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Areas of interests: Heterogeneous computing, reconfigurable computing, distributed computing, service-oriented architecture, distributed object technology, database management.

Herman Lam is an Associate Professor of Electrical and Computer Engineering at the University of Florida. He has over 30 years of research and development experience in the areas of distributed computing, service-oriented computing, and database management. Currently, Dr. Lam's main research interest is in heterogeneous computing (HGC) and reconfigurable computing (RC), focusing on methods and tools for the acceleration and deployment of scientifically impactful applications on scalable RC and HGC systems. He was a Co-PI of the 2012 Alexander Schwarzkopf Prize for Technology Innovation from the National Science Foundation for "Novo-G: An innovative and synergistic research project and the world's most powerful reconfigurable supercomputer". Dr. Lam also led a team of graduate students at the University of Florida to win the 2018 Dell EMC AI Challenge, recognized for developing and demonstrating a heterogeneous computing system that can support a complete workflow—data analysis and pre-processing, model training, and deployment and inferencing—for machine learning.

Dr. Lam has authored or co-authored over 175 refereed conference and journal articles and one textbook. Since 2007, he has obtained research funding in the amount of over \$2,500,000 as PI and over \$4,500,000 Co-PI. He served as the Associate Director of CHREC, the NSF Center for High-Performance Reconfigurable Computing. Currently, Dr. Lam is the University of Florida Site Director of the NSF Center for Space, High-Performance, and Resilient Computing.

Academically, Dr. Lam was the Director of the Computer Engineering undergraduate program in the College of Engineering at the University of Florida from 2012 – 2021. He was on the steering committee of the IEEE/ACM Joint Task Group that published the "Computer Engineering Curricula 2016", an IEEE/ACM curriculum guideline for undergraduate degree programs in Computer Engineering. He has earned numerous teaching awards, including awards for co-chairman of a best Ph.D. dissertation in his department, outstanding supervisor of a core laboratory in his department, and outstanding teaching award in the College of Engineering, and UF University Teaching Improvement Program (TIP) award. In 2015, Dr. Lam received the Lifetime Achievement Award from the students of the Electrical & Computer Engineering Department of the University of Florida. He was appointed a University of Florida Term Professor, 2018 - 2020.

Publications – Book

H. Lam and J.R. O'Malley, Fundamentals of Computer Engineering - Logic Design and Microprocessors, John Wiley & Son, New York, N.Y., 1988, 490 pages.

Publications – IEEE/ACM Computer Engineering Curricula Guideline

Joint Task Group on Computer Engineering Curricula, Association for Computing Machinery (ACM) and IEEE Computer Society, “**Computer Engineering Curricula 2016, Curriculum Guidelines for Undergraduate Degree Programs in Computer Engineering**”, ISBN: 978-1-4503-4875-1, December 15, 2016. CE2016 Steering Committee from IEEE: Eric Durant, **Herman Lam**, Robert Reese, and Lorraine Herger; Steering Committee from ACM: John Impagliazzo (Chair), Susan Conry, Joseph Hughes, Liu Weidong, Lu Junlin, Andrew McGettrick, and Victor Nelson.

Publications - Refereed Journals

1. C. Jiang, D. Ojika, T. Kurth, Prabhat, S. Vallecorsa, B. Patel, and H. Lam, “Accelerate Scientific Deep Learning Models on Heterogeneous Computing Platform with FPGA”, Invited journal extension from the International Conference on Computing in High Energy and Nuclear Physics, EDP Web of Conferences, Volume 245, 2020, 10 pages.
2. D. Ojika, A. Gordon-Ross, H. Lam, B. Patel, “FaaS: FPGA-as-a-Microservice - A Case Study for Data Compression”, European Physics Journal (EPJ) Web Conf., Vol. 214, Sept. 2019, 8 pages.
3. Y. Zhang, A. Neelakantan, C. Park, N. H. Kim, H. Lam and R. T. Haftka, “Adaptive Sampling with Varying Sampling Cost for Design Space Exploration”, AIAA Journal, Vol. 57, No. 3, doi: 10.2514/1.J057470, March 2019, pp. 1032-1043.
4. S. Craciun, R. Kirchgessner, A. George, J. Principe, and H. Lam, “A Real-Time, Power-Efficient Architecture for Mean-Shift Image Segmentation”, Journal of Real-Time Image Processing, Vol. 14, No. 2, March 2018, pp. 379-394.
5. N. Ghanathe, A. Madorsky, H. Lam, “Software and Firmware Co-Development Using High-level Synthesis”, Journal of Instrumentation (JINST), Vol. 12, January 2017, 11 pages.
6. A. Lawande, A. George, H. Lam, “Novo-G#: a Multidimensional Torus-based Reconfigurable Cluster for Molecular Dynamics,” Concurrency and Computation: Practice and Experience, Vol. 28, No. 8, June 2016, 20 pages.
7. J. Richardson, K. Cheng, A. George, H. Lam, “Analysis of Fixed, Reconfigurable, and Hybrid Devices with Computational, Memory, I/O, & Realizable-Utilization Metrics,” ACM Transactions on Reconfigurable Technology and Systems (TRETTS), Vol. 10, No. 1, Jan. 2016, Article 2, 21 pages
8. G. Wang, G. Stitt, H. Lam, and A. George, “Core-Level Modeling and Frequency Prediction for DSP Applications on FPGAs”, International Journal of Reconfigurable Computing, 2015, 20 pages.
9. B. Lam, A. George, H. Lam, and V. Aggarwal, “Low-level PGAS Computing on Many-core Processors with TSHMEM”, Concurrency and Computation, Practice and Experience (CCPE), Volume 27, Issue 17, Dec. 2015, 23 pages.

10. A. Jacobs, G. Cieslewski, A. George, A. Gordon-Ross, and H. Lam, "Reconfigurable Fault Tolerance: A Comprehensive Framework for Reliable and Adaptive FPGA-Based Space Computing," *ACM Transactions on Reconfigurable Technology and Systems (TRETTS)*, Vol. 5, No. 4, Dec. 2012, Art. No. 21, 30 pages.
11. C. Reardon, B. Holland, A. George, G. Stitt, and H. Lam, "RCML: An Environment for Estimation Modeling of Reconfigurable Computing Systems," *ACM Transactions on Embedded Computing Systems (TECS)*, Vol. 11, No. S2, Aug. 2012, Article 43, 24 pages.
12. V. Aggarwal, A. George, C. Yoon, K. Yalamanchili, and H. Lam, "SHMEM+: A Multilevel-PGAS Programming Model for Reconfigurable Supercomputing," *ACM Transactions on Reconfigurable Technology and Systems (TRETTS)*, Vol. 4, No. 3, Aug. 2011, Article 26, 27 pages.
13. B. Holland, A. George, H. Lam, and M. Smith, "An Analytical Model for Multi-Level Performance Prediction of Multi-FPGA Systems," *ACM Transactions on Reconfigurable Technology and Systems (TRETTS)*, Vol. 4, No. 3, Aug. 2011, Article 27, 28 pages.
14. G. Stitt, A. George, H. Lam, M. Smith, V. Aggarwal, G. Wang, C. Reardon, B. Holland, S. Koehler, and J. Coole, "An End-to-End Tool Flow for FPGA-Accelerated Scientific Computing," *IEEE Design & Test of Computers (D&T)*, Vol. 28, No. 4, July/Aug. 2011, pp. 68-77.
15. A. George, H. Lam, and G. Stitt, "Novo-G: At the Forefront of Scalable Reconfigurable Computing," *IEEE Computing in Science & Engineering (CiSE)*, Vol. 13, No. 1, Jan/Feb. 2011, pp. 82-86.
16. J. Williams, C. Massie, A. George, J. Richardson, K. Gosrani, and H. Lam, "Characterization of Fixed and Reconfigurable Multi-Core Devices for Application Acceleration," *ACM Transactions on Reconfigurable Technology and Systems (TRETTS)*, Vol. 3, No. 4, 2010, pp. 19:1-19:29.
17. K. Nagarajan, B. Holland, A. George, K. Slatton, and H. Lam, "Accelerating Machine-Learning Algorithms on FPGAs using Pattern-Based Decomposition," *Journal of Signal Processing Systems (JSPS)*, Vol. 62, No. 1, Jan. 2011, pp. 43 – 63.
18. S. Degwekar, H. Lam, and S.Y.W. Su, "Constraint-based Brokering (CBB) for Publishing and Discovery of Web-services", *Journal of Electronic Commerce Research*, Vol. 7, 2007, pp. 45 – 67.
19. A. Matsunaga, M. Tsugawa, S. Adabala, R. Figueiredo, H. Lam, and J.A.B. Fortes, "Science gateways made easy: the In-VIGO approach". *Journal of Concurrency and Computation: Practice and Experience*, Wiley Press, v. 19 (6, April 2007), p.905-919.
20. J. Meng, S.Y.W. Su, H. Lam, A. Helal, J. Xian, X. Liu,, and S. Yang, "DynaFlow: A Dynamic Inter-Organizational Workflow Management System," *Int. J. Business Process Integration and Management*, Vol. 1, No. 2, 2006, pp. 101 – 115.
21. S. Yang, S.Y.W. Su, and H. Lam, "A Non-Repudiation Message Transfer Protocol for Collaborative E-commerce", *International Journal of Business Process Integration and Management (IJBPIIM)*, Vol. 1, No. 1, 2006, pp. 34-42.
22. H. Li, S.Y.W. Su, and H. Lam, "On Automated E-business Negotiations: Goal, Policy, Strategy, and Plans of Decision and Action," *Journal of Organizational Computing and Electronic Commerce*, Volume 16, No.1, 2006, pp. 1-29.
23. M. Lee, S.Y.W. Su, and H. Lam, "A Knowledge Network Approach for Implementing

- Active Virtual Marketplaces”, *Journal on Data Semantics*, Vol. 3360 / 2005, February 2005, pp. 113–135.
24. S. Yang, S.Y.W. Su, and H. Lam, “A Non-Repudiation Message Transfer Protocol for Collaborative e-commerce, . IJBPIIM 1(1), 2005, pp. 34-42.
 25. Q. Liang, L.N. Chakarapani, S.Y.W. Su, R.N. Chikkamagalur, and H. Lam, “A Semi-automatic Approach to Composite Web Services Discovery, Description and Invocation,” *International Journal of Web Services Research (JWSR)*, Vol. 1, No. 4, 2004, pp. 64–89.
 26. K. Nagarajan, H. Lam, and S.Y.W. Su, “Integration of Business Event and Rule Management with the Web Services Model”, *International Journal of Web Services Research (JWSR)*, Vol. 1, No. 1, 2004, pp. 41-57.
 27. L.J. Zhang, H. Li and H. Lam, "Services Computing: Grid Applications for Today," *IT Professional*, Vol. 6, No. 4, 2004, pp. 5-7.
 28. M. Lee, S.Y.W. Su, and H. Lam, “Event and Rule Services for Achieving a Web-based Knowledge Network, Knowledge-based Systems”, *Journal of Knowledge Based Systems*, August 2004, Vol. 17, pp. 179-188.
 29. L.J. Zhang, H. Li, and H. Lam, “Toward a Business Process Grid for Utility Computing”, *IT Professional*, Vol. 6, No. 5, 2004, pp. 62-64.
 30. Y. Liu, F. Yu, S.Y.W. Su, and H. Lam, “A Cost-benefit Evaluation Server for Decision Support in e-Business,” *Journal of Decision Support Systems and Electronic Commerce*, Vol. 36/1, September, 2003, pp 81-97.
 31. M. Lee, S.Y.W. Su, and H. Lam, "A Web-based Knowledge Network for Supporting Emerging Internet Applications," *WWW Journal*, Vol. 4, No. 1/2, 2001, pp. 121-140.
 32. S.Y.W. Su, C. Huang, J. Hammer, Y. Huang, H. Li, L. Wang, Y. Liu, C.M. Pluempitiwiriyawej, M. Lee, and H. Lam, “An Internet-Based Negotiation Server for E-Commerce,” *The VLDB Journal*, Vol. 10, No. 1, Aug. 2001, pp. 72-90.
 33. S.Y.W. Su, H. Lam, T.F. Yu, J. A. Arroyo-Figueroa, Z. Yang, S. Lee, "NCL: A Common Language for Achieving Rule-Based Interoperability among Heterogeneous Systems", *Journal of Intelligent Information Systems, Special Issue on Intelligent Integration of Information*, Vol. 6, 1996, pp. 171-198.
 34. Y. M. Shyy, J. Arroyo, S.Y.W. Su, and H. Lam, "The Design and Implementation of K: A High-Level Knowledge Base Programming Language of OSAM*.KBMS", *Very Large Data Base (VLDB) Journal*, Vol. 5, No. 3, 1996, pp. 181-195.
 35. A.K. Thakore, S.Y.W. Su, and H. Lam, "Algorithms for Asynchronous Parallel Processing of Object-Oriented Databases", *IEEE Transactions on Knowledge and Data Engineering*, Vol. 7, No. 3, June 1995, pp. 487-504.
 36. S.Y.W. Su, M.S. Guo, and H. Lam, "Association Algebra: A Mathematical Foundation of Object-oriented Databases", *IEEE Transactions on Knowledge and Data Engineering*, Vol. 5, No. 5, Oct. 1993, pp. 775-798.
 37. S.Y.W. Su, H. Lam, et. al., "Database Research at the University of Florida", *SIGMOD Record*, Vol. 22, No. 3, Sept. 1993, pp. 84-90.
 38. C. Lee, H. Lam, and S.Y.W. Su, "An Object Flow Computer for Database Applications", *Journal of Parallel and Distributed Computing*, Vol 17, 1993, pp. 298-314.
 39. A. Goldschmidt, J. Chida, S.Y.W. Su, H. Lam, et. al., "Integration of OSAM*.KBMS/ROSE

- Technologies for CIM, IBM Journal of AIXpert, May 1992, pp. 79-80.
40. H. Lam, S.Y.W. Su, et. al., "GTOOLS: An Active Graphical User Interface Toolset for an Object-oriented KBMS", International Journal of Computer Science and Engineering, Vol.7 No. 2, April 1992, pp. 69-85.
 41. H. Lam, C. Lee, and S.Y.W. Su, "A Special Function Unit for Database Operations (SFU-DB): Design and Performance Evaluation", IEEE Transactions on Computers, Vol. 40, No. 3, March 1991, pp. 263-275.
 42. V. Krishnamurthy, S.Y.W. Su, and H. Lam, "IMDAS - An Integrated Manufacturing Data Administration System", Data and Knowledge Engineering Journal, Vol. 3, 1988, pp. 109-131.
 43. H. Lam, S.Y.W. Su, and N. Koganti, "A Physical Database Evaluation System for CODASYL Databases", IEEE Transactions on Software Engineering, Vol. 14, No. 17, July 1988, pp. 1010-1022.
 44. L. Raschid, T. Fei, H. Lam, and S.Y.W. Su, "A Special Function Unit for Sorting and Sort-based Database Operations", IEEE Transactions on Computers, Vol. C-35, No. 12, December 1986, pp. 1071-1077.
 45. S.Y.W. Su, H. Lam, and D.H. Lo, "Transformation of Data Traversals and Operations in Application Programs to Account for Semantic Changes of Databases", ACM Transactions on Database Systems, Vol. 6, No. 2, 1981, pp. 255-294.

Publications - Refereed Conference and Workshops

1. Y. Gao, Z. Wang, W. Piard, W. Wu, and H. Lam, "EIF: A Mediated Pass-Through Framework for Inference as a Service", submitted to ICCD 2023: International Conference on Computer Design, Paris, France, September 18-19, 2023.
2. T. Johnson and H. Lam, "Incorporating Fault-Tolerance Awareness into System-Level Modeling and Simulation," 2021 IEEE/ACM 11th Workshop on Fault Tolerance for HPC at eXtreme Scale (FTXS), November 2021, pp. 31-40, doi: 10.1109/FTXS54580.2021.00008.
3. Sai P. Chenna, S Balachandar, Herman Lam, Greg Stitt, "Scalable Performance Prediction of Irregular Workloads in Multi-Phase Particle-in-Cell Applications", International Workshop on Automatic Performance Tuning (IWAPT 2021), May 21, 2021.
4. C. Jiang, D. Ojika, B. Patel, H. Lam, "Optimized FPGA-based Deep Learning Accelerator for Sparse CNN using High Bandwidth Memory," 2021 IEEE 29th Annual International Symposium on Field-Programmable Custom Computing Machines (FCCM), May 9, 2021.
5. R. Blanchard, G. Stitt and H. Lam, "FPGA Acceleration of Fluid-Flow Kernels," 2020 IEEE/ACM International Workshop on Heterogeneous High-performance Reconfigurable Computing (H2RC), GA, USA, November 13, 2020, pp. 29-37.
6. A. Neelakantan, R. Shivakumar, R. Singh, C. Jiang, and H. Lam, "System-level MODSIM of CiM Architectures for Memory-Intensive Applications, Workshop on Modeling & Simulation of Systems and Application (ModSim 2020), Seattle, WA (Virtual), Aug 12, 2020, 2 pages.
7. C. Jiang, D. Ojika, S. Vallecorsa, T. Kurth3, Prabhat, B. Patel, and H. Lam, "Acceleration of Scientific Deep Learning Models on Heterogeneous Computing Platform with Intel

- FPGA”, Proc. Of 24th International Conference on Computing in High Energy and Nuclear Physics (CHEP19), Adelaide, Australia, Nov. 4-8, 2019, 8 pages.
8. C. Jiang, D. Ojika, B. Patel, A. Gordon-Ross, and H. Lam, “Accelerating Scientific Discovery with SCAIGATE Science Gateway”, 15th International Conference on eScience (eScience), San Diego, CA, Sept. 24-27, 2019, 2 pages.
 9. H. Lam, S. Bhat, K. Rajasekaran, V. Srinivasan, and D. Ojika, “Compute Cache Architecture for the Acceleration of Mission-Critical Data Analytics”, Workshop on Modeling & Simulation of Systems and Application (ModSim 2019), Seattle, WA, Aug 14 - Aug 16, 2019, 2 pages.
 10. A. Neelakantan, S. Chenna, T. Johnson, H. Lam, and G. Stitt, “BE-SST: Coarse-Grained Simulation Method & Tools for Full-System Modeling and Simulation”, Workshop on Modeling & Simulation of Systems and Application (ModSim 2019), Seattle, WA, Aug 14 - Aug 16, 2019, 2 pages.
 11. S. Chenna, G. Stitt, and H. Lam, “Multi-Parameter Performance Modeling using Symbolic Regression”, 17th Annual International Conference on High Performance Computing & Simulation (HPCS 2019), Dublin, Ireland, July 15-19, 2019, 10 pages.
 12. D. Ojika, A. Gordon-Ross, H. Lam, et. al., “PCS: A Productive Computational Science Platform”, 17th Annual International Conference on High Performance Computing & Simulation (HPCS 2019), Dublin, Ireland, July 15-19, 2019, 6 pages.
 13. C. Pascoe, R. Blanchard, H. Lam, and G. Stitt, “A FPGA-Pipelined, High-Throughput Approach to Coarse-Grained Simulation of HPC Systems”, 5th International Workshop on Modeling and Simulation of and by Parallel and Distributed Systems (MSPDS, HPCS Conference 2019), Dublin, Ireland, July 15-19, 2019, 10 pages.
 14. C. Jiang, D. Ojika, T. Kurth, Prabhat, S. Vallecorsa, B. Patel, and H. Lam, “Acceleration of Scientific Deep Learning Models on Heterogeneous Computing Platform with Intel FPGAs”, ISC 19 IXPUG Workshop, ISC High Performance Conference, Frankfurt, Germany, June 16 – 20, 2019, 8 pages.
 15. C. Jiang, H. Lam, et. al, “Heterogeneous Computing (HGC) for Deep Learning”, Poster, ISC 2019 - ISC High Performance Conference, Frankfurt, Germany, June 16 – 20, 2019.
 16. D. Ojika, H. Lam, B. Patel and A. Gordon-Ross, “SCAIGATE: Science Gateway for Scientific Computing with Artificial Intelligence and Reconfigurable Architectures”, Proceedings of the 13th Gateway Computing Environments Conference (Gateways 2018), Austin, TX, Sept. 25 - 27, 2018, 3 pages.
 17. A. Ramaswamy, N. Kumar, R. Rajagopalan, A. Neelakantan, H. Lam, Greg Stitt, “Scalable Behavioral Emulation of Extreme-Scale Systems Using Structural Simulation Toolkit”, Proceedings of the 47th International Conference on Parallel Processing, Eugene, OR, August 13 -16, 2018, 8 pages.
 18. H. Lam and D. Ojika, “Research Opportunities in Heterogeneous Computing for Machine Learning”, Proceedings of the International Workshop on High Performance and Dynamic Reconfigurable Systems and Networks (DRSN), a keynote address, Orleans, France, July 16 – 20, 2018, 2 pages.
 19. D. Ojika, A. Gordon-Ross, H. Lam, B. Patel, “FaaS: FPGA-as-a-Microservice”, Proceedings of 23rd International Conference on Computing in High Energy and Nuclear Physics, Sofia, Bulgaria, July 9 – 13, 2018, 8 pages.

20. D. Ojika, A. Gordon-Ross, H. Lam, B. Patel, G. Kaul, and J. Strayer, "Using FPGAs as Microservices: Technology, Challenges and Case Study", 9th Workshop on Big Data Benchmarks Performance, Optimization and Emerging Hardware (BPOE-9), Williamsburg, VA, March 25th, 2018, 6 pages.
21. Y. Zhang (g), A. Neelakantan, N. Kumar, C. Park, R. Haftka, N. H. Kim and H. Lam, "Multi-fidelity Surrogate Modeling for Application/ Architecture Co-design", Performance Modeling, Benchmarking and Simulation of High Performance Computer Systems (PMBS17), Denver, CO, Nov. 13, 2017, pp. 179-196.
22. C. Pascoe, S. Chenna, G. Stitt, and H. Lam, "A FPGA-Pipelined Approach for Accelerated Discrete-Event Simulation of HPC Systems", Heterogeneous High-performance Reconfigurable Computing (H2RC), Denver, CO, Nov. 13, 2017, 2 pages.
23. A. Lawande, A. George, and H. Lam, "An OpenCL framework for distributed apps on a multidimensional network of FPGAs." Proceedings of the Sixth Workshop on Irregular Applications: Architectures and Algorithms. Salt Lake City, UT, 13 Nov. 2016, pp. 42-49.
24. A. George, M. Herbordt, H. Lam, A.G. Lawande, J. Sheng, Chen Yang,"Novo-G#: A Community Resource for Exploring Large-Scale Reconfigurable Computing with Direct and Programmable Interconnects", IEEE High Performance Extreme Computing Conference (HPEC'16), Waltham, MA, Sept. 13-15, 2016, 7 pages.
25. A. Milluzzi, A. George, and H. Lam, "Computational and Memory Analysis of Tegra SoCs", IEEE High Performance Extreme Computing Conference (HPEC'16), Waltham, MA, Sept. 13-15, 2016, 7 pages.
26. Barath Ramesh, A. George, and H. Lam, "Real-Time, Low-Latency Image Processing with High Throughput on a Multi-Core SoC", IEEE High Performance Extreme Computing Conference (HPEC'16), Waltham, MA, Sept. 13-15, 2016, 6 pages.
27. C. Pascoe, N. Kumar, K. All, H. Lam, G. Stitt, and A. George, "FPGA-Pipelined Discrete-Event Simulations for Accelerated Behavioral Emulation of Extreme-Scale Systems", Workshop on Modeling & Simulation of Systems and Applications (ModSim 2016), August 10-11, 2016, Seattle, WA, 2 pages.
28. G. Wang, H. Lam, Y. Zou, R. Xavier, S. Gundecha, and A. George, "A Research Platform for Custom Memory Cube", Workshop on Modeling & Simulation of Systems and Applications (ModSim 2016), August 10-11, 2016, Seattle, WA, 2 pages.
29. N. Kumar, C. Pascoe, C. Hajas, H. Lam, G. Stitt, and A. George, "Behavioral Emulation for Scalable Design-Space Exploration of Algorithms and Architectures", 2016 Workshop on Exascale Multi/Many Core Computing Systems (E-MuCoCoS), June 23, 2016, Frankfurt, Germany, 12 pages.
30. E. Durant, J. Impagliazzo, S. Conry, R. Reese, and H. Lam, "CE2016: Updated computer engineering curriculum guidelines", Proc. of Frontiers in Education Conference, El Paso, TX, Oct 21-24, 2015, Waltham, MA, 2 pages.
31. G. Wang, H. Lam, A. George, and G. Edwards, "Performance and Productivity Evaluation of Hybrid-threading HLS Versus HDLs", High Performance Extreme Computing Conference (HPEC), Sept. 15-17, 2015, 7 pages.
32. N. Kumar, M. Sringarpure, T. Banerjee, J. Hackl, S. Balachandar, H. Lam, A. George, and S. Ranka, "CMT-bone: A Mini-app for Compressible Multiphase Turbulence Simulation Software", Workshop on Representative Applications, co-located with IEEE Cluster 2015, Chicago, IL, Sept. 8-11, 2015, pp. 785-792.

33. N. Kumar, A. George, H. Lam, G. Stitt, S. Hammond, "Understanding Performance and Reliability Trade-offs for Extreme-scale Systems using Behavioral Emulation", Workshop on Modeling & Simulation of Systems and Applications (ModSim 2015), August 12-14, 2015, Seattle, WA, 2 pages.
34. K. Hill, S. Craciun, A. George, and H. Lam, "Comparative Analysis of OpenCL vs. HDL with Image-Processing Kernels on Stratix-V FPGA," 26th IEEE International Conference on Application-specific Systems, Architectures and Processors (ASAP), Toronto, Canada, July 27-29, 2015, pp. 189-193.
35. N. Kumar, C. Hajas, A. George, H. Lam, G. Stitt, "Multi-objective Behavioral Emulation of Future-gen Applications and Systems", 2015 Salishan Conference on High-Speed Computing, April 27-30, 2015, Gleneden Beach, OR, 10 pages.
36. C. Wilson, P. Zicari, S. Craciun, P. Gauvin, E. Carlisle, A. George, and H. Lam, "A Power-Efficient Real-Time Architecture for SURF Feature Extraction," Proc. of 2014 International Conference on ReConFIGurable Computing and FPGAs (ReConFig 2014), Cancun, Mexico, Dec. 8-10, 2014, 8 pages.
37. E. Durant, M. Thornton, J. Impagliazzo, H. Lam, S. Conry, R. Reese, and V. Nelson, "Setting the Stage for CE2016. A Revised Body of Knowledge", Proc. Of 2014 Frontiers in Education Conference, Madrid, Spain, Oct. 22-25, 2014, 4 pages.
38. A. Lawande, H. Yang, A. George, and H. Lam, "Simulative Analysis of a Multidimensional Torus-based Reconfigurable Cluster for Molecular Dynamics", Proc. of Third International Workshop on Heterogeneous and Unconventional Cluster Architectures and Applications (HUCAA 2014), Minneapolis, MN, Sept. 9-12, 2014, pp. 387-394.
39. A. Milluzzi, J. Richardson, A. George, and H. Lam, "A Multi-Tiered Optimization Framework for Heterogeneous Computing", Proc. of 2014 IEEE High Performance Extreme Computing Conference (HPEC '14), Waltham, MA, Sept. 9-11, 2014, 6 pages.
40. B. Ramesh, A. Bhardwaj, J. Richardson, A. George, and H. Lam, "Optimization and Evaluation of Image- and Signal-Processing Kernels on the TI C6678 Multi-Core DSP", Proc. of 2014 IEEE High Performance Extreme Computing Conference (HPEC '14), Waltham, MA, Sept. 9-11, 2014, 6 pages.
41. N. Kumar, C. Pascoe, D. Rudolph, H. Lam, A. George, and G. Stitt, "Multi-scale, Multi-objective, Behavioral Modeling & Emulation of Extreme-scale Systems, Proc. of Workshop on Modeling & Simulation of Systems & Applications, Seattle, WA, August 13-14, 2014, 2 pages.
42. D. Rudolph, C. Wilson, J. Stewart, P. Gauvin, A. George, and H. Lam, "CSP: A Multifaceted Hybrid Architecture for Space Computing", Proc. of 28th AIAA/USU Conference on Small Satellites, Logan, UT, August 2-7 2014, 7 pages.
43. P. Gauvin, J Urriste, D. Rudolph, J. Stewart, C. Wilson, C. Morales, A. George, H. Lam, A. Stoddard, A. Wilson, M. Wirthlin, and G. Crum, "CSP: A Multifaceted Hybrid System for Space Computing", Proc. of Military and Aerospace Programmable-Logic Devices Conference (MAPLD), San Diego, CA, May 19 - 22, 2014, 5 pages.
44. B. Lam, A. Barboza, R. Agrawal. A. George, and H. Lam, "Benchmarking Parallel Performance on Many-Core Processors", Proc. of 1st Workshop on OpenSHMEM Experiences, Implementations, and Tools (OpenSHMEM), Annapolis, MD, March 4-6, 2014, 15 pages.
45. B. Lam, C. Pascoe, S. Schaecher, H. Lam, and A. George, "BSW: FPGA-Accelerated

- BLAST-Wrapped Smith-Waterman Aligner", Proc. of ReConFig'13, 2013 International Conference on ReConFigurable Computing and FPGAs, Cancun, Mexico, Dec. 9 - 11 Dec 2013, pp. 1-7.
46. C. Wilson, J. Urriste, P. Gauvin, J. Stewart, A. George, H. Lam, T. Flatley, G. Crum, and M. Wirthlin, "CHREC Space Processor (CSP): A Broad Vision for Hybrid Space Computing", Proc. of 3rd International Workshop on LunarCubes, Palo Alto, CA, Nov. 13-15, 2013, 19 pages.
 47. P. Zicari, H. Lam, and A. George, "Reconfigurable Computing Architecture for Accurate Disparity Map Calculation in Real-Time Stereo Vision", Proc. of The 17th International Conference on Image Processing, Computer Vision, & Pattern Recognition, Las Vegas, NV, July 22-25, 2013, 8 pages.
 48. S. Craciun, G. Wang, A. George, H. Lam, and J. Principe, "A Scalable RC Architecture for Mean-Shift Clustering", Proc. of 24th IEEE International Conference on Application-specific Systems, Architectures and Processors (ASAP13), Washington, D.C., June 5-7 2013, pp. 370 - 374.
 49. R. Kirchgessner, A. George, and H. Lam, "Reconfigurable Computing Middleware for Application Portability and Productivity", Proc. of 24th IEEE International Conference on Application-specific Systems, Architectures and Processors (ASAP13), Washington, D.C., June 5-7, 2013, pp. 211 - 218.
 50. B. Lam, A. George, and H. Lam, "TSHMEM: Shared-Memory Parallel Computing on Tiler Many-Core Processors," Proc. of 18th International Workshop on High-Level Parallel Programming Models and Supportive Environments (HIPS), Boston, MA, May 20, 2013, pp. 325 – 334.
 51. B. Lam, A. George, and H. Lam, "An Introduction to TSHMEM for Shared-Memory Parallel Computing on Tiler Many-Core Processors," Proc. of 6th Conference on Partitioned Global Address Space (PGAS) Programming Models, Santa Barbara, CA, Oct. 10-12, 2012, Vol. 12, 2 pages.
 52. C. Pascoe, D. Box, H. Lam, and A. George, "FPGA-Accelerated Isotope Pattern Calculator for Use in Simulated Mass Spectrometry Peptide and Protein Chemistry," Proc. of Symposium on Application Accelerators in High-Performance Computing (SAAHPC), Chicago, IL, July 10-11, 2012, pp. 111-120.
 53. R. Sridharan, G. Cooke, K. Hill, H. Lam, and A. George, "FPGA-based Reconfigurable Computing for Pricing Multi-asset Barrier Options," Proc. of Symposium on Application Accelerators in High-Performance Computing (SAAHPC), Chicago, IL, July 10-11, 2012, pp. 34-43.
 54. J. Richardson, A. George, and H. Lam, "Performance Analysis of GPU Accelerators with Realizable Utilization of Computational Density," Proc. of Symposium on Application Accelerators in High-Performance Computing (SAAHPC), Chicago, IL, July 10-11, 2012, pp. 137-140.
 55. R. Kirchgessner, G. Stitt, A. George, and H. Lam, "VirtualRC: A Virtual FPGA Platform for Applications and Tools Portability," Proc. of International ACM/SIGDA Symposium on Field Programmable Gate Arrays (FPGA), Monterey, CA, Feb. 22-24, 2012, pp. 205-208.
 56. H. Lam and G. Cooke, "FinRC: challenges and opportunities for high-performance reconfigurable computing (HPRC) in computational finance," Proc. of the fourth workshop on High performance computational finance (WHPCF '11), Seattle, WA, Nov. 13, 2011,

pp. 21-22.

57. S. Craciun, A. Brockmeier, A. George, H. Lam, and J. Principe, "An Information-Theoretic Approach to Motor Decoding with a Reconfigurable Parallel Architecture," Proc. of 33rd Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC'11), Boston, MA, August 30 - September 3, 2011, pp 4621-4624.
58. S. Craciun, A. George, H. Lam, and J. Principe, "A Parallel Hardware Architecture for Information-Theoretic Adaptive Filtering," Proc. of High-Performance Reconfigurable Computing Technology and Applications Workshop (HPRCTA) at SC'10, New Orleans, LA, Nov. 14, 2010, pp. 1-10.
59. J. Richardson, S. Fingulin, D. Raghunathan, C. Massie, A. George, and H. Lam, "Comparative Analysis of HPC and Accelerator Devices: Computation, Memory, I/O, and Power," Proc. of High-Performance Reconfigurable Computing Technology and Applications Workshop (HPRCTA) at SC'10, New Orleans, LA, Nov. 14, 2010, pp. 1-10.
60. V. Aggarwal, C. Yoon, A. George, H. Lam, and G. Stitt, "Performance Modeling for Multilevel Communication in SHMEM+," Proc. of Conference on Partitioned Global Address Space Programming Model (PGAS), New York, NY, Oct. 12-15, 2010, Article 7, 7 pages.
61. C. Pascoe, A. Lawande, H. Lam, A. George, Y. Sun, W. Farmerie, and M. Herbordt, "Reconfigurable Supercomputing with Scalable Systolic Arrays and In-Stream Control for Wavefront Genomics Processing," Proc. of Symposium on Application Accelerators in High-Performance Computing (SAAHPC), Knoxville, TN, July 2010, pp. 13 – 15.
62. A. George, H. Lam, A. Lawande, C. Pascoe, and G. Stitt, "Novo-G: A View at the HPC Crossroads for Scientific Computing," Proc. Of ERSA'10: Engineering of Reconfigurable Systems and Algorithms, Las Vegas, NV, July 12 - 15, 2010, pp. 21 - 30.
63. C. Reardon, A. George, G. Stitt, and H. Lam, "An Automated Scheduling and Partitioning Algorithm for Scalable RC Systems," Proc. of International Conference on Engineering of Reconfigurable Systems and Algorithms (ERSA), Las Vegas, NV, July 12-15, 2010, pp. 187-193.
64. B. Holland, A. George, and H. Lam, "Integrating Application Specification and Performance Prediction for Strategic Design-Space Exploration," Proc. of International Conference on Engineering of Reconfigurable Systems and Algorithms (ERSA), Las Vegas, NV, July 12-15, 2010, pp. 201 - 210.
65. V. Aggarwal, A. George, K. Yalamanchili, C. Yoon, H. Lam, and G. Stitt, "Bridging Parallel and Reconfigurable Computing with Multilevel PGAS and SHMEM+," Proc. of High-Performance Reconfigurable Computing Technology and Applications Workshop (HPRCTA) at SC'09, Portland, OR, Nov. 15, 2009, pp. 47 – 54. Winner of the OpenFPGA paper award.
66. V. Aggarwal, R. Garcia, G. Stitt, A. George, and H. Lam, "SCF: A Device- and Language-Independent Task Coordination Framework for Reconfigurable, Heterogeneous Systems," Proc. of High-Performance Reconfigurable Computing Technology and Applications Workshop (HPRCTA) at SC'09, Portland, OR, Nov. 15, 2009, pp. 19 - 28.
67. G. Wang, G. Stitt, H. Lam, and A. George, "A Framework for Core-level Modeling and Design of Reconfigurable Computing Algorithms," Proc. of High-Performance Reconfigurable Computing Technology and Applications Workshop (HPRCTA) at SC'09, Portland, OR, Nov. 15, 2009, pp. 29 – 38.

68. J. Richardson, C. Massie, H. Lam, K. Gosrani, and A. George, "Space Applications on Tiler," Workshop for Multicore Processors For Space - Opportunities and Challenges, IEEE International Conference on Space Mission Challenges for Information Technology (SMC-IT), Pasadena, CA, July 19-23, 2009, 6 pages.
69. Q.A. Liang, H. Lam, L. Narupiyakul, and P.C.K Hung, "A Rule-Based Approach for Availability of Web Service", Proc. of IEEE International Conference on Web Services, Beijing, China, Sept. 23-26, 2008, pp. 153-160.
70. S. Merchant, B. Holland, C. Reardon, A. George, H. Lam, G. Stitt, M. Smith, N. Alam, I. Gonzalez, E. El-Araby, P. Saha, T. El-Ghazawi, and H. Simmler, "Strategic Challenges for Application Development Productivity in Reconfigurable Computing," Proc. of National Aerospace & Electronics Conference (NAECON), Dayton, OH, July 16-18, 2008, pp. 209-218.
71. I. Gonzalez, E. El-Araby, P. Saha, T. El-Ghazawi, H. Simmler, S. Merchant, B. Holland, C. Reardon, A. George, H. Lam, G. Stitt, N. Alam, M. Smith, "Classification of Application Development for FPGA-Based Systems," Proc. of National Aerospace & Electronics Conference (NAECON), Dayton, OH, July 16-18, 2008, pp. 203 - 208.
72. Q. A. Liang and H. Lam, "Web Service Matching By Ontology Instance Categorization", to appear Proc. 2008 IEEE International Conference on Services Computing (SCC 2008), Honolulu, HI, July 7-11, 2008, pp. 202-209.
73. J. Shin, J. Hammer, and H. Lam, "RDF-based Approach to Data Transform Composition", Proc. IEEE/ACIS International Conference on Computer and Information Science, Portland, OR, May 14-16, 2008, pp. 645-648.
74. B. Holland, K. Nagarajan, S. Merchant, H. Lam, and A. George, "Lessons Learned with Performance Prediction and Design Patterns on Molecular Dynamics," Proc. Military and Aerospace FPGA and Applications (MAFA) Meeting, Palm Beach, FL, Nov. 27-29, 2007, 2 pages.
75. R. Hymel, A. George, and H. Lam, "Evaluating Partial Reconfiguration for Embedded FPGA Applications," Proc. High-Performance Embedded Computing Workshop (HPEC), MIT Lincoln Lab, Lexington, MA, Sep. 18-20, 2007, 6 pages.
76. M. Lee, S.Y.W. Su, and H. Lam, "An Event-Trigger-Rule Model for Supporting Collaborative Knowledge Sharing among Distributed Organizations", International Workshop on Modeling Inter-Organizational Systems focusing on Collaboration and Interoperability, Architectures and Ontologies (MIOS-CIAO 2006), Montpellier, France, Oct. 31 – Nov. 1, 2006, pp. 780 – 791.
77. L. Zhui, A. Matsunaga, V. Sanjeevan, H. Lam, J.A.B. Fortes, "Application Modeling and Representation for Automatic Grid-enabling of Legacy Applications", Proceedings of the First IEEE International Conference on e-Science and Grid Computing, Melbourne, Australia, December 5-8, 2005, pp. 24-31.
78. A. Matsunaga, M. Tsugawa, M. Zhao, L. Zhui, V. Sanjeevan, S. Adabala, R. Figueiredo, H. Lam, and J.A.B. Fortes, "On the Use of Virtualization and Service Technologies to Enable Grid-Computing", Proceedings of Euro-Par 2005, Parallel Processing, 11th International Euro-Par Conference, Lisbon, Portugal, August 30 - September 2, 2005, pp. 1-12.
79. V. Sanjeevan, A. Matsunaga, L. Zhui, H. Lam, "A Service-oriented Scalable Approach to Grid-enabling Legacy Scientific Applications," Proceedings of International Conference

- on Web Services (ICWS 2005), Orlando, FL, July 2005, pp. 553-560.
80. M. Tsugawa, A. Matsunaga, L. Zhui, L., V. Sanjeevan, H. Lam, R. Figueiredo, J.A.B Fortes, "In-VIGO Virtual Networks and Virtual Application Services: Automated Grid-enabling and Deployment of Applications", Proc. of 14th International Symposium on High Performance Distributed Computing (HPDC), Tempe, AZ, July, 2005, pp. 312-313.
 81. A. Matsunaga, M. Tsugawa, S. Adabala, R. Figueiredo, H. Lam, and J.A.B. Fortes, "Science gateways made easy: the In-VIGO approach". In Workshop on Science Gateways, Global Grid Forum, Chicago, IL, June 2005, 6 pages.
 82. Y. Long, H. Lam and, S.Y.W. Su, "Adaptive Grid Service Flow Management: Framework and Model", Proceedings of International Conference on Web Services (ICWS04), San Diego, CA, July 6-7, 2004, pp.558-565.
 83. S. Degwekar, S.Y.W. Su, and H. Lam, "Constraint Specification and Processing in Web Services Publication and Discovery", Proceedings of International Conference on Web Services (ICWS04), San Diego, CA, July 6-7, 2004, pp. 210-217.
 84. S.Y.W. Su, Q. Liang, L.N. Chakarapani, R.N. Chikkamagalur, and H. Lam, "A Web Service Composition Framework: Discovery, Description, and Invocation", The Sixth International Conference on Electronic Commerce Research (ICECR-6), Pittsburgh, PA, October, 2003, 6 pages.
 85. S. Yang, S.Y.W. Su, and H. Lam, "A Non-repudiation Message Protocol for E-commerce," Proceedings of the IEEE International Conference on Electronic Commerce, Newport Beach, CA., June 24-27, 2003, pp. 320 - 327.
 86. K. Nagarajan, H. Lam, S.Y.W. Su, "Integration of Business Event and Rule Management with the Web Services Model", Proc. of the First International Conf. on Web Services (ICWS'03), June 23-26, 2003, Las Vegas, NV, pp 83 - 89.
 87. Y. Liu, Y. Shi, H. Lam, S.Y.W. Su, K. Pillalamarri, and M. Islamraja, "A Rule Warehouse System for Knowledge Sharing and Business Collaboration," in Proceedings of the IASTED International Conference on Information and Knowledge Sharing, November 18-20, 2002, St. Thomas, US Virgin Islands, pp. 142-151.
 88. S. Yang, S.Y.W. Su, and H. Lam, "A Trust-Based Security Architecture and Model for Enabling Collaborative E-Business", Proceedings of The 5th International Conference on Electronic Commerce Research, Montreal, Canada, Oct 23-27, 2002, 6 pages.
 89. S. Yang, H. Lam, and S.Y.W. Su, "Trust-based Security Model and Enforcement Mechanism for Web Service Technology", The 3rd VLDB Workshop on Technologies for E-Services (TES'02), Hong Kong, China, Aug. 23-24, 2002, pp. 151-160.
 90. J. Meng, S.Y.W. Su, H. Lam, and A. Helal, "Achieving Dynamic Inter-organizational Workflow Management by Integrating Business Processes, Events, and Rules", Proc. of Hawaii International Conference on System Sciences (HICSS-35), Big Island, HI, January 7-10, 2002, 10 pages.
 91. M. Lee, S.Y.W. Su, and H. Lam, "Event and Rule Services for Achieving a Web-based Knowledge Network," Proceedings of the 2001 International Conference on Web Intelligence (WI-2001), Maebashi City, Japan, Oct. 23-26, 2001, pp. 205-216.
 92. S.Y.W. Su, H. Lam, M. Lee, S. Bai, and M. Shen, "An Information Infrastructure and E-services for Supporting Internet-based Scalable E-business Enterprises", the Proceedings of the Enterprise Distributed Object Computing Conference (EDOC 2001),

Seattle, WA, Sept. 4-7. pp. 2-13.

93. S.Y.W. Su, Y.Z. Liu, J. Meng, M. Lee, H. Lam, "Distributed and Concurrent Processing of Business Object Documents in Support of e-Enterprise Integration," the 4th International Enterprise Distributed Object Computing Conference (EDOC 2000), Makuhari, Japan, September 25-28, 2000, pp. 107-111.
94. S.Y.W. Su and H. Lam, "IKnet: Scalable Infrastructure for Achieving Internet-based Knowledge Network," Proceedings of International Conference on Advances in Infrastructure for Electronic Business, Science, and Education on the Internet, l'Aquila, Rome, Italy, July 31-Aug. 6, 2000. pp. 80. (full length paper in CD).
95. M. Lee, S.Y.W. Su, and H. Lam, "Parallel Rule Processing in a Distributed Object Environment," Proceedings of the 1999 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA '99), Las Vegas, NV, June 28-July 1, 1999, pp. 410-416.
96. J. Barry, H. Lam, et. al., "NIIP-SMART: An Investigation of Distributed Object Approaches to Support MES Development and Deployment in a Virtual Enterprise", Proc. of the 2nd International Enterprise Distributed Object Computing Workshop (EDOC '98), November 2-5, 1998, La Jolla, San Diego, CA, pp. 366-377.
97. H. Lam and S.Y.W. Su, "Component Interoperability in a Virtual Enterprise Using Events/Triggers/Rules", Proc. of OOPSLA '98 Workshop on Objects, Components, and Virtual Enterprise, October 18-22, 1998, Vancouver, BC, Canada, pp. 47-53.
98. C.R. Gilman, H. Lam, et. al., "Integration of Design and Manufacturing in a Virtual Enterprise Using Enterprise Rules, Intelligent Agents, STEP, and Workflow", Proc. Of SPIES International Symposium on Intelligent Systems and Advance Manufacturing, Pittsburgh, PA, October 13-17, 1997, pp. 172-184.
99. S.Y.W. Su, H. Lam, J. A. Arroyo-Figueroa, T.F Yu, Z. Yang, "An Extensible Knowledge Base Management System for Supporting Rule-based Interoperability among Heterogeneous Systems," Keynote Paper, Conference on Information and Knowledge Management, Baltimore, MD, Nov. 28 -Dec. 2, 1995, pp. 1-10.
100. S.Y.W. Su, H. Lam, et. al., "On Bridging and Extending OMG/IDL and STEP/EXPRESS for Achieving Information Sharing and System Interoperability", Proc. of EXPRESS Users' Group (EUG '95), Grenoble, France, Oct. 21-22, 1995, 18 pages.
101. M. Missikoff and H. Lam, "On Semantic Verification of Object-Oriented Database Schemas", Proc. of the Int'l Workshop on Next Generation Information Technologies and Systems (NGITS '93), Haifa, Israel, June 28-30, 1993, 6 pages.
102. S.Y.W. Su, H. Lam, S. Eddula, J. Arroyo, N. Prasad, R. Zhuang, "OSAM*.KBMS: An Object-oriented Knowledge Base Management System for Supporting Advanced Applications", Proc. of ACM SIGMOD 1993, Washington, D.C., May 25-28, 1993, pp. 540-541.
103. S.Y.W. Su and H. Lam, "An Object-Oriented Knowledge Base Management System for Supporting Advanced Applications", Proc. of the 4th International Hong Kong Computer Society Database Workshop, Hong Kong, China, Dec. 12-13, 1992, pp. 3-21.
104. M. Sharma, N. Prasad, V. Ruhela, H. Lam, S.Y.W. Su, "X/Motif based GUI Toolset for an Object-oriented KBMS", Proc. of the International Workshop on Interfaces to Database Systems (IDS 92), Glasgow, Scotland, July 1-3, 1992, 12 pages

105. S.Y.W. Su, H. Lam, et. al., "An Integrated Object-oriented Knowledge Base Management System OSAM*.KBMS/ROSE for Supporting Design and Manufacturing", Proc. of the IEEE Second International Conf. on Systems Integration, Morristown, NJ, June 15-18, 1992, pp. 152-161.
106. A.M. Alashqur, S.Y.W. Su, and H. Lam, "Constraint Specification on Object-Oriented Databases", Proc. of the IEEE 4th. Int'l Conf. on Computer Languages, Oakland, CA, 1992, pp. 300-309.
107. C. Lee, H. Lam, and S.Y.W. Su, "A Database Computer Architectures Performance Evaluation System (DACPES)", Proc. of 11th. Annual IEEE International Conference on Computers and Communications, Phoenix, AZ, April 1992, pp. 148-155.
108. X. Zhang, J.K. Schueller, and H. Lam, "Object-oriented Knowledgebase Application to Hydraulic Design", Proc. Of 1991 Off-Highway & Powerplant Congress and Expo, SP-882, Milwaukee, WI, September 9-12, 1991, 8 pages.
109. R. Yaseen, S.Y.W. Su, and H. Lam, "An Extensible Kernel Object Management System", Proc. of the Conference on Object-Oriented Programming Systems Languages, and Applications (OOPSLA '91), Phoenix, AZ, Oct. 6-11, 1991, pp. 247-263.
110. S.Y.W. Su, Y.H. Chen, and H. Lam, "Multiple Wavefront Algorithms for Pattern-based Processing of Object-oriented Databases", Proc. First Inter. Conf. on Parallel and Distributed Information Systems (PDIS), Miami Beach, FL, Dec. 1991, pp. 46-55.
111. M.S. Guo, S.Y.W. Su, and H. Lam, "An Association Algebra for Processing Object-oriented Databases", Proc. of the Seventh International IEEE Conference on Data Engineering, Kobe, Japan, April, 1991, pp. 23-32.
112. S.Y.W. Su, L. Raschid, and H. Lam, "Knowledge Base Techniques for Computer Integrated Engineering and Manufacturing", Proc. of 17th. Annual Conference on Design and Manufacturing Systems Research, Univ. of Texas, Austin, TX, Jan. 9-11, 1991, pp. 593-600.
113. S.Y.W. Su, S.G. Puranik, and H. Lam, "Heuristic Algorithms for Path Determination in a Semantic Network", Proc. of the 14th. Annual International Computer Software & Applications Conference (COMPSAC '90), Chicago, IL, Oct. 31- Nov. 2, 1990, pp. 587-592.
114. H. Lam, et. al., "A Graphical Interface for an Object-oriented Query Language", Proc. of the 14th. Annual International Computer Software & Applications Conference (COMPSAC '90), Chicago, IL, Oct. 31 - Nov. 2, 1990, pp. 231-237.
115. S.B. Navathe, S. Geum, D.K. Desai, and H. Lam, "Conceptual Design for Non-database Experts with an Interactive Schema Tailoring Tool", Proc. of 9th. International Conference on Entity-Relationship Approach, Lausanne, Switzerland, October 8-10, 1990, pp. 3 - 20.
116. A.K. Thakore, S.Y.W. Su, H. Lam, and D.G. Shea, "Asynchronous Parallel Processing of Object Bases Using Multiple Wavefronts", Proc. of 19th International Conf. on Parallel Processing, St. Charles, IL, Aug. 13-17, 1990, pp. 127-135.
117. A.M. Alashqur, S.Y.W. Su, and H. Lam, "A Rule-base Language for Deductive Object-oriented Databases", Proc. of Sixth International Conference on Data Engineering, Los Angeles, CA, Feb. 5-9, 1990, pp. 58-67.
118. S.Y.W. Su and H. Lam, "Object-oriented Knowledge Base Management Technology for

- Improving Productivity and Competitiveness in Manufacturing, Proc. of 16th. Conference on Design and Manufacturing Systems Research, Arizona State University, Tempe, AZ, Jan. 8-12, 1990, pp. 161-167.
119. R.S. Kuldarni, J.K. Schueller, S.B. Navathe, H. Lam, "Computer Integrated Design of Hydraulic Systems", Proc. of Productivity in Computer Integrated Engineering and Manufacturing Conference (PROCIEM), Orlando, FL, Nov. 1989, pp. 155-160.
 120. H. Lam et. al., "Prototype Implementation of an Object-oriented Knowledge Base Management System", Proc. of Productivity in Computer Integrated Engineering and Manufacturing Conference (PROCIEM), Orlando, FL, Nov. 1989, pp. 68-70.
 121. H. Lam, S.Y.W. Su, and A.M. Alashqur, "Integrating the Concepts and Techniques of Semantic Modeling and the Object-oriented Paradigm", Proc. of the 13th. International Computer Software and Applications Conference (COMPSAC 89), Sept. 18-22, 1989, Orlando, FL, 1989, pp. 209-217.
 122. H. Lam, C. Lee, and S.Y.W. Su, "An Object Flow Computer for Database Applications", Proc. of the Sixth International Workshop on Database Machines, Deauville, France, June 19-21, 1989, pp. 1-17.
 123. A.M. Alashqur, S.Y.W. Su, and H. Lam, "OQL - A Query Language for Manipulating Object-oriented Databases", Proc. of the 15th. International Conference on Very Large Databases (VLDB 89), Amsterdam, Netherlands, Aug. 22-25, 1989, pp. 433-442.
 124. S.Y.W. Su, H. Lam, et. al., "An Object-oriented Computing Environment for Productivity Improvement in Automated Design and Manufacturing", Proc. of Productivity in Computer Integrated Manufacturing Conference (PROCIM), Orlando, FL, Nov. 14-15, 1988, pp. 68-69.
 125. V. Krishnamurthy, S.Y.W. Su, and H. Lam, "A Distributed Database Architecture for an Integrated Manufacturing Facility", Proc. of the Conference on Data and Knowledge Systems for Engineering and Manufacturing, Oct. 19-20, 1987, Hartford, CT, pp. 4-13.
 126. C. Lee, S.Y.W. Su, and H. Lam, "Algorithms for Sorting and Sort-based Database Operations by a Special-Function Unit", Proc. of the 5th Int. Workshop on Database Machine, Oct. 5-8, 1987, Karuizawa, Japan, pp. 103-116
 127. H. Lam, S.Y.W. Su, C. Seeger, C. Lee, W.R. Eisenstadt, "A Special Function Unit for Database Operations within a Data-Control Flow System", Proc. of the 16th. Int'l Conf. on Parallel Processing, Aug. 17-21, 1987, St. Charles, IL, pp. 330-339.
 128. M.E. Bermudez, H. Lam, et al, "An Object-Oriented Computing Environment for Productivity Improvement in Automated Design and Manufacturing", Proc. of SoutheastCon '87, April 5-8, 1987, Tampa, FL, pp. 221-227.
 129. S.Y.W. Su, H. Lam, M. Khatib, V. Krishnamurthy, A. Kumar, S. Malik, M. Mitchell, E. Barkmeyer, "The Architecture and Prototype Implementation of an Integrated manufacturing Data Administration System", Proc. of IEEE COMCOMP International Conference, March 3-6, 1986, San Francisco, CA, pp. 287-296.
 130. H. Lam and S.Y.W. Su, "A Case Study of Database System Conversion", Proc. of the Sixth International Computer Software and Applications Conference, Nov. 8-12, 1982, Chicago, IL, pp. 129-138.
 131. H. Lam, et al., "Program Analysis and Conversion Due to DBMS Migration", Proc. of the Fourth International Computer Software and Applications Conference, Oct. 29-30,

1980, Chicago, IL, pp. 129-138.

132. H. Lam and S.Y.W. Su, "A Semi-automatic Database Translation System", Proc. of the ACM Pacific Regional Conference, San Francisco, CA, 1975, pp. 71-79.
133. S.Y.W. Su and H. Lam, "A Semi-automatic Database Translation System for Achieving Data Sharing in a Network Environment", Proc. of the ACM's SIGFIDET Workshop on Data Access, Translation, and Control, 1974, Ann Arbor, MI, pp. 227-247.