CURRICULUM VITAE

Brian J. d'Auriol

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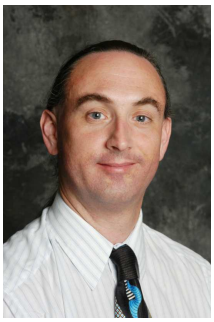

SECTION 1: EDUCATION

1.1 Education

1995	Ph.D.	University of New Brunswick, Canada	Computer Science
1988	BSc(CS)	University of New Brunswick, Canada	Computer Science
1981-83		John Abbott College, Ste. Anne de Belleview, QC, Canada	Pure & Applied Science
1981	Diploma	St. Thomas High School, Point-Claire, QC, Canada	Honors

1.2 Title of Graduate Thesis

'A Unified Model for Compiling Systolic Computations for Distributed Memory Multicomputers', (Supervisor: Prof. V.C. Bhavsar, University of New Brunswick)

1.3 Areas of Academic Interest

Visualization; Optical parallel computing models; sensor networks; Parallel, systolic and distributed programming; Bioinformatics; Information Assurance and computer security.

SECTION 2: EMPLOYMENT

2.1 Academic Employment

07/2006 - present	Research Professor	Kyung Hee University, Yongin, Korea
08/2000 - 08/2005	Assistant Professor	The University of Texas at El Paso, El Paso, TX, USA
08/1997 - 08/2000	Visiting Assistant Professor	The University of Akron, Akron, Ohio, USA
08/1996 - 08/1997	Assistant Professor	The University of Manitoba, Winnipeg, Manitoba, Canada
09/1994 - 08/1996	Visiting Assistant Professor	Wright State University, Dayton, Ohio, USA
07/1990 - 04/1993	Part-time lecturer	University of New Brunswick, Fredericton, N.B., Canada

2.2 Research Employment

08/2005 - 07/2005	Sr. Systems Developer/Engineer	The Ohio Supercomputer Center, The Ohio State University, Columbus, Ohio, 43212, USA; Project: Computational assessment and implementation of Electric Power Grid modeling algorithms.

2.3 Industrial Employment

05/1988 - 06/1990	Programmer/Analysis	Eastern Canada Consulting Services, Div. of SOBECO, 217 Brunswick Street, Fredericton, N.B., E3B 1G8
05/1987 - 08/1987	Programmer	N. B. Electric Power Corp., Point Lepreau Generating Station, Point Lepreau, N.B.
09/1986 - 12/1986	Programmer	Blue Cross of Atlantic Canada, 644 Main St., P.O. Box 220, Moncton, N.B., E1C 8L3
05/1985 - 04/1986 (09-12/1985 pt)	Junior Consultant	Applied Management Consultants, 151 Brunswick St., Fredericton, N.B., E3B 1G7
09/1984 - 12/1984	Peripheral Operator	Dept. of Supply & Services, Host Site Ops., 1557 Hollis St. 8^{th} Fl., Halifax, N.S., B3J 2Z9

2.4 Grants, Awards, Special Listings, and Scholarships

Grants

- 2003, Hewlett-Packard: Hardware Gift/Grant funded under the Hewlett-Packard Company Advanced Technology Platforms - Itanium 2 2003 Academic Grant Initiative. P.I.: Brian J. d'Auriol, Co-P.I.s: P. Teller, N. Ward, J. Chessa, A.Q. Gates, V. Kreinovich and R. Keller, Four dual-processor 900 MHz Itanium-2 workstations will provide for academic and research support into High Performance Computing, value, $98,945, May 28, 2003 (#89955.1), June 4, 2003 (#89955.2).
- 2002, Microsoft Corporation: Support of hardware requirements for research related to .NET technologies, P.I. Brian J. d'Auriol, value, $5000 (US), December 2, 2002 .
- 1997-1998, The University of Akron Faculty Research Grant, proposal title: "Geometric Representation of Programs", value: $1504 (US)
- Spring 1995, in-house university equipment grant for the establishment of a teaching laboratory for parallel/distributed processing: value, $24,400 (US)

Awards

- 2002–2007, Achievement Awards for the 2002, 2003, 2004 and 2005 International MultiConference in Computer Science and Computer Engineering; Achievement Awards for the 2006 and 2007 World Congress in Computer Science, computer Engineering & Applied Computing: in recognition and appreciation of research contributions to the field and to the Conferences.
- June 24, 2002, Diploma: Internationally Registered Technology Specialist in the fields of Computer Sciences and Information Technology, at Level 7; diploma given by the Secretariat to the IRTS Council of the International Technology Institute, Dr. Tuba Executive Director.

Special Listings

- 2008,2009: Listed in Marquis Who's Who in America
- 2006: Listed in Academic Keys Who's Who in Engineering Academia
- 2004,2005: Listed in Who's Who Among America's Teachers

Student Scholarships

- June 1992, NSERC doctoral fellowship, duration: 2 years
- January 1988, 1985: University Special Undergraduate Scholarship
- January 1987, September 1987: UNB Scholarship

SECTION 3: DISSEMINATION OF KNOWLEDGE

3.1 Courses Taught

2006-08	graduate	Data and Information Visualization
2007-08	undergrad., graduate	Computer Architecture
2007-08	graduate	Topics in Functional Programming
2007	graduate	Parallel and Distributed Models
2006	graduate	Topics in Computer Security
2001-05	CS3320	Computer Arch. II: Advanced Computer Design & Implementation
2002-04	CS5334	Parallel and Concurrent Programming
2003	CS5336	Scientific and Program Visualization
2001-02	CS5337	Advanced Interconnection Networks
2000-01	CS5390	Visualization for Human-Computer Programming Environments
2001	CS2302	Data Structures
2000	3460:655	Computer Networks And Distributed Processing
1997-00	3460:428/528	UNIX Systems Programming
1999	3460:689	Interconnection Networks
1999	3460:689	Optical Interconnection Networks
1998-99	3460:430/530	Theory of Programming Languages
1997-99	3460:406/506	Introduction to C and UNIX
1998	3460:640	Advanced Compiler Design and Construction
1997	3460:210	Data Structures and Algorithms I
1997	74.785	Advances in Parallel Computing
1996	74.343	Operating Systems (large enrollment)
1996	CS790	Sp. Topics: Parallel Programming on TMS320C40 Parallel Computer
1996	CEG433/633	Operating Systems Concepts
1994-96	CS240/1/2	Computer Science I/II/III
1994-96	CEG460/660	Software Engineering
1990-93	CS2525	Microcomputer Applications (large enrollment)
1991-92	CS2053	Introduction to APL and Interactive Programming
1992	CS1013	Computer Science Concepts (course now renamed as CS1063)

Graduate courses listed as 5/6/700 level.

3.2 New Course Development

2000-2008 Data and Information Visualization

This practical and research course provides coverage of issues pertinent in data and information visualization. Topics include contouring, isosurfaces, glyphs and other data visualization techniques, color spaces and maps, wire frame models, surface rendering, flow and control graphs, code views, AVS/Express, VTK and/or openGl implementation environments, animation, and applications. An emphasis is placed on similarities and differences between data and information visualization. This course supports students in Computer and Computational sciences. This course was approved as a regular numbered course, CS5336, at UTEP.

2007-2008 Topics in Function Programming

This course introduces the student to functional programming in general and the Haskell language in particular. This course emphasizes rapid-prototyping and problem-solving skills in the mathematics, computer science, engineering and computational science fields by concentrating on the computational essentials of problem. Skills are learned through programming intensive assignments. A secondary theme is to explore the differences between functional, imperative and object-oriented programming methodologies. Students should already be familiar with at least one other programming language, typically, C, C++, or Java.

2007 Parallel and Distributed Models
This course explores a number of the parallel and distributed computing models that have been proposed over the past few decades. Models and formalisms that may be studied include Parallel Random Access Machines (PRAM), Bulk Synchronous Parallel (BSP), Communicating Sequential Processes (CSP), occam2, Message Passing Interface (MPI), Farming (master-slave), Petri Nets (PN), Systolic Arrays (SA), and Parallel Haskell (PH). The expressive capabilities of these models are explored in terms systems architectures, networking, algorithm development and performance. An optional unit on parallelizing compilers provides contrast to explicit parallelism expression inherent in many of the models.

2006 Topics in Computer Security
This course introduces the student to a range of computer security topics by tracing a history of security issues from 1990 to the present. We explore the increasing sophistication of attack methods and tools, and examine the availability of response methods, techniques and tools. The main part of the course concentrates on two areas: first, network intrusion including automated probes/scans and the exploitation of buffer overflow and other software vulnerabilities, second, secure architectures including crypto and communication processors. The theory is complemented by practical laboratory investigations relating to network intrusion detection.

2002-2005 CS5334: Parallel and Concurrent Programming
This graduate course provides comprehensive coverage of a wide selection of material in parallel and distributed systems with an emphasis on concurrent programming. Topics include: parallel languages & libraries, algorithms, architectures, parallelizing compilers, systolics and theory. This course was recently approved as a regular numbered course.

1999-2005 Advanced Interconnection Networks
This research course is aimed at the advanced graduate student and provides an in-depth treatment of (a) the architecture of electrical-based interconnection networks and the impact of such architecture upon solving problems, and (b) optical and optoelectronic interconnection networks and the current research in the area. Students are expected to take active roles in studying state-of-the art research oriented problems. This course was approved as a regular numbered course, CS5337, at UTEP.

1996 CS790: Special Topics: Parallel Programming on TMS320C40 Parallel Computer
This course is a fast paced course designed to meet two broad objectives: (a) allow students to acquire practical experience with a modern day multicomputer and (b) to give students an introduction to techniques and problems associated with implementations on multicomputers. Through course work, students will gain an understanding of parallel programming techniques while completing assignments on a 6 processor TMS320C40 parallel computer.

3.3 Updating of Existing Courses

1998-99 3460-430/530: Theory of Programming Languages
Updated lecture notes and content for enhanced computer presentation; incorporated significant new content based on the Haskell program language.

1995-96 CS240/1: Computer Science I and II
Assisted in updating the language from Pascal to C.

1992 CS1043: Introduction to Computers
Assisted in curricular updates to better address the needs of non-CS students in the 1990's.

1990 CS2525: Microcomputer Applications
Extensively upgraded course material to better address the needs of CS students in the 1990s.

3.4 Development of Teaching Aids

1991 CS2525 Course Notes
Wrote a 37 page teaching supplement called "A Discussion on DOS" with instructions and examples tailored for the students' specific laboratory environment. Wrote a 25 page teaching supplement called "A Discussion on Database Design" that emphasized entity-relationship modeling and other related techniques. These notes were used in lieu of a textbook on this material (continued use after I left).

2002-2005 Teaching Modules
Developed teaching modules suitable for incorporation into multiple undergraduate courses: the *Architecture Security Module* combines computer architecture and computer security content and is suitable for courses in architecture, security and general interest (developed in conjunction with the IACBP, July 2002)

3.5 Organization of Laboratories

2001-current Computation and Communication Integration Group (CCIG)
Established a research group of undergraduate and graduate students who are exploring issues relating to computation and communication in parallel and distributed systems. Facilities include: 4 Pentium-4 Windows XP computers provided by support from Microsoft Corp., three Pentium-3 Windows 2K computes, one Pentium-3 linux computer and one 5-node Beowulf cluster comprised of Pentium-3 computers. Special software includes AVS/Express (in conjunction with departmental support). See http://www.ccig-research.net for details.

2003-2007 HP Itanium 2 High Performance Computing Laboratory
Established a high performance computing laboratory based on a hardware gift/grant from Hewlett-Packard. Facilities are: 4 dual-processor 900Mhz Itanium-2 workstations with dual graphics monitors, one Gbps managed switch interconnecting the workstations that provides for a hybrid parallel computing environment and the ability to connect workstations and/or cluster to external uses/systems at a Gbps rate. High performance computing and visualization are among the applications being developed.

1995-96 Parallel/Distributed Processing Instructional laboratory
Established a parallel/distributed processing laboratory for use in both graduate and undergraduate teaching of parallel programming concepts and skills. This laboratory is based on TI TMS320C40 processors and funding was made possible by an in-house university equipment grant.

1991-94 Parallel/Distributed Processing Laboratory
Assisted in the establishment of a parallel/distributed processing laboratory (based on the Inmos transputer) to support both graduate and undergraduate instruction and research. My involvement included assisting with: financial and purchasing considerations for hardware and software equipment, equipment setup and definition of operating procedures and general support.

3.6 Co-Direction of Research of Doctoral Studies, Completed Work

2008 Wu Xiaoling, "Coverage-driven Energy-efficient Deployment and Self-organization in Sensor Networks"

2008 Uzair Ahmed, "Rapid Development of Flexible and Custom-resolution Indoor Location Systems"

3.7 Co-Direction of Research of Curent Doctoral Studies

current Niu Yu, ubiquitous sensor networks

current Riaz Ahmed Shaikh, ubiquitous sensor networks

3.8 Direction of Research of Masters Studies, Completed Work

2005 Bindu George, "Computation and Communication Analysis of Quantum Algorithms" Department of Computer Science, The University of Texas at El Paso, July 2005

2005 L. Susan Draper, "Free-Space Optical Bus Architecture", Department of Computer Science, The University of Texas at El Paso, July 2005

2005 Juan R. Roldan, "A Feasibility Study of the LARPBS Optical Bus Parallel Model" Department of Computer Science, The University of Texas at El Paso, May 2005

2004 Jesus Pajaro, "A Peer-to-Peer Computing Communication Cost Model", Department of Computer Science, The University of Texas at El Paso, May 2004

2004 Tanushree Ghosh, "Computation, Communication, Command and Control (C4) in a Satellite Cluster", Department of Computer Science, The University of Texas at El Paso, May 2004

2004 Asha Gajjala, "A Model for Visualization of Program Conceptual Information", Department of Computer Science, The University of Texas at El Paso, May 2004

2004 Rupa Policherla, "Scientific Visualization Techniques for Program Visualization", Department of Computer Science, The University of Texas at El Paso, May 2004

2004 Kishore Surapaneni, "Intrusion Detection: Computation Communication Characterization of Probing and Network Attacks", Department of Computer Science, The University of Texas at El Paso, May 2004

2003 Maria Beltran, "Bus Cycles and Safe Communication in the LARPBS Optical Bus Model", Department of Computer Science, The University of Texas at El Paso, December 2003

2003 Esther Vasa, "Communication Timing Attack on Public Key Kerberos for Distributed Authentication Through the RSA", Department of Computer Science, The University of Texas at El Paso, December 2003

2003 Rohit Seth, "A Dynamic Relation Model for Program Visualization", Department of Computer Science, The University of Texas at El Paso, December 2003

2003 Pramod Kumar Chikkappaiah, "Complexity in the Geometric Representation of Programs (GRP) Model", Department of Computer Science, The University of Texas at El Paso, May 2003

2002 Afolami Akinsanmi, "A Conceptual Space Model for Intrusion Detection", Department of Computer Science, The University of Texas at El Paso, December 2002

2002 Rajesh Molakaseema, "A Parameterized Linear Array With A Reconfigurable Pipelined Bus System: LARPBS(p)", Department of Computer Science, The University of Texas at El Paso, December 2002

2001 Rene Saenz, "Analysis of Communications in CORBA Systems", Department of Computer Science, The University of Texas at El Paso, August 2001

1997 Rajeshwer Subramanian, "An Implementation Model for Systolic Algorithms On a TMS320C40 Multicomputer", Department of Computer Science and Engineering, Wright State University, 1997

3.9 Direction of Other Selected Graduate Work

2004 Florence Muganda, "Beowulf Cluster Implementation", Department of Computer Science, The University of Texas at El Paso

2002 Roberto Torres, "Beowulf Cluster Implementation", Department of Computer Science, The University of Texas at El Paso

2001 Srinivasa Dola,"Initial Feasibility Study of Optical Bus Implementations",Department of Computer Science, The University of Texas at El Paso

2001 Rohit Seth, "Studies in LARPBS Optical Bus Model", Department of Computer Science, The University of Texas at El Paso

2001 Afolami Akinsanmi, "Systolic Chronology", Department of Computer Science, The University of Texas at El Paso

1999 N. Jirasook, "Emerging Technologies which Supports and Drives Electronic Commerce", Department of Math and Computer Science, The University of Akron

1996 M. Dugar, "A Systolic Array Graph Partitioning System", Department of Computer Science and Engineering, Wright State University

3.10 Direction of Research of Undergraduate Studies

2004 Alejandro Castaneda, "A C Implementation of a Scanner/Parser for MPI Programs in Support of the ARM 4 PV

2004 Sarah Guerrero, "A C Implementation of the Data Repository for the ARM 4 PV"

2003 Elsa Tai, "Review of The National Strategy to Secure Cyberspace document, Whitehouse, Feb. 2003, vis-à-vis Microsoft Windows XP and Server 2003 platforms deployed in critical infrastructures in the United States of America"

2002 Xinlin Shen, "Fashion and Performance Theory as Applications of Programmable Behaviors"

2002 Rachel Smith, Elsa Tai and Lavada Thompson, "Program Visualization Using AVS/Express"

2002 Mark Duran, "Survey of Optical Computing Technologies"

1999 E. Degley, "A Chronology of Systolic Computing"

1999 R. Seth, "Internet Commerce: Trading Architecture"

1994 R. Hatfield, "Object-Oriented Graphical User Interface for the Configuration of Microcomputer-Based Multi-Transputer Supercomputers (undergraduate honors thesis - CS4997)(co-supervisor)

1993 C. Barnsley, "Graphical User Interface for the Design and Reconfiguration of Microcomputer-Based Multi-Transputer Supercomputers" (undergraduate honors thesis - CS4997)

1993 G. Meldrum, "Low-Level Graphics Routines for Transputers"(undergraduate honors thesis - CS4997)

SECTION 4: RESEARCH, SCHOLARLY OR CREATIVE ACTIVITY

4.1 Keynote/Invited Lectures at Research Conferences

1. Invited Keynote Talk,"The Problem of Programming High Performance Computers", Fall Workshop 2004: High Performance Programming and Processors, Oct. 15, 2004, Wilfrid Laurier University, Waterloo, Ontario, Canada.

4.2 Invited Colloquium Talks at Universities and Other Academic Venues

1. "Computation Communication Integration Models for Aerospace Systems", June 3, 2008, Information Science Department, Gyeongsang National University, Jinju, 660-701,Korea

2. "Research Publication Ethics", May 30, 2008, 10:30h Room 205, and 15:00h Room 211, Department of Computer Engineering, Global Campus, Kyung Hee University, Korea

3. "The Advanced Relation Model for Program and Genome Sequence Visualizations (ARM 4 PV and ARM 4 GSV)", November 16, 2007, Information Science Department, Gyeongsang National University, Jinju, 660-701, Korea

4. "Bridging Korean Research, Technology and Culture", Colloquium 2007, IT Foreign Faculty Inviting Program, Institute for Information Technology Advancement (IITA), Kyungpook National University, August 24, 2007, Daegu, Korea.

5. "Ubiquitous Sensor Network Visualization Models", April 18, 2007, National Tsing Hua University, Hsinchu, Taiwan.

6. "Scientific Visualization of Computation Spaces", June 9, 2000, Computer Science Department, The University of Dayton, Dayton, Ohio, USA

4.3 Invited Seminars and Talks at Universities and Other Academic Venues

1. "Optical Communication in Program Computation Spaces", May 16, 2001, Dept. Math. & Computer Science, Kent State University, Ohio, USA

2. "Program Visualization of Geometric Represented Programs", March 28, 2000, Dept. Math. & Computer Science, Kent State University, Ohio, USA

3. "Visualization Used in Computer Science", March 28, 2000, Dept. Math. & Computer Science, Kent State University, Ohio, USA

4. "Communications in tera/peta-Scale Computing: Optical Interconnection Networks - A Graduate Research Course", Oct. 8, 1999, annual meeting of the Parallel Computing in Education Consortium (PCURRIC), Ohio Supercomputing Center, Ohio, USA

5. "Effective Teaching of Practical Parallel Programming Skills", May 17, 1996, annual meeting of the Parallel Computing in Education Consortium (PCURRIC), Ohio Supercomputing Center, Ohio, USA

4.4 Invited Talks at Professional Meetings

1. "NetVIM: A Network Vertical Intrusion Detection Model", Feb. 25, 2004, El Paso del Norte Software Association, El Paso, TX, USA.

2. "Parallel Computing Through the 1990s and into the 21st Century", August 28, 2002, El Paso del Norte Software Association, El Paso, TX, USA.

4.5 Departmental Colloquium and Seminar Talks

1. "The Parameterized Linear Array with a Reconfigurable Pipeline Bus System (LARPBS(p))", November 28, 2007, Department of Computer Engineering, Global Campus, Kyung Hee University, Korea

2. "The Advanced Relation Model for Program and Genome Sequence Visualizations (ARM 4 PV and ARM 4 GSV)", November 19, 2007, Department of Computer Engineering, Global Campus, Kyung Hee University, Korea

3. "Visualization and Virtual Reality in Games: Scientific Visualization Practices in Games" (joint presentation with Dr. Andrey V. Gavrilov), April 23, 2007, Department of Computer Engineering, Suwon Campus, Kyung Hee University, Korea

4. "Personal Historical Perspective of Parallel Architectures 1980s, 1990s, 2000s", February 26, 2007, Department of Computer Engineering, Suwon Campus, Kyung Hee University, Korea

5. "Scientific Programming Through Combining Parallel Models", February 7, 2007, Department of Computer Engineering, Suwon Campus, Kyung Hee University, Korea

6. "The Advanced Relation Model for Program and Genome Sequence Visualization", November 13, 2006, Department of Computer Engineering, Suwon Campus, Kyung Hee University, Korea

7. "The *Systems Edge* of Optical Bus Parallel Computing Models", August 17, 2006, Department of Computer Engineering, Suwon Campus, Kyung Hee University, Korea

8. "The *Systems Edge* of Optical Bus Parallel Computing Models", Feb. 16, 2005, Department of Computer Science, University of Texas at El Paso, TX, USA.

9. "Vertical Intrusion Model for Network-Based Computer Attacks (NetVIM)", Friday, Feb. 11, 2005, UTEP Student Chapter of the ACM Meeting, University of Texas at El Paso, TX, USA.

10. "Solving the Problem of Programming High Performance Computers in Parallel Environments", Nov. 3, 2004, Department of Computer Science, University of Texas at El Paso, TX, USA.

11. "Secure Hardware Level Architectures", Nov. 20, 2002, Department of Computer Science, University of Texas at El Paso, TX, USA.

12. "Optical Communication in the Geometric Representation of Programs (GRP) Model", November 15, 2000, Department of Computer Science, University of Texas at El Paso, TX, USA.

13. "Visualization of Programs", Dec. 2, 1999, Department of Mathematics and Computer Science, The University of Akron, Akron, Ohio.

14. "Optical Interconnection Networks: Classifications", Sept. 23, 1999, Department of Mathematics and Computer Science, The University of Akron, Akron, Ohio.

15. "Linguistic and Non-Linguistic Semantics in the Polytope Model", Feb. 18, 1999, Department of Mathematics and Computer Science, The University of Akron, Akron, Ohio.

16. "Foundations of the Polytope Model", Computer Science Seminar Series, Oct. 22, 1998, Department of Mathematics and Computer Science, The University of Akron, Akron, Ohio, USA.

17. "Systolic Computing: What it was, What it is, and What it is Becoming", Computer Science Seminar Series, Sept. 17, 1998, Department of mathematics and Computer Science, The University of Akron, Akron, Ohio, USA.

4.6 Refereed Journal Publications

1. Brian J. d'Auriol, "The *Systems Edge* of the Parameterized Linear Array with a Reconfigurable Pipelined Bus System (LARPBS(p)) Optical Bus Parallel Computing Model", *Journal of Supercomputing*, published online July 29, 2008, http://dx.doi.org/10.1007/s11227-008-0223-z.

2. Uzair Ahmad, Brian J. d'Auriol, Young-Koo Lee and Sungyoung Lee, "Multi-foor Semantically Meaningful Localization Using IEEE 802.11 Network Beacons", The Institute of Electronics, Information and Communication Engineers (IEICE) Transactions on Communications, Special section on Emerging Technologies for Practial Ubiquitous and Sensor Networks, Conditionally accepted.

3. Hui Xu, Brian J. d'Auriol, Jinsung Cho, Sungyoung Lee and Byeong-Soo Jeong, "A Generic Localized Broadcast Framework in Mobile Ad Hoc Ubiquitous Sensor Networks", The Institute of Electronics, Information and Communication Engineers (IEICE) Transactions on Communications, Special section on Ubiquitous Sensor Networks, Vol. E90-B, No. 12, pp. 3434–3444, December 2007.

4. Xiaoling Wu, Jinsung Cho, Brian J. d'Auriol, Sungyoung Lee, and Young-Koo Lee, "An Integrated Sleep-Scheduling and Routing Algorithm in Ubiquitous Sensor Networks based on AHP", *The Institute of Electronics, Information and Communication Engineers (IEICE) Transactions on Communications*, Special section on Ubiquitous Sensor Networks, Vol. E90-B, No. 12, pp. 3392–3401, December 2007.

5. Xiaoling Wu, Jinsung Cho, Brian J. d'Auriol, and Sungyoung Lee, "Mobility-Assisted Relocation for Self-deployment in Wireless Sensor Networks", *The Institute of Electronics, Information and Communication Engineers (IEICE) Transactions on Communications*, Vol. E90-B, No. 8, pp. 2056–2069, Aug. 2007.

6. Brian J. d'Auriol and Jesus Pajaro, "A Comprehensive Peer-to-Peer Characterization Model", *Concurrency and Computation: Practice and Experience*, Online: June 13, 2006, http://dx.doi.org/10.1002/cpe.1053; Printed: Vol. 18, Issue 15, pp. 2037–2061, Dec. 2006.

7. Brian J. d'Auriol and Maria Beltran, "A Historical Analysis of Fiber Based Optical Bus Parallel Computing Models", *Scalable Computing: Practice and Experience (SCPE)*, Vol. 7, No. 1, March. 2006.

8. Brian J. d'Auriol and Rajesh Molakaseema, "A Parameterized Linear Array with a Reconfigurable Pipelined Bus System: LARPBS(p)", *The Computer Journal*, Vol. 48, No. 1, pp. 115-125, 2005.

9. Brian J. d'Auriol, Vladik Kreinovick, Bindu George, Florence Muganda, Pramod Kumar Chikkapaiah, "What is the Best Way To Draw a Cube? A Hypercube?", GEOMBINATORICS, pp. 105- 110, Vol. XI, Issue 4, April 2002. (A departmental technical report also appears in 2001)

10. Brian J. d'Auriol and Virendra C. Bhavsar, "COMMAN — A Communication Analyzer for Occam 2", *Transputer Communications*, Vol. 3, No. 3, pp. 151–167, July 1996.

4.7 Refereed Conference Publications

1. Riaz Shaikh, Brian d'Auriol, Sungyoung Lee, Young-Jae Song and Heejo Lee, "Trusting Anomalies and Intrusion Claims for Cooperative Distributed Intrusion Detection Schemes of Wireless Sensor Networks", Proceedings of the 2008 International Symposium on Trusted Computing, Zhang Jia Jie, Hunan, China, November 18-20, 2008, Accepted.

2. Brian J. d'Auriol, Sungyoung Lee and Young-Koo Lee, "A Scientific Rapid Prototyping Model for the Haskell Language", Proceedings of the International Conference on Convergence and Hybrid Information Technology (ICCIT 08), Nov. 11-13, 2008, Novotel Ambassador Busan, Busan, Korea, In press.

3. Riaz Shaikh, Hassan Jameel, Brian J. d'Auriol, Heejo Lee, Sungyoung Lee and Young-Jae Song, "Network Level Privacy for Wireless Sensor Networks", The Fourth International Conference on Information Assurance and Security (IAS 2008), September 8 - 10, 2008, Naples, Italy, Accepted.

4. Yu Niu, Brian J. dAuriol, Xiaoling Wu, Jinsung Cho, Sungyoung Lee, "Pulse Coupling Synchronicity for Sensor Networks", Proceedings of the The Second International Conference on Sensor Technologies and Applications (SENSORCOMM 2008), August 25 - 31, 2008, Cap Esterel, France, Accepted.

5. Brian J. d'Auriol, Tuyen Nguyen, Thuy Pham, Sungyoung Lee, and Young-Koo Lee "Viewer Perception of Superellipsoid-Based Accelerometer Visualization Techniques", Proceedings of The 2008 International Conference on Modeling, Simulation and Visualization Methods (MSV'08), pp. 129-135, July 14 - 17, 2008, Las Vegas, Nevada, USA.

6. Xiaoling Wu, Brian J. d'Auriol, Jinsung Cho, and Sungyoung Lee, "Optimal Routing in Sensor Networks for in-Home Health Monitoring with Multifactor Considerations", Proceedings of the International Workshop on Pervasive Digital Healthcare (PerCare) in conjunction with IEEE Percom 2008, pp. 720–725, Hong Kong, March 17-21, 2008

7. Brian J. d'Auriol, Pramod Chikkappaiah, Weiwei Yuan, Sungyoung Lee and Young-Koo Lee, "Query Responsive Awareness Software: Inventory Control Case Study", *Proceedings of the The Second International Conference on Ubiquitous Information Management and Communication (ICUIMC 2008)*, pp. 537–541, January 31 - February 1, 2008, SKKU, Suwon, Korea.

8. Uzair Ahmad, Brian J. d'Auriol, Young-Koo Lee, Sungyoung Lee, "The Election Algorithm for Semantically Meaningful Location Awareness", *Proceedings of the 6th International Conference on Mobile and Ubiquitous Multimedia (MUM 2007)*, December 12-14, 2007, Oulu, Finland, ACM Press.

9. Brian J. d'Auriol, John Kim, Sungyoung Lee and Young-Koo Lee, "Orthogonal Organized Finite State Machine Application to Sensor Acquired Information", *Proceedings of the 9th International Conference on Parallel Computing Technologies (PaCT-2007)*, in Parallel Computing Technologies (LNCS 4671), Victor Malyshkin (Ed.), pp. 111-118, Pereslavl-Zalessky, Russia, Sept. 3-7, 2007, Springer.

10. Hui Xu, Min Meng, Jinsung Cho, Brian J. d'Auriol and Sungyoung Lee, "Mobility Tracking for Mobile Ad Hoc Networks", *Proceedings of the International Conference on Ubiquitous Intelligence and Computing (UIC 2007)*, in Ubiquitous Intelligence and Computing (LNCS 4611), Jadwiga Indulska, Jianhua Ma, Laurence T. Yang, Theo Ungerer and Jiannong CaoHong (Eds.), pp. 285–294, Hong Kong, China, July 11-13, 2007.

11. Xiaoling Wu, Jinsung Cho, Brian J. d'Auriol, Sungyoung Lee and Hee Yong Youn, "Self-Deployment of Mobile Nodes in Hybrid Sensor Networks by AHP", *Proceedings of the International Conference on Ubiquitous Intelligence and Computing*, in Ubiquitous Intelligence and Computing (LNCS 4611), Jadwiga Indulska, Jianhua Ma, Laurence T. Yang, Theo Ungerer and Jiannong CaoHong (Eds.), pp. 663–672, Hong Kong, China, July 11-13, 2007.

12. Min Meng, Hui Xu, Xiaoling Wu, Brian J. d'Auriol, Byeong Soo Jeong, Sungyoung Lee, Xiaobo Fan, "PBR: Priority Based Routing in Multi-sink Sensor Networks", *Proceedings of The 2007 International Conference on Wireless Networks (ICWN'07)*, June 25-28, Las Vegas, Nevada, USA, Hamid R. Arabnia, Victor A. Clincy and Laurence T. Yang (Eds.), pp. 380–384, CSREA Press

13. Brian J. d'Auriol, Jie Yang, Xiaoling Wu, Hui Xu, Yu Niu, Jin Wang, Riaz Ahmed Shaikh, Min Meng, Sungyoung Lee, Young-Koo Lee, "A Research Framework Model to Guide Both Broad and Focused Research into Ubiquitous Sensor Networks", *Proceedings of The 2007 International Conference on Wireless Networks (ICWN'07)*, June 25-28, Las Vegas, Nevada, USA, Hamid R. Arabnia, Victor A. Clincy and Laurence T. Yang (Eds.), pp. 468–473, CSREA Press.

14. Brian J. d'Auriol, Nguyen Thi Thanh Tuyen, Vo Quoc Hung, Duc Thang, Hassan Jameel, Le Xuan Hung, S.M.K.R. Raazi, Dao Phuong Thuy, Ngo Trong Canh, Adil Mehmood Khan, Sunghyun Kim, Shu Lei, Sakib Pathan, Tran Van Phuong, Sungyoung Lee and Young-Koo Lee, "Embedded Processor Security", *Proceedings of The 2007 International Conference on Security and Management (SAM'07)*, June 25-28, Las Vegas, Nevada, USA, Selim Aissi and Hamid R. Arabnia (Eds.), pp. 591–594, CSREA Press.

15. Xiaoling Wu, Jinsung Cho, Brian J. d'Auriol, and Sungyoung Lee, "Energy-aware Routing for Wireless Sensor Networks by AHP," *Proceedings of the IFIP Workshop on Software Technologies for Future Embedded; Ubiquitous Systems (SEUS 2007)*, in Software Technologies for Embedded and Ubiquitous Systems (LNCS 4761), Roman Obermaisser, Yunmook Nah, Peter Puschner and Franz J. Rammig (Eds.), pp. 446–455, Santorini Island, Greece, May, 2007.

16. Xiaoling Wu, Jinsung Cho, Brian J. d'Auriol and Sungyoung Lee, "Sleep Nodes Scheduling in Cluster-based Heterogeneous Sensor Networks Using AHP", *Proceedings of the International Conference on Embedded Software and System (ICESS 2007)*, Daegu, Korea, Yann-Hang Lee, Heung-Nam Kim, Jong Kim, Yongwan Park, Laurence T. Yang and Sung Won Kim(Eds.), May 14-16, 2007, pages 437-444, LNCS 4523.

17. Jie Yang and Brian J. d'Auriol and Young-Koo Lee and Sungyoung Lee, "Comparison of FSO and RF Communication in Wireless Sensor Networks", *Proceedings of The 27th KIPS Spring Conference*, Kyungwon University, Seoul, Korea, May 11-12, 2007, pages 865-866, also available on conference CD.

18. Yu Niu, Brian J. d'Auriol, Young-Koo Lee and Sungyoung Lee, "A Fast Converging Pulse Coupling Oscillator Synchronicity Model" *Proceedings of The 27th KIPS Spring Conference*, Kyungwon University, Seoul, Korea, May 11-12, 2007, pages 860-861, also available on conference CD.

19. Xiaoling Wu, Jinsung Cho, Brian J. d'Auriol and Sungyoung Lee, "Optimal Deployment of Mobile Sensor Networks and Its Maintenance Strategy", *Proceedings of the Second International Conference on Grid and Pervasive Computing (GPC 2007)*, C. Cerin and K.-C. Li, Eds. Paris, France: Springer, May 2-4, 2007, pp. 112-123, in Advances in Grid and Pervasive Computing, LNCS 4459.

20. Jin Wang, Brian J. d'Auriol, Xiaoling Wu, Young-Koo Lee and Sungyoung Lee, "Energy Consumption of Swarm Intelligence inspired Routing Algorithms in MANETs", *Proceedings of the International Conference on Multimedia and Ubiquitous Engineering (MUE 2007)*, Seoul, Korea, April 2007, pp. 803-806.

21. Jin Wang, Brian J. dAuriol, Young-Koo Lee and Sungyoung Lee, "A swarm intelligence inspired autonomic routing scenario in ubiquitous sensor networks," *Proceedings of the International Conference on Multimedia and Ubiquitous Engineering (MUE 2007)*, Seoul, Korea, April 2007, pp. 745-750.

22. Brian J. d'Auriol and Tanushree Ghosh, "A Systems Model for Computation, Communication, Command and Control (C4) in a Spacecraft or Satellite Cluster", *Proceedings of The International Conference on Parallel and Distributed Computing, Applications and Technologies (PDCAT)*, December 4-7, 2006, Taipei, Taiwan, pp. 285-290, IEEE Computer Society.

23. Brian J. d'Auriol, "Architecture Information Assurance", *Proceedings of The First Workshop on Embedded Systems Security*, in the 6th Annual ACM Conference on Embedded Software (EMSOFT'06), October 22-25, 2006, Seoul, South Korea, published on conference CD.

24. Brian J. d'Auriol, "A Finite State Machine Model to Support the Visualization of Complex Dynamic Systems", *Proceedings of The 2006 International Conference on Modeling, Simulation and Visualization Methods (MSV'06)*, June 26-29, 2006, Las Vegas, NV, USA, pp. 304–310.

25. Brian J. d'Auriol, Pete Carswell, and Kevin Gecsi, "A TransDimension Visualization Model for Complex Dynamic System Visualizations", *Proceedings of the 2006 International Conference on Modeling, Simulation and Visualization Methods (MSV'06)*, June 26-29, 2006, Las Vegas, NV, USA, pp. 318–324.

26. Brian J. d'Auriol and Juan Ulloa, "Specification and Performance Metrics for Parallel Programs", *Proceedings of The 2005 International Conference on Software Engineering Research and Practice (SERP'05), in The Fourth International Workshop on System/Software Architectures 2005 (IWSSA'05)*, June 28, 2005, Monte Carlo Resort, Las Vegas, USA, Hamid R. Arabnia and Hassan Reza (Eds.), pp. 101–107, CSREA Press.

27. Brian J. d'Auriol, "A Relational Model for Visualizing Codon Usage and Palindrome Distributions in Genome Sequences", *Proceedings of the 2005 International Conference on Modeling, Simulation and Visualization Methods (MSV'05)*, June 27-30, 2005, Monte Carlo Resort, Las Vegas, USA, Hamid R. Arabnia (Ed.), pp. 76–82, CSREA Press.

28. Brian J. d'Auriol and L. Susan Draper, "Free Space Optical Bus Parallel Model Framework", *Proceedings of the The 2005 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'05)*, June 27-30, 2005, Monte Carlo Resort, Las Vegas, USA, Hamid R. Arabnia (Ed.), pp. 591–597, Vol. II, CSREA Press.

29. Brian J. d'Auriol and Afolami Akinsanmi, "A Conceptual Space Model for Intrusion Detection", *Proceedings of The 2005 International Conference on Security and Management (SAM'05)*, June 20-23, 2005, Monte Carlo Resort, Las Vegas, Nevada, USA, Hamid R. Arabnia (Ed.), pp. 133-139, CSREA Press

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31. Brian J. d'Auriol, "Network Vertical Intrusion Model (NetVIM)", *Proceedings of The 2005 International Conference on Security and Management (SAM'05)*, June 20-23, 2005, Monte Carlo Resort, Las Vegas, Nevada, USA, Hamid R. Arabnia (Ed.), pp. 176-179, CSREA Press.

32. Brian J. d'Auriol, "A Concept Visualization Study of a Parallel Computing Program", *Proceedings of the 2004 International Conference on Parallel Processing Workshops (ICPP Workshops)*, Aug. 15-18, 2004, Montreal, Quebec, Canada, Yuanyuan Yang (Ed.), pp. 239-246, IEEE Computer Society.

33. Brian J. d'Auriol, "Concept Visualizations of Computer Programs", *Proceedings of the International Conference on Advances in Internet Technologies and Applications, with special emphasis on E-Education, E-Enterprise, E-Manufacturing, E-Mobility, and related issues (CAITA 2004)*", July 8-11, 2004, Purdue University, West Lafayette, Indiana, USA, Published on CD, ISBN: 86-7466-117-3.

34. Brian J. d'Auriol, "Advanced Relation Model for Program Visualization (ARM 4 PV)", Proc. of the 2004 International Conference on Modeling, Simulation & Visualization (MSV'04) and Proc. of the 2004 International Conference on Algorithmic Mathematics & Computer Science (AMCS'04), June 21 - 24, 2004, Monte Carlo Resort, Las Vegas, Nevada, USA, Hamid R. Arabnia et. al (Eds.), pp. 186-192, June, 2004.

35. Brian J. d'Auriol and Kishore Surapaneni, "A State Transition Model Case Study for Intrusion Detection Systems", *Proceedings of the 2004 International Conference on Security and Management (SAM'04)*, June 21 - 24, 2004, Monte Carlo Resort, Las Vegas, Nevada, USA, Hamid R. Arabnia, Selim Aissi and Youngson Mun (Eds.), pp. 186-192.

36. Jesus Pajaro and Brian J. d'Auriol, "Towards a Comprehensive Peer-to-Peer Communication Model", *Proc. of the 2004 International Conference on Communications in Computing (CIC'04), Presentation, Sharing, Mining and Protection in Cyber Communities (PSMP3) Workshop*, June 21 - 24, 2004, Monte Carlo Resort, Las Vegas, Nevada, USA, Brian J. d'Auriol (Ed.), pp. 281-287.

37. Brian J. d'Auriol and Maria Beltran, "Optical Bus Communication Modeling and Simulation", *Proc. of the International Symposium on High Performance Computing Systems and Applications (HPCS'04)*, May 16-19, 2004, Winnipeg, Manitoba, Canada, M. Rasit Eskicioglu (Ed.), pp. 135-142, May 2004

38. Rene Roldan and Brian J. d'Auriol, " A Preliminary Feasibility Study of the LARPBS Optical Bus Parallel Model", *Proc. of the 17th International Symposium on High Performance Computing Systems and Applications (HPCS 2003) and OSCAR Symposium/Comptes rendus du 17ime symposium annuel international sur les Systemes et applications du calcul de haute performance et le Symposium OSCAR*, May 11-14, Sherbrooke, Quebec, Canada, 2003, David Senechal(Ed.), pp. 181-188, May 2003

39. Rene Saenz and Brian J. d'Auriol, "A Communication Model for CORBA Systems", *Proc. of 16th Annual International Symposium on High Performance Computing Systems & Applications*, June 16-19, Moncton, New Brunswick, Canada, 2002, Jalal N. Almhana and Virendrakumar C. Bhavsar (Eds.), pp. 268-274, June 20, 2002

40. Brian J. d'Auriol, Claudia V. Casas, Pramod Kumar Chikkappaiah, L. Susan Draper, Ammar J. Esper, Jorge López, Rajesh Molakaseema, Seetharami R. Seelam, René Saenz, Qian Wen, Zhengjing Yang "Exploratory Study of Scientific Visualization Techniques for Program Visualization" Lecture Notes in Computer Science, Vol. 2074, pp. 701-710, The 2001 International Conference on Computational Science (ICCS 2001), May 28-30, 2001 San Francisco, CA, USA.

41. Brian J. d'Auriol, "Communication in the LARPBS (Optical Bus) Model: A Case Study" *Proc. of The Fourth International Conference on Algorithms And Architecture for Parallel Processing (ICA3PP2000)*, Hong Kong, 11 -13 December 2000, A. Goscinski et. al. (Eds.), pp. 581-590, Dec. 2000

42. Brian J. d'Auriol, "Expressing Parallel Programs Using Geometric Representation: Case Studies", *Proc. of the Eleventh IASTED International Conference on Parallel and Distributed Computing and Systems PDCS'99*, Nov. 3-6, Cambridge, MA USA, 1999, S.Q Zheng (Ed.), pp. 985-990, Nov. 1999.

43. Emily Degley and Brian J. d'Auriol, "A Chronology of Soft Systolic Development (Extended Abstract)", *Proc. of the Midwest Workshop on Parallel Processing (MWPP)*, August 11-13, Kent State University, Ohio, USA, 1999, in press.

44. Brian J. d'Auriol, "A Geometric Semantics for Program Representation in the Polytope Model", Lecture Notes in Computer Science, Vol. 1863, pp. 451-454, Twelfth International Workshop on Languages and Compilers for Parallel Computing LCPC'99, Aug. 4-6, 1999.

45. Brian J. d'Auriol and Abdullah Abonamah, "A Holistic Classification to the Study of Optical Interconnection Networks", *Proc. of the 1999 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'99)*, June 28 - July 1, Las Vegas, Nevada, USA, H.R. Arabnia (Ed.), pp. 2457-2462 July. 1999

46. Brian J. d'Auriol and Virendrakumar C. Bhavsar, "Generic Concurrent Modules for Systolic Computations", *Proc. of the 1999 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'99)*, June 28 - July 1, Las Vegas, Nevada, USA, H.R. Arabnia (Ed.), pp. 2012-2018, July. 1999.

47. Brian J. d'Auriol and Virendrakumar C. Bhavsar, "Generic Program Structures Induced by Partitions of a Systolic Computation Graph",*Proc. of the IASTED International Conference on Parallel and Distributed Computing and Systems, PDCS'98*, Las Vegas, Nevada, USA, 28-31 Oct., 1998, Y. Pan, S. Akl and K. Li (Eds.), pp. 396-401, Oct. 1998.

48. Joel Themmen and Brian J. d'Auriol, "An Analysis of Parallel Computing Curriculum: A Case Study", *Proc. of the 11th Annual International Symposium on High Performance Computing Systems (HPCS'97)*, Winnipeg, Manitoba, Canada, July 10-12, 1997, Ken Barker (Ed.), pp. 505-518, July 1997.

49. Brian J. d'Auriol and Baqui Billah, "Compilation Issues for High Performance Computers: A Comparative Overview of a General Model and the Unified Model", *Proc. of the Eighth IASTED/ISMM International Conference on Parallel and Distributed Computing and Systems (PDCS'96)*, Chicago, Illinois, USA, 16-19 October, 1996, K. Li, T.S. Abdelrahman, E. Luque (Eds.), pp. 359-363, October 1996.

50. Brian J. d'Auriol and Donald Kent Bierley, "The Role of Language in the Unified Model for Compiling Systolic Computations for Multicomputers", *Proc. of the Eighth IASTED/ISMM International Conference on Parallel and Distributed Computing and Systems (PDCS'96)*, Chicago, Illinois, USA, 16-19 October, 1996, K. Li, T.S. Abdelrahman, E. Luque (Eds.), pp. 352-355, October 1996.

51. Brian J. d'Auriol and Meera B. Dugar, "A Systolic Array Graph Partitioning System", *Proc. of the Eighth IASTED/ISMM International Conference on Parallel and Distributed Computing and Systems (PDCS'96)*, Chicago, Illinois, USA, 16-19 October, 1996, K. Li, T.S. Abdelrahman, E. Luque (Eds.), pp. 356-358, October 1996.

52. Brian J. d'Auriol and Virendra C. Bhavsar, "Generic Program Representation and Evaluation of Systolic Computations on Multicomputers", *Proc. of the International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'96)*, Sunnyvale, California, USA, 9-11 August, 1996, Hamid Arabnia (Ed.),pp. 1213-1224, August, 1996.

53. Brian J. d'Auriol and Virendra C. Bhavsar, "Multicomputer Implementations of Systolic Computations: A Unified Approach", *Proc. of the 10th Annual International Conference on High Performance Computers (HPCS'96)*, Ottawa, Ontario, Canada, 5-7 June, 1996, published on CD-ROM by IEEE Canada Electronic Services, distributed by Carleton University Press.

54. Brian J. d'Auriol and Virendra C. Bhavsar, "Systolic and Wavefront Array Algorithms on Distributed Memory, Multiprocessor Computers", *Proc. of Supercomputing Symposium '93 — High Performance Computing: New Horizons (SS93)*, Calgary, Alberta, Canada, 6-9 June, 1993, L. Bauwens (ed), University of Calgary, Calgary, Alberta, pp. 47–54, June, 1993.

55. Brian J. d'Auriol and Virendra C. Bhavsar, "Evaluation of the Multi-Transputer Implementations of the Weighted Levenshtein Distance Computation", *Proc. of International Conference on Parallel Computing and Transputer Applications '92 (PACTA'92)*, Barcelona, Spain, Sept., 21-25 Sept. Published as 'Parallel Computing and Transputer Applications', Part II, 1992, M. Valero et al., (eds.), IOS Press, Amsterdam, pp. 879–888, Sept., Sept. 1992.

56. Brian J. d'Auriol, Virendra C. Bhavsar and L. Goldfarb, "Multi-Transputer Implementations of the Metric Approach to Pattern Recognition Using Weighted Levenshtein Distance", *Applications of Transputer 3; Volume II*, T.S. Durrani, et al. (Eds.), IOS Press, Amsterdam, pp. 388-393, August 1991.

57. Brian J. d'Auriol, Virendra C. Bhavsar and L. Goldfarb, "Systolic Array Implementations for Reconfigurable Learning Machines on Transputers", *Proc. of Supercomputing Symposium '91*, Fredericton, N.B., Canada, June 3-5, 1991, V.C. Bhavsar and U.G. Gujar (Eds.), University of New Brunswick Press, Fredericton, N.B., pp. 105-119, June 1991.

4.8 Other Publications

1. Elsa W. Y. Tai, Lavada Thompson, Rachel Smith, and Brian J. d'Auriol, "Program visualization using AVS/express", 2001, http://www.cra.org/Activities/craw/creu/crewReports/2002/texas_final.html
2. Brian J. d'Auriol, Book review of 'Parallel Computing Using Optical Interconnections', IEEE Concurrency, July-September, pp. 91-92, 1999.

4.9 Technical Reports

1. Brian J. d'Auriol and Kavitha Tupelly, "Advanced Relation Model for Genome Sequence Visualization (ARM 4 GSV): Exploratory Visualization Examples", Technical Report No. UTEP-CS-04-36, 2004.
2. Brian J. d'Auriol, Steve Saladin and Shane Humes, "Linguistic and Non-Linguistic Semantics in the Polytope Model," Technical Report No. 99-01, Department of Mathematics and Computer Science, The University of Akron, Akron, Ohio, 44325-4002, January 1999.
3. Brian J. d'Auriol and Virendrakumar C. Bhavsar, "Generic Program Structures Induced by Partitions of a Systolic Computation Graph", Technical Report 97/04, Department of Computer Science, The University of Manitoba, Winnipeg, Manitoba, Canada, R3T 2N2, March 1997.
4. Brian J. d'Auriol and Virendra C. Bhavsar, "A Unified Approach for Implementing Systolic Computations on Distributed Memory Multicomputers", Technical Report WSU-CS-95-02, Department of Computer Science and Engineering, Wright State University, Dayton, Ohio 45435, USA, December 1995.
5. Brian J. d'Auriol and Virendra C. Bhavsar, "COMMAN — A Communication Analyzer for Occam 2", Technical Report TR94-086, Faculty of Computer Science, University of New Brunswick, Fredericton, N.B., E3B 5A3, June 1994.

4.10 Conferences, Workshops, Sessions and Events Organized

1. General Chair and organizer of the Annual International Conference on Communications in Computing (CIC), 2000-2008, held annually, June/July in Las Vegas, NV, USA.
2. Technical Session Organizer, "Program and Visualization" at The 2001 International Conference on Computational Science, San Francisco, May 2001.
3. Co-organizer of the "Scientific Visualization with AVS/Express Workshop" Nov. 22-23, 1999, Computing Center, The University of Akron.
4. Industry Liaison Chair for the 11th International Conference on Parallel and Distributed Computing and Systems (PDCS'99), Cambridge, MA, USA, November 3-6, 1999.
5. General Chair and organizer for the 11th Annual International Symposium on High Performance Computing Systems (HPCS'97), Winnipeg, Manitoba, Canada, July 10-12, 1997.
6. Associate Editor and Technical Session Organizer for the International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'96), Sunnyvale, California, USA, 9-11 August, 1996.
7. Program Committee Member for:

- The Second International Conferences on Advances in Computer-Human Interactions (ACHI 2009) February 1-6, 2009 - Cancun, Mexico
- IADIS International Conference on Computer Graphics and Visualization 2008 (CGV 2008) Amsterdam, Netherlands, July 24-26, 2008
- The First International Conference on Advances in Computer-Human Interaction (ACHI 2008) February 10-15, 2008 - Sainte Luce, Martinique
- The IEEE 22st International Conference on Advanced Information Networking and Applications (AINA 2008) Okinawa, Japan, March 25-28, 2008
- The Eighth International Conference on Parallel and Distributed Computing Applications and Technologies, (PDCAT'07), Adelaide, Australia, Dec. 3-6, 2007.
- The 2007 International Conference on Computational Science and Its Applications (ICCSA), Kuala Lumpur , Malaysia, August 26-29, 2007
- The IEEE 21st International Conference on Advanced Information Networking and Applications (AINA 2007) Niagara Falls, Ontario, Canada, May 21 - May 23, 2007
- The 5th International Conference on Web-based Learning (ICWL 2006), July 19-21, 2006 , Penang, Malaysia
- The Sixth International Conference on Parallel and Distributed Computing, Applications and Technologies (PDCAT'05) 5-8 December 2005 Dalian University of Technology (DUT), Dalian, China
- The 4th International Conference on Web-based Learning (ICWL 2005) July 31 to August 3, 2005, Hong Kong.
- The 6th International Conference on Algorithms and Architectures (ICA3PP-2005), June 19 - 22, 2005, Melbourne, Australia.
- PSMP4, The Presentation Sharing Mining Protection Workshop: Philosophers meet sensors, Prague, February 2005 Czech Republic, .
- The International Conference on Computational Science and its Applications (ICCSA 2005) May 9-12, 2005, Singapore.
- The Fifth International Conference on Computational Science (ICCS 2005), May 22-25, 2005, Emory University Atlanta, USA
- The 4th International Conference on Computer and Information Technology (CIT2004), September 14-16 2004, Wuhan, China.
- The International Conference on Computational Science 2004 (ICCS 2004), June 7-9, 2004, Krakow Poland.
- The 18th Annual High Performance Computing Symposium, (HPCS 2004), June 2004, Winnipeg, Canada.
- The 2004 International Conference on Computational Science and its Applications (ICCSA 2004), May 14-17, 2004, Perugia, Italy.
- The International Workshop on Computational Geometry and Applications CGA'04, May 14-17, 2004, Perugia, Italy, in conjunction with The 2004 International Conference on Computational Science and its Applications (ICCSA 2004).
- High-Performance Grid Computing Workshop in conjunction with the International Parallel and Distributed Processing Symposium - IPDPS'2004, April 30, 2004, Santa Fe, New Mexico, Eldorado Hotel, USA.
- The 2nd International Conference on Web-based Learning (ICWL 2003), August 18-20, 2003, Melbourne, Australia.
- The 2003 International Conference on Computational Science and its Applications (ICCSA 2003), Montreal, Canada, May 18-21, 2003.
- The International Workshop on Computational Geometry and Applications (CGA'03) in conjunction with The 2003 International Conference on Computational Science and its Applications (ICCSA 2003), May 18-21, 2003, Montreal, Canada.

- The 17th Annual International Symposium on High Performance Computing Systems and Applications, May 11-14 2003, Sherbrooke, Quebec, Canada.
- The 16th Annual High Performance Computing Symposium (HPCS'2002), June 17-19, 2002, Moncton, New Brunswick, Canada.
- The 2002 International Conference on Computational Science (ICCS 2002), April 21-24, 2002, Amsterdam, The Netherlands.
- The 2001 International Conference on Computational Science (ICCS 2001), May 28-30, 2001, San Francisco, CA, USA.
- The Fourth International Conference on Algorithms And Architecture for Parallel Processing (ICA3PP2000), Dec. 11-13, 2000, City University of Hong Kong.
- The 10th International Conference on Parallel and Distributed Computing and Systems (PDCS'98), October 1998, Las Vegas, Nevada.
- The 12th Annual International Symposium on High Performance Computing systems (HPCS'98), May 20-22, 1998, Edmonton, Alberta, Canada.
- The 9th International Conference on Parallel and Distributed Computing and Systems (PDCS'97), October 1997, Washington, D.C.

8. Invited session chairs for numerous conferences.

4.11 Other Professional Activity

1. Faculty advisor to the webmaster, Department of Computer Science, The University of Texas at El Paso, 2002.
2. Panelist participant for the Alliance Chautauqua 2000 Meeting, June 13-15, 2000, Ohio Supercomputer Center, Columbus, Ohio.
3. Participant in the Focus Group for Science, Math and Technology, December 1999 - March 2000.
4. Co-organizer of the Computer Science Division Seminar Series, The Department of Mathematics and Computer Science, The University of Akron, Fall 1999.
5. Executive Committee Member, SuperCan for 1997-1998, and member 1996-1998.
6. Guest Editor for the special issue of the Journal of Supercomputing entitled "High-Performance Computer Design, Analysis, and Use", Vol. 11, No. 4, December 1997, Kluwer Academic publishers.
7. Faculty Advisor for the Wright State University student chapter of the IEEE Computer Society: 1995-1996.
8. Reviewed papers for the following journals: IEEE Concurrency, IEEE Transactions on Software Engineering, the journal of VLSI Signal Processing World Wide Web Journal, Mathematical and Computer Modelling, IJPEDS.

4.12 Professional Organization Memberships

1. The Institute of Electrical and Electronics Engineers Inc., Computer Society (IEEE Computer Society).
2. Association for Computing Machinery, Inc. (ACM).

4.13 Other Conferences or Meetings Attended

1. Studied in the Information Assurance Capacity Building Program (IACBP), Carnegie Mellon University, July 2002, funded as part of NSF Award 0210410, June 1, 2002 under NSF Program 1668 Federal Cyberservice: Scholarship for Service. The P.I. is Donald J. McGillen, PhD.

2. Attended the Summer Institute for Advanced Computation (SIAC), Wright State University, Dayton, Ohio, August, 1999.

3. Language and Compilers for Parallel Computation Workshop in San Jose, California, USA, August 8-10, 1996.

4.14 Additional Interests

Private Pilot's License: Single Engine, Land

Certified Scuba diver

Drama: Stage presentations as a musician (classical guitarist) and actor. Off stage involvement in production and organization of several shows. A highlight was a CBC appearance in 1981.