

Mark J. Clement

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Education

Ph.D.	Computer Science	Oregon State University 1994 Dissertation: <i>Analytical Performance Prediction of Parallel Programs</i> Advisor: Michael J. Quinn
M.S.	Electrical Engineering	Brigham Young University 1989
B.S.	Electrical Engineering	Brigham Young University 1985

Experience

2011-present	<i>Professor</i> , Department of Computer Science, Brigham Young University Principle Investigator, Networked Computing Laboratory
2000-2011	<i>Associate Professor</i> , Department of Computer Science, Brigham Young University Principle Investigator, Networked Computing Laboratory
1994-2000	<i>Assistant Professor</i> , Department of Computer Science, Brigham Young University Research includes Parallel Processing and Networking
1993	<i>Pentium Pro Design Engineer</i> , Intel Corporation Microarchitecture Division and Supercomputer Systems Division
1990-1991	<i>Principal Software Engineer</i> , Digital Equipment Corporation Developed multimedia applications and UNIX Kernel drivers for ISDN
1986-1990	<i>Senior Software Engineer</i> , Icon International Inc. UNIX Kernel Programmer for BSD 4.2, 4.3 and AT&T V.3.2, V.4 systems. Project leader for Motorola 88010 UNIX software, X.25, SNA, TCP/IP
1985-1986	<i>Digital Design Engineer</i> , Icon International Inc. Designed memory subsystem for first generation UNIX system.

Book Chapters

- “Similarity Searching Using BLAST”, Kit J. Menlove, Mark Clement, and Keith A. Crandall, chapter 1 in “Bioinformatics for DNA Sequence Analysis, Methods in Molecular Biology”, Humana Press, a part of Springer Science Business Media, Business Media, LLC 2009 DOI 10.1007/978-1-59745-251-9_1, pp 1-23, Category 2

Journal Publications

- “The OGCleaner: filtering false-positive homology clusters”, Stanley Fujimoto, Anton Suvorov, Nicholas Jensen, Mark Clement, Quinn Snell, Seth Bybee, *Bioinformatics* 33 (1), 125-127, 1 Jan 2017. Category 1.
- “A Novel Approach for Multi-SNP GWAS and its Application in Alzheimer's Disease”, Paul Bodily, Stanley Fujimoto, Justin Page, Mark Clement, Perry Ridge, *BMC Bioinformatics*, 17(Suppl 7):268, DOI: 10.1186/s12859-016-1093-7, 25 July 2016. Category 1.
- “Opsins have evolved under the permanent heterozygote model: insights from phylotranscriptomics of Odonata”, Suvorov, A., Jensen, N. O., Sharkey, C. R., Fujimoto, M. S., Bodily, P., Wightman, H. M. C., Ogden, T. H., Clement, M. J. and Bybee, S. M., *Molecular Ecology* doi:10.1111/mec.13884 (October 2016) Category 1
- “Detecting false positive sequence homology: a machine learning approach”, M. Stanley Fujimoto; Anton Suvorov; Nicholas O. Jensen; Mark J. Clement; Seth M. Bybee, *BMC Bioinformatics* February 2016; 17: 101. Category 1
- “ScaffoldScaffolder: solving contig orientation via bidirected to directed graph reduction”, Paul M. Bodily, M. Stanley Fujimoto, Quinn Snell, Dan Ventura, Mark J. Clement, *Bioinformatics* (2015) doi: 10.1093/bioinformatics/btv548 Category 1.
- “Heterozygous genome assembly via binary classification of homologous sequence”, Paul M Bodily, M Fujimoto, Cameron Ortega, Nozomu Okuda, Jared C Price, Mark J Clement, Quinn Snell, *BMC Bioinformatics* 2015, 16(Suppl 7):S5 (23 April 2015) Category 1.
- “Transcriptome assembly, profiling and differential gene expression analysis of the halophyte *Suaeda frutescens* provides insights into salt tolerance”, Joann Diray-Arce, Mark Clement, Bilquees Gul, M Ajmal Khan and Brent L Nielsen, *BMC Genomics* 2015, 16:353 doi:10.1186/s12864-015-1553-x, May 2015, Category 1.
- “Genome Sequence Assembly By Suffix Tree Branch Extension”, Page JT, Clement MJ, Udall JA, *Journal of Bioinformatics Research Studies* 2014, 1(2): 2-16, Category 1.
- “Effects of error-correction of heterozygous next-generation sequencing data”, M Fujimoto, Paul M Bodily, Nozomu Okuda, Mark J Clement, Quinn Snell, *BMC Bioinformatics* 2014, 15(Suppl 7):S3 (28 May 2014) Category 1.
- “Probabilistic alignment leads to improved accuracy and read coverage for bisulfite sequencing data”, Changjin Hong, Nathan L Clement, Spencer Clement, Saher Sue Hammoud, Douglas T Carrell, Bradley R Cairns, Quinn Snell, Mark J Clement and William Evan Johnson, *BMC Bioinformatics*, 2013, 14:337 doi:10.1186/1471-2105-14-337, <http://www.biomedcentral.com/1471-2105/14/337>, Category 1
- “Non-trisomic homeobox gene expression during craniofacial development in the Ts65Dn mouse model of Down syndrome”, Billingsley CN, Allen JR, Baumann DD, Deitz SL, Blazek JD, Newbauer A, Darrah A, Long BC, Young B, Clement M, Doerge RW, Roper RJ., *Am J Med Genet A.*, 2013 Aug;161A(8):1866-74. doi: 10.1002/ajmg.a.36006. Epub 2013 Jul 10. Category 1.
- “Pathoscope: Species identification and strain attribution with unassembled sequencing data”, Owen E. Francis, Matthew Bendall, Solaiappan Manimaran, Changjin Hong, Nathan L. Clement, Eduardo Castro-Nallar, Quinn Snell, G. Bruce Schaalje, Mark J. Clement, Keith A. Crandall, W. Evan Johnson, *Genome Research* 01/2013; DOI:10.1101/gr.150151.112 Category 1.
- “Rhizobial plasmids that cause impaired symbiotic nitrogen fixation and enhanced host invasion”, Crook MB, Lindsay DP, Biggs MB, Bentley JS, Price JC, Clement SC, Clement MJ, Long SR, Griffiths JS, *Journal of Molecular plant-microbe interactions*, 2012 Aug;25(8):1026-33. Category 1

- “Phylogenetic search through partial tree mixing”, Kenneth Sundberg, Mark Clement, Quinn Snell, Dan Ventura, Michael Whiting, Keith Crandall, *BMC Bioinformatics* 2012, 13(Suppl 13):S8 (24 August 2012) Category 1
- "Targeted amplicon sequencing (TAS): A scalable next-gen approach to multi-locus, multi-taxa phylogenetics", Seth M. Bybee; Heather Bracken-Grissom; Benjamin D. Haynes; Russell A. Hermansen; Robert L. Byers; Mark J. Clement; Joshua A. Udall; Edward R. Wilcox; Keith A. Crandall, *Genome Biol Evol* (2011) 3 1312-1323, doi: 10.1093/gbe/evr106
- “Exome Sequencing and Unrelated Findings in the context of Complex Disease Research: Ethical and Clinical Implications”, Gholson J. Lyon, Tao Jiang, Richard Van Wijk, Wei Wang, Paul Bodily, Jinchuan Xing, Lifeng Tian, Reid Robison, Mark Clement, Lin Yang, Peng Zhang, Ying Liu, Barry Moore, Joseph Glessner, Josephine Elia, Fred Reimherr, Wouter van Solinge, Mark Yandell, Hakon Hakonarson, Jun Wang, W. Evan Johnson, Zhi Wei, Kai Wang, *Discovery Medicine* 2011 Jul;12(62):41-55
- “Directed next generation sequencing for phylogenetics: An example using Decapoda (Crustacea)”, Seth M. Bybee, Heather D. Bracken-Grissom, Russell A. Hermansen, Mark J. Clement, Keith A. Crandall, Darryl L. Felder, *Zoologischer Anzeiger - A Journal of Comparative Zoology*, Volume 250, Issue 4, October 2011, Pages 497-506
- “On the use of cartographic projections in visualizing phylo-genetic tree space”, Kenneth Sundberg, Mark Clement and Quinn Snell, *Algorithms for Molecular Biology* 2010, 5:26, pp 1-13, doi:10.1186/1748-7188-5-26, Category 1.
- “Inferring Gene Regulatory Networks from Asynchronous Microarray Data with AIRnet”, David Oviatt, Mark Clement, Quinn Snell, Kenneth Sundberg, Chun Wan J Lai, Jared Allen, Randall Roper, *BMC Genomics* 2010, 11(Suppl 2):S6, pp 1-8, doi:10.1186/1471-2164-11-S2-S6, Category 1.
- “Analysis of Long Branch Extraction and Long Branch Shortening”, Timothy O'Connor, Kenneth Sundberg, Hyrum Carroll, Mark Clement, Quinn Snell, *BMC Genomics* 11(Suppl 2): S14, pp 1-9, doi: 10.1186/1471-2164-11-S2-S14 Category 1.
- “The GNUMAP algorithm: unbiased probabilistic mapping of oligonucleotides from next-generation sequencing”, Nathan L. Clement, Quinn Snell, Mark J. Clement, Peter C. Hollenhorst, Jahnvi Purwar, Barbara J. Graves, Bradley R. Cairns, W. Evan Johnson, *Bioinformatics* 2010 26(1), 38-45; doi:10.1093/bioinformatics/btp614, Category 1
- “PathGen: A Transitive Gene Pathway Generator”, Kendell Clement, Nathaniel Gustafson, Amanda Berbert, Hyrum Carroll, Christopher Merris, Ammon Olsen, Mark Clement, Quinn Snell, Jared Allen, Randall J. Roper, *Bioinformatics* (2010) 26 (3): 423-425, (9 pages supplemental material) Category 1
- “An Open-Source Phylogenetic and Alignment Package”, Hyrum Carroll, Adam Teichert, Jonathan Krein, Kenneth Sundberg, Quinn Snell, Mark Clement, *International Journal of Bioinformatics Research and Applications (IJBRA)*, Vol. 5, Issue 3, 2009, pp 349 – 364, Category 2.
- “Parsimony accelerated Maximum Likelihood Searches”, Kenneth Sundberg, Timothy O'Connor, Hyrum Carrol, Mark Clement, Quinn Snell, *International Journal of Computational Biology and Drug Design (IJCBD)*, Vol. 1, Issue 1, 2008 pp 74-87, Category 2.
- “Phylogenies Scores for Exhaustive Maximum Likelihood and Parsimony Scores Searches”, H. Carroll, P. Ridge, M. Clement and Q. Snell, *International Journal of Bioinformatics Research and Applications (IJBRA)* 3(4) 2007 pp 493-503, Category 2.
- "DNA Reference Alignment Benchmarks Based on Tertiary Structure of Encoded Proteins", Hyrum Carroll, Wesley Beckstead, Timothy O'Connor, Mark Ebbert, Mark Clement, Quinn Snell, David McClellan, *Bioinformatics*, 23(19) 2007, p 2648-2649, (8 pages supplementary material), Category 1.
- “Pharmacogenomics: Analyzing SNPs in the CYP2D6 Gene Using Amino Acid Properties”, Mark Ebbert, Timothy O'Connor, Wesley Beckstead, Mark Clement, David McClellan, *International Journal of Bioinformatics Research and Applications (IJBRA)*, 3(3) 2007, p 471-479, Category 2.
- “Taking the First Steps Towards a Standard for Reporting on Phylogenies: Minimal Information About a Phylogenetic Analysis (MIAPA)”, Jim Leebens-Mack, Todd Vision, Eric Brenner, John E. Bowers, Steven Cannon, Mark J. Clement, Clifford W. Cunningham, Claude,

- dePamphilis, Rob deSalle, Jeff J. Doyle, Jonathan A. Eisen, Xun Gu, John Harshman, Elizabeth A. Kellogg, Eugene V. Koonin, Hervé Philippe, J. Chris Pires, Yin-Long Qiu, Seung Y. Rhee, Kimmen Sjölander, Douglas E. Soltis, Pamela S. Soltis, Peter Stevens, Dennis W. Stevenson, Tandy Warnow, and Christian Zmasek, *OMICS A Journal of Integrative Biology*, 10(2) 2006, Category 2.
- "Jumpstarting Phylogenetic Analysis", Jesse Mecham, Mark Clement, Todd Freestone, Quinn Snell, Kevin Seppi, Keith Crandall, *International Journal of Bioinformatics Research and Applications*, 2(1) 2006, p 19, Category 2.
- "Application Placement Using Performance Surfaces", André Turgeon, Quinn Snell, Mark Clement, *Cluster Computing Journal*, Vol. 4, Issue 3 (July 2001) , Category 2
- "The Performance Impact of Advance Reservation Meta-Scheduling", Quinn Snell, Mark Clement, David Jackson, and Chad Gregory, *Job Scheduling Strategies for Parallel Processing*, Editors: Dror G. Feitelson and Larry Rudolph, Springer Verlag, LNCS Vol 1911, June 2000, Category 2.
- "TCS: A computer program to estimate gene genealogies", Mark Clement, David Posada, Keith Crandall, *Molecular Ecology* 2000 Oct; 9(10):1657-1660, Category 1.
- "The DOGMA Approach to Parallel and Distributed Computing", Quinn Snell, Glenn Judd, Mark Clement, *Parallel and Distributed Computing Practices*, Vol 2 (2) June 1999, Category 2.
- "The Performance Surface Paradigm for WAN-Based Computing", Mark Clement, Glenn Judd, Bryan Morse, Kelly Flanagan, *Journal of Supercomputing*, Vol 13 (3) (May 1999), pages 267-282, Category 1.
- "DOGMA: Distributed Object Group Metacomputing Architecture", Glenn Judd, Mark Clement and Quinn Snell. *Concurrency: Practice and Experience*, Vol 10(1),1-7 (1998) , Category 2.
- "Automated Performance Prediction for Scalable Parallel Computing", Mark Clement, Michael J. Quinn. *Parallel Computing*, Volume 23 (1997) pages 1405-1420, Category 1.
- "Using Analytical, Performance Prediction for Architectural Scaling", Mark Clement, Michael J. Quinn. *Computer Systems Science and Engineering*, March 1996, Category 2.
- "Overlapping Computations, Communications and I/O in Parallel Sorting", Mark Clement, Michael J. Quinn. *Journal of Parallel and Distributed Computing*, August, 1995, Category 1.

Conference Publications

- “TRAVERSING PHYLOGENETIC HYPOTHESIS SPACE FOR FINDING A BACKBONE OF AN INSECT RELICT GROUP (INSECTA: ODONATA)”, A. Suvorov, S. Fujimoto, P. Bodily, M. Clement, S. Bybee, Society for Molecular Biology and Evolution Conference SMBE, Austin Texas, July 2017.
- “GNUMAP 4.0: Space and Time Efficient NGS Read Mapping Using the FM-Index”, Stanley Fujimoto, Cole Lyman, Paul Bodily, Mark Clement, Quinn Snell, Biotechnology and Bioinformatics Symposium 2016, Category 2.
- “A Novel Approach for Multi-SNP GWAS and its Application in Alzheimer's Disease”, Paul Bodily, Stanley Fujimoto, Justin Page, Mark Clement, Perry Ridge, Biotechnology and Bioinformatics Symposium 2015, Category 2.
- “Phylogenetic Modeling of Complex Architectures”, Mark Clement, Quinn Snell, Compiler, Architecture and Tools Conference, Haifa, Israel, Nov 23, 2015. Category 2.
- “Nucleotide Sequence Inference of Polypeptides using Hidden Markov Models”, Stanley Fujimoto, Paul Bodily, S. M. Amin, Mark Clement, Quinn Snell, Bradley Bundy, Biotechnology and Bioinformatics Symposium 2014, Category 2.
- “Heterozygous Genome Assembly via Binary Classification of Homologous Sequence”, Paul Bodily, Stanley Funimoto, Cameron Ortega, Nozomu Okuda, Jared Price, Mark Clement, Quinn Snell, Biotechnology and Bioinformatics Symposium 2014, Category 2.
- “A Structured Approach to Ensemble Learning for Alzheimer’s Disease Prediction”, M. Seeley, M. Clement, C. Giraud-Carrier, Q. Snell, P. Bodily, S. Fujimoto, J. Kauwe, P.G. Ridge. In Proceedings of the 5th ACM Conference on Bioinformatics, Computational Biology, and Health Informatics, pp. 605-606. ACM, 2014. Category 1.
- “Haplotype-Centered Mapping for Improved Alignments and Genetic Association Studies”, P.M. Bodily, M.J. Clement, Q. Snell, M.S. Fujimoto, P.G. Ridge. In Proceedings of the 5th ACM Conference on Bioinformatics, Computational Biology, and Health Informatics, pp. 499-505. ACM, 2014. Category 1.
- “De Novo Transcriptome Assembly and Analysis of the halophyte Suaeda fruticosa”, Joann Diray-Arce, Mark Clement, Bilquees Gul, Ajmal Khan and Brent L. Nielsen, International Plant and Animal Genome Conference, January 11-15, 2014, San Diego, CA. Category 2.
- "Identification and correction of substitution errors in Moleculo reads", Jared Price, Mark Clement, Quinn Snell, Evan Johnson, Proceedings of the 13th IEEE International Conference on Bioinformatics and Bioengineering (IEEE BIBE 2013), Chania, Greece, November 2013, Category 1.
- “Feature Identification and Reduction for Improved Generalization Accuracy in SecondaryStructure Prediction”, Matt Seeley, Mark Clement, Quinn Snell, Proceedings of the 13th IEEE International Conference on Bioinformatics and Bioengineering (IEEE BIBE 2013), Chania, Greece, November 2013, Category 1.
- “Application of a MAX-CUT Heuristic to the Contig Orientation Problem in Genome Assembly”, Paul Bodily, Mark Clement, Jared Price, Nozomu Okuda, Stanley Fujimoto, Quinn Snell and Cole Lyman, Proceedings of the ACM Conference on Bioinformatics, Computational Biology and Biomedical Informatics (BCB 2013), Washington DC, September 2013, Category 1.
- “HapMaker: Synthetic Haplotype Generator”, Nozomu Okuda, Paul Bodily, Jared Price, Mark Clement, Quinn Snell, The 14th International Conference on Bioinformatics and Computational Biology, July 22-25, 2013, Las Vegas, USA, Category 2.
- “Probabilistic inference and ranking of gene regulatory pathways as a shortest-path problem”, James D. Jensen, Daniel M. Jensen, Quinn Snell, Mark Clement, Proceedings of the 2012 Biotechnology and Bioinformatics Symposium, Provo, Utah, Oct 25, 2012 Category 2
- “ScaffoldScaffolder: An Aggressive Scaffold Finishing Algorithm”, Paul M. Bodily, Jared C. Price, Mark J. Clement, Quinn Snell, Proceedings of the 2012 International Computational Informatics & Computational Biology, BIOCOMP 2012, July 2012, pp 385-390 Category 2

- “Denovo Identification of "Heterotigs" towards Accurate and In-phase Assembly of Complex Plant Genomes”, Jared C. Price, Paul Bodily, Quinn Snell, Mark Clement, Proceedings of the 2012 International Conference on Bioinformatics & Computational Biology, BIOCOMP 2012, July 2012, pp144-150, Category 2
- “Parallel Pair-HMM SNP Detection”, Nathan L. Clement, Brent A. Shepherd, Paul Bodily, Sukhbat Tumor-Ochir, Younghoon Gim, Quinn Snell, Mark J. Clement, and W. Evan Johnson, Proceedings of the 26th IEEE International Parallel & Distributed Processing Symposium, High Performance Computational Biology Workshop, Shanghai China, May 21, 2012, Category 1
- Kenneth Sundberg , Mark Clement , Quinn Snell, Dan Ventura, Michael F. Whiting, Keith A. Crandall, "Partial Tree Mixing, a Novel Approach to Phylogenetic Search", Biotechnology and Bioinformatics Symposium (BIOT), October 2011, pp 1-4, Category 2
- Dan Ventura , Michael F. Whiting and Keith A. Crandall, “Time Series Gene Expression Prediction using Neural Networks with Hidden Layers”, Michael R. Smith, Mark Clement, Tony Martinez, Quinn Snell, Proceedings of the 7th Annual Biotechnology and Bioinformatics & Computational Biology Symposium, October 2010, pp 67-69. Category 2
- “Spatially Indexing Sequences Using Hashes”, Mike Eagar, Mark Clement, Quinn Snell, Proceedings of Bioinformatics & Computational Biology (Biocomp), June 2010, pp 811-814, Category 2
- “The Impact of Equally-Optimal Pairwise Alignments”, Lukas Olson, Mark Clement, Quinn Snell, Proceedings of Bioinformatics & Computational Biology (Biocomp), June 2010, pp 870-872, Category 2
- “PSODA: Open Source Phylogenetic Search and DNA Analysis”, Quinn Snell, Mark Clement, Kenneth Sundberg, Proceedings of the Bioinformatics Open Source Conference (BOSC) 2009, Stockholm Sweden, Category 2
- "ChemAlign: Biologically Relevant Multiple Sequence Alignment Using Physicochemical Properties ", Hyrum Carroll, Mark Clement, Quinn Snell, David McClellan, Proceedings of the IEEE International Conference on Bioinformatics & Biomedicine (BIBM), 2009, pp. 70-73, Category 2.
- "Visualizing Phylogenetic Treespace Using Cartographic Projections", Kenneth Sundberg, Mark Clement, Quinn Snell, Algorithms in Bioinformatics, Lecture Notes in Computer Science, Springer Berlin / Heidelberg, Volume 5724/2009, Proceedings of the 9th international workshop on Algorithms in Bioinformatics (WABI), Philadelphia, Pennsylvania, September 2009, pp. 321–332, Category 2.
- “Analysis of Long Branch Extraction”, T. O'Connor, K. Sundberg, H. Carroll, M. Clement, Q. Snell, Proceedings of Bioinformatics & Computational Biology (Biocomp), June 2009, pp. 489-495, Category 2.
- “Inferring Gene Regulatory Networks from Asynchronous Microarray Data”, David Oviatt, Mark Clement, Quinn Snell, Randall Roper, Proceedings of Bioinformatics & Computational Biology (Biocomp), June 2009, pp. 142-147, Category 2.
- “The GNUMAP Algorithm: Probabilistic Mapping of Oligonucleotides from Next-Generation Sequencing”, Nathan Clement, Mark Clement, Quinn Snell, Evan Johnson, International Conference on Intelligent Systems for Molecular Biology (ISMB) (abstract publication with presentation), June 2009, Category 2.
- "Pathgen: Gene Regulatory Network Tool", Kendell Clement, Nathaniel Gustafson, Chris Merris, Steven Flygare, Kenneth Sundberg, Mark Clement, Quinn Snell, Jared Allen, Randall J. Roper, Proceedings of the 2008 Joint RECOMB Satellite Conference on REGULATORY GENOMICS and SYSTEMS BIOLOGY, Oct 29-Nov 2, 2008, Broad Institute, MIT, Boston MA pp 123, Category 2.
- "Asynchronous Inference of Regulatory Networks", David Oviatt, Kenneth Sundberg, Mark Clement, Quinn Snell, Randall Roper, Jared Allen, Proceedings of the 2008 Joint RECOMB Satellite Conference on REGULATORY GENOMICS and SYSTEMS BIOLOGY, Oct 29-Nov 2, 2008, Broad Institute, MIT, Boston MA pp 199, Category 2.
- “Incomparability of Results Between Phylogenetic Search Programs”, Kenneth Sundberg, Hyrum Carroll, Quinn Snell, and Mark Clement, Proceedings of Bioinformatics & Computational Biology (Biocomp), June 2008, Category 2.

- “Genomic Scale Reconstruction of Gene Regulatory Networks from Microarray Data”, Kenneth Sundberg, Daniel Ence, Daniel Wilcox, Quinn Snell, and Mark Clement, Proceedings of Bioinformatics & Computational Biology (Biocomp), June 2008, Category 2.
- “Analyzing Gene Relationships for Down Syndrome with Labeled Transitions Graphs”, N. Rungta, H. Carroll, E. Mercer, R. Roper, M. Clement, Q. Snell, Proceedings of Formal Methods in Computer Aided Design (FMCAD), November 2007, Category 1.
- “Using parsimony to guide maximum likelihood searches”, K. Sundberg, T. O'Connor, H. Carroll, M. Clement and Q. Snell, Proceedings of the 7th IEEE International Conference on Bioinformatics and Bioengineering, October 2007, volume II, pages 774-779, Category 2.
- “PSODA: Better Tasting and Less Filling Than PAUP”, H. Carroll, M. Ebbert, M. Clement and Q. Snell, Proceedings of the 4th Biotechnology and Bioinformatics Symposium, October 2007, pp 74-78, Category 2.
- “PsodaScript: Applying Advanced Language Constructs to Open-source Phylogenetic Search”, J. L. Krein, A. R. Teichert, H. D. Carroll, M. J. Clement and Q. O. Snell, Proceedings of the 4th Biotechnology and Bioinformatics Symposium, October 2007, pp 89-94, Category 2.
- “Pharmacogenomics: Analyzing SNPs in the CYP2D6 Gene Using Amino Acid Properties”, Mark Ebbert, Timothy OConnor, Wesley Beckstead, Mark Clement, David McClellan, Biotechnology and Bioinformatics Symposium(BIOT), Provo, Utah, October 2006, pp 1, Category 2.
- “Large Grain Size Stochastic Optimization Alignment”, Perry Ridge, Hyrum Carroll, Dan Sneddon, Mark Clement, Quinn Snell, IEEE Symposium on Bioinformatics and BioEngineering (BIBE), Arlington, Virginia, October 2006, pp 127, Category 2.
- “Effects of Gap Open and Gap Extension Penalties”, Hyrum Carroll, Perry Ridge, Mark Clement, Quinn Snell, Biotechnology and Bioinformatics Symposium (BIOT), October 2006, pp 19, Category 2.
- “Phylogenetic Analysis of Large Sequence Data Sets”, Hyrum Carroll, Mark Clement, Quinn Snell, Keith Crandall, Biotechnology and Bioinformatics Symposium (BIOT), Colorado Springs, CO, October 2005, pp 20-25, Category 2.
- “Phylograph: Real-time Interactive Visualization of Phylogenetic Searches”, Jesse Mecham, Mark Clement, Quinn Snell, Keith Crandall, 1st International Conference on Geometric Modeling, Visualization & Graphics (GMV), Salt Lake City, UT, July 2005, pp 1713-1716, Category 2.
- “Jumpstarting Phylogenetic Analysis”, Mark Clement, Quinn Snell, Keith Crandall, Kevin Seppi, Biotechnology and Bioinformatics Symposium (BIOT), September 2004, page 17-25, Category 2.
- “A Survivable Multi-agent Approach to Network Routing”, Casey T. Deccio, Mark Clement, Quinn Snell, International Conference on Communications in Computing, June 2004, page 9-13, Category 2.
- “Temporal Difference Learning in Network Routing”, Reid Broadbent, Casey T. Deccio, Mark Clement, International Conference on Communications in Computing, June 2004, page 14-20, Category 2.
- “A Piecewise Linear Approach to Overbooking”, Feng Huang, Casey Deccio, Robert Ball, Mark Clement, Quinn Snell, High Performance Switching and Routing, April 2004, p 326-330, Category 2.
- “Aggressive Telecommunications Overbooking Ratios”, Robert Ball, Mark Clement, Feng Huang, Quinn Snell, Casey Deccio, *IEEE International Performance Computing and Communications Conference*, April 2004, p 31-38, Category 2.
- “Complex Performance Analysis Through Statistical Experimental Design: An Evaluation of Parameters Associated with Speed in Parallel Phylogenomics”, David G. Whiting, Quinn Snell, Rebecca R. Nichols, Megan L. Porter, Kevin Tew, Keith A. Crandall, Michael F. Whiting, Mark Clement, *Hawaii International Conference on Computer Science*, January 2004, p 615-629, Category 2.
- “TCS: Estimating Gene Genealogies”, M. Clement, Q. Snell, P. Walker, D. Posada and K.A. Crandall, *International Workshop on High Performance Computational Biology*, April 2002, Category 2.

- "Preemption Based Backfill", Quinn Snell, Mark Clement, David Jackson, *Job Scheduling Strategies for Parallel Processing*, Editors: Dror G. Feitelson and Larry Rudolph, Springer Verlag, LNCS, 2002, Category 2.
- "An Enterprise-Based Grid Resource Management System", Quinn Snell, Kevin Tew, Joseph Ekstrom, Mark Clement, *Proceedings of the Tenth IEEE International Symposium on High Performance Distributed Computing (HPDC-11)*, Edinburgh Scotland, August 2002 pp 83-90, Category 2.
- "Effective Bandwidth Route Selection", Xiaofeng Lu, Mark Clement, Quinn Snell, *Proceedings of the 2001 International Symposium on Performance Evaluation of Computer and Telecommunication Systems, San Diego, CA, July 2002*, pp 132, Category 2.
- "Using Fourier Transform for RED's Active Queue Management", Lichen Dai, Peter Walker, Mark Clement, Quinn Snell, *Proceedings of the 2001 International Symposium on Performance Evaluation of Computer and Telecommunication Systems, San Diego, CA, July 2002*, pp 188, Category 2.
- "Performance of Finite Field Arithmetic in an Elliptic Curve Cryptosystem", Zhi Li, John Higgins, Mark Clement, *Proceedings of MASCOTS 2001*, Cincinnati, Ohio, August 15-18, 2001, Category 2.
- "Core Algorithms of the Maui Scheduler", David Jackson, Quinn Snell, Mark Clement. *Job Scheduling Strategies for Parallel Processing*, Editors Dror G. Feitelson and Larry Rudolph, Springer Verlag, LNCS Vol. 2221, pages 87-102, June 2001, Category 2.
- "Livelock Avoidance for Metaschedulers", John Jardine, Quinn Snell, Mark Clement. *Proceedings of the Tenth IEEE International Symposium on High Performance Distributed Computing (HPDC-10)*, San Francisco, CA, August 2001, Category 2.
- "The YGuard Access Control Model: Set-Based Access Control," Ty van den Akker, Quinn O. Snell, and Mark Clement. *Proceedings of SACMAT 2001*, Chantilly, Virginia, May 2001, Category 2.
- "Random Early Detection Parameter Tuning," Peter Walker, LiChen Dai, Mark Clement, Quinn Snell, Chris Chase. *Proceedings of the 2001 International Symposium on Performance Evaluation of Computer and Telecommunication Systems*, Orlando, Florida, July 2001, Category 2.
- "The Impact of Hardware Characteristics on Firewall Performance," Bradley J. Baird, Mark Clement, Charles Knutson, Quinn Snell. *Proceedings of the 2001 International Symposium on Performance Evaluation of Computer and Telecommunication Systems*, Orlando, Florida, July 2001, Category 2.
- "Fairness in TCP Networks", Xiaofeng Lu, Mark Clement, Quinn Snell, *Proceedings of the 2001 International Conference on Internet Computing*, Las Vegas, Nevada, June 2001, page 366-371, Category 2.
- "Effective Bandwidth for Traffic Engineering", Rob Kunz, Seth Nielson, Mark Clement, Quinn Snell, *Proceedings of the IEEE Workshop on High Performance Switching and Routing (HPSR 2001)*, Dallas, TX, May 2001, Category 2.
- "Load Balancing in a Parallel Chess Program", Reid Broadbent, Quinn Snell, Mark Clement, *Proceedings of the 2001 International Conference on Parallel and Distributed Techniques and Applications*, Las Vegas, Nevada, June 2001, page 324-330, Category 2.
- "Parallel Phylogenetic Inference", Quinn Snell, Michael Whiting, Mark Clement, and David McLaughlin, *Proceedings of Supercomputing 2000*, Dallas, TX, November 2000, Category 1.
- "YRM: An Advanced Resource Manager", Daniel L. Reese, Scott V. Hansen, Quinn O. Snell, Mark J. Clement, *Proceedings of the Conference on Parallel and Distributed Computing and Systems (PDCS)*, November 2000, page 495, Category 2.
- "Object Placement Using Performance Surfaces", André Turgeon, Quinn Snell, Mark Clement, *Proceedings of the Ninth IEEE International Symposium on High Performance Distributed Computing (HPDC-9)*, Pittsburgh, Pennsylvania, August 2000, Category 2.
- "Pyramid Broadcasting with Fast-forward and Rewind", Angela Jones, Michael Jones, Mark Clement, Quinn Snell, *Proceedings of the 8th International Conference on Telecommunication Systems, Modeling and Analysis*, March 2000, Category 2.

- "A Performance Broker for CORBA", Kevin Butler, Mark Clement, Quinn Snell, *Proceedings of the Eighth IEEE International Symposium on High Performance Distributed Computing (HPDC-8)*, Redondo Beach, California, August 3-6 1999, pages 19-28, Category 2.
- "High Performance Phylogenetic Inference", Mark Clement, Quinn Snell, Michael Whiting, and Glenn Judd, *Proceedings of the Eighth IEEE International Symposium on High Performance Distributed Computing (HPDC-8)*, Redondo Beach, California, August 3-6 1999, pages 335-336, Category 2.
- "Design Issues for Efficient Implementation of MPI in Java", Glenn Judd, Mark Clement, Quinn Snell and Vladimir Getov, *ACM 1999 Java Grande Conference*, Palo Alto, California, June 12-14, 1999, pages 58-65, Category 2.
- "High Performance Scheduling for Windows NT", Mark Clement, Quinn Snell, David Jackson, David Ashton, *Proceedings of the 1999 International Conference on Parallel and Distributed Techniques and Applications*, Las Vegas, Nevada, July 1999, pages 525-531, Category 2.
- "Parallel Algorithm and Processor Selection Based on Fuzzy Logic", Shuling Yu, Mark Clement, Quinn Snell and Bryan Morse, *Proceedings of High Performance Computing and Networking Europe, Lecture Notes in Computer Science*, Springer-Verlag, Vol 1593, April 1999, pages 441-449, Category 2.
- "High Performance Computing for the Masses", Mark Clement, Quinn Snell, Glenn Judd, *Proceedings of IPPS International Workshop on Java for Parallel and Distributed Computing, Lecture Notes in Computer Science*, Springer-Verlag, Vol 1586, April 1999, pages 781-796, Category 2
- "Latency Tolerant Algorithms for WAN Based Workstation Clusters", Bernd Helzer, Mark Clement and Quinn Snell, *Proceedings of the 7th Symposium on the Frontiers of Massively Parallel Computation*, Annapolis, Maryland, February 1999, pages 52-59, Category 2.
- "Parallel Algorithms for Image Convolution", Shuling Yu, Mark Clement, Quinn Snell and Bryan Morse. *Proceedings of the 1998 International Conference on Parallel and Distributed Techniques and Applications*, Las Vegas, Nevada, July 1998, Category 2.
- "Load Balancing in a Heterogeneous Supercomputing Environment", Quinn Snell, Glenn Judd and Mark Clement. *Proceedings of the 1998 International Conference on Parallel and Distributed Techniques and Applications*, Las Vegas, Nevada, July 1998, Category 2.
- "The DOGMA Approach to High-Utilization Supercomputing", Glenn Judd, Mark Clement and Quinn Snell. *Proceedings of the Seventh IEEE International Symposium on High Performance Distributed Computing (HPDC-7)*, Chicago, Illinois, July 1998, Category 2.
- "DOGMA: Distributed Object Group Management Architecture", Glenn Judd, Mark Clement and Quinn Snell. *ACM 1998 Workshop on Java for High-Performance Network Computing*, Palo Alto, California, February 28, 1998, Category 2.
- "Performance Surface Prediction for WAN-Based Clusters", Mark Clement, Glenn M. Judd, Joy L. Peterson, Bryan S. Morse, J. Kelly Flanagan. *31st Hawaii International Conference on System Sciences*, January 6-9, 1998, volume 7, page 564-573, Category 2.
- "Parallel Programming in Multi-Paradigm Clusters" Johann Leichtl, Phyllis Crandall and Mark Clement. *Proceedings of the Sixth IEEE International Symposium on High Performance Distributed Computing (HPDC-6)*, Portland, Oregon, August 1997, page 326-335, Category 2.
- "Distributed Polyphonic Music Synthesis" John Williams and Mark Clement. *Proceedings of the Sixth IEEE International Symposium on High Performance Distributed Computing (HPDC-6)*, Portland, Oregon, August 1997, page 20-29, Category 2.
- "The Chordal Spoke ATM Interconnection Network", Mark Clement, Bryan S. Morse, J. Kelly Flanagan, Wei Wei and Phyllis E. Crandall., *Proceedings of the 1997 International Conference on Parallel and Distributed Techniques and Applications*, Las Vegas, Nevada, June 1997, page 1249-1258, Category 2.
- "Simulation and Analysis of Credit- and Rate-based Switch Interoperability in an ATM Network" Charles Duncan, Mark Clement, Tasha Slade and Bryan Morse. *Proceedings of the Fifth International Conference on Telecommunication Systems*, Nashville, TN, March 1997, page 265-269, Category 2.

- “Network Performance Modeling for PVM Clusters”, Michael R. Steed, Mark Clement and Phyllis E. Crandall. *Proceedings of Supercomputing '96*, Pittsburgh, Pennsylvania, November 1996, Category 1.
- “Toward Massive Dual-Level Parallelism in Cluster Computing“, Phyllis E. Crandall, V. Sumithasri, Johann Leichtl and Mark Clement. *Proceedings of the Fifth IEEE International Symposium on High Performance Distributed Computing (HPDC-5)*, Syracuse, New York, August 1996, Category 2.
- “Cost Optimal Analysis for Workstation Clusters”, Mark Clement, J. Kelly Flannagan and Michael R. Steed. *Proceedings of the International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA)*, Sunnyvale, California, August 1996, Category 2.
- “Performance Prediction of PVM Programs”, Michael R. Steed and Mark Clement. *Proceedings of the 10th International Parallel Processing Symposium (IPPS)*, Honolulu, Hawaii, April 1996, Category 2.
- “Simulation and Analysis of the Performance of EPRCA in a Wide Area ATM Network Consisting of Both ER and EFCI Switch Mechanisms“ Robert Walthall and Mark Clement, *Proceedings of the 4th International Conference on Telecommunication Systems*, Nashville, Tennessee, March 1996, Category 2.
- “A Dependency-Based Strategy for Handling ATM Cell Loss in MPEG-2 Transport Streams” Dean L. Scoville and Mark Clement. *Proceedings of the 4th International Conference on Telecommunication Systems*, Nashville, Tennessee, March 1996, Category 2.
- “The Round Table ATM Interconnection Network”, Wei Wei, Mark Clement and J. Kelly Flannagan. *Proceedings of the 1995 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA)*, Atlanta, Georgia, November 1995, Category 2.
- “Symbolic Performance Prediction of Scalable Parallel Programs”, Mark Clement and Michael J. Quinn. *Proceedings of the International Parallel Processing Symposium (IPPS)*, Santa Barbara, California, April 1995, Category 2.
- “Multivariate Statistical Techniques for Parallel Performance Prediction”, Mark Clement and Michael J. Quinn. *28th Hawaii International Conference on System Sciences (HICSS)*, Maui, Hawaii, January 3-6, 1995, Category 2.
- “Architectural Scaling and Analytical Performance Prediction” Mark Clement and Michael J. Quinn. *Seventh International Conference on Parallel and Distributed Computing Systems (PDCS)*, Las Vegas, Nevada, October 6-8, 1994, Category 2.
- “Analytical Performance Prediction on Multicomputers”, Mark Clement and Michael J. Quinn. *Proceedings of Supercomputing '93*, Portland, Oregon, November 16-19, 1993, pages 886-905, Category 1.

Grants

	Total	\$6,360,691
Fall 2016	"MRI:Acquisition of an PacBio Sequel System," Seth M. Bybee, John Kauwe, Joshua A. Udall, Mark J. Clement, Kali D. Fermantez.	\$307,723
Winter 2013	NSF Phylogenomics, Revisionary Systematics, and Evolution of the Visual Systems in Dragonflies and Damselflies, Seth Bybee, Byron Adams, Mark Clement	\$778,416
Winter 2012	USDA Sequencing the Red Raspberry, Josh Udall, Mark Clement	\$6,000
Spring 2010	NSF Collaborative Research: Developing genomic tools for integrative biology research, Keith Crandall, Mark Clement	\$100,000
Spring 2010	NIH Statistical tools and methods for next generation sequencing in epigenomics. Evan Johnson, Quinn Snell, Mark Clement	\$1,700,000
Spring 2008	NSF MRI: Aquisition of Genome Sequencer FLX system With Joshua Udall, Nikki Hanegan, Peter Maughan, Keith Crandall, Michael	\$630,000

	Whiting, Chin-Yo Lin, David Erickson, Alan Harker, Ed Wilcox, Byron Adams	
Fall 2002	Overbooking for Frame Relay Networks AT&T With Quinn Snell	\$95,000
Winter 2002	NSF Hexapod Phylogeny With Michael Whiting, Keith Crandall, Quinn Snell	\$1,300,000
Fall 2000	Grid Scheduling Infrastructure IBM With Quinn Snell	\$500,000
Fall 2000	Grid Scheduling Microsoft With Quinn Snell	\$30,000
Fall 2000	QoS for IP Networks AT&T With Quinn Snell	\$95,000
Fall 1999	QoS for IP Networks AT&T With Quinn Snell	\$95,000
Fall 1999	Computational Science Infrastructure Supplemental Capital Equipment Funding With Quinn Snell	\$24,000
Winter 1999	BYU-Novell Partnership Novell With Quinn Snell, Dan Olsen, Dallan Quass	\$294,920
Fall 1998	MPI for Multi-paradigm Programming Microsoft With Quinn Snell	\$32,000
Fall 1998	Quality of Service for Integrated IP Networks Packet Engines With Quinn Snell	\$15,000
Fall 1998	High Performance Computing for the Masses BYU AVP Research Award With Quinn Snell	\$28,000
Fall 1998	Distributed Computing Services for WAN Based Environments Sprint Corporation With Bryan Morse and Quinn Snell	\$30,639
Spring 1997	Performance Surface Analysis of Wide Area Distributed Systems Sprint Corporation With Bryan Morse and Kelly Flannagan	\$150,000
Spring 1997	Parallel Import Navy NRaD With Alan Whitehurst	\$34,093
Spring 1996	Using ATM Networks for High Performance Computing Sprint Corporation With Bryan Morse and Kelly Flannagan	\$99,900
Spring 1995	Virtual Network Construction in Wide Area Networks UB Networks With Evan Ivie	\$15,000

Technical Presentations

Oct 2016	Women in Bioinformatics Panel	ACM-BCB
Nov 2015	Phylogenetic Modeling of Complex Architectures	CATC
Nov 2013	Identification and correction of substitution errors in	BIBE

	Moleculo reads	
Nov 2013	Feature Identification and Reduction for Improved Generalization Accuracy in Secondary Structure Prediction	BIBE
July 2009	PSODA: Open Source Phylogenetic Search and DNA Analysis	ISMB Technology Track Presentation
Oct 2007	Of Mice and Men University of Utah, Biomedical Informatics Department	Colloquium Presentation
Nov 2006	Phylogenetic Inference Utah State University, Computer Science Department	Colloquium Presentation
Oct 2005	Conference Presentation Phylogenetic Analysis of Large Sequence Data Sets	BIOT
Nov 2004	NSF Tree of Life Conference Hexapod Phylogeny	ATOL
Sept 2004	Conference Presentation Jumpstarting Phylogenetic Analysis	BIOT
June 2004	Conference Presentation Network Survivability	CIC
April 2004	Conference Presentation Piecewise Linear Overbooking	HPSR
July 2003	Professional Seminar	AT&T
July 2002	Conference Presentation Effective Bandwidth Route Selection	SPECTS
July 2002	Conference Presentation Using Fourier Transform for RED's Active Queue Management	SPECTS
April 2001	Professional Seminar RED Tuning	AT&T
December 2001	Professional Seminar Network Traffic Engineering	AT&T
August 2000	Conference Presentation Object Placement Using Performance Surfaces	HPDC
August 1999	Conference Presentation A Performance Broker for CORBA	HPDC
June 1999	Standards Working Group Participation <i>Resource Management for the Computational Power Grid</i>	Grid Forum
May 1999	Technical Presentation <i>Scheduling Architecture for Reservations</i>	Advance Reservations Workshop
April 1999	Conference Presentation <i>Parallel Algorithm and Processor Selection Based on Fuzzy Logic</i>	HPCN Europe
Feb 1999	Conference Presentation <i>Latency Tolerant Algorithms for WAN Based Workstation Clusters</i>	Frontiers 99
Jan 1999	Invited Talk <i>Performance Prediction and the Maui Scheduler</i>	UCSD
July 1998	Conference Presentation <i>The DOGMA Approach to High-Utilization Supercomputing</i>	HPDC
January 1998	Conference Presentation <i>Performance Surface Prediction for WAN-Based Clusters</i>	HICSS

June 1997	Conference Presentation <i>The Chordal Spoke ATM Interconnection Network</i>	PDPTA
November 1996	Conference Presentation <i>Network Performance Modeling for PVM Clusters</i>	Supercomputing '96
August 1996	Conference Presentation <i>Cost Optimal Analysis for Workstation Clusters</i>	PDPTA
April 1995	Conference Presentation <i>Symbolic Performance Prediction of Scalable Parallel Programs</i>	IPPS
January 1995	Conference Presentation <i>Multivariate Statistical Techniques for Parallel Performance Prediction</i>	HICSS
October 1994	Conference Presentation <i>Architectural Scaling and Analytical Performance Prediction</i>	PDCS
November 1993	Conference Presentation <i>Analytical Performance Prediction on Multicomputers</i>	<i>Supercomputing '93</i>
September 1992	Seminar <i>Low Latency Communication Libraries for Distributed Memory Multicomputers</i>	Intel Supercomputing Systems Division
August 1992	Full Day Seminar <i>Using NetLib on the iWarp array</i>	Intel Supercomputing Systems Division

Awards and Positions

Program Co-Chair	Biotechnology and Bioinformatics Symposium	Dec 2014, 2015, 2016
Editorial Board	Journal of Bioinformatics Research Studies	2014-present
Editorial Board	International Journal of Functional Informatics and Personalised Medicine (IJFIPM)	2010-present
Program Committee	IEEE International Conference on Tools with Artificial Intelligence	Nov 2011
Program Committee	10 th IEEE International Workshop on High Performance Computational Biology HiCOMB 2011	May 2011
Officer	International Society of Intelligent Biological Medicine	2007-present
Program Committee	International Conference on Machine Learning and Applications	Dec 2009-present
Program Committee	ACM International Conference on Bioinformatics and Computational Biology	August 2010
Steering Committee	Biotechnology and Bioinformatics Symposium	October 2009
Program Committee	Workshop on Applications of Machine Learning in Bioinformatics	November 2009
Program Committee	International Joint Conference on Bioinformatics, Systems Biology and Intelligent Computing (IJCBS'09)	August 2009
Program Committee	Workshop on Algorithms in Bioinformatics (WABI)	September 2009
Reviewer	IEEE Symposium on Computational Intelligence in Bioinformatics and Computational Biology (CIBCB 2008)	September 2008
Steering Committee	Biotechnology and Bioinformatics Symposium	October 2008
Program Committee	Workshop on Algorithms in Bioinformatics	September 2008
Program Committee	Biotechnology and Bioinformatics Symposium	October 2007
Program Committee	IEEE Bioinformatics and Bioengineering Conference	October 2007
General Chairman	Biotechnology and Bioinformatics Symposium	October 2006
Program Committee Member	International Conference on Parallel Processing (ICPP-06)	August 2006
Program Committee Member	Biotechnology and Bioinformatics Symposium	October 2005
Program Committee Member	Biotechnology and Bioinformatics Symposium	September 2004
Session Chair	International Conference on Communications in Computing	June 2004
Editorial Board	Phyloinformatics, Journal for Taxonomists	Nov 2003-present
Program Committee Member	Cluster Computing in the Sciences Conference	February 2001
Grant Review Panel	NSF	1999
Minitrack Chairman	HICSS Conference	January 1999
Minitrack Chairman	HICSS Conference	January 1998
Program Committee Member	HPDC Conference	August 1997
Session Chair	PDPTA Conference	November 1995
Best Paper Award	HICSS Conference	January 1995

Graduate Degrees Supervised

Matt Seeley	M.S.	Aug 2015	Secondary Structure Prediction
Jared Price	M.S.	Dec 2014	Sequence Assembly
Paul Bodily	M.S.	June 2013	Genome Scaffolding
Kenneth Sundberg	Ph.D.	Aug 2010	Phylogenetic Search
Hyrum Carroll	Ph.D.	Aug 2008	DNA Sequence Alignment
Joseph Ekstrom	M.S.	Aug 2006	LURP DOGMA Protocol
Jesse Mecham	M.S.	Apr 2006	Jumpstarting Phylogenies
Jeremy Goold	M.S.	Apr 2005	Network Security
Casey Deccio	M.S.	Aug 2004	Network Survivability
Lichen Dai	M.S.	Aug 2002	Frequency Domain RED
Peter Walker	M.S.	Apr 2002	RED Tuning
Xiaofeng Lu	M.S.	Dec 2001	MPLS Network QoS
Rob Kunz	M.S.	Aug 2001	Traffic Engineering
David Jackson	M.S.	Apr 2001	Supercomputer Scheduling
Bingxue Cai	M.S.	Apr 2000	QoS for IP
Yiqing Lai	M.S.	Aug 2000	Large Data Set Parallel Computing
Angela Jones	M.S.	Dec 1999	Pyramid Broadcasting
Glenn Judd	M.S.	Apr 1999	DOGMA Metacomputing
Kevin Butler	M.S.	Dec 1998	CORBA Performance Broker
Bernd Helzer	M.S.	Apr 1998	Redundant Stencil Computations
Shuling Yu	M.S.	Mar 1998	Parallel Image Convolution
Theron Stoddard	M.S.	Oct 1997	Agent Based Retrieval
Tasha Slade	M.S.	Jul 1997	Multi-Criteria Routing
John Williams	M.S.	Feb 1997	Distributed Music Synthesis
Charles Duncan	M.S.	Feb 1997	ATM Flow Control
Dean Scoville	M.S.	Aug 1996	ATM MPEG Transmission
Michael Steed	M.S.	Feb 1996	Performance Prediction
Wei Wei	M.S.	Dec 1995	ATM Network Topologies
Qinping Huang	M.S.	Dec 1995	ATM System Management