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Addresses

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2425 N. Milo B. Sampson Lane,
Bloomington, IN 47408

Date of Birth

June 7, 1944, Dunfermline, Scotland

Education

Institution and Location	Degree	Year(s)	Field of Study
Cambridge Univ., Cambridge, England	B.A.	1961-1964	Mathematics
	Ph.D.	1964-1967	Theoretical Physics
	M.A.	1968	Mathematics

Professional Experience

- 2017-2018 Interim Associate Dean for Engineering, School of Informatics and Computing, Bloomington
- 2016- Technical Advisor, C2RO
- 2015-2018 Chair, Department of Intelligent Systems Engineering, Indiana University Bloomington
- 2015- Professor of Computing, Engineering, and Physics. Indiana University
- 2014-2015 Director of Data Science Program, School of Informatics and Computing, Indiana University Bloomington
- 2013-2015 Associate Dean for Research, School of Informatics and Computing, Indiana University Bloomington
- 2011- Distinguished Professor, Indiana University
- 2011-2015 IV-endowed Chair Professor Tsinghua University
- 2010-2015 Member of Board Open Grid Forum
- 2009-2013 Associate Dean for Graduate Studies and Research, School of Informatics and Computing, Indiana University Bloomington
- 2009-2015 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
- 2006-2012 Senior Research Associate in the Center for Computational Science and Advanced Distributed Simulation at University of Houston Downtown
- 2005-2009 Vice President of Community/eScience function for Open Grid Forum
- 2005-2009 Visiting Scholar for Cyberinfrastructure Development at the Alliance for Equity in Higher Education
- 2004-2012 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 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
2000-2010	Chief Technology Officer, Anabas Inc
2000-2007	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)
- [Mayhew Prize](#), Applied Mathematics, Cambridge (1964)
- Alfred P. Sloan Foundation Fellowship (1973-75)
- Fellow of the American Physical Society (1990-)
- ACM Fellow (2011-)
- **HPDC Achievement Award** for Foundational contributions to parallel computing, high-performance software, the interface between applications and systems, contributions to education, and outreach to underrepresented communities (2019)
- **ACM - IEEE CS Ken Kennedy Award** for Foundational contributions to parallel computing methodology, algorithms and software, data analysis, and their interface with broad classes of applications (2019)

Board Membership

Anabas Corporation 2001-2015
Undergroundfilm.org 2003-2007

Industry Experience

Co-founder of WebWisdom.com and Anabas corporations.

Patents TangoInteractive Collaboration System, March 2000 with several members of

Current Journal Editor

- 1) Main Editor, [*Concurrency and Computation: Practice and Experience*](#), John Wiley, Inc. (1989-present)
- 2) Member of Editorial Board: *The Journal of Supercomputing* (1987-)
- 3) Member of Editorial board: *Computing in Science and Engineering* (2001-)
- 4) Member of Editorial board: *Future Generation Computer Systems* (2003-)
- 5) Member of Editorial board: *Geo-spatial Information Science* (2011-)
- 6) Member of Editorial board: *Big Data* (2012-)
- 7) Member of Editorial board: *IEEE Transactions on Cloud Computing* (2014-)

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)
- 7) Member of Editorial board: *International Transactions on Systems Science and Applications* (2006-2011)

Ph.D. Theses supervised

- 1) Hyungro Lee, [BUILDING SOFTWARE-DEFINED SYSTEMS WITH REPRODUCIBLE ENVIRONMENTS](#), Indiana University Ph.D Dissertation Defense, May 31 2019
- 2) Jerome E. Mitchell, "[A PROGRESSIVE STUDY FOR THE AUTOMATIC ANALYSIS OF INTERNAL LAYERS FROM POLAR RADAR IMAGERY](#)" Indiana University Ph.D. Dissertation Defense, July 26, 2018
- 3) Supun Kamburugamuve, "[TOWARDS HPC AND BIG DATA CONVERGENCE IN A COMPONENT BASED APPROACH](#)," Indiana University Ph.D. Dissertation Defense, May 14th, 2018.
- 4) Andrew J. Younge, "[Architectural Principles and Experimentation of Distributed High Performance Virtual Clusters](#)," Indiana University Ph.D. Dissertation Defense, October 10th, 2016
- 5) Saliya Ekanayake, "[Towards a Systematic Study of Big Data Performance and Benchmarking](#)," Indiana University Ph.D. Dissertation Defense, September 28th, 2016
- 6) Yang Ruan, [SCALABLE AND ROBUST CLUSTERING AND VISUALIZATION FOR LARGE-SCALE BIOINFORMATICS DATA](#) Indiana University Ph.D. August 18, 2014
- 7) Thilina Gunarathne [SCALABLE PARALLEL COMPUTING ON CLOUDS: EFFICIENT AND SCALABLE ARCHITECTURES TO PERFORM PLEASINGLY PARALLEL, MAPREDUCE AND ITERATIVE DATA INTENSIVE COMPUTATIONS ON CLOUD ENVIRONMENTS](#) Indiana University Ph.D. defense April 21, 2014

- 8) Tao Huang [BUILDING A SCALABLE FRAMEWORK FOR THE COLLABORATIVE ANNOTATION OF REAL TIME DATA STREAMS](#) Indiana University Ph.D. January 11, 2013
- 9) Zhenhua Guo [HIGH PERFORMANCE INTEGRATION OF DATA PARALLEL FILE SYSTEMS AND COMPUTING: OPTIMIZING MAPREDUCE](#) Indiana University Ph.D. August 31, 2012
- 10) Seung-Hee Bae [Scalable High Performance Dimension Reduction](#), Indiana University Ph.D. January 17, 2012
- 11) Jong Youl Choi [Unsupervised Learning Of Finite Mixture Models With Deterministic Annealing For Large-scale Data Analysis](#), Indiana University Ph.D. January 12, 2012
- 12) Jaliya Ekanayake [ARCHITECTURE AND PERFORMANCE OF RUNTIME ENVIRONMENTS FOR DATA INTENSIVE SCALABLE COMPUTING](#) Indiana University Ph.D. December 20, 2010
- 13) Ali Kaplan [Collaborative Framework for High-Performance P2P-based Data Transfer in Scientific Computing](#) Indiana University Ph.D. April 28, 2009
- 14) Ahmet Topcu [INTEGRATED COLLABORATIVE INFORMATION SYSTEMS](#) Indiana University Ph.D. March 23, 2009
- 15) Ahmet Sayar [High Performance, Federated, Service-Oriented Geographic Information Systems](#) Indiana University Ph.D. January 28, 2009
- 16) Ahmet Fatih Mustacoglu [Event-based Infrastructure for Reconciling Distributed Annotation Records](#) Indiana University Ph.D. July 31, 2008
- 17) Mehmet Nacar [A COMPONENT FRAMEWORK FOR BUILDING WEB SCIENCE GATEWAYS AND PORTALS](#) Indiana University Ph.D. November 27, 2007
- 18) Kangseok Kim [A FRAMEWORK FOR SYNCHRONOUS AND UBIQUITOUS COLLABORATION](#) Indiana University Ph.D. September 26, 2007
- 19) Beytullah Yildiz [Distributed Handler Architecture \(DHArch\)](#) Indiana University Ph.D. May 28, 2007
- 20) Mehmet Aktas [Information Federation in Grid Information Services](#) Indiana University Ph.D. May 3, 2007
- 21) Hasan Bulut [HIGH PERFORMANCE RECORDING AND MANIPULATION OF DISTRIBUTED STREAMS](#) Indiana University Ph.D. April 24, 2007
- 22) Harshawardhan Gadgil [SCALABLE, FAULT-TOLERANT MANAGEMENT OF GRID SERVICES: APPLICATION TO MESSAGING MIDDLEWARE](#) Indiana University Ph.D. April 5, 2007
- 23) Galip Aydin [Service Oriented Architecture for Geographic Information Systems Supporting Real-Time Data Grids](#) Indiana University Ph.D. January 15, 2007
- 24) Gurhan Gunduz [A Framework for Network Monitoring and Performance Based Routing in Distributed Middleware Systems](#) Syracuse University Ph.D. October 25, 2006

- 25) Minjun Wang [*GRID-BASED COLLABORATION*](#) Syracuse University Computer Engineering August 2, 2006
- 26) Sangyoon Oh [*Optimizing Web Service Performance in Mobile Computing*](#) Indiana University Ph.D. Computer Science August 1, 2006
- 27) Jungkee Kim [*Hybrid Search across peer-to-peer Federated Data*](#) Florida State University April 6, 2005
- 28) Ahmet Uyar [*Scalable Service Oriented Architecture for Audio/Video Conferencing*](#) Syracuse University March 23, 2005
- 29) 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)
- 30) Sang Lim [*PLATFORMS FOR HPJAVA: RUNTIME SUPPORT FOR SCALABLE PROGRAMMING IN JAVA*](#) Florida State University June 11, 2003
- 31) Han-Ku Lee [*TOWARDS EFFICIENT COMPILATION OF THE HPJAVA LANGUAGE FOR HIGH PERFORMANCE COMPUTING*](#) Florida State University June 12, 2003
- 32) Sangmi Lee [*A Modular Data Pipelining Architecture \(MDPA\) for enabling Universal Accessibility in P2P Grids*](#) Florida State University July 3, 2003
- 33) Choonhan Youn [*Web Services Based Architecture in Computational Web Portals*](#) Syracuse University November 7, 2003
- 34) Shrideep Pallickara, [*A Grid Event Service*](#), Syracuse University 2001
- 35) Yuh-Jye Chang, [*Architecture of fine-grained data flow network programming environment*](#), Syracuse University 2000
- 36) M. A. Saleh Elmohammed, [*Algorithms and heuristics for combinatorial optimization problems: Case study of academic course scheduling*](#), Syracuse University 2000
- 37) Sung-Hoon Ko, [*Object-based message passing in high performance computing using Java*](#), Syracuse University 2000
- 38) Myeongjin Lee, [*Information architecture of interactive and customizable learning environments*](#), Syracuse University 2000
- 39) Tseng-Hui Lin, [*Parallelizing legacy applications using message passing programming model and the example of MOPAC*](#), Syracuse University 2000
- 40) Bokyun Na, [*System model, and taxonomy for host-network interfaces*](#), Syracuse University 2000
- 41) Mehmet Sen, [*Distributed open asynchronous information access environment*](#), Syracuse University 2000
- 42) Erol Akarsu, [*Integrated Three-Tier Architecture for High-Performance Commodity Metacomputing*](#), Syracuse University 1999.
- 43) Alvin Leung, [*Real-time interactive client-server terrain rendering*](#), Syracuse University 1997

- 44) Kivanc Dincer, [*World-wide virtual machine: A metacomputing environment integrating World Wide Web and high performance computing and communications technologies*](#), Syracuse University 1997
- 45) David Edelsohn [*Random interactions with disk galaxies*](#) Syracuse University 1996
- 46) Gang Cheng, [*A dataflow-based software integration model in parallel and distributed computing and applications*](#), Syracuse University 1996
- 47) Gregor von Laszewski, [*A parallel data assimilation system, and its implications on a metacomputing environment*](#), Syracuse University 1996
- 48) Nawal Cotty, [*Language and runtime support for the execution of hierarchical clustering applications on distributed-memory machines*](#), Syracuse University 1995
- 49) David Koester, [*Parallel block-diagonal-bordered sparse linear solvers for power systems applications*](#), Syracuse University 1995
- 50) Leiping Han, [*Monte Carlo Simulations of Random Surfaces with Extrinsic Curvature*](#), Syracuse University Physics 1995
- 51) Zeki Bozkus, [*Compiling Fortran 90D/HPF for Distributed Memory MIMD computers*](#), Syracuse University 1995
- 52) Zheng-Yao Su, [*The Hierarchical Algorithms: Theory and Applications*](#), Caltech 1994.
- 53) John Apostolakis, [*Asymptotic scaling in the two-dimensional \$O\(3\)\$ nonlinear sigma model: A Monte Carlo study on parallel computers*](#), Caltech 1994
- 54) Nashat Mansour. [*Physical Optimization Algorithms for Mapping Data to Distributed-Memory Multiprocessors*](#), Syracuse University 1992
- 55) Ken Rose, [*Deterministic Annealing, Clustering, and Optimization*](#), Electrical Engineering, Caltech 1990
- 56) John K. Salmon, [*Parallel Hierarchical N-Body Methods*](#), Caltech, 1990.
- 57) Roberto Battiti, [*Multiscale Methods, Parallel Computation, and Neural Networks for Computer Vision*](#), Computation and Neural Systems, Caltech 1990
- 58) Paul Stolorz, [*NUMERICAL SIMULATIONS OF LATTICE QCD \(MONTE CARLO, LATTICE GAUGE THEORY\)*](#), Caltech 1987
- 59) Jon Flower, [*Lattice gauge theory on a parallel computer*](#), Caltech 1987
- 60) Adam Kolawa. [*Semi-analytical Calculation of the \$0^{++}\$ Glueball Mass in \$SU\(2\)\$ Gauge Theory*](#), Caltech 1986
- 61) Eric Mjolsness, [*NEURAL NETWORKS, PATTERN RECOGNITION, AND FINGERPRINT HALLUCINATION \(COLLECTIVE COMPUTATION\)*](#), Caltech 1986
- 62) Mark Johnson, [*Concurrent Computation and its Application to the Study of Melting in Two Dimensions*](#). Caltech 1986
- 63) Apoorva Patel, [*Monte Carlo Renormalization Group for Lattice QCD*](#), Caltech 1984
- 64) Steve Otto, [*Monte Carlo Methods in Lattice Gauge Theories*](#), Caltech 1983.
- 65) Michael Shatz, [*A QCD Based Model of Hadron Hadron Scattering*](#), Caltech 1983

- 66) Sarbmeet Kanwal, *A Leading Order QCD Computation of $\pi\pi$ Elastic Scattering*, Caltech 1983
- 67) Rajan Gupta, *Mass Gap and Scaling in the O(3) Sigma Model in 1+1 Dimension*, Caltech 1982
- 68) Kar Woo Yung, *Study of hadronic jets produced by charged pion and proton beams incident on hydrogen and aluminum targets*, Caltech 1980
- 69) James Rohlfs, *JET PRODUCTION IN HIGH-ENERGY HADRON-PROTON COLLISIONS*, Caltech 1980
- 70) Stuart Stampke, *PION-PION DECAY DISTRIBUTIONS FOR PION(-) PROTON --> PION(+) PION(-) NEUTRON AT 100 AND 175 GEV/C*, Caltech 1982
- 71) Stephen Wolfram, *Some topics in theoretical high-energy physics*, Caltech 1980
- 72) Daniel Novoseller, *PION-EXCHANGE IN A PARTIAL WAVE ANALYSIS OF PION-NUCLEON ---> NUCLEON,PION,PION*, Caltech 1977
- 73) Robert Worden, *Regge models of forward pion and eta photoproduction*, Caltech 1972

Research Activities

From 1967 (my Ph.D.) until 1980, I had a modest size research program, but from 1983-2016, I have led research activities that ranged from 20-50 people in size with annual budgets of \$2M-\$5M dollars. I was involved in but not lead of large projects in the 1976-2000 time period as part of significant experiments at Fermilab. My research has ranged over many areas but dominantly focused on practical uses of computing; an interest spurred by undergraduate research experiences. Below I list research thrusts as overlapping focus periods. Details can be found in books and papers and at the [website](#) for current projects.

For the last 5 years, my research areas are described in items 15-23 below with a major focus on work at the interface of HPC and Big Data with especially the \$1M a year SPIDAL project that I lead. This is described in the figure below. A lot of the contributions come from the six other participating organizations as Indiana only receives about 30% of the funds and so one needs to look at the total project to gauge the value of this research. We recently fully summarized the project for algorithms, communities (applications) and middleware

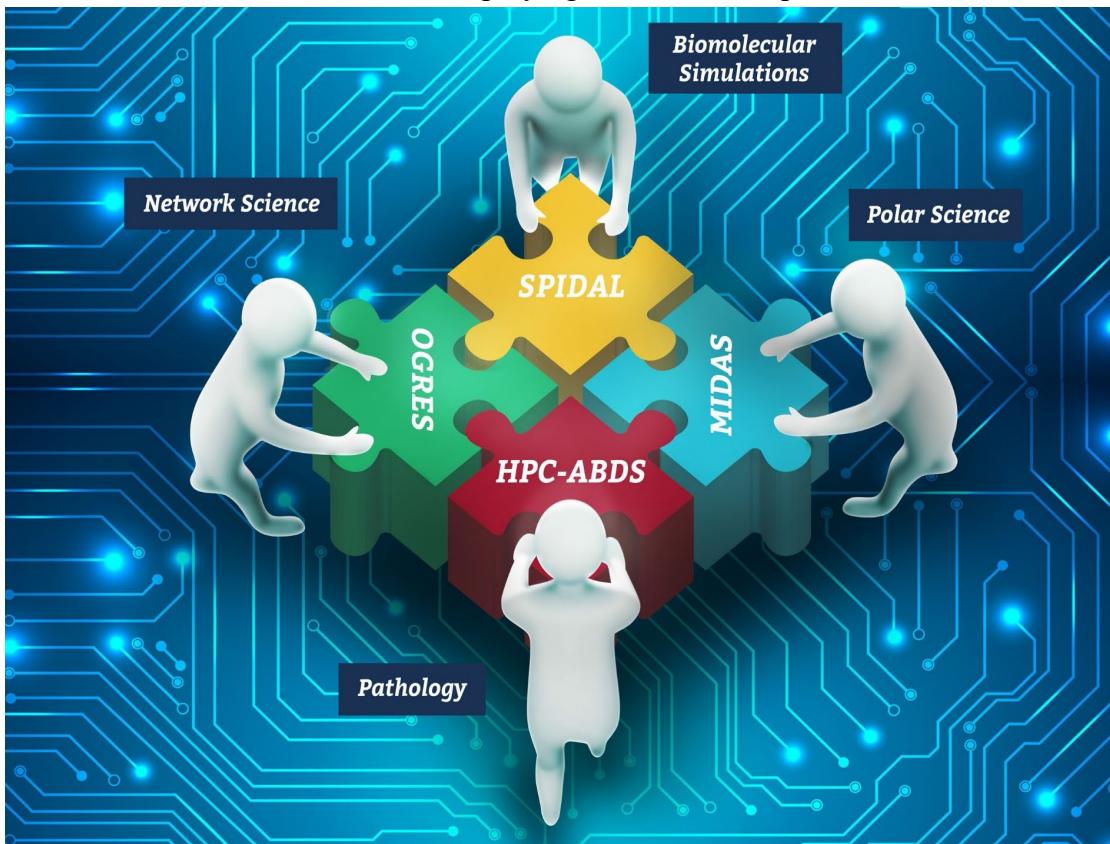
<http://dsc.soic.indiana.edu/publications/SPIDALPaperSept2018.pdf>. This will be published as a book chapter by IOS Press. Major progress is illustrated by the release of Twister2 which is a Big data programming environment which integrates ideas of HPC, our older system Twister, Spark, Apache Storm (Heron) and Hadoop. Unlike other approaches the software is written as a toolkit with each component carefully designed to satisfy big data requirements and make best use of HPC.

- 1) **1964-1985 Particle Physics Phenomenology** with modeling of strong interactions and application to both “soft” and “hard” (high transverse momentum) processes
- 2) **1975-1985 Particle Physics Experiments** at Fermilab E110 (low transverse momentum peripheral production), E260 (productions of jets and single particles at high transverse momentum), E350 (testing Triple Regge Theory)

- 3) **1980-1995** Study of **Parallel Computing** for MIMD machines based until 1990 on **hypercube** topology machines at Caltech/JPL. Develop core (simple) software, performance models and collaborate on some 50 applications as reported in “Parallel Computing Works” book.
- 4) **1988-2000** Work on **Parallel Computing** in the **CRPC** (Center for Research in Parallel Computation) and in particular on High-Performance Fortran and its PCRC runtime developing the first compiler and working on applications including the Black Hole Grand Challenge
- 5) **1990-2005** Identification of **Industry** interest in Data-intensive problems with the **Infomall** project at Syracuse
- 6) **1995-2005** Use of **Java** in scientific computing and HPJava
- 7) **1995-2010 Web-based** and Object Web **Computing**, Publish-Subscribe middleware, WebFlow, Service Oriented Architectures, Web Services, and Grids.
- 8) **1997-2008 Portals** and Gateways using at first Web and then Grid technologies
- 9) **1995-2012 Web-based collaboration** with application to Education and Command & Control
- 10) **2005-2011 Cheminformatics** Application at Indiana University with Grid and Services
- 11) **1988-now** Development of **Interdisciplinary Education**: Computational Science, Plectics, Internetics, Informatics, Intelligent Systems Engineering
- 12) **1990-now** Continuing work on **optimization** and complex systems in the tradition of neural networks; in particular deterministic annealing with recent work greatly expanding applicability of this.
- 13) **1997-now** enhancing involvement of **Minority Serving Institutions** in STEM with Minority Serving Institutions (MSI) - Cyberinfrastructure Empowerment Coalition (MSI-CIEC). Development of e-Humanity portal and distance education.
- 14) **1998-2017 QuakeSim** support Earthquake forecasting
- 15) **2000-now Sensors**, Robots, and Smart phone Grids and **Clouds**. This is now licensed to Canadian company C2RO <http://c2ro.com/>
- 16) **2007-now Multicore** use in (my) return to detailed parallel computing but mainly applied to data analytics
- 17) **2007-2017 PolarGrid** support Remote Sensing of ice-sheets with CReSIS center
- 18) **2008-now Bioinformatics** data analytics exploiting clustering and multidimensional scaling with groups at Indiana University and elsewhere
- 19) **2008-now extensions of MapReduce** including high performance computing with Twister and Twister2 systems leading to **2014-now Building blocks for Data Analytics** Major National Collaboration <http://www.spidal.org/>, http://dsc.soic.indiana.edu/presentations/SPIDALPosterDibbsNSF1443054_0622.pdf shown in figure below
- 20) **2010-now Cloud Computing** and associated infrastructure as a Service. First with **FutureGrid** as a National Facility and now in collaboration with SDSC and NIST
- 21) **2012-now** Small effort in (return to) **Particle Physics Phenomenology** applied to Jefferson Laboratory experiments

- 22) **2012-now** Small effort in (return to) **Education Technology** including MOOC's. This is recently focused on the use of Github as a learning management system.
<http://dsc.soic.indiana.edu/presentations/vonLaszewski-bigdata-April8-2018.pdf> and recent NSF Cybertraining award.

- 23) **2017-now** work with Nanohub on deploying **Nano-Bio** computational resources



Summary of Current Funding

- 1) CIF21 DIBBs: Middleware and High Performance Analytics Libraries for Scalable Data Science, PI, \$5M total, 10/01/14 - 09/30/20, NSF OAC
- 2) CIF21 DIBBs: Middleware and High Performance Analytics Libraries for Scalable Data Science REU Supplement (done annually), PI, \$54K total, 10/01/14 - 09/30/20, NSF OAC

- 3) Request for Supplemental Support for NSF Project PHY-1415459 to organize 2017 International Summer Workshop on Data Science for Scattering Reactions, PI, \$42.5K, 05/01/17 – 07/31/18, NSF Nuclear Physics
- 4) Extensible Computational Services for Discovery of New Particles, PI, \$475K, 08/01/14 - 07/31/18, NSF Nuclear Physics
- 5) Gateways to Discovery: Cyberinfrastructure for the Long Tail of Science with SDSC, co-PI, \$1.2M, 01/01/15 – 03/31/20, NSF OAC
- 6) Network for Computational Nanotechnology - Engineered nanoBIO Node, PI, \$4M, 09/01/17 - 08/31/22, NSF Engineering
- 7) CyberTraining: CIC: CyberTraining for Students and Technologies from Generation Z, PI, \$492K, 07/01/2018 - 06/30/2021, NSF OAC
- 8) Collaborative Research: Framework: Software: CINES: A Scalable Cyberinfrastructure for Sustained Innovation in Network Engineering and Science, co-PI, \$500K, 11/01/2018 - 10/31/2023, NSF OAC
- 9) Big Data and Extreme-scale Computing, 2nd Series (BDEC2), co-PI, \$205K, 10/1/2018- 9/30/2020, NSF OAC
- 10) Automated Big Data REST Service Creation in Support of Big Data Applications, PI, \$50K, 09/01/2018 - 08/31/2019, NIST
- 11) Expeditions: Global Pervasive Computational Epidemiology, co-PI, \$375K, Preproposal Invited for a full proposal, NSF CISE.

Conferences Organized

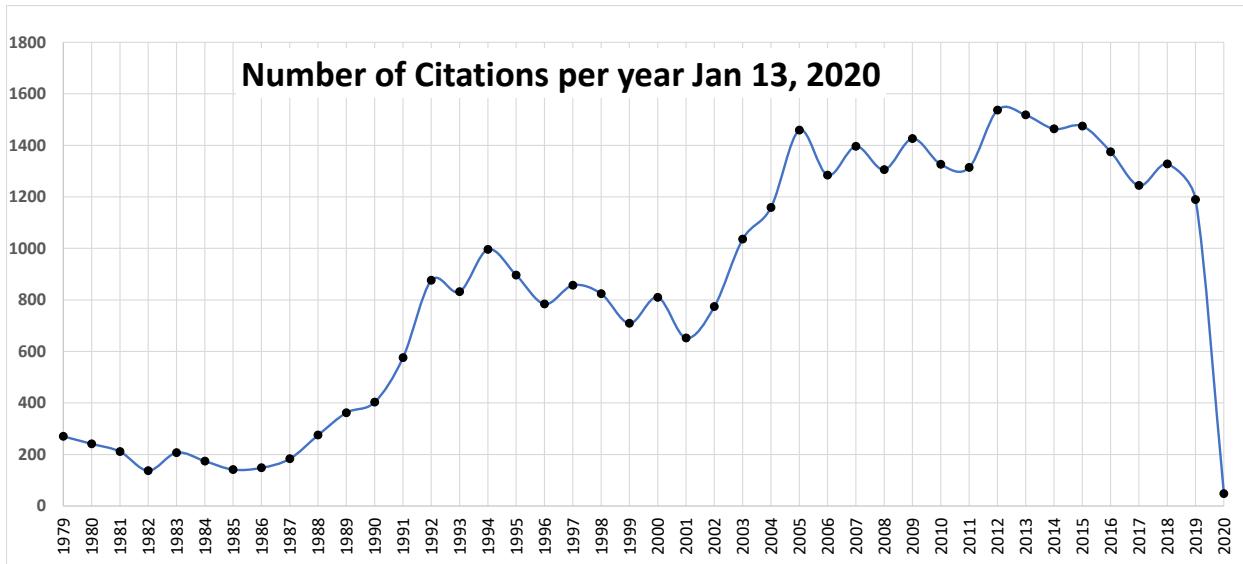
- 1) Caltech 1971 (with C. B. Chiu) on "High Energy Physics Phenomenology."
- 2) Caltech 1979 on "Gauge Theories and Related High Energy Physics (Experimental and Theoretical) Topics."
- 3) JPL 1988 "Third Conference on Hypercube Concurrent Computers and Applications;" Chairperson of the program committee.
- 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
- 17) [The Virtual Summer School of Computational Science and Engineering](#) in “[Big Data for Science](#),” July 26-30, 2010, Indiana University and 9 other sites.
- 18) Indianapolis, Indiana, November 30 - December 3, 2010, “[The 2nd International Conference on Cloud Computing Technology and Science CloudCom2010](#)”, General Chair
- 19) The Virtual Summer School of Computational Science and Engineering in “[Science Clouds](#)” July 30-August 3 2012, Indiana University and 9 other sites
- 20) 2015 International Summer [Workshop](#) on Reaction Theory, June 8-19, 2015 Bloomington, Indiana, US
- 21) [STREAM 2015](#) October 27-28, 2015 Indianapolis, an interdisciplinary workshop to identify application and technology communities working in streaming, steering and their intersection,
- 22) [STREAM2016](#) March 22-23, 2016 Washington DC, follow-up workshop to identify application and technology communities working in streaming, steering and their intersection
- 23) Program chair of Conference IEEE International Conference on Cloud Computing, Cloud 2017 [Conference](#) June 25-30, 2017, Honolulu, Hawaii
- 24) Co-general chair Cloud 2018 [Conference](#) July 2-7 2018, San Francisco
- 25) Co-organizer of Big data and extreme scale computing BDEC2 [workshop](#) in Bloomington Indiana November 28-30, 2018.
- 26) Co-general chair Cloud 2019 [Conference](#) July 8-13, 2019 in Milan, Italy

I am General Chair or Program chair of many more conferences, but those above I had a strong personal involvement.

Publications: Introduction

[According to Google Scholar result](#), I have 36947 citations, 1790 papers of which 534 have at least 10 citations, and I have an h-index of 79. (as of January 13, 2020)



The above chart gives citations per year (2019 and 2020 are incomplete) from Google Scholar ending on January 13, 2020.

Google Scholar tends to be liberal in its definition of a “paper” (conference committee pages are included for example), but there are very few “papers” not written by me in this sample. The listings below identify 1269 “papers”. ResearchGate lists 1354 “research items” for me at https://www.researchgate.net/profile/Geoffrey_Fox on December 31, 2019.

We start with full Books, Lecture and Course notes, and open source Software systems. Then the “real” papers are organized in groups starting with those from January 2005 to December 2019. These are divided into conventional categories separating journal, book and conference contributions. This is followed by a set from 1967-1990 and then the set from 1990-2004 with only technical reports separated out. The website <http://www.infomall.org> contains recent online material and <http://salsahpc.indiana.edu/dlib/home/>, <http://www.old-npac.org>, <http://www.new-npac.org/users/fox/>, and <http://www.new-npac.org/projects/> material from before 2001. I do not list presentations in this CV; the websites above list most of my presentations and are approximately complete since 1990 although only presentations while I am at Indiana University (July 2001) are easy to find at <http://www.dsc.soic.indiana.edu/presentations>.

Books Authored and Edited

- 1) *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.
- 2) *Hypercube Concurrent Computers and Applications*, Proceedings of the Third Conference on Hypercube Concurrent Computers and Applications, published by ACM, 1988.
- 3) *Solving Problems in Concurrent Processors-Volume 1*, with M. Johnson, G. Lyzenga, S. Otto, J. Salmon, D. Walker, Prentice Hall, March 1988.
- 4) *Solving Problems in Concurrent Processors-Volume 2*, with I. Angus, J. Kim, D. Walker, Prentice Hall, 1990.
- 5) *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).
- 6) *Parallel Computing Works!*, with P. Messina, R. Williams, Morgan Kaufman (1994).
 - 7) *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)
 - 8) *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
 - 9) *Distributed and Cloud Computing: Clusters, Grids, Clouds and The Internet of Things* by Kai Hwang, Geoffrey Fox, and Jack Dongarra, Morgan Kaufmann (Elsevier), ISBN 0-123-85880-1, October 2011

Lecture and Course Notes

- 1) ``Phenomenology of Particle Physics," course notes with answered problems for Physics 231, CALT-68-837, unpublished, 1980. These have been digitized at
<http://salsahpc.org/dlib/articles/00000629/>, <http://salsahpc.org/dlib/articles/00001078/>,
<http://salsahpc.org/dlib/articles/00001669/>
- 2) Numerous Courses have been put on the web including series Fox taught to Jackson State University 1997-2005 while <http://www.old-npac.org> has all courses offered at Syracuse <http://www.old-npac.org/users/gcf/byarea0.html> which lists two CD-Roms we made of educational material
- 3) “[Grid Technologies](#)” August 17, 2001, at ERDC Vicksburg Ms
- 4) “[Web Services and Grids](#)” at Global Grid Forum Toronto February 17, 2002
- 5) “[XML for Science](#)” HPMCO Users Meeting Austin Texas June 8, 2002 (similar at NCSA Alliance Meeting May 8, 2002)
- 6) “Lectures on Grid Technology” April 1-3 2003 CERN
<http://grids.ucs.indiana.edu/ptliupages/presentations/cerngridtechAapril03.ppt> and
<http://grids.ucs.indiana.edu/ptliupages/presentations/cerngridtechBapril03.ppt>
- 7) “[Web Services for Grids](#)” at 2004 Grid Summer School Vico Equense near Naples Italy July 2004 “GlobalMMCS” at [CTS2005](#) Saint Louis, Missouri, USA May 17, 2005
- 8) “[Grids](#)” at DSRT2005 Distributed Simulation and Real-Time Applications' Montreal October 10-12 2005
- 9) “[Implications of Parallel Computing for Multicore](#)” at Microsoft Research February 26-March 1 2007
- 10) “[Web 2.0 and Grids](#)” with Marlon Pierce CTS2007 May 21, 2007,
http://grids.ucs.indiana.edu/ptliupages/presentations/Web20Tutorial_CTS.ppt (repeated OGF19, SC07 Education Program, and CTS2008)
- 11) “[Parallel Computing and Multicore 2008](#)” HPCS 2008 at Nicosia Cyprus June 5 2008
- 12) [FutureGrid Tutorial](#) at CTS2011 Philadelphia May 23, 2011
- 13) [FutureGrid Tutorial](#) at PPAM September 11, 2011, Poznan
- 14) See Summer Schools in 2010 and 2012 listed under conferences
- 15) <https://bigdatacoursespring2014.appspot.com/preview> Big data Applications and Analytics Course I590, I400 Spring 2014

- 16) <https://bigdatacourse.appspot.com/preview> Big data Applications and Analytics MOOC Fall 2013
- 17) <http://iucloudsummerschool.appspot.com/preview> Science Cloud Talk Repository Summer 2014
- 18) Geoffrey Fox [Big Data Tutorial on Mapping Big Data Applications to Clouds and HPC: Cloudmesh: Software Defined Distributed Systems as a Service SDDSaaS](#) January 27 2015 BigDat 2015: International Winter [School](#) on Big Data Tarragona, Spain, January 26-30, 2015
- 19) Geoffrey Fox [Big Data Tutorial on Mapping Big Data Applications to Clouds and HPC: Sports Analytics](#) January 27 2015 BigDat 2015: International Winter [School](#) on Big Data Tarragona, Spain, January 26-30, 2015
- 20) Geoffrey Fox [Big Data Tutorial on Mapping Big Data Applications to Clouds and HPC: Looking At Individual HPCABDS Software Layers](#) January 27 2015 BigDat 2015: International Winter [School](#) on Big Data Tarragona, Spain, January 26-30, 2015
- 21) Geoffrey Fox [Big Data Tutorial on Mapping Big Data Applications to Clouds and HPC: Data Mining Runtime Software and Algorithms](#) January 27 2015 BigDat 2015: International Winter [School](#) on Big Data Tarragona, Spain, January 26-30, 2015
- 22) Geoffrey Fox [Big Data Tutorial on Mapping Big Data Applications to Clouds and HPC: Keynote](#) January 27 2015 BigDat 2015: International Winter [School](#) on Big Data Tarragona, Spain, January 26-30, 2015
- 23) <http://bigdataopensourceprojects.soic.indiana.edu/> March-June 2015 Big Data Open Source Software Projects Course
- 24) Geoffrey Fox (presenter), David Crandall, Judy Qiu, Gregor Von Laszewski, Shantenu Jha, John Paden, Oliver Beckstein, Tom Cheatham, Madhav Marathe, Fusheng Wang, "[Tutorial Program](#)", International Winter School [BigDat 2017](#) MIDAS and SPIDAL [Tutorial](#) Bari Italy February 13-14 2017
- 25) Geoffrey Fox (presenter), David Crandall, Judy Qiu, Gregor Von Laszewski, Shantenu Jha, John Paden, Oliver Beckstein, Tom Cheatham, Madhav Marathe, Fusheng Wang, "[Integration of HPC, Big Data Analytics and the Software Ecosystem Tutorial](#)" at BigDat 2018: 4th International [Winter School](#) on Big Data, Timisoara, Romania, January 22-26, 2018
- 26) Courses from 2015-9 are not online as they used OpenEdX which is no longer available from Indiana University. Recently we have rehosted this material on Github and the Big data Applications and Analytics Course now known as E534 isb described for [2018](#) and [2019](#). Other courses are being updated to this approach and are temporarily [here](#).
- 27) Geoffrey Fox for the Twister2 Team, "[Twister2 Tutorial](#)", January 10-11 2019, 5th International Winter School on Big Data [BigDat2019](#), Cambridge, United Kingdom - January 7-11, 2019

Open Source Software and Resources: Current

- 1) Twister2 high performance data analytics hosting environment that can work in both cloud and HPC environments <https://github.com/DSC-SPIDAL/twister2/releases> released May 10 2019 with extensive [tutorial](#).

- 2) SPIDAL Github <https://github.com/DSC-SPIDAL> data analytics library. This is being federated with all software from SPIDAL NSF Dibbs project
- 3) WebPlotViz 3D point viewer including time series <https://spidal-gw.dsc.soic.indiana.edu/>. This replaces Plotviz 3D software below
- 4) [Cloudmesh](#) DevOps Software originally developed for FutureGrid. Now for NIST and SDSC.
- 5) [MSI-CIEC Portal](#) for outreach to Minority Serving Institutions
- 6) [eHumanity](#) cultural portal developed for AIHEC the American Indian Higher Education Consortium with NEH (National Endowment for Humanities) funding

Open Source Software and Resources: Obsolescent SALSA Laboratory Projects

- 7) [Twister](#) Iterative MapReduce for Java applications replaced by Twister2
- 8) [Twister for Azure](#) Iterative MapReduce [customized](#) for Azure will be replaced by Twister2
- 9) [MapReduce for Azure](#) was the initial [version](#) of Twister for Azure using Azure PaaS capabilities
- 10) [Plotviz 3D viewer](#) for the study of clustering replaced by WebPlotviz 3D above in our operation but still used by others.
- 11) Early [SALSA Performance Measurements](#) and Kernel Software on multicore chips

Open Source Software and Resources: Older Projects

- 12) [HPJava](#) Parallel Java Compiler and mpiJava Java binding to MPI
- 13) [Machine Learning C# code](#) for Clustering with deterministic annealing and Multi Dimensional Scaling (replaced by Java version in SPIDAL library)
- 14) [QuakeSim](#) website (now retired but independent [work](#) built on this) 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. This was awarded a NASA Software of the Year [award](#) in 2012.
- 15) [Futuregrid](#) virtual machine-based simulation test bed with much in house software. See Cloudmesh above
- 16) [Chembiogrid](#) CICC open-source software from the Chemical Informatics and Cyberinfrastructure Collaboratory at Indiana University. Currently Archived
- 17) Multi-institution Grid Portal ([Open Grid Computing Environment](#)) resource has been retired and integrated into the Science Gateway Institute [SGCI](#)
- 18) [CrisisGrid](#) Open Geospatial Consortium standards-compliant Web Services for Geographical Information Systems. Core Software for SERVOGrid Complexity Computational Environment. Currently archived
- 19) [GlobalIMMCS](#) Service oriented audio-video conferencing and collaboration environment. This software is no longer supported and is archived.
- 20) [Underground Film](#) archive of multimedia digital objects was taken off the air and rehosted commercially May 2007 due to support funding issues.
- 21) [Core Grid and Web Service](#) software including Extended UDDI, WS-Context, Calendaring Service and older GXOS and XML Nuggets. Currently archived

- 22) [NaradaBroker](#) Grid and Web Service publish-subscribe messaging infrastructure. This has important support for multi-protocol transport used in collaboration. It is now out of date and replaced by RabbitMQ Kafka or Pallickara's recent research [work](#).
- 23) **e-Science 2008 Conference** Live Audio-Video broadcasting site Live site integrating live and archived video and audio feeds, chats, and blogs for E-Science 2008. Currently archived

Publications

Published or Submitted Journal Articles 2005 – December 2019

- 1) Vibhatha Abeykoon, Geoffrey Fox, Minje Kim, Saliya Ekanayake, Supun Kamburugamuve, Kannan Govindarajan, Pulasthi Wickramasinghe, Niranda Perera, Chathura Widanage, Ahmet Uyar, Gurhan Gunduz, Selahattin Akkas, "[Stochastic Gradient Descent Based Support Vector Machines Training Optimization on Big Data and HPC Frameworks](#)", Technical Report August 7, 2019. Submitted to Special Issue of Concurrency and Computation: Practice and Experience
- 2) Mahzad Khoshlessan, Ioannis Paraskevacos, Geoffrey C. Fox, Shantenu Jha, Oliver Beckstein, "[Parallel Performance of Molecular Dynamics Trajectory Analysis](#)", Technical Report June 21 2019. Submitted to Submitted to Concurrency and Computation: Practice and Experience
- 3) Pulasthi Wickramasinghe, Niranda Perera, Supun Kamburugamuve, Kannan Govindarajan, Vibhatha Abeykoon, Chathura Widanage, Ahmet Uyar, Gurhan Gunduz, Selahattin Akkas, Geoffrey Fox, "[High-Performance Iterative Dataflow Abstractions in Twister2:TSet](#)", Technical Report, September 2, 2019. Submitted to Special Issue of Concurrency and Computation: Practice and Experience
- 4) Victor Berger, Mingze Xu, Mohanad Al-Ibadi, Shane Chu, David Crandall, John Paden, Geoffrey Fox, Automated Ice-Bottom Tracking of 2D and 3D Ice Radar Imagery Using Viterbi and TRW-S, IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, Sept 2019, vol 12, no 9, pp. 3272-3285, DOI: 10.1109/JSTARS.2019.2930920
- 5) C.-H. Hsu, G. Fox, G. Min, and S. Sharma, "Advances in big data programming, system software and HPC convergence," J. Supercomput., vol. 75, no. 2, pp. 489–493, Feb. 2019 [DOI](#)
- 6) JCS Kadupitiya, Geoffrey C. Fox and Vikram Jadhao, "[Machine Learning for Parameter Auto-tuning in Molecular Dynamics Simulations: Efficient Dynamics of Ions near Polarizable Nanoparticles](#)", November 30 2018 to be published in The International Journal of High Performance Computing Applications.
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- 8) M Asch, T Moore, R Badia, M Beck, P Beckman, T Bidot, F Bodin, F Cappello, A Choudhary, B de Supinski, E Deelman, J Dongarra, A Dubey, G Fox, H Fu, S Girona, W Gropp, M Heroux, Y Ishikawa, K Keahey, D Keyes, W Kramer, J-F Lavignon, Y Lu, S Matsuoka, B Mohr, D Reed, S Requena, J Saltz, T Schulthess, R Stevens, M Swany, A Szalay, W Tang, G Varoquaux, J-P Villette, R Wisniewski, Z Xu, I Zacharov, "[Big data and](#)

- [extreme-scale computing: Pathways to Convergence-Toward a shaping strategy for a future software and data ecosystem for scientific inquiry](#)", The International Journal of High Performance Computing Applications Volume: 32 issue: 4, page(s): 435-479 July 16, 2018. [DOI](#)
- 9) JPAC collaboration: J.A. Silva-Castro, C. Fernandez-Ramirez, M. Albaladejo, I.V. Danilkin, A. Jackura, V. Mathieu, J. Nys, A. Pilloni, A.P. Szczepaniak, G. Fox, "[Regge phenomenology of the N* and Delta* poles](#)", September 6, 2018, arXiv:[1809.01954 \[hep-ph\]](#) under consideration for Physical Review D.
 - 10) JPAC Collaboration: V. Mathieu, J. Nys, C. Fernández-Ramírez, A. Jackura, A. Pilloni, N. Sherrill, A. Szczepaniak, G. Fox, "[Vector Meson Photoproduction with a Linearly Polarized Beam](#)", 26 Feb 2018 [Arxiv](#). [Published DOI](#), Phys. Rev. D 97, 094003 – Published 9 May 2018
 - 11) J. Nys, V. Mathieu, C. Fernández-Ramírez, A. Jackura, M. Mikhasenko, A. Pilloni, N. Sherrill, J. Ryckebusch, A. P. Szczepaniak, G. Fox (JPAC Collaboration), "[Features of pi Delta Photoproduction at High Energies](#)", Technical report 7 November 2017 [Arxiv](#). [Published DOI](#) Physics Letters B, Volume 779, 10 April 2018, Pages 77-81
 - 12) Geoffrey Fox, "[Special Issue on 12th International Workshop on Java Technologies for Real-Time and Embedded Systems JTRES2014](#)", Editorial for Concurrency and Computation: Practice and Experience, 2017. [Published DOI](#) Volume 29, issue 22, 25 November 2017
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- 23) Jahanzeb Maqbool, Sangyooh Oh, Geoffrey C. Fox, "Evaluating ARM HPC clusters for scientific workloads", [DOI](#) Concurrency and Computation: Practice and Experience Volume 27, Issue 17, 10 December 2015, Pages 5390–5410
- 24) Hengjing He, Supun Kamburugamuve, and G.C. Fox, [Cloud based real-time multi-robot collision avoidance for swarm robotics](#) Technical Report, May 7, 2015. To be published in International Journal of Grid and Distributed Computing.
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- 34) Larissa Stanberry, Roger Higdon, Winston Haynes, Natali Kolker, William Broomall, Saliya Ekanayake, Yang Ruan, Judy Qiu, Eugene Kolker, Geoffrey Fox, and Adam Hughes [Visualizing the Protein Sequence Universe](#) Published in Concurrency&Computation:Practice&Experience Special Issue for Emerging Computational Methods for the Life Sciences Workshop [ECMLS2012](#) of ACM [HPDC](#) 2012 conference at Delft the Netherlands, January 2013 [DOI](#)
- 35) Geoffrey Fox [Robust Scalable Visualized Clustering in Vector and non Vector Semimetric Spaces](#) Parallel Process. Lett., 23, 1340006 (2013) [15 pages] DOI: 10.1142/S0129626413400069
- 36) Geoffrey Fox and Shrideep Pallickara, [Recent Work in Utility and Cloud Computing](#). Future Generation Computer Systems, 6//, 2013. 29(4): p. 986-987. DOI:<http://dx.doi.org/10.1016/j.future.2013.01.002>.
- 37) Thilina Gunarathne, Bimalee Salpitikorala, Arun Chauhan, Geoffrey Fox “[Iterative Statistical Kernels on Contemporary GPUs](#)” International Journal of Computational Science and Engineering, Volume 8 Issue 1, February 2013, Pages 58-77
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- 125) Geoffrey Fox "[Deterministic Annealing and Robust Scalable Data mining for the Data Deluge](#)" Invited talk at Petascale Data Analytics: Challenges, and Opportunities (PDAC-11) Workshop at SC11 Seattle November 14 2011
- 126) Geoffrey Fox "[Data Intensive Applications on Clouds](#)" Keynote at The Second International Workshop on Data Intensive Computing in the Clouds (DataCloud-SC11) at SC11 November 14 2011
- 127) Yunhee Kang, Geoffrey C. Fox, "[Performance Evaluation of MapReduce applications on Cloud Computing Environment, FutureGrid](#)" GDC2011, 2011 Conference on Grid and Distributed Computing December 8 ~ 10, 2011 in Jeju Grand Hotel, Jeju Island, Korea. Chapter 10 in Grid and Distributed Computing, T.-h. Kim, H. Adeli, H.-s. Cho, O. Gervasi, S. Yau, B.-H. Kang, and J. Villalba, Editors. 2011, Springer Berlin Heidelberg. p. 77-86. http://dx.doi.org/10.1007/978-3-642-27180-9_10.
- 128) Jay W Parker, Andrea Donnellan, Robert A Granat, Gregory A Lyzenga, Margaret T Glasscoe, Dennis McLeod, Rami Al-Ghanmi, Marlon Pierce, Geoffrey Fox, Lisa Grant Ludwig, John Belting Rundle "[QuakeSim: a Web Service Environment for Productive Investigations with Earth Surface Sensor Data](#)" Fall AGU Meeting San Francisco CA December 5-9 2011
- 129) Margaret Glasscoe, Ronald Blom, Gerald Bawden, Geoffrey Fox, Marlon Pierce, John Rundle, Jun Wang, Robert Granat, Michael Burl, Yu Ma, Mark Yoder, Michael Sachs, Eric Fielding, Jay Parker, Charles Norton, Greg Lyzenga, Roland Bürgmann "[E-DECIDER: Earthquake Disaster Decision Support and Response Tools . Development and Experiences](#)" Fall AGU Meeting San Francisco CA December 5-9 2011
- 130) Javier Diaz, Gregor von Laszewski, Fugang Wang, Andrew J. Younge and Geoffrey Fox "[FutureGrid Image Repository: A Generic Catalog and Storage System for Heterogeneous Virtual Machine Images](#)" 3rd IEEE International Conference CloudCom on Cloud Computing Technology and Science, Athens Greece, November 29 - December 1 2011
- 131) Jong Youl Choi (adviser Geoffrey Fox) "[Large-scale data visualization for data-intensive and high-dimensional scientific data analysis](#)" Doctoral Show case at SC11 Seattle November 15 2011
- 132) Hui Li, Yang Ruan, Yuduo Zhou, Judy Qiu, Geoffrey Fox "[Design Patterns for Scientific Applications in DryadLINQ CTP](#)" The Second International Workshop on Data Intensive Computing in the Clouds (DataCloud-SC11) at SC11 November 14 2011

- 133) Thilina Gunarathne (adviser Geoffrey Fox) "[Architectures for Iterative Data Intensive Analysis Computations on Clouds and Heterogeneous Environments](#)" Doctoral Show case at SC11 Seattle November 15 2011
- 134) Andrea Donnellan, Jay Parker, Robert Granat, Eric De Jong, Shigeru Suzuki, Marlon Pierce and Geoffrey Fox, John Rundle, Dennis McLeod, and Rami Al-Ghanmi, Lisa Grant Ludwig "[QuakeSim: Integrated Modeling and Analysis of Geologic and Remotely Sensed Data](#)" Published in 2012 IEEE Aerospace Conference, March 3–10, 2012 Big Sky, Montana. [DOI](#)
- 135) Zhenhua Guo, Geoffrey Fox, Mo Zhou "[Investigation of Data Locality in MapReduce](#)" Technical report November 24 2011 Submitted to CCGrid 2012
- 136) Thilina Gunarathne, Bimalee Salpitikorala, Arun Chauhan, Geoffrey Fox "[Optimizing OpenCL Kernels for Iterative Statistical Applications on GPUs](#)" 2nd International Workshop on GPUs and Scientific Applications (GPUScA 2011), Galveston Island, Texas, USA, October 10, 2011, in conjunction with PACT 2011
- 137) Seung-Hee Bae, Judy Qiu, Geoffrey Fox "[Scalable Dimension Reduction for Large Abstract Data Visualization](#)" Poster at IEEE Cluster 2011 at the Hilton Hotel in Austin, TX, and hosted by the Texas Advanced Computing Center September 26-30 2011
- 138) Geoffrey Fox, "[FutureGrid from User's Perspective](#)", FutureGrid Birds of a Feather session TG 11 (TeraGrid '11: Extreme Digital Discovery) Marriott Salt Lake City July 20
- 139) Geoffrey Fox MapReduce TG11 BOF "[MapReduce Birds of a Feather session](#)" TG 11 (TeraGrid '11: Extreme Digital Discovery) Marriott Salt Lake City July 19 2011
- 140) Javier Diaz, Gregor Von Laszewski, Fugang Wang, Geoffrey C Fox "[Towards Generic FutureGrid Image Management](#)" presented at TG 11 (TeraGrid '11: Extreme Digital Discovery) Marriott Salt Lake City July 19 2011
- 141) Geoffrey Fox, Gregor von Laszewski, Andrew Grimshaw, Renato Figueiredo, Kate Keahy, Gregory G. Pike, Andrew Younge, "[FutureGrid Tutorial](#)" presented at TG 11 (TeraGrid '11: Extreme Digital Discovery) Marriott Salt Lake City July 18 2011
- 142) Geoffrey Fox, Gregor von Laszewski, Renato Figueiredo "[FutureGrid Tutorial](#)" presented at OGF32 Marriott Salt Lake City July 17 2011
- 143) Andrew J. Younge, Robert Henschel, James T. Brown, Gregor von Laszewski, Judy Qiu, Geoffrey C. Fox "[Analysis of Virtualization Technologies for High Performance Computing Environments](#)" Proceedings of The Fourth IEEE InternationalConference on Cloud Computing (CLOUD 2011) July 4-9, 2011, Washington Marriott, Washington DC, USA updated April 2011
- 144) Gilles Fedak, Geoffrey Fox, Gabriel Antoniu, Haiwu He "[Future of MapReduce for scientific computing](#)" Proceedings of the second international workshop on MapReduce and its applications [MapReduce '11](#) Pages 75-76 ACM New York, NY, USA 2011
- 145) Judy Qiu, Thilina Gunarathne, Geoffrey Fox "[Classical and Iterative MapReduce on Azure](#)" Abstract for Cloud Futures 2011 workshop Microsoft Conference Center Building 33 Redmond, Washington United States, June 2–3, 2011
- 146) Geoffrey Fox, Alex Ho, and Eddy Chan, "[Measured Characteristics of FutureGrid Clouds for Scalable Collaborative Sensor-Centric Grid Applications](#)" IEEE International Symposium on Collaborative Technologies and Systems CTS 2011, Waleed Smari, Editor. May 23-27 2011, Philadelphia.

- 147) Apu Kapadia, Steven Myers, XiaoFeng Wang and Geoffrey Fox “[Toward Securing Sensor Clouds](#)” IEEE International Symposium on Collaborative Technologies and Systems CTS 2011, Waleed Smari, Editor. May 23-27 2011, Philadelphia.
- 148) Zhenhua Guo, Marlon Pierce, Geoffrey Fox, Mo Zhou “[Automatic Task Re-organization in MapReduce](#)” Proceedings of IEEE Cluster 2011 at the Hilton Hotel in Austin, TX, and hosted by the Texas Advanced Computing Center September 26-30 2011
- 149) Geoffrey Fox, Marlon Pierce, Andrea Donnellan, John Rundle “[Towards the OpenQuake Infomall](#)” Abstract for APEC Cooperation for Earthquake Simulation (ACES) Workshop on Advances in Simulation of Multihazards Maui, Hawaii, May 1-5, 2011
- 150) Margaret Glasscoe, Ronald Blom, Gerald Bawden, Geoffrey Fox, Marlon Pierce, John Rundle, Jun Wang, Robert Granat, Michael Burl, Yu Ma, Mark Yoder, Michael Sachs, Eric Fielding, Jay Parker, Charles Norton, Greg Lyzenga, Roland Bürgmann “[E-DECIDER: Experiences Developing Earthquake Disaster Decision Support and Response Tools](#)” Abstract for APEC Cooperation for Earthquake Simulation (ACES) Workshop on Advances in Simulation of Multihazards Maui, Hawaii, May 1-5, 2011
- 151) Gregor von Laszewski, Lizhe Wang, Fugang Wang, Geoffrey C. Fox, G. Kumar Mahinthakumar “[Threat Detection in an Urban Water Distribution Systems with Simulations Conducted in Grids and Clouds](#)” The Second International Conference on Parallel, Distributed, Grid and Cloud Computing for Engineering, Ajaccio, Corsica, France, 12-15 April 2011
- 152) Thilina Gunarathne, Judy Qiu, Geoffrey Fox “[Iterative MapReduce for Azure Cloud](#)” in Proceedings of CCA11 Cloud Computing and Its Applications April 12-13, 2011
- 153) J. Diaz, A. J. Younge, G. von Laszewski, F. Wang, and G. C. Fox, “[Grappling cloud infrastructure services with a generic image repository](#)” in Proceedings of CCA11 Cloud Computing and Its Applications April 12-13, 2011
- 154) Andrea Donnellan, Jay Parker, Robert Granat, Greg Lyzenga, John Rundle, Dennis McLeod, Rami Al-Ghanmi, Geoffrey Fox, Marlon Pierce “[QuakeSim Computational Environment](#)” Abstract for 2011 Earth Science Technology Forum ESTF2011 June 21-23 in Pasadena, CA.
- 155) Seung-Hee Bae, Judy Qiu, Geoffrey C. Fox “[Multidimensional Scaling by Deterministic Annealing with Iterative Majorization algorithm](#)” Proceedings of IEEE eScience 2010 Conference, Brisbane, Australia 7 - 10 December 2010
- 156) Bingjing Zhang, Yang Ruan, Tak-Lon Wu, Judy Qiu, Adam Hughes, Geoffrey Fox “[Applying Twister to Scientific Applications](#)” Proceedings of CloudCom 2010 Conference IUPUI Conference Center Indianapolis November 30-December 3 2010
- 157) Thilina Gunarathne, Tak-Lon Wu, Judy Qiu, Geoffrey Fox “[MapReduce in the Clouds for Science](#)” Proceedings of CloudCom 2010 Conference IUPUI Conference Center Indianapolis November 30-December 3 2010
- 158) Xiaoming Gao, Yu Ma, Marlon Pierce, Mike Lowe, Geoffrey Fox “[Building a Distributed Block Storage System for Cloud Infrastructure](#)” Proceedings of CloudCom 2010 Conference IUPUI Conference Center Indianapolis November 30-December 3 2010
- 159) Gregor von Laszewski, Geoffrey C. Fox, Fugang Wang, Andrew Younge, Archit Kulshrestha, Warren Smith, Jens Vockler, Renato J. Figueiredo, Jose Fortes, Kate Keahey

[“Design of the FutureGrid Experiment Management Framework”](#) GCE Workshop at SC10
November 14 2010

- 160) Tyler Pace, Shaowen Bardzell and Geoffrey Fox [“Practice-Centered e-Science: A Practice Turn Perspective on Cyberinfrastructure”](#) Design Group 10 Conference, Sanibel Island Florida, November 7-10 2010
- 161) Craig A. Stewart, Stephen Simms, Beth Plale, Matthew Link, David Y. Hancock, Geoffrey C. Fox [“What is Cyberinfrastructure?”](#) Association for Computing Machinery (ACM) Special Interest Group on University and College Computing Services (SIGUCCS) 2010 Fall Conference, Norfolk Waterside Marriot, October 24 - 27, 2010
- 162) Geoffrey Fox [“Cloud Architecture for Earthquake Science”](#) Abstract for 7th ACES International Workshop OTARU, October 3-8, 2010
- 163) Donnellan, A., Parker, J., Granat, R., Lyzenga, G., Glasscoe, M., Rundle, J., McLeod, D., Al-Ghanmi, R., Pierce, M., Fox, G. and Ludwig, L. G. [“QuakeSim Earthquake Modeling, Forecasting, and Data Access Tools”](#) Abstract for 7th ACES International Workshop OTARU, October 3-8, 2010
- 164) Gao, X., Granat, R., Pierce, M. and Wang, J. [“Building Services and Web Portal for GPS Time Series Data Analysis”](#) Abstract for 7th ACES International Workshop OTARU, October 3-8, 2010
- 165) Pierce, M, Fox, G, Gao, X, Ji, J, Ma, Y, Wang, J, Donnellan, A, Parker, J, Glasscoe, M, Granat, R, Al-Ghanmi, R and McLeod, D [“QuakeSim Science Gateway Updates”](#) Abstract for 7th ACES International Workshop OTARU, October 3-8, 2010
- 166) Beytullah Yildiz and Geoffrey Fox “Measuring Overhead for Distributed Web Service Handler” Proceedings of 3rd IEEE International Conference on Computer Science and Information Technology (ICCSIT 2010) 9-11 July 2010 pages 566 – 570. [DOI](#)
- 167) Judy Qiu, Thilina Gunarathne, Jaliya Ekanayake, Jong Youl Choi, Seung-Hee Bae, Hui Li, Bingjing Zhang, Yang Ryan, Saliya Ekanayake, Tak-Lon Wu, Scott Beason, Adam Hughes, Geoffrey Fox [“Hybrid Cloud and Cluster Computing Paradigms for Life Science Applications”](#) 11th Annual Bioinformatics Open Source Conference BOSC 2010 July 9-10 2010
- 168) Geoffrey Fox [“Algorithms and Application for Grids and Clouds”](#) Keynote Talk at 22nd ACM Symposium on Parallelism in Algorithms and Architectures Santorini, Greece June 13 - 15, 2010
- 169) Richard A. Aló, Diane Baxter, Karl Barnes, Al Kuslikis ,Geoffrey Fox, Alex Ramirez [“A Model for LACCEI: Minority Serving Institutions and CyberInfrastructure Research/Education Minority Serving Institutions-CyberInfrastructure Empowerment Coalition- MSI-CIEC”](#) Proceedings of The Eighth LACCEI Annual Conference for Engineering and Technology Innovation and Development for the Americas Arequipa, Peru on June 1-4 2010
- 170) Thilina Gunarathne, Tak-Lon Wu, Judy Qiu, and Geoffrey Fox, [“Cloud Computing Paradigms for Pleasingly Parallel Biomedical Applications”](#) March 21 2010. Proceedings of Emerging Computational Methods for the Life Sciences Workshop of ACM HPDC 2010 conference, Chicago, Illinois, June 20-25, 2010.
- 171) Jong Youl Choi, Seung-Hee Bae, Judy Qiu, Geoffrey Fox, Bin Chen, and David Wild, [“Browsing Large Scale Cheminformatics Data with Dimension Reduction”](#) March 21 2010.

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- 172) Jaliya Ekanayake, Hui Li, Bingjing Zhang, Thilina Gunarathne, Seung-Hee Bae, Judy Qiu, Geoffrey Fox "[Twister: A Runtime for Iterative MapReduce](#)" Proceedings of the First International Workshop on MapReduce and its Applications of ACM HPDC 2010 conference, Chicago, Illinois, June 20-25, 2010.
- 173) Beytullah Yildiz, Geoffrey C. Fox "[DISTRIBUTED HANDLER ARCHITECTURE](#)" 3rd IEEE International Conference on Computer Science and Information Technology (IEEE ICCSIT 2010) Chengdu, China during July 9 - 11, 2010
- 174) Seung-Hee Bae, Jong Youl Choi, Judy Qiu, Geoffrey Fox "[Dimension Reduction and Visualization of Large High-dimensional Data via Interpolation](#)" Proceedings of ACM HPDC 2010 conference, Chicago, Illinois, June 20-25, 2010
- 175) Jong Youl Choi, Judy Qiu, Marlon Pierce, Geoffrey Fox "[Generative Topographic Mapping by Deterministic Annealing](#)" to appear in the Proceedings of the 10th International conference on Computational Science and Engineering (ICCS 2010), May 31 - Jun 2, 2010. Amsterdam, The Netherlands.
- 176) Richard A. Aló, Diane Baxter, Karl Barnes, Al Kuslikis ,Geoffrey Fox, Alex Ramirez "Advancing Computational Science, Visualization and Homeland Security Research/Education at Minority Serving Institutions National Model Promoted/ Implemented by MSI-CIEC (Minority Serving Institutions-CyberInfrastructure Empowerment Coalition)" Proceedings of the 10th International conference on Computational Science and Engineering (ICCS 2010), May 31 - Jun 2, 2010. Amsterdam, The Netherlands. [DOI](#)
- 177) Apu Kapadia, Steven Myers, XiaoFeng Wang and Geoffrey Fox "[Secure Cloud Computing with Brokered Trusted Sensor Networks](#)" Proceedings of The 2010 International Symposium on Collaborative Technologies and Systems (CTS 2010) May 17-21, 2010 The Westin Lombard Yorktown Center Chicago, Illinois, USA
- 178) Ahmet Fatih Mustacoglu and Geoffrey Fox "[Performance of a Collaborative Framework for Federating Distributed Digital Entities](#)" Proceedings of The 2010 International Symposium on Collaborative Technologies and Systems (CTS 2010) May 17-21, 2010 The Westin Lombard Yorktown Center Chicago, Illinois, USA
- 179) Tyler Pace, Shaowen Bardzell, Geoffrey Fox "[Human-Centered e-Science: A Group-Theoretic Perspective on Cyberinfrastructure Design](#)" Proceedings of The 2010 International Symposium on Collaborative Technologies and Systems (CTS 2010) May 17-21, 2010 The Westin Lombard Yorktown Center Chicago, Illinois, USA
- 180) Judy Qiu, Scott Beason, Seung-Hee Bae, Saliya Ekanayake, Geoffrey Fox "[Performance of Windows Multicore Systems on Threading and MPI](#)" Proceeding Frontiers of GPU, Multi- and Many-Core Systems Workshop of 10th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing Conference (CCGrid 2010). May 17-20, 2010. Melbourne, Victoria, Australia.
- 181) Jong Youl Choi, Seung-Hee Bae, Xiaohong Qiu and Geoffrey Fox "[High Performance Dimension Reduction and Visualization for Large High-dimensional Data Analysis](#)" Proceedings of the The 10th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing (CCGrid 2010), May 17-20, 2010, Melbourne, Australia

- 182) Andrea Donnellan, Marlon Pierce, Dennis McLeod, Jay Parker, John Rundle, Lisa Grant, Rami Al-Ghanmi, Gepffrey Fox, Robert Granat “[Integrating GPS, InSAR, and UAVSAR data into the QuakeSim Computational Environment](#)” 2011 IEEE Aerospace Conference March 5-12, 2011, Big Sky, Montana
- 183) 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 Spacebourne and Ground-based Earthquake Fault Data](#) Earth and Space Science Informatics 2009 AGU Fall [Meeting](#) 14–18 December 2009 San Francisco, California, USA
- 184) 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
- 185) 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
- 186) 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
- 187) 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
- 188) 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
- 189) Jaliya Ekanayake, Atilla Soner Balkir, Thilina Gunarathne, Geoffrey Fox, Christophe Poulaing, Nelson Araujo, Roger Barga [DryadLINQ for Scientific Analyses](#) 5th IEEE International [Conference](#) on e-Science Oxford UK, December 9-11 2009
- 190) Andrea Donnellan, Jay Parker, Charles Norton, Margaret Glasscoe, Robert Granat, John Rundle, Geoffrey Fox, Marlon Pierce3, 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
- 191) Marlon Pierce and Geoffrey Fox [QuakeSim Web Computing Infrastructure](#) Abstract for Asia Oceania Geosciences Society [Meeting](#) in Singapore AOGS2009 August 11-15 2009
- 192) 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
- 193) 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
- 194) Richard Alo, Karl Barnes , Diane Baxter, Julie Foertsch , Geoffrey Fox, Al Kuslikis, Alex Ramirez [CyberInfrastructure \(CI\) Days at Minority-Serving Intuitions \(MSIs\): A MSI-](#)

- [CIEC Update in a Changing Climate](#) Poster at TeraGrid 09 [meeting](#) Hyatt Regency Crystal City. June 22-25 2009
- 195) 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
- 196) 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
- 197) 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
- 198) Geoffrey Fox [Summary of Cloud Systems Birds of a Feather](#) session at [OGF22](#) Hyatt Regency Cambridge MA February 27 2008
- 199) 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
- 200) 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
- 201) 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
- 202) 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
- 203) 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.
- 204) 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
- 205) 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

- 206) 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
- 207) 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
- 208) 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
- 209) Shantenu Jha, Andre Merzky and Geoffrey Fox [Programming Abstractions for Clouds](#) CCA-08 Cloud Computing and its Applications Chicago ILL October 22-23 2008
- 210) 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)
- 211) 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)
- 212) 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
- 213) 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
- 214) 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
- 215) 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
- 216) 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.
- 217) 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

- 218) 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
- 219) 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
- 220) 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
- 221) 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](#)
- 222) 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.
- 223) 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.
- 224) 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
- 225) 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
- 226) 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
- 227) 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
- 228) 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

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- 229) 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
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