

TOTAL PUBLICATIONS – ALICE M. AGOGINOT[†]
 UNIVERSITY OF CALIFORNIA, BERKELEY
 SQUISHY ROBOTICS, INC.

CATEGORY A: REFEREED PUBLICATION

Peer-Reviewed Journal Publications

- J-1 "Notch Effects, Stress State and Ductility," *ASME Trans., Journal of Engineering Materials and Technology*, Oct. 1978, pp. 348-355.
- J-2 "INFORM: An Architecture for Expert-Directed Knowledge Acquisition," (with E. A. Moore), *International Journal of Man-Machine Studies*, Vol. 26, No. 2, February 1987, pp. 213-230. (Also published as book chapter in *Knowledge Acquisition Tools for Expert Systems*, ed. by J. Boose and B. Gaines, Vol. 2, pp. 227-244, Academic Press, 1988.)
- J-3 "IDES: Influence Diagram Based Expert System,"(with A. Rege), *Mathematical Modelling*, Vol. 8, 1987, pp. 227-233.
- J-4 "Techniques for Integrating Qualitative Reasoning and Symbolic Computation in Engineering Optimization," (with A. Almgren), *Engineering Optimization*, Vol. 12(2), Sept./Oct. 1987, pp. 117-135.
- J-5 "Multiobjective Hydraulic Cylinder Design," (with N. Michelena), *ASME Trans., Journal of Mechanisms, Transmissions, and Automation in Design*, Vol. 110, March 1988, pp. 81-87.
- J-6 "Topological Framework for Representing and Solving Probabilistic Inference Problems in Expert Systems," (with A. Rege), *IEEE Trans., Journal of Systems, Man, and Cybernetics*, Vol. 18 (3), May/June 1988 , pp. 402-414.
- J-7 "Innovative Design of Mechanical Structures from First Principles," (with J. Cagan), *AI in Engineering, Design, Analysis, and Manufacturing*, Vol. 1 (3), 1987, pp. 169-189.
- J-8 "Multiple Sensor Expert System for Diagnostic Reasoning, Monitoring, and Control of Mechanical Systems," (with S. Srinivas and K. Schneider), *Mechanical Systems and Signal Processing*, Vol. 2(2), 1988, pp. 165-185.
- J-9 "A Generalization and Correction of the Welded Beam Optimal Design Problem Using Symbolic Computation," (with A. Almgren), *ASME Journal of Mechanisms, Transmissions, and Automation in Design*, Vol. 111 (1), March 1989, pp. 137-140.
- J-10 "Theory of Design: An Optimization Perspective," (with P. Jain), *Journal of Mechanism and Machine Theory*, Vol. 25, No. 3, 1990, pp. 287-303.

[†] Links to digital copies of publications at: <http://best.berkeley.edu/alice-m-agogino-publications/>

- J-11 "Use of Influence Diagrams and Neural Networks in Modeling Semiconductor Manufacturing Processes," (with F. Nadi and D. Hodges), *IEEE Transactions on Semiconductor Manufacturing*, Vol. 4, No. 1, Feb. 1991, pp. 52-58.
- J-12 "Design Capture and Information Management for Concurrent Design," (with S. Bradley), *International Journal of Systems Automation: Research & Applications*, Vol. 1, No. 2, 1991, pp. 117-141.
- J-13 "Inducing Constraint Activity in Innovative Design", (with J. Cagan) *AIEDAM (Artificial Intelligence in Engineering Design, Analysis and Manufacturing)*. Vol. 5, No. 1, pp. 47-61.
- J-14 "Dimensional Variable Expansion - A Formal Approach to Innovative Design", (with J. Cagan), *Research in Engineering Design*, Vol. 3, No. 3, 1991.
- J-15 "Decision-Analytic Methodology for Cost-Benefit Evaluation of Diagnostic Testers," (with O. Nour-Omid, W. Imano and S.S. Wang), *IIE Trans.*, Vol. 24, No. 1, March 1992, pp. 39-54.
- J-16 "Global Optimization Using the Multistart Method," (with P. Jain), *ASME Trans. Journal of Design.*, Vol. 115, No. 4, Dec. 1993, pp. 770-775. (Also published in *Advances in Design Automation - 1989*, Vol. 2, DE-Vol. 19-2; *Proceedings of the 1989 ASME Design Automation Conference*, Sept. 17-20, 1989, Montreal, Canada, 1989, pp. 39-44.)
- J-17 "Real-Time Expert Systems for Fault Tolerant Supervisory Control", (with K. Ramamurthi), *ASME Transactions, Journal of Systems, Dynamics and Control*, Vol. 115, June 1993, pp. 219-227. (Also published in *Proceedings of the 1988 ASME International Computers in Engineering Conference*, Vol. 2, pp. 333-339.)
- J-18 "A Structural and Behavioral Reasoning System for Diagnosing Large-Scale Systems,"(with R.K. Paasch), *IEEE Expert*, Vol. 8, No. 4, Aug. 1993, pp. 31-36. (Best of 5 papers from CAIA, previously published in *Proceedings of the CAIA-92*, March 2-6, 1992, Monterey, California), IEEE Computer Society, 1992, pp. 74-80.)
- J-19 "Formal Solution of N-type Taguchi Parameter Design Problems with Stochastic Noise Factors,"(with N. Michelena), *ASME Trans., Journal of Mechanical Design*, Vol. 116, No. 2, June 1994, pp. 501-507. P-31. (Also published in *ASME '91 Design Theory and Methods*, ASME DE-Vol. 31, 1991, pp. 13-20.)
- J-20 "Monotonic Influence Diagrams: Foundations and Application to Optimal Design," (with N. Michelena), *Engineering Optimization*. Vol. 21, No. 2, pp. 79-97, July 1993.
- J-21 "Monotonic Influence Diagrams: Extension to Stochastic Programming and Application to Probabilistic Design," (with N. Michelena), *Engineering Optimization*, Vol. 21, No. 2, pp. 99-120, July 1993.
- J-22 "An Intelligent Real Time Design Methodology for Catalog Selection," (with S. Bradley). *ASME Trans., Journal of Mechanical Design*, Dec. 1994, Vol. 116, pp. 980-988. (Also published in *ASME '91 Design Theory and Methods*, ASME DE-Vol. 31, 1991, pp. 201-208; Winner of ASME DTM '91 Best Paper Award).

- J-23 "The Impact and Instructional Benefit of Using Multimedia Case Studies to Teach Engineering Design," (with Sherry Hsi), *Journal of Educational Hypermedia and Multimedia*, Vol. 3, No. 3/4, 1994, pp. 351-376.
- J-24 "A Case-based Conceptual Design Information Server for Concurrent Engineering," (with W.H. Wood), *CAD (Computer-Aided Design) Journal*, Vol. 28, No. 5, pp. 361-369, 1996.
- J-25 "Engineering Courseware Content and Delivery: the NEEDS Infrastructure for Distance-Independent Education" (with W.H. Wood), *Journal of the American Society for Information Science*, Vol. 47, No. 11, 1996, pp. 863-869.
- J-26 "Text Analysis for Constructing Design Representations," (with A. Dong), *Artificial Intelligence in Engineering.*, Vol. 11 (2), pp. 65-75, 1997. (Previously published in *Artificial Intelligence in Design '96*, Kluwer Academic Publishers, pp. 21-38, 1996. Winner 1996 "Best Paper" award.)
- J-27 "Managing Design Information in Enterprise-Wide CAD using 'Smart Drawings'," (with A. Dong), *CAD (Computer-Aided Design) Journal*. (Updated version of P-43), 30(6) (1998) 425-435.
- J-28 "The National Engineering Delivery System (NEEDS): A Multimedia Digital Library of Courseware," (with B. Muramatsu) *International Journal on Engineering Education* Vol. 13 No. 5, 1997, pp. 333-340.
- J-29 "Examples of Freshman Design Education," (with Sheppard, S., R. Jenison, M. Bereton, L. Bucciarelli, J. Dally, J. Demel, C. Dym, D. Evans, R. Faste, M. Henderson, P. Minderman, J. Mitchell, A. Oladipupo, M. Picket-May, R. Quinn, T. Reagan, and J. Wujek), *International Journal on Engineering Education*, vol. 13, no. 4. pp. 248-261, 1997.
- J-30 "Bridging Diverse Institutions, Multiple Engineering Departments, and Industry: A Case Study in Developing an Assessment Plan for the Synthesis Coalition," (with Flora McMartin and Eric Van Duzer), *Journal of Engineering Education*, Vol. 87, No. 2, April 1998, pp. 157-163.
- J-31 "A Web-based Module for Teaching Middle School Students Engineering Design with Simple Machines," (with A. McKenna), *Journal of Engineering Education*, Oct. 1998, pp. 437-444. (Updated version of Proceedings Paper P-56; Won 'best paper' award at FIE '97.)
- J-32 "Fuzzy Belief Nets," (with K. Goebel), *International Journal of Uncertainty, Fuzziness, and Knowledge*, Vol. 8, No.4, pp.453-469, 2000.
- J-33 "Sensor Validation and Fusion for Gas Turbine Power Plants Using Fuzzy Techniques," (with K. Goebel), accepted for publication in the *Mechanical Systems and Signal Processing*, 2001. (Also available as paper #2001CRD023, Feb. 2001, General Electric Corporate R&D Technical Information Series.)
- J-34 "Sensor Validation and Fusion for Automated Vehicle Control Using Fuzzy Techniques," (with K. Goebel, *ASME Trans, Journal of Dynamic Systems, Measurement and Control*, Vol. 123, March 2001, pp. 145-146.

- J-35 "A Methodology for Intelligent Sensor Measurement, Validation, Fusion, and Fault Detection for Equipment Monitoring and Diagnostics," (with S. Alag and M. Morjaria), *AIEDAM (Artificial Intelligence for Engineering Design, Analysis and Manufacturing)*, Special Issue on AI in Equipment Service, Vol. 15, No. 4, April 2001, pp. 307-319.
- J-36 "Guest Editorial", (Piero Bonissone, Kai Goebel, And George Vachtsevanos,) *AIEDAM (Artificial Intelligence for Engineering Design, Analysis and Manufacturing)*, Special Issue on AI in Equipment Service, Vol. 15, No. 4, April 2001, pp. 265-266.
- J-37 "Modeling Engineering Information Needs", (with Shuang Song and Andy Dong), *Journal of Computing and Information Science in Engineering*, 2, No. 3, Sept. 2002, pp. 199-207.
- J-38 "Document Analysis as a Means for Predicting Design Team Performance," (with A. Dong, and A.W. Hill), *ASME Journal of Mechanical Design*, Vol. 126, May 2004, pp. 378-385.
- J-39 "Perceptions of the Design Process: An Examination of Gendered Aspects of New Product Development" (with C. Newman, M. Bauer and J. Mankoff), *International Journal of Engineering Education*, Vol. 20, No.2, pp. 452-460, 2004. (Revision of paper P-82 published in *Designing Engineering Education*, Proceedings of the Mudd Design Workshop IV).
- J-40 "Supporting Mechanical Reasoning with a Representationally-Rich Learning Environment", (with A. McKenna), *Journal of Engineering Education*, ASEE, Vol. 93, No. 2, pp. 97-104, April 2004.
- J-41 "Decision-Based Conceptual Design: Modeling and Navigating Heterogeneous Design Space," (with W.H. Wood), *ASME Journal of Mechanical Design*, Vol. 127, Issue 1, Jan. 2005, pp. 2-11.
- J-42 "Resonant Accelerometer with a Two-stage Microleverage Mechanisms Fabricated by SOI-MEMS Technology," (with Su, S.X.P., H.S. Yang and A.S. Hou), *IEEE Sensors Journal*, Dec. 2005.
- J-43 "Engineering Design Thinking, Teaching and Learning," (with Dym, C.L., O. Eris, D.D. Frey and L.J. Leifer), *Journal of Engineering Education*, Jan. 2005, v. 94, no. 1, pp. 103-120.
- J-44 "Triangulation of Indicators of Successful Student Design Teams," (with S. Song and J. Hey), *International Journal of Engineering Education*, ISSN 0949-149X, vol. 22 (3), 2006, pp. 617-625.
- J-45 "Intelligent Office Lighting: Demand-Responsive Conditioning and Increased User Satisfaction", (with J. Granderson), *LEUKOS Journal*, IESNA (Illuminating Engineering Society of North America) vol. 2 (3), Jan. 2006.
- J-46 "Designing Mobile Digital Library Services for Pre-Engineering and Technology Literacy", (with J. Hey, C. Newman, J. Sandhu, C. Daniels and J.-S. Hsu), *International Journal of Engineering Education*, Special Issue on Mobile Technologies for Engineering Education, , Vol. 23 (3), pp. 441-453, 2007.

- J-47 "Self-Reflection: Lessons Learned in a New Product Development Class," (Hey, J.H., A.P Van Pelt, A.M Agogino, and S. Beckman), *Journal of Mechanical Design, ASME*, Vol. 129, No. 7, pp. 668-676, July 2007.
- J-48 "Enabling and Characterizing Twenty-First Century Skills in New Product Development Teams", (with C. Cobb, S. Beckman and L. Speer), *International Journal of Engineering Education*, Vol. 24 (2), February 2008, pp. 420-433.
- J-49 "Analogies and Metaphors in Creative Design", (with J. Hey, J. Linsey, and K.L. Wood), *International Journal of Engineering Education*, Vol. 24 (2), February 2008 pp. 283-294.
- J-50 "Tangible Interactions in a Digital Age: Medium and Graphic Visualization in Design Journals," (with L. Oehlberg and K. Lau), *Engineering Design, Automation and Manufacturing (AIEDAM)*, Vol. 23 (3), 2009, pp. 237-249.
- J-51 "Sketching in Design Journals: An Analysis of Visual Representations in the Product Design Process" (with K. Lau and L. Oehlberg), *Engineering Design Graphics Journal*, Vol. 73 (3), pp. 23-29, 2009.
- J-52 "Designing for Diversity in Engineering Education" (with L. Oehlberg and R. Shelby), *International Journal of Engineering Education*, No. 2 of Vol. 26, 2010, pp. 489-498. (Updated version of P-131.)
- J-53 "Hierarchical Component-Based Representations for Evolving Micro-electromechanical Systems Designs", (with Y. Zhang), *AI EDAM*, Vol. 25, 2011, pp. 41-55.
- J-54 "Case-based Reasoning for Evolutionary MEM Design," (with C.L. Cobb), *ASME Journal of Computing and Information Science in Engineering*, Vol. 10 (3), September 2010, pp. 031005-1-031005-10.
- J-55 "Control of a Wireless-Networked Lighting System in an Open-plan Office", (with Y.-J. Wen), *Journal of Lighting Research and Technology*, Vol. 43 (2), June 2011, pp. 235-248.
- J-56 "Interactive Hybrid Evolutionary Computation for MEMS Design Synthesis", (with Y. Zhang), *Mathematics and Computers in Simulation* (Journal version of book chapter B-15), V. 86, December 2012, pp. 32–38.
- J-57 "Personalized Dynamic Design of Networked Lighting for Energy-Efficiency in Open-Plan Offices " (with Y.-J. Wen), *Energy and Buildings*, Vol. 43 (8), August 2011, pp. 1919-1924.
- J-58 "Intelligent Systems in Product Development: A Retrospective", (with C.C. Hayes, A. Goel, Irem Tumer, W. Regli), *Journal of Computing and Information Science in Engineering*, ASME, Vol. 11 (2) June 2011, pp. 021007-1/9.
- J-59 "Diversity in Design Teams: An Investigation of Learning Styles and their Impact on Team Performance and Innovation," (with K. and S. Beckman), *International Journal of Engineering Education*, Special Issue on Design Education: Innovation and Entrepreneurship, Vol. 28 (2), 2012, pp. 293-301.

- J-60 "Multidisciplinary Human-Centered Design: Fostering Innovation Across Engineering, Humanities and Social Sciences," (with L. Oehlberg, I. Leighton, and B. Hartmann), *International Journal of Engineering Education*, Vol. 28, No. 2, 2012.
- J-61 "Mobile and Augmented Reality Cyberlearning with the Engineering Pathway Digital Library," (with K. Ryokai and L. Oehlberg), *International Journal of Engineering Education*, Vol. 28 (5), 2012, pp. 1119-1126.
- J-62 "Hybrid Evolutionary Optimal MEMS Design," (with Y. Zhang), *International Journal of Advanced Manufacturing Technology*, November 2012, Volume 63, Issue 1-4, pp. 305-317.
- J-63 "Partnering with the Pinoleville Pomo Nation: Co-Design Methodology Case Study for Creating Sustainable, Culturally Inspired Renewable Energy Systems and Infrastructures," (with R. Shelby and Y. Perez), Special Issue of Sustainability: Changing the Energy Systems to Renewable Energy Self-Sufficiency, Vol. 4 No. 5, 2012, pp. 794-818. doi:10.3390/su4050794.
- J-64 "Communicating Human-Centered Design Research: Empirical Study of the Design Community of Practice," (with Roschuni, C., E. Goodman), *AI EDAM*, Special Issue on Studying and Supporting Design Communication, Vol. 27 (Special Issue 02, 2013), pp. 143-154. doi:10.1017/S0890060413000048.
- J-65 "Off the Paved Paths: Exploring Nature with a Mobile Augmented Reality Learning Tool", (with K. Ryokai, D. Subramanian, R. Kowalski), *Journal of Mobile HCI (IJMHCI)*, April 2013, Vol. 5 (2), pp. 21-49. doi:10.4018/jmhci.2013040102.
- J-66* "What Alumni Value from New Product Development Education: A Longitudinal Study," (with Cobb, C.L. J. Hey, S.L. Beckman and S.-Y. Kim), *Advances in Engineering Education*, special issue on Innovation and Entrepreneurship, ASEE, 5 (1), pp. 1-37, 2016.
- J-67 "Network Analysis of Collaborative Design Networks: A Case Study of Open IDEO". (with M. Fuge, K. Tee, and N. Maton), *ASME Journal of Computing and Information Science in Engineering (JCISE)*, 14 (2), 2014. doi:10.1115/1.4026510
- J-68 "Sensor-Based Predictive Modeling for Smart Lighting in Grid-Integrated Buildings", (with C. Basu, J. Caubel, K. Kim, E. Cheng, A. Dhinakaran, R. Martin), *IEEE Sensors*, special issue on Sensing Technologies for Intelligent Urban Infrastructures, IEEE, December 2014, pp. 4216-4229. 10.1109/JSEN.2014.2352331
- J-69 "Machine Learning Algorithms for Recommending Design Methods", (with M. Fuge, B. Peters), *ASME Journal of Mechanical Design*, 136 (10), pp. 071405-071405-10, Oct. 2014, MD-14-1013; doi: 10.1115/1.4028102.
- J-70 "Pattern Analysis of IDEO's Human-Centered Design Methods in Developing Regions" (with M. Fuge), *ASME Journal of Mechanical Design*, 137 (7), pp. 071405-071405-10, MD-14-1571, 2015, doi: 10.1115/1.4030047.

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- J-71 "Design Thinking in Development", (with D. I. Levine, M.A. Lesniewski), *International Journal of Engineering Education*, **32** (3B), pp. 1396-1406, 2016.
- J-72 "Design Practitioners' Perspectives on Methods for Ideation and Prototyping", (with S. Beckman, C. Castaños, J. Kramer, C. Roschuni, M. Yang), *International Journal of Engineering Education*, **32** (3B), pp. 1428-1437, 2016.
- J-73 "Design Roadmapping: A Framework and Case Study of Planning Development of High-Tech Products in Silicon Valley", (with E. Kim, J. Chung, S. Beckman), *ASME Transactions, Journal of Design*, **138** (10) 2016. doi: 10.1115/1.4034221.
- J-74 "Soft Spherical Tensegrity Robot Design Using Rod-Centered Actuation and Control," (with L.-H. Chen, K. Kim, E. Tang, K. Li, R. House, A.K. Agogino, V. Sunspirale, E. Jung), *Journal of Mechanisms and Robotics*, **9** (2), pp. 0205001-1-9, 2017. Paper No: MD-16-1041, doi: 10.1115/1.4036014. Update of conference paper P-178
- J-75 "Concept Clustering in Design Teams: A Comparison of Human and Machine Clustering," (with C. Zhang, Y. P. Kwon, J. Kramer, E. Kim), *ASME Journal of Mechanical Design*, special issue on data-driven design, MD-17-1159, 2017, (Updated version of conference paper #P-191).
- J-76 "Design Roadmapping in a VUCA (Volatility, Uncertainty, Complexity, Ambiguity) World: Implementing a Customer Experience-Focused Strategy," (with E. Kim, S. Beckman), *California Management Review*, Special Issue on "Management Innovation in an Uncertain World", **61** (1), Fall 2018.
- J-77 "Diagnosing and Predicting Wind Turbine Faults from SCADA Data Using Support Vector Machines," (with K. Leahy, L. Hu, I.C. Konstantakopoulos, C.J. Spanos, and D.T.J. O'Sullivan), *International Journal of Prognostics and Health Management*, **9** (1), 2018.
- J-78 "Building 21st Century Skills through Development Engineering", (with Gordon, P., J. Kramer, R. Dzombak, S. Martin), **34** (2B), *International Journal of Engineering Education*, 2018, pp. 619-631. (updated journal version of conference proceedings P-187).
- J-79 "Co-Author Network Analysis of Human-Centered Design for Development," (with N. Li, J. Kramer, P. Gordon), *Design Science*, **4** (10), pp. 1-24, 2018. DOI: 10.1017/dsj.2018.1
- J-80 "Design of Machine Learning Models with Domain Experts for Automated Sensor Selection for Energy Faulty Detection" (with L. Hu, J. Granderson, D.M. Auslander), *Journal of Applied Energy*, **235**, pp. 117-128, 2019. ISSN 0306-2619.
- J-81 "The Sparthan 3D Printed Exo-Glove: a Preliminary Evaluation of Performance via Case Study, (with T. Georgiou, D. Asnaghi, A. Liang), *ASME Journal of Medical Devices*, September 2019; 13(3): 031007. doi: <https://doi.org/10.1115/1.4043976>.
- J-82 "Rolling Locomotion of Cable-Driven Soft Spherical Tensegrity Robots", (with K. Kim and A.K. Agogino), *Soft Robotics*, 2020.

- J-83 "Model-Predictive Control with Inverse Statics Optimization for Tensegrity Spine Robots," (with A. P. Sabelhaus, H. Zhao, E. Zhu, A.K. Agogino), *IEEE Transactions on Control Systems Technology*, **29** (1), Jan. 2021, pp. 263-277.
- J-84 "Inverse Statics Optimization for Compound Tensegrity Robots",," (with A. P. Sabelhaus, A. H. Li, K. Sover, J. R. Madden, A. Barkan, A.K. Agogino); accepted for publication in the *IEEE Robotics and Automation Letters* (RA-L), **5** (3), July 2020, pp. 3982-3989.
- J-85 "User-Centered Design Roadmapping: Anchoring Roadmapping in Customer Value before Technology Selection,"(with Euiyoung Kim, Lianne Simonse, Sara Beckman, Melissa Appleyard, Herb Velazquez, Antonio Madrigal). *IEEE Transactions on Engineering Management*, Nov 2020, doi: 10.1109/TEM.2020.3030172.
- J-86 "Framing and Tracing Human-Centered Design Teams' Method Selection: An Examination of Decision-Making Strategies," (with Vivek Rao, Euiyoung Kim, Jieun Kwon, Kosa Goucher-Lambert), *ASME Journal of Mechanical Design*, **143** (3), March 2021. (Revised journal version of P-212). DOI: <https://doi.org/10.1115/1.4049081>.
- J-87 "Where Do Professionals Find Sustainability and Innovation Value? Empirical tests of three sustainable design methods", (with J. Faludi and F. Yiu), *Design Science*, **6**, E22, 2020. doi:10.1017/dsj.2020.17.
- J-88 "Double-Helix Linear Actuators," (with Sabelhaus, A. P., Zampaglione, K., Tang, E., Chen, L., Agogino, A.K.), *ASME. J. Mech. Des.* Volume 143, Issue 10, May 2021.
- J-89
"Designing for Cervical Cancer Screening in Rural Nicaragua: A Case Study in the Informal Emergence of Complex Human-Centered Service Design', (with Julia Kramer, Vivek Rao), *International Journal of Design*, Volume, Issue 2, 2022.

Peer-Reviewed Foreign Language Journals

- FJ-1 "Topological Framework for Representing and Solving Probabilistic Inference Problems in Expert Systems," (with A. Rege), *Computer Systems and Control* (in Russian), Institute of Systems and Control, Soviet Academy of Science, Vol. 2, 1990, pp. 17-30. (Foreign translation of journal publication J-6).
- FJ-2 "Calibration of Fuzzy Linguistic Variables for Expert Systems," (with P. Jain), in *Computer Systems and Control* (in Russian), Institute of Systems and Control, Soviet Academy of Science, Vol. 3, 1990, pp. 37-45. (Foreign translation of conference proceedings paper P-12).

Peer-Reviewed Books or Book Chapters

- B-1 "Meta-Design: Reflections on a Graduate Course in Design Theory and Methodology," (with J. Cagan and M.J. Molezzi), *Design Theory '88*, (eds., S.L. Newsome, W.R. Spillers, and S. Finger) Springer-Verlag Publishers, 1989, pp. 18-28.

- B-2 "Reasoning about Mechanical Structures from First Principles," in *IMACS Transactions on Scientific Computation - 1988*, (with J. Cagan), ed. by J.M. David, R. Huber, J.P. Krivine and C. Kulikowski, Vol. 2: AI and Expert Systems in Scientific Computation, J.C. Baltzer AG, Scientific Publishing Company, Wettsteinplatz 10, CH-4058 Basel, Switzerland, pp. 91-98, 1989.
- B-3 "Real Time Influence Diagrams for Monitoring and Controlling Mechanical Systems," (with K. Ramamurthi) in *Influence Diagrams, Belief Nets and Decision Analysis* (ed., R.M. Oliver and J.Q. Smith), John Wiley & Sons, 1990, Chap. 9, pp. 199-228.
- B-4 "Inducing Optimally Directed Non-Routine Designs", (with J. Cagan) in *Modeling Creativity and Knowledge-Based Creative Design* (Gero, J.S. and M.L. Maher, eds.), Lawrence Erlbaum Associates, 1993, pp. 273-293.
- B-5 *Design for Manufacture: Reducing Life Cycle Costs While Improving Time to Market and Product Quality*, (Agogino, A.M., editor), ASME, DE-Vol. 51, 1992.
- B-6 *Information Technology (IT)-Based Educational Materials: Workshop Report with Recommendations*, National Academy Press, 2004. (Committee on Engineering Education)
- B-7 *The Engineer of 2020: Visions of Engineering in the New Century*, National Academy Press, 2004. (NAE Committee Report). <http://www.nap.edu/books/0309091624/html/>
- B-8 "Optimized Design of MEMS by Evolutionary Multi-objective Optimization with Interactive Evolutionary Computation," (with R. H. Kamalian and H. Takagi), *Lecture Notes in Computer Science*, Springer-Verlag GmbH ISSN: 0302-9743, vol. 3103, pp. 1030 - 1041, Feb., 2004. Archival version of P-87.
- B-9 "Implementation of Quality Evaluation for Web-based Courses and Digital Learning Resources," (with X. Teng, B. Muramatsu, J.W. Zhang, J.G. Tront, and F. McMartin), *Lecture Notes in Computer Science*, Eds., Wenyin Liu, Yuanchun Shi, Qing Li, Springer-Verlag GmbH, ISBN: 3-540-22542-0, vol. 3143, p. 379, 2004. Archival version of P-92.
- B-10 *Educating the Engineer of 2020: Adapting Engineering Education to the New Century*, National Academy Press, 2004. (NAE Committee Report). <http://www.nap.edu/books/0309096499/html/>
- B-11 "Evolutionary Synthesis of Micromachines Using Supervisory Multiobjective Interactive Evolutionary Computation", (with Kamalian, R., Y. Zhang, H. Takagi), *Lecture Notes on Artificial Intelligences*, Springer Berlin/ Heidelberg Publishers, Vol. 3830, 2006, pp. 428-437. Updated archival version of P-100.
- B-12 *Biological, Social and Organizational Components of Success for Women in Academic Science and Engineering*, National Academies Press, 2006. (Report of the Committee on Maximizing the Potential of Women in Academic Science and Engineering).
- B-13 *Beyond Bias and Barriers: Fulfilling the Potential of Women in Academic Science and Engineering*, National Academy Press, 2006. (NAE Committee Report). <http://newton.nap.edu/catalog/11741.html#toc>

- B-14 "Knowledge-Based Evolutionary Linkages in MEMS Design Synthesis", (with C. L. Cobb, Y. Zhang, and J. Mangold), book chapter in: *Linkage in Evolutionary Computation*, (Springer Berlin / Heidelberg, ISBN 978-3-540-85067-0) Volume 157/2008, pp. 461-483.
- B-15 "Gender Differences at Critical Transitions in the Careers of Science, Engineering and Mathematics Faculty," (co-authored with Committee on Gender Differences in the Careers of Science, Engineering, and Mathematics Faculty; Committee on Women in Science, Engineering, and Medicine; Committee on National Statistics), National Research Council, 2010.
- B-16 "Human Performance Modification: Review of Worldwide Research with a View to the Future," National Research Council, (co-authored as part of Committee on Assessing Foreign Technology Development in Human Performance Modification; Board on Behavioral, Cognitive, and Sensory Sciences; Division on Engineering and Physical Sciences; Division of Behavioral and Social Sciences and Education), National Research Council, 2012.
- B-17 "From Science to Business: Preparing Female Scientists and Engineers for Successful Transitions into Entrepreneurship: Summary of a Workshop," (co-authored with Committee on Women in Science, Engineering, and Medicine; Policy and Global Affairs), National Research Council, 2012.
- B-18 "Interactive Hybrid Evolutionary Computation for MEMS Design Synthesis, (with Y. Zhang), book chapter in *Lecture Notes in Electrical Engineering - Advances in Neural Network Research and Applications*, Springer, ISBN 978-3-642-12989-6, pp. 211-218 2012.
- B-19 Career Choices of Female Engineers, (CSWEM Committee Report of Workshop), National Academies Press, 2014.
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- R-96 Annual Report, "Expanding the Accessibility of NSDL for Mobile Learning," (with K. Ryokai), NSF, September 2009.
- R-97 Annual Report, NSF, "Collaborative Proposal: BPC-DP: Practices Aggregation, Infrastructure, and Retrieval Service for Broadening Participation in Computing (PAIRS)" (with Co-PIs), March 2010.
- R-98 Year 5 Annual Report for NSF Grant # DUE-0532922, "A Comprehensive Pathway for K-Gray Engineering Education", (with Co-PIs), June 2010.
- R-99 Annual Report, "Pilot: Meta4acle - A Software Tool for Generating Metaphors, Stimulating Creativity and Framing Solutions," NSF, July 2010.

- R-100 Annual Report, "Expanding the Accessibility of NSDL for Mobile Learning," (with K. Ryokai), NSF, September 2010.
- R-101 Annual Report, "Collaborative Research: Sustaining the Pathway for K-Gray Engineering Education," (with Co-PIs), September 2010.
- R-102 Final Report, NSF, "Collaborative Proposal: BPC-DP: Practices Aggregation, Infrastructure, and Retrieval Service for Broadening Participation in Computing (PAIRS)" (with Co-PIs), March 2011.
- R-103 Annual Report, "Pilot: Meta4acle - A Software Tool for Generating Metaphors, Stimulating Creativity and Framing Solutions," NSF, July 2011.
- R-104 Final Report for NSF Grant # DUE-0532922, "A Comprehensive Pathway for K-Gray Engineering Education", (with Co-PIs), September 2011.
- R-105 Annual Report, "Expanding the Accessibility of NSDL for Mobile Learning," (with K. Ryokai), NSF, September 2011.
- R-106 Annual Report, "Collaborative Research: Sustaining the Pathway for K-Gray Engineering Education," (with Co-PIs), September 2011.
- R-107 Final Report, "Invention and Innovation in New Product Development: Freshman/Sophomore, Junior/Senior, Graduate Course Sequence," (with Co-PI Sara Beckman), NCIIA grant, November 2011.
- R-108 Final Report, Center and Green IT for Native CARES (Native American Community Assessment for Renewable Energy and Sustainability), CITRIS Seed Grant, March 2012.
- R-109 Annual Report, "Pilot: Meta4acle - A Software Tool for Generating Metaphors, Stimulating Creativity and Framing Solutions," NSF, July 2012.
- R-110 Final Report, "Expanding the Accessibility of NSDL for Mobile Learning," (with K. Ryokai), NSF, September 2012.
- R-111 Final Report, "Collaborative Research: Sustaining the Pathway for K-Gray Engineering Education," (with Co-PIs), September 2012.
- R-112 Annual Report, "EAGER: TheDesignExchange: Characterizing, Mapping and Interacting with Industry on User-Focused Design Methods," NSF, June 2013.
- R-113 Final Report, "CNIC: U.S.-Danish Planning Visit for Research on Smart Products and People on the Smart Grid," NSF, June 2013.
- R-114 Final Report, (co-authored with student team) "inSense: User-centric Model Predictive Lighting Commissioning System", Max Tech and Beyond Design Competition for Ultra-Low-Energy-Use Appliances and Equipment (AY 2012-2013), June 2013.
- R-115 Final Report (co-authored with student team), "Human-Centric User Research to Identify Disruptive Opportunities in Convergent Paper and Digital Use", July 2013.

- R-116 Chez Panisse: Building an Open Innovation Ecosystem, (with Henry Chesbrough and Sohyeong Kim), Berkeley-Haas Case Series and also in the Harvard Business Review, 2014.
- R-117 Chez Panisse: Building an Open Innovation Ecosystem, (with Henry Chesbrough and Sohyeong Kim), California Management Review, Vol. 56, No. 4, Summer 2014, pp. 144-171.
- R-118 Final Report, "EAGER: TheDesignExchange: Characterizing, Mapping and Interacting with Industry on User-Focused Design Methods," NSF, June 2014.
- R-119 "Model Predictive Smart Lighting Commissioning System for Emerging Demand Management", EISG Final Report, California Energy Commission, August 2014.
- R-120 Annual Report, "TheDesignExchange, an Interactive Portal for the Design Community of Practice, (with S. Beckman and M. Yang), NSF, August 2014.
- R-121 "Impact-Testing the Integrity of 6-Strut Tensegrities," (with K. Fountain and L.-H. Chen). Poster presented at the 2015 E3S Summer REU (Research Experiences for Undergraduates) Poster Session, Berkeley, CA, Aug. 6, 2015.
- R-122 Annual Report, "TheDesignExchange, an Interactive Portal for the Design Community of Practice, (with S. Beckman and M. Yang), NSF, June 2015.
- R-123 Annual Report, "Precision Hopping/Rolling Robotic Surface Probe Based on Tensegrity Structures," (with A.K. Agogino), NASA, Oct. 2015.
- R-124 Annual Report, "TheDesignExchange, an Interactive Portal for the Design Community of Practice, (with S. Beckman and M. Yang), NSF, July 2016.
- R-125 Final Report (co-authored with student team), "Human-Centered Research to Explore Disruptive Opportunities with Flexible/Stretchable Wearables in the Internet of Things", August 2016.
- R-126 Annual Report, "Precision Hopping/Rolling Robotic Surface Probe Based on Tensegrity Structures," (with A.K. Agogino), NASA, December 2016.
- R-127 Final Report, "TheDesignExchange, an Interactive Portal for the Design Community of Practice, (with S. Beckman and M. Yang), NSF, July 2017.
- R-128 Final Report, "Beyond Smartphones, Emerging Stretchable/Flexible Wearables Exploration in the Era of the Internet of Things, Augmented/Virtual Reality, and Data Mining," August 2017.
- R-129 Interim Report for NSF: NRT-INFEWS: STEM Training for Actionable Research and Global Impact, August 2017.
- R-130 Annual Report, "Precision Hopping/Rolling Robotic Surface Probe Based on Tensegrity Structures," (with A.K. Agogino), NASA, December 2017.

- R-131 Interim Report for NSF: NRT-INFEWS: STEM Training for Actionable Research and Global Impact, August 2018.
- R-132 Annual Report, "Precision Hopping/Rolling Robotic Surface Probe Based on Tensegrity Structures," (with A.K. Agogino), NASA, December 2018.
- R-133 Final Report, "Precision Hopping/Rolling Robotic Surface Probe Based on Tensegrity Structures," NASA, January 2019.
- R-134 Interim Report for NSF: NRT-INFEWS: STEM Training for Actionable Research and Global Impact, August 2019.
- R-135 Interim Report for Center for Long-Term Cybersecurity, William and Flora Hewlett Foundation: Design of Secure Future Mobility Solutions (December 2020). R-133 Interim Report for NSF: NRT-INFEWS: STEM Training for Actionable Research and Global Impact, August 2019.
- R-136 Interim Report for NSF: NRT-INFEWS: STEM Training for Actionable Research and Global Impact, August 2019.
- R-137 Interim Report for NSF: NRT-INFEWS: STEM Training for Actionable Research and Global Impact, August 2020.
- R-138 Interim Report for NSF: NRT-INFEWS: STEM Training for Actionable Research and Global Impact, August 2021.
- R-139 Interim Reports for NSF: Broadening Career Pathways in Food, Energy, and Water Systems (FEWS) with and within Native American Communities (Native FEWS Alliance), August 2021.
- R140 Interim Report for NSF: NRT-INFEWS: STEM Training for Actionable Research and Global Impact, August 2022.
- R141 Interim Reports for NSF: Broadening Career Pathways in Food, Energy, and Water Systems (FEWS) with and within Native American Communities (Native FEWS Alliance), August 2022.
- R142 Final Report for NSF: NRT-INFEWS: STEM Training for Actionable Research and Global Impact, August 2023.
- R143 Interim Report for NSF: Broadening Career Pathways in Food, Energy, and Water Systems (FEWS) with and within Native American Communities (Native FEWS Alliance), August 2023.

Courseware (Instructional Software)

- CW-1 "The 1991 Human Powered Vehicle: A Multimedia Case Study in Engineering Design," (with S. Hsi), Multimedia Multidisciplinary Case Studies CD ROM, Synthesis Coalition 1993 (v. 1.0).
- CW-2 "The IBM Proprinter: A Multimedia Case Study in Engineering Design," (with J. Evans), Multimedia Multidisciplinary Case Studies CD ROM), Synthesis Coalition, 1993 (v. 1.0), 1995 (v. 2: http version).

- CW-3 "Blockstacking," (with S. Hsi and M. C. Linn), Multimedia Multidisciplinary Case Studies CD ROM, Synthesis Coalition, 1993 (v. 1.3).
- CW-4 "Mattel Color Spin: A Multimedia Case Study in Engineering Design," (with A. Varma), Multimedia Multidisciplinary Case Studies CD ROM, Synthesis Coalition, 1993 (v. 0.75), 1995 (v. 1.0: http version).
- CW-5 "Saturn Automobile: A Multimedia Case Study in Engineering Design," (with I. Zook), Multimedia Multidisciplinary Case Studies CD ROM, Synthesis Coalition, 1993 (v. 0.75), 1995 (v. 1.0: http version).
- CW-6 "Cyclone Grinder: A Multimedia Case Study in Engineering Design," (with C. Carlstrom), Multimedia Multidisciplinary Case Studies CD ROM, Synthesis Coalition, 1993 (v. 0.75), 1995 (v. 1.0: http version).
- CW-7 "Disk Drive Case Study," (with S. Nagaraj), Synthesis Coalition, 1995 (v. 0.5).
- CW-8 "Motor Tutorial," (with Z. Huang), Synthesis Coalition, 1995 (v. 1.0).
- CW-9 "Display Object," (with J. R. Osborn), Synthesis Coalition, 1996 (v. 1.43).
- CW-10 "Virtual Disk Drive Design Studio," (with D. Yu), CD ROM, Synthesis Coalition, 3112 Etchevery Hall, UC Berkeley, 1997 v. 1.0b5. Winner of a 1997 Premier Courseware Award for instructional software, 1997.
- CW-11 "People, Product and Strategies," on the NEEDS Database; v. 3, 1998.
- CW-12 "Matlab Extensions to the Virtual Disk Drive Design Studio," (with Rebecca Richkus and David Tang), 1999.

Published Invited Talks

- T-1 "Integrating Design and Manufacturing Education within Broader Societal Goals," Testimony to the House of Representatives, Committee on Science, Space, and Technology, May 12, 1992. (Published in the *Congressional Record*).
- T-2 "Improving Retention through Curricular Reform, *Proceedings of the Engineering Education: Curriculum Innovation and Integration*, (eds., E. Aung and S. Carmi, Jan. 5-10, 1992, Santa Barbara, CA), Engineering Foundation, pp. 27-32.
- T-3 "The Synthesis Coalition: Information Technologies Enabling a Paradigm Shift in Engineering Education," (with W.H. Wood), Keynote talk, *Proceedings of Hyper-Media in Vaasa'94*, Vassa Finland, pp. 3-10.
- T-4 "The National Engineering Delivery System (NEEDS): A Multimedia Digital Library of Courseware," (with B. Muramatsu), *Proceedings of the 1996 ASEE International Conference on Engineering Education and Practice*, ASEE CD-ROM, 1996.
- T-5 "Information in the Design Process," *Proceedings of the Frontiers of Engineering: Reports on Leading Edge Engineering Research*, National Academy of Engineering, Sept 19-21. 1996, pp. 13-16.
- T-6 "Concepts for the SMETE (Science, Mathematics, Engineering, Technology Education) Library," *Report of the NSF Science, Mathematics, Engineering, and Technology Education Library Workshop* (July 21-23, 1998), NSF 99-112, pp. 32-33.
- T-7 "Invited Panel - Engineering and Computer Science Education in the Era of Globalization", (with Ted E. Batchman, Frank Bullen, Leah H. Jamieson, Wayne C. Johnson and Arthur B. Western), Extended Abstract in *Proceedings of the Frontiers in Education Conference 2005*, ASEE/IEEE, Session F2B (October 19-22, 2-5, Indianapolis, IN).
- T-8 "Finding One's Way," Keynote talk at Mudd Design Workshop, May 2011. Published in the *International Journal of Engineering Education*, Special Issue on Design Education: Innovation and Entrepreneurship, Vol. 28, No. 2, 2012, pp. 249-250.

Unpublished Invited Talks

- U-1 "1stPRINCE: Innovative Design from First Principles," (with J. Cagan) presented at AAAI88 AI in Design Workshop, Fall 1988.
- U-2 "Deterministic Monotonic Influence Diagram," (with N. Michelena), presented at the 1989 TIMS/ORSA meeting, NY, Fall 1989.
- U-3 "Comments on *The Competitive Edge: Research Priorities for U.S. Manufacturing and Improving Engineering Design: Designing for the Competitive Advantage*," Manufacturing Studies Board, National Research Council, National Academy of Sciences Building, Washington, D.C., July 16, 1991.

- U-4 "Women, Engineering and Project Synthesis," Committee on the Role and Status of Women in EDUCOM, San Diego, California, Oct. 17, 1991.
- U-5 "The National Science Foundation Engineering Education Coalitions," ASEE Pacific Southwest Section Annual Meeting and Conference, UC Berkeley, Oct. 24, 1991.
- U-6 "Synthesis: An NSF Coalition to Improve Undergraduate Engineering Education and Develop a National Engineering Education Delivery System," MacSciTech Scientific and Engineering Applications of the Macintosh Technical Conference & Exposition, Sir Francis Drake Hotel, San Francisco, California, Jan. 15-17, 1992.
- U-7 "Synthesis Coalition," (with A.P. Ingraffea and T. Henderson), National Science Board, Education Committee, NSF Headquarters, March 19, 1992.
- U-8 "Integrating the Undergraduate Engineering Curriculum," ASME International Conference, Honolulu, Hawaii, April 5-8, 1992.
- U-9 "The Impact of Demographic Change on Students Engineering and Graduating From Engineering Programs," 44th California Symposium on Transportation Issues, Oakland Airport Hilton, May 14, 1992.
- U-10 "Integrating Science and Technology Education and Research," Statement before the President's Council of Advisors on Science and Technology (PCAST), University of California at Berkeley, July 15, 1992.
- U-11 "Multimedia Case Studies Project of the Synthesis Coalition," Computing: The Transformation of Engineering Exhibits, National Academy of Engineering Annual Meeting, National Academy of Sciences Building, Washington, D.C., Sept. 29-30, 1992.
- U-12 "Multimedia Case Studies of Design in Industry," (with J. Evans), presented at ASME Design Theory and Methodology '93 Conference, Albuquerque, New Mexico, Fall 1992.
- U-13 "A Networked Multimedia Courseware Database for Engineering Education," Keynote talk at TBEEC '93 (Technology Based Engineering Education Conference), Santa Fe, New Mexico, Nov. 19-20, 1993.
- U-14 "The Role of Multimedia in Design Education and Research," Overview for '94 DTM, American Society of Mechanical Engineers, Minneapolis, MN, Sept. 11-14, 1994.
- U-15 "Engineering Education for 2020 and Beyond," Workshop on Systematic Engineering Education Reform: An Action Agenda, Sponsored by the National Science Foundation, Arlington Renaissance Hotel, Arlington, Virginia, July 11, 1995.
- U-16 "National Engineering Education Delivery System (NEEDS)," Workshop on Re-Engineering Education, Rensselaer Polytechnic Institute, Troy, NY, Aug. 22, 1995.
- U-17 "NEEDS - The National Engineering Education Delivery System, 1995 NTU Engineering Faculty Forum, Satellite Broadcast, October 10, 1995, 1-2 p.m. PDT (video tape available).

- U-18 "Multimedia Case Studies to Teach Engineering Design/ Digital Library of Engineering Courseware," Presentation to UC Regents, Oct. 19, 1995.
- U-19 "Information Technologies Enable a Paradigm Shift in Engineering Education," International Symposium on Engineering Education and Evaluation, Osaka, Japan, Nov. 27, 1995.
- U-20 "Reforming Undergraduate Engineering," plenary lecture at the UC Science, Engineering and Mathematics Education Conference, Arnold and Mabel Beckman Center of the National Academies of Science and Engineering, Jan. 26-27, 1996.
- U-21 "Multimedia and Internet: Enabling New Modes of Learning," Chancellor's Forum, Feb. 2 1996.
- U-22 "Engineering Education: Can we Make Changes," (with Joseph Bordogna, Assistant Director of Engineering, NSF; John H. McMasters, Senior Principal Engineer, Boeing Commercial Airplane Group; Winfred M. Phillips, Dean, College of Engineering, University of Florida and President of Accreditation Board for Engineering and Technology), The Annual Convocation of Professional Engineering Societies and the National Academy of Engineering, National Academy Building, Washington D.C., May 21, 1996.
- U-23 "Synthesis Coalition Initiatives in Mechanical Engineering at U.C. Berkeley," Workshop on Mechanical Engineering Undergraduate Education for the Next Twenty Years, Royal Sonesta Hotel, Cambridge, Massachusetts, Oct. 8, 1996.
- U-24 "Instructional Technology and the Use of the WWW for Improving K-12/Undergraduate Education," UC President Atkinson's visit to UC Berkeley campus, Nov. 21, 1996.
- U-25 "Research on Distributed Intelligence: Sensor Fusion and Design Information Environments," NSF Director Neal Lane's visit to the UC Berkeley campus, Dec. 5, 1996.
- U-26 "Integration of Research and Education," (with Angelica Stacy, Prof. of Chemistry), NSF Director Neal Lane's visit to the UC Berkeley campus, Dec. 5, 1996.
- U-27 "Multimedia and Internet Enabling New Modes of Learning in K-14," Colloquium on Using the Internet for Instruction and Outreach, January 14, 1997.
http://www1.needs.org/~agogino/IU/IU.presentation_ToC.html
- U-28 "A Multimedia Digital Library of Courseware, 1997 Berkeley Multimedia Research Center," Retreat on New Media Teaching and Learning Techniques, Berkeley, California, January 15-16, 1997.
- U-29 "Issues in Engineering Education," National Academy of Engineering, Commission on Engineering and Technical Systems, Arnold and Mabel Beckman Center, Irvine, California, Feb. 11, 1997.

- U-30 "Research on Distributed Intelligent Systems: Information Value Theory Applied to Mechatronic Design," Industrial Liaison Program, College of Engineering, UC Berkeley, March 12, 1997.
- U-31 "Synthesis Coalition: Multimedia and the Internet Enabling New Modes of Learning," (with Brandon Muramatsu, NEEDS Project Manager), 1997 All University Conference on Teaching and Learning, Los Angeles, California, March 24-25, 1997.
- U-32 "Effective Processes to Give Engineering Educators Easy Access to Quality-Reviewed Electronic Courseware," (with B. Muramatsu, P. Eibeck, and J. Stern), Engineering Education Innovators' Conference, Arlington, Virginia, April 7, 1997.
- U-33 "Music and Mechanics: Instructional Technology on Display," UC Alumni Legislative Conference, Sacramento, California, April 15, 1997.
- U-34 "Internet and Multimedia Enabling New Modes of Learning and Outreach to K-12," Keynote Speaker at the UC Technology & Outreach Conference, UC Irvine, May 21, 1997.
- U-35 "Instructional Technology and Distance Learning at Cal," presentation at Cal Parents' Weekend, Sept. 27, 1997.
- U-36 "The Synthesis Coalition's Assessment Strategy", NACME Forum '97: Crisis and Commitment — Engineering Strikes Back, Seattle, WA., Oct. 3, 1997.
- U-37 "The Future of Instructional Technology at Berkeley: CCCPB-IT Committee's Goals", Berkeley Multimedia Research Center Retreat, Jan. 12-13, 1998.
- U-38 "The Synthesis Coalition's Curricular Innovations for the Freshman Year," (with Edgar Blevins), NSF Engineering Coalitions Conference, Feb. 27-28, 1998, Orlando, FL.
- U-39 "Intelligent Computer-Aided Mechatronic/MEMS Design," talk at UC Berkeley ILP '98, March 11, 1998.
- U-40 Discussant, Center for Innovative Learning Technologies Panel, AERA (American Educational Research Association), April 13, 1998.
- U-41 "Engineering Education Goes Multimedia", (with B. Muramatsu), talk at Cal Day '98 (April 18, 1998).
- U-42 "Interactive MESA", Interactive MESA Seminar, April 23, 1998.
- U-43 "Post-Proposition 209: Admissions, Outreach and Student Services for Underrepresented Engineering Students", Engineering Advisory Board meeting, May 19, 1998. Also presented at the Berkeley Engineering Fund, Board of Directors, June 3, 1998.
- U-44 "The Concept Database: A Web-based Design Information System for Mechatronics and MEMS Design," Harbin Institute of Technology, China, June 10, 1998.

- U-45 "Multimedia Case Studies of Engineering Design: Synthesis Engineering Education Innovations," Harbin Institute of Technology, China, June 11, 1998.
- U-46 "Diversity in Engineering Education", talk for the NSF New Century Scholars Workshop at Stanford University, Aug. 6, 1998.
- U-47 "Educational Technology and Distance Learning at UC Berkeley," Invited presentation to Chancellor Berdahl and distinguished visitors from Saudi Arabia, Nov. 30, 1998.
- U-48 "CCCPB – IT Committee Goals for 1998-99," Berkeley Multimedia Research Center Retreat, Jan. 14, 1999.
- U-49 "Overview of Instructional Technology on Campus" and "Use of Instructional Technology in the School of Engineering," Undergraduate Affairs Leadership Meeting, March 15, 1999.
- U-50 "Balancing Work and Family", panel speaker at the NSF New Century Scholars Workshop at Stanford University, Aug. 5, 1999.
- U-51 "Visions for a Digital Library for Science, Mathematics, Engineering and Technology Education (SMETE), Fourth ACM Conference on Digital Libraries, Berkeley, CA, Aug. 11-14, 1999.
- U-52 "A National Digital Library for Science, Mathematics, Engineering, and Technology Education," Educause '99, Teaching and Learning Poster Session, Oct. 27, 1999.
- U-53 "Using the National Engineering Education Delivery System as the Foundation for Building a Test-Bed Digital Library for Science, Mathematics, Engineering and Technology Education," (with Flora McMartin), NSF Digital Library Initiative 2 Meeting, Cornell University, Oct. 17-18, 1999.
- U-54 "Teaching, Learning and Libraries on Internet Time," Society of Women Engineers – Evening with Industry, Nov. 19, 1999, Berkeley, CA.
- U-55 "Teaching, Learning and Using Libraries on Internet Time," Coalition for Networked Information, Phoenix, Arizona, Dec. 14, 1999.
- U-56 "A Prototype National Digital Library for Science, Mathematics, Engineering and Technology Education", TechEd 2000, Las Vegas, Nevada, March 7, 2000.
- U-57 "Information Technology and the Digital Divide" at the Berkeley Pledge Spring Roundtable for Academic Support and Enrichment Services, "Student Services and New Technology: Time to Get Real!" May 4, 2000.
- U-58 "Developing a Prototype National Digital Library for Science, Mathematics, Engineering and Technology Education," NSF DLI All-Projects Meeting, June 12-13, 2000.
- U-59 "A National Digital Library for Science, Mathematics, Engineering and Technology Education," International Conference at Stratford-upon-Avon, England, Coalition for Networked Information, 2000.

- U-60 "Women in Engineering — 21st Century", International Forum on Women in Engineering and Science, World Engineers' Convention, 19-21 June 2000, Hannover, Germany. (Invitation by German government and AAAS).
- U-61 "A National Digital Library for Science, Mathematics, Engineering and Technology Education," Gordon Conference on Innovations in College Chemistry Teaching, Clarion Ventura Beach Hotel, Jan. 6-11, 2001.
- U-62 "Demystifying Copyright and 'Fair Use' for Teaching," (with Brian Donohue and Gary Handman), UC Berkeley, March 13, 2001.
- U-63 "Women in Academia," Women's Faculty Club, UC Berkeley, March 22, 2001.
- U-64 "Demonstrating the Core Integration System for the National SMET Education Digital Library," (with Andy Dong), Information Access Seminar, School of Information Management & Systems, UC Berkeley, March 23, 2001.
- U-65 "Demonstrating the Core Integration System for the National SMET Education Digital Library," Coalition for Networked Information, April 9, 2001, Washington, D.C.
- U-66 "Gender and Science/Technology Digital Learning Resource Workshop", (with O. Somolui), Association of Women in Science, 2001 (abstract published in AWIS Magazine, Vol. 31, No. 1, pp. 13-14).
- U-67 "Successful Partnering" at the "Forging Library Partnerships in the Networked Age," (with L. Zia), Clark Kerr Campus, UC Berkeley, Nov. 2, 2001.
- U-68 "Evolutionary Synthesis of MEMS Design and Applications", Distinguished Lecturer Series, Mechanical Engineering Department, University of Maryland, college Park, Feb. 19, 2002.
- U-69 "Gender Bias in Faculty Hiring, Retention and Promotion", University of Maryland, Baltimore County, Feb. 20, 2002.
- U-70 Testimony to California State Senate Select Committee on Government Oversight: "A Hearing to Assess Progress Made by the University of California to Reduce Gender Disparity in Faculty Hiring", March 11, 2002.
- U-71 Testimony to California State Senate Select Committee on Government Oversight: "A Hearing to Assess Progress Made by the University of California to Reduce Gender Disparity in Faculty Hiring", Feb. 19, 2003.
- U-72 "Engineer of 2020: Visions of Engineering Work and Education in the New Century," Keynote talk to the Engineering Directorate, Lawrence Livermore National Laboratory as part of the *Engineering Opportunities in the 21st Century Conference*, March 12, 2003.
- U-73 "Engineer of 2020: Visions of Engineering Work and Education in the New Century," Mechanical Engineering Departmental Seminar, Spring 2003.
- U-74 "Computer Aided Design for Microelectronic Mechanical Systems (MEMS): Designs that Learn From Nature", Lecture for E92: Perspectives in Engineering, Oct. 27, 2003.

- U-75 "Research on Educational Digital Libraries," Stanford University, Center for Design Research, Dec. 10, 2003.
- U-76 "Creativity in the Innovation Process," ITRI Researchers, 290 HMB, Dec. 17, 2003.
- U-77 "National Academy of Engineering – Engineer of 2020," Plenary Speaker, ASME Department Heads Conference, March 5-9, 2004.
- U-78 "Engineer of 2020: Women Engineers in the New Century," Women in Science and Engineering Seminar, Foothill Residence Halls, March 11, 2004.
- U-79 "Design Theory & Methods: a Mechanical Engineering Perspective," Berkeley Institute of Design, May 14, 2004.
- U-80 "Ubiquitous Wireless Infrastructure to Support Mobile Learning," HP/CITRIS 2004 Workshop on Planetary-Scale Applications, Wed., May 26, UC Berkeley.
- U-81 "Development and the Design Process", Engineers for a Sustainable World Internship Training, West Coast Session, June 17, 2004.
- U-82 "Review of Engineer 2020: Phase I Report", National Academy of Engineering, July 22, 2004.
- U-83 "Engineer 2020 NAE Project: Implications for ABET", ABET Industry Advisory Board meeting, August 27, 2004.
- U-84 "The Engineer of 2020: Global Visions of Engineering in the New Century," Keynote Address to the SOMIM (Mexican Society of Mechanical Engineering) Conference, August 2004.
- U-85 "New Product Development: A UC Berkeley Perspective," Universidad Nacional Autonoma de Mexico (UNAM), September, 2004.
- U-86 "The Engineer of 2020: Global Visions of Engineering in the New Century," Keynote Address Georgia Tech Advisory Board (GTAB), October 2004.
- U-87 "Automating Keyphrase Generation for Text Document Collections," (with Jia-Long Wu and William H. Wood), Poster Session, NSDL Grantees Meeting, November 2004.
- U-88 "The Next Phase of NAE's Engineer of 2020 Project: Preparing Engineers for the Future", Mechanical Engineering Conference, March 11-15, 2005, San Diego, California.
- U-89 "The Engineer of 2020 Project: Global Visions of Engineering in the New Century," Colloquium, Department of Mechanical Engineering, March 18, 2005, UC Riverside, Riverside, California.
- U-90 "The Engineer of 2020", presented at The Jasper Summit – Consulting Engineering: the Next 15 Years, Association of Consulting Engineers of Canada, June 23-25, 2005, Jasper, Alberta.

- U-91 "Engineering Education – Present and Future", panel, National Science Board Workshop on "Engineering Workforce Issues and Engineering Education: What are the Linkages", October 20, 2005, M.I.T.
- U-92 "The Engineer of 2020: Global Visions of Engineering Practice and Education," Corporate Technical Fellows Meeting, Bechtel Engineering San Francisco Offices, March 2, 2006.
- U-93 "Women in Engineering in the Year 2020: Possible, Probable, and Preferable Scenarios," Stanford University, March 9, 2006.
- U-94 "Customer/Community-Based Design", Presented at class on Design for Sustainable Communities, Spring 2006. Download slides on Customer/Community-Based Design.
- U-95 "Technology, Pedagogy and Design: Global Visions for the New Century", June 1, 2006, University of Michigan.
- U-96 Tribute to Chancellor Denise Denton, June 29, 2006 University of Santa Cruz. I was asked to provide a tribute to Chancellor Denton's technical and professional accomplishments at the USC-sponsored memorial.
- U-97 "Is Science Color-Blind?", Keynote Talk to the 2006 Summer Research Symposium: University of California, Berkeley's Leadership Excellence through Advanced Degrees Program & the NSF California Alliance for Minority Participation in the Sciences Program, August 10, 2006.
- U-98 "Understanding Women in Universities Around the Globe: Perspective from the University of California at Berkeley" (with M.A. Mason and A. Stacy). Presentation at the International Alliance of Research Universities (IARU), a consortium of 10 research-intensive institutions on four continents, September 9, 2006, St. Johns College, University of Cambridge, U.K.
- U-99 "Beyond Bias and Barriers: Women in Academic Science and Engineering". Presentation and discussion with the Society of Women in the Physical Sciences, Le Conte Hall, UC Berkeley, Oct. 10, 2006.
- U-100 "Beyond Bias and Barriers: Women in Academic Science and Engineering". Presentation and discussion at a campus-wide symposium at the University of Texas at Austin. Sponsored by the Office of the Provost, the Center for Women's and Gender Studies, Faculty Women's Organization, Women in Engineering, and Women in the Natural Sciences, Jan. 30, 2007.
- U-101 "Design for Sustainable Communities: User Needs", Presented at class on Design for Sustainable Communities, Spring 2007. Download slides on Customer/Community-Based Design.
- U-102 "K-12 Resources in the NSDL Engineering Pathway," AAAS Annual Meeting, Feb. 16, 2007.
- U-103 "Higher Education Resources in the NSDL Engineering Pathway," AAAS Annual Meeting, Feb. 17, 2007.

- U-104 "Women and Men in the Academy: Beyond Bias and Barriers", Yale University, April 12, 2007.
- U-105 "Beyond Bias and Barriers: Fulfilling the Potential of Women in Academic Science and Engineering," Smith College, April 13, 2007.
- U-106 "Beyond Bias and Barriers: Fulfilling the Potential of Women in Academic Science and Engineering," APS (American Physical Society), April 15, 2007.
- U-107 "Interactive Evolutionary Computation for MEMS Design", Industrial Engineering Seminar, University of Oklahoma, April 20, 2007.
- U-108 "Educating the Engineer of 2020", College of Engineering Seminar, University of Oklahoma, April 20, 2007.
- U-109 Invited talk at the APS (American Physical Society) workshop titled: *Gender Equity: Strengthening the Physics Enterprise in Universities and National Laboratories*, Maryland, May 6, 2007.
- U-110 "Engineer of 2020 and the Gathering Storm", Opening Panel, Mudd Design Workshop VI , "Design and Engineering Education in a Flat World," 23 May 2007.
- U-111 "Teaching Women Engineering", ASME Think Tank Summit, June 10, 2007.
- U-112 "Engineering Pathway Education Digital Library", ABET Workshop at ASEE Annual Meeting, June 24, 2007.
- U-113 Tront, J., A.M. Agogino and B. Muramatsu, "Selecting and Evaluating Digital Learning Materials for Engineering and Pre-Engineering Education", Workshop at ASEE Annual Meeting, June 24, 2007.
- U-114 "Women and Men in the Globalizing University: Mapping Gender in University Data", Yale University, April 21, 2008.
- U-115 "Design for Sustainable Communities: User Needs," ER291-002/E 298A: Design for Sustainable Communities, (Dr. Ashok Gadgil), UC Berkeley, Spring 2008. Download Slides
- U-116 "Human-Centered Sustainable Product Design," Northwestern University, April 22, 2008.
- U-117 "Educating Engineers for a Flat World: Implications Across the Academy," Presidential Talk, Northwestern University, April 22, 2008.
- U-118 "Sustainable Product Design Using Project Based Learning", One week short course (20 segments) taught in India as part of the IUCEE project: Indo-US Collaboration for Engineering Education. Mysore, India, July 2008. (Download slides and links).
- U-119 "Interdisciplinary Opportunities for Women" (download slides). Panel on "A look into the future and the increasing complexity of interdisciplinary careers" at the National Academies Workshop From Doctorate to Dean or Director: Sustaining Women through

Critical Transition Points in Science, Engineering, and Medicine September 18-19, 2008, Washington, DC.

- U-120 "Enabling the Adoption of ICT for Sustainable Business Transformations," Sustainable Innovations Workshop, HP Labs, October 20, 2008.
- U-121 "The Challenge of a Responsible Supply Chain," Symposium on Sustainability in Business, Science and Policy, Presidents' Circle, National Academies, Google Auditorium, November 6, 2008.
- U-122 "CARES, Community Assessment for Renewable Energy and Sustainability: CARES Collection on the Engineering Pathway", Dar Al Hekma College, Saudia Arabia, January 6, 2009. Download slides.
- U-123 "Designing Technology for Girls and Women", Dar Al Hekma College, Saudia Arabia, January 6, 2009. Download slides.
- U-124 "Sustainable Product and Building Design", Dar Al Hekma College, Saudia Arabia, January 6, 2009. Download slides.
- U-125 "Research to Support the Development of a Sustainability Engineering Infrastructure in the Kingdom of Saudi Arabia", (with Nezar Alsayyad, Ryan Shelby, and Yael Perez), Poster Session, University of California at Berkeley, January 2009.
- U-126 "How to use the NAE Grand Challenges to Change the Diversity in the ME Discipline?" invited speaker at the 2009 International Mechanical Engineering Education Conference. http://www.asme.org/Education/College/Faculty/2009_Proceedings.cfm
- U-127 "Beyond Bias and Barriers: Fulfilling the Potential of Women to Meet the Grand Challenges of Engineering", SWE (Society of Women Engineers) Regional Awards Banquet, May 2009, University of California at Berkeley.
- U-128 "John McMasters - A Legacy of Sustaining Innovations in Biomimetic Aircraft Design and Engineering Education", Mudd Design Workshop VII, May 29, 2009.
- U-129 Keynote Talk at the WIRES (Connecting Women and Completing the Circuit of International Research Collaboration) Conference, June 3, 2009, Barcelona Spain.
- U-130 "CARES, Community Assessment for Renewable Energy and Sustainability," June 25, 2009, presentation to the Jordan, Renewable Energy Group, State Department arranged visit to UC Berkeley.
- U-131 "Green Hat & Engineering Pathway", (with K. Ryokai and L. Oehlberg), Session on Mobile & Augmented Reality Cyberlearning at the Cyberlearning Tools for STEM Education Conference, March 8, 2011, Berkeley, California. Green Hat was one of the mobile learning programs highlighted in the PBS KQED coverage: Video Games and Simulations Bring Science to Life, KQED, March 10, 2011.
- U-132 "Distributed AI and Sustainable Design: Smart Products for the Smart Grid", Keynote Presentation at the AAAI 2011 Spring Symposium on Artificial Intelligence and Sustainable Design. News story: A Role for Artificial Intelligence in Sustainable Design.

- U-133 "Greening The Internet of Things: Smart Products in a Smart Grid", Distinctive Voices talk at the National Academy of Engineering by Alice M. Agogino, August 2011.
- U-134 "Smart People, Products and Buildings on the Smart Grid: Case Study in Smart Lighting," Tyndall Research Center, Cork, Ireland, June 2012.
- U-135 "Communities that Enable Smart People, Products and Buildings on the Smart Grid," Panel on Nurturing the Computational Sustainability Community, 3rd International Conference on Computational Sustainability, July 4-6, 2012.
- U-136 "Enabling Smart People, Products and Buildings on the Smart Grid," 3rd International Conference on Computational Sustainability, July 4-6, 2012.
- U-137 "Human-Centered Design for Sustainability," presentation to UNESCO, Paris, France, August 22, 2012.
- U-138 "Innovations in Context: Longitudinal Study of Alumni from a Multidisciplinary New Product Development Course," presentation to Frontiers of Engineering Education, National Academy of Engineering, Beckman Center, Irvine, CA, October 15, 2012.
- U-139 "Greening The Internet of Things: Smart Products in a Smart Grid," Distinguished Lecture, Singapore Institute of Design and Technology, Singapore, November 9, 2012.
- U-140 "Human-Centric User Research to Identify Disruptive Opportunities in Convergent Paper and Digital Use," Samsung Innovation Center, San Jose, CA, June 13, 2013.
- U-141 "Human-Centric User Research to Identify Disruptive Opportunities in Convergent Paper and Digital Use," Inria Saclay Ile-de-France Research Center, École Polytechnique Université, Paris-Sud, France, June 26, 2013.
- U-142 "History of Wicked Problems – Working with Horst Rittel on Interdisciplinary Design," Wicked Problems in Socio-Ecological Systems: Symposium and Workshop, Oct. 26-27, 2013, Berkeley, CA.
- U-143 "Sustainable Tribal Buildings and Renewable Energy Systems," CITRIS (Center for Information Technology in the Interest of Society) Research Exchange Seminar, Oct. 30, 2013, Berkeley, CA.
- U-144 Member, kick-off panel at Oakland's first Global Sustainability Jam, Nov. 23, 2013. The Jam is a non-profit activity organized by an international network of service and sustainability designers.
- U-145 Valuing Design, Spring Design Innovation Seminar Series, College of Engineering, UC Berkeley, May 2, 2014.
- U-146 Awardee and Keynote Speaker at Assemblymember Nancy Skinner STEM Women of the Year, June 26, 2014.

- U-147 "The Value of Design on Innovation", Roundtable Discussion, CEOs of InBeta Group, Brazil, July 16, 2014.
- U-148 "Framing Insights from Design Research", Lecture to engineers, designers and marketing, InBeta Group, Brazil, July 16, 2014.
- U-149 "Can Sustainable Design Drive Innovation, Reduce Costs and Increase Quality?", Innovation, Competitiveness and Design (ICS), Brazil, July 17, 2014.
- U-150 "Greening the Internet of Things: Smart Products in a Smart Grid", Innovation, Competitiveness and Design (ICS), Brazil, July 18, 2014.
- U-151 "Development Engineering", TechCon 2014: University Innovators Transcend Academic Silos to Present Cutting-Edge Collaborations for Global Development.
- U-152 "How Sustainable Design Can Drive Innovation Globally", Engineers for a Sustainable World, UC Berkeley, February 4, 2015.
- U-153 "Development Engineering: Graduate Academic Programs Start Up in the Center", Board of Trustees, Blum Center for Developing Economies April 20, 2015.
- U-154 "Soft Robots Using Compliant Tensegrity Structures and Soft Sensors", (with Chen, L.-H., P. Keegan, M. Yuen, R.K. Kramer, A.K. Agogino and V. Sunspirai) ICRA Workshop on Soft Robotics, Abstract.
- U-155 "Seeking Solutions: Maximizing American Talent by Advancing Women of Color in Academia", ASEE Panel (with Valerie E. Taylor [Chair], Edward Lazowska, Lydia Vila-Komaroff), June 16, 2015.
- U-156 "National Academies Report on Career Choices of Women Engineers", ASEE Distinguished Lecture, June 17, 2015.
- U-157 "Tensegrity Robots for Space Exploration," Bay Area Robotics Symposium (BARS), Oct. 23, 2015.
- U-158 BiD, Wicked Problems & Design Thinking," Talk at the 10th anniversary reunion of the Berkeley Institute of Design, UC Berkeley, De. 9, 2015.
- U-159 "Improving Innovation with Diversifying Engineering Career Choices," Keynote Speaker for National Engineers Week, Society of Women Engineers, Willamette Valley, Feb. 22, 2016.
- U-160 "Valuing Design," Seminar, School of Mechanical, Industrial and Manufacturing Engineering, Oregon State University, Feb. 23, 2016.
- U-161 "From Mobiles to Drones: The Next Leapfrog Technologies", Panel at the Clinton Global Initiative University (CGI U), April 2, 2016.
- U-162 "Introduction to FoodInno2016", Berkeley-Stanford Food Innovation & Design Symposium, (with L. Leifer), May 2016.

- U-163 "Precision Hopping/Rolling Robotic Surface Probe Based on Tensegrity Structures," (with A.K. Agogino), NASA Tensegrity and Soft Robotics Technical Exchange, NASA Ames, Intelligent Systems Division, July 14, 2016.
- U-164 "Tensegrity Robots with BEST Robotics", Summer Fun Weeks, Lawrence Hall of Science, Aug. 3 2016.
- U-165 "Development Engineering: Actionable Research and Global Impact," Keynote Speaker, Engineering for Global Development Research Forum, ASME International Design Engineering Technical Conference, Aug. 23, 2016.
- U-166 "Entrepreneurial Mindset", (with Ilya V. Avdeev and Leticia Britos Cavagnaro), 2016 Symposium: 21st Century Mindsets and Strategies for Career Advancement, Minority Faculty Development Workshop (MFDW16), UC Berkeley, Sep. 23, 2016.
- U-167 "Development Engineering: Actionable Research and Global Impact," Tata Center, M.I.T., Nov. 10, 2016.
- U-168 InFEWS (Innovations in Food, Energy, Water, Systems): A new graduate program at UC Berkeley starting Fall 2016", TechCon 2016, November 9, 2016. Poster Session.
- U-169 "Successful University-NGO Partnerships: an Interactive Exercise to Build Consensus", TechCon 2016, USAID, Media Lab, MIT, Nov. 11, 2016. (Interactive Panel: Iain Hunt, Manager, Sustainable Engineering for International Development Initiative, Villanova University; David Leege, Director, University Engagement and Research, Catholic Relief Services; Alice Agogino, Education Director, Blum Center for Developing Economies, University of California at Berkeley; Thomas Woodson, Assistant Professor, Dept. of Technology and Society, Stony Brook University).
- U-170 "Engineering an Ecosystem: Do 'Knowledge Platforms' Really Deliver?", Panel, TechCon 2016, USAID, Media Lab, MIT, Nov. 12, 2016. (Panelists: Alice Agogino, Roscoe and Elizabeth Hughes Professor of Mechanical Engineering; Robert Hauck, Chief Mechanical Engineer (Retired), GE Healthcare; Iana Aranda, Director of Programs, Engineering for Change).
- U-171 "Closing Plenary - Visions for Next Generation Practitioners", TechCon 2016, USAID, Media Lab, MIT, Nov. 12, 2016. Panel: Ticora V. Jones, Alice M. Agogino, Grace Nakibaala, Gabriel Vanderhey, and Grace Lang.
- U-172 "Development Engineering and Children's Health," Engineering for Children's Health Symposium, Jan. 12, 2017.
- U-173 "Design for Social Impact: Multiple Dimensions of Diversity in Science, Mathematics, Engineering and Medical (STEM) Education and Careers," WST (Women, Science & Technology) Distinguished Lecture, Georgia Tech, Feb. 28, 2017.
- U-174 "Design for Social Impact: Socially Engaged Engineering and Computing", Keynote Speaker, Tau Beta Pi sponsored Engineering and Computing week, Miami University, April 5, 2017.

- U-175 "Improving Innovation with the Diversifying Power of Women Engineers," Society of Women Engineers (SWE) Overnight Host Program, April 21, 2017.
- U-176 "Impacts and Engagement: The Intersection of Science, Technology & Society", Cal Day/ Earth Day, Stand Up for Science, Center for Information Technology in the Interests of Society, UC Berkeley, Saturday, April 22, 2017.
- U-177 Presentation to Associate Administrator Steve Jurczyk, NASA Space Technology Mission Directorate, June 8, 2017.
- U-178 Presentation and demo for [NASA Marshall Space Flight Center Robotics Academy](#), July 21, 2017, BEST Lab, UC Berkeley.
- U-179 "Trajectory Tracking Control of a Flexible Spine Robot, With and Without a Reference Input", Poster and Lightning Talk, (with Andrew Sabelhaus), [Conference on Adaptive Systems and Hardware](#), JPL, Pasadena, CA, July 26, 2017.
- U-180 "Tensegrity Robot Locomotion Simulations and Experiments", Poster and Lightning Talk, (with Brian Cera and Edward Zhu), [Conference on Adaptive Systems and Hardware](#), JPL, Pasadena, CA, July 26, 2017.
- U-182 "Hopping and Rolling Tensegrity Robots for Space Exploration", (with Lee-Huang Chen, Ed Zhu, Mallory Daly, Alan Zhang, Brian Cera, Adrian Agogino), [Conference on Adaptive Systems and Hardware](#), JPL, Pasadena, CA, July 26, 2017.
- U-183 Living Machines presentation and Demo, July 28, 2017, BEST Lab, UC Berkeley.
- U-184 "[Design and Fabrication Methodology for Customizable, Multi-Material Prosthetic Hands for Children](#)", (with Daniel Lim, Adam Hutz, Euiyoung Kim), *ASME International Design Engineering Technical Conference (IDETC) 2017*. ([abstract](#); [slides](#)).
- U-185 "Valuing Design", Renault-Nissan Hackathon, September 11, 2017.
- U-186 "Opening Remarks", [Impact Design Educational Summit](#), November 6, 2017. Funded by the Autodesk Foundation. See: [Blum Center Receives First Higher Education Grant from the Autodesk Foundation](#).
- U-187 "Tensegrity Robots for Space Exploration & More," Bay Area Robotics Symposium 2017. [BARS2017](#).
- U-188 "Expanding Engineering Limits: Social Justice in Engineering", Stanford University, March 8, 2018. [Slides \(pdf\)](#).
- U-189 "[Designing Global Systems Research](#)," Panel at the NSF-funded Design Circle Workshop, March 21-24, 2018, Oregon State University. Slides (pdf).
- U-190 NSF NRT Grantees Meeting, "[STEM Training for Actionable Research and High Impact](#)", Panel on InFEWS grantees, Sep 26, 2018.

- U-191 NSF NTR Grantees Meeting, "[Designing for Diversity and Global Impact](#)", Sep. 27-28, 2018.
- U-192 [theDesignExchange - collaboration meeting with the Design Society](#), Oct. 10, 2018. Slides.
- U-193 "[Sexual Harassment of Women: Climate, Culture, and Consequences in Academic Sciences, Engineering, and Medicine](#)," Panel on the State of Women in Engineering 2018, Society of Women Engineers Annual Meeting, 2018. [Video](#).
- U-194 "[Machine Learning for Automated Sensor Selection for Energy Fault Detection](#)", (with R.L. Hu, J. Granderson, D.M. Auslander), Women in Machine Learning Workshop. 2018.
- U-195 "How to Be an Effective Mentor", Panel at New Faculty Orientation, UC Berkeley, 17 January 2019. [COE-NewFaculty 2019](#).
- U-196 "Hiring for Diversity and Inclusion," Panel on Recruitment, Retention, and Achievement, A National Academies Symposium Highlighting Evidence-Based interventions, March 11, 2019. [Slides](#).
- U-197 Panel on Robotics, [Space Tech Symposium](#), May 6, 2019.
- U-198 "Future of Development Engineering," Panel on "Disrupting Engineering Research – the Network Effect, Impact Engineering 2020 (IE20) Conference, December 4, 2020.
- U-199 Panel on Research Synergies & Funding Opportunities, Climate Equity and Environmental Justice Roundtable, 3 December 2021.
- U-200 "AI for Good: Panel on Advancing the UN's Sustainable Development Goals with Intelligent Robots", United Nations, International Telecommunication Union (ITU), 16 Sep 2021.
- U-201 "Development Engineering", Climate Equity and Environmental Justice Roundtable, UC Berkeley, 3 Dec 2021.
- U-202 "Extraordinary Engineering Impact", National Academy of Engineering, Aug 18-19, 2022.
- U-203 "From Space Exploration to Emergency and Climate Response: Challenges and Opportunities", IEEE/RSI International Conference on Intelligent Robots and Systems (IROS), Tensegrity Robotics Workshop, Oct 5, 2023.

Patents

1. *DNA structured linear actuator", (with K. Zampaglione, L.-H. Chen and A. Sabelhaus), International No. PCT/US2016/032899, patent filed, under review.
2. "Modular rod-centered, distributed actuation & control architecture for spherical tensegrity robots", (with L.-H. Chen, A. Khaderi, A.Y. Lim, K. Kim, D. Moon, P. Keegan and A.K. Agogino), UC. Case No. BK-201-052-2-PCT, PCT International Application No. PCT/US2016/061353, patent filed, under review.
3. Elastic lattices for design of tensegrity structures and robots," (L.-H. Chen, M. Daily, A. Sabelhaus, and A.K. Agogino), Provisional Application NO. 28533291.

4. Multi-Cable Actuation for Energy-Efficient Tensegrity Robots,” (Agogino, Alice M.; Cera, Brian; Thompson, Anthony Allan). International Application no. PCT/US2021/012528, 7 July 2021, under review.