in Higher Education

2004- Visiting Professor of Computer Science at Southampton University UK

2001-2009 Professor of Computer Science, Informatics, Physics. Indiana University

2001- Director of Community Grid Laboratory; Pervasive Technology Laboratories at Indiana University

2000-2001 Professor of Computer Science, Florida State University

2000-2001 Associate Director of School of Computational Science and Information Technology FSU

2000-2001 Director of the Computational and Information Science Laboratory FSU

2000-2001 Chief Technologist of Office of Distributed and Distance Learning, FSU

1999- Distinguished Visiting Scientist, JPL Pasadena CA

1990-2002 Professor of Computer Science, Syracuse University

1990-2002 Professor of Physics, Syracuse University

1990-2004 Adjunct Professor, Computer Science, Rice University

1990-2000 Director of Northeast Parallel Architectures Center, Syracuse University
1979-1990 Professor of Physics, California Inst. of Tech.
1986-1988 Associate Provost for Computing, California Inst. of Tech.
1983-1985 Dean for Educational Computing, California Inst. of Tech.
1981-1983 Executive Officer of Physics, California Inst. of Tech.
1974-1979 Associate Professor of Physics, California Inst. of Tech.
1971-1974 Assistant Professor of Physics, California Inst. of Tech.
1970-1971 Millikan Research Fellow in Theoretical Physics, Caltech
1970 Visiting Scientist, Brookhaven National Laboratory, Long Island
1969-1970 Research Fellow at Peterhouse College, Cavendish Lab., Cambridge
1968-1969 Research Scientist, Lawrence Berkeley Lab., Berkeley, Calif.
1967-1968 Member of School of Natural Science, Inst. for Advanced Study, Princeton, New Jersey

Awards and Honors

Senior Wrangler, Part III Mathematics, Cambridge (1964)
[\[http://en.wikipedia.org/wiki/Wrangler_\(University_of_Cambridge\)\]](http://en.wikipedia.org/wiki/Wrangler_(University_of_Cambridge))
Mayhew Prize, Applied Mathematics, Cambridge (1964)
[\[http://en.wikipedia.org/wiki/Mayhew_Prize\]](http://en.wikipedia.org/wiki/Mayhew_Prize)
Alfred P. Sloan Foundation Fellowship (1973-75)
Fellow of the American Physical Society (1990-)

Board Membership

Anabas Corporation 2001-
Undergroundfilm.org 2003-2007

Current Journal Editor:

1. Main Editor, *Concurrency and Computation: Practice and Experience*, John Wiley, Inc. (1989-present) <http://www.cc-pe.net/>
2. Member of Editorial board: *The Journal of Supercomputing* (1987-)
3. Member of Editorial board: *Future Generation Computer Systems* (2003-)
4. Member of Editorial board: *Computing in Science and Engineering* (2001-)
5. Member of Editorial board: *International Transactions on Systems Science and Applications* (2006-)

Previous Journal Responsibility

1. Supervisory Editor: *Nuclear Physics B* (1975-1986).
2. Member of the Editorial Board: *Computer Physics Communications* (1987-1994)
3. Member of the Editorial Board: *International C3IS Journal: Command, Control, Communications and Information Systems* (1987-1990)
4. Principal Editor: *Physics and Computers: International Journal of Modern Physics C* (1990-1998)
5. Member of Editorial board: *Theoretical and Computational Fluid Dynamics* (2002-2004)
6. Contributing Editor, *Grid Today* (2002-2003)

Industry Experience

Co-founder of WebWisdom.com and Anabas corporations.

Patents TangoInteractive Collaboration System, March 2000 with several members of WebWisdom.com

Books Authored

- 1) *Solving Problems in Concurrent Processors-Volume 1*, with M. Johnson, G. Lyzenga, S. Otto, J. Salmon, D. Walker, Prentice Hall, March 1988.
- 2) *Solving Problems in Concurrent Processors-Volume 2*, with I. Angus, J. Kim, D. Walker, Prentice Hall, 1990.
- 3) *Supercomputer Applications of the Hypercube*, published in *Supercomputing Systems*, Chapter 11, pp. 480-577 by Van Nostrand Reinhold Publishing House, New York, N.Y. editors Steve and Lana Kartashev (1989).
- 4) *Parallel Computing Works!*, with P. Messina, R. Williams, Morgan Kaufman (1994).
- 5) *The Sourcebook of Parallel Computing* book edited by Jack Dongarra, Ian Foster, Geoffrey Fox, William Gropp, Ken Kennedy, Linda Torczon, and Andy White, Morgan Kaufmann, November 2002 (3 chapters co-authored by Fox)
- 6) *Grid Computing: Making the Global Infrastructure a Reality* edited by Fran Berman, Geoffrey Fox and Tony Hey, John Wiley & Sons, Chichester, England, ISBN 0-470-85319-0, March 2003

Books Edited

- 7) *Phenomenology in Particle Physics*, 1971, (with C. B. Chiu and A. J. G. Hey), Proceedings of a conference at Caltech (organized by C. B. Chiu and G. C. Fox) in 1971.
- 8) *Hypercube Concurrent Computers and Applications*, Proceedings of the Third Conference on Hypercube Concurrent Computers and Applications, published by ACM, 1988.

Lecture Notes

1. "Phenomenology of Particle Physics," lecture notes for Physics 231, CALT-68-837, unpublished, 1980.
2. Numerous Courses and Tutorials have been put on the web including series Fox taught to Jackson State University 1997-2005
<http://grids.ucs.indiana.edu/ptliupages/publications/disted/>
3. Two recent tutorials are:
Tutorial on "Implications of Parallel Computing for Multicore" at Microsoft Research February 26-March 1 2007
<http://grids.ucs.indiana.edu/ptliupages/presentations/PC2007/index.html> |
Tutorial on "Web 2.0 and Grids" with Marlon Pierce May 21 2007
<http://grids.ucs.indiana.edu/ptliupages/presentations/CTSpertIMay21-07.ppt>
http://grids.ucs.indiana.edu/ptliupages/presentations/Web20Tutorial_CTS.ppt

Conferences Organized

1. Caltech 1971 (with C. B. Chiu) on "High Energy Physics Phenomenology."
2. Caltech 1979 on "Gauge Theories and Related High Energy Physics (Experimental and Theoretical) Topics."
3. JPL 1988 "Third Conference on Hypercube Concurrent Computers and Applications;"

- Chairperson of program committee.
4. Syracuse 1992 ``First International Symposium on High-Performance Distributed Computing," Conference Chair.
 5. Spokane 1993 ``Second International Symposium on High-Performance Distributed Computing," Conference Chair.
 6. San Francisco 1994 ``Third International Symposium on High-Performance Distributed Computing," Conference Chair.
 7. Washington, D.C. 1995 ``Fourth International Symposium on High-Performance Distributed Computing," Conference Chair.
 8. Syracuse 1996 ``Fifth International Symposium on High Performance Distributed Computing," Conference Chair.
 9. Syracuse 1996 "Java for Science and Engineering", Convener and Organizer
 10. Seattle 2002 "Java Grande-ISCOPE 2002", Program Chair (plus continued involvement in previous Java Grande activities 1996-2002)
 11. Chicago June 26-30, 2005 "GGF14 - The fourteenth Global Grid Forum", Program Chair
 12. GCC 2005, The 4th International Conference on Grid and Cooperative Computing, November 30-December 3, 2005, Beijing, China, Program co-chair
 13. Athens, Greece February 13-16, 2006 "GGF16 - The sixteenth Global Grid Forum", Program Chair
 14. Seattle, Washington, October 15-19, 2007, "The 21st Open Grid Forum - OGF21", Program Chair
 15. Bangalore, India, December 10-13 2007, "The 3rd International Conference on e-Science and Grid Computing", Program Chair
 16. Indianapolis, Indiana, December 7-12 2008, "The 4th International Conference on e-Science ", General Chair <http://escience2008.iu.edu/>

61 PhD Theses supervised by Fox

1. Ali Kaplan *Collaborative Framework for High-Performance P2P-based Data Transfer in Scientific Computing* Indiana University PhD April 28 2009
<http://grids.ucs.indiana.edu/ptliupages/publications/ali.kaplan.proofreading.V6.docx>
2. Ahmet Topcu *INTEGRATED COLLABORATIVE INFORMATION SYSTEMS* Indiana University PhD March 23 2009
http://grids.ucs.indiana.edu/ptliupages/publications/atopcu_thesis.pdf
3. Ahmet Sayar *High Performance, Federated, Service-Oriented Geographic Information Systems* Indiana University PhD January 28 2009
http://grids.ucs.indiana.edu/ptliupages/publications/thesis_asayar.pdf
4. Ahmet Fatih Mustacoglu *Event-based Infrastructure for Reconciling Distributed Annotation Records* Indiana University PhD July 31 2008
http://grids.ucs.indiana.edu/ptliupages/publications/AhmetFatihMustacoglu-Thesis-08_22_2008.pdf
5. Mehmet Nacar *A COMPONENT FRAMEWORK FOR BUILDING WEB SCIENCE GATEWAYS AND PORTALS* Indiana University PhD November 27 2007
<http://grids.ucs.indiana.edu/ptliupages/publications/Mehmet%20Nacar%20Dissertation%20Draft.pdf>
6. Kangseok Kim *A FRAMEWORK FOR SYNCHRONOUS AND UBIQUITOUS COLLABORATION* Indiana University PhD September 26 2007

- <http://grids.ucs.indiana.edu/ptliupages/publications/KangseokDissertationFirstDraft.doc>
7. Beytullah Yildiz *Distributed Handler Architecture (DHArch)* Indiana University PhD May 28 2007 http://grids.ucs.indiana.edu/ptliupages/publications/byildiz_dissertation.pdf
 8. Mehmet Aktas *Information Federation in Grid Information Services* Indiana University PhD May 3 2007
<http://grids.ucs.indiana.edu/ptliupages/publications/MehmetAktasThesis.pdf>
 9. Hasan Bulut *HIGH PERFORMANCE RECORDING AND MANIPULATION OF DISTRIBUTED STREAMS* Indiana University PhD April 24 2007
<http://grids.ucs.indiana.edu/ptliupages/publications/HasanBulutThesis.pdf>
 10. Harshawardhan Gadgil *SCALABLE, FAULT-TOLERANT MANAGEMENT OF GRID SERVICES: APPLICATION TO MESSAGING MIDDLEWARE* Indiana University PhD April 5 2007 <http://grids.ucs.indiana.edu/ptliupages/publications/hgadgil-THESIS.pdf>
 11. Galip Aydin *Service Oriented Architecture for Geographic Information Systems Supporting Real Time Data Grids* Indiana University PhD January 15 2007
<http://grids.ucs.indiana.edu/ptliupages/publications/GalipAydin-Thesis.pdf>
 12. Gurhan Gunduz *A Framework for Network Monitoring and Performance Based Routing in Distributed Middleware Systems* Syracuse University PhD October 25 2006
<http://grids.ucs.indiana.edu/ptliupages/publications/GurhanThesis.pdf>
 13. Minjun Wang *GRID-BASED COLLABORATION* Syracuse University Computer Engineering August 2 2006 <http://grids.ucs.indiana.edu/ptliupages/publications/Minjun-Dissertation-Revision.pdf>
 14. Sangyoon Oh *Optimizing Web Service Performance in Mobile Computing* Indiana University PhD Computer Science August 1 2006
http://grids.ucs.indiana.edu/ptliupages/publications/SANGYOON_OH DISSERTATION final.pdf
 15. Jungkee Kim *Hybrid Search across peer-to-peer Federated Data* Florida State University April 6 2005 <http://grids.ucs.indiana.edu/ptliupages/publications/JKimDissertation.pdf>
 16. Ahmet Uyar *Scalable Service Oriented Architecture for Audio/Video Conferencing* Syracuse University March 23 2005
<http://grids.ucs.indiana.edu/ptliupages/publications/UyarThesisFinal.PDF>
 17. Xiaohong Qiu *Message-based MVC Architecture for Distributed and Desktop Applications* Syracuse University March 2 2005 (Honored as best Computer and Information Science Thesis at Syracuse University May 2005)
<http://grids.ucs.indiana.edu/ptliupages/publications/qiuPhDthesis.pdf>
 18. Sang Lim *PLATFORMS FOR HPJAVA: RUNTIME SUPPORT FOR SCALABLE PROGRAMMING IN JAVA* Florida State University June 11 2003
<http://grids.ucs.indiana.edu/ptliupages/publications/sanglimdissertation.pdf>
 19. Han-Ku Lee *TOWARDS EFFICIENT COMPILATION OF THE HPJAVA LANGUAGE FOR HIGH PERFORMANCE COMPUTING* Florida State University June 12 2003
<http://grids.ucs.indiana.edu/ptliupages/publications/hkleedissertationjune03.pdf>
 20. Sangmi Lee *A Modular Data Pipelining Architecture (MDPA) for enabling Universal Accessibility in P2P Grids* Florida State University July 3 2003
http://grids.ucs.indiana.edu/ptliupages/publications/Sangmi_Lee_thesis.pdf
 21. Choonhan Youn *Web Services Based Architecture in Computational Web Portals* Syracuse University November 7 2003
<http://grids.ucs.indiana.edu/ptliupages/publications/DissertationChoonhanYounRevision.pdf>
 22. Shrideep Pallickara, *A Grid Event Service*, Syracuse University 2001

- <http://grids.ucs.indiana.edu/ptliupages/oldtheses/pallickara.pdf>
23. Yuh-Jye Chang, *Architecture of fine-grained data flow network programming environment*, Syracuse University 2000
<http://grids.ucs.indiana.edu/ptliupages/oldtheses/chang.pdf>
 24. M. A. Saleh Elmohammed, *Algorithms and heuristics for combinatorial optimization problems: Case study of academic course scheduling*, Syracuse University 2000
<http://grids.ucs.indiana.edu/ptliupages/oldtheses/elmohammed.pdf>
 25. Sung-Hoon Ko, *Object-based message passing in high performance computing using Java*, Syracuse University 2000 <http://grids.ucs.indiana.edu/ptliupages/oldtheses/ko.pdf>
 26. Myeongjin Lee, *Information architecture of interactive and customizable learning environments*, Syracuse University 2000
<http://grids.ucs.indiana.edu/ptliupages/oldtheses/lee.pdf>
 27. Tseng-Hui Lin, *Parallelizing legacy applications using message passing programming model and the example of MOPAC*, Syracuse University 2000
<http://grids.ucs.indiana.edu/ptliupages/oldtheses/lin.pdf>
 28. Bokyun Na, *System model and taxonomy for host-network interfaces*, Syracuse University 2000 <http://grids.ucs.indiana.edu/ptliupages/oldtheses/nafinalthesis.pdf>
 29. Mehmet Sen, *Distributed open asynchronous information access environment*, Syracuse University 2000 <http://grids.ucs.indiana.edu/ptliupages/oldtheses/sen.pdf>
 30. Erol Akarsu, *Integrated Three-Tier Architecture for High-Performance Commodity Metacomputing*, Syracuse University 1999.
http://grids.ucs.indiana.edu/ptliupages/oldtheses/Akarsu_finalversionwithFormatted.pdf
 31. Alvin Leung, *Real-time interactive client-server terrain rendering*, Syracuse University 1997 <http://grids.ucs.indiana.edu/ptliupages/oldtheses/leung.pdf>
 32. Kivanc Dincer, *World-wide virtual machine: A metacomputing environment integrating World Wide Web and high performance computing and communications technologies*, Syracuse University 1997 <http://grids.ucs.indiana.edu/ptliupages/oldtheses/dincer.pdf>
 33. David Edelsohn *Random interactions with disk galaxies* Syracuse University 1996
<http://grids.ucs.indiana.edu/ptliupages/oldtheses/edelsohn.pdf>
 34. Gang Cheng, *A dataflow-based software integration model in parallel and distributed computing and applications*, Syracuse University 1996
<http://grids.ucs.indiana.edu/ptliupages/oldtheses/cheng.pdf>
 35. Gregor von Laszewski, *A parallel data assimilation system and its implications on a metacomputing environment*, Syracuse University 1996
<http://grids.ucs.indiana.edu/ptliupages/oldtheses/laszewskithesis.pdf>
 36. Nawal Copty, *Language and runtime support for the execution of hierarchical clustering applications on distributed-memory machines*, Syracuse University 1995
<http://grids.ucs.indiana.edu/ptliupages/NPAC-SCCSIndex-PDFPreserved/sccs-0751.pdf>
 37. David Koester, *Parallel block-diagonal-bordered sparse linear solvers for power systems applications*, Syracuse University 1995
<http://grids.ucs.indiana.edu/ptliupages/oldtheses/koester.pdf>
 38. Leiping Han, *Monte Carlo Simulations of Random Surfaces with Extrinsic Curvature*, Syracuse University Physics 1995 <http://www.new-npac.org/users/fox/pdftotal/sccs-0671.pdf>
 39. Zeki Bozkus, *Compiling Fortran 90D/HPF for Distributed Memory MIMD computers*, Syracuse University 1995 <http://www.new-npac.org/users/fox/pdftotal/sccs-0730.pdf>

40. Zheng-Yao Su, *The Hierarchical Algorithms: Theory and Applications*, Caltech 1994.
41. John Apostolakis, *Asymptotic scaling in the two-dimensional $O(3)$ nonlinear sigma model: A Monte Carlo study on parallel computers*, Caltech 1994
42. Nashat Mansour. *Physical Optimization Algorithms for Mapping Data to Distributed-Memory Multiprocessors*, Syracuse University 1992
<http://grids.ucs.indiana.edu/ptliupages/NPAC-SCCSIndex-PDFPreserved/sccs-0345.pdf>
43. Ken Rose, *Deterministic Annealing, Clustering, and Optimization*, Electrical Engineering, Caltech 1990
44. John K. Salmon, *Parallel Hierarchical N-Body Methods*, Caltech, 1990.
45. Roberto Battiti, *Multiscale Methods, Parallel Computation, and Neural Networks for Computer Vision*,. Computation and Neural Systems, Caltech 1990
46. Paul Stolorz, *NUMERICAL SIMULATIONS OF LATTICE QCD (MONTE CARLO, LATTICE GAUGE THEORY)*, Caltech 1987
47. Jon Flower, *Lattice gauge theory on a parallel computer*, Caltech 1987
48. Adam Kolawa. *Semi-analytical Calculation of the 0^{++} Glueball Mass in $SU(2)$ Gauge Theory*, Caltech 1986
49. Eric Mjolsness, *NEURAL NETWORKS, PATTERN RECOGNITION, AND FINGERPRINT HALLUCINATION (COLLECTIVE COMPUTATION)*, Caltech 1986
50. Mark Johnson, *Concurrent Computation and its Application to the Study of Melting in Two Dimensions*. Caltech 1986
51. Apoorva Patel, *Monte Carlo Renormalization Group for Lattice QCD*, Caltech 1984
52. Steve Otto, *Monte Carlo Methods in Lattice Gauge Theories*, Caltech 1983.
53. Michael Shatz, *A QCD Based Model of Hadron Hadron Scattering*, Caltech 1983
54. Sarbmeet Kanwal, *A Leading Order QCD Computation of $\pi\pi$ Elastic Scattering*, Caltech 1983
55. Rajan Gupta, *Mass Gap and Scaling in the $O(3)$ Sigma Model in $1+1$ Dimension*, Caltech 1982
56. Kar Woo Yung, *Study of hadronic jets produced by charged pion and proton beams incident on hydrogen and aluminum targets*, Caltech 1980
57. James Rohlf, *JET PRODUCTION IN HIGH-ENERGY HADRON-PROTON COLLISIONS*, Caltech 1980
58. Stuart Stampke, *PION-PION DECAY DISTRIBUTIONS FOR PION(-) PROTON --> PION(+) PION(-) NEUTRON AT 100 AND 175 GEV/C*, Caltech 1982
59. Stephen Wolfram, *Some topics in theoretical high-energy physics*, Caltech 1980
60. Daniel Novoseller, *PION-EXCHANGE IN A PARTIAL WAVE ANALYSIS OF PION-NUCLEON ---> NUCLEON,PION,PION*, Caltech 1977
61. Robert Worden, *Regge models of forward pion and eta photoproduction*, Caltech 1972

Open Source Software and Resources

1. <http://www.futuregrid.org> Virtual machine based simulation test bed
2. <http://www.chembiogrid.org> This hosts open-source software from the Chemical Informatics and Cyberinfrastructure Collaboratory at Indiana University
3. <http://www.collab-ogce.org/> Multi-institution Grid Portal (Open Grid Computing Environment) resource

4. <http://www.crisisgrid.net/html/projects.html> Open Geospatial Consortium standards compliant Web Services for Geographical Information Systems. Core Software for SERVOGrid Complexity Computational Environment.
5. <http://www.globalmmcs.org/> Service oriented audio-video conferencing and collaboration environment (this software is no longer supported)
6. <http://www.hpjava.org/> Parallel Java Compiler and mpiJava Java binding to MPI
7. Multimedia digital objects (<http://www.undergroundfilm.org/> was taken off the air and rehosted commercially May 2007 due to support funding issues)
8. <http://www.opengrids.org/> Core Grid and Web Service software including Extended UDDI, WS-Context, Calendaring Service and older GXOS and XML Nuggets.
9. <http://salsaweb.ads.iu.edu/salsa/> Performance Measurements and Kernel Software on multicore chips
10. <http://www.naradabrokering.org/> Grid and Web Service publish-subscribe messaging infrastructure
11. <http://gw11.quarry.iu.teragrid.org/gridsphere/gridsphere> QuakeSim web site providing interactivity and support for earthquake fault spatial deformation applications and GPS time series analysis tools using Web services for accessing backend high performance computing resources. Used by NASA JPL researchers and geophysics classes at California State University-Northridge. Hosted on IU's TeraGrid gateway hosting service.
12. <http://www.msi-ciec.org>. MSI-CIEC Portal
13. <http://live.escience2008.iu.edu/calendar/Calendar.html> e-Science Live Audio-Video broadcasting site Live site integrating live and archived video and audio feeds, chats, and blogs for E-Science 2008.

----- Publications -----

According to Google Scholar, I have over 13600 citations, 1000 papers (Google limit) and an h-index of 47. The paper count is somewhat overestimated as some papers are listed from more than one source but there are very few papers not written by me in this sample (such noise is often a difficulty with Google Scholar searches). The following papers are organized in groups starting with those from January 2005 to November 2009. These are divided into now conventional categories separating journal, book and conference contributions. This is followed by a set from 1967-1990 and then the set from 1991-2004 with only technical reports separated out. The web site <http://www.infomall.org> contains recent online material and <http://www.old-npac.org>, <http://www.new-npac.org/users/fox/>, and <http://www.new-npac.org/projects/> material from before 2001

Journal Articles 2005 – December 2009

1. Geoffrey C. Fox, Mehmet S. Aktas, Galip Aydin, Harshawardhan Gadgil, Shrideep Pallickara, Marlon E. Pierce, and Ahmet Sayar [Algorithms and the Grid](#) August 2005 talk at [ALGORITHMY 2005](#) Conference on Scientific Computing Vysoke Tatry, Podbanske March 13-18, 2005. Computing and Visualization in Science (CVS), Springer Berlin / Heidelberg Volume 12, Number 3 / March, 2009 pages 115-124. [DOI](#)
2. Sangyoon Oh, Jai-Hoon Kim and Geoffrey Fox [Real-Time Performance Analysis for Publish/Subscribe Systems](#) Future Generation Computer Systems to be published [DOI](#)

3. Marlon E. Pierce, Geoffrey C. Fox, Jong Y. Choi, Zhenhua Guo, Xiaoming Gao, and Yu Ma [Using Web 2.0 for Scientific Applications and Scientific Communities](#) Special Issue for 3rd International Conference on Semantics, Knowledge and Grid [SKG2007](#) Xian China October 28-30 2007. Concurrency and Computation: Practice and Experience Volume 21, Issue 5, Date: 10 April 2009, Pages: 583-603 [DOI](#)
4. Marlon E. Pierce, Xiaoming Gao, Sangmi L. Pallickara, Zhenhua Guo, Geoffrey C. Fox [QuakeSim Portal and Services](#) to be published in Concurrency&Computation: Practice&Experience Special Issue on Computation and Informatics in Earthquake Science: The ACES Perspective 6th ACES International [workshop](#) Cairns, Australia 11 - 16 May 2008. [DOI](#)
5. Galip Aydin, Ahmet Sayar, Harshawardhan Gadgil, Mehmet S. Aktas, Geoffrey C. Fox, Sunghoon Ko, Hasan Bulut, and Marlon E. Pierce [Building and Applying Geographical Information System Grids](#) Special Issue on Geographical information Systems and Grids based on GGF15 [workshop](#), Concurrency and Computation: Practice and Experience 20(14): 1653-1695 (2008) [DOI](#)
6. Mehmet S. Aktas, Sangyoon Oh, Geoffrey C. Fox, Marlon E. Pierce [XML Metadata Services](#) Special Issue for 2nd International Conference on Semantics, Knowledge and Grid [SKG2006](#) Guilin China October 31 - November 3 2006. Concurrency and Computation: Practice and Experience 20(7): 801-823 (2008) [DOI](#)
7. Byounghoon Lee, Sunghwa Lim, Jai-Hoon Kim , and Geoffrey Fox [Lease Based Consistency Scheme in the Web Environment](#) Future Generation Computer Systems Volume 25, Issue 1, January 2009, Pages 8-19
8. Geoffrey Fox and Marlon Pierce [Grids Challenged by a Web 2.0 and Multicore Sandwich](#) Special Issue on Seventh IEEE International [Symposium](#) on Cluster Computing and the Grid — CCGrid 2007, Keynote Talk Rio de Janeiro Brazil May 15 2007. Concurrency&Computation:Practice&Experience Volume 21, Issue 3, Date: 10 March 2009, Pages: 265-280 [DOI](#)
9. Shantenu Jha, Andre Merzky, Geoffrey Fox [Using Clouds to Provide Grids Higher-Levels of Abstraction and Explicit Support for Usage Modes](#) Special Issue on Open Grid Forum. Concurrency&Computation: Practice&Experience Volume 21, Issue 8, Date: 10 June 2009, Pages: 1087-1108. [DOI](#) (earlier version [Using Clouds to Provide Grids Higher-Levels of Abstraction and Explicit Support for Usage Modes](#) Technical Report April 8 2008)
10. Shrideep Pallickara, Geoffrey Fox and Harshawardhan Gadgil. [On the Secure Creation, Organization and Discovery of Topics in Distributed Publish/Subscribe Systems.](#) International Journal of High Performance Computing and Networking (IJHPCN). Vol. 5, No. 3, pp.156-167. 2008. Special Issue of extended versions of the 6 best papers at the ACM/IEEE GRID 2005 Workshop.
11. Rajarshi Guha, Gary D. Wiggins, David J. Wild, Mu-Hyun Baik, Marlon E. Pierce, and Geoffrey C. Fox [Improving usability and accessibility of cheminformatics tools for chemists through cyberinfrastructure and education](#) Cheminformatics, Accepted September 2007

12. Geoffrey C. Fox and Hai Zhuge [Editorial for Special Issue of the 2nd International Conference on Semantics, Knowledge and Grid](#) Special Issue for 2nd International Conference on Semantics, Knowledge and Grid [SKG2006](#) Guilin China October 31 - November 3 2006. Concurrency and Computation: Practice and Experience Volume 20, Issue 7, Date: May 2008, Pages: 751-752 [DOI](#)
13. Marlon E. Pierce Geoffrey C. Fox Mehmet S. Aktas Galip Aydin Harshawardhan Gadgil Zhigang Qi and Ahmet Sayar [The QuakeSim Project: Web Services for Managing Geophysical Data and Applications](#) Special Issue for 5th ACES International Workshop Maui Prince Hotel, Island of Maui, Hawaii. Pure and Applied Geophysics (PAGEOPH) Topical Volumes "Earthquakes: Simulations, Sources and Tsunamis" pages 635-651. [DOI](#)
14. Sang Boem Lim, Han-Ku Lee, Bryan Carpenter, and Geoffrey Fox [Runtime Support for Scalable Programming in Java](#) in Journal of Supercomputing Special Issue from Third International [Symposium](#) on Parallel and Distributed Processing and Applications ([ISPA'05](#)), Nanjing , China November 2-5 2005 [DOI](#)
15. Yolanda Gil, Ewa Deelman, Mark Ellisman, Thomas Fahringer, Geoffrey Fox, Dennis Gannon, Carole Goble, Miron Livny, Luc Moreau, Jim Myers [Report on the 2006 NSF Workshop on Challenges of Scientific Workflows](#) Computer, vol. 40, no. 12, pp. 24-32, Dec., 2007. [DOI](#). See original [meeting](#)
16. Jack Dongarra, Dennis Gannon, Geoffrey Fox, and Ken Kennedy [The Impact of Multicore on Computational Science Software](#) Technical Report February 5 2007; [CTWatch](#) Quarterly Volume 3, Number 1 February 2007
17. Sangyoon Oh and Geoffrey Fox [Optimizing Web Service Messaging Performance in Mobile Computing](#) July 2006, Published in Special Issue in Grid Technology and applications of Journal Of Future Generation Computer Systems, Elsevier, Volume 23, Issue 4, May 2007, Pages 623-632 [DOI](#)
18. Geoffrey Fox and Xiaoping Sun, [Progress of the Knowledge Grid](#) Editorial for special issue for 1st International [Conference](#) SKG2005 on Semantics, Knowledge and Grid Beijing China November 27-29 2005 published in Special Issue: *Progress of the Knowledge Grid* in Concurrency and Computation: Practice and Experience Volume 19, Issue 15, Date: October 2007, Pages: 2011-2012 [DOI](#)
19. Mehmet S. Aktas, Geoffrey C. Fox, Marlon Pierce [Fault Tolerant High Performance Information Services for Dynamic Collections of Grid and Web Services](#) FGCS Special issue from 1st International [Conference](#) SKG2005 on *Semantics, Knowledge and Grid* Beijing China November 27-29 2005 in Future Generation Computer Systems Volume 23 (3), p.317-337, Mar 2007 [DOI](#)
20. Geoffrey Fox and Hai Zhuge [GCC2005 Special Issue on Autonomous Grid Computing](#) Fourth International Conference on Grid and Cooperative Computing ([GCC2005](#)), held in Beijing, China, during Nov 30-Dec 3, 2005. Editorial for Special Issue: Autonomous Grid Computing, Concurrency and Computation: Practice and Experience Volume 19, Issue 7, Date: May 2007, Pages: 943-944 [DOI](#)

21. Geoffrey Fox, Galip Aydin, Hasan Bulut, Harshawardhan Gadgil, Shrideep Pallickara, Marlon Pierce, and Wenjun Wu [Management of Real-Time Streaming Data Grid Services](#) March 12 2006. Special Issue from Grid and Cooperative Computing 4th International [Conference](#) November 30 to December 3 2005 Beijing China. Concurrency and Computation: Practice and Experience Volume 19, Issue 7, Date: May 2007, Pages: 983-998 [DOI](#)
22. Jay Alameda, Marcus Christie, Geoffrey Fox, Joe Futrelle, Dennis Gannon, Mihael Hategan, Gregor von Laszewski, Mehmet A. Nacar, Marlon Pierce, Eric Roberts, Charles Severance, and Mary Thomas [The Open Grid Computing Environments Collaboration: Portlets and Services for Science Gateways](#) March 2006. Special Issue for Science Gateways GGF14 [workshop](#). Concurrency and Computation: Practice and Experience Volume 19, Issue 6, Date: 25 April 2007, Pages: 921-942 [DOI](#)
23. Mehmet A. Nacar, Mehmet S. Aktas, Marlon Pierce, Zhenyu Lu and Gordon Erlebacher, Dan Kigelman, Evan F. Bollig, Cesar De Silva, Benny Sowell, and David A. Yuen [VLab: Collaborative Grid Services and Portals to Support Computational Material Science](#) Dec 30, 2005 Special Issue on Grid Portals based on SC05 [GCE'05 Workshop](#), Concurrency and Computation: Practice and Experience Volume 19, Issue 12, Date: 25 August 2007, Pages: 1717-1728 [DOI](#)
24. Mehmet Aktas, Galip Aydin, Andrea Donnellan, Geoffrey Fox, Robert Granat , Lisa Grant, Greg Lyzenga, Dennis McLeod, Shrideep Pallickara, Jay Parker, Marlon Pierce, John Rundle, Ahmet Sayar, and Terry Tullis [iSERVO: Implementing the International Solid Earth Research Virtual Observatory by Integrating Computational Grid and Geographical Information Web Services](#) Technical Report December 2004, Published in Special Issue of Pure and Applied Geophysics (PAGEOPH) for Beijing July 2004 ACES [Meeting](#), Volume 163, Numbers 11-12 / December, 2006 [DOI](#)
25. Andrea Donnellan, John Rundle, Geoffrey Fox, Dennis McLeod, Lisa Grant, Terry Tullis, Marlon Pierce, Jay Parker, Greg Lyzenga, Robert Granat , Margaret Glasscoe [QuakeSim and the Solid Earth Research Virtual Observatory](#) with [Previous version](#) Published in Special Issue of Pure and Applied Geophysics (PAGEOPH) for Beijing July 2004 ACES [Meeting](#), Volume 163, Numbers 11-12 / December, 2006 [DOI](#)
26. Sangyoon Oh and Geoffrey Fox [Optimizing Web Service Messaging Performance in Mobile Computing](#) July 2006, Special Issue in Grid Technology and applications of Journal Of Future Generation Computer Systems, Elsevier, Volume 23, Issue 4, May 2007, Pages 623-632 [DOI](#).
27. Mehmet S. Aktas, Geoffrey C. Fox, Marlon Pierce [Fault Tolerant High Performance Information Services for Dynamic Collections of Grid and Web Services](#) FGCS Special issue from 1st International [Conference](#) SKG2005 on Semantics, Knowledge and Grid Beijing China November 27-29 2005; Future Generation Computer Systems Volume 23, Issue 3, March 2007, Pages 317-337 [DOI](#)

28. Geoffrey Fox and Xiaoping Sun, [Progress of the Knowledge Grid](#) Editorial for special issue for 1st International [Conference](#) SKG2005 on Semantics, Knowledge and Grid Beijing China November 27-29 2005. *Concurrency and Computation: Practice and Experience* Volume 19, Issue 15, Date: October 2007, Pages: 2011-2012. [DOI](#)
29. Xiao Dong, Kevin Gilbert, Rajarshi Guha, Jungkee Kim, Marlon Pierce, Geoffrey C. Fox and David J. Wild [Web service infrastructure for Chemoinformatics](#) *Journal of Chemical Information and Modeling*, 2007; 47(4) pp 1303-1307.
30. Geoffrey Fox and Hai Zhuge [Special Issue: Autonomous Grid Computing](#) Fourth International Conference on Grid and Cooperative Computing ([GCC2005](#)), held in Beijing, China, during Nov 30-Dec 3, 2005. Editorial for special issue in *Concurrency and Computation: Practice and Experience* Volume 19 Issue 7, Pages 943 – 944 2006. [DOI](#)
31. Geoffrey Fox, Galip Aydin, Hasan Bulut, Harshawardhan Gadgil, Shrideep Pallickara, Marlon Pierce, and Wenjun Wu [Management of Real-Time Streaming Data Grid Services](#), *Concurrency and Computation: Practice and Experience* 19, Vol 19, No. 7, pages 983-998 Special Issue from Grid and Cooperative Computing 4th International [Conference](#) November 30 to December 3 2005 Beijing China [DOI](#)
32. Jay Alameda, Marcus Christie, Geoffrey Fox, Joe Futrelle, Dennis Gannon, Mihael Hategan, Gregor von Laszewski, Mehmet A. Nacar, Marlon Pierce, Eric Roberts, Charles Severance, and Mary Thomas [The Open Grid Computing Environments Collaboration: Portlets and Services for Science Gateways](#) March 2006 *Concurrency and Computation: Practice and Experience* Volume 19, Issue 6, Pages 921-942, Special Issue for Science Gateways GGF14 [workshop](#) [DOI](#)
33. Dennis Gannon and Geoffrey Fox [Workflow in Grid Systems](#) Editorial of special issue of *Concurrency&Computation: Practice&Experience* based on GGF10 Berlin [meeting](#); *Concurrency and Computation: Practice & Experience* Volume 18, Issue 10 (August 2006) Pages: 1009 – 1019, 2006; [DOI](#)
34. Wenjun Wu, Geoffrey Fox, Hasan Bulut, Ahmet Uyar, Tao Huang [Service Oriented Architecture for VoIP conferencing](#) Special Issue on Voice over IP - Theory and Practice of the International Journal of Communication Systems Volume 19, Issue 4 , Pages 445 – 461 Edited by John Fox, P. Gburzynski. [DOI](#)
35. M P Thomas, J Burruss, L Cinquini, G Fox, D Gannon, L Gilbert, G von Laszewski, K Jackson, D Middleton, R Moore, M Pierce, B Plale, A Rajasekar, R Regno, E Roberts, D Schissel, A Seth and W Schroeder, [Grid portal architectures for scientific applications](#) SciDAC 2005, SCIENTIFIC DISCOVERY THROUGH ADVANCED COMPUTING 26–30 June 2005, San Francisco, CA, USA. *Journal of Physics* Volume 16, 2005 , Pages 596-600
36. Geoffrey Fox, Shrideep Pallickara, Marlon Pierce, Harshawardhan Gadgil, [Building Messaging Substrates for Web and Grid Applications](#) Special Issue on *Scientific Applications of Grid Computing* *Philosophical Transactions of the Royal Society: Mathematical, Physical and Engineering Sciences*. Volume 363, Number 1833, pp 1757-1773. August 15, 2005

37. Lisa B. Grant, Andrea Donnellan, Dennis McLeod, Marlon Pierce, Geoffrey C. Fox, Anne Yun-An Chen, Miryha M. Gould, Sang-Soo Sung, Paul Rundle, "[A Web-Service Based Universal Approach to Heterogeneous Fault Databases](#)", Computing in Science and Engineering., Vol. 7, No. 4. (July 2005), pp. 51-57. [DOI](#)
38. Tony Hey and Geoffrey Fox [Grids and Web Services for e-Science](#) Concurrency and Computation: Practice and Experience 17, 317-322, April 2005 [DOI](#)
39. Wenjun Wu, Hasan Bulut, Ahmet Uyar, Geoffrey Fox [Adapting H.323 Terminals in a Service-Oriented Collaboration System](#) Special "Internet Media" issue of IEEE Internet Computing July-August 2005, Vol 9 number 4 pages 43-50 [DOI](#)
40. Malcolm Atkinson, David DeRoure, Alistair Dunlop, Geoffrey Fox, Peter Henderson, Tony Hey, Norman Paton, Steven Newhouse, Savas Parastatidis, Anne Trefethen and Paul Watson. [Web Service Grids: An Evolutionary Approach](#) UK e-Science Technical Report July 13 2004 published in a special issue of Concurrency&Computation: Practice&Experience 17, 377-389, 2005. [DOI](#)
41. Geoffrey Fox and Shrideep Pallickara [Deploying the NaradaBrokering Substrate in Aiding Efficient Web & Grid Service Interactions](#) Invited paper for the Special Issue of the Proceedings of the IEEE on Grid Computing. Vol 93, No 3. pp 564-577. March 2005. [DOI](#)
42. Shrideep Pallickara, Geoffrey Fox, Xi Rao, Ahmet Uyar and David Walker [Performance of a possible Grid Messaging Infrastructure](#) UK e-Science meeting on Grid Performance Edinburgh December 9 2002, Special Issue of Concurrency and Computation: Practice and Experience on Grid Performance. Concurrency and Computation: Practice and Experience, Vol. 17, No. 2-4. (February 2005), pp. 193-214. [DOI](#)
43. Ozgur Balsoy, Ying Jin, Galip Aydin, Marlon Pierce and Geoffrey Fox [Automating Metadata Web Service Deployment for Problem Solving Environments](#) Special Issue of Future Generation Computer Systems Vol. 21, No. 6. (June 2005), pp. 910-919. [DOI](#)
44. Geoffrey Fox, Sang Lim, Shrideep Pallickara, Marlon Pierce [Message-Based Cellular Peer-to-Peer Grids: Foundations for Secure Federation and Autonomic Services](#) in PEER-TO-PEER COMPUTING AND INTERACTION WITH GRIDS -- Special issue of Future Generation Computer Systems Vol. 21, No. 3. (March 2005), pp. 401-415. [DOI](#)
45. Choonhan Youn, Marlon E. Pierce, and Geoffrey C. Fox [Building Problem Solving Environments with Application Web Service Toolkits](#) Special Issue of Future Generation Computer Systems Vol. 21, No. 6. (June 2005), pp. 856-867 [DOI](#)
46. Sang Boem Lim, Bryan Carpenter, Geoffrey Fox, Han-ku Lee [Collective communication for the HPJava programming language](#) Concurrency and Computation: Practice and Experience, Vol. 17, No. 7-8. (June 2005), pp. 867-894. 2002 ACM Java Grande-ISCOPE Conference Part II. [DOI](#)
47. Geoffrey Fox, Shrideep Pallickara, Xi Rao [Towards enabling peer-to-peer Grids](#) or [Original](#) Concurrency and Computation: Practice & Experience archive Volume 17 , Issue 7-8 (June 2005) Pages: 1109 - 1131. 2002 ACM Java Grande-ISCOPE Conference Part II. [DOI](#)

48. Geoffrey Fox [Editorial for Special Issue: ACM 2002 Java Grande–ISCOPE Conference](#)
Concurrency and Computation: Practice and Experience, Vol. 17, No. 5-6. (2005), pp. 419-422. [DOI](#)

Unpublished Journal Articles 2005 – November 2009

1. Mehmet S. Aktas, Geoffrey C. Fox, Marlon Pierce [Hybrid Service](#) submitted to International Journal of Web Services Research (JWSR) October 2009
2. Sangyoon Oh, Mehmet Aktas, Geoffrey Fox [Efficiency Benefits in Mobile Web Service Architecture Using Context-store](#) Technical Report October 6 2009 submitted to "KSII TRANSACTIONS ON INTERNET AND INFORMATION SYSTEMS".
3. Marlon E. Pierce, Geoffrey C. Fox, Yu Ma, Jun Wang, [Whither Spatial Cyberinfrastructure?](#) Technical Report August 31 2009 submitted to Proceedings of the National Academy of Sciences (PNAS) special issue on spatial cyberinfrastructure.
4. Rajarshi Guha, Kevin Gilbert, Geoffrey Fox, Marlon Pierce, David Wild, Huapeng Yuan [Advances in Cheminformatics Methodologies and Infrastructure to Support the Data Mining of Large, Heterogeneous Chemical Datasets](#) November 4 2008 submitted to CURRENT COMPUTER-AIDED DRUG DESIGN
5. Shrideep Pallickara, Hasan Bulut and Geoffrey Fox [Fault-Tolerant Reliable Delivery of Messages in Distributed Publish/Subscribe Systems](#) to appear in International Journal of Autonomic Computing 2009 (not published as of November 2009)
6. Sang Boem Lim, Geoffrey Fox, Ali Kaplan, Shrideep Pallickara and Marlon Pierce [GridFTP and Parallel TCP Support in NaradaBrokering](#) Special Issue of selected papers from the Sixth International Conference on Algorithms and Architectures for Parallel Processing. Future Generation Computer Systems. Not available as of November 2009.

Book Chapters and Articles 2005 – December 2009

1. Judy Qiu, Jaliya Ekanayake, Thilina Gunarathne, Jong Youl Choi, Seung-Hee Bae, Yang Ruan, Saliya Ekanayake, Stephen Wu, Scott Beason, Geoffrey Fox, Mina Rho, Haixu Tang, "Data Intensive Computing for Bioinformatics", submitted as a book chapter for book "Data Intensive Distributed Computing", IGI Publishers, 2010.
http://grids.ucs.indiana.edu/ptliupages/publications/DataIntensiveComputing_BookChapter.pdf
2. Jaliya Ekanayake, Xiaohong Qiu, Thilina Gunarathne, Scott Beason, Geoffrey Fox [High Performance Parallel Computing with Clouds and Cloud Technologies](#) Technical Report August 25 2009 to appear as Book Chapter in Syed Ahson and Mohammad Ilyas, editors, Cloud Computing and Software Services, CRC Press/Taylor and Francis Books, 2009.
3. Geoffrey Fox, Seung-Hee Bae, Jaliya Ekanayake, Xiaohong Qiu, and Huapeng Yuan [Parallel Data Mining from Multicore to Cloudy Grids](#) Proceedings of HPC 2008 High Performance Computing and Grids [workshop](#) Cetraro Italy July 3 2008

4. Ahmet Sayar, Geoffrey C. Fox , Marlon E. Pierce [Unified Data Access/query over Integrated Data-views for Decision Making in Geographic Information Systems](#) (old version [Supporting Event-based Unified Data Access/query over Integrated Data-views for Decision Making in Geographic Information Systems](#)) chapter in book " Grid Technology for Maximizing Collaborative Decision Management and Support: Advancing Effective Virtual Organizations"
5. Geoffrey C. Fox, Rajarshi Guha, Donald F. McMullen, Ahmet Fatih Mustacoglu, Marlon E. Pierce, Ahmet E. Topcu, and David J. Wild [Web 2.0 for Grids and e-Science](#) INGRID 2007 - Instrumenting the Grid 2nd International [Workshop](#) on Distributed Cooperative Laboratories - S.Margherita Ligure Portofino, ITALY, April 18 2007
6. Marlon E. Pierce, Geoffrey Fox, Huapeng Yuan, and Yu Deng [Cyberinfrastructure and Web 2.0](#) Proceedings of [HPC2006](#) July 4 2006 Cetraro Italy
7. Shrideep Pallickara, Geoffrey Fox, Mehmet Aktas, Harshawardhan Gadgil, Beytullah Yildiz, Sangyoon Oh, Sima Patel, Marlon Pierce and Damodar Yemme [A Retrospective on the Development of Web Service Specifications](#) December 2006. Chapter in Book *Securing Web Services: Practical Usage of Standards and Specifications*. Editor Periorellis Panos, University of Newcastle Upon Tyne. Publisher: IGI Global November 1 2007. ISBN-10: 1599046393; ISBN-13: 978-1599046396
8. Ahmet Uyar, Wenjun Wu, Hasan Bulut, Geoffrey Fox [Service-Oriented Architecture for Building a Scalable Videoconferencing System](#) March 25 2006 in book "Service-Oriented Architecture - Concepts & Cases" published by Institute of Chartered Financial Analysts of India (ICFAI) University
9. Geoffrey Fox, Shrideep Pallickara, Galip Aydin and Marlon Pierce [Messaging in Web Service Grid with Applications to Geographical Information Systems](#) Chapter in book based on ON HIGH PERFORMANCE COMPUTING TECHNOLOGY AND APPLICATIONS Cetraro Italy May 31-June 3 2004. "[Grid Computing: A New Frontier of High Performance Computing](#)" (ed. L. Grandinetti, Elsevier, Amsterdam, 2005) pages 305-331
10. Geoffrey Fox and Marlon Pierce [SERVO Earthquake Science Grid](#) as a summary of iSERVO technology October 2004 in January 2005 report [High Performance Computing Requirements for the Computational Solid Earth Sciences](#) edited by Ron Cohen and started at May 2004 workshop on Computational Geoinformatics
11. Wenjun Wu, Ahmet Uyar, Hasan Bulut, Sangyoon Oh, Geoffrey Fox [Grid Service Architecture for Videoconferencing](#) to appear as chapter in book "Grid Computational Methods" Edited by M.P. Bekakos, G.A. Gravvanis and H.R. Arabnia
12. Geoffrey Fox, Shrideep Pallickara, and Marlon Pierce [Building a Grid of Grids: Messaging Substrates and Information Management](#) to appear as chapter in book "Grid Technologies: Emerging from Distributed Architectures to Virtual Organizations" Editors: M.P. Bekakos, G.A. Gravvanis and H.R. Arabnia.

1. Jong Youl Choi, Seung-Hee Bae, Xiaohong Qiu and Geoffrey Fox High Performance Dimension Reduction and Visualization for Large High-dimensional Data Analysis to appear in the Proceedings of the The 10th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing (CCGrid 2010), May 17-20, 2010, Melbourne, Australia (submitted for publication November 14 2009)
<http://grids.ucs.indiana.edu/ptliupages/publications/hpviz.pdf>
2. Jay W Parker, Margaret T Glasscoe, Andrea Donnellan, Robert A Granat, John Belting Rundle, Dennis McLeod, Rami Al-Ganmi, Lisa Grant Ludwig, Geoffrey Fox, Marlon Pierce, Walt Brooks [QuakeSim: Increasing Utility of Spaceborne and Ground-based Earthquake Fault Data](#) Earth and Space Science Informatics 2009 AGU Fall [Meeting](#) 14–18 December 2009 San Francisco, California, USA
3. Jaliya Ekanayake, (Advisor Geoffrey Fox) [Architecture and Performance of Runtime Environments for Data Intensive Scalable Computing](#) Doctoral Showcase [SC09](#) Portland Oregon November 14-20 2009
4. Xiaohong Qiu, Jaliya Ekanayake, Thilina Gunarathne, Seung-Hee Bae, Jong Youl Choi, Scott Beason, Geoffrey Fox [Using MapReduce Technologies in Bioinformatics and Medical Informatics](#) in Using Clouds for Parallel Computations in Systems Biology [workshop](#) at [SC09](#) Portland Oregon November 16 2009
5. Xiaohong Qiu, Jaliya Ekanayake, Scott Beason, Thilina Gunarathne, Geoffrey Fox, Roger Barga, Dennis Gannon [Cloud Technologies for Bioinformatics Applications](#) 2nd ACM [Workshop](#) on Many-Task Computing on Grids and Supercomputers ([SC09](#)), Portland, Oregon, November 16th, 2009
6. Geoffrey Fox, Xiaohong Qiu, Scott Beason, Jong Youl Choi, Mina Rho, Haixu Tang, Neil Devadasan, Gilbert Liu [Biomedical Case Studies in Data Intensive Computing](#) Keynote talk at The 1st International [Conference](#) on Cloud Computing (CloudCom 2009) at Beijing Jiaotong University, China December 1-4, 2009
7. Xiaohong Qiu, Jaliya Ekanayake, Geoffrey Fox, Thilina Gunarathne, Scott Beason [Computational Methods for Large Scale DNA Data Analysis](#) Microsoft eScience [workshop](#), October 16 2009, [Gates Center](#) Carnegie Mellon University Pittsburgh
8. Jaliya Ekanayake, Atilla Soner Balkir, Thilina Gunarathne, Geoffrey Fox, Christophe Poulain, Nelson Araujo, Roger Barga [DryadLINQ for Scientific Analyses](#) 5th IEEE International [Conference](#) on e-Science Oxford UK, December 9-11 2009
9. Andrea Donnellan, Jay Parker, Charles Norton, Margaret Glasscoe, Robert Granat, John Rundle, Geoffrey Fox, Marlon Pierce, Lisa Grant, Dennis McLeod, and Rami Al-Ghanmi [QuakeSim Earthquake Modeling and Assimilation Environment](#) Abstract for Asia Oceania Geosciences Society [Meeting](#) in Singapore AOGS2009 August 11-15 2009
10. Marlon Pierce and Geoffrey Fox [QuakeSim Web Computing Infrastructure](#) Abstract for Asia Oceania Geosciences Society [Meeting](#) in Singapore AOGS2009 August 11-15 2009

11. Geoffrey Fox and Marlon Pierce [Web 2.0, Cloud Computing, and Earthquake Forecasting](#) Abstract for Asia Oceania Geosciences Society [Meeting](#) in Singapore AOGS2009 August 11-15 2009
12. Jaliya Ekanayake, Geoffrey Fox [High Performance Parallel Computing with Clouds and Cloud Technologies](#) First International [Conference](#) *CloudComp* on Cloud Computing October 19 - 21, 2009, Munich, Germany
13. Richard Alo, Karl Barnes , Diane Baxter, Julie Foertsch , Geoffrey Fox, Al Kuslikis, Alex Ramirez [CyberInfrastructure \(CI\) Days at Minority-Serving Institutions \(MSIs\): A MSI-CIEC Update in a Changing Climate](#) Poster at TeraGrid 09 [meeting](#) Hyatt Regency Crystal City. June 22-25 2009
14. Siddharth Maini, Joshua Rosen, Marlon E. Pierce, Geoffrey C. Fox [AVATS: Audio-Video and Textual Synchronization](#) Proceedings of The 2009 International Symposium on Collaborative Technologies and Systems [CTS 2009](#) May 18-22, 2009 The Westin Baltimore Washington International Airport Hotel Baltimore, Maryland, USA
15. Geoffrey Fox, Alex Ho, Eddy Chan, William Wang [Measured Characteristics of Distributed Cloud Computing Infrastructure for Message-based Collaboration Applications](#) Proceedings of The 2009 International Symposium on Collaborative Technologies and Systems [CTS 2009](#) May 18-22, 2009 The Westin Baltimore Washington International Airport Hotel Baltimore, Maryland, USA
16. Tao Huang, Shrideep Pallickara, Geoffrey Fox [A Distributed Framework for Collaborative Annotation of Streams](#) Proceedings of The 2009 International Symposium on Collaborative Technologies and Systems [CTS 2009](#) May 18-22, 2009 The Westin Baltimore Washington International Airport Hotel Baltimore, Maryland, USA
17. Geoffrey Fox [Summary of Cloud Systems Birds of a Feather](#) session at [OGF22](#) Hyatt Regency Cambridge MA February 27 2008
18. Jong Y. Choi, Joshua Rosen, Siddharth Maini, Marlon E. Pierce, and Geoffrey C. Fox [Collective Collaborative Tagging System](#) Proceedings of [GCE08](#) workshop at [SC08](#) Austin Texas November 16 2008
19. Carl Lagoze describing work by University of Cambridge (Peter Murray Rust, Jim Downing), Cornell University (Carl Lagoze, Theresa Velden), Indiana University (Geoffrey Fox, Marlon Pierce), Penn State University (C. Lee Giles, Prasenjit Mitra, Karl Mueller), PubChem (Steve Bryant), and University of Southampton (Jeremy Frey, Simon Coles). [The OreChem Project](#) paper at [WebSci'09](#): Society On-Line Athens, Greece 18th–20th March, 2009
20. Shrideep Pallickara, Jaliya Ekanayake, and Geoffrey Fox. [An Overview of the Granules Runtime for Cloud Computing](#). Proceedings of the IEEE International [Conference](#) on e-Science. Indianapolis. 2008. December 7-12 2008
21. Jaliya Ekanayake, Shrideep Pallickara, and Geoffrey Fox [Map-Reduce for Data Intensive Scientific Analyses](#) .(Earlier version [Map-Reduce for Data Intensive Scientific Analyses](#))

- Proceedings of the IEEE International [Conference](#) on e-Science. Indianapolis. 2008.
December 7-12 2008
22. Kangseok Kim, Rajarshi Guha, Marlon E. Pierce, Geoffrey C. Fox, David J. Wild, Kevin E. Gilbert [SQMD: Architecture for Scalable, Distributed Database System built on Virtual Private Servers](#) Proceedings of "eScience for Cheminformatics and Drug Discovery" workshop at [eScience 2008](#) , Indianapolis, IN Dec 12, 2008.
 23. Geoffrey Fox [Distributed and Parallel Programming Environments and their performance](#) Abstract of keynote talk at Microsoft Research eScience [Workshop](#) December 9 2008 IEEE International [Conference](#) on e-Science. Indianapolis. 2008. December 7-12 2008
 24. Mehmet S. Aktas, Geoffrey Fox and Marlon Pierce [Information Federation in Grids](#) 4th International [Conference](#) on Semantics, Knowledge and Grid (SKG 2008) Beijing China December 3-5 2008
 25. Linda B. Hayden, Geoffrey Fox, Anthony Adade [Implementing Cyberinfrastructure in Support of Greenland and Antarctic SAR Data Sets](#) Abstract for AARSE [Conference](#). 7th International Conference of the African Association of Remote Sensing of the Environment (AARSE)-2008 Accra Ghana October 27-31 2008
 26. Geoffrey Fox [Integrating Parallel and Distributed Computing across Scientific and Web 2.0 Applications](#) Abstract of keynote talk at 7th International [Conference](#) on Grid and Cooperative Computing GCC2008 Shenzhen China October 24-26 2008
 27. Xiaohong Qiu (presenter), Geoffrey C. Fox, Huapeng Yuan, Seung-Hee Bae, George Chrysanthakopoulos, Henrik Frystyk Nielsen [Parallel Data Mining on Multicore Clusters](#) (Old version [Parallel Data Mining on Multicore Systems](#)) 7th International [Conference](#) on Grid and Cooperative Computing GCC2008 Shenzhen China October 24-26 2008
 28. Shantenu Jha, Andre Merzky and Geoffrey Fox [Programming Abstractions for Clouds](#) CCA-08 Cloud Computing and its Applications Chicago ILL October 22-23 2008
 29. Geoffrey Fox and Marlon Pierce [Web 2.0 and Cloud Computing](#) Abstract of talk at APRU Association of Pacific Rim Universities 4th Earthquake and Tsunami [Symposium](#) August 21 - 22, 2008 University of California, Davis (USA)
 30. Marlon Pierce and Geoffrey Fox [QuakeSim Web Computing Infrastructure](#) Abstract of talk at APRU Association of Pacific Rim Universities 4th Earthquake and Tsunami [Symposium](#) August 21 - 22, 2008 University of California, Davis (USA)
 31. Geoffrey Fox [Parallel Data Mining from Multicore to Cloudy Grids](#) INTERNATIONAL ADVANCED RESEARCH WORKSHOP ON HIGH PERFORMANCE COMPUTING AND GRIDS [HPC2008](#) Cetraro Italy June 30 - July 4, 2008
 32. Beytullah Yildiz, Geoffrey Fox, Shrideep Pallickara [An Orchestration for Distributed Web Service Handlers](#) The Third International [Conference](#) on Internet and Web Applications and Services ICIW 2008 June 8-13, 2008 - Athens, Greece
 33. Mehmet S. Aktas, Geoffrey C. Fox, Marlon Pierce, [Principles and Experiences: Building a Hybrid Metadata Service for Service Oriented Architecture based Grid Applications](#),

- accepted for The Third International IEEE International [Conference](#) on Internet and Web Applications and Services ICIW'08 June 8-13, 2008 - Athens, Greece
34. Alex Ramirez, Geoffrey Fox, Al Kuslikis, Richard Alo, Karl Barnes, Diane Baxter, and Julie Foertsch [Engaging Minority-Serving Institutions \(MSIs\) in Cyberinfrastructure \(CI\) through CI Days](#) The 3rd annual TeraGrid [Conference](#), TeraGrid '08 All Hands Meeting Riviera Hotel and Casino in Las Vegas Nevada, June 9-13 2008
 35. Xiaohong Qiu, Geoffrey C. Fox, Huapeng Yuan, Seung-Hee Bae, George Chrysanthakopoulos, Henrik Frystyk Nielsen [PARALLEL CLUSTERING AND DIMENSIONAL SCALING ON MULTICORE SYSTEMS](#) Invited talk at the 2008 High Performance Computing & Simulation Conference ([HPCS 2008](#)) In Conjunction With The 22nd EUROPEAN CONFERENCE ON MODELLING AND SIMULATION (ECMS 2008) Nicosia, Cyprus June 3 - 6, 2008.
 36. Marlon E. Pierce Geoffrey C. Fox Joshua Rosen Siddharth Maini and Jong Y. Choi [Social Networking for Scientists Using Tagging and Shared Bookmarks: a Web 2.0 Application](#) 2008 International [Symposium](#) on Collaborative Technologies and Systems (CTS 2008) at The Hyatt Regency Irvine Irvine, California, USA May 19-23, 2008
 37. Jaliya Ekanayake, Shrideep Pallickara and Geoffrey Fox [Collaborative Framework for Scientific Data Analysis](#) 2008 International [Symposium](#) on Collaborative Technologies and Systems (CTS 2008) at The Hyatt Regency Irvine Irvine, California, USA May 19-23, 2008
 38. Ahmet Fatih Mustacoglu and Geoffrey Fox [Hybrid Consistency Framework for Distributed Annotation Records in a Collaborative Environment](#) 2008 International [Symposium](#) on Collaborative Technologies and Systems (CTS 2008) at The Hyatt Regency Irvine Irvine, California, USA May 19-23, 2008
 39. Geoffrey Fox, Alex Ho, Rui Wang, Edward Chu and Isaac Kwan [A Collaborative Sensor Grids Framework](#) 2008 International [Symposium](#) on Collaborative Technologies and Systems (CTS 2008) at The Hyatt Regency Irvine Irvine, California, USA May 19-23, 2008
 40. Xiaohong Qiu, Geoffrey C. Fox, Huapeng Yuan, Seung-Hee Bae, George Chrysanthakopoulos, Henrik Frystyk Nielsen [Performance of Multicore Systems on Parallel Data Clustering with Deterministic Annealing](#) ICCS 2008: "Advancing Science through Computation" [Conference](#); ACC CYFRONET and Institute of Computer Science AGH University of Science and Technology Kraków, POLAND; June 23-25, 2008. Springer Lecture Notes in Computer Science Volume 5101, pages 407-416, 2008. [DOI](#)
 41. Marlon Pierce and Geoffrey Fox [Web 2.0 and Geo-sciences](#) Abstract for 6th ACES International [Workshop](#) Cairns, Australia from 11 to 16 May 2008.
 42. Pierce, M, Gao, X, Fox, G, Granat, R and Donnellan, A [Services and Components for the QuakeSim Project](#) Abstract for 6th ACES International [Workshop](#) Cairns, Australia from 11 to 16 May 2008.
 43. Marlon E. Pierce, Geoffrey C. Fox, Galip Aydin, Zhigang Qi, Andrea Donnellan, Jay Parker and Robert Granat [QuakeSim: Web Services, Portals, and Infrastructure for Geophysics](#)

December 19 2007 published in 2008 IEEE Aerospace [Conference](#) March 1-8 2008, Big Sky MT

44. Andrea Donnellan, Jay Parker, Robert Granat, Geoffrey Fox, Marlon Pierce, John Rundle, Dennis McLeod, Rami Al-Ghanmi, Lisa Grant, Walter Brooks [QuakeSim: Efficient Modeling of Sensor Web Data in a Web Services Environment](#) November 30 2007 to be published in 2008 IEEE Aerospace [Conference](#) March 1-8 2008, Big Sky MT
45. Xiaohong Qiu, Geoffrey Fox, H. Yuan, Seung-Hee Bae, George Chrysanthakopoulos, Henrik Frystyk Nielsen [High Performance Multi-Paradigm Messaging Runtime Integrating Grids and Multicore Systems](#) (updated from [original](#)) September 23 2007 to be published in proceedings of eScience 2007 [Conference](#) Bangalore India December 10-13 2007
46. Geoffrey Fox, Seung-Hee Bae, Rajarshi Guha, Marlon E. Pierce, Xiaohong Qiu, David J. Wild , H. Yuan [High Performance Robust Datamining for Cheminformatics](#) PAPER ID: 1168842 at Division of Chemical Information session on *Cheminformatics: From Teaching to Research* Tuesday, April 8, 2008 from 11:35 AM to 12:00 PM at Spring 2008 American Chemical Society National [Meeting & Exposition](#) Sunday, April 6 — Thursday, April 10, 2008 New Orleans, LA USA
47. Rajarshi Guha, Geoffrey Fox, Kevin E. Gilbert, Marlon Pierce and David Wild [I don't care where my data and methods are: A web-service approach for distributed access to methods, data and models.](#) PAPER ID: 1170920 at Division of Chemical Information session on *Cheminformatics: From Teaching to Research* Tuesday, April 8, 2008 at Spring 2008 American Chemical Society National [Meeting & Exposition](#) Sunday, April 6 — Thursday, April 10, 2008 New Orleans, LA USA
48. Mehmet A. Nacar, Marlon E. Pierce, Andrea Donnellan, Geoffrey C. Fox [Building QuakeSim Portlets with GTLAB](#) Paper at [GCE07](#) Workshop November 11-12 2007 at [SC07](#) Reno Nevada
49. Ali Kaplan, Geoffrey C. Fox, Gregor von Laszewski [GridTorrent Framework: A High-performance Data Transfer and Data Sharing Framework for Scientific Computing](#) Paper at [GCE07](#) Workshop November 11-12 2007 at [SC07](#) Reno Nevada
50. Geoffrey Fox, Seung-Hee Bae, Rajarshi Guha, Marlon E. Pierce, Xiaohong Qiu, David J. Wild , H. Yuan, Neil M Devadasan, George Chrysanthakopoulos, Henrik Frystyk Nielsen [Parallel Clustering in a Cheminformatics Grid](#) The 2007 Microsoft eScience [Workshop](#) at RENCi (The Friday Center for Continuing Education UNC - Chapel Hill 100 Friday Center Drive Chapel Hill, NC 27599-1020) October 21-23 2007
51. Geoffrey C. Fox, Marlon E. Pierce, Ahmet Fatih Mustacoglu, and Ahmet E. Topcu [Web 2.0 for E-Science Environments](#) Keynote Presentation at 3rd International Conference on Semantics, Knowledge and Grid [SKG2007](#) Xian China October 28-30 2007
52. Mehmet A. Nacar, Marlon E. Pierce, Geoffrey C. Fox [GTLAB: Grid Tag Libraries Supporting Workflows within Science Gateways](#) 3rd International Conference on Semantics, Knowledge and Grid [SKG2007](#) Xian China October 28-30 2007

53. Ahmet E. Topcu , Ahmet Fatih Mustacoglu, Geoffrey Fox , Aurel Cami [Integration of Collaborative Information Systems in Web 2.0](#) 3rd International Conference on Semantics, Knowledge and Grid [SKG2007](#) Xian China October 28-30 2007
54. Xiaohong Qiu, Geoffrey Fox, H. Yuan, Seung-Hee Bae, George Chrysanthakopoulos, Henrik Frystyk Nielsen [Performance of a Multi-Paradigm Messaging Runtime on Multicore Systems](#) Abstract of Poster at Grid 2007 [Conference](#), Omni Austin Downtown Hotel Austin Texas, September 19 2007
55. Donnellan, Andrea (JPL), John Rundle (UC Davis), Lisa Grant (UC Irvine), Dennis McLeod (USC), Geoffrey Fox (Indiana U), Marlon Pierce (Indiana U), Terry Tullis (Brown U), Walt Brooks (NASA Ames), Jay Parker (JPL), and Robert Granat (JPL) [Abstract](#) for 2007 SCEC Annual [Meeting](#), September 9-12 at the Palm Springs Hilton Hotel in Palm Springs, California.
56. Shrideep Pallickara, Hasan Bulut, and Geoffrey Fox. [Fault-Tolerant Reliable Delivery of Messages in Distributed Publish/Subscribe Systems](#) . Proceedings of the 4th IEEE International [Conference](#) on Autonomic Computing. Jacksonville, Florida. June 12-15 2007
57. Yili Gong, Marlon E. Pierce, and Geoffrey C. Fox [Matchmaking Scientific Workflows in Grid Environments](#) Proceedings of IASTED International [Conference](#) on Parallel and Distributed Computing and Systems (PDCS 2007), November 19 - 21, 2007, at Cambridge, USA
58. Harshawardhan Gadgil, Geoffrey Fox, Shrideep Pallickara, Marlon Pierce [Scalable, Fault-tolerant Management of Grid Services](#) to appear in Proceedings of [IEEE Cluster 2007](#)
59. Andrea Donnellan, Jay Parker, Charles Norton, Gregory Lyzenga, Margaret Glasscoe, Geoffrey Fox, Marlon Pierce, John Rundle, Dennis McLeod, Lisa Grant, Walter Brooks and Terry Tullis [QuakeSim: Enabling Model Interactions in Solid Earth Science Sensor Webs](#) NASA Science Technology [Conference](#) NSTC 2007 University of Maryland June 19-21 2007
60. Xiaohong Qiu [Multi-Paradigm Run Time MPR for Multicore Systems](#) Position Paper for Microsoft Multicore Computing Workshop Seattle June 20-21 2007
61. Zao Liu, Marlon E. Pierce, and Geoffrey C. Fox [Implementing a Caching and Tiling Map Server: a Web 2.0 Case Study](#) Proceedings of The 2007 International [Symposium](#) on Collaborative Technologies and Systems (CTS 2007)
62. Ahmet Fatih Mustacoglu, Ahmet E. Topcu Aurel Cami, Geoffrey Fox [A Novel Event-Based Consistency Model for Supporting Collaborative Cyberinfrastructure Based Scientific Research](#) Proceedings of The 2007 International [Symposium](#) on Collaborative Technologies and Systems (CTS 2007)
63. Galip Aydin, Zhigang Qi, Marlon E. Pierce, Yehuda Bock, and Geoffrey C. Fox [Building a Sensor Grid for Real Time Global Positioning System Data](#) Proceedings of [Workshop](#) on Principles of Pervasive Information Systems Design Sunday, May 13, 2007 In conjunction with [Pervasive 2007](#) Toronto, Ontario, Canada

64. Ahmet Fatih Mustacoglu, and Geoffrey Fox [AJAX Integration Approach for Collaborative Calendar-Server Web Services](#) Proceedings of The 2007 World [Congress](#) in Computer Science, Computer Engineering, & Applied Computing Las Vegas, Nevada, USA (June 25-28, 2007)
65. Harshawardhan Gadgil, Geoffrey Fox, Shrideep Pallickara [Scalable, Fault-tolerant Management in a Service Oriented Architecture](#) Poster in pages 235-236 of proceedings for IEEE International [Symposium](#) in High-Performance Distributed Computing (HPDC) Monterey California June 27-29 2007
66. Mehmet A. Nacar, Jong Y. Choi, Marlon E. Pierce, and Geoffrey C. Fox [Building a Grid Portal for Teragrid's Big Red](#) Proceedings of TeraGrid 2007 [Conference](#) Madison Wisconsin June 4-8 2007
67. Richard A. Aló, Karl Barnes, Diane Baxter, Geoffrey Fox, Al Kuslikis, and Alex Ramirez [Advances in the MSI Community and the MSI CyberIn-frastructure Empowerment Coalition \(MSI-CIEC\)](#) Proceedings of TeraGrid 2007 [Conference](#) Madison Wisconsin June 4-8 2007
68. Linda Hayden, Geoffrey Fox, and Prasad Gogineni [Cyberinfrastructure for Remote Sensing of Ice Sheets](#) Proceedings of TeraGrid 2007 [Conference](#) Madison Wisconsin June 4-8 2007
69. Geoffrey Fox,
70. Ahmet Fatih Mustacoglu, Ahmet E. Topcu, Aurel Cami [SRG: A Digital Document-Enhanced Service Oriented Research Grid](#) April 7 2007 accepted for IEEE International [Conference](#) on Information Reuse and Integration (IEEE IRI-2007) August 13 - 15, 2007 Las Vegas, USA
71. Shrideep Pallickara, Jaliya Ekanayake, Geoffrey Fox, [A Scalable Approach for the Secure and Authorized Tracking of the Availability of Entities in Distributed Systems](#). (To appear) Proceedings of the 21st IEEE International Parallel & Distributed Processing [Symposium](#) (IPDPS 2007). Long Beach, California.
72. Mehmet Nacar, Marlon Pierce, Gordon Erlebacher, Geoffrey Fox. [Designing Grid Tag Libraries and Grid Beans](#) Second International [Workshop](#) on Grid Computing Environments GCE06 at SC06, Tampa, FL. Nov. 12-13 2006
73. Hao Yin, Sofia Brenes-Barahona, Donald F. McMullen, Marlon Pierce, Kianosh Huffman, Geoffrey Fox, [A PERMIS-based Authorization Solution between Portlets and Back-end Web Services](#). Second International [Workshop](#) on Grid Computing Environments GCE06 at SC06, Tampa, FL. Nov. 12-13 2006
74. Mehmet S. Aktas, Sangyoon Oh, Geoffrey C. Fox, and Marlon E. Pierce [XML Metadata Services](#) Proceedings of [SKG2006](#) Guilin China October 31 - November 3 2006.
75. Fang Juan, Geoffrey Fox, Marlon Pierce [Grid Portal System Based on GPIR](#) Proceedings of [SKG2006](#) Guilin China October 31 - November 3 2006.
76. Shrideep Pallickara, Marlon Pierce, Harshawardhan Gadgil, Geoffrey Fox, Yan Yan, Yi Huang. [A Framework for Secure End-to-End Delivery of Messages in Publish/Subscribe Systems](#). Proceedings of the 7th IEEE/ACM International [Conference](#) on Grid Computing (GRID 2006). Barcelona, Spain; September 28th-29th 2006.

77. Hao Yin, Donald F. McMullen, Mehmet A. Nacar, Marlon Pierce, Kianosh Huffman, Geoffrey Fox and Yu Ma [Providing Portlet-Based Client Access to CIMA-Enabled Crystallographic Instruments, Sensors, and Data](#) Technical Report April 21 2006 with short [poster version](#) for 7th IEEE/ACM International Conference on Grid Computing (GRID 2006). Barcelona, Spain.
78. Galip Aydin, Geoffrey C. Fox, Harshawardhan Gadgil and Marlon E. Pierce [Streaming Data Services to Support Archival and Real-Time Geographical Information System Grids](#) Sixth Annual NASA Earth Science Technology Conference June 27th - 29th College Park, MD
79. Richard Alo, Karl Barnes, Diane Baxter, Geoffrey Fox, Al Kuslikis, Calvin Lowe, Alex Ramirez, Selena Singleton [MSI-CIEC: MSI Cyberinfrastructure Empowerment Coalition and the TeraGrid \(Abstract\) TeraGrid '06](#) Indianapolis IN June 12-15 2006
80. Harshawardhan Gadgil, Geoffrey Fox, Shrideep Pallickara and Marlon Pierce [Managing Grid Messaging Middleware](#) Proceedings of IEEE Conference on the Challenges of Large Applications in Distributed Environments ([CLADE](#)) Paris France June 19 2006, pp. 83 - 91 [DOI](#)
81. Sangyoon Oh, Mehmet S. Aktas, Marlon Pierce, Geoffrey C. Fox [Optimizing Web Service Messaging Performance Using a Context Store for Static Data](#) Invited paper for 5th WSEAS Int.Conf. on TELECOMMUNICATIONS and INFORMATICS ([TELE-INFO '06](#)), Istanbul, Turkey, May 27-29, 2006
82. Geoffrey Fox [Grid-based Information Architecture for iSERVO International Solid Earth Research Virtual Organization](#) Abstract for Western Pacific Geophysics Meeting ([WPGM](#)) 24-27 July 2006 Beijing China
83. Geoffrey C. Fox, Mehmet S. Aktas, Galip Aydin, Andrea Donnellan, Harshawardhan Gadgil, Robert Granat, Shrideep Pallickara, Jay Parker, Marlon E. Pierce, Sangyoon Oh, John Rundle, Ahmet Sayar, and Michael Scharber [Building Sensor Filter Grids: Information Architecture for the Data Deluge](#) IEEE Proceedings of 1st International [Conference SKG2005 on Semantics, Knowledge and Grid](#) Beijing China November 27-29 2005
84. Mehmet S. Aktas, Geoffrey C. Fox, Marlon Pierce [Information Services for Dynamically Assembled Semantic Grids](#) IEEE Proceedings of 1st International [Conference](#) on SKG2005 Semantics, Knowledge and Grid Beijing China November 27-29 2005 page 10 [DOI](#)
85. Geoffrey Fox [Collaboration and Community Grids](#) Special Session VI: [Collaboration and Community Grids](#) Proceedings of IEEE 2006 International Symposium on Collaborative Technologies and Systems CTS 2006 [conference](#) Las Vegas May 14-17 2006; IEEE Computer Society, Ed: Smari, Waleed & McQuay, William, pp 419-428. ISBN 0-9785699-0-3 [DOI](#)
86. Ahmet Fatih Mustacoglu, Wenjun Wu, and Geoffrey Fox [Internet Calendaring and Scheduling Core Object Specification \(iCalendar\) Compatible Collaborative Calendar-Server \(CCS\) Web Services](#) Proceedings of IEEE 2006 International Symposium on Collaborative Technologies and Systems CTS 2006 [conference](#) Las Vegas May 14-17 2006; IEEE

- Computer Society, Ed: Smari, Waleed & McQuay, William, pp12-17. ISBN 0-9785699-0-3 [DOI](#)
87. Wenjun Wu, Tao Huang, Geoffrey Fox [Building Scalable and High Efficient Java Multimedia Collaboration](#) Proceedings of IEEE 2006 International Symposium on Collaborative Technologies and Systems CTS 2006 [conference](#) Las Vegas May 14-17 2006; IEEE Computer Society, Ed: Smari, Waleed & McQuay, William, pp18-25. ISBN 0-9785699-0-3 [DOI](#)
 88. Minjun Wang, Geoffrey Fox and Marlon Pierce [Collaboration Entities on Deterministic Finite Automata](#) Proceedings of IEEE 2006 International Symposium on Collaborative Technologies and Systems CTS 2006 [conference](#) Las Vegas May 14-17 2006; IEEE Computer Society, Ed: Smari, Waleed & McQuay, William, pp26-37. ISBN 0-9785699-0-3 [DOI](#)
 89. Hyunju Kim, Loretta Moore, Robert Whalin, Geoffrey Fox, [An Experience on a Distance Education Course over the Access Grid Nodes](#) Proceedings of 4th International Conference on Education and Information Systems, Technologies and Applications ([EISTA 2006](#)) Orlando, USA, July 20-23, 2006.
 90. Shrideep Pallickara, Geoffrey Fox, Beytullah Yildiz, Sangmi Lee Pallickara, Sima Patel and Damodar Yemme [An Analysis of the Costs for Reliable Messaging in Web/Grid Service Environments](#) Proceedings of the 2005 IEEE International [Conference](#) on e-Science & Grid Computing. December 5-8 2005, Melbourne, Australia
 91. Shrideep Pallickara, Harshawardhan Gadgil and Geoffrey Fox [On the Discovery of Topics in Distributed Publish/Subscribe systems](#) Proceedings of the IEEE/ACM [GRID 2005 Workshop](#), pp 25-32. November 13-14 2005 Seattle, WA. Also selected as one of the six best papers at the workshop Pages 25-32 [DOI](#)
 92. Geoffrey C. Fox, Mehmet S. Aktas, Galip Aydin, Hasan Bulut, Harshawardhan Gadgil, Sangyoon Oh, Shrideep Pallickara, Marlon E. Pierce, Ahmet Sayar, and Gang Zhai [Grids for Real Time Data Applications](#) Invited talk in proceedings of PPAM 2005 – 6th International [Conference](#) on Parallel Processing and Applied Mathematics Poznan Poland September 11-14 2005
 93. Minjun Wang, Geoffrey Fox and Marlon Pierce [Thin Client Collaboration Web Services](#) Proceedings of IEEE International Conference on Internet and Web Applications and Services [ICIW'06](#) February 23-25, 2006 Guadeloupe, French Caribbean
 94. Ahmet Sayar, Marlon Pierce and Geoffrey Fox [Integrating AJAX Approach into GIS Visualization Web Services](#) Proceedings of IEEE International Conference on Internet and Web Applications and Services [ICIW'06](#) February 23-25, 2006 Guadeloupe, French Caribbean
 95. Sayar, M. Pierce, G. C. Fox [DEVELOPING GIS VISUALIZATION WEB SERVICES FOR GEOPHYSICAL APPLICATIONS](#) ISPRS International Society for Photogrammetry and Remote Sensing [Workshop](#) Commission II WG/2 METU, Ankara, Turkey, November, 24-25, 2005

96. Mehmet S. Aktas, Geoffrey C. Fox, Marlon Pierce [Information Services for Dynamically Assembled Semantic Grids](#) Proceedings of 1st International [Conference](#) on SKG2005 Semantics, Knowledge and Grid Beijing China November 27-29 2005
97. Beytullah Yildiz, Shrideep Pallickara, Geoffrey Fox [Experiences in Deploying Services within the Axis Container](#) Proceedings of IEEE International Conference on Internet and Web Applications and Services [ICIW'06](#) February 23-25, 2006 Guadeloupe, French Caribbean, with [Older version](#) Technical Report October 2005
98. Gang Zhai, Geoffrey Fox, Marlon Pierce, Wenjun Wu, Hasan Bulut [eSports: Collaborative and Synchronous Video Annotation System in Grid Computing Environment](#) Proceedings of IEEE International [Symposium](#) on Multimedia (ISM2005), Pages 95-103, IEEE Computer Society, December 12-14, 2005 Irvine, California, USA, [DOI](#)
99. Geoffrey C. Fox, Mehmet S. Aktas, Galip Aydin, Hasan Bulut, Shrideep Pallickara, Marlon Pierce, Ahmet Sayar, Wenjun Wu, and Gang Zhai [Real Time Streaming Data Grid Applications](#) Invited talk at [TIWDC 2005](#) CNIT Tyrrhenian International Workshop on Digital Communications July 4-6 2005
100. Geoffrey Fox, Galip Aydin, Harshawardhan Gadgil, Shrideep Pallickara, Marlon Pierce, and Wenjun Wu [Management of Real-Time Streaming Data Grid Services](#) Invited talk at Fourth International Conference on Grid and Cooperative Computing ([GCC2005](#)), held in Beijing, China, during Nov 30-Dec 3, 2005 and [Longer Version](#)
101. Jungkee Kim, Geoffrey Fox, and Seong-Joon Yoo. [Data Integration Hub for a Hybrid Paper Search](#). In *Proceedings of 9th International [Conference](#) on Knowledge-based & Intelligent Information & Engineering Systems (KES)* , pages 170-176 volume 3683 [DOI](#) of *Lecture Notes in Artificial Intelligence*. Melbourne Australia 14-16 September, 2005.
102. Sang Boem Lim, Bryan Carpenter, Geoffrey Fox, and Han-Ku Lee, [Collective Communications for Scalable Programming](#) Proceedings of Third International [Symposium](#) on Parallel and Distributed Processing and Applications ([ISPA'05](#)), Nanjing , China November 2-5 2005. Springer-Verlag Lecture Notes in Computer Science, Volume 3758, Oct 2005, Pages 286 - 297 [DOI](#)
103. Sang Lim, Geoffrey Fox, Ali Kaplan, Shrideep Pallickara and Marlon Pierce [GridFTP and Parallel TCP Support in NaradaBrokering](#) Proceedings of 6th International Conference on Algorithms and Architectures for Parallel Processing [ICA3PP 2005](#) Melbourne Australia. October 2-5 2005. Springer-Verlag Lecture Notes in Computer Science, Volume 3719, Page 93-102 [DOI](#)
104. Sang Boem Lim, Bryan Carpenter, Geoffrey Fox, and Han-Ku Lee, [A Low--Level Communication Library for Java HPC](#) Proceedings of 6th International Conference on Algorithms and Architectures for Parallel Processing. [ICA3PP 2005](#) Melbourne Australia. October 2-5 2005. Springer-Verlag Lecture Notes in Computer Science, Volume 3719, Pages 429 - 434 [DOI](#)
105. Jungkee Kim and Geoffrey Fox. [Scalable Hybrid Search on Distributed Databases](#). In *Proceedings of 3rd International Workshop on Autonomic Distributed Data and Storage*

Systems Management (ADSM'05) in conjunction with [ICCS 2005](#), May 22-25 2005, Atlanta GA. Lecture Notes in Computer Science, Springer-Verlag Volume 3516, Pages 431 - 438. [DOI](#)

106. Geoffrey Fox, Alex Ho, Shrideep Pallickara, Marlon Pierce, Wenjun Wu [Grids for the GiG and Real Time Simulations](#) Proceedings of Ninth IEEE International [Symposium DS-RT 2005](#) on Distributed Simulation and Real Time Applications, pages 129-138 IEEE Computer Society [DOI](#), Montreal October 10-12 2005
107. Taylor, S.J.E.; Fox, G.; Fujimoto, R.; Pullen, J.M.; Roberts, D.J.; Theodoropoulos, G.K. [Revisiting Distributed Simulation and the Grid: A Panel](#) Distributed Simulation and Real-Time Applications, 2005. [DS-RT 2005](#) Proceedings. Ninth IEEE International Symposium Page161. [DOI](#), Montreal October 10-12 2005
108. Shrideep Pallickara, Harshawardhan Gadgil and Geoffrey Fox [On the Discovery of Brokers in Distributed Messaging Infrastructures](#) Proceedings of [IEEE Cluster 2005](#), September 27 - 30, 2005, Boston, Massachusetts, USA
109. Ahmet Sayar, Marlon Pierce and Geoffrey Fox, [Message Exchange for Web Service-Based Mapping Services](#), Proceedings of [GeoInformatics'05](#), Toronto Canada 17-19 August 2005.
110. Harshawardhan Gadgil, Geoffrey Fox, Marlon Pierce, Shrideep Pallickara [HPSearch: Service Management & Administration Tool](#) Abstract for VLAB Meeting Minnesota July 21-23 2005
111. Ahmet Uyar, Wenjun Wu, Hasan Bulut, Geoffrey Fox. [Service-Oriented Architecture for a Scalable Videoconferencing System](#) Proceedings of IEEE International [Conference](#) on Pervasive Services 2005 (ICPS'05) July 2005, Santorini, Greece.
112. Sang Boem Lim, Bryan Carpenter, Geoffrey Fox, and Han-Ku Lee, [Implementation of Collectives for Scalable Programming in Java](#), Proceedings of 2005 International Conference on Parallel and Distributed Processing Techniques and Applications ([PDPTA'05](#): June 27-30, 2005, Las Vegas, USA)
113. Mehmet Aktas, Galip Aydin, Andrea Donnellan, Geoffrey Fox, Robert Granat, Greg Lyzenga, Dennis McLeod, Shrideep Pallickara, Jay Parker, Marlon Pierce, John Rundle, and Ahmet Sayar [Implementing Geographical Information System Grid Services to Support Computational Geophysics in a Service-Oriented Environment](#) NASA Earth-Sun System Technology [Conference](#) University of Maryland, Adelphi, Maryland, June 28 - 30, 2005. All material is online for [paper](#), [presentation](#), and [abstract](#)
114. M. P. Thomas, J. Burruss, L. Cinquini, G. Fox, D. Gannon, L. Gilbert, G. von Laszewski, K. Jackson, D. Middleton, R. Moore, M. Pierce, B. Plale, A. Rajasekar, R. Regno, E. Roberts, D. Schissel, A. Seth, and W. Schroeder [Grid Portal Architectures for Scientific Applications](#) Proceedings of SciDAC 2005 [meeting](#) June 26-30 2005 San Francisco
115. Galip Aydin, Mehmet S. Aktas, Geoffrey C. Fox, Harshawardhan Gadgil, Marlon Pierce, Ahmet Sayar [SERVOGrid Complexity Computational Environments \(CCE\) Integrated](#)

- [Performance Analysis](#) Proceedings of Grid Computing [Conference](#), 2005. The 6th IEEE/ACM International Workshop 13-14 Nov. 2005. Page(s): 256 - 261 [DOI](#)
116. Pete Burnap, Hasan Bulut, Shrideep Pallickara, Geoffrey Fox, David Walker, Ali Kaplan, Beytullah Yildiz, and Mehmet A. Nacar [Worldwide Messaging Support for High Performance Real-time Collaboration](#) UK e-Science [All Hands Meeting](#) September 2005
117. Geoffrey Fox [Global Multimedia Collaboration System Tutorial](#) Proceedings of the IEEE International [Symposium](#) on Collaborative Technologies and Systems CTS05 May 2005, St. Louis Missouri, USA. PAGES 11-13 [DOI](#)
118. Ahmet Uyar and Geoffrey Fox. [Investigating the Performance of Audio/Video Service Architecture I: Single Broker](#) Proceedings of the IEEE International [Symposium](#) on Collaborative Technologies and Systems CTS05 May 2005, St. Louis Missouri, USA. PAGES 120-127 [DOI](#)
119. Ahmet Uyar and Geoffrey Fox. [Investigating the Performance of Audio/Video Service Architecture II: Broker Network](#). Proceedings of the IEEE International [Symposium](#) on Collaborative Technologies and Systems CTS05 May 2005, St. Louis Missouri, USA. Pages 128-135 [DOI](#)
120. Sangyoon Oh, Hasan Bulut, Ahmet Uyar, Wenjun Wu, Geoffrey Fox [Optimized Communication using the SOAP Infoset For Mobile Multimedia Collaboration Applications](#) Proceedings of the IEEE International Symposium on Collaborative Technologies and Systems CTS05 May 2005, St. Louis Missouri, USA. Pages 32 - 39 [DOI](#)
121. Minjun Wang, Geoffrey Fox and Marlon Pierce [Instantiations of Shared Event Model in Grid-based Collaboration](#) Proceedings of the 9th World Multi-[Conference](#) on Systemics, Cybernetics and Informatics July 10-13, 2005 - Orlando, Florida, USA
122. Sangyoon Oh, Sangmi Lee Pallickara, Sunghoon Ko, Jai-Hoon Kim, Geoffrey Fox [Cost Model and Adaptive Scheme for Publish/Subscribe Systems on Mobile Environments](#) Springer-Verlag Lecture Notes in Computer Science 3516, pp. 275-278 in Proceedings of the 2nd International Workshop on Active and Programmable Grids Architectures and Components, [APGAC05](#) as part of [ICCS05](#), Atlanta, GA, May 2005. [DOI](#)
123. Sangyoon Oh, Sangmi Lee Pallickara, Sunghoon Ko, Jai-Hoon Kim, Geoffrey Fox [Publish/Subscribe Systems on Node and Link Error Prone Mobile Environments](#) Lecture Notes in Computer Science 3515, pp. 576-584 in Proceeding of the Wireless and Mobile Systems [Workshop](#) at [ICCS 2005](#), Atlanta, GA, May 2005. [DOI](#)
124. Mehmet S. Aktas, Geoffrey Fox, Marlon Pierce [Managing Dynamic Metadata as Context](#) Istanbul International Computational Science and Engineering Conference ([ICCSE2005](#)) June 2005
125. Harshawardhan Gadgil, Geoffrey Fox, Shrideep Pallickara, Marlon Pierce, Robert Granat [A Scripting based Architecture for Management of Streams and Services in Real-time Grid Applications](#) Proceedings of the IEEE/ACM Cluster Computing and Grid 2005 Conference ([CCGrid 2005](#)). Cardiff, UK May 2005 Pages 710-717. No DOI

126. Harshawardhan Gadgil, Geoffrey Fox, Shrideep Pallickara [HPSearch for Managing Distributed Services](#) Work in Progress session at IEEE/ACM Cluster Computing and Grid 2005 Conference ([CCGrid 2005](#)). Cardiff, UK May 2005
127. Hongbin Liu, Shrideep Pallickara, Geoffrey Fox [Performance of Web Services Security Proceedings](#) of the 13th Annual 13th Mardi Gras [Conference](#), February 3rd to 5th 2005, Baton Rouge, Louisiana
128. Minjun Wang, Geoffrey Fox and Marlon Pierce [Grid-based Collaboration in Interactive Data Language Applications](#) Proceedings of International [Conference](#) on Information Technology: Coding and Computing (ITCC'05) - Volume I pp. 335-341, April 4-6, 2005, Las Vegas [DOI](#)
129. Shrideep Pallickara and Geoffrey Fox [An Analysis of Notification Related Specifications for Web/Grid applications](#) October 30 2004 and as a [Short Paper](#) in Proceedings of International [Conference](#) on Information Technology: Coding and Computing (ITCC'05), Volume II pages 762-763, April 4-6, 2005, Las Vegas [DOI](#)
130. Shrideep Pallickara, Geoffrey Fox and Sangmi Lee Pallickara [An Analysis of Reliable Delivery Specifications for Web Services](#) in Proceedings of International [Conference](#) on Information Technology: Coding and Computing (ITCC'05), Volume I pp. 360-365. April 4-6, 2005, Las Vegas [DOI](#)
131. Ahmet Uyar, Wenjun Wu, Hasan Bulut, Geoffrey Fox [Service-Oriented Architecture for Building a Scalable Videoconferencing System](#) Technical Report January 2005 and to be published in IEEE International Conference on Pervasive Services 2005 ([ICPS'05](#)), 11-14 July 2005, Santorini, Greece

Technical Reports 2005 - December 2009

1. Jaliya Ekanayake, Thilina Gunarathne, Judy Qiu, Geoffrey Fox, Scott Beason, Jong Youl Choi, Yang Ruan, Seung-Hee Bae, Hui Li [Draft Report: Applicability of DryadLINQ to Scientific Applications](#) Technical Report October 16 2009
2. Geoffrey Fox, Xiaohong Qiu, Scott Beason, Jong Youl Choi, Mina Rho, Haixu Tang, Neil Devadasan, Gilbert Liu [Case Studies in Data Intensive Computing: Large Scale DNA Sequence Analysis as the Million Sequence Challenge and Biomedical Computing](#) Technical Report 9 August 2009
3. Kangseok Kim and Geoffrey Fox [XGSP-RBAC: Access Control Mechanism based on RBAC Model in Ubiquitous Collaboration System](#) Technical Report February 2 2009
4. Kangseok Kim and Geoffrey Fox [Modeling, Simulation, and Practice of Floor Control for Synchronous and Ubiquitous Collaboration](#) Technical Report February 2 2009
5. Xiaohong Qiu and Geoffrey Fox [Parallel Data Mining for Medical Informatics](#) Technical Report January 13 2009
6. Geoffrey Fox, Marlon Pierce, Xiaohong Qiu and Shrideep Pallickara [Summary of Community Grid laboratory Activities](#) January to December 2008 Technical Report January 5 2009

7. Yili Gong, Marlon E. Pierce, and Geoffrey C. Fox [Dynamic Resource-Critical Workflow Scheduling in Heterogeneous Environments](#) Technical Report December 6 2008
8. Shrideep Pallickara and Geoffrey Fox [Enabling Hierarchical Dissemination of Streams in Content Distribution Networks](#) Technical report August 15 2008
9. Yili Gong, Marlon Pierce and Geoffrey Fox [Dynamic Resource-Critical Workflow Scheduling in Heterogeneous Environments](#) Technical Report August 10 2008
10. Kangseok Kim, Wenjun Wu and Geoffrey Fox [XGSP-Floor: Floor Control for Synchronous and Ubiquitous Collaboration](#) Technical Report August 2 2008
11. Jaliya Ekanayake, Shrideep Pallickara, and Geoffrey Fox [Performance of Data Intensive Supercomputing Runtime Environments](#) Technical report August 1 2008
12. Jong Youl Choi [Clustering Analysis of Collaborative Tagging Systems By Using The Graph Model](#) Technical Report May 25 2008
13. Kangseok Kim, Rajarshi Guha, Marlon E. Pierce, Geoffrey C. Fox, David J. Wild, Kevin E. Gilbert [Architecture for Scalable, Distributed Database System built on Multicore Servers](#) Technical report May 21 2008
14. Xiaohong Qiu, Geoffrey C. Fox, Huapeng Yuan, and Seung-Hee Bae [Parallel Data Mining on Multicore Systems](#) Technical Report May 13 2008
15. Jaliya Ekanayake, Shrideep Pallickara, and Geoffrey Fox [An Architecture for Composable Scientific Data Analysis](#) Technical Report March 10 2008
16. Xiaohong Qiu, Geoffrey C. Fox, Huapeng Yuan, Seung-Hee Bae, [Parallel Datamining on Multicore Systems](#) Technical Report February 20 2008
17. Jaliya Ekanayake, Shrideep Pallickara and Geoffrey Fox [Architecture for Composable Scientific Data Analysis](#) Technical Report January 31 2008
18. Beytullah Yildiz, Shrideep Pallickara and Geoffrey Fox [An Orchestration for Distributed Web Service Handlers](#) Technical Report January 15 2008
19. Geoffrey Fox, Marlon Pierce and Shrideep Pallickara [Summary of CGL Lab Activities January-December 2007](#) Technical Report December 31 2007
20. Geoffrey Fox and Marlon Pierce [Grids meet Too much Computing, Too much Data and never Too much Simplicity](#) White Paper December 27 2007
21. Marlon Pierce et al [Open Grid Computing Environments \(OGCE\) Annual Report: September 1, 2003-August 31, 2007](#) prepared December 2007
22. Mehmet S. Aktas, Geoffrey C. Fox, Marlon Pierce [Distributed High Performance Grid Information Service](#) Technical Report December 2007
23. Mehmet S. Aktas, Geoffrey C. Fox, Marlon Pierce [Information Federation in Grid Information Services](#) Technical Report December 2007
24. Jaliya Ekanayake, Shrideep Pallickara and Geoffrey Fox [A Scalable Framework for the Collaborative Analysis of Scientific Data](#) Technical Report December 12 2007
25. Xiaohong Qiu, Geoffrey C. Fox, Huapeng Yuan, Seung-Hee Bae, George Chrysanthakopoulos, Henrik Frystyk Nielsen [Performance of Multicore Systems on Parallel Datamining Services](#) Technical report November 19 2007

26. Ahmet Fatih Mustacoglu and Geoffrey Fox [Hybrid Consistency Framework for Distributed Annotation Records](#) Technical Report October 30 2007
27. Milan Jovovic, Geoffrey Fox [Multi-dimensional data scaling – dynamical cascade approach](#) Technical Report September 26 2007
28. Ahmet E. Topcu , Ahmet Fatih Mustacoglu, Geoffrey Fox , Aurel Cami [Integration of Collaborative Information Systems in Web 2.0](#) Technical report June 27 2007
29. Mehmet A. Nacar, Marlon E. Pierce, Geoffrey C. Fox [Extending GTLAB Tag Libraries for Grid Workflows](#) Technical Report April 18 2007
30. Xiaohong Qiu, Geoffrey Fox, George Chrysanthakopoulos, Henrik Frystyk Nielsen [High Performance Multi-Paradigm Messaging Run Time on Multicore Systems](#) Technical Report April 16 2007
31. Xiaohong Qiu, Geoffrey Fox, Alex Ho [Analysis of Concurrency and Coordination Runtime CCR and DSS for Parallel and Distributed Computing](#) Technical Report January 21 2007
32. Geoffrey C. Fox, Ahmet Fatih Mustacoglu, Ahmet E. Topcu, Aurel Cami [SRG: A Digital Document-Enhanced Service Oriented Research Grid](#) Technical Report, November 28 2007
33. Harshawardhan Gadgil, Geoffrey Fox, Shrideep Pallickara, Marlon Pierce [Scalable, Fault-tolerant Management in a Service Oriented Architecture](#) Technical Report October 10 2006
34. Geoffrey Fox and Dennis Gannon [A Survey of the Role and Use of Web Services and Service Oriented Architectures in Scientific/Technical Grids](#) Technical Report August 2006
35. Marvin Theimer, Savas Parastatidis, Tony Hey, Marty Humphrey, Geoffrey Fox [An Evolutionary Approach to Realizing the Grid Vision](#) Technical Report February 2006
36. Harshawardhan Gadgil, Geoffrey Fox, Shrideep Pallickara, Marlon Pierce [Managing Grid Messaging Middleware](#) Technical Report February 8 2006
37. Geoffrey Fox [Some Comments on CiteULike Connotea and related Tools](#) Technical Report, January 1 2006
38. Geoffrey Fox [Community Grids Laboratory Summary](#) September 2005
39. Sangyoon Oh and Geoffrey C. Fox [HHFR: A new architecture for Mobile Web Services: Principles and Implementations](#) Technical report September 2005
40. Mehmet S. Aktas, Geoffrey C. Fox, Marlon Pierce [An Architecture for Supporting Information in Dynamically Assembled Semantic Grids](#) Technical report August 2005.
41. Geoffrey Fox, Alex Ho, Marlon Pierce [Appendix on Grid and Web Services](#), Technical Report July 2005.
42. Geoffrey Fox, Alex Ho, Marlon Pierce [Grid Technology Overview and Status](#), Technical Report July 2005.
43. Geoffrey Fox, Alex Ho, Marlon Pierce [Grid Application Areas within DoD](#), Technical Report July 2005.
44. Geoffrey Fox, Alex Ho, Marlon Pierce: Complete list of [References for Reports on Grids for GiG and NCOW](#), Technical Report July 2005.

45. Ahmet Sayar, Mehmet Aktas, Galip Aydin, Marlon Pierce and Geoffrey Fox, [Developing a Web Service-Compatible Map Server for Geophysical Applications](#) Technical report June 2005
46. Mehmet S. Aktas, Galip Aydin, Geoffrey C. Fox, Harshawardhan Gadgil, Marlon Pierce, Ahmet Sayar, [Information Services for Grid/Web Service Oriented Architecture \(SOA\) Based Geospatial Applications](#), Technical Report, June, 2005
47. Shrideep Pallickara, Hasan Bulut, Pete Burnap, Geoffrey Fox, Ahmet Uyar, David Walker [Support for High Performance Real-time Collaboration within the NaradaBrokering Substrate](#) Technical Report May 2005
48. Minjun Wang, Geoffrey Fox and Marlon Pierce [General Collaboration Structures for Interactive Data Language Applications](#) Technical Report May 2005
49. Shrideep Pallickara, Geoffrey Fox and Hasan Bulut [Fault Tolerant Reliable Delivery of Events in Distributed Middleware Systems](#) Technical Report April 2005
50. Hongbin Liu, Geoffrey Fox, Marlon Pierce, Shrideep Pallickara [A Multi-party Implementation of WS-SecureConversation](#) Technical Report April 2005
51. Ahmet Sayar, Marlon Pierce, Geoffrey Fox [OGC Compatible Geographical Information Services](#) Technical Report (Mar 2005), [Indiana Computer Science Report](#) TR610
52. Shrideep Pallickara, Hasan Bulut, Pete Burnap, Geoffrey Fox, Ahmet Uyar, David Walker [Support for High Performance Real-time Collaboration within the NaradaBrokering Substrate](#) Technical Report February 2005

----- Publications 2004 and Earlier -----

Publications while at Cambridge as student, a postdoc 1967-1970 and Caltech 1970-1990

1. Fox, G. C. and Holmes, K. C. "An Alternative Method of Solving the Layer Scaling Equations of Hamilton, Rollett, and Sparks," *Acta Cryst.* **20**, 886 (1966).
2. Fox, G. C. and Leader, E. "Factorization of Helicity Amplitudes at High Energies," *Phys. Rev. Lett.*, **18**, 628 (1967).
3. Fox, G. C. "Methods for Constructing Invariant Amplitudes Free from Kinematic Singularities and Zeros," *Phys. Rev.*, **157**, 1493 (1967).
4. Fox, G. C. "Characteristic Features of the Scattering of Elementary Particles Arising from Their Spin and Electromagnetic Interaction," (unpublished), Ph.D. Dissertation, Cambridge, England (1967).
5. Fox, G. C. and Sertorio, L. "Regge Secondary Trajectories," *Phys. Rev.*, **176**, 1739 (1968).
6. Fox, G. C. and Freedman, D. Z. "Compton Scattering Sum Rules and Their Saturation," *Phys. Rev.*, **182**, 1628 (1969).
7. Fox, G. C., Goldhaber, A. S. and Quigg, C. "Theory of ρ - ω Interference in $\pi^+ \pi^-$ Production," *Phys. Lett.*, **30B**, 249 (1969).
8. Fox, G. C. and Berger, E. L., "Pion-Nucleon and Kaon-Nucleon Scattering in the Veneziano Model," *Phys. Rev.*, **188**, 2120 (1969).
9. Fox, G. C. "Skeletons in the Regge Cupboard," *Proceedings of the Stony Brook Conference on High Energy Physics*, 1969 (Gordon & Breach, Science Publishers, Inc., New York, New York, 1969).

York (1970).

10. Fox, G. C. and Quigg, C., "Compilation of Elastic Scattering Data," UCRL-20001, January 1970. Interim report from the Particle Data Group, Lawrence Radiation Laboratory, Berkeley, California.
11. Fox, G. C., "A Veneziano Model without Parity Doubling for Production Processes," preprint, Cavendish Laboratory, Cambridge, England, February, 1970.
12. Fox, G. C. and Berger, E. L., "Decisive Tests of High Energy Models," *Phys. Rev. Lett.*, **25**, 1783 (1970).
13. Fox, G. C. and Berger, E. L., "Comparative Evaluation of Theories of πN Backward Scattering," *Nuclear Physics*, **B26**, 1 (1971).
14. Fox, G. C. and Berger, E. L., "Phenomenology of Backward Photoproduction," *Nuclear Physics*, **B30**, 1 (1971).
15. Fox, G. C., Engelmann, R., Musgrave, B., Schweingruber, F., Yuta, H., Forman, B., Gelfand, N. and Schultz, H., "The Charge Exchange Production Mechanism for $K^*(890)$," *Phys. Rev.*, **D4**, 2647 (1971).
16. Fox, G. C., "The Importance of Being an Amplitude," in *Phenomenology in Particle Physics 1971*, edited by C. B. Chiu, G. C. Fox and A. J. G. Hey (Caltech, 1971).
17. Fox, G. C., " π -exchange," in *Planning for the Future*, ANL/HEP-7208, p. 545, Proceedings of Summer Workshop (1971).
18. Fox, G. C., "Experiments with Polarized Targets," in *Planning for the Future*, ANL-HEP-7208, p. 1072, Proceedings of Summer Workshop (1971).
19. Fox, G. C. and Berger, E. L., "High Energy Physics with Polarized Proton Beams," in *2nd International Conference on Polarized Targets*, proceedings edited by G. Shapiro (Berkeley 1971).
20. Fox, G. C., "Past Lessons and Future Dreams from Polarization Data in High Energy Physics," *2nd International Conference on Polarized Targets*, proceedings edited by G. Shapiro (Berkeley 1971).
21. Fox, G. C. and Berger, E. L., "Line-Reversal-Symmetry Breaking and Interference Effects Between Resonances on a Dalitz Plot," *Physics Letters*, **36B**, 389 (1971).
22. Fox, G. C., "Peripheral Production of Resonances," in *3rd International Conference on Experimental Meson Spectroscopy*, edited by K. W. Lai and A. H. Rosenfeld (AIP 1972).
23. Fox, G. C. and Pilcher, J. E., "High Energy Collisions I and II: Summary of Parallel Sessions," in *Proceedings of the XVI International Conference on High Energy Physics*, edited by J. D. Jackson and A. Roberts (NAL 1972).
24. Fox, G. C. and Griss, M. L., "A Criticism of the Accelerated-Convergence-Expansion Partial-Wave Analysis of K^+p Elastic Scattering," *Phys. Rev.*, **D7**, 74 (1973).
25. Fox, G. C. and Hey, A. J. G., "Non-diffractive Production of Meson Resonances," *Nuclear Physics*, **B56**, 386 (1973).
26. Fox, G. C., Berger, E. L. and Kryzwicki, A., "Quantitative Measure of Cluster Formation in Multiparticle Production," *Physics Letters*, **43B**, 132 (1973).
27. Fox, G. C., Johnson, D., Cho, Y., Derrick, M., Musgrave, B., Wangler, T., Ammar, R., Davis, R., Kropac, W., and Yarger, H., "Reactions $K^-d \rightarrow [K]^0 \pi^- d$ and $K^- d \rightarrow [K]^0 \pi^- np_s$ at 5.5 GeV/c," *Phys. Rev.*, **D7**, 2537 (1973).
28. Fox, G. C. and Berger, E. L., "Multiplicity Distributions and Inclusive Spectra in a Multiperipheral Cluster Emission Model," *Physics Letters*, **47B**, 162 (1973).
29. Fox, G. C. and Quigg, C., "Production Mechanisms of Two-to-Two Scattering Processes at

- Intermediate Energies," *Annual Review of Nuclear Science*, Vol. 23 (1973).
30. Fox, G. C., "Inclusive Structure of Diffractive Scattering," in *High Energy Collisions-1973*, Stony Brook Conference Proceedings, edited by C. Quigg, (AIP 1973).
 31. Fox, G. C., "Polarization Effects for Diffractive Processes in the Deck Model," *Phys. Rev.*, **D11**, 3196 (1974).
 32. Fox, G. C. and Griss, M. L., "Study of the $I = 1/2$ $K\pi$ Scattering Amplitude I: Threshold to 1 GeV Region," *Nuclear Physics*, **B80**, 403 (1974).
 33. Fox, G. C. and Field, R. D., "Triple Regge and Finite Mass Sum Rule Analysis of Inclusive Proton Production in pp Scattering from 10 GeV to ISR Energies," *Nuclear Physics*, **B80**, 367 (1974).
 34. Fox, G. C., "A Spin for Everybody," Caltech preprint CALT-68-461, invited talk for the Workshop on Polarization, Brookhaven National Laboratory (1974)-published in BNL 20415 (Proceedings of Workshop).
 35. Fox, G. C., Field, R. D., and Tollestrup, A. V., "Estimates of the Peripheral Production of the Charmed Eta," preprint CALT-68-491 unpublished (1975).
 36. Fox, G. C. and Stevens, P. R., (Particle Data Group and High Energy Physics Laboratory representatives), "Compilation of Current High Energy Physics Experiments," LBL-91 (1976).
 37. Fox, G. C., "Phenomenology of High p_T Scattering," invited talk at APS meeting at Brookhaven, October 1976. Published in "Particles and Fields-1976," edited by H. Gordon and R. F. Peierls (BNL report 50598).
 38. Fox, G. C., (with experimental groups at Caltech, UCLA, Chicago Circle, Fermilab and Indiana University), "Observation of the Production of Jets of Particles at High Transverse Momentum and Comparison with Single Particle Reactions," *Phys. Rev. Letters*, **38**, 1447 (1977).
 39. Fox, G. C., Feynman, R. P., and Field, R. D., "Correlations Among Particles and Jets with Large Transverse Momenta," *Nuclear Physics*, **B128**, 1 (1977).
 40. Fox, G. C., "Phenomenology of Asymptotically Free Theories in Deep Inelastic Scattering, I: Electron and Muon Scattering," *Nuclear Physics*, **B131**, 107 (1977).
 41. Fox, G. C., "Phenomenology of Asymptotically Free Theories in Deep Inelastic Scattering, II: Neutrino Scattering," *Nuclear Physics*, **B134**, 269 (1978).
 42. Fox, G. C., (with experimental groups at Caltech, UCLA, Chicago Circle, Fermilab and Indiana University), "Production of Jets and Single Particles at High p_T in 200 GeV Hadron Beryllium Collisions," *Nuclear Physics*, **B134**, 189 (1978).
 43. Fox, G. C., (with experimental groups at Caltech, UCLA, Chicago Circle, Fermilab and Indiana University), "Comparison of Hadron Jets Produced in π^- and p Beams on Hydrogen and Aluminum Targets," Fermilab-Conf-77/62-EXP preprint (unpublished).
 44. Fox, G. C., "Recent Experimental Results on High Transverse Momentum Scattering from Fermilab," invited talk at APS meeting at Argonne, October, 1977. Published in "Particles and Fields-1977," edited by P. A. Schreiner, G. H. Thomas and A. B. Wicklund (APS, 1978).
 45. Fox, G. C., "Applications of Quantum Chromodynamics to High Transverse Momentum Hadron Production," invited talk at Orbis Scientiae 1978 (Coral Gables). Published in *New Frontiers in High-Energy Physics*, edited by A. Perlmutter and L. Scott (Plenum, 1978).
 46. Fox, G. C., "The Physics of Inclusive Charged Neutrino Reactions," invited talk at 1978 Neutrino Conference; published in *Neutrinos '78*, edited by E. C. Fowler (Purdue, 1978).
 47. Fox, G. C., Barnes, A., Kennett, R. G., Walker, R. L., Dahl, O. I., Kenney, R. W., Ogawa, A.,

- and Pripstein, M., "Precise Tests of Triple-Regge Theory from π^0 and η Inclusive Production in 100 GeV/c $\pi^\pm p$ Collisions," *Phys. Rev. Letters*, **41**, 1260 (1978).
48. Fox, G. C., Barnes, A., Kennett, R. G., Walker, R. L., Dahl, O. I., Kenney, R. W., Ogawa, A., and Pripstein, M., "Inclusive π^0 and η Production from 100 GeV/c $\pi^\pm p$ Collisions in the Triple Regge Region," *Nuclear Physics*, **B145**, 45 (1978).
 49. Fox, G. C., Barnes, A., Kennett, R. G., Walker, R. L., Dahl, O. I., Kenney, R. W., Ogawa, A., and Pripstein, M., "Inclusive π^0 and η Production in the All Neutral Mode from 100 GeV/c $\pi^\pm p$ Collisions," *Nuclear Physics*, **B145**, 67 (1978).
 50. Fox, G. C., Feynman, R. P., and Field, R. D., "Quantum-Chromodynamic Approach for the Large-Transverse-Momentum Production of Particles and Jets," *Phys. Rev.*, **D18**, 3320 (1978).
 51. Fox, G. C. and Wolfram, S., "Observables for the Analysis of Event Shapes in e^+e^- Annihilation and Other Processes," *Phys. Rev. Letters*, **41**, 1581 (1978).
 52. Fox, G. C. and Wolfram, S., "Event Shapes in e^+e^- Annihilation," *Nuclear Physics*, **B149**, 413 (1979) and erratum **B157**, 543 (1979).
 53. Fox, G. C. and Wolfram, S., "Tests for Planar Events in e^+e^- Event Shapes," (with S. Wolfram), *Physics Letters*, **82B**, 134 (1979).
 54. Fox, G. C. and Wolfram, S., "A Gallimaufry of e^+e^- Event Shapes," Caltech preprint CALT-68-723 (1979), unpublished.
 55. Fox, G. C. with experimental groups at Caltech, UCLA, Chicago Circle, Fermilab and Indiana University, "Jets Produced in π^-, π^+ and Proton Interactions at 200 GeV on Hydrogen and Aluminium Targets," *Phys. Rev. Letters*, **42**, 1202 (1979) and erratum *ibid.* **43**, 1057 (1979).
 56. Fox, G. C. with P. R. Stevens, Particle Data Group and High Energy Physics Laboratory representatives, "An indexed Compilation of Experimental High Energy Physics Literature," LBL-90 (1978).
 57. Fox, G. C. with experimental groups at Caltech, UCLA, Chicago Circle, Fermilab and Indiana), "Production and Correlations of Charged Particles with High p_\perp in 200 GeV $\pi^\pm p$, $K p$ and pp Collisions," *Phys. Rev. Letters*, **43**, 561 (1979).
 58. Fox, G. C. with experimental groups at Caltech, UCLA, Chicago Circle, Fermilab and Indiana), "Experimental Tests of Quantum Chromodynamics in High p_\perp Jet Production in 200 GeV/c Hadron-Proton Collisions," *Phys. Rev. Letters*, **43**, 565 (1979) and erratum *ibid.* **43**, 1058 (1979).
 59. Fox, G. C. with experimental groups at Caltech, UCLA, Chicago Circle, Fermilab and Indiana), "Measurement of Forward Jets Produced in High Transverse Momentum Hadron-Proton Collisions," *Phys. Rev. Letters*, **45**, 769 (1980).
 60. Fox, G. C. with experimental groups at Caltech, UCLA, Chicago Circle, Fermilab and Indiana), "Jet Production in High-Energy Hadron-Proton Collisions," *Nuclear Physics*, **B171**, 38 (1980).
 61. Fox, G. C. with experimental groups at Caltech, UCLA, Chicago Circle, Fermilab and Indiana), "Structure of Events in 200 GeV Interactions on Hydrogen and Aluminium Targets in Both Soft and Hard Collisions," *Nuclear Physics*, **B171**, 38 (1980).
 62. Fox, G. C. and Farrar, G., "QCD Calculation of the Leading Particle Contribution to High $p_\perp \pi^0$ Production in πp Collisions," *Nuclear Physics*, **B167**, 205 (1980).
 63. Fox, G. C., Kennett R. G., Stone A. E. A., Barnes A. V., Walker, R. L., Dahl, O. I., Kenney, R. W., Ogawa, A., Pripstein, M., "A Compilation of Cross-Sections for Inclusive π^0 and η

- Production in the Triple Regge Region at an Incident Momentum of 100 GeV," Caltech preprint CALT-68-698, unpublished (1980).
64. Fox, G. C., Kennett R. G., Stone A. E. A., Barnes A. V., Walker, R. L., Dahl, O. I., Kenney, R. W., Ogawa, A., Pripstein, M., "Inclusive π^0 and η Production from Kaon, Proton and Antiproton Beams in the Triple Regge Region," *Nuclear Physics*, **B177**, 1 (1981).
 65. Fox, G. C., Tse, T.-Y., Wolfram, S., "Event Shapes in Deep Inelastic Lepton-Hadron Scattering," *Nuclear Physics*, **B165**, 80 (1980).
 66. Fox, G. C., Wolfram, S., "Two and Three-Point Energy Correlations in Hadronic e^+e^- Annihilation," *Zeitschrift fur Physik*, **4C**, 237 (1980).
 67. Fox, G. C. with experimental groups at Caltech, Chicago Circle, Fermilab and Indiana, "D and E Mesons and Possible KKK Enhancements," paper presented at the Sixth Conference on Experimental Meson Spectroscopy, Upton, New York, April 25-26, 1980.
 68. Fox, G. C. with experimental groups at Caltech, Chicago Circle, Fermilab and Indiana, "Observations of the D and E Mesons and Possible Three Kaon Enhancement in $\pi^-p \rightarrow K^0 K^\pm \pi^\pm X$, $K^0 K^+ K^- X$ at 50 GeV/c and 100 GeV/c," *Phys. Rev.*, **D22**, 1513 (1980).
 69. Fox, G. C. and Wolfram S., "A Model for Parton Showers in QCD," *Nuclear Physics*, **B168**, 285 (1980).
 70. Fox, G. C. and Romans L., "A Longer Note on Top Quarks," Fermilab Colliding Beam Detector Facility Note CDF-70 (1980), unpublished.
 71. Fox, G. C., "Untangling Jets from Hadronic Final States," lectures given at the 1981 SLAC Summer School, Proceedings of the SLAC Summer School, August, 1981; Caltech preprint, CALT-68-863.
 72. Fox, G. C., Gupta, R., Martin, O., and Otto, S., "Monte Carlo Estimates of the Mass Gap of the 0(2) and 0(3) Spin Models in 1+1 Dimensions," *Nuclear Physics*, **B205**, 188 (1982).
 73. Fox, G. C., (with Particle Data Group), "Compilation of High Energy Physics Data: Inventory of the Particle Data Group Holdings 1980," LBL-92, CALT-68- 821, unpublished preprint, (December, 1980).
 74. Fox, G. C., Cole, C. A., Wolfram, S., Greif, J. M., Mjolsness, E. D., Romans, L. J., Shaw, T., and Terrano, A. E. "SMP: A Symbolic Manipulation Program."
 75. Fox, G. C., Kelly, R. L., "Gluon Bremsstrahlung Effects in Large p_\perp Hadron-Hadron Scatterings," in *Proton-Antiproton Collider Physics-1981*, AIP Conference proceedings number 85 edited by V. Barger, D. Cline and F. Helzen (AIP, 1982).
 76. Fox, G. C., Field, R. D., and Kelly, R. L., "Gluon Bremsstrahlung Effects in Hadron-Hadron Collisions," *Physics Letters*, **119B**, 439 (1982).
 77. Fox, G. C. and Field, R. D., "QCD Monte Carlo Models for e^+e^- Annihilations and Hadron-Hadron Collisions", Invited talk at Europhysics Study Conference on *Jet Dynamics in Quark and Lepton Interactions*, Erice, September, 1982.
 78. Fox, G. C., (with experimental groups at Caltech, Fermilab, Chicago Circle and Indiana), "A Study of A_2 Production in the Reaction $\pi^- p \rightarrow K^0 K^- p$ at 50, 100 and 175 GeV," *Phys. Rev.*, **D27**, 1 (1983).
 79. Fox, G. C., (with experimental groups at Caltech, Fermilab, Chicago Circle and Indiana), "A Study of the Reaction $\pi^- p \rightarrow \pi^- \pi^+ n$ at 100 and 175 GeV/c" *Nuclear Physics*, **B232**, 189 (1984).
 80. Fox, G. C., (with experimental groups at Caltech, Fermilab, Chicago Circle and Indiana), "Highlights of the Reaction $\pi^- p \rightarrow \pi^- \pi^+ n$ at 100 and 175 GeV/c," *Phys Rev.*, **D29**, 588 (1984).
 81. Fox, G. C., (with experimental groups at Caltech, Fermilab, Chicago Circle and Indiana),

- ``Numerical Tables of Measurements from Fermilab Experiment E110 for the Reactions $\pi^- p \rightarrow \pi^- \pi^+ n$ and $\pi^- p \rightarrow A_2^- p$," CALT-68-952 unpublished memo (1982).
82. Fox, G. C., (with experimental groups from Caltech, U.C. Davis, U.C. San Diego, Carleton, LBL, Michigan State), ``An SU(3)-Based Comparison Between Inclusive Kaon and Pion Charge Exchange Scattering in the Triple Regge Region," *Nuclear Physics*, **B206**, 173 (1982).
 83. Fox, G. C., (with experimental groups from Caltech, U.C. Davis, U.C. San Diego, Carleton, LBL, Michigan State), ``A Compilation of Cross-Sections for Inclusive Kaon and Pion Charge Exchange," CALT-68-895 unpublished memo (1982).
 84. Fox, G. C., Brooks, E., Otto, S., Randeria, M., Athas, W., DeBenedictis, E., Newton, M., and Seitz C., ``Glueball Mass Calculations on an Array of Computers," *Nuclear Physics*, **B220**, 383 (1983).
 85. Fox, G. C., ``Use of IBM Personal Computers in the Caltech Physics Department", October 1983 in *Proceedings of 8th IBM University Study Conference*.
 86. Fox, G. C., ``Scientific Calculations with Ensemble Computers," Invited talk at the three day in-depth review on the *Impact of Specialized Processors in Elementary Particle Physics*. (University of Padua, 1983), Caltech report C3P-37.
 87. Fox, G. C., (with experimental groups at Caltech, Fermilab, Chicago Circle, and Indiana), ``Production of the $K^0 K^\pm \pi^\mp$ system in $\pi^- p$ and $K^- p$ interactions at 50, 100, and 175 GeV/c," *Phys. Rev.*, **D30**, 2411 (1984).
 88. Fox, G. C., ``Concurrent Processing for Scientific Calculations," proceedings of the *COMPCON '84 28th IEEE Computer Society International Conference*, page 70, February 27-March 1, 1984, Caltech report C3P-48.
 89. Fox, G. C., Brooks, E., Johnson, M., Otto, S., Stolorz, P., Athas, W., DeBenedictis, E., Faucette, R., Seitz, C., and Stack, J., ``Pure Gauge SU(3) Lattice Theory on an Array of Computers," *Phys. Rev. Letters*, **52**, 2324 (1984), Caltech report C3P-65.
 90. Fox, G. C. and Otto, S., ``Algorithms for Concurrent Processors," *Physics Today*, May 1984. Translated into Japanese in *Nikkei Electronics*, July, 1985, Caltech report C3P-71.
 91. Fox, G. C., ``Use of IBM-PC's in Physics Education at Caltech," December 1984 in *Proceedings of 9th IBM University Study Conference*.
 92. Fox, G. C., ``Are Concurrent Processors General Purpose Computers?," *Proceedings of IEEE Nuclear Science Symposium*, October 31, 1984. Published in February 1985 issue of *IEEE Transactions of N.P.S.S.*, Vol. 34, Caltech report C3P-122.
 93. Fox, G. C., ``The Performance of the Caltech Hypercube in Scientific Calculations-a Preliminary Analysis," in *Supercomputers-Algorithms, Architectures, and Scientific Computation*, edited by F. A. Matsen and T. Tajima, University of Texas Press (1987), Caltech report C3P-161.
 94. Fox, G. C., Lyzenga, G., Rogstad, D. and Otto, S., ``The Caltech Concurrent Computation Program," published in *Proceedings of Computers in Engineering Conference*, August 4-8, Boston 1985, Caltech report C3P-157.
 95. Fox, G. C., ``Using the Caltech Hypercube," *IEEE Software*, July 1985, Caltech report C3P-162.
 96. Fox, G. C. and Otto, S., ``The Caltech Concurrent Computation Program-A Status Report," published in a theme issue on supercomputing in the magazine *Computers in Mechanical Engineering*, published by ASME and Springer Verlag, March 1986, Caltech report C3P-157b.

97. Fox, G. C., Hey, A. and Otto, S., "Matrix Algorithms on the Hypercube I: Matrix Multiplication," *Parallel Computing*, **4**, 17 (1987), Caltech report C3P-206.
98. Fox, G. C., Otto, S. and Umland, E., "Monte Carlo Physics on a Concurrent Processor," published in the *Proceedings of Frontiers of Quantum Monte Carlo Conference* at Los Alamos, September 6, 1985-published in special issue of *Journal of Statistical Physics*, Vol. 43, 1209, Plenum Press, 1986, Caltech report C3P-214.
99. Fox, G. C. and Otto, S., "Concurrent Computation and the Theory of Complex Systems", *Hypercube Multiprocessors*, 1986, edited by M. T. Heath, SIAM (1986) 244, Caltech report C3P-255.
100. Fox, G. C., Kennett, R. G., Barnes, A. V., Walker, R. L. Dahl, O. I., Keeney, R. W. Ogawa, A. and Propstein, M., "The Production of Neutral Pions from 200 GeV π p Collisions in the High X-Region." CALT-68-1367; *Nucl. Phys.*, **B284**:(3-4), 653-673 (1987).
101. Fox, G. C., "Questions and Unexpected Answers in Concurrent Computation", CALT-68-1403, June 16, 1986. Published by the North-Holland in *Experimental Parallel Computing Architectures*. (Jack Dongarra, Editor), Caltech report C3P-288.
102. Fox, G. C., "Caltech Concurrent Computation Program Annual Report for 1985-86", CALT-68-1404, October 13, 1986, published in *Hypercube Multiprocessors*, 1987, edited by M. T. Heath, SIAM (1987) 353, Caltech report C3P-290b.
103. Fox, G. C., "A Graphical Approach to Load Balancing and Sparse Matrix Vector Multiplication on the Hypercube", CALT-68-1406, July 22, 1986. The *Proceedings for the Workshop on Numerical Algorithms for Modern Parallel Computer Architectures*, held at the IMA in November 1985, published as Volume 13 in the IMA Volumes in Mathematics and Its Applications, Numerical Algorithms for Modern Parallel Computer Architectures, (Springer-Verlag), New York, Caltech report C3P-327b.
104. Fox, G. C. and Furmanski, W., "Communication Algorithms for Regular Convolutions on the Hypercube", *Hypercube Multiprocessors*, 1987, edited by M. T. Heath, SIAM (1987) 233, Caltech report C3P-329.
105. Fox, G. C., Ho, A., Walker, D. and Montry G. (Sandia), "A Comparison of the Performance of the Caltech Mark II Hypercube and the Elxsi 6400", *Hypercube Multiprocessors*, 1987, edited by M. T. Heath, SIAM (1987), 210, Caltech report C3P-356.
106. Fox, G. C., "A Review of Automatic Load Balancing and Decomposition Methods for the Hypercube", November 1986. The *Proceedings for the Workshop on Numerical Algorithms for Modern Parallel Computer Architectures*, held at the IMA in November 1985, published as Volume 13 in the IMA Volumes in Mathematics and Its Applications, Numerical Algorithms for Modern Parallel Computer Architectures, (Springer-Verlag), New York, Caltech report C3P-385.
107. Fox, G. C., "The Hypercube as a Supercomputer", January 7, 1987. Presented at the *Second International Conference on Supercomputing* at Santa Clara, May 1987. Published by the International Supercomputing Institute, Inc., St. Petersburg, Florida, May 1987, Caltech report C3P-391.
108. Fox, G. C., "Domain Decomposition in Distributed and Shared Memory Environment-I: A Uniform Decomposition and Performance Analysis for the NCUBE and JPL Mark IIIfp Hypercubes," *Supercomputing*, June 8-12, 87, Athens, Greece. Published in *Lecture Notes in Computer Science*, edited by E. N. Houstis, T. S. Papatheodorou, and C. D. Polychronopoulos, Springer-Verlag (1987), Vol. 297, 1042-1073, Caltech report C3P-392.
109. Fox, G. C., "The Hypercube and the Caltech Concurrent Computation Program, A

- Microcosm of Parallel Computing," *Special Purpose Computers*, edited by B. J. Alder, Academic Press, Inc. (1988), 1-40, Caltech report C3P-422.
110. Fox, G. C., Kim, J. S. Aloisio, G. and Veneziani N. "A Concurrent Implementation of the Prime Factor Algorithm on Hypercube," September 1987. Caltech report C3P-468.
 111. Fox, G. C., Furmanski, W., "The Physical Structure of Concurrent Problems and Concurrent Computers," *Phil. Trans. R. Soc. Lond. A*, **326**, 411-444 (1988). Also published in *Scientific Applications of Multiprocessors*, edited by R. J. Elliott and C. A. R. Hoare, Prentice Hall (1988), 55-88. Caltech report C3P-493.
 112. Fox, G. C., Walker, D., "A Portable Programming Environment for Multiprocessors," in the *Proceedings of the 12th IMACS World Congress on Scientific Computing*, July 18-22, 1988, Paris, France. Caltech report C3P-496.
 113. Fox, G. C. and Kolawa, A., "Use of the Hypercube for Symbolic Quantum Chromodynamics," in *Proceedings of the Third Conference on Hypercube Concurrent Computers and Applications*, Volume 2, edited by G. C. Fox, ACM Press (1988), 1408-1419, Caltech report C3P-182c.
 114. Fox, G. C. and Furmanski W. "Optimal Communication Algorithms for Regular Decompositions on the Hypercube," in *Proceedings of the Third Conference on Hypercube Concurrent Computers and Applications*, Volume 1, edited by G. C. Fox, ACM Press (1988), 648-713, Caltech report C3P-314b.
 115. Fox, G. C., Cisneros, T., Furmanski, W., and Walker, D. W., "LU Decomposition of Banded Matrices and the Solution of Linear Systems on Hypercubes," in *Proceedings of the Third Conference on Hypercube Concurrent Computers and Applications*, Volume 2, edited by G. C. Fox, ACM Press (1988), 1635-1655, Caltech report C3P-348b.
 116. Fox, G. C. and Furmanski, W. "Load Balancing Loosely Synchronous Problems with a Neural Network," in *Proceedings of the Third Conference on Hypercube Concurrent Computers and Applications*, Volume 1, edited by G. C. Fox, ACM Press (1988), 241-278, Caltech report C3P-363b.
 117. Fox, G. C. and Walker, D. "Optimal Matrix Algorithms on Homogeneous Hypercubes," in *Proceedings of the Third Conference on Hypercube Concurrent Computers and Applications*, Volume 2, edited by G. C. Fox, ACM Press (1988), 1656-1673, Caltech report C3P-386b.
 118. Fox, G. C., Bhalla, U., Furmanski, W., Nelson, M. Wilson, M., and Bower, J. "Structural Simulations of Neural Networks Using a General-Purpose Neural Network Simulator and a Hypercube Concurrent Computer," in *Proceedings of the Third Conference on Hypercube Concurrent Computers and Applications*, Volume 2, edited by G. C. Fox, ACM Press (1988), 977-999, Caltech report C3P-404b.
 119. Fox, G. C. and Furmanski, W. "Hypercube Algorithms for Neural Network Simulation-The Crystal_Accumulator and the Crystal_Router," in *Proceedings of the Third Conference on Hypercube Concurrent Computers and Applications*, Volume 1, edited by G. C. Fox, ACM Press (1988), 714-724, Caltech report C3P-405b.
 120. Walker, D. W., Fox, G. C. and Montry, G. R., "The Flux-Corrected Transport Algorithm on the NCUBE Hypercube," in *Proceedings of the Third Conference on Hypercube Concurrent Computers and Applications*, Volume 2, edited by G. C. Fox, ACM Press (1988), 1117-1126, Caltech report C3P-495.
 121. Fox, G. C. and Furmanski, W., "A String Theory of Automatic Decomposition," in *Proceedings of the Third Conference on Hypercube Concurrent Computers and*

- Applications*, Volume 1, edited by G. C. Fox, ACM Press (1988), 285-305, Caltech report C3P-521.
122. Fox, G. C., "What Have We Learnt from Using Real Parallel Machines to Solve Real Problems," in *Proceedings of the Third Conference on Hypercube Concurrent Computers and Applications*, Volume 2, edited by G. C. Fox, ACM Press (1988), 897-955, Caltech report C3P-522.
 123. Fox, G. C. and Frey, A., "Problems and Approaches for a Teraflop Processor," in *Proceedings of the Third Conference on Hypercube Concurrent Computers and Applications*, Volume 1, edited by G. C. Fox, ACM Press (1988), 21-25, Caltech report C3P-606.
 124. Fox, G. and Furmanski, W., "Integrated Vision on a Network of Computers," Invited paper at *Fourth International Symposium on Biological and Artificial Intelligence Systems*, published in *Biological and Artificial Intelligence Systems*, ESCOM Science Publishers, Caltech report C3P-623 (1988).
 125. Fox, G. C., and Messina, P., "Advanced Computer Architectures," *Scientific American*, **255**/10, (October 1987), Caltech report C3P-476.
 126. Gupta, R., DeLapp, J., Batrouni, G., Fox, G., Baillie, C., and Apostolakis, J., "The phase transition in the 2-d XY model," *Phys. Rev. Lett.*, **61**, 1996 (1988), Caltech report C3P-643.
 127. Fox, G. C., "Issues in Software Development for Concurrent Computers," in the *Proceedings of the Twelfth Annual International Computer Software and Applications Conference*, edited by G. J. Knafl, Computer Society Press of the IEEE (1988), 302-305, Caltech report C3P-640.
 128. Fox, G. C., and Walker, D., "Concurrent Supercomputers in Science," in *Proceedings of the Conference on Computers in Physics Instruction*, Edward F. Redish and John S. Risley (eds.), Addison-Wesley (1989), 346-361. Conference held in Raleigh, North Carolina, August 1-5, 1988. Caltech Technical Report C3P-646.
 129. Fox, G. C., and Koller, J., "Code Generation by a Generalized Neural Network: General Principles and Elementary Examples," *Journal of Parallel and Distributed Computing*, **6**, 388-410 (1989), Caltech report C3P-650b.
 130. Fox, G. C., "Theory and Practice of Concurrent Systems," in *Proceedings of International Conference on Fifth Generation Computer Systems*, ICOT (November 1988), 157-160, Caltech report C3P-664.
 131. Fox, G. C., Furmanski, W., and Koller, J., "The Use of Neural Networks in Parallel Software Systems," in *Mathematics and Computers in Simulation*, **31**/6, 485-495 (1989), Caltech report C3P-642b.
 132. Ho, A., Fox, G. C., Snyder, S., Chu, D., and Mylner, T., "Three-Dimensional Asteroids Using Parallel Graphics on nCUBE: A Testbed for Evaluating Controller Algorithms," in the *Proceedings of the Fourth Conference on Hypercubes, Concurrent Computers and Applications*, John L. Gustafson (ed.), Golden Gate Enterprises, Los Altos, CA (March, 1989), 1177. Caltech Technical Report C3P-681b.
 133. Fox, G., Furmanski, W., Ho, A., Koller, J., Simic, P., and Wong, Y., "Neural Networks and Dynamic Complex Systems," in *1989 SCS Eastern Conference* held in Tampa, Florida, March 28-31, 1989. Caltech report C3P-695.
 134. Koller, J., Fox, G. C., and Furmanski, W., "Physical Optimization and Dynamic Load Balancing," Caltech report C3P-670 (1988).
 135. Fox, G. C., "1989-The First Year of the Parallel Supercomputer," in the *Proceedings of*

- the Fourth Conference on Hypercubes, Concurrent Computers and Applications*, John L. Gustafson (ed.), Golden Gate Enterprises, Los Altos, CA (March 1989), 1. Caltech Technical Report C3P-769.
136. Fox, G. C., "Parallel Computing Comes of Age: Supercomputer Level Parallel Computations at Caltech," *Concurrency: Practice and Experience*, **1/1**, 63-103, John Wiley and Sons, Ltd. (1989). Caltech report C3P-795.
 137. Fox, G., Hipes, P., and Salmon, J., "Practical Parallel Supercomputing: Examples from Chemistry and Physics," in *Proceedings of Supercomputing '89*, ACM Press (1989), 58-70. Caltech report C3P-818.
 138. Aloisio, G., Lopinto, E., and Fox, G. C., "A Method to Reduce the Inter-node Communications for a Concurrent Implementation of the Prime Factor Algorithm", in the *Proceedings of the Fourth Conference on Hypercubes, Concurrent Computers and Applications*, John L. Gustafson (ed.), Golden Gate Enterprises, Los Altos, CA (March 1989), 1079. Caltech Technical Report C3P-773.
 139. Aloisio, G., Veneziani, N., Fox, G., and Milillo, G., "Computational Load Evaluation for the Real-Time Compression of X-SAR Raw Data", *Space Technology*, **10(4)**, 189-199, November 1990. Caltech Technical Report C3P-740b.
 140. Baillie, C. F., and Fox, G. C., "Parallel Computing Comes of Age: Supercomputer Calculations for Lattice QCD and Spin Models on Advanced Architecture Computers", in *High Performance Computing*, J.-L. Delhaye and E. Gelenbe (eds.), Elsevier Science Publishers, North-Holland, Amsterdam (1990). European Symposium held in Montpellier, France, March 22-24, 1989. Caltech Technical Report C3P-711.
 141. Ding, H.-Q., Baillie, C. F., and Fox, G. C., "Calculation of the Heavy Quark Potential at Large Separation on a Hypercube Parallel Computer," *Phys. Rev.*, **D41(9)**, 2912-2916 (May 1990). Caltech report C3P-779b.
 142. Aloisio, G., Veneziani, N., Kim, J., and Fox, G., "The Prime Factor Non-binary Discrete Fourier Transform and use of Crystal_Router as a General Purpose Communication Routine," *Proceedings of the Third Conference on Hypercube Concurrent Computers and Applications*, Volume 2, edited by G. C. Fox, ACM Press (1988), 1322-1327. Caltech report C3P-523.
 143. Liewer, P., Decyk, V., Dawson, J., and Fox, G., "A Universal Concurrent Algorithm for Plasma Particle-in-Cell Simulation Codes," in *Proceedings of the Third Conference on Hypercube Concurrent Computers and Applications*, Volume 2, edited by G. C. Fox, ACM Press (1988), 1101-1107. Caltech report C3P-562.
 144. Ho, A., Fox, G., Walker, D., Breaden, W., Chen, S., Knutson, A., and Kuwamoto, S., "MAC-CUBE, the Macintosh-Based Hypercube," in *Proceedings of the Third Conference on Hypercube Concurrent Computers and Applications*, Volume 1, edited by G. C. Fox, ACM Press (1988), 98-103. Caltech report C3P-573.
 145. Ho, A., Fox, G., Walker, D., Snyder, S., Chang, D., Chen, S., Breaden, M., and Cole, T., "PC-CUBE, A Personal Computer Based Hypercube," in *Proceedings of the Third Conference on Hypercube Concurrent Computers and Applications*, Volume 1, edited by G. C. Fox, ACM Press (1988), 92-97. Caltech report C3P-587.
 146. Fox, G., Ho, A., Messina, P., and Cole, T., "Hands-on Parallel Processing," *BYTE*, **14/10**, 287-293, McGraw-Hill, Inc. (1989). Caltech report C3P-828.
 147. Kennett, R., Barnes, A., Fox, G., Walker, R., Dahl, O., Kenney, R., Ogawa, A., and Pripstein, M., "The Production of Neutral Pions from 200 GeV π p Collisions in the High x

- Region," *Nuclear Physics*, **B284**, North-Holland (1987) 653-673.
148. Furmanski, W., and Fox, G. C., "MOVIE-a software environment for modeling complex adaptive systems." Technical Report C3P-838, California Institute of Technology, Pasadena, CA, October 1989. Presented at SPIE Conference, Philadelphia, 1989. Syracuse University Technical Report SCCS-539.
 149. G.C. Fox, E. Gurewitz and Y.F. Wang, "A Neural Network approach to Multi-Vehicle Navigation I", Proceedings of SPIE's Symposium on Advances in Intelligent Systems, Philadelphia, November 1989.
 150. K. Rose, E. Gurewitz and G. Fox, "A Deterministic Annealing Approach to Clustering", Pattern recognition Letters 11, 589 (1990).
 151. G.C. Fox, E. Gurewitz and Y.F. Wang, "A Neural Network approach to Multi-Vehicle Navigation II", Proceedings of DMCC5, Charleston, South Carolina, April 1990.
 152. E. Gurewitz, G.C. Fox and Y.F. Wang, "Parallel Algorithms for One and Two Vehicle Navigation", Proceedings of IEEE IROS 1990, Tsuchiura, Ibarki, Japan, July 1990.
 153. K. Rose, E. Gurewitz and G.C. Fox, "A Non Convex Cost Approach to Tracking Multiple Targets", Proceedings of IEEE IROS 1990, Tsuchiura, Ibarki, Japan, July 1990.

Papers from 1990-2005 at Syracuse, FSU and Indiana University

154. Balasundaram, V., Fox, G., Kennedy, K., and Kremer, U. "Static performance estimation in a data partitioning tool," in *Third ACM SIGPLAN Symposium on Principles and Practice of Parallel Programming (PPoPP)*. ACM, April 1990. Held in Williamsburgh, Virginia. SCCS-14b. [Balasundaram:90i]
155. Fox, G. C. "Applications of parallel supercomputers: scientific results and computer science lessons," in M. A. Arbib and J. A. Robinson, editors, *Natural and Artificial Parallel Computation*, Chapter 4, pages 47-90. MIT Press, Cambridge, MA, 1990. Invited presentation at the Inaugural Symposium for the Center for Science and Technology, Syracuse, New York. SCCS-23. Caltech Report C3P-806b. [Fox:90o]
156. Fox, G. C. "Hardware and software architectures for irregular problem architectures," in P. Mehrotra, J. Saltz, and R. Voigt, editors, *Unstructured Scientific Computation on Scalable Microprocessors*, pages 125-160. The MIT Press, Cambridge, MA, 1992. Scientific and Engineering Computation Series. Held by ICASE in Nags Head, North Carolina. SCCS-111; CRPC-TR91164. [Fox:90p]
157. Gandhi, A., and Fox, G. C. "Solving problems in navigation." Technical Report SCCS-9, Syracuse University, NPAC, Syracuse, NY, 1990. Unpublished. [Gandhi:90a]
158. Keppenne, G. L., Ghil, M., Fox, G. C., Flower, J. W., Kolawa, A., Papaccio, P. N., Rosati, J. J., Shepanski, J. F., Spadaro, F. G., and Dickey, J. O. "Parallel processing applied to climate modeling," *TRW Quest Magazine*, 13(2):54-64, 1990/1991. SCCS-22b. [Keppenne:90b]
159. Rose, K., Gurewitz, E., and Fox, G. C. "Statistical mechanics and phase transitions in clustering," *Physical Review Letters*, 65(8):945-948, August 1990. SCCS-20. Caltech Report C3P-893. [Rose:90c]
160. K. Rose, E. Gurewitz and G. Fox, "Vector Quantization by Deterministic annealing", IEEE Trans. Inf. Theory 38, 1249 (1992)
161. Wu, M.-Y., and Fox, G. C. "Test suite and performance for Fortran90 compilers." Technical Report SCCS-40, Syracuse Center for Computational Science, Syracuse, NY, 1990. [Wu:90b]

162. Wu, M.-Y., and Fox, G. C. "An outline of Fortran90 compiler for distributed memory systems." Technical Report SCCS-41, Syracuse Center for Computational Science, Syracuse, NY, 1990. [Wu:90c]
163. Apostolakis, J., Baillie, C., and Fox, G. C. "Investigation of the two-dimensional O(3) model using the overrelaxation algorithm," *Physical Review D*, 43(8):2687-2693, April 1991. COLO-HEP-231, CRPC-TR90078, SCCS-65. Caltech Report C3P-943b. [Apostolakis:91a]
164. Apostolakis, J., Baillie, C. F., and Fox, G. C. "The 2-d O(3) model by overrelaxation," *Nuclear Physics B (Proc. Suppl)*, 20:678, 1991; SCCS-101. [Apostolakis:91b]
165. Fox, G. C. "FortranD as a portable software system for parallel computers," in *Proceedings of Supercomputing USA/Pacific 91*, pages 82-91, 1991. Held in Santa Clara, California. Syracuse University, NPAC Technical Report SCCS-91; CRPC-TR91128. [Fox:91d]
166. Fox, G. C., Hiranandani, S., Kennedy, K., Koelbel, C., Kremer, U., Tseng, C.-W., and Wu, M.-Y. "Fortran D language specification." Technical Report SCCS-42c, Syracuse University, Syracuse, NY, April 1991. CRPC-TR90079. [Fox:91e]
167. Fox, G. C., "Achievements and prospects for parallel computing", *Concurrency: Practice and Experience*, 3(6):725-739, December 1991. Special Issue: Practical Parallel Computing: Status and Prospects. Guest Editors: Paul Messina and Almerico Murli. SCCS-29b, C3P-927b, CRPC-TR90083. Invited talk at *International Conference on Parallel Computing: Achievements, Problems and Prospects*, Anacapri, Italy, June 3-9, 1990. [Fox:91f]
168. Fox, G. C. "The architecture of problems and portable parallel software systems." Technical Report SCCS-134, Syracuse University, NPAC, Syracuse, NY, July 1991. Revised SCCS-78b. [Fox:91g]
169. Fox, G. C., and Mansour, N. "An evolutionary approach to load balancing parallel computations," in *Proceedings of Sixth Distributed Memory Computing Conference*, pages 200-203. IEEE Computer Society Press, May 1991. SCCS-25b. [Fox:91i]
170. Fox, G. C. "Physical computation," *Concurrency: Practice and Experience*, 3(6):627-653, December 1991. Special Issue: Practical Parallel Computing: Status and Prospects. Guest Editors: Paul Messina and Almerico Murli. SCCS-2b, C3P-928b, CRPC-TR90090. [Fox:91j]
171. Fox, G. C. "Lessons from massively parallel architectures on message passing computers," in *The 37th Annual IEEE International Computer Conference, COMPCON '92*. IEEE Computer Society Press, Los Alamitos, CA, December 1991. Held February 24-28, 1992 in San Francisco, California. CRPC-TR91192; SCCS-214. [Fox:91m]
172. Mansour, N., and Fox, G. "Physical optimization methods for allocating data to multicomputer nodes," in *Proceedings of System Design Synthesis Technology Workshop*, pages 169-182, September 1991. Naval Surface Warfare Center, Silver Spring, MD. SCCS-122. [Mansour:91d]
173. Moore, A., Fox, G. C., Allman, J., and Goodman, R. "A VLSI neural network for color constancy," in D. S. Touretzky and R. Lippman, editors, *Advances in Neural Information Processing Systems 3*. Morgan Kaufmann, San Mateo, CA, 1991. SCCS-48. Caltech Report C3P-956. [Moore:91a]
174. Wu, M., Fox, G. C., and Shu, W. "DO and FORALL: Temporal and spatial control structures." Technical Report SCCS-139, Syracuse University, NPAC, Syracuse, NY, 1991. CRPC-TR91189. [Wu:91e]

175. Ahmad, I., Choudhary, A., Fox, G., Parasuram, K., Ponnusamy, R., Ranka, S., and Thakur, R. "Implementation and scalability of Fortran 90D intrinsic functions on distributed memory machines." Technical Report SCCS-256, Syracuse University, NPAC, Syracuse, NY, March 1992. [Ahmad:92a]
176. Ahmad, I., Ghafoor, A., and Fox, G. "Allocation of computations with dynamic structures on hypercube based distributed systems," in *Proceedings of the 1st International Symposium on High-Performance Distributed Computing*, pages 228-237. IEEE Computer Society Press, 1992. SCCS-221c. [Ahmad:92b]
177. Bozkus, Z., Ranka, S., and Fox, G. "Benchmarking the CM-5 multicomputer," in *Frontiers of Massively Parallel Computation*. Syracuse University, NPAC Technical Report SCCS-257, March 1992. [Bozkus:92a]
178. Cheng, G., Faigle, C., Fox, G. C., Furmanski, W., Li, B., and Mills, K. "Exploring AVS for HPDC software integration: Case studies towards parallel support for GIS." Technical Report SCCS-473, Syracuse University, NPAC, Syracuse, NY, March 1992. Paper presented at the 2nd Annual International AVS Conference *The Magic of Science: AVS '93*, Lake Buena Vista, Florida, May 24-26, 1993. [Cheng:92a]
179. Choudhary, A., Fox, G. C., Ranka, S., Hiranandani, S., Kennedy, K., Koelbel, C., and Tseng, C. "Compiling Fortran 77D and 90D for MIMD distributed-memory machines," in *Proceedings of the Fourth Symposium on the Frontiers of Massively Parallel Computation: Frontiers '92*, pages 4-11. IEEE Computer Society Press, Los Alamitos, CA, October 1992. Syracuse University, NPAC Technical Report SCCS-251. CRPC-TR92203. [Choudhary:92c]
180. Choudhary, A., Fox, G., Hiranandani, S., Kennedy, K., Koelbel, C., Ranka, S., and Saltz, J. "A classification of irregular loosely synchronous problems and their support in scalable parallel software systems," in *DARPA Software Technology Conference 1992 Proceedings*, pages 138-149, April 1992. Syracuse Technical Report SCCS-255. [Choudhary:92d]
181. Choudhary, A., Fox, G., Ranka, S., Hiranandani, S., Kennedy, K., Koelbel, C., and Saltz, J. "Software support for irregular and loosely synchronous problems," *Computing Systems in Engineering*, 3(1-4):43-52, 1992. CSE-MS 118, SCCS-297b, CRPC-TR92258. [Choudhary:92e]
182. Choudhary, A., Fox, G., Haupt, T., and Ranka, S. "Which applications can use high performance Fortran and FortranD-industry standard data parallel languages?," in *Proceedings of Fifth Australian Supercomputing Conference*, World Congress Centre, Melbourne, Australia, 117-124, December 1992. SCCS-360, CRPC-TR92264. [Choudhary:92g]
183. Chrisochoides, N., Droegemeir, K., Fox, G., and Mills, K. "A methodology for developing high performance computing models: Storm-scale weather prediction." Technical Report SCCS-402, Syracuse University, NPAC, Syracuse, NY, December 1992. [Chrisochoides:92b]
184. Fox, G., Choudhary, A., Ranka, S., Kennedy, K., and Koelbel, C., "FortranD: Scalable and Portable Software Modules for SIMD and MIMD Distributed Memory Parallel Computers," Published-Presentation No. 4., DARPA HPC High Performance Software PI Meeting, San Diego, CA, January 15-17, 1992.
185. Fox, G. C. "The use of physics concepts in computation," in B. A. Huberman, editor, *Computation: The Micro and the Macro View*, Chapter 3, 103-154. World Scientific Publishing Co. Ltd., 1992. SCCS-237, CRPC-TR92198. Caltech Report C3P-974. [Fox:92c]
186. Fox, G. C. "Parallel computing and education," *Daedalus Journal of the American*

- Academy of Arts and Sciences*, 121(1):111-118, 1992. CRPC-TR91123, SCCS-83. Caltech Report C3P-958. [Fox:92d]
187. Fox, G. C. "Parallel computing in industry-an initial survey," in *Proceedings of Fifth Australian Supercomputing Conference (supplement)*, pages 1-10. Communications Services, Melbourne, December 1992. Held at World Congress Centre, Melbourne, Australia. Syracuse University Technical Report SCCS-302b. CRPC-TR92219. [Fox:92e]
 188. Fox, G. C. "Approaches to physical optimization," in *Proceedings of 5th SIAM Conference on Parallel Processes for Scientific Computation*, J. Dongarra, K. Kennedy, P. Messina, D. Sorensen, and R. Voight, editors, SIAM, pages 153-162, 1992. SCCS-92, CRPC-TR91124. Caltech Report C3P-959. [Fox:92i]
 189. Fox, G. C., Mohamed, G. A., von Laszewski, G., and Parashar, M. "On the parallelization of blocked LU factorization algorithms for distributed memory architectures," in *Supercomputing '92*, pages 170-179. IEEE Computer Society Press, Inc., Minneapolis, MN, November 1992. CRPC-TR92210. SCCS-271c. [Fox:92j]
 190. Fox, G. C., and Balasundaram, V. "Parallel programming as an optimization problem," in *Expert Systems for Scientific Computing*, E. N. Houstis, J. R. Rice, and R. Vichnovetsky, editors, pages 125-156. Elsevier Science Publishers B.V., North-Holland, Amsterdam, 1992. Invited talk given at Second International Conference on Expert Systems for Scientific Computing, Purdue University, April 24, 1990. SCCS-110, CRPC-TR90161. Caltech Report C3P-891. [Fox:92k]
 191. Fox, G. C. "Fox explores prospects for parallel computing," printed article in *Chemical Design Automation News*, 7(6), 14-22. Technical Report SCCS-265b, Syracuse University, NPAC, Syracuse, NY, June 1992. [Fox:92m]
 192. Fox, G., Mohamed, G., von Laszewski, G., Parashar, M., Lin, N., and Yeh, N. "High performance scalable matrix algebra algorithms for distributed memory architectures." Technical Report SCCS-271, Syracuse University, NPAC, Syracuse, NY, April 1992. [Fox:92n]
 193. Hiranandani, S., Kennedy, K., Koelbel, C., Choudhary, A., Fox, G., Ranka, S., and Saltz, J. "A classification of irregular loosely synchronous problems and their support in scalable parallel software systems." Technical Report SCCS-291, Syracuse University, NPAC, Syracuse, NY, April 1992. [Hiranandani:92b]
 194. Kennedy, K., Koelbel, C., Hiranandani, S., Fox, G., Choudhary, A., Haupt, T., Ranka, S., Bordawekar, R., Bozkus, Z., Thakur, R., and Wang, J. "Extended high performance Fortran: Fortran90D." Technical Report SCCS-422, Syracuse University, NPAC, Syracuse, NY, November 1992. [Kennedy:92a]
 195. Li, Y., Wu, M., Shu, W., and Fox, G. "Linear programming algorithms and parallel implementations." Technical Report SCCS-288, Syracuse University, NPAC, Syracuse, NY, May 1992. [Li:92a]
 196. Mansour, N., and Fox, G. C. "Allocating data to multicomputer nodes by physical optimization algorithms for loosely synchronous computations," *Concurrency: Practice and Experience*, 4(7):557-574, 1992. SCCS-350, CRPC-TR92262. [Mansour:92a]
 197. Mansour, N., and Fox, G. "Parallel genetic algorithms with application to load balancing for parallel computation." Technical Report SCCS-74c, Syracuse University, NPAC, Syracuse, NY, June 1992. Published in *Supercomputing Symposium '92*, Montreal, Quebec, Canada. [Mansour:92b]
 198. Mansour, N., and Fox, G. "A comparison of load balancing algorithms for parallel

- computations," in *Proceedings of Supercomputing Symposium '92*, Montreal, Quebec, Canada, June 1992; SCCS-154b. [Mansour:92c]
199. Mansour, N., and Fox, G. C. "Parallel physical optimization algorithms for data mapping," in *Proceedings of the International Conference on Parallel Processing CONPAR '92*, Lyons, France, June 1992. SCCS-240. [Mansour:92e]
 200. Mills, K., Cheng, G., Vinson, M., Ranka, S., and Fox, G. "Software issues and performance of a parallel model for stock option pricing," in *Proceedings of the Fifth Australian Supercomputing Conference*, pages 125-134, December 1992. Held in Melbourne, Australia. SCCS-273b. [Mills:92b]
 201. Mills, K., Fox, G. C., and Heimbach, R. "Implementing spatial environmental models on parallel computing systems," *Computers and Geosciences*, 18(8):1047-1054, December 1992. SCCS-150. [Mills:92d]
 202. Mills, K., Fox, G., McCracken, N., and Mehrota, A. "A comparison of CM Fortran and C* implementations of a climate modeling application on the Connection Machine-2." Technical Report SCCS-262, Syracuse University, NPAC, Syracuse, NY, March 1992. [Mills:92e]
 203. Mills, K., Cheng, G., Vinson, M., Ranka, S., and Fox, G. "Software issues and performance of a stock option pricing model on the Connection Machine-2 and DECmpp-12000." Technical Report SCCS-273, Syracuse University, NPAC, Syracuse, NY, September 1992. [Mills:92f]
 204. Mills, K., Cheng, G., Vinson, M., and Fox, G. "Expressing dynamic, asymmetric, two-dimensional arrays for improved performance on the DECmpp-12000." Technical Report SCCS-261, Syracuse University, NPAC, Syracuse, NY, March 1992. [Mills:92g]
 205. Mohamed, A. G., Fox, G. C., and von Laszewski, G. "Blocked LU factorization on a multiprocessor computer," *Microcomputers in Civil Engineering*, 8(1):45-56, March 1992. An International Journal from Elsevier Applied Science, ASCE 1991 Engineering Mechanics Conference, Mechanics Computing in the 1990s and Beyond; CRPC-TR92212, SCCS-94b. [Mohamed:92a]
 206. Parashar, M., Hariri, S., Mohamed, A., and Fox, G. "A comparative study of blocked LU decomposition on hypercube computers and networked workstations." Technical Report SCCS-295, Syracuse University, NPAC, Syracuse, NY, September 1992. [Parashar:92a]
 207. Parashar, M., Hariri, S., Mohamed, A., and Fox, G. "A requirement analysis for high-performance distributed computing over LAN's," in *1st International Symposium on High-Performance Distributed Computing Over LANS*, pages 142-151. IEEE Computer Society Press, September 1992. SCCS-295b. [Parashar:92b]
 208. Ponnusamy, R., Thakur, R., Choudhary, A., and Fox, G. "Scheduling regular and irregular communication patterns on the CM-5," in *Proceedings of Supercomputing '92*, IEEE Computer Society Press. CRPC-TR92257; Technical Report SCCS-274, Syracuse University, NPAC, Syracuse, NY, April 1992. [Ponnusamy:92a]
 209. Ponnusamy, R., Choudhary, A., and Fox, G. "Communication overhead on CM5: an experimental performance evaluation," in *Proceedings of the Fourth Symposium on the Frontiers of Massively Parallel Computing*, 108-115. CRPC-TR92255. Technical Report SCCS-252, Syracuse University, NPAC, Syracuse, NY, March 1992. [Ponnusamy:92d]
 210. Ranka, S., Fox, G., Saltz, J., and Das, R., "Parallelization of CHARMM molecular dynamics code on multicomputers," Preliminary version, September 1992. Technical Report SCCS-236, Syracuse University, NPAC, Syracuse, NY. [Ranka:92a]

211. Ranka, S., Wang, J., and Fox, G. "Static and runtime algorithms for All-to-Many personalized communication on permutation networks," Technical Report SCCS-340, Syracuse University, NPAC, Syracuse, NY, December 1992. [Ranka:92b]
212. Tallent, J., Hyde, E., Findsen, L., Fox, G., and Birge, R. "Molecular dynamics of the primary photochemical event in rhodopsin," in *Journal of the American Chemical Society*, 114(5):1581-1592. Technical Report SCCS-266, Syracuse University, NPAC, Syracuse, NY, March 1992. [Tallent:92a]
213. Wu, M., and Fox, Geoffrey, C. "Fortran 90D compiler for distributed memory MIMD parallel computers." Technical Report SCCS-88c, Syracuse Center for Computational Science, Syracuse, NY, March 1992. [Wu:92a]
214. Wu, M.-Y., and Fox, G. C. "A test suite approach for Fortran90D compilers for MIMD distributed memory parallel computers," in *Proceedings of Scalable High Performance Computing Conference '92*, IEEE Computer Society Press. CRPC-TR92254. Technical Report SCCS-244, Syracuse University, NPAC, Syracuse, NY, April 1992. [Wu:92b]
215. Ahmad, I., Bordawekar, R., Bozkus, Z., Choudhary, A., Fox, G., Parasuram, K., Ponnusamy, R., Ranka, S., and Thakur, R. "Implementation and scalability of Fortran 90D intrinsic functions on distributed memory machines," in *Hawaii International Conference on System Sciences*, January 1993. Syracuse University, NPAC Technical Report SCCS-669; CRPC-TR92256. [Ahmad:93a]
216. Bozkus, Z., Choudhary, A., Fox, G. C., Haupt, T., and Ranka, S. "Fortran 90D/HPF compiler for distributed memory MIMD computers: Design, implementation, and performance results," in *Proceedings of Supercomputing '93*, November, 1993, p. 351. IEEE Computer Society Press. Syracuse University, NPAC Technical Report SCCS-498. [Bozkus:93a]
217. Bozkus, Z., Choudhary, A., Fox, G. C., Haupt, T., and Ranka, S. "A compilation approach for Fortran 90D/HPF compilers on distributed memory MIMD computers," in *Proceedings of the Sixth Annual Workshop on Languages and Compilers for Parallel Computing*. Lecture Notes in Computer Science, Springer-Verlag, pp. 200-215. U. Banerjee, D. Gelernter, A. Nicolau, and D. Padua (editors). Syracuse University, NPAC Technical Report SCCS-499, August 1993. [Bozkus:93c]
218. Bozkus, Z., Choudhary, A., Fox, G., Ranka, S., and Wu, M. "Fortran90D compiler for distributed memory MIMD parallel computers." Technical Report SCCS-432, Syracuse University, NPAC, Syracuse, NY, January 1993. [Bozkus:93d]
219. Bozkus, Z., Choudhary, A., Fox, G., Haupt, T., and Ranka, S. "Compiling HPF for distributed memory MIMD computers," in *Impact of Compilation Technology on Computer Architecture*, pp. 191-217. Kluwer Academic Publishers, David Lilja, and Peter Bard (editors). Syracuse University, NPAC Technical Report SCCS-507, October 1993. [Bozkus:93e]
220. Cheng, G., Mills, K., and Fox, G. "An interactive visualization environment for financial modeling on heterogeneous computing systems," in R. F. Sincovec, editor, *Proceedings of the 6th SIAM Conference on Parallel Processing for Scientific Computing*. SIAM, Norfolk, VA, March 1993. Syracuse University Technical Report SCCS-403. [Cheng:93c]
221. Chien, A., and Fox, G. "High performance computing: Architectures, programming models, current challenges." CRPC tutorial at Urbana Illinois. Technical Report SCCS-574, Syracuse University, NPAC, Syracuse, NY, November 1993. [Chien:93a]
222. Choudhary, A., Fox, G., Hiranandani, S., Kennedy, K., Koelbel, C., Ranka, S., and

- Tseng, C. "Unified compilation of Fortran 77D and 90D." Technical Report SCCS-570, Syracuse University, NPAC, Syracuse, NY, November 1993. [Choudhary:93a]
223. Chrisochoides, N., fox, G., and Thompson, J. "MENUS-PGG: mapping environment for numerical unstructured and structures-parallel grid generation." Technical Report SCCS-472, Syracuse University, NPAC, Syracuse, NY, March 1993. [Chrisochoides:93b]
224. Coddington, P., Fox, G. C., Han, L., Harris, G., and Marinari, E. "Optimization of a dynamic random surface code for RISC processor." Technical Report SCCS-481, Syracuse University, NPAC, Syracuse, NY, April 1993. [Coddington:93a]
225. Coptly, N., Ranka, S., Fox, G., and Shankar, R. "Solving the region growing problem on the Connection Machine," in *Proceedings of the 22nd International Conference on Parallel Processing*, Volume 3, pages 102-105, 1993. Syracuse University, NPAC Technical Report SCCS-397b. [Coptly:93a]
226. Faigle, C., Fox, G., Furmanski, W., Niemiec, J., and Simoni, D. "Integrating virtual environments with high performance computing." Technical Report SCCS-586, Syracuse University, NPAC, Syracuse, NY, January 1993. [Faigle:93a]
227. Fox, G. C., and Coddington, P. D. "An overview of high performance computing for the physical sciences," in *Proceedings of Mardi Gras Conference: High Performance Computing and Its Applications in the Physical Sciences*. World Scientific, February 1993. Syracuse University, NPAC Technical Report SCCS-488. [Fox:93a]
228. Fox, G., Bogucz, E., Jones, D., Mills, K., and Podgorny, M. "InfoMall: a scalable organization for the development of HPCC software and systems." Technical Report SCCS-531, Syracuse University, NPAC, Syracuse, NY, September 1993. Unpublished. [Fox:93c]
229. Fox, G. "Parallel computing and education," in N. Metropolis and G. Rota, editors, *A New Era in Computation*, pages 111-118. The MIT Press, Cambridge, MA, 1993. SCCS-83b. [Fox:93d]
230. Fox, G. C., and Coddington, P. "Parallel computers and complex systems," in *Complex Systems: From Biology to Computation*, pages 272-287. Cambridge University Press, 1993. Syracuse University, NPAC Technical Report SCCS-370b. [Fox:93e]
231. Fox, G. C. "Statistics for physicists." Technical Report SCCS-443, Syracuse University, NPAC, Syracuse, NY, April 1993. [Fox:93f]
232. Fox, G. "NYNET issues concerning video on demand and other interactive consumer products." Technical Report SCCS-578 (unpublished), Syracuse University, NPAC, Syracuse, NY, September 1993. [Fox:93h]
233. Fox, G., Furmanski, W., Hornberger, P., Niemiec, J., and Simoni, D. "Towards interactive HPCC: high performance Fortran interpreter." Technical Report SCCS-587, Syracuse University, NPAC, Syracuse, NY, October 1993. [Fox:93i]
234. Fox, G., Impett, R., Leskiw, D., Montry, G., Nicholas, H., Pottle, M., Ranka, S., Salas, M., Salmon, J., Thompkins, T., and Young, J. "Impact of grand challenge applications on HPCC software and tools," in P. Messina and T. Sterling, editors, *System Software and Tools for High Performance Computing Environments*, chapter 3, pages 25-33. SIAM, Philadelphia, April 1993. Syracuse University Technical Report SCCS-332b. [Fox:93j]
235. Furmanski, W., Faigle, C., Fox, G., Niemiec, J., and Simoni, D. "Integrating virtual environments with high performance computing." Technical Report SCCS-412, Syracuse University, NPAC, Syracuse, NY, January 1993. Paper presented at the 1st IEEE *Virtual Reality Annual International Symposium*, VRAIS '93. [Furmanski:93c]
236. Furmanski, W., Faigle, C., Fox, G. C., Niemiec, J., and Simoni, D. "System requirements

- for dynamic load balancing in homogeneous platforms for heterogeneous HPDC: Case study using MOVIE." Technical Report SCCS-554, Syracuse University, NPAC, Syracuse, NY, 1993. [Furmanski:93d]
237. Furmanski, W., Faigle, C., Fox, G., Niemiec, J., and Simoni, D. "Supercomputing and VR networking." Technical Report SCCS-555, Syracuse University, NPAC, Syracuse, NY, November 1993. [Furmanski:93g]
 238. Hariri, S., and Fox, G. "Trends toward virtual computing environment." Technical Report SCCS-455, Syracuse University, NPAC, Syracuse, NY, March 1993. [Hariri:93b]
 239. Hariri, S., Fox, G., Thiagarajan, B., Jadav, D., and Parashar, M. "Parallel software benchmarks for high performance BMC3/IS systems." Technical Report SCCS-490, Syracuse University, NPAC, Syracuse, NY, August 1993. [Hariri:93c]
 240. Hariri, S., Park, J., Yu, F., Parashar, M., and Fox, G. "A message passing interface for parallel and distributed computing," in *Proceedings of the Second International Symposium on High Performance Distributed Computing*, pages 84-91. IEEE Computer Society Press, July 1993. Syracuse University, NPAC Technical Report SCCS-522. [Hariri:93d]
 241. Mansour, N., Ponnusamy, R., Choudhary, A., and Fox, G. C. "Graph contraction for physical optimization methods: A quality-cost tradeoff for mapping data on parallel computers." Technical Report SCCS-474, Syracuse University, NPAC, Syracuse, NY, March 1993. [Mansour:93b]
 242. Mills, K., and Fox, G. C. "HPCC applications development and technology transfer to industry," in I. D. Scherson, editor, *The New Frontiers: A Workshop on Future Directions of Massively Parallel Processing*, pages 58-65, Los Alamitos, CA, October 1993. IEEE Computer Society Press. SCCS-491. [Mills:93a]
 243. Parashar, M., Hariri, S., Haupt, T., and Fox, G. "An integrated software development model for heterogeneous high performance computing." Technical Report SCCS-453, Syracuse University, NPAC, Syracuse, NY, January 1993. [Parashar:93a]
 244. Parashar, M., Hariri, S., T., H., and Fox, G. "An interpretive framework for application performance prediction." Technical Report SCCS-479, Syracuse University, NPAC, Syracuse, NY, April 1993. [Parashar:93b]
 245. Ponnusamy, R., Mansour, N., Choudhary, A., and Fox, G. C. "Mapping realistic data sets on parallel computers," in *Proceedings of International Parallel Processing Symposium, IPPS '93*, pages 123-128, April 1993. CRPC-TR92265, SCCS-366. [Ponnusamy:93a]
 246. Ranka, S., Kaddoura, M., Wang, A., and Fox, G. "Heterogeneous computing on heterogeneous systems: Software and application issues." Technical Report SCCS-525, Syracuse University, NPAC, Syracuse, NY, August 1993. [Ranka:93a]
 247. Rose, K., Gurewitz, E., and Fox, G. C. "Constrained clustering as an optimization method," *IEEE Trans. on Pattern Recognition and Machine Intelligence*, 15(8):785-794, August 1993. C3P-919; SCCS-21. [Rose:93a]
 248. Stein, J., and Fox, G. C. "Dependence analysis for outer loop parallelization of existing Fortran-77 programs," *Concurrency: Practice and Experience*, 5(8):659-674, December 1993. SCCS-339b; CRPC-TR92261. [Stein:93a]
 249. Ahmad, I., Ghafoor, A., and Fox, G. "Hierarchical scheduling of dynamic parallel computations on hypercube multicomputers," *Journal of Parallel and Distributed Computing*, 20(3), March 1994. Syracuse University, NPAC Technical Report SCCS-221b. [Ahmad:94b]
 250. Anupindi, K., Skjellum, A., Coddington, P., and Fox, G. "Parallel differential-algebraic

- equations (DAE) solvers for power system transient stability analysis." Technical Report SCCS-563, Syracuse University, NPAC, Syracuse, NY, March 1994. [Anupindi:94a]
251. Bogucz, E., Fox, G., Haupt, T., Hawick, K., and Ranka, S. "Preliminary evaluation of high-performance Fortran as a language for computational fluid dynamics." Technical Report SCCS-625, Syracuse University, NPAC, Syracuse, NY, June 1994. Published in *Proc. AIAA 25th Computational Fluid Dynamics Conference*, Colorado Springs, AIAA 94-2262. [Bogucz:94a]
252. Bozkus, Z., Choudhary, A., Fox, G., Haupt, T., Ranka, S., and Wu, M.-Y. "Compiling Fortran 90D/HPF for distributed memory MIMD computers," in *Journal of Parallel and Distributed Computing*, pp 15-26 (1994). Syracuse University, NPAC Technical Report SCCS-444, March 1993. [Bozkus:94a]
253. Cheng, G., Fox, G., Mills, K., and Podgorny, M. "Developing interactive PVM-based parallel programs on distributed computing systems with AVS framework." Technical Report SCCS-611, Syracuse University, NPAC, Syracuse, NY, January 1994. Published in *Proceedings of the 3rd Annual International AVS Conference, JOIN THE REVOLUTION: AVS'94*, held in Boston, MA. [Cheng:94a]
254. Cheng, G., Lu, Y., Fox, G., Mills, K., and Haupt, T. "An interactive remote visualization environment for an electromagnetic scattering simulation on a high performance computing system." Technical Report SCCS-573, Syracuse University, NPAC, Syracuse, NY, January 1994. Published in *Proc. Supercomputing 1993*, pages 317-326. [Cheng:94b]
255. Cheng, G., Hawick, K., Mortensen, G., and Fox, G. "Distributed computational electromagnetics systems." Technical Report SCCS-635, Syracuse University, NPAC, Syracuse, NY, August 1994. Published in *Proceedings of the 7th SIAM Conference on Parallel Processing for Scientific Computing* held February 15-17, 1995. [Cheng:94c]
256. Cheng, G., Fox, G., and Mills, K. "Integrating multiple programming paradigms on Connection Machine CM5 in a dataflow-based software environment (draft)." Technical Report SCCS-548, Syracuse University, NPAC, Syracuse, NY, October 1994. [Cheng:94d]
257. Cheng, G., Fox, G., and Hawick, K. "A scalable paradigm for effectively-dense matrix formulated applications," volume 797 of *Lecture Notes in Computer Science*, pages 202-210. Springer-Verlag, April 1994. Proceedings of the European Conference and Exhibition on High-Performance Computing and Networking (HPCN Europe) 1994, Munich, Germany; Syracuse University Technical Report SCCS-580. [Cheng:94e]
258. Choudhary, A., Dincer, K., Fox, G., and Hawick, K. "Conjugate gradient algorithms implemented in high performance Fortran." Technical Report SCCS-639, Syracuse University, NPAC, Syracuse, NY, October 1994. [Choudhary:94c]
259. Chrisochoides, N., Haupt, T., and Fox, G. "Computational toolkit for colliding black holes and CFD." Technical Report SCCS-626, Syracuse University, NPAC, Syracuse, NY, July 1994. [Chrisochoides:94a]
260. Chrisochoides, N., Mansour, N., and Fox, G. "Performance evaluation of load balancing algorithms for parallel single-phase iterative PDE solvers," in *Proceedings of the Scalable High-Performance Computing Conference*, pages 764-772, 1994. Syracuse University, NPAC, Technical Report SCCS-551b. [Chrisochoides:94h]
261. Chrisochoides, N., Fox, G., and Thompson, J. "Parallel grid generation on distributed memory MIMD machines for three-dimensional general domains." Technical Report SCCS-672, Syracuse University, NPAC, Syracuse, NY, December 1994. [Chrisochoides:94d]
262. Chrisochoides, N., Chatterjee, A., Rajani, V., and Fox, G. "Parallel structured grid

- generation." Technical Report SCCS-674, Syracuse University, NPAC, Syracuse, NY, March 1994. [Chrisochoides:94c]
263. Coptý, N., Ranka, S., Fox, G., and Shankar, R. "A data parallel algorithm for solving the region growing problem on the Connection Machine," *Journal of Parallel and Distributed Computing*, 21(1), 1994. Syracuse University, NPAC Technical Report SCCS-596. [Coptý:94a]
264. del Rosario, J. M., and Fox, G. "Constant bit rate network transmission of variable bit rate continuous media in video-on-demand servers." Technical Report SCCS-677, Syracuse University, NPAC, Syracuse, NY, December 1994. [Rosario:94a]
265. Dincer, K., Bozkus, Z., Ranka, S., and Fox, G. "Evaluating the performance of CM-5 multicomputer." Technical Report SCCS-662, Syracuse University, NPAC, Syracuse, NY, August 1994. [Dincer:94a]
266. Fox, G., and Mills, K. *Information Processing and Opportunities for HPCN Use in Industry*, pages 1-14. Number 796 in *Lecture Notes in Computer Science*. Springer-Verlag, New York, April 1994. Proceedings of HPCN Europe 1994, "High Performance Computing and Networking." SCCS-610. [Fox:94b]
267. Fox, G., and Mills, K. "Information processing and HPCC applications in industry," in *Proceedings of Annual 1994 Dual-use Conference*, Utica, NY, May 1994. IEEE Mohawk Valley. SCCS-598. [Fox:94c]
268. Fox, G., Hariri, S., Chen, R., Mills, K., and Furmanski, W. "Applications and enabling technology for NYNET upstate corridor." Technical Report SCCS-465, Syracuse University, NPAC, Syracuse, NY, January 1994. [Fox:94d]
269. Fox, G., Furmanski, W., Hawick, K., and Leskiw, D. "Exploration of the InfoMall concept." Technical Report SCCS-634, Syracuse University, NPAC, Syracuse, NY, August 1994. [Fox:94f]
270. Fox, G., and Hawick, K. "An applications perspective on high performance Fortran." Technical Report SCCS-641, Syracuse University, NPAC, Syracuse, NY, November 1994. [Fox:94g]
271. Fox, G., Hawick, K., Podgorny, M., and Mills, K. "The electronic InfoMall-HPCN enabling industry and commerce," volume 919 of *Lecture Notes in Computer Science*, pages 360-365. Springer-Verlag, November 1994. Syracuse University Technical Report SCCS-665. [Fox:94h]
272. Fox, G. "Involvement of industry in the national high performance computing and communication enterprise," in *Developing a Computer Science Agenda for High Performance Computing*, U. Vishkin (editor), ACM Press. Technical Report SCCS-716, Syracuse University, NPAC, Syracuse, NY, May 1994. [Fox:94i]
273. Fox, G., and Hawick, K. "High performance Fortran for applications." Technical Report SCCS-524, Syracuse University, Syracuse, NY, August 1994. [Fox:94j]
274. Fox, G., and Mills, K. "High performance computing and communication-yet another revolution in education," in *Proceedings of the Fourth Annual 1994 Dual-use Technologies and Applications Conference*, pages 220-228. IEEE Mohawk Valley, May 1994. Syracuse University, NPAC, Technical Report SCCS-618. [Fox:94k]
275. Hariri, S., and Fox, G. "Applications and enabling technology for NYNET upstate corridor." Technical Report SCCS-642, Syracuse University, NPAC, Syracuse, NY, November 1994. [Hariri:94a]
276. Hawick, K., Bogucz, E., Degani, A., and Fox, G. "High performance Fortran for

- computational fluid dynamics applications." Technical Report SCCS-638, Syracuse University, NPAC, Syracuse, NY, September 1994. [Hawick:94a]
277. Hawick, K., and Fox, G. "Exploiting high performance Fortran for computational fluid dynamics," volume 919 of *Lecture Notes in Computer Science*, pages 413-419. Springer-Verlag, May 1995. International Conference on High Performance Computing and Networking, HPCN Europe 1995, Milan; Syracuse University Technical Report SCCS-661. [Hawick:94b]
278. Koester, D., Ranka, S., and Fox, G. "Parallel Choleski factorization of block-diagonal bordered sparse matrices." Technical Report SCCS-604, Syracuse University, NPAC, Syracuse, NY, January 1994. [Koester:94a]
279. Koester, D., Ranka, S., and Fox, G. "Power systems transient stability-a grand computing challenge." Technical Report SCCS-549, Syracuse University, NPAC, Syracuse, NY, October 1994. [Koester:94c]
280. Koester, D., Ranka, D., and Fox, G. "Parallel LU factorization of block-diagonal-bordered sparse matrices." Technical Report SCCS-550, Syracuse University, NPAC, Syracuse, NY, October 1994. [Koester:94d]
281. Koester, D., Ranka, S., and Fox, G. "Parallel block-diagonal-bordered sparse linear solvers for electrical power system applications." Technical Report SCCS-552, Syracuse University, NPAC, Syracuse, NY, October 1994. [Koester:94e]
282. Koester, D., Ranka, S., and Fox, G. "Parallel direct methods for block-diagonal-bordered sparse matrices." Technical Report SCCS-679, Syracuse University, NPAC, Syracuse, NY, December 1994. [Koester:94f]
283. Koester, D., Ranka, S., and Fox, G. "A parallel Gauss-Seidel algorithm for sparse power systems matrices," in *Proceedings of Supercomputing 94*, pages 184-193. IEEE Computer Society Press, November 1994. Syracuse University, NPAC, Technical Report SCCS-630. [Koester:94h]
284. Leung, A., Skjellum, A., and Fox, G. "Concurrent DASSL: a second-generation DAE solver library," in A. Skjellum, editor, *Scalable Parallel Libraries Conference*, 1994. Syracuse University, NPAC Technical Report SCCS-562. [Leung:94a]
285. Mansour, N., and Fox, G. "Parallel physical optimization algorithms for allocating data to multicomputer nodes," *Journal of Supercomputing*, 8(1), March 1994. SCCS-305; CRPC-TR92259. [Mansour:94b]
286. Mansour, N., and Fox, G. C. "Allocating data to distributed-memory multiprocessors by genetic algorithms," *Concurrency: Practice and Experience*, 6(6):485-504, September 1994. Technical Report SCCS-349, Syracuse University, NPAC, Syracuse, NY. [Mansour:94a]
287. Mills, K., and Fox, G. "InfoMALL: an innovative strategy for high-performance computing and communications applications development," *Internet Research*, 4:31-45, 1994. SCCS-530. [Mills:94a]
288. Mills, K., Fox, G., Shelly, B., and Bossert, S. "The living textbook: A demonstration of information on demand technologies in education." Technical Report SCCS-647, Syracuse University, NPAC, Syracuse, NY, October 1994. [Mills:94c]
289. Parashar, M., Hariri, S., Haupt, T., and Fox, G. "Interpreting the performance of HPF/Fortran 90D," in *Proceedings of Supercomputing 94*, pages 743-752. IEEE Computer Society Press, November 1994. Syracuse University, NPAC, Technical Report SCCS-645. [Parashar:94b]
290. Ponnusamy, R., Thakur, R., Choudhary, A., Velamakanni, K., Bozkus, Z., and Fox, G.

- Experimental performance evaluation of the CM-5," *Journal of Parallel and Distributed Computing*, 19:192-202, March 1994. SCCS-616. [Ponnusamy:94a]
291. Ranka, S., Wang, J.-C., Fox, G. C. "Static and runtime algorithms for all-to-many personalized communication on permutation networks," in *IEEE Transactions on Parallel and Distributed Systems*, 5(12), 1266-1274, December 1994. Syracuse University, NPAC, Technical Report SCCS-811. [Ranka:94a]
292. Rousselle, P., Tymann, P., Hariri, S., and Fox, G. "The virtual computing environment," in *Proceedings of the Third IEEE International Symposium on High Performance Distributed Computing*, pages 7-14. IEEE Computer Society Press, April 1994. Syracuse University, NPAC, Technical Report SCCS-646. [Rousselle:94c]
293. Thakur, R., Choudhary, A., and Fox, G. "Runtime array redistribution in HPF programs," in *Proceedings of the Scalable High-Performance Computing Conference*, pages 309-316, 1994. Syracuse University, NPAC, Technical Report SCCS-601. [Thakur:94a]
294. Thakur, R., Choudhary, A., and Fox, G. "Complete exchange on a wormhole routed mesh," in *Proceedings of the Second International Workshop on Modeling, Analysis, and Simulation of Computer and Telecommunication Systems, MASCOTS '94*, pages 131-135, 1994. Syracuse University, NPAC, Technical Report SCCS-505b. [Thakur:94e]
295. Browne, S., Dongarra, J., Fox, G., Hawick, K., Kennedy, K., Stevens, R., Olson, R., and Rowan, T. "Distributed information management in the national HPCC software exchange." Technical Report SCCS-722, Syracuse University, NPAC, Syracuse, NY, July 1995. [Browne:95a]
296. Browne, S., Dongarra, J., Green, S., Moore, K., Rowan, T., Wade, R., Fox, G., Hawick, K., Pool, J., Stevens, R., Olson, B., and Disz, T. "The national HPCC software exchange," *IEEE Computational Science and Engineering*, 2(2):62-69, Summer 1995. Syracuse University, NPAC, Technical Report SCCS-712. [Browne:95c]
297. Degani, A. and Fox, G. "Application of parallel multigrid methods to unsteady flow: A performance evaluation." Technical Report SCCS-738, Syracuse University, NPAC, Syracuse, NY, 1995. [Degani:95a]
298. Degani, A., and Fox, G. "Parallel multigrid computation of the unsteady incompressible Navier-Stokes equations." Technical Report SCCS-739, Syracuse University, NPAC, Syracuse, NY, 1995. [Degani:95b]
299. del Rosario, J. M., Podgorny, M., and Fox, G. "m-Frame granular transport and buffer requirements for VBR encoded media in VOD servers." Technical Report SCCS-733, Syracuse University, NPAC, Syracuse, NY, March 1995. [Rosario:95a]
300. Fox, G., Furmanski, W., Chen, M., Rebbi, C., and Cowie, J. "WebWork: Integrated programming environment tools for national and grand challenges." Technical Report SCCS-715, Syracuse University, NPAC, Syracuse, NY, June 1995. Joint Boston-CSC-NPAC project plan to develop WebWork. [Fox:95a] <http://www.old-npac.org/techreports/html/0700/abs-0715.html>
301. Fox, G., Furmanski, W., Hawick, K., and Leskiw, D. "Exploration of the InfoMall concept-building on the electronic InfoMall." Technical Report SCCS-711, Syracuse University, NPAC, Syracuse, NY, May 1995. [Fox:95b]
302. Fox, G. "Software and hardware requirements for some applications of parallel computing to industrial problems." Technical Report SCCS-717, Syracuse University, NPAC, Syracuse, NY, June 1995. To appear in ICASE book. [Fox:95c]
303. Fox, G., and Furmanski, W. "The use of the national information infrastructure and high

- performance computers in industry," in *Proceedings of the Second International Conference on Massively Parallel Processing using Optical Interconnections*, pages 298-312, October 1995. IEEE Computer Society Press, Los Alamitos, CA. Syracuse University Technical Report SCCS-732. [Fox:95d] <http://www.old-npac.org/techreports/html/0700/abs-0732.html>
304. Fox, G. "Basic Issues and Current Status of Parallel Computing." Technical Report SCCS-736, Syracuse University, NPAC, Syracuse, NY, November 1995. [Fox:95e]
305. Fox, G., Bogucz, E., Jones, D., Mills, K., Podgorny, M., and Hawick, K. "A scalable organisation for the development of high performance computing and communications software and systems." Technical Report SCCS-721, Syracuse University, NPAC, Syracuse, NY, April 1995. [Fox:95h]
306. Fox, G., Hawick, K., Haupt, T., Bogucz, E., and Roe, K. "Application of high performance Fortran." Technical Report SCCS-727, Syracuse University, NPAC, Syracuse, NY, July 1995. [Fox:95i]
307. Fox, G., Hawick, K., and Ranka, S. "HPF templates for data parallel applications." Technical Report SCCS-734, Syracuse University, NPAC, Syracuse, NY, September 1995. [Fox:95j]
308. Fox, G., Hawick, K., and White, A. "Characteristics of HPC scientific and engineering applications." Technical Report SCCS-741, Syracuse University, NPAC, Syracuse, NY. Report of Working Group 2 of the *Second Pasadena Workshop on System Software and Tools for High Performance Computing Environments*, 1995. [Fox:95k]
309. Fox, G. C., Furmanski, W., Hornberger, P., Niemiec, J., and Simoni, D. "Implementing televirtuality," in R. A. Earnshaw, J. A. Vince, and H. Jones, editors, *Virtual Reality Applications*, chapter 7, pages 91-122. Academic Press Ltd., 1995. Syracuse University, NPAC, Technical Report SCCS-718. [Fox:95l]
310. Hariri, S., Park, S., Reddy, R., Subramanyan, M., Yadav, R., Fox, G., and Parashar, M. "Software tool evaluation methodology," in *Proceedings of the 15th International Conference on Distributed Computing Systems*, pages 3-10, 1995. Syracuse University, NPAC, Technical Report SCCS-643b. [Hariri:95b]
311. Hawick, K., Dincer, K., Robinson, G., and Fox, G. "Conjugate gradient algorithms in Fortran 90 and high performance Fortran." technical Report SCCS-691, Syracuse University, NPAC, Syracuse, NY, February 1995. [Hawick:95a]
312. Hawick, K., Bogucz, E., Degani, A., Fox, G., and Robinson, G. "CFD algorithms in high performance Fortran." Technical Report SCCS-737, Syracuse University, NPAC, Syracuse, NY, 1995. [Hawick:95d]
313. Mills, K., Fox, G., Coddington, P., Mihalas, B., Podgorny, M., Shelly, B., and Bossert, S. "The living textbook and the K-12 classroom of the future." Technical Report SCCS-731, Syracuse University, NPAC, Syracuse, NY, July 1995. [Mills:95a]
314. Ou, C.-W., Ranka, S., and Fox, G. "Fast and parallel mapping algorithms for irregular problems." Technical Report SCCS-729, Syracuse University, NPAC, Syracuse, NY, July 1995. [Ou:95a]
315. Ponnusamy, R., Hwang, Y.-S., Das, R., Saltz, J., Choudhary, A., and Fox, G. "Supporting Irregular Distributions Using Data-Parallel Languages" in *IEEE Parallel and Distributed Technology*, 3(1), 12-24, 1995. Syracuse University, NPAC, Technical Report SCCS-809. [Ponnusamy:95a]
316. Ponnusamy, R., Saltz, J., Choudhary, A., Hwang, Y.-S., Fox, G. "Runtime Support and Compilation Methods for User-Specified Irregular Data Distributions" in *IEEE Transactions*

- on Parallel and Distributed Systems*, 6(8), 815-831, August 1995. Syracuse University, NPAC, Technical Report SCCS-810. [Ponnusamy:95b]
317. Robinson, G., Hawick, K., and Fox, G. "Fortran 90 and high performance Fortran for dense matrix-formulated applications." Technical Report SCCS-709, Syracuse University, NPAC, Syracuse, NY, May 1995. [Robinson:95a]
 318. Yadav, R., Reedy, R., Hariri, S., and Fox, G. "A multithreaded message passing environment for ATM LAN/WAN." Technical Report SCCS-690, Syracuse University, NPAC, Syracuse, NY, February 1995. [Yadav:95a]
 319. Cheng, G., Sokolowski, P., Podgorny, M., and Fox, G. "WWW search systems using SQL*TextRetrieval and Parallel Server for structured and unstructured data." Technical Report SCCS-752, Syracuse University, NPAC, Syracuse, NY, January 1996. [Cheng:96a]
 320. Dincer, K., Hawick, K., Choudhary, A., and Fox, G. "High Performance Fortran and possible extensions to support conjugate gradient algorithms," in *Proceedings of Fifth IEEE International Symposium on High Performance Distributed Computing*, pages 69-77, Syracuse, NY, August 1996. Syracuse University, NPAC Technical Report SCCS-703b. [Dincer:96c]
 321. Fox, G. and Mills Kim, "Web Technologies and the Potential for Innovation in Distance Education", *International Journal of Modern Physics C*, Vol 8, pp 107-19 (1966).
 322. Fox, G. C. "A tale of two applications on the NII" in *IEEE Dual-Use Technologies and Applications*, 73-78, June 1996. Technical Report SCCS-756, Syracuse University, NPAC, Syracuse, NY. [Fox:96a]
 323. Fox, G. C. "An application perspective on high-performance computing and communications" (to be published, RCI, Ltd.). Technical Report SCCS-757, Syracuse University, NPAC, Syracuse, NY, April 1996. [Fox:96b]
 324. Fox, G. C., and Furmanski, W. "SNAP, Crackle, WebWindows!" in *RCI, Ltd., Management White Paper*, Volume 29. Technical Report SCCS-758, Syracuse University, NPAC, Syracuse, NY, April 1996. [Fox:96c] <http://www.old-npac.org/techreports/html/0750/abs-0758.html>
 325. G. C. Fox and W. Furmanski, "Prototyping a WebVM based WebFlow Environment for Distributed Computing and Visual Programming", in *Proceedings of the IEEE Conference on Dual-Use Technologies and Applications, Syracuse, NY*, June 1996. <http://www.old-npac.org/projects/webspace/doc/webflow/dual96.html>
 326. Fox, G. C., and Mills, K. "Opportunities for HPCC use in industry: Opportunities for a new software industry in HPCC," in A. Y. Zomaya, editor, *Parallel Computing: Paradigms and Applications*, chapter 17, pages 455-479. International Thomson Computer Press, 1996. Syracuse University, NPAC, Technical Report SCCS-617. [Fox:96d]
 327. Fox, G. "Software for HPCC Petaflops Architectures-A White Paper." Technical Report SCCS-783, Syracuse University, NPAC, Syracuse, NY, December 1996. [Fox:96f]
 328. Fox, G., and Furmanski, W. "Towards Web/Java-based High Performance Distributed Computing-An Evolving Virtual Machine," in *Proceedings of the 5th IEEE International Symposium on High Performance Distributed Computing*, pages 308-317, 1996. Syracuse University, NPAC, Technical Report SCCS-812. [Fox:96g] <http://www.old-npac.org/projects/webspace/doc/hpdc5/hpdc5.html>
 329. Yau, H., Leung, A., Furmanski, W., and Fox, G. "Exploration of Emerging HPCN Technologies for Web-based Distributed Computing." Technical Report SCCS-755, Syracuse University, NPAC, Syracuse, NY, February 1996. [Yau:96a]

330. Beca, L., Cheng, G., Fox, G., Jurga, T., Olszewski, K., Podgorny, M., Sokolowski, P., and Walczak, K. "Java Enabling Collaborative Education Health Care and Computing," *Concurrency: Practice and Experience*, 9:6, 521-533, June 1997. Technical Report SCCS-791, Syracuse University, NPAC, Syracuse, NY. [Beca:97a]
331. Beca, L., Cheng, G., Fox, G., Jurga, T., Olszewski, K., Podgorny, M., and Walczak, K. "Web Technologies for Collaborative Visualization and Simulation" in *Proceedings of the Eighth SIAM Conference on Parallel Processing for Scientific Computing*, March 1997. Technical Report SCCS-786, Syracuse University, NPAC, Syracuse, NY. [Beca:97b]
332. Bernholdt, D., and Fox, G. "Internet Resource Discovery for Chemistry-Where are Those Vast Untapped Resources?" in *Trends in Analytical Chemistry*, 16:5, 230-233, May 1997. Technical Report SCCS-778, Syracuse University, NPAC, Syracuse, NY. [Bernholdt:97a]
333. Bhatia, D., Burzevski, V., Camuseva, M., Fox, G., Premchandran, G., and Furmanski, W. "WebFlow-A Visual Programming Paradigm for Web/Java-based Coarse Grain Distributed Computing," *Concurrency: Practice and Experience*, 9:6, 555-577, June 1997. Technical Report SCCS-787, Syracuse University, NPAC, Syracuse, NY. [Bhatia:97a] <http://www.old-npac.org/projects/webspace/doc/cpande/feb97/feb97.ps>
334. Carpenter, B., Chang, Y., Fox, G., Leskiw, D., and Li, X. "Experiments with HP Java," *Concurrency: Practice and Experience*, 9:6, 633-648, June 1997. Technical Report SCCS-794, Syracuse University, NPAC, Syracuse, NY. [Carpenter:97a] <http://www.old-npac.org/projects/pcrc/papers/exptsHPJava/experiments/experiments.html>
335. Carpenter, B., Zhang, G., Fox, G., Wen, Y., and Li, X. "Introduction to Java-Ad," November 14, 1997. Presented at Supercomputing '97. Technical Report SCCS-799, Syracuse University, NPAC, Syracuse, NY. [Carpenter:97b] <http://www.old-npac.org/projects/pcrc/reports/JavaAd/JavaAd/JavaAd.html>
336. Carpenter, B., Chang, Y.-J., Fox, G., and Li, X. "Java as a Language for Scientific Parallel Programming", in *10th International Workshop on Languages and Compilers for Parallel Computing*, and to appear in *Lecture Notes in Computer Science*. Technical Report SCCS-806, Syracuse University, NPAC, Syracuse, NY, 1997. [Carpenter:97f]
337. Dincer, K., and Fox, G. "Using Java and JavaScript in the Virtual Programming Laboratory: A Web-based Parallel Programming Environment," *Concurrency: Practice and Experience*, 9:6, 485-508, June 1997. Technical Report SCCS-788, Syracuse University, NPAC, Syracuse, NY. [Dincer:97a]
338. Dincer, K. and Fox, G. "Design Issues in Building Web-based Programming Environments," in *The Sixth IEEE International Symposium on High Performance Distributed Computing*, 283-292, 1997. Syracuse University, NPAC, Technical Report SCCS-789. [Dincer:97b]
339. Elmohamed, S., Coddington, P., and Fox, G. "A Comparison of Annealing Techniques for Academic Course Scheduling." Technical Report SCCS-777, Syracuse University, NPAC, Syracuse, NY, January 1997. [Elmohamed:97a] in *Edmund Burke and Michael Carter (eds.), "Practice and theory of Automated Timetabling II", Lecture Notes in Computer Science*, Vol. 1408, pages 92-112, Springer-Verlag 1998.
340. Elmohamed, S., Coddington, P., and Fox, G. "Academic Scheduling using Simulated Annealing with a Rule-based Preprocessor." Technical Report SCCS-781, Syracuse University, NPAC, Syracuse, NY, February 1997. [Elmohamed:97b]
341. Elmohamed, S., Fox, G., and Coddington, P. "Mean Field Annealing and non-Euclidean

- Combinatorial Optimization Problems: The Case of Academic Course Scheduling," (Part I: Algorithms, Part II: Implementations). Technical Report SCCS-782, Syracuse University, NPAC, Syracuse, NY, February 1997. [Elmohamed:97c]
342. Fox, G., and Furmanski, W. "Petaops and Exaops: Supercomputing on the Web" in *IEEE Internet Computing*, **1**:2, 38-46, 1997. Technical Report SCCS-784b, Syracuse University, NPAC, Syracuse, NY. [Fox:97k] http://www.old-npac.org/users/gcf/01/terri/SCCS_784/index.html
343. Fox, G. "High performance distributed computing" in *Encyclopedia of Computer Science and Technology* 36:21, 203-222, 1997. Marcel Dekker. Technical Report SCCS-750, Syracuse University, NPAC, Syracuse, NY. [Fox:97b]
344. Fox, G., and Furmanski, W. "Java and Web Technologies for Simulation and Modeling in Computational Science and Engineering" in *Proceedings of the Eighth SIAM Conference on Parallel Processing for Scientific Computing*, March 1997. Technical Report SCCS-785, Syracuse University, NPAC, Syracuse, NY. [Fox:97c] <http://www.old-npac.org/techreports/html/0750/abs-0785.html>
345. Fox, G., Li, X., Wen, Y., and Zhang, G. "Studies of Integration and Optimization of Interpreted and Compiled Languages." Technical Report SCCS-780, Syracuse University, NPAC, Syracuse, NY, February 1997. [Fox:97f]
346. Fox, G. "Introduction to Web Technologies and Their Applications." Technical Report SCCS-790, Syracuse University, NPAC, Syracuse, NY, April 1997. [Fox:97g]
347. Fox, G., and Furmanski, W. "Java for Parallel Computing and as a General Language for Scientific and Engineering Simulation and Modeling," in *Concurrency: Practice and Experience*, **9**:6, 415-426. Technical Report SCCS-793, Syracuse University, NPAC, Syracuse, NY, May 1997. [Fox:97h] http://www.old-npac.org/users/gcf/01/terri/SCCS_793/
348. Fox, G., and Ou, C. "Scalable Runtime Support for Sparse and Adaptive Computations." Technical Report SCCS-796, Syracuse University, NPAC, Syracuse, NY, 1997. [Fox:97i]
349. Fox, G., Li, X., Qiang, Z., and Zhigang, W. "A Prototype of Fortran-to-Java Converter," in *Concurrency: Practice and Experience*, **9**:11, 1047-1061, November, 1997. Technical Report SCCS-804, Syracuse University, NPAC, Syracuse, NY. [Fox:97j]
350. Ranka, S., Yau, H. W., Hawick, K., and Fox, G. "High Performance Fortran for SPMD Programming: An Applications Overview," May 29, 1997. Technical Report SCCS-805, Syracuse University, NPAC, Syracuse, NY. Submitted to NHSE (National High Performance Software Exchange) for publication. [Ranka:97a]
351. Zhang, G., Carpenter, B., Fox, G., Li, X., Li, X., and Wen, Y. "PCRC-based HPF Compilation," in the *10th International Workshop on Languages and Compilers for Parallel Computing*, August 1997. To appear in *Lecture Notes in Computer Science*. Technical Report SCCS-803, Syracuse University, NPAC, Syracuse, NY. [Zhang:97a]
352. Fox, G. "Architecture of Web-Based Training and Education System", Education Session at SC97. SC97 CDROM IEEE Press and <http://www.supercomp.org/sc97/proceedings/EDU/FOX/INDEX.HTM>
353. Abrahams, A., et al., "Gravitational Wave Extraction and Outer Boundary Conditions by Perturbative Matching," *Phys. Rev. Lett.*, **80**:12, 2512, March 23, 1998. Syracuse University, NPAC, Technical Report SCCS-854.
354. Akarsu, E., Fox, G., Furmanski, W., and Haupt, T., "WebFlow-High-level Programming Environment and Visual Authoring Toolkit for High Performance Distributed Computing," in *Proceedings of Supercomputing '98*, August 15, 1998. Syracuse University, NPAC,

- Technical Report SCCS-835. [Akarsu:98a]
355. Akarsu, E., Fox, G., Furmanski, W., Haupt, T., Ozdemir, H., Ozdemir, Z., and Pulikal, T., "Building Web/Commodity based Visual Authoring Environments for Distributed Object/Component Applications-A Case Study using NPAC WebFlow System". Submitted to *Middleware98, IFIP International Conference on Distributed Systems Platforms and Open Distributed Processing*, September 15, 1998. Syracuse University, NPAC, Technical Report SCCS-844. [Akarsu:98b] <http://www.old-npac.org/projects/webpace/doc/middleware98/>
356. M.A.Baker and G.C. Fox, "Metacomputing: Harnessing Informal Supercomputers", in *High Performance Cluster Computing*, edited by Rajkumar Buyya, *Prentice Hall - PTR, NJ, USA, 1998. Volume 1: System and Architecture, pages 154-185.* <http://www.new-npac.org/users/fox/documents/bakerarticles/metacomputing.pdf>
357. Bernholdt, D., Chappell, P., Fox, G., Furmanski, W., Kasthuril, D. Krishnamurthy, G., Nair, S., Ozdemir, H., Ozdemir, Z., Rangarajan, K., and Snively, K., "Parallel and Metacomputing Support for CMS-Comprehensive Minefield Simulation". Demonstration Handout, Supercomputing 98, Orlando, FL, November 7-13, 1998. Syracuse University, NPAC, Technical Report SCCS-832. [Bernholdt:98a] <http://www.new-npac.org/users/fox/documents/furmpapers/cms-handoutpaper5.html>
358. Bernholdt, D., Fox, G., Furmanski, W. Natarajan, B., Ozdemir, H., Ozdemir, Z., and Pulikal, T., "WebHLA - An Interactive Programming and Training Environment for High Performance Modeling and Simulation", in *Proceedings of the DoD HPC 98 Users Group Conference*, April 30, 1998. Syracuse University, NPAC, Technical Report SCCS-842. [Bernholdt:98b] <http://www.new-npac.org/users/fox/documents/furmpapers/paper20.html>
359. Carpenter, B., Fox, G., Leskiw, D., Li, X., Wen, Y., and Zhang, G., "Language Bindings for a Data-parallel Runtime." Presented at the *Third International Workshop on High-Level Parallel Programming Models and Supportive Environments*, 1998. Technical Report SCCS-801, Syracuse University, NPAC, Syracuse, NY. [Carpenter:98a]
360. Carpenter, B., Zhang, G., Fox, G., Wen, Y., and Li, X. "HPJava: Data Parallel Extensions to Java". Presented at the 1998 ACM Workshop on Java for High-Performance Network Computing, and published in *Concurrency: Practice and Experience*, **10**;11, 873-877, 1998. Technical Report SCCS-798, Syracuse University, NPAC, Syracuse, NY. [Carpenter:98b] <http://www.old-npac.org/projects/pcrc/papers/Java98/Java98/Java98.html>
361. Carpenter, B., Chang, Y.-J., Fox, G., and Li, X. "Java Language for Scientific Parallel Programming". Syracuse University, NPAC, Technical Report SCCS-816, October, 1998. [Carpenter:98c]
362. Carpenter, B., and Fox, G. "HPspmd: Data Parallel SPMD Programming Models from Fortran to Java". Syracuse University, NPAC, Technical Report SCCS-817, October, 1998. [Carpenter:98d] <http://www.old-npac.org/projects/pcrc/reports/HPspmd/project/project.html>
363. Cook, G. B., et al., "Boosted Three-dimensional Black-hole Evolutions with Singularity Excision," *Physical Review Letters*, **80**:20, 2512-2516, March 23, 1998. http://publish.aps.org/FOCUS/80L13_1.html. Syracuse University, NPAC, Technical Report SCCS-855. [Cook:98a]
364. Dias, D., Fox, G., Furmanski, W., Mehra, V., Natarajan, B., Ozdemir, H., Pallickara, S., and Ozdemir, Z., "Exploring JSDA, CORBA and HLA based MuTech's for Scalable Televirtual (TVR) Environments". Presented at the *Workshop on OO and VRML*, VRML 98 Conference, February 16-19, 1998. Syracuse University, NPAC, Technical Report SCCS-847. [Dias:98a] <http://www.old-npac.org/users/timucin/papers/VRML98/paperVR98.html>

365. Fox, G., "Internetics: Technologies, Applications and Academic Fields" *Invited Chapter in Book :Feynman and Computation*, edited by A.J.G. Hey, Perseus Books (1999). Technical Report SCCS-813, Syracuse University, NPAC, Syracuse, NY, February 1998. [Fox:98a] <http://www.new-npac.org/users/fox/documents/internetics/>
366. Fox, G., "Parallel and Distributed Computing using Pervasive Web and Object Technologies", in *ParCo97 Conference*, Elsevier, February, 1998. Technical Report SCCS-807, Syracuse University, NPAC, Syracuse, NY. [Fox:98b] http://www.old-npac.org/users/gcf/01/terri/SCCS_807/full-0807.html
367. Fox, G., and Furmanski, W., "High Performance Commodity Computing", in *Computational Grids: The Future in High Performance Distributed Computing*, C. Kesselman, and I. Foster (editors), Morgan Kaufman, February 1998. Technical Report SCCS-808, Syracuse University, NPAC, Syracuse, NY. [Fox:98c] <http://www.old-npac.org/users/gcf/HPcc/HPcc.doc>
368. G. Fox, W. Furmanski, G. Krishnamurthy, H. Ozdemir, Z. Ozdemir, T.Pulikal, K. Rangarajan and A. Sood, WebHLA as Integration Platform for FMS and other Metacomputing Application Domains, In *Proceedings of the DoD HPC Users Group Conference*, Monterey, CA, June 8-15, 1999. <http://www.new-npac.org/users/fox/documents/furmpapers/paper1.html>
369. Geoffrey C. Fox, Wojtek Furmanski, Ganesh Krishnamurthy, Hasan T. Ozdemir, Zeynep Odcikin-Ozdemir, Tom A. Pulikal, Krishnan Rangarajan and Ankur Sood, "Using WebHLA to Integrate HPC FMS Modules with Web/Commodity based Distributed Object Technologies of CORBA, Java, COM and XML", in *Proceedings of the Advanced Simulation Technologies Conference (ASTC99)*, San Diego, CA, Apr 11-15, 1999. <http://www.new-npac.org/users/fox/documents/furmpapers/paper3.html>
370. Fox, G., Furmanski, W., Ozdemir, H., and Pallickara, S., "New Systems Technologies and Software Products for HPCC: Volume II-High Performance Commodity Computing on the Pragmatic Object Web". Management White Paper for RCI, Ltd., submitted October 14, 1998. Syracuse University, NPAC, Technical Report SCCS-833. [Fox:98f] <http://www.new-npac.org/users/fox/documents/rcihpccoct98/rcinpacpaperoct98.html>
371. Fox, G., Furmanski, W. Nair, S., Ozdemir, H., Ozdemir, Z., and Pulikal, T., "WebHLA-An Interactive Multiplayer Environment for High Performance Distributed Modeling and Simulation". Submitted to the *International Conference on Web-based Modeling and Simulation, WebSim99*, October 9, 1998. Syracuse University, NPAC, Technical Report SCCS-843. [Fox:98g] <http://www.new-npac.org/users/fox/documents/furmpapers/paper7.html>
372. Fox, G., Furmanski, W., and Haupt, T., "Distributed Systems on the Pragmatic Object Web-Computing with Java and CORBA," in proceedings of the *Computational Aerospace in the 21st Century*, August 1, 1998. Syracuse University, NPAC, Technical Report SCCS-836. [Fox:98h] <http://www.new-npac.org/users/fox/documents/furmpapers/paper10.pdf>. Published in "Computational Aerospace in the 21st Century", edited by Manuel D. Salas and W. Kyle Anderson, Kluwer Academic Publishing, Dordrecht, The Netherlands, 2000.
373. Fox, G., Furmanski, W., Nair, S., Ozdemir, H., Ozdemir, Z., and Pulikal, T., "WebHLA-An Interactive Programming and Training Environment for High Performance Modeling and Simulation," in *Proceedings of the SISO Simulation Interoperability Workshop*, S/W-98F-216, July 1, 1998. Syracuse University, NPAC, Technical Report SCCS-837. [Fox:98i] <http://www.new-npac.org/users/fox/documents/furmpapers/paper12.html>

374. Fox, G., Furmanski, W., Goveas, B., Natarajan, B., and Shanbhag, S., "WebFlow Based Visual Authoring Tools for HLA Applications," in *Proceedings of the International Test and Evaluation Workshop on High Performance Computing*, June 10, 1998. Syracuse University, NPAC, Technical Report SCCS-838. [Fox:98j] <http://www.new-npac.org/users/fox/documents/furmpapers/authoringpaper14.html>
375. Fox, G., Furmanski, W., Nair, S., and Ozdemir, Z., "Microsoft DirectPlay Meets DMSO RTI for Virtual Prototyping in HPC T&E Environments," in *Proceedings of the International Test and Evaluation Workshop on High Performance Computing*, June 10, 1998. Syracuse University, NPAC, Technical Report SCCS-839. [Fox:98k] <http://www.new-npac.org/users/fox/documents/furmpapers/directplaypaper15.html>
376. Fox, G., Furmanski, W., and Ozdemir, H., "Object Web (Java/CORBA) based RTI to Support Metacomputing M&S," in *Proceedings of the International Test and Evaluation Workshop on High Performance Computing*, June 10, 1998. Syracuse University, NPAC, Technical Report SCCS-840. [Fox:98l] <http://www.new-npac.org/users/fox/documents/furmpapers/owrtipaper16.html>
377. Fox, G., Furmanski, W., and Pulikal, T., "Evaluating New Transparent Persistency Commodity Models: JDBC, CORBA PSS, OLEDB and W3C WOM for HPC T&E Databases," in *Proceedings of the International Test and Evaluation Workshop on High Performance Computing*, June 10, 1998. Syracuse University, NPAC, Technical Report SCCS-841. [Fox:98m] <http://www.new-npac.org/users/fox/documents/furmpapers/dbpaper17.html>
378. Fox, G., Furmanski, W., Haupt, T., Akarsu, E., and Ozdemir, H. T., "HPcc as High Performance Distributed Computing on Top of Integrated Java, CORBA, COM and Web Standards," in *Proceedings of the EuroPar98 Conference*, May 25, 1998. Syracuse University, NPAC, Technical Report SCCS-843. [Fox:98n] <http://www.new-npac.org/users/fox/documents/furmpapers/foxpaper18.pdf>
379. Fox, G., Furmanski, W., and Ozdemir, H., "Java/CORBA based Real-time Infrastructure to Integrate Event-driven Simulations, Collaboration and Distributed Object/Componentware Computing," in *Proceedings of the Parallel and Distributed Technologies and Applications, PDPTA98*, April 1, 1998. Syracuse University, NPAC, Technical Report SCCS-845. [Fox:98o] <http://www.new-npac.org/users/fox/documents/furmpapers/paper21.pdf>
380. Fox, G., Furmanski, W., Natarajan, B., Ozdemir, H., Ozdemir, Z., Pallickara, S., and Pulikal, T., "Integrating Web, Desktop, Enterprise and Military Simulation Technologies to Enable World-wide Scalable Televirtual (TVR) Environments". Submitted to the *WET ICE Conference*, June 17-19, 1998. Syracuse University, NPAC, Technical Report SCCS-846. [Fox:98p] Published in *Information and Security*, an International Journal, ProCon Sofia 1999, *Special Issue on Modeling and Simulation* edited by Valentine Penev, Volume 3, 1999, pp 149-160. <http://www.old-npac.org/users/timucin/papers/WETICE98/index.html>
381. Fox, G., Furmanski, W., and Ozdemir, H., "JWORB-Java Web Object Request Broker for Commodity Software based Visual Dataflow Metacomputing Programming Environment". Submitted to the *Seventh IEEE Symposium on High Performance Distributed Computing HPDC7*, July 28-31, 1998. Syracuse University, NPAC, Technical Report SCCS-848. [Fox:98q] <http://www.old-npac.org/users/timucin/papers/HPDC98/index.html>
382. Fox, G., and Podgorny, M., "Real Time Training and Integration of Simulation and Planning using the TANGO Interactive Collaborative System," in *Proceedings of the International Test and Evaluation Workshop on High Performance Computing*, June 10,

1998. Syracuse University, NPAC, Technical Report SCCS-850. [Fox:98r]
383. Fox, G., "TANGO Interactive in Distance Education and Collaborative Consulting and Computing". Submitted at the DoD Mid-year Review Meeting, September 1998. Syracuse University, NPAC, Technical Report SCCS-851. [Fox:98s]
384. Fox, G., Scavo, T., Bernholdt, D., Markowski, R., McCracken, N., Podgorny, M., Mitra, D., and Malluhi, Q., "Synchronous Learning at a Distance: Experiences with TANGO Interactive". *Supercomputing 98 Conference*, November 1998. Syracuse University, NPAC, Technical Report SCCS-852. [Fox:98t] <http://www.old-npac.org/projects/training/Papers/sc98/>
385. Fox, G., Warner, D., Walczak, K., and Podgorny, M., "Internet Groupware Technologies-Past, Present, and Future". Submitted at the *BIS Conference*, April 1998. Syracuse University, NPAC, Technical Report SCCS-853. [Fox:98u]
386. Gomez, R., Lehner, L., Marsa, R. L., Winicour, J., Abrahams, A. M., Anderson, A., Anninos, P., Baumgarte, T. W., Bishop, N. T., Brandt, S. R., Browne, J. C., Camarda, K., Choptuik, M. W., Cook, G. B., Correll, R., Evans, C. R., Finn, L. S., Fox, G. C., Haupt, T., Huq, M. F., Kidder, L. E., Klasky, S. A., Laguna, P., Landry, W., Lenaghan, J., Masso, J., Matzner, R. A., Mitra, S., Papadopoulos, P., Parashar, M., Rezzolla, L., Rupright, M. E., Saied, F., Saylor, P. E., Scheel, M. A., Seidel, E., Shapiro, S. L., Shoemaker, D., Smarr, L., and Szilagy, B., "Stable Characteristic Evolution of Generic Three-dimensional Single-black-hole Spacetimes," *Phys. Rev. Lett.*, **80**:18, 3915-3918, May 4, 1998. Syracuse University, NPAC, Technical Report SCCS-856.
387. Haupt, T., Akarsu, E., Fox, G., and Furmanski, W., "Web Based Metacomputing". Special Issue on MetaComputing, *International Journal on Future Generation Computing Systems*, 15 (5-6) (1999) pp. 735-743. Syracuse University, NPAC, Technical Report SCCS-849. [Haupt:98a] <http://www.new-npac.org/users/fox/documents/webflowpapers/FGCS/index.html>
388. Tomasz Haupt, Erol Akarsu and Geoffrey Fox, "WebFlow: a framework for web based metacomputing", *International Journal on Future Generation Computing Systems*, 16 (5) (2000) pp. 445-451.
389. Rundle, J. B., Henyey, T., Minster, J.-B., and Fox, G., "General Earthquake Models". To be presented at ACES meeting. Syracuse University, NPAC, Technical Report SCCS-815, December, 1998. [Rundle:98a]
390. Wen, Y., and Fox, G., "PetaSIM: A Performance Estimator for Parallel Hierarchical Memory Systems". Submitted to *International Journal of High-Performance Computing*, December, 1998. Syracuse University, NPAC, Technical Report SCCS-828. [Wen:98a] <http://www.new-npac.org/users/fox/documents/petasim/petasim.pdf>
391. Guansong Zhang, Bryan Carpenter, Geoffrey Fox, Xinying Li, and Yuhong Wen. "A high level SPMD programming model: HPspmd and its Java language binding". In *International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'98)*, July 1998. <http://www.old-npac.org/projects/pcrc/papers/pdpta98/hpspmd/hpspmd.html>
392. Zhang, G., Carpenter, B., Fox, G., Li, X., Li, X., and Wen, Y., "Considerations in HPJava Language Design and Implementation". Syracuse University, NPAC, Technical Report SCCS-827". In *11th International Workshop on Languages and Compilers for Parallel Computing*, August 1998, [Zhang:98a] <http://www.old-npac.org/projects/pcrc/papers/lcpc98/considerations/considerations.html>

393. Bryan Carpenter, Guansong Zhang, Geoffrey Fox, Xiaoming Li, Xinying Li, and Yuhong Wen. "Towards a Java environment for SPMD programming". In David Pritchard and Jeff Reeve, editors, *4th International Europar Conference, volume 1470 of Lecture Notes in Computer Science*, 1998. <http://www.old-npac.org/projects/pcrc/papers/europar98/europar/europar.html>. Technical Report SCCS-820, October, 1998 . [Carpenter:98e]
394. Fox G.C., "From Computational Science to Internetics: Integration of Science with Computer Science", in Ronald F. Boisvert and Elias Houstis (eds.), *Computational Science, Mathematics and Software*, Purdue University Press, West Lafayette, Indiana, , ISBN 1-55753-250-8. Pages 217-236, July 2002. <http://www.old-npac.org/users/gcf/internetics2/>
395. Mark Baker, Bryan Carpenter, Geoffrey Fox, Sung Hoon Ko, and Sang Lim. "mpiJava: An Object-Oriented Java interface to MPI". Presented at *International Workshop on Java for Parallel and Distributed Computing, IPPS/SPDP 1999*, San Juan, Puerto Rico, April 1999. <http://www.old-npac.org/projects/pcrc/papers/ipp99/paper/paper.html>
396. Mark Baker, Bryan Carpenter, Sung Hoon Ko, and Xinying Li. "mpiJava: A Java interface to MPI". Presented at First UK Workshop on Java for High Performance Network Computing, Europar 1998. <http://www.old-npac.org/projects/pcrc/papers/mpiJava/mpiJava/mpiJava.html>
397. Bryan Carpenter, Geoffrey Fox, Sung Hoon Ko and Sang Lim, "Automatic Object Serialization in the mpiJava Interface to MPI, 1999 Message Passing Interface Developers and Users Conference, MPI Software Technology Press, 1999.
398. Bryan Carpenter, Geoffrey Fox, Sung Hoon Ko and Sang Lim, "Object Serialization for Marshalling Data in a Java Interface to MPI", *ACM 1999 Java Grande Conference, ACM Press 1999*. <http://www.new-npac.org/users/fox/documents/JG99mpi/c427resubmit.pdf>
399. Erol Akarsu, Geoffrey Fox, Tomasz Haupt, Alexey, Kalinichenko, Kang-Seok Kim, Praveen Sheethaalnath, and Choon-Han Youn, "Using Gateway System to Provide a Desktop Access to High Performance Computational Resources", *Proceedings of HPDC-8 Conference, Redondo Beach Ca., Aug 3-6, 1999, IEEE Press*. <http://www.osc.edu/~kenf/theGateway/> and <http://www.old-npac.org/users/haupt/WebFlow/>
400. Fox, G.C., Akarsu E., Furmanski W., Haupt T., "WebFlow -- High-level Programming environment and Visual Authoring Toolkit for High Performance Distributed Computing" in *Proceedings of SC98*, Orlando, November 1998. <http://www.old-npac.org/users/haupt/WebFlow/>
401. Yuhong Wen and Geoffrey C. Fox, "Performance Prediction for Data Intensive Applications on Large Scale Parallel Systems", *Third World Multiconference on Systemics, Cybernetics and Informatics (SCI'99) and the Fifth International Conference on Information Systems Analysis and Synthesis (ISAS'99)*, July 31 to August 4, 1999, Orlando, Florida, USA. <http://www.new-npac.org/users/fox/documents/petasim/sci99.pdf>
402. G. C. Fox, W. Furmanski and H. T. Ozdemir, "From JavaBean to Database Web Servers in the Pragmatic Object Web", keynote talk presented at the *Internet Server Performance Workshop*, Madison, Wisconsin, June 23, 1998. <http://www.new-npac.org/users/fox/documents/furmpapers/wisc98paper13.html>
403. Tomasz Haupt, Erol Akarsu, Geoffrey Fox, Choon-Han Youn, "The Gateway System: Uniform Web Based Access to Remote Resources", *ACM Java Grande Conference June 1999*, <http://www.new-npac.org/users/fox/documents/JG99Gateway/JavaGrande99-submit.html>

404. Yuhong Wen and Geoffrey C. Fox, "Performance Prediction for Large Scale Parallel Systems", *The 1999 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'99)*, June 28 - July 1, 1999, Las Vegas, Nevada, USA. <http://www.new-npac.org/users/fox/documents/petasim/pdpta99.pdf>
405. Yuhong Wen and Geoffrey C. Fox, "A Performance Estimator for Parallel Hierarchical Memory Systems – PetaSIM", *ISCA 12th International Conference on Parallel and Distributed Computing Systems (PDCS'99)*, August 18-20, 1999, Ft. Lauderdale, Florida, USA. <http://www.new-npac.org/users/fox/documents/petasim/pdcs99.pdf>
406. Geoffrey C. Fox, *From Computational Science to Internetics: Integration of Science with Computer Science*, Mathematics and Computers in Simulation, Elsevier, 54 (2000) 295-306 . <http://www.old-npac.org/users/gcf/internetics2/>
407. Fox, G.C. "Portals and Frameworks for Web Based Education and Computational Science", Proceedings of the Second International Conference on the Practical Application of Java, Editor Omer Rana, Manchester England April 12-14 2000, <http://www.practical-applications.co.uk/PAJAVA2000/index.html> and <http://www.new-npac.org/users/fox/documents/pajavaapril00/>
408. Fox, G.C., Ken Hurst, Andrea Donnellan, and Jay Parker, "Introducing a New Paradigm for Computational Earth Science – A web-object-based approach to Earthquake Simulations", a chapter in *AGU monograph* on "GeoComplexity and the Physics of Earthquakes" edited by John Rundle, Donald Turcotte and William Klein and published by AGU in 2000, pp 219-245. <http://www.new-npac.org/users/fox/documents/gempapermarch00>
409. G.C. Fox and P.D. Coddington, "Parallel Computers and Complex Systems", in *Complex Systems* edited by Terry R.J. Bossomaier and David G. Green, Cambridge University Press, 2000.
410. Fox, G.C., Ken Hurst, Andrea Donnellan, and Jay Parker, "A object web-based approach to Earthquake Simulations", a *APEC Cooperation for Earthquake Simulation – 2nd ACES Workshop Proceedings*: October 15-20 2000 Hakone and Tokyo Japan, edited by Mitsuhiro Matsu'ura, Kengo Nakajima and Peter Mora and published by GOPRINT, Brisbane in 2001, pp 495-502.
411. Geoffrey Fox, Sung-Hoon Ko, Marlon Pierce, Ozgur Balsoy, Jake Kim, Sangmi Lee, Kangseok Kim, Sangyoon Oh, Xi Rao, Mustafa Varank, Hasan Bulut, Gurhan Gunduz, Xiaohong Qiu, Shrideep Pallickara, Ahmet Uyar, Choonhan Youn, *Grid Services for Earthquake Science*, Concurrency and Computation: Practice and Experience in ACES Special Issue, 14, 371-393, 2002. <http://aspen.ucs.indiana.edu/gemmauisummer2001/resources/gemandit7.doc>
412. Geoffrey Fox and Shrideep Pallickara, An Event Service to Support Grid Computational Environments, Concurrency and Computation: Practice and Experience, Special Issue on Grid Computing Environments, 14,1097-1127(2002).
413. Marlon. E. Pierce, Choonhan Youn, Geoffrey C. Fox, The Gateway Computational Web Portal <http://aspen.ucs.indiana.edu/gce/C543pierce/c543gateway.pdf>, Concurrency and Computation: Practice and Experience in Grid Computing environments Special Issue 14, 1411-1426(2002).
414. Geoffrey Fox, Dennis Gannon, Mary Thomas with A Summary of Grid Computing Environments, Concurrency and Computation: Practice and Experience in Grid Computing environments Special Issue 14, 1035-1044(2002).

- <http://grids.ucs.indiana.edu/ptliupages/publications/gcesurvey.pdf>
415. Geoffrey C. Fox and Shrideep Pallickara , *An Approach to High Performance Distributed Web Brokering* ACM Ubiquity Volume 2 Issue 38. November 2001.
<http://aspen.ucs.indiana.edu/users/shrideep/mspaces/acmViews.doc>
416. Dennis Gannon, Randall Bramley, Geoffrey Fox, Shava Smallen, Al Rossi, Rachana Ananthkrishnan, Felipe Bertrand, Ken Chiu, Matt Farrellee, Madhu Govindaraju, Sriram Krishnan, Lavanya Ramakrishnan, Yogesh Simmhan, Alek Slominski, Yu Ma, Caroline Olariu, Nicolas Rey-Cenvaz; "Programming the Grid: Distributed Software Components, P2P and Grid Web Services for Scientific Applications" GRID 2001, 2nd International Workshop on Grid Computing, Denver November 12 2001.
417. Geoffrey Fox, Ozgur Balsoy, Shrideep Pallickara, Ahmet Uyar, Dennis Gannon, and Aleksander Slominski, "Community Grids" invited contribution at The 2002 International Conference on Computational Science, April 21 -- 24, 2002 Amsterdam, The Netherlands.
<http://grids.ucs.indiana.edu/ptliupages/publications/iccs.pdf>
418. Geoffrey C. Fox and Shrideep Pallickara , Support for Peer-to-Peer Interactions in Web Brokering Systems at
<http://grids.ucs.indiana.edu/ptliupages/projects/narada/papers/P2PSystems.pdf>. *ACM Ubiquity* Volume 3 Issue 15. May 2002. .
419. Geoffrey C. Fox and Shrideep Pallickara, The Narada Event Brokering System: Overview and Extensions at
<http://grids.ucs.indiana.edu/ptliupages/projects/narada/papers/NaradaBrokeringSystem.pdf>.
Proceedings of the 2002 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'02). CSREA Press (2002) edited by H.R. Arabnia Volume I pages 353-359.
420. Geoffrey C. Fox and Shrideep Pallickara, JMS Compliance in the Narada Event Brokering System at
<http://grids.ucs.indiana.edu/ptliupages/projects/narada/papers/JMSSupportInNarada.pdf>
proceedings of the *2002 International Conference on Internet Computing (IC-02)* volume 2: pp 391-397.
421. Geoffrey Fox, Sung-Hoon Ko, Kangseok Kim, Sangyoon Oh, Sangmi Lee on Integration of Hand-Held Devices into Collaborative Environments at
http://grids.ucs.indiana.edu/ptliupages/projects/carousel/papers/PDA_IC2002.pdf .
Proceedings of the 2002 International Conference on Internet Computing (IC-02) Volume 2 pp. 231-238.
422. Geoffrey Fox, Wenjun Wu, Ahmet Uyar, Hasan Bulut "A Web Services Framework for Collaboration and Audio/Videoconferencing"; proceedings of *2002 International Conference on Internet Computing IC'02: Las Vegas, USA, June 24-27, 2002*.
<http://grids.ucs.indiana.edu/ptliupages/publications/intl-sub03.pdf>
423. Ozgur Balsoy, Mehmet S. Aktas, Galip Aydin, Mehmet N. Aysan, Cevat Ikibas, Ali Kaplan, Jungkee Kim, Marlon Pierce, Ahmet Topcu, Beytullah Yildiz, and Geoffrey Fox *The Online Knowledge Center: Building a Component Based Portal*. Proceedings of the International Conference on Information and Knowledge Engineering, Las Vegas, June 2002.
<http://grids.ucs.indiana.edu/ptliupages/publications/ike02okc.pdf>
424. Geoffrey Fox, Hasan Bulut, Kangseok Kim, Sung-Hoon Ko, Sangmi Lee, Sangyoon Oh, Xi Rao, Shrideep Pallickara, Quinlin Pei, Marlon Pierce, Ahmet Uyar, Wenjun Wu, Choonhan Youn, Dennis Gannon, and Aleksander Slominski, "An Architecture for e-Science and its Implications" in *Proceedings of the 2002 International Symposium on Performance*

Evaluation of Computer and Telecommunications Systems, edited by Mohammed S.Obaidat, Franco Davoli, Ibrahim Onyuksel and Raffaele Bolla, Society for Modeling and Simulation International, pp 14-24 (2002).

<http://grids.ucs.indiana.edu/ptliupages/publications/spectsescience.pdf>

425. Marlon Pierce, Choonhan Youn, Geoffrey Fox “Application Web Services” in *NeSC Workshop on Applications and Testbeds on the Grid*, Glasgow July 20 2002.
<http://grids.ucs.indiana.edu/ptliupages/publications/AWS.pdf>
426. Galip Aydin, Ali Kaplan, Ahmet E. Topcu, Beytullah Yildiz, Ozgur Balsoy, Marlon Pierce, and Geoffrey Fox *An XML Based System for Dynamic Message Content Creation, Delivery, and Control*. IASTED International Conference on Information and Knowledge Sharing (IKS 2002) November 18 to November 20, 2002, in St.Thomas, US Virgin Islands.
<http://grids.ucs.indiana.edu/ptliupages/publications/XMLMessaging2.pdf>
427. Steve Mock, Kurt Mueller, Marlon Pierce, Choonhan Youn, Geoffrey Fox, and Mary Thomas *A Batch Script Generator Web Service for Computational Portals*, Proceedings of IC-02 June 2002.
<http://grids.ucs.indiana.edu:9000/slide/ptliu/research/gateway/Papers/BSGCIC.pdf>
428. Marlon Pierce, Choonhan Youn, Ozgur Balsoy, Geoffrey Fox, Steve Mock, and Kurt Mueller *Interoperable Web Services for Computational Portals*, Proceedings of SC02 November 2002.
429. Sangmi Lee, Geoffrey Fox, Sunghoon Ko, Minjun Wang, Xiaohong Qiu, *Ubiquitous Access for Collaborative Information System using SVG*, Proceedings of SVGopen conference July 2002, Zurich, Switzerland.
<http://grids.ucs.indiana.edu/ptliupages/projects/carousel/papers/draft.pdf>
430. Han-Ku Lee, Bryan Carpenter, Geoffrey Fox, Sang Boem Lim on *Benchmarking HPJava: Prospects for Performance*; Proceedings of Sixth Workshop on "Languages, Compilers, and Run-time Systems for Scalable Computers" (LCR 02)
<http://grids.ucs.indiana.edu/ptliupages/publications/HPJavafeb02.pdf>
431. Geoffrey Fox, Shrideep Pallickara, and Xi Rao, “A Scaleable Event Infrastructure for Peer to Peer Grids”, proceedings of 2002 Java Grande/ISCOPE Conference, Seattle, November 2002, ACM Press, ISBN 1-58113-599-8, pages 66-75.
<http://grids.ucs.indiana.edu/ptliupages/publications/ScaleableEventArchForP2P.doc>
432. Jungkee Kim, Ozgur Balsoy, Marlon Pierce, and Geoffrey Fox “*Design of a Hybrid Search in the Online Knowledge Center*” IASTED International Conference on Information and Knowledge Sharing (IKS 2002) November 18 to November 20, 2002, in St.Thomas, US Virgin Islands <http://grids.ucs.indiana.edu/ptliupages/publications/HybridSearch.pdf>
433. Hasan Bulut, Geoffrey Fox, Shrideep Pallickara,Ahmet Uyar and Wenjun Wu, *Integration of NaradaBrokering and Audio/Video Conferencing as a Web Service*. To appear in the IASTED International Conference on Communications, Internet, and Information Technology, November 18 to November 20, 2002, in St.Thomas, US Virgin Islands.
<http://grids.ucs.indiana.edu/ptliupages/publications/AVOverNaradaBrokering.pdf>
434. Han-Ku Lee, Bryan Carpenter, Geoffrey Fox, and Sang Boem Lim. *HPJava: Efficient Compilation and Performance for HPC*. Dec 18, 2002. Submitted to The Seventh World Multiconference on Systems, Cybernetics, and Informatics (SCI 2003).
<http://grids.ucs.indiana.edu/~hkl/publications/compilation.pdf>
435. Sang Boem Lim, Bryan Carpenter, Geoffrey Fox, and Han-Ku Lee. *Collective Communication for the HPJava Programming Language*. Nov 3, 2002. Joint ACM Java

- Grande – ISCOPE 2002 (JGI 2002). <http://grids.ucs.indiana.edu/~hkl/publications/sigproc-sp.pdf>
436. Bryan Carpenter, Geoffrey Fox, Han-Ku Lee, and Sang Boem Lim, *Node Performance in the HPJava Parallel Programming Language*. Feb 8, 2002. The 16th Annual ACM International Conference on Super Computing (ICS 2001). <http://grids.ucs.indiana.edu/~hkl/publications/performance.pdf>
437. Marlon Pierce, Choonhan Youn, Geoffrey Fox, *The Gateway Computational Portal: Developing Web Services for High Performance Computing*, The 2002 International Conference on Computational Science, April 21 -- 24, 2002 Amsterdam, The Netherlands. <http://grids.ucs.indiana.edu/ptliupages/publications/GatewayICCS.pdf>
438. Geoffrey Fox *Multiparticle phase shift analysis in peripheral production experiments: Lessons from the Past* Proceedings of Partial Wave Analysis Workshop, CMU June 2-4 2002 at http://www.curtismeyer.com/pwa_work/ International Journal of Modern Physics A, 18, 345-354, 2003. <http://grids.ucs.indiana.edu/ptliupages/publications/pwa/pwa.pdf>
439. Geoffrey Fox, Hasan Bulut, Kangseok Kim, Sung-Hoon Ko, Sangmi Lee, Sangyoon Oh, Shrideep Pallickara, Xiaohong Qiu, Ahmet Uyar, Minjun Wang, Wenjun Wu *Collaborative Web Services and Peer-to-Peer Grids* presented at 2003 Collaborative Technologies Symposium (CTS'03) Orlando January 2003. <http://grids.ucs.indiana.edu/ptliupages/publications/foxwmc03keynote.pdf>
440. Andrea Donnellan, Geoffrey Fox, John Rundle, Dennis McLeod, Terry Tullis, Lisa Grant *Numerical Simulations for Active Tectonic Processes: Increasing Interoperability and Performance* extended abstract for conference in Japan March 2003 http://grids.ucs.indiana.edu/ptliupages/publications/Abstract_Donnellanjapanmar03.pdf.
441. Marlon Pierce, Choonhan Youn, and Geoffrey Fox *Interacting Data Services for Distributed Earthquake Modeling* ACES Workshop at ICCS June 2003 Australia. <http://grids.ucs.indiana.edu/ptliupages/publications/GEM-ACES-Final.pdf>.
442. Ozgur Balsoy, Ying Jin, Galip Aydin, Marlon Pierce, and Geoffrey Fox *Automating Metadata Web Service Deployment for Problem Solving Environments* ICCS03 Melbourne Australia June 2-4 2003 <http://grids.ucs.indiana.edu/ptliupages/publications/balsoy-iccs03.pdf>
443. Choonhan Youn, Marlon Pierce, and Geoffrey Fox *Building Problem Solving Environments with Application Web Service Toolkits* ICCS03 Australia June 2003 <http://grids.ucs.indiana.edu/ptliupages/publications/GatewayICCS03v5.01.pdf>
444. Galip Aydin, Harun Altay, Mehmet S. Aktas, M. Necati Aysan, Geoffrey Fox, Cevat Ikibas, Jungkee Kim, Ali Kaplan, Ahmet E. Topcu, Marlon Pierce, Beytullah Yildiz, Ozgur Balsoy *Online Knowledge Center Tools for Metadata Management* DoD HPCMP Users Group Meeting Seattle June 9-13 2003 <http://grids.ucs.indiana.edu/ptliupages/publications/OKCUGC.pdf>
445. Shrideep Pallickara and Geoffrey Fox *NaradaBrokering: A Distributed Middleware Framework and Architecture for Enabling Durable Peer-to-Peer Grids* in Proceedings of ACM/IFIP/USENIX International Middleware Conference Middleware-2003, Rio Janeiro, Brazil June 2003 <http://grids.ucs.indiana.edu/ptliupages/publications/NB-Framework.pdf>
446. Geoffrey Fox, Wenjun Wu, Ahmet Uyar, Hasan Bulut, Shrideep Pallickara *Global Multimedia Collaboration System* in Proceedings of the 1st International Workshop on Middleware for Grid Computing co-located with Middleware 2003 on Tuesday, June 17, 2003 Rio de Janeiro, Brazil <http://grids.ucs.indiana.edu/ptliupages/publications/global-mmcs->

[short4.pdf](#)

447. Shrideep Pallickara and Geoffrey Fox *Efficient Support for Sophisticated Interactions between Entities in Distributed Brokering Systems* ACM Ubiquity Volume 4 Issue 16. June 2003. <http://grids.ucs.indiana.edu/ptliupages/publications/EfficientInterctions.pdf>
448. Geoffrey Fox, Wenjun Wu, Ahmet Uyar, Hasan Bulut, Shrideep Pallickara *A Web Services Framework for Collaboration and Videoconferencing* WACE 2003 Workshop on Advanced Collaborative Environments Seattle June 22 2003. <http://grids.ucs.indiana.edu/ptliupages/publications/wace-submissionjune-03.pdf>
449. Xiaohong Qiu, Bryan Carpenter and Geoffrey C. Fox *Internet Collaboration using the W3C Document Object Model* in Proceedings of the 2003 International Conference on Internet Computing, Las Vegas June 2003 http://grids.ucs.indiana.edu/ptliupages/publications/collaborative_dom_conference_2003_Int_IC_font10_without_title_page.pdf
450. Ahmet Uyar, Shrideep Pallickara and Geoffrey Fox *Audio Video Conferencing in Distributed Brokering Systems* in Proceedings of the 2003 International Conference on Communications in Computing, Las Vegas June 2003 <http://grids.ucs.indiana.edu/ptliupages/publications/NB-AudioVideo.pdf>
451. Wenjun Wu, Ahmet Uyar, Hasan Bulut, Geoffrey Fox *Integration of SIP VoIP and Messaging with the AccessGrid and H.323 Systems*, in Proceedings of 1st International Conference on Web Services Las Vegas June 2003 <http://grids.ucs.indiana.edu/ptliupages/publications/sip-webservices-short02.pdf>
452. Shrideep Pallickara, Geoffrey Fox, John Yin, Gurhan Gunduz, Hongbin Liu, Ahmet Uyar, Mustafa Varank *A Transport Framework for Distributed Brokering Systems* in Proceedings of the International Conference on Parallel and Distributed Processing Techniques and Applications. (PDPTA'03) Las Vegas June 2003 <http://grids.ucs.indiana.edu/ptliupages/publications/NB-Transport.pdf>
453. Shrideep Pallickara, Geoffrey Fox and Marlon Pierce, *Incorporating an XML Matching Engine in Distributed Brokering Systems* in Proceedings of the International Conference on Parallel and Distributed Processing Techniques and Applications. (PDPTA'03) Las Vegas June 2003 <http://grids.ucs.indiana.edu/ptliupages/publications/XMLMatching.pdf>
454. Yan Yan, Yi Huang, Geoffrey Fox, Ali Kaplan, Shrideep Pallickara, Marlon Pierce and Ahmet Topcu *Implementing a Prototype of the Security Framework for Distributed Brokering Systems* in Proceedings of 2003 International Conference on Security and Management (SAM'03: June 23-26, 2003, Las Vegas, Nevada, USA. <http://grids.ucs.indiana.edu/ptliupages/publications/SecurityPrototype.pdf>.
455. Gurhan Gunduz, Shrideep Pallickara and Geoffrey Fox *A Portal Based Approach to Viewing Aggregated Network Performance Data in Distributed Brokering Systems* in Proceedings of the 2003 International Conference on Internet Computing Las Vegas June 2003 <http://grids.ucs.indiana.edu/ptliupages/publications/Portal-PAS.pdf>.
456. Sangmi Lee, Sunghoon Ko, Geoffrey Fox, Kangseok Kim, Sangyoon Oh *A Web Service Approach to Universal Accessibility in Collaboration Services* in Proceedings of 1st International Conference on Web Services Las Vegas June 2003. <http://grids.ucs.indiana.edu/ptliupages/publications/icws03.pdf>
457. Sangmi Lee, Sunghoon Ko, Geoffrey Fox, *Adapting Content for Mobile Devices in Heterogeneous Collaboration Environments* in Proceedings of the 2003 International Conference on Wireless Networks Las Vegas June 2003

- <http://grids.ucs.indiana.edu/ptliupages/publications/icwn03.pdf>
458. Ali Kaplan, Ahmet E. Topcu, Marlon Pierce, and Geoffrey Fox, *Access Control System Using Web Services for XML Messaging Systems* in Proceedings of Information Knowledge Engineering (IKE 2003) Las Vegas June 2003
<http://grids.ucs.indiana.edu/ptliupages/publications/webserviceForAccessControl.pdf>
459. Choonhan Youn, Marlon Pierce and Geoffrey Fox *Developing Secure Web Services for Computational Portals* in Proceedings of 2003 International Conference on Security and Management (SAM'03: June 23-26, 2003, Las Vegas, Nevada, USA
<http://grids.ucs.indiana.edu/ptliupages/publications/GatewaySAM03.pdf>
460. Han-Ku Lee, Bryan Carpenter, Geoffrrey Fox, Sang Boem Lim *HPJava: Towards Programming Support for High-Performance Grid-Enabled Applications* in Proceedings of the International Conference on Parallel and Distributed Processing Techniques and Applications. (PDPTA'03) Las Vegas June 2003
<http://grids.ucs.indiana.edu/ptliupages/publications/Grid.pdf>
461. Mehmet Nacar, Marlon Pierce and Geoffrey Fox *Designing a Grid Computing Environment Shell Engine* in Proceedings of the 2003 International Conference on Internet Computing, Las Vegas June 2003
http://grids.ucs.indiana.edu/ptliupages/publications/GCEShell_camera.pdf
462. Xiaohong Qiu, Bryan Carpenter and Geoffrey C. Fox *Collaborative SVG as a Web service* in Proceedings of SVG Open Conference Vancouver July 2003
<http://grids.ucs.indiana.edu/ptliupages/publications/CollaborativeSVGAsAWebService.doc>
463. Han-Ku Lee, Bryan Carpenter, Geoffrey Fox, Sang Boem Lim *HPJava: Efficient Compilation and Performance for HPC* 7th World Multiconference on Systemics, Cybernetics and Informatics SCI 2003 July 27-30 2003 Orlando, Florida
<http://grids.ucs.indiana.edu/ptliupages/publications/Efficientsci03hklee.pdf>
464. Bryan Carpenter, Geoffrey Fox, Han-Ku Lee and Sang Boem Lim. *Applications of HPJava* In 16th International Workshop on Languages and Compilers for Parallel Computing, October 2003. Volume 2958 of Lecture Notes in Computer Science, 2003,
<http://grids.ucs.indiana.edu/ptliupages/publications/hpjavaapplications.pdf>
465. Gurhan Gunduz, Shrideep Pallickara and Geoffrey Fox *A Framework for Aggregating Network Performance in Distributed Brokering Systems* Proceedings of the 9th International Conference on Computer, Communication and Control Technologies. CCCT '03 July-August 2003. Orlando Florida. This paper was selected as the best paper presented in the session: Computing / Information Systems and Technologies
<http://grids.ucs.indiana.edu/ptliupages/publications/PAS-Framework.pdf>.
466. Geoffrey Fox, Sunghoon Ko, Kangseok Kim, Sangmi Lee, and Sangyoon Oh *Universal Accessible Collaboration Frameworks for Ubiquitous Computing Environments* ICUC2003 in Seoul Korea 20-22 Oct 2003.
<http://grids.ucs.indiana.edu/ptliupages/publications/icuc09Final.pdf>
467. Wenjun Wu, Hasan Bulut, Ahmet Uyar, Geoffrey C. Fox *A WEB-SERVICES BASED CONFERENCE CONTROL FRAMEWORK FOR HETEROGENOUS A/V COLLABORATION* 7th IASTED International Conference on INTERNET AND MULTIMEDIA SYSTEMS AND APPLICATIONS ~IMSA 2003~ August 13-15, 2003 Honolulu, Hawaii, USA <http://grids.ucs.indiana.edu/ptliupages/publications/imsa2003-400-135.pdf>
468. Ahmet Uyar, Wenjun Wu, Hasan Bulut, Geoffrey Fox *An Integrated Videoconferencing*

System for Heterogeneous Multimedia Collaboration 7th IASTED International Conference on INTERNET AND MULTIMEDIA SYSTEMS AND APPLICATIONS ~IMSA 2003~ August 13-15, 2003 Honolulu, Hawaii, USA

<http://grids.ucs.indiana.edu/ptliupages/publications/conferencing-final.pdf>

469. Geoffrey Fox, Shrideep Pallickara, Marlon Pierce and David Walker *Towards Dependable Grid and Web Services* ACM Ubiquity Volume 4, Issue 25. August, 2003.
<http://grids.ucs.indiana.edu/ptliupages/publications/DependableServices.pdf>
470. Geoffrey Fox *Messaging Systems: Parallel Computing the Internet and the Grid* EuroPVM/MPI 2003 Invited Talk September 30 2003
http://grids.ucs.indiana.edu/ptliupages/publications/gridmp_fox.pdf
471. Sangyoon Oh, Geoffrey C. Fox , Sunghoon Ko *GMSME: An Architecture for Heterogeneous Collaboration with Mobile Devices* The Fifth IEEE International Conference on Mobile and Wireless Communications Networks (MWCN 2003) Singapore in September / October, 2003. <http://grids.ucs.indiana.edu/ptliupages/publications/mwcn2003.pdf>
472. Sang Boem Lim, Bryan Carpenter, Geoffrey Fox, and Han-ku Lee, *A Device Level Communication Library for the HPJava Programming Language* in proceedings of the IASTED International Conference on Parallel and Distributed Computing and Systems (PDCS 2003), November 3 to November 5, 2003, Marina Del Rey, CA. USA
<http://grids.ucs.indiana.edu/ptliupages/publications/PDCS2003.pdf>
473. Geoffrey Fox *PLANNING A NEW GENERATION OF MULTIPARTICLE PHASE SHIFT ANALYSES IN PERIPHERAL REACTIONS* Proceedings of Jefferson Laboratory Workshop on Gluonic Excitations Newport News May 16 2003
http://grids.ucs.indiana.edu/ptliupages/publications/gluonic_gcf.pdf
474. John B. Rundle, Paul B. Rundle, Andrea Donnellan and Geoffrey Fox *Statistical Mechanics Approaches to the Modeling of Nonlinear Earthquake Physics* conference proceedings of IUGG summer 03
http://grids.ucs.indiana.edu/ptliupages/publications/IUGG_02.pdf
475. Geoffrey C. Fox, Wenjun Wu, Ahmet Uyar Hasan Bulut *Design and Implementation of Audio/Video Collaboration System Based on Publish/subscribe Event Middleware* Proceedings of CTS04 San Diego January 2004
<http://grids.ucs.indiana.edu/ptliupages/publications/CTS-final.pdf>
476. Shrideep Pallickara, Geoffrey Fox, Xi Rao, Ahmet Uyar and David Walker *Performance of a possible Grid Messaging Infrastructure* UK e-Science meeting on Grid Performance Edinburgh December 9 2002, Concurrency and Computation: Practice and Experience 17(2005) 193-214 <http://grids.ucs.indiana.edu/ptliupages/publications/NBPerformance-Paper.pdf>
477. Amey Dharurkar, Shrideep Pallickara and Geoffrey Fox *A Topology Viewer for Distributed Brokering Systems* Proceedings of IEEE ITCC2004 International Conference on Information Technology Las Vegas April 5-7 2004
<http://grids.ucs.indiana.edu/ptliupages/publications/NB-TopologyViewer.pdf>
478. Minjun Wang, Geoffrey Fox and Shrideep Pallickara *A Demonstration of Collaborative Web Services and Peer-to-Peer Grids* Proceedings of IEEE ITCC2004 International Conference on Information Technology (Track on Methodologies, Technologies and Applications in Distributed and Grid Systems) Las Vegas April 5-7 2004
<http://grids.ucs.indiana.edu/ptliupages/publications/P2PGrids.pdf>
479. Gurhan Gunduz, Shrideep Pallickara and Geoffrey Fox *An Efficient Scheme for*

- Aggregation and Presentation of Network Performance in Distributed Brokering Systems* to be published in Journal on Systemics, Cybernetics and Informatics 2004
<http://grids.ucs.indiana.edu/ptliupages/publications/PAS-Framework-journal.pdf>
480. Shrideep Pallickara and Geoffrey Fox *A Scheme for Reliable Delivery of Events in Distributed Middleware Systems* Proceedings of the IEEE International Conference on Autonomic Computing. New York, N. May 17-18 2004.
<http://grids.ucs.indiana.edu/ptliupages/publications/ICAC.pdf>
481. Geoffrey Fox, Shrideep Pallickara and Savas Parastatidis *Towards Flexible Messaging for SOAP Based Services* Proceedings of the IEEE/ACM Supercomputing Conference November 2004. Pittsburgh, PA. <http://grids.ucs.indiana.edu/ptliupages/publications/NB-Soap-SC2004.pdf>
482. Geoffrey Fox and Shrideep Pallickara *Deploying the NaradaBrokering Substrate in Aiding Efficient Web & Grid Service Interactions* to be published in the Special issue of the Proceedings of the IEEE on Grid Computing, April 2004.
<http://grids.ucs.indiana.edu/ptliupages/publications/NB-WSandSOAP.pdf>
483. John B. Rundle, Paul B. Rundle, Andrea Donnellan and Geoffrey Fox *Gutenberg-Richter Statistics in Topologically Realistic System-Level Earthquake Stress-Evolution Simulations* IUGG Hagiwara symposium on Monitoring and Modeling of Earthquake and Volcanic Processes for Prediction June 30 – July 11, 2003 in Sapporo, Japan *Earth Planets Space*, Vol. 56 (No. 8), pp. 761-771, 2004
http://grids.ucs.indiana.edu/ptliupages/publications/Rundle_Hagiwara_Revised_Final.pdf
484. Mehmet S. Aktas, Marlon Pierce, and Geoffrey C. Fox *Designing Ontologies and Distributed Resource Discovery Services for an Earthquake Simulation Grid* GGF-11 Global Grid Forum Semantic Grid Applications Workshop Hawaii June 10 2004
http://grids.ucs.indiana.edu/ptliupages/publications/aktas_ggf11.pdf
485. Andrea Donnellan, Jay Parker, Geoffrey Fox, Marlon Pierce, John Rundle, Dennis McLeod *Complexity Computational Environment: Data Assimilation SERVOnet* 2004 Earth Science Technology Conference June 22 - 24 Palo Alto
http://grids.ucs.indiana.edu/ptliupages/publications/A3P2_aist.pdf
486. Andrea Donnellan, Jay Parker, Greg Lyzenga, Robert Granat, Geoffrey Fox, Marlon Pierce, John Rundle, Dennis McLeod, Lisa Grant, Terry Tullis *The QuakeSim Project: Numerical Simulations for Active Tectonic Processes* 2004 Earth Science Technology Conference June 22 - 24 Palo Alto
http://grids.ucs.indiana.edu/ptliupages/publications/A2P1_aist.pdf
487. Hasan Bulut, Shrideep Pallickara and Geoffrey Fox *Implementing a NTP-Based Time Service within a Distributed Brokering System* ACM International Conference on the Principles and Practice of Programming in Java, June 16-18, Las Vegas, NV
<http://grids.ucs.indiana.edu/ptliupages/publications/NB-TimeService.pdf>
488. Shrideep Pallickara and Geoffrey Fox *Efficient Matching Of Events in Distributed Middleware Systems* Journal Of Digital Information Management. Volume 2, Issue 2. pp 79-87. June 2004. Special Issue of selected papers from the IEEE ITCC 2004 Track on Modern Grid and Web Systems. <http://grids.ucs.indiana.edu/ptliupages/publications/jdim-vol2-num2.pdf>
489. Minjun Wang, Geoffrey Fox and Shrideep Pallickara *Demonstrations of Collaborative Web Services and Peer-to-Peer Grids* Journal Of Digital Information Management. Volume 2, Issue 2. June 2004. Special Issue of selected papers from the IEEE ITCC 2004 Track on

Modern Grid and Web Systems.

http://grids.ucs.indiana.edu/ptliupages/publications/P2PGrids_JDIM_PDF.pdf

490. Hasan Bulut, Wenjun Wu, Geoffrey Fox, Ahmet Uyar, Shrideep Pallickara, Harun Altay *A Web Services Based Streaming Gateway for Heterogeneous A/V Collaboration* IC2004, The 5th International Conference on Internet Computing, Las Vegas June 2004
<http://grids.ucs.indiana.edu/ptliupages/publications/XGSPStreamingGatewaySubmitted.doc>
491. Sang Boem Lim, Geoffrey Fox, Shrideep Pallickara, Marlon Pierce. *Web Service Robust GridFTP* The 2004 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA04), Las Vegas June 2004
<http://grids.ucs.indiana.edu/ptliupages/publications/PDPTA04-NB-GridFTP.pdf>
492. Galip Aydin, Marlon Pierce, Geoffrey Fox, Mehmet Aktas and Ahmet Sayar *Implementing GIS Grid Services for the International Solid Earth Research Virtual Observatory* Extended abstract for Fourth ACES (APEC Cooperation for Earthquake Simulation) Workshop, Beijing China, July 13 2004
<http://grids.ucs.indiana.edu/ptliupages/publications/SERVO-%20ACES%20AbstractJuly2004.pdf>
493. Andrea Donnellan, Geoffrey Fox, Robert Granat, Lisa Grant, Greg Lyzenga, Dennis McLeod, Shrideep Pallickara, Jay Parker, Marlon Pierce, John Rundle, and Terry Tullis *iSERVO: Implementing the International Solid Earth Research Virtual Observatory* Extended abstract for Fourth ACES (APEC Cooperation for Earthquake Simulation) Workshop, Beijing China, July 13 2004
http://grids.ucs.indiana.edu/ptliupages/publications/iSERVO_ACES_Abstract.pdf
494. Sangmi Lee, Geoffrey Fox *Wireless Reliable Messaging Protocol for Web Services (WS - WRM)* IEEE 2nd International Conference on Web Services (ICWS 2004) San Diego July 2004 <http://grids.ucs.indiana.edu/ptliupages/publications/ICWS04WRM.pdf>
495. Jungkee Kim and Geoffrey Fox *A Hybrid Keyword Search across Peer-to-Peer Federated databases* Advances in Databases and Information Systems (ADBIS) 2004 Budapest Hungary September 22-25 2004
<http://grids.ucs.indiana.edu/ptliupages/publications/p2pSearch.pdf>
496. Minjun Wang, Geoffrey Fox and Shrideep Pallickara *NEW TOOLS IN EDUCATION* The 7th IASTED International Conference on COMPUTERS AND ADVANCED TECHNOLOGY IN EDUCATION ~CATE 2004~ August 16-18, 2004 Kauai, Hawaii, USA
http://grids.ucs.indiana.edu/ptliupages/publications/428-047_wang.doc
497. Minjun Wang and Geoffrey Fox *Design of a Collaborative System*, Proceedings of IASTED KSCE Conference Virgin Islands November 2004
<http://grids.ucs.indiana.edu/ptliupages/publications/OpenOfficeCollaborativeSystemFINAL.pdf>
498. Geoffrey Fox and Marlon Pierce *Web Service Grids for iSERVO* (International Workshop on Geodynamics: Observation, Modeling and Computer Simulation University of Tokyo Japan October 14 2004)
<http://grids.ucs.indiana.edu/ptliupages/publications/iSERVOOct2004.pdf>
499. Wenjun Wu, Ahmet Uyar, Hasan Bulut, Sangyoon Oh, Geoffrey Fox *Grid Service Architecture for Videoconferencing* to appear as chapter in book "Grid Computational Methods" Edited by M.P. Bekakos, G.A. Gravvanis and H.R. Arabnia.
<http://grids.ucs.indiana.edu/ptliupages/publications/gcm-draft.pdf>
500. Geoffrey Fox, Shrideep Pallickara, and Marlon Pierce *Building a Grid of Grids: Messaging Substrates and Information Management* to appear as chapter in book "Grid Computational Methods" Edited by M.P. Bekakos, G.A. Gravvanis and H.R. Arabnia.
<http://grids.ucs.indiana.edu/ptliupages/publications/GridOfGrids.pdf>

501. Mehmet S. Aktas, Marlon Pierce, Geoffrey C. Fox, and David Leake *A Web based Conversational Case-Based Recommender System for Ontology aided Metadata Discovery* November 8, 2004. 5th IEEE/ACM International Workshop on Grid Computing (GRID 2004) http://grids.ucs.indiana.edu/ptliupages/publications/servo_paper.pdf

Unpublished Concurrent Computation Papers from Caltech

1. Brooks, E., Gupta, R., Martin, O., Otto, S., DeBenedictis, E., ``Nearest Neighbor Concurrent Processor," CALT-68-867, Caltech report C3P-1 (1981).
2. Brooks, E. and Fox, G. C., ``A Simple Mail Box Communications Package for the NNCP," CALT-68-920, Caltech report C3P-2 (1982).
3. Fox, G. C., ``Matrix Operations on the Homogeneous Machine," CALT-68-939, Caltech report C3P-5 (1982).
4. Fox, G. C., ``Decomposition of Scientific Problems for Concurrent Processors," CALT-68-986, Caltech report C3P-28 (1983).
5. Fox, G. C., ``The Cyclic Jacobi Method for Eigenvalues of Symmetric Matrices," Caltech report C3P-82 (1984).
6. Fox, G. C., ``Eigenvalues of Symmetric Tridiagonal Matrices," Caltech report C3P-95 (1984).
7. Fox, G. C., ``Square Matrix Decomposition: Symmetric, Local, Scattered," Caltech report C3P-97 (1984).
8. Fox, G. C., ``Householder's Tridiagonalization Technique," Caltech report C3P-98 (1984).
9. Fox, G. C., ``LU Decomposition for Banded Matrices," Caltech report C3P-99 (1984).
10. Fox, G. C., ``Use of Concurrent Processors in (High Energy Physics) Data Analysis," Caltech report C3P-129 (1984).
11. Fox, G. C., ``On the Sequential Component of Computation," Caltech report C3P-130 (1984).
12. Fox, G. C. and Jefferson, D., ``Concurrent Processor Load Balancing as a Statistical Physics Problem," Caltech report C3P-172 (1985).
13. Fox, G. C., ``Concurrent Scalar Products on the Hypercube," Caltech report C3P-173 (1985).
14. Fox, G. C., ``Implementation of High Performance Crystalline Operating System on the INTEL iPSC Hypercube," Caltech report C3P-247 (1986).
15. Fox, G. C., ``Iterative Full Matrix-Vector Multiplication on the Hypercube," Caltech report C3P-336 (1986).
16. Fox, G. C., ``An Overview of Ten Challenge Problems on the Hypercube," Caltech report C3P-338 (1986).
17. Fox, G. C., Chen, M., DeBenedictis, E., Li, J., Walker, D., ``Hypercubes are General-Purpose Multiprocessors with High Speed Up," Caltech report C3P-499 (1987).
18. Fox, G. C. and Frey, A., ``High Performance Parallel Supercomputing Application, Hardware, and Software Issues for a Teraflop Computer," Caltech report C3P-451b (1988).
19. Fox, G. C. and Messina, P., ``The Caltech Concurrent Computation Program Annual Report 1986-1987," Caltech report C3P-487 (1987).
20. Felten, E., Fox, G. C. and Otto, S., ``A Uniform Programming Environment for Synchronous and Loosely Synchronous Problems; SIMD and MIMD Parallel

- Computers," Caltech report C3P-656 (1988).
21. Fox, G. C. and Messina, P., ``Report for 1988 on the Caltech Concurrent Computation Program," Caltech report C3P-685 (1988).
 22. Saltz, J., Mirchandaney, R., Fox, G., and Nicol, D., ``The Design of a Run-time System Integrable with Programming Environments for Distributed Memory Machines," Caltech report C3P-700 (1989).
 23. Fox, G. C., ``Experience on the Hypercube," Caltech report C3P-716 (1989).
 24. Fox, G. C., ``A Report on Advanced Architectures to the Technical Options Group," Caltech report C3P-718 (1989).
 25. Fox, G. C., ``A Note on Neural Networking for Trackfinding," Caltech report C3P-748 (1989).

Internal Reports from Syracuse University, Florida State and Indiana (through 2004)

26. Fox, G., Choudhary, A., and Ranka, S. ``Developing large industrial applications on nCUBE-2." Technical Report SCCS-27, Syracuse University, NPAC, Syracuse, NY, December 1990. [Fox:90ee]
27. Fox, G., Ranka, S., and Choudhary, A. ``Development of software and applications for parallel processors." Technical Report SCCS-34, Syracuse University, NPAC, Syracuse, NY, December 1990. A joint study with IBM Yorktown. [Fox:90gg]
28. Fox, G. C. ``Syracuse University, NPAC school of management project." Technical Report SCCS-100, Syracuse University, NPAC, Syracuse, NY, May 1991. A proposal from the Northeast Parallel Architectures Center. [Fox:91gg]
29. Apostolakis, J., Falcioni, M., Fox, G., and Han, L. ``Some preliminary benchmarks for the CM-5." Technical Report SCCS-405, Syracuse University, NPAC, Syracuse, NY, November 1992. [Apostolakis:92c]
30. Chen, T., Feeney, J., Fox, G., Frieder, G., Ranka, S., and Yu, F. ``A switch for scalable high-performance distributed computing." Technical Report SCCS-392, Syracuse University, NPAC, Syracuse, NY, November 1992. [Chen:92c]
31. Cheng, G., and Fox, G., ``An interactive graphic tool for the option price modeling on DECmpp-12000 using AVS," Technical Report SCCS-369, Syracuse University, NPAC, Syracuse, NY, September 1992. [Cheng:92b]
32. Fox, G. ``Questions and answers for GE task force." Technical Report SCCS-304, Syracuse University, NPAC, Syracuse, NY, May 1992. [Fox:92p]
33. Fox, G., Ranka, S., Furmanski, W., and Choudhary, A. ``Scalable portable systems for high performance computing." Technical Report SCCS-364, Syracuse University, NPAC, Syracuse, NY, July 1992. [Fox:92s]
34. Fox, G., and Bogucz, E. ``Research experiences for undergraduates site: Undergraduate research experience in computation science." Technical Report SCCS-409, Syracuse University, NPAC, Syracuse, NY, December 1992. [Fox:92t]
35. Mohamed, A., Fox, G., von Laszewski, G., Parashar, M., Haupt, T., Mills, K., Lu, Y., Lin, N., and Yeh, N. ``Applications benchmarking set for Fortran-D and high performance Fortran." Technical Report SCCS-327, Syracuse University, NPAC, Syracuse, NY, June 1992. [Mohamed:92b]
36. Chen, T., Feeney, J., Fox, G., Frieder, G., Ranka, S., Wilhelm, B., and Yu, F. ``A low-latency programming interface and a prototype switch for scalable high-performance distributed computing." Technical Report SCCS-523, Syracuse University, NPAC,

- Syracuse, NY, July 1993. [Chen:93a]
37. Fox, G., Hariri, S., Chen, R., Mills, K., and Podgorny, M. "InfoVision project." Technical Report SCCS-575, Syracuse University, NPAC, Syracuse, NY, December 1993. [Fox:93g]
 38. Podgorny, M., and Fox, G. "Northeast parallel architectures center computational facility." Technical Report SCCS-512, Syracuse University, NPAC, Syracuse, NY, August 1993. [Podgorny:93a]
 39. Choudhary, A., Foster, I., Fox, G., Kennedy, K., Kesselman, C., Koelbel, C., Saltz, J., and Marc, S. "Languages, compilers, and runtime systems support for parallel input-output." Technical Report SCCS-606, Syracuse University, NPAC, Syracuse, NY, January 1994. [Choudhary:94b]
 40. Degani, A., and Fox, G. "Derivation of the beam and warming algorithm for compressible Navier-Stokes equations." Technical Report SCCS-675, Syracuse University, NPAC, Syracuse, NY, December 1994. [Degani:94a]
 41. Degani, A., and Fox, G. "Discussion of the NAS parallel benchmark for CFD." Technical Report SCCS-676, Syracuse University, NPAC, Syracuse, NY, December 1994. [Degani:94b]
 42. Kao, K.-L., Cheng, G., Podgorny, M., and Fox, G. "Benchmarking on ORACLE 7.1.3 parallel server on the nCUBE 2 performance diagnostic and tuning tools." Technical Report SCCS-695, Syracuse University, NPAC, Syracuse, NY, 1995. [Kao:95a]
 43. Lin, T.-H., Haupt, T., and Fox, G. "Parallelization of MOPAC." Technical Report SCCS-744, Syracuse University, NPAC, Syracuse, NY, 1995. [Lin:95a]
 44. Bryan Carpenter, Yuh-Jye Chang and Geoffrey Fox. "Selected Notes on HPJava". December, 1996. <http://www.old-npac.org/projects/pcrc/reports/NotesOnHPJava/reports/reports.html>
 45. Carpenter, B., Zhang, G., Fox, G., and Li, X. "A Draft Java Binding for MPI Definition." Technical Report SCCS-800, Syracuse University, NPAC, Syracuse, NY, November 11, 1997. [Carpenter:97d] http://www.old-npac.org/projects/pcrc/reports/mipiInterface/mipi_interface/mipi_interface.html
 46. Carpenter, B., Zhang, G., Fox, G., Wen, Y., and Li, X. "Structured SPMD Programming - Java Language Binding." Technical Report SCCS-802, Syracuse University, NPAC, Syracuse, NY, October 1, 1997. [Carpenter:97e] <http://www.old-npac.org/projects/pcrc/reports/structuredSPMD/javad/javad.html>
 47. Guansong Zhang, Bryan Carpenter, Geoffrey Fox, Xinying Li, and Yuhong Wen. "The HPspmd model and its Java Binding". November, 1998. High Performance Cluster Computing, Volume 2, edited by Rajkumar Buyya, Prentice Hall 1999. <http://www.old-npac.org/projects/pcrc/papers/NOWbook/phbook/phbook.html>
 48. Bryan Carpenter, Vladimir Getov, Glenn Judd, Tony Skjellum and Geoffrey Fox. "MPI for Java - Position Document and Draft API Specification". Java Grande Forum Technical Report JGF-TR-03. November 1998. <http://www.old-npac.org/projects/pcrc/reports/MPIposition/position/position.html> or <http://www.new-npac.org/users/fox/documents/mpiforjavamarch00/cpempi.html>
 49. Bryan Carpenter, Geoffrey Fox, Sung Hoon Ko and Sang Lim. "Object Serialization for Marshalling Data in a Java Interface to MPI". Revised version, August 1999. <http://www.old-npac.org/projects/pcrc/papers/Java99:CPE/serialize/serialize.html>
 50. Bryan Carpenter, Geoffrey Fox and Guansong Zhang. "An HPspmd Programming

- Model". Extended Abstract for SC99. April, 1999. <http://www.old-npac.org/projects/pcrc/papers/sc99/project/project.html>
51. Bryan Carpenter, Geoffrey Fox and Guansong Zhang. "Semantic Checking in HPJava". May, 1999. <http://www.old-npac.org/projects/pcrc/papers/lpc99/translation/translation.html>
 52. Bryan Carpenter, Geoffrey Fox, Sung-Hoon Ko and Sang Lim. "mpiJava 1.2: API Specification". October 1999. <http://www.old-npac.org/projects/pcrc/reports/mpiJava-spec/mpiJava-spec/mpiJava-spec.html>
 53. Geoffrey C. Fox, "Portals for Web-based Education and Computational Science", *ERDC Technical Report May 2000*, <http://www.new-npac.org/users/fox/documents/generalportalmay00/erdcportal.html>.
 54. Geoffrey C. Fox, "Overview of Collaborative Computing and Some NPAC Experience", *ERDC Technical Report May 2000*, <http://www.new-npac.org/users/fox/documents/collabcompmay00/collabviz.html>
 55. Geoffrey C. Fox (editor), "Collaboration for ARL: A PET White Paper", *ARL Report May 2000*, <http://www.new-npac.org/users/fox/documents/arlcollabwhitepapermay00/whitepaper.html>
 56. Bernholdt D.E., Fox G.C., McCracken N., Podgorny M., "Network-Based Remote Collaboration and Training: Progress and Plans", *Internal technical report* <http://www.old-npac.org/Projects/DoD/white-paper-collab-train-990510.html>
 57. Fox G.C., <http://www.old-npac.org/users/gcf/webwisdomrefs/npacwwdocs.html>, Internal memo on Collaborative Educational Objects, March 1999.
 58. Baker, M., and Fox, G., "Metacomputing: Harnessing Informal Supercomputers: Full Report", Syracuse University, NPAC, Technical Report SCCS-829, December, 1998. [Baker:98a] <http://www.new-npac.org/users/fox/documents/bakerarticles/fullmetacomputing.pdf>
 59. David E. Bernholdt, Sangyoon Oh, Konrad Olszewski, Geoffrey C. Fox, "Tools for Handheld Supercomputing: an Assessment of the Wireless Application Protocol (WAP)", *ERDC Technical Report May 2000*, <http://www.new-npac.org/users/fox/documents/wapmay00/wap-assessment.html>
 60. Tomasz Haupt, Erol Akarsu, Geoffrey C. Fox, "Landscape Management System: A WebFlow Application", *ERDC Technical Report August 1999(updated)*, <http://www.new-npac.org/users/fox/documents/LMSERDCC425/C425LMSrep2.html>
 61. G. C. Fox and W. Furmanski, "NPAC Support for Sandia Commodity Clustering (C-Plant) Technologies, Pilot Project Final Report", November 7, 1998. <http://www.new-npac.org/users/fox/documents/furmpapers/pilot-report-sc98paper4.html>
 62. Fox, G., Furmanski, W., Ozdemir, H., and Pallickara, S., "Building Distributed Computing on the Pragmatic Object Web-The Best of Java, CORBA, COM and XML". To be published, Wiley 1999. Syracuse University, NPAC, Technical Report SCCS-830. [Fox:98d]
 63. G. C. Fox, W. Furmanski, S. Nair, H. T. Ozdemir, Z. Odcikin Ozdemir and T. A. Pulikal, "WebHLA – An Interactive Multiplayer Environment for High Performance Distributed Modeling and Simulation", initial submission (13 pages) for the International Conference on Web-based Modeling and Simulation, WebSim99, San Francisco, CA January 17-20 1999, submitted August 15, 1998. <http://www.new-npac.org/users/fox/documents/furmpapers/paper9.html>

64. G. C. Fox, W. Furmanski and T. Haupt, 'ASCI WebFlow - High-Level Programming Environment and Visual Authoring Toolkit for High Performance Distributed Computing', *NPAC Proposal to DoE ASCI Program*, submitted January 8, 1998, posted April 1998. <http://www.old-npac.org/projects/asci-webflow/>
65. D. Bernholdt, G. C. Fox and W. Furmanski, "Towards High Performance Object Web based FMS", *NPAC White Paper for the DoD HPCMO FMS PET Program at ARL*, September 15, 1997. <http://www.old-npac.org/projects/webspace/proposals/arl/frame/current.ps>
66. G. C. Fox and W. Furmanski, "High Performance Industry Standards Component-based Visual Programming for DoE2000 Systems", *NPAC Proposal to the DoE*, July 16, 1997. <http://www.old-npac.org/projects/webspace/proposals/doe2000/frame/final.ps>
67. G. C. Fox, W. Furmanski, T. Haupt, S. Klasky, M. Chen, J. H. Cowie, J. Browne, M. Parashar, M. Choptiuk, "WebVM (Virtual Machine) based WebFlow Paradigm for Visual Programming in Adaptive HPCC Applications", *NPAC Proposal to the National Science Foundation*, May 21, 1996. <http://www.old-npac.org/techreports/html/0700/abs-0715.html>
68. G. C. Fox, W. Furmanski, M. Podgorny, K. Hawick and J. Niemiec, WebSpace: "A WebWindows based Gateway to the ANL LabSpace", *NPAC Proposal to the U.S. Department of Energy*, submitted March 15, 1995. <http://www.old-npac.org/projects/webspace/proposal.html>
69. David E. Bernholdt, Geoffrey C. Fox, Nancy J. McCracken, Roman Markowski, and Marek Podgorny "Reflections on Three Years of Network-Based Distance Education", ERDC Technical Report May 2000. [://www.new-npac.org/users/fox/documents/erdctraining.pdf](http://www.new-npac.org/users/fox/documents/erdctraining.pdf)
70. G. Lewandowski, R. Trzaska, M. Podgorny and G. Fox, "Living SchoolBook applications: Tradeoffs between Network Bandwidth and CPU Power", [://www.new-npac.org/users/fox/legacy/edperf.html](http://www.new-npac.org/users/fox/legacy/edperf.html)
71. R. Markowski and G. Fox, "Collaboratory and Telecommunications Experiments", RL-TR-96-58 Rome Laboratory final report 1996.
72. K. Dincer and G. Fox, "A World-Wide Virtual Machine Based on Web and HPCC Technologies", paper unsuccessfully submitted to SC96.
73. E. Akarsu, K. Dincer, G. Fox, T. Haupt, "Particle-in-Cell Simulation Codes in High Performance Fortran", paper unsuccessfully submitted to SC96.
74. G. Fox, W. Furmanski, M. Nilan and R. Small, "Assessing Virtual Reality for Education", NSF SGIR grant final Geoffrey Charles Fox
75. Geoffrey Fox and Ahmet Uyar editors, Survey of Collaborative Tools and Systems, May 2001, [://aspen.csit.fsu.edu/collabtools/CollabReviewmay09-01.doc](http://aspen.csit.fsu.edu/collabtools/CollabReviewmay09-01.doc)
76. Geoffrey Fox, "Computational Science and Information Technology: Distance Education and Training", *ERDC Technical Report May 2001*, <http://aspen.csit.fsu.edu/collabtools/erdc/erdccsit.doc>
77. Geoffrey Fox, Architecture and Implementation of a Collaborative Computing and Education Portal, *ERDC Technical Report May 2001*, <http://aspen.csit.fsu.edu/collabtools/erdc/erdcgarnet.pdf>
78. Geoffrey Fox, Gurhan Gunduz and Ahmet Uyar, Audio Video Conferencing in the Garnet Collaboration System, *ERDC Technical Report May 2001*, <http://aspen.csit.fsu.edu/collabtools/erdc/erdcav.pdf>

79. Geoffrey fox, Ubiquitous Access for Computational Science and Education, *ERDC Technical Report May 2001*, <http://aspen.csit.fsu.edu/collabtools/erdc/erdcpsda.pdf>
80. Geoffrey C. Fox and Shrideep Pallickara , A Scalable Durable Grid Event Service. Unpublished 2001, <http://grids.ucs.indiana.edu/ptliupages/publications/GESOverview.pdf>.
81. Mehmet Aktas, Galip Aydin, Mehmet Necati Aysan, Ozgur Balsoy, Geoffrey Fox, Cevat Ikibas, Ali Kaplan, Jungkee Kim, Marlon Pierce, Ahmet Topcu, and Beytullah Yildiz *Design Features and Technology Evaluations for the PET Online Knowledge Center*, 2002 unpublished, <http://grids.ucs.indiana.edu/ptliupages/publications/OKCReport.pdf>.
82. Geoffrey Fox, Shrideep Pallickara, Xi Rao and Qinglin Pei *Scaleable Event Infrastructure for Peer to Peer Grids*, 2002 <http://grids.ucs.indiana.edu/ptliupages/publications/ScaleableEventArchForP2P.doc>.
83. Geoffrey Fox, Sangmi Lee, Sunghoon Ko, Kangseok Kim, Sangyoon Oh, CAROUSEL Web service: Universal Accessible Web service Architecture for Collaborative Application November 2002 http://grids.ucs.indiana.edu/ptliupages/publications/Carousel_PerCom03.doc.
84. Geoffrey Fox and Marlon Pierce *Grid Computing Environments Shells GGF Information Document*, 2003. <http://grids.ucs.indiana.edu/ptliupages/publications/GGFWPGCEShell.doc>
85. G.Fox, D. Gannon, M. Pierce, M. Thomas *Overview of Grid Computing Environments GGF Information Document*, 2003. <http://grids.ucs.indiana.edu/ptliupages/publications/ggf-gce-overview2.doc>
86. Xiaohong Qiu, Bryan Carpenter and Geoffrey C. Fox *Collaborative Web services and the W3C Document Object Model technical report* 2003. http://grids.ucs.indiana.edu/ptliupages/publications/collaborative_domfeb28-03.pdf
87. Marlon Pierce and Geoffrey Fox *Federated Grids and their Security -- a white paper* http://grids.ucs.indiana.edu/ptliupages/publications/FedGrid_Short.pdf
88. Shrideep Pallickara and Geoffrey Fox *On the Matching of Events in Distributed Brokering Systems* Technical Report <http://grids.ucs.indiana.edu/ptliupages/publications/MatchingEvents.pdf>
89. Shrideep Pallickara, Marlon Pierce, Geoffrey Fox, Yan Yan, Yi Huang *A Security Framework for Distributed Brokering Systems* <http://grids.ucs.indiana.edu/ptliupages/publications/NB-SecurityFramework.pdf>
90. Geoffrey Fox, David Walker *e-Science Gap Analysis* June 30 2003 <http://grids.ucs.indiana.edu/ptliupages/publications/GapAnalysis30June03v2.pdf>
91. Geoffrey Fox, David Walker *Appendix to e-Science Gap Analysis* June 30 2003 <http://grids.ucs.indiana.edu/ptliupages/publications/Appendix30June03.pdf>
92. Geoffrey Fox, Marlon Pierce *Implications of Grids, e-Science and CyberInfrastructure for the DoD High Performance Computing Modernization Program* Technical Report September 7 2003 <http://grids.ucs.indiana.edu/ptliupages/publications/DODE-ScienceGrids.pdf>
93. *Summary of Community Grids Laboratory* December 2003 or in PDF <http://grids.ucs.indiana.edu/ptliupages/publications/CGLHandout.pdf>
94. Sang Lim, Geoffrey Fox, Ali Kaplan, Shrideep Pallickara and Marlon Pierce *GridFTP and Parallel TCP Support in NaradaBrokering* Technical Report June 2004 <http://grids.ucs.indiana.edu/ptliupages/publications/GridFTPPaper.pdf>

95. Marlon Pierce and Geoffrey Fox *Scientific Applications as Web Services: A Simple Guide* for CISE Magazine January/February 2004
http://grids.ucs.indiana.edu/ptliupages/publications/cise_WSforeScience.pdf
96. Xiaohong Qiu and Geoffrey Fox *Building Desktop Application with Web Services in a Message-based MVC Paradigm* Technical Report
http://grids.ucs.indiana.edu/ptliupages/publications/BuildDesktopApplicationwithWebServicesinaMessageBasedMVCParadigm_submission.pdf
97. Shrideep Pallickara, Geoffrey Fox and Sangmi Lee *An Analysis of Reliable Delivery Specifications for Web Services* Unpublished technical report February 2004
<http://grids.ucs.indiana.edu/ptliupages/publications/WSR-Analysis.pdf>
98. Geoffrey Fox *The Rule of the Millisecond* for CISE Magazine March/April 2004
<http://grids.ucs.indiana.edu/ptliupages/publications/cisejano4.pdf>
99. Sang Lim, Geoffrey Fox, Ali Kaplan, Shrideep Pallickara and Marlon Pierce *GridFTP and Parallel TCP Support in NaradaBrokering* Technical Report June 2004
<http://grids.ucs.indiana.edu/ptliupages/publications/GridFTPPaper.pdf>
100. Geoffrey Fox *Grids of Grids of Simple Services* for CISE Magazine July/August 2004 <http://grids.ucs.indiana.edu/ptliupages/publications/Cisegridofgrids.pdf>
101. Geoffrey Fox, Harshawardhan Gadgil, Shrideep Pallickara, Marlon Pierce, John Rundle, Andrea Donnellan, Jay Parker, Robert Granat, Greg Lyzenga, Dennis McLeod and Anne Chen *Complexity Computational Environments (CCE) Architecture* NASA Technical Report September 2004
<http://grids.ucs.indiana.edu/ptliupages/publications/CCE%20Architecture.doc>
102. Geoffrey Fox, Harshawardhan Gadgil, Shrideep Pallickara, Marlon Pierce, Robert L. Grossman, Yunhong Gu, David Hanley, Xinwei Hong, Indiana University and University of Illinois at Chicago *High Performance Data Streaming in Service Architecture* Technical Report July 2004
<http://grids.ucs.indiana.edu/ptliupages/publications/HighPerfDataStreaming.pdf>
103. Ahmet Uyar, Wenjun Wu, Geoffrey Fox *Service-Oriented Architecture for Building a Scalable Videoconferencing System* Technical Report June 2004
<http://grids.ucs.indiana.edu/ptliupages/publications/ServiceOrientedArch-soc04.pdf>
104. Harshawardhan Gadgil, Jin-Yong Choi, Bernie Engel, Geoffrey Fox, Sunghoon Ko, Shrideep Pallickara, Marlon Pierce *Management of Data Streams for a Real Time Flood Simulation* Technical Report June 2004
<http://grids.ucs.indiana.edu/ptliupages/publications/crisisGridFlow.pdf>