Geoffrey Charles Fox

gcf@cs.fsu.edu, http://www.npac.syr.edu/DC,
Phone: 315-443-2163 or 850-644-4587, Fax: (315) 443-4741

NPAC   Computational Science and Information Technology
Syracuse University   Florida State University
111 College Place   400 Dirac Science Library
Syracuse NY 13244-4100   Tallahassee Florida 32306-4130

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:
2000-	Professor of Computer Science, Florida State University
1990-	Professor of Computer Science, Syracuse University
1990-	Professor of Physics, Syracuse University
1990-2000	Director of Northeast Parallel Architectures Center
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)
Alfred P. Sloan Foundation Fellowship (1973-75)
Fellow of the American Physical Society (1990)

Journal Editor: Concurrency: Practice and Experience (John Wiley, Inc.)

Selected List of Publications - 5 general ones preceeded by 5 specific to proposal
1) Fox, G.C., Johnson, M.A., Lyzenga, G.A., Otto, S.W., Salmon, J.K., Walker, D.W., Solving Problems on Concurrent Processors, Vol. 1, Prentice-Hall, Inc. 1988; Vol. 2, 1990.
2) Fox, G. C., Messina, P., Williams, R., Parallel Computing Works!, Morgan Kaufmann, San Mateo Ca, 1994.

3) Fox, G, Bozkus, Z., Choudhary, A., 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).
4) Fox, G "Internetics: Technologies, Applications and Academic Fields" Invited Chapter in Book :Feynman and Computation", edited by A.J.G. Hey, Perseus Books (1999)
5) Fox, G., Scavo T., Bernholdt D.,Markowski R.,McCracken N.,Podgorny M., Mitra D. and Malluhi Q., "Synchronous Learning at a Distance: Experiences with TangoInteractive", in *Proceedings of SC98*, Orlando, November 1998.

6) Fox G.C., Furmanski W., "Computing on the Web,New Approaches to Parallel Processing,Petaop and Exaop Performance in the Year 2007 IEEE Internet Computing 1:2,38-46, 1997
7) Akarsu E., Fox, G.C., 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.
8) 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.
9) Bryan Carpenter and Geoffrey Fox and 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.)
10) Mark Baker and Bryan Carpenter and Geoffrey Fox and Sung Hoon Ko and Sang Lim, "mpiJava: An Object-Oriented Java interface to MPI", *International Workshop on Java for Parallel and Distributed Computing, IPPS/SPDP '99 San Juan, Puerto Rico, April 1999.

Summary of Interests
Fox has worked in a variety of applied computer science fields with his work on computational physics evolving into contributions to parallel computing initially involving the hypercube architecture. He has worked on the computing issues in several application areas – currently focussing on Earthquake Science. Over the last three years, his major activity has been the use of Object Web technologies to build collaboration systems and their application in an integrated approach to synchronous and asynchronous distance education. He has led activities to develop prototype high performance Java and Fortran compilers and their runtime support. His research group has pioneered use of CORBA and Java for both collaboration and distributed computing. He helped set up the Java Grande forum to encourage use of Java in large-scale computations. Fox is a proponent for the development of computational science and its follow on "Internetics" as an academic discipline and a scientific method.

Adviser: Dr. Richard Eden Cambridge University