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Education

1985–1992	University of California, Los Angeles
1992	Ph.D. in Computer Science
1990	M.S. in Computer Science
1979–1983	Washington University in Saint Louis
	B.S. in Computer Science
	B.S. in Electrical Engineering

Administrative and Leadership Experience

April 2013–September 2019	Associate Dean School of Science, Technology, Engineering, and Mathematics University of Washington Bothell
April 2013–Sept. 2014	Interim Chair Computing & Software Systems Division School of Science, Technology, Engineering, and Mathematics
2010–2013	Director
2008–2010	Interim Director Computing & Software Systems Program University of Washington Bothell
2007–2008	Chair
2006–2007	Vice-Chair UW Bothell General Faculty Organization

Academic Appointments

2009–present	Professor
2001–2009	Associate Professor
1997–2001	Assistant Professor Computing & Software Systems Program University of Washington Bothell
2017–2018	Fulbright Scholar Czech Academy of Sciences, Prague
2001–2005	Adjunct Associate Professor Computer Science & Engineering Department University of Washington Seattle

2004–2005	Visiting Associate Professor Electrical and Computer Engineering Department University of Florida, Gainesville
1996–1997	Research Assistant Professor Department of Molecular and Cell Biology University of California, Berkeley
1992–1996	Assistant Professor Department of Computer Science The Hong Kong University of Science & Technology
1987–1992	University of California, Los Angeles Research Assistant in computational neuroscience, nonlinear dynamics, computer vision, visual perception. Developed neuron and neural network modeling software. Teaching Assistant in undergraduate computer vision laboratory class.
1986–1987	IBM Los Angeles Scientific Center Researcher in Robotics Laboratory. Developed Computer Vision Workstation in joint effort with UCLA. Conducted research into Connectionist computer architecture for preattentive visual motion computation.

Professional Experience

2001–2010	S-Squared Technical Consulting, Kenmore, WA General Partner. Designed algorithms for signal processing and data analysis and developed software for integrating such algorithms into customer products.
1983–1985	Electrical Design Engineer, Texas Instruments, Inc., Dallas, Texas Electrical Design Engineer. Designed computer graphics and simulation software and hardware for development of infra-red imaging systems. Responsible for all software.
Summer 1983	Intern, N. V. Philips Gloeilampenfabrieken, Eindhoven, Netherlands Designed hardware for computer terminal.
1981–1983	Computer Operator/Programmer, McDonnell Douglas Electronics Co., Saint Charles, Missouri Supported flight simulator design.
Summers 1981 & 1982	Software/Hardware Designer, Thwing-Albert Instrument Co., Philadelphia, Pennsylvania

Publication Summary

Publications include 1 book and 1 book chapter, 20 refereed journal articles and 34 refereed conference papers. A comprehensive list is presented beginning on page [10](#).

Grants and Honors

- 2020–22 **“An Intelligent Testbed for Critical Infrastructure”**
National Security Agency, PI with Barbara Endicott-Popovsky (co-investigator), \$299,945.
- 2020 **“Artificial Intelligence/Machine Learning Applied to Next-Generation Telecommunications Networks”**
T-Mobile, co-investigator with Yang Peng (co-PI) and Dong Si (co-PI), \$85,115.
- 2020 **“Securely anonymizing mobile phone data for ML External Use: Phase I”**
T-Mobile, co-investigator with Afra Mashhadi (co-PI) and Brent Lagesse (co-PI), \$87,327.
- 2018 **Research Infrastructure Grant**
UW Bothell CSS, co-investigator with Munehiro Fukuda and Erika Parsons, \$20,000.
- 2017–18 **ISAP-2018 and CCR-LT Expansion**
Cybersecurity National Action Plan (CNAP) Investment in Expansion of CAE-C Education Programs, National Security Agency, area lead for “Expanding the student pool” (PI: Barbara Endicott-Popovsky), \$299,425 (grant total: \$738,499).
- 2017–2018 **Fulbright Scholar Award**
Czech Academy of Sciences, Prague, Czech Republic, Winter 2018
- 2017–18 **Research Assistantship Grant**
UW Bothell CSS, \$45,000.
- 2016–17 **Research Assistantship Grant**
UW Bothell CSS, co-investigator with Hazeline Asuncion, \$45,000.
- 2010 **Professor Partnership Grant**
NVIDIA Corporation, co-investigator with Kelvin Sung, \$800.
- 2009 **Senior Member, IEEE**
- 2008–13 **Collaborative Research: CCLI-Phase 3**
“Design, Implementation and Dissemination of Multidisciplinary online Java Digital Signal Processing (J-DSP) Materials”, National Science Foundation, co-investigator with Andreas Spanias, Rajapandian Ayyanar, Antonia Papandreou-Suppappola, Cihan Tepedelenlioglu, Harvey Thornburg (Arizona State Univ.), Linda A Hinnov (Johns Hopkins Univ.), and Cajetan M Akujuobi (Prarie View A&M Univ.), \$1.2 million total.
- 2008–13 **Fulbright Senior Specialists Roster**
- 2008–09 **“Mobile agents for neural simulation”**
Collaborative Undergraduate Research project, Univ. of Washington, co-investigator with Munehiro Fukuda, \$4,000.
- 2007 **“US/Uruguay Workshop on Neuronal Coding”**
National Science Foundation, \$38,000.
- 2006–07 **“Liquid state machines as models of cortical cultures”**
Collaborative Undergraduate Research project, Univ. of Washington, \$2,000.

- 2006–07 **“Biotechnology and Biomedical Technology Institute”**
Academic Distinction Award, Univ. of Washington , co-investigator with Profs. Steve Collins and Alan Leong (UWB), \$20,000.
- 2006–07 **“Building an Inclusive CSS Culture”**
Diversity Enhancement Grant, Univ. of Washington, co-investigator with Profs. Kelvin Sung and Carol Zander, \$4,500.
- 2005–08 **Collaborative Proposal: CCLI-AI**
“Adaptation of the J-DSP On-Line Technology and Labs to Communication Networks and Multimedia Computing” National Science Foundation , co-investigator with Andreas Spanias, Martin Reisslein, Junshan Zhang (Arizona State Univ.), \$200,000 total.
- 2003–04 **“Multimedia and Signal Computing Course Redesign”**
Worthington Technology Award, University of Washington, \$6,189.
- 2002–03 **“CSS Center for Integrated Teaching, Learning & Scholarship”**
Worthington Technology Award, University of Washington, co-investigator with Profs. Kelvin Sung, Munehiro Fukuda, and Charles Jackels (Computing & Software Systems, UWB), \$11,380.
- May 2000 **“Distributed Systems Research Laboratory”**
Office of Research, University of Washington, co-investigator with Prof. Kelvin Sung and Prof. Mitchell Berg (Computing & Software Systems, UWB), \$20,000.
- 1999–2000 **“Biocomputing initiative”**
Worthington Distinguished Professor Award, University of Washington, \$3,500.
- 1996–98 **“Cyberspace center for software industry”**
Information Technology Contract (AF/253/95), HK Industry Department, co-investigator with Prof. Sam Chanson, Prof. T.C. Pong, Dr. Dik Li, Dr. Pam Drew, Dr. James Gray (Computer Science, HKUST), US\$470,000.
- 1995–97 **“Dynamical neural networks: from wetware to hardware”**
Competitive Earmarked Research Grant (HKUST668/95E), HK Research Grants Council, with Dr. Bert Shi (Electrical & Electronic Engineering, HKUST) as co-investigator, US\$33,000.
- 1995–97 **“Analog VLSI cellular neural networks”**
Competitive Earmarked Research Grant (HKUST675/95E), HK Research Grants Council, co-investigator with Dr. Bert Shi (Electrical & Electronic Engineering, HKUST), US\$80,000.
- 1994–96 **“Locus Coeruleus Modulation of Neuronal Circuits in the Visual System”**
Competitive Earmarked Research Grant (HKUST527/94M), HK Research Grants Council, co-investigator with Dr. Robert N. Holdefer (Biology, HKUST), US\$27,500.
- Summer 1994 **Research Travel Grant**
HKUST (RTG93/94.EG10)
- 1993–95 **“Dynamical Neural Networks: Responses to Transient Inputs”**
Competitive Earmarked Research Grant (HKUST187/93E), HK Research Grants Council, US\$36,000.
- 1992–93 **“A Dynamical Neural Network Laboratory”**
Direct Allocation Grant (DAG92/93.EG18), HKUST, US\$15,000.

Teaching & Pedagogy

Professional Development

2017–18	UW Bothell Collaborative Online International (COIL) Fellows program
April 2007	NSF Workshop on Peer-Led Team Learning in Computer Science

University of Washington

Spring 2017–2021	Neurobiology, BBIO 480
Fall 1999–2002, 2017, 2018; Winter & Summer 1998, 2020–21	Introduction to Artificial Neural Networks, CSS 485
Fall 2005, 2011; Winter 1998, 2000, 2003; Spring 1999, 2001, 2006, 2021; Summer 2001	Data Structures, Algorithms, and Discrete Mathematics I, CSS 342
Fall 2014, 2015, 2017–20	Data Structures and Object-Oriented Programming I, CSS 501
Fall 1999, 2001; Winter 2002–04, 2006; Spring 1998, 2000, 2003, 2004; Winter 2017, 2020–21	Data Structures, Algorithms, and Discrete Mathematics II, CSS 343
Fall 1997, 2014–16; Winter 2008; Spring 1999–2004, 2006–07, 2010, 2020	Multimedia and Signal Computing, CSS 457
Winter 2014–17; Spring 2014–17	Programming Issues with Object-Oriented Languages, CSS 332
Spring 2016	Special Topics in Computing: Computational Neuroscience, CSS 590
Spring 2012	Fundamentals of Computing, CSS 161
Spring 2010	Hands-on Algorithms, CSS 490
Fall 2007, 2009	Programming and Discrete Mathematics, CSS 263
Spring 2009	Programming Methodology, CSS 162
Fall 1997, 2003, 2005, 2006, 2010; Winter 1999–2002, 2009	Expert Systems, CSS 482
Spring 2008	Linear Algebra, CSS 330
Fall 2003	Technical Writing for Computing Professionals, CSS 301
2002	Developed distance learning versions of CSS 482 & CSS 457
Fall 1998	Advanced Programming Methodologies I, CSSAP 442
Winter 1999	Advanced Programming Methodologies II, CSSAP 443
Spring & Fall 1998	The Graphical Display of Information, CSSIE 450

Fall 2013 | Digital Thinking, BCUSP 161
Winter 2007 | Calculus I, CUSP 124

HKUST Department of Computer Science

Spring 1996	Computer and Programming Fundamentals II, COMP 103
Fall 1995	Software Tools, COMP 111
Spring 1993–95	Fundamentals of Artificial Intelligence I, COMP 221
Fall 1993	Fundamentals of Artificial Intelligence II, COMP 321
Fall 1994	Neural Computation (graduate), COMP 520A
Fall 1992	Introduction to Artificial Intelligence (graduate), COMP 521
Spring 1994	Computation in Complex Systems (graduate seminar), COMP 695E

UCLA Computer Science Department

Spring & Fall 1987 | Computer Vision Laboratory, CS 168L

UCLA Office of International Students and Scholars

1986–92 | Orientation Program for new international students

Other

- Computer Organization, for local software industry
- Operating Systems, for local software industry

Student Supervision

Over 111 Bachelor's degree projects supervised (1993–present). Supervised 10 Masters theses/projects (R. Jeong, M.Phil., “Long-term potentiation and synaptic coding”, 1996; F. Kawasaki, M.S., “Accelerating large-scale simulations of cortical neuronal network development”, 2012; A. Ortiz, M.S., “Chess game tree search strategies using GPUs”, 2015; H. Nigam, M.S., “Software system optimization for efficient deep neural network inferencing on embedded device”, 2018; T. Wong, M.S., “Software and data provenance visualization for simulation-enabled science”, 2018; J.Y.H. Lee, M.S., “Machine learning for spatiotemporal data analysis”, 2018; Emily Hsu, M.S., “Extending a Neural Simulator to Combine Growth and Spike-Timing-Dependent Plasticity”, 2020; Smriti Singh, M.S., “Understanding localized burst trigger patterns in developing neural networks using deep learning”, 2020; Joseph Conquest, M.S., “Software and Data Provenance as a Basis for e-Science Workflow”, 2020; Snigdha Singh, M.S., “Graph Analysis For Simulated Neural Networks With STDP”) and served on numerous Masters thesis committees.

Professional Service

University of Washington

2019–present	Elected Representative, Campus Council on Planning and Budget
2013–present	Fulbright US Student Program campus interview committee
2016–present	Neuroscience Minor Oversight Committee, UWB STEM Biological Sciences Division
2020–present	Director, UWB STEM Cybersecurity Sponsored Research Program
2014–present	Faculty mentor, UWB STEM
2009–present	UWB CARE Team faculty/administrative representative
2017–present	Standing Committee for the UWB STEM Physical Sciences Division
2018–2019	UW Graduate School Council Policy Committee
2019	Member, UW Tacoma Institute of Technology promotion committee
2019	Chair <i>ad hoc</i> Appointment Committee, STEM Physical Sciences Division
2014–2019	UW Graduate School Council
2014–17, 2019	Standing Committee for the Engineering and Mathematics Division
2017–2018	Academic Sub-Committee of the UWB Cybersecurity Partnership Steering Committee
2017	Search Committee, Director of UW Center for Information Assurance and Cybersecurity
2016–17	UW Graduate School Taskforce on Graduate Degree Options
2016–17	Hyak (UW High Performance Computing) Governing Board
2016	Review Committee, Dean of the School of Interdisciplinary Arts & Sciences
2016	Faculty promotion and tenure committee, UW Bothell School of Business
2015	Faculty promotion and tenure committee, UW Tacoma
Spring 2015	Search Committee Chair, UWB HR Manager for Faculty
Spring 2014	Standing Committee for the Biological Sciences Division, UW Bothell STEM
2014	UW Bothell Graduate Growth Working Group
2014	Member, Joint Working Group for Business/STEM Graduate Educational Pathways
2014	Search Committee, UW Vice Provost for Educational Outreach
2014	Chair, Director Review Committee, UW Bothell Education Program
2014	Promotion Committee to Associate Professor, UWB
2013	Search Committee, Vice Chancellor for Administration and Planning
2012	UW Tacoma Institute of Technology Review Committee
Summer 2010	CUSP Implementation Task Force
Spring 2009	Advisory Search Committee for Lecturer, Electrical Engineering
2008–09	Electrical Engineering degree development committee
2008–09	UWB Science & Technology Transition Team
2008–10	Steering Committee, Pacific Northwest Center for Neural Engineering
2007–08	Chair, General Faculty Organization
2008	Member, UWB task force on strategic planning in science, technology, engineering and mathematics (STEM)

2007–08	UW Senator
2007–08	Member, UW Senate Executive Council
2007	UW North Campus Working Group
2006–07	Vice-Chair, General Faculty Organization, and Chair, Executive Council
2006–07	Member, Faculty Council on Tri-Campus Policy
	Graduate School Representative on two doctoral committees.
2005-06	Academic Affairs Committee
2005–06	Quantitative Skills Center Director Search Committee
2005–06	Student Scholarship Committee
2004	Technology Fee Committee
1997–98, 2004	Executive Council
2004	Research Grants & Contracts Task Force
Summer 2003	Faculty Retreat Planning Committee
2003	Computing and Communications Librarian Search Committee
2002	Teaching & Learning Center Steering Committee
2001	Technology Endowment Task Force
2001–02	Chair, Instruction & Research Support Committee
1997–2000	Instruction & Research Support Committee
Winter 2000 & 2001	Distinguished Professor Award Committee
1998–99	Facilities Planning Committee
1998–99	Technology Planning Advisory Committee
1998	Manager of Information Systems Search Committee

Computing & Software Systems Program

2019–2021	Chair, Tenure Track Faculty Search Committee
2011–present	Faculty Advisor, UWB Upsilon Pi Epsilon Chapter
2015–present	Faculty Merit Review Committee
2019–present	Online Certificate Academic Oversight Committee
2015–present	Faculty Merit Review Committee
2014–2020	Member, Graduate Admissions Committee
2014–2018	<i>Ex officio</i> member, Graduate Curriculum Committee
2017–18	Chair, CSS Research Assistant Proposal Committee
2017	Chair, Assistant Professor Third Year Review Committee
2015	Faculty promotion and tenure committee
2014	Member, Advanced Systems Engineer search committee
2008	Chair, Personnel Committee

2001–04, 2005–07	Personnel Committee
2005–07	Promotion & Tenure Committee
2001–02, 2006–07	Curriculum Committee
2003–04, 2005–06	Chair, Curriculum Committee
2003, 2004	Chair, <i>ad hoc</i> promotion and tenure guidelines committee
2003–04	Director Search Committee
2003–04	Strategic Initiatives Committee
2000–03	Chair, Infrastructure Committee
2001–02	System Administrator Search Committee
1997–2000	Faculty Search Committee
Spring 1999	<i>Ad hoc</i> Introductory Curriculum Review Committee
Fall 1998	<i>Ad hoc</i> Grade Review Committee

HKUST University-wide committees

1994–96	Chairman, Graphics and Visualization Users Group
1992–93	Catering and Club Needs Steering Committee

HKUST Department of Computer Science

Spring 1996	Software Engineering Curriculum Committee
1994–96	Coordinator, Artificial Intelligence Area Committee
1994–96	Chair, WWW Facilities Subcommittee
1992–96	Artificial Intelligence Area Committee
1992–96	Coach for HKUST programming team (ACM Collegiate Programming Contest)
April 1994, May 1995	Computer Science Industry Day research poster presentations
1994–95	Undergraduate Studies Committee
1993–94	Postgraduate Studies Committee
September 1993	Undergraduate orientation committee
1992–93, Spring 1996	Facilities Committee

External

Regular panel member, US National Science Foundation and US National Institutes of Health. Scientific and Organizing Committee Chair, *International Workshop on Neuronal Coding 2020/21*. Guest Editor, *Applied Computational Intelligence and Soft Computing* special issue on “Applications in Smart and Connected Communities,” 2017–18. Member, Washington Technology Industry Association (WTIA) Workforce Development Committee, 2014. Program committee, ICCWS 2014, 2016, ICCSM 2014, 2015, ICANN 2012, 2017, 2019, ICONIP’06. Organizing committee, IJCNN’05, ICONIP’96. Officer, IEEE Computer Society, Seattle Section (1998–2004). Proposal reviewer, Swiss National Science Foundation. Reviewer for NCWIT Collegiate Awards, *Neuroscience*, *Biological Cybernetics*, *Physica D*, *Bulletin of Mathematical Biology*, *Journal of Computational Neuroscience*, *Journal of Biological Physics*, *Cognitive Neurodynamics*, the Annual Conference of the Cognitive Science Society (*CogSci*), the International Conference

on Cognitive Modeling (*ICCM*), the annual Computational Neuroscience meeting (*CNS*95-03*), the International Conference on Knowledge Based Computer Systems (*KBCS 2004*), and *ICNN'95*. Reviewer, *The Internet Encyclopedia*, Hossein Bidgoli, ed. (Wiley, 2003) and *The Handbook of Computer Networks*, Hossein Bidgoli, ed. (Wiley, 2007). Textbook reviewer for Prentice Hall. Session Chair, *IJCNN'93, 03*. Guest editor, Moderated Young Scientists Network Digest.

Community Service

Board of Directors, Parents Active in Cooperative Education (PACE), Northshore School District (2006–07).

Memberships

Member American Conference for Academic Deans, International Neural Network Society, Institute of Electrical and Electronics Engineers (Senior Member), Association for Computing Machinery, AAUP, Tau Beta Pi, Eta Kappa Nu, Upsilon Pi Epsilon, Usenix. Registered EIT.

Skills

Familiar (natural) languages: English (native), Japanese (can get by), Mandarin and Cantonese (survival level), Spanish (rusty).

Comprehensive Publication List

Under Preparation

1. N. Gonzales*, J.Y.H. Lee*, and M. Stiber, “Development of spatiotemporal activity patterns in cultures of cortical neurons”.
2. Gonzales, N.*, S. Singh*, and M. Stiber, “STDP modification of spatiotemporal activity patterns in cultures of cortical neurons”.

Books and Book Contributions

1. Stiber, M., B. Stiber, and E.C. Larson, *Signal Computing: Digital Signals in the Software Domain*, <http://faculty.washington.edu/stiber/pubs/Signal-Computing/>, 2014–16.
2. Segundo, J.P., M. Stiber, and J.-F. Vibert, “Synaptic coding of spike trains. Entrainment across synapses of one neuron by another”, *The Handbook of Brain Theory and Neural Networks*, M. Arbib, ed., MIT Press, 1995.

Journal Papers

1. Kostal, L., P. Lansky, and M. Stiber, “Statistics of inverse interspike intervals: the instantaneous firing rate revisited”, *Chaos* **28**, 106305, doi:10.1063/1.5036831, 2018.
2. Kawasaki, F.* and M. Stiber, “A simple model of cortical culture growth: burst property dependence on network composition and activity”, *Biological Cybernetics* **108**(4): 423–443, doi:10.1007/s00422-014-0611-9, 2014.
3. Stiber, M., “Transient bifurcations in neural error correction”, *BioSystems* **89**(1–3): 24–29, doi:10.1016/j.biosystems.2006.06.009, May–June 2007.
4. Stiber, M., “[Spike timing precision and neural error correction: local behavior](#)”, *Neural Computation* **17**(7): 1577–1601, 2005.

*Student co-author.

5. Gómez, L., R. Budelli, R. Saa, M. Stiber, and J.P. Segundo, “Pooled spike trains of correlated presynaptic inputs as realizations of cluster point processes”, *Biological Cybernetics* **92**(2): 110–127, 2005.
6. Segundo, J.P., G. Sugihara, P. Dixon, M. Stiber, and L. Bersier, “The spike trains of inhibited pacemaker neurons seen through the magnifying glass of nonlinear analyses”, *Neuroscience* **87**(4): 741–766, 1998.
7. Segundo, J.P., J.-F. Vibert, and M. Stiber, “Periodically modulated inhibition of pacemaker neurons. III. The heterogeneity of the postsynaptic spike train, and how control parameters affect it”, *Neuroscience* **87**(1): 15–47, 1998.
8. Stiber, M., R. Jeong*, and J.P. Segundo, “Responses to transients in living and simulated neurons”, *IEEE Trans. Neural Networks* **8**(6): 1379–85, 1997.
9. Stiber, M., K. Pakdaman, J.-F. Vibert, E. Boussard, J.P. Segundo, T. Nomura, S. Sato, and S. Doi, “Complex responses of living neurons to pacemaker inhibition: a comparison of dynamical models”, *BioSystems* **40**: 177–88, 1997.
10. Segundo, J.P., J.-F. Vibert, M. Stiber, and S. Hanne-ton, “Periodically modulated inhibition and its post-synaptic consequences. I. General features. Influences of modulation frequency”, *Neuroscience* **68**(3): 657–92, 1995.
11. Segundo, J.P., J.-F. Vibert, M. Stiber, and S. Hanne-ton, “Periodically modulated inhibition and its post-synaptic consequences. II. Influence of pre-synaptic slope, depth, range, noise and of post-synaptic natural discharges”, *Neuroscience* **68**(3): 693–719, 1995.
12. Segundo, J.P., M. Stiber, E. Altshuler, and J.-F. Vibert, “Transients in inhibitory driving of neurons and their post-synaptic consequences”, *Neuroscience* **62**(2): 459–80, 1994.
13. Nomura, T., S. Sato, S. Doi, J.P. Segundo, and M. Stiber, “Global bifurcation structure of a Bonhoeffer van der Pol oscillator driven by periodic pulse trains. Comparison with data from a periodically inhibited biological pacemaker”, *Biological Cybernetics* **72**: 55–67, 1994.
14. Nomura, T., S. Sato, S. Doi, J.P. Segundo, and M. Stiber, “A modified radial isochron clock with slow and fast dynamics as a model of pacemaker neurons. Global bifurcation structure when driven by periodic pulse trains”, *Biological Cybernetics* **72**: 93–101, 1994.
15. Stiber, M. and J. Skrzypek, “Computing visual direction constancy with simple shifting circuits: neural network architecture”, *Journal of Artificial Neural Networks* **1**(1): 1–21, 1994.
16. Nomura, T., S. Sato, S. Doi, J.P. Segundo, and M. Stiber, “A Bonhoeffer van der Pol oscillator model of locked and non-locked behaviors of living pacemaker neurons”, *Biological Cybernetics* **69**: 429–37, 1993.
17. Nomura, T., S. Sato, S. Doi, J.P. Segundo, and M. Stiber, “Phase transition curve of a neuronal oscillator and chaos” (in Japanese), *Modeling and Information Processing of Random Phenomena in Engineering and Biology*, The Institute of Statistical Mathematics, Tokyo, Cooperative Report **40**: 65–75, December 1992.
18. Nomura, T., S. Sato, S. Doi, J.P. Segundo, and M. Stiber, “Response characteristics of a BVP oscillator to periodic pulse stimulus” (in Japanese), *ME and Bio Cybernetics Reports MBE92-12*: 29–36, Institute of Electronics, Information and Communication Engineers, May 1992.
19. Segundo, J.P., E. Altshuler, M. Stiber, and A. Garfinkel, “Periodic Inhibition of Living Pacemaker Neurons: I. Locked, Intermittent, Messy, and Hopping Behaviors”, *International Journal of Bifurcation and Chaos*, **1**(3): 549–81, 1991.
20. Segundo, J.P., E. Altshuler, M. Stiber, and A. Garfinkel, “Periodic Inhibition of Living Pacemaker Neurons: II. Influences of Driver Rates and Transients and of Non-driven Post-synaptic Rates”, *International Journal of Bifurcation and Chaos*, **1**(4): 873–90, 1991.

Refereed Conference Papers

1. Conquest, J.* and M. Stiber, “Software and Data Provenance as a Basis for eScience Workflow”, *IEEE eScience*, online, September 20–23, 2021.
2. Singh, S.*, N. Gonzales*, and M. Stiber, “Refining connections in developing neural networks”, *International Workshop on Neural Coding*, Bothell, WA, July 26–30, 2021.
3. Conquest, J.* and M. Stiber, “Software and Data Provenance as a Basis for eScience Workflow”, *17th IEEE eScience*, September 20–23, 2021, submitted.
4. Lee, J.Y.H.* and M. Stiber, “Spatiotemporal characteristics of bursting and avalanches in cultures of cortical neurons”, *Proc. International Workshop on Neuronal Coding*, Turin, Italy, September 9–14, 2018.
5. Lee, J.Y.H.*, M. Stiber, D. Si, “Machine Learning of Spatiotemporal Bursting Behaviors in Developing Neural Networks,” *International Engineering in Medicine and Biology Conference*, Honolulu, Hawaii, July 17–21, 2018.
6. Stiber, M., F. Kawasaki*, D. Davis*, H.U. Asuncion, J.Y.H. Lee*, and D. Boyer*, “BrainGrid+Workbench: High-Performance/High-Quality Neural Simulation,” *Proc. International Joint Conference on Neural Networks*, Anchorage, Alaska, May 14–19, 2017.
7. Stiber, M., F. Kawasaki*, M. Strange*, and A. Watson*, “Bringing high performance neural simulation to the desktop with BrainGrid”, *Proc. International Workshop on Neuronal Coding*, Cologne, Germany, August 29 – September 2, 2016.
8. Kawasaki, F.* and M. Stiber, “Stimulation effects on cortical culture development”, *International Conference on Cognitive Neurodynamics*, Sigtuna, Sweden, June 23–27, 2013.
9. Kawasaki, F.* and M. Stiber, “Bursting behavior in a large-scale model of cortical network development”, *BIOCOMP 2012 — Mathematical Modeling and Computational Topics in Biosciences*, Vietri sul Mare, Italy, June 4–8, 2012.
10. Ramamurthy, K., A. Spanias, L. Hinnov, C. Akujuobi, M. Stiber, M. Pattichis, E. Doering, C. Pattichis, H. Thornburg, A. Papandreou-Suppappola, P. Spanias, R. Ayyanar, E. Campana, S. Haag, “Work in Progress — Collaborative Multi-Disciplinary J-DSP Software Project”, *39th ASEE/IEEE Frontiers in Education Conference*, San Antonio, October 18–21, 2009.
11. Spanias, A., L. Hinnov, M. Stiber, C. Akujuobi, M. Pattichis, C. Pattichis, E. Doering, K. Ramamurthy, S. Mehta, R. Ayyanar, H. Thornburg, “The Java-DSP phase 3 project: An interdisciplinary multi-university effort”, *2009 ASEE Annual Conference and Exposition*, Austin, June 14–17, 2009.
12. Stiber, M., F. Kawasaki*, and D. Xu, “A model of dissociated cortical tissue”, *Proc. International Workshop on Neuronal Coding*, Montevideo, Uruguay, November 2007, pp. 24–27, [arXiv:0805.3368](https://arxiv.org/abs/0805.3368) [q-bio.NC].
13. Spanias, A., V. Atti, R. Chilimula, S. Haag, A. Papandreou-Suppappola, C. Tepedelenlioglu, J. Zhang, F. Bodreaux-Bartels, M. Stiber, T. Kasparis, and P. Loizou, “A Collaborative Project on Java-DSP Involving Five Universities”, *Proc. ASEE Conf.*, Chicago, June 2006, <http://www.asee.org/acPapers/code/getPaper.cfm?paperID=10293&pdf=2006Full11614.pdf>.
14. Spanias, A., V. Atti, R. Chilimula, S. Haag, A. Papandreou-Suppappola, C. Tepedelenlioglu, J. Zhang, F. Bodreaux-Bartels, M. Stiber, T. Kasparis, and P. Loizou, “Work in Progress — Multi-university development and dissemination of online laboratories in probability theory, signals and systems, and multimedia computing”, *Proc. IEEE FIE*, pp. F3G-3–4, Indianapolis, October 2005.

*Student co-author.

15. Stiber, M. and M. Pottorf*, “[Response space construction for neural error correction](#)”, *Proc. IEEE IJCNN'04*, vol. 4, pp. 3201–5, Budapest, Hungary, July 2004.
16. Stiber, M. and T. Holderman*, “[Global behavior of neural error correction](#)”, *Proc. IEEE IJCNN'04*, vol. 1, pp. 87–92, Budapest, Hungary, July 2004.
17. Stiber, M., “A Signal Computing Course for Software Undergraduates”, faculty poster, *Proc. ACM SIGCSE'04*, Norfolk, VA, March 2004.
18. Stiber, M., “[Non-information-maximizing neural coding](#)”, *Proc. IEEE IJCNN'03*, vol. 4, pp. 2728–2733, Portland, July 2003.
19. Hrebec, D.G.* and M. Stiber, “[A survey of system administrator mental models and situation awareness](#)”, *Proc. ACM SIGCPR*, San Diego, pp. 166–72, April 2001.
20. Stiber, B.Z., E.R. Lewis, and M. Stiber, “Auditory singularity detection by a gerbil cochlea model”, *CNS*99*, Pittsburgh, July 1999 and *Neurocomputing* **32–33**: 537–43, 2000.
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