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RESEARCH INTERESTS

My research interests are in robotics, nonlinear control, and machine learning. They encompass motion planning, convex optimization, optimal control, reinforcement learning, legged robots, aerial vehicles, fluid dynamics, biological motor control, and neuroscience. I am particularly interested in the difficult problems in robotics where general computational algorithms can find elegant solutions, and in problems where taking advantage of the natural dynamics of the robot yield dramatically improved performance.

ACADEMIC POSITIONS AND EDUCATION

Massachusetts Institute of Technology Associate Professor w/ Tenure, EECS	Cambridge, MA 2012-present
Massachusetts Institute of Technology Courtesy Joint Appointment, Aeronautics and Astronautics	Cambridge, MA 2011-present
Massachusetts Institute of Technology Associate Professor, Electrical Engineering and Computer Science	Cambridge, MA 2009-2012
Massachusetts Institute of Technology Assistant Professor, Electrical Engineering and Computer Science	Cambridge, MA 2005-2009
Massachusetts Institute of Technology Postdoctoral Associate, Department of Brain and Cognitive Sciences	Cambridge, MA 2004-2005
Massachusetts Institute of Technology Ph.D. in Electrical Engineering and Computer Science Advisor: H. Sebastian Seung	Cambridge, MA Defended Aug. 30, 2004
University of Michigan B.S.E. in Computer Engineering	Ann Arbor, MI May, 1999

CITIZENSHIP

U.S. Citizen

- [1] Anirudha Majumdar, Mark Tobenkin, and Russ Tedrake. Algebraic verification for parameterized motion planning libraries. In *Under review*, 2012.
- [2] J. Zico Kolter, Zachary Jackowski, and Russ Tedrake. Design, analysis and learning control of a fully actuated micro wind turbine. In *Under review*, 2012.
- [3] Jacob Steinhardt and Russ Tedrake. Finite-time regional verification of stochastic nonlinear systems. *Under review*, 2011.
- [4] Elena Leah Glassman, Alexis Lussier Desbiens, Mark Tobenkin, Mark Cutkosky, and Russ Tedrake. Region of attraction estimation for a perching aircraft: A Lyapunov method exploiting barrier certificates. In *Proceedings of the 2012 IEEE International Conference on Robotics and Automation (ICRA)*, 2012.
- [5] Andrew J. Barry, Anirudha Majumdar, and Russ Tedrake. Safety verification of reactive controllers for UAV flight in cluttered environments using barrier certificates. In *Proceedings of the 2012 IEEE International Conference on Robotics and Automation (ICRA)*, 2012.
- [6] Robert Platt and Russ Tedrake. Non-gaussian belief space planning as a convex program. In *Under review*, 2012.
- [7] Robert Platt, Leslie Kaelbling, Tomas Lozano-Perez, and Russ Tedrake. Non-gaussian belief space planning: Correctness and complexity. In *Proceedings of the 2012 IEEE International Conference on Robotics and Automation (ICRA)*, 2012.
- [8] Joseph Moore and Russ Tedrake. Magnetic localization for perching UAVs on powerlines. *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, September 2011.
- [9] R. Platt, L. Kaelbling, T. Lozano-Perez, and R. Tedrake. Efficient planning in non-gaussian belief spaces and its application to robot grasping. In *Proceedings of the 15th International Symposium on Robotics Research*, 2011.
- [10] Jacob Steinhardt and Russ Tedrake. Finite-time regional verification of stochastic nonlinear systems. In *Proceedings of Robotics: Science and Systems (RSS) 2011*, January 17 2011.
- [11] Alexander Shkolnik and Russ Tedrake. Sample-based planning with volumes in configuration space. *arXiv:1109.3145v1 [cs.RO]*, 2011.
- [12] Robert Platt, Leslie Kaelbling, Tomas Lozano-Perez, and Russ Tedrake. A hypothesis-based algorithm for planning and control in non-gaussian belief spaces. Technical Report MIT- CSAIL-TR-2011-039, Massachusetts Institute of Technology, August 2011.
- [13] Mark M. Tobenkin, Ian R. Manchester, Jennifer Wang, Alexandre Megretski, and Russ Tedrake. Convex optimization in identification of stable non-linear state space models. *arXiv:1009.1670 [math.OC]*, 2010.
- [14] Mark M. Tobenkin, Ian R. Manchester, and Russ Tedrake. Invariant funnels around trajectories using sum-of-squares programming. *Proceedings of the 18th IFAC World Congress, extended version available online: arXiv:1010.3013 [math.DS]*, 2011.

- [15] Ian R. Manchester, Mark M. Tobenkin, Michael Levashov, and Russ Tedrake. Regions of attraction for hybrid limit cycles of walking robots. *Proceedings of the 18th IFAC World Congress, extended version available online: arXiv:1010.2247 [math.OC]*, 2011.
- [16] John Roberts, Ian Manchester, and Russ Tedrake. Feedback controller parameterizations for reinforcement learning. In *Proceedings of the 2011 IEEE Symposium on Adaptive Dynamic Programming and Reinforcement Learning (ADPRL)*, 2011.
- [17] Ian R. Manchester, Uwe Mettin, Fumiya Iida, and Russ Tedrake. Stable dynamic walking over uneven terrain. *The International Journal of Robotics Research (IJRR)*, 30(3):265–279, January 24 2011.
- [18] Alexander Shkolnik, Michael Levashov, Ian R. Manchester, and Russ Tedrake. Bounding on rough terrain with the littledog robot. *The International Journal of Robotics Research (IJRR)*, 30(2):192–215, Feb 2011.
- [19] Jan Peters, Russ Tedrake, Nicholas Roy, and Jun Morimoto. Robot learning. In Claude Sammut and Geoffrey I. Webb, editors, *Encyclopedia of Machine Learning*, pages 865–9. Springer, 2011.
- [20] Mark Tobenkin, Ian R. Manchester, Jennifer Wang, Alex Megretski, and Russ Tedrake. Convex optimization in identification of stable non-linear state space models. In *Proceedings of the 49th IEEE Conference on Decision and Control (CDC 2010), extended version available online: arXiv:1009.1670 [math.OC]*, Dec 2010.
- [21] R. Platt, R. Tedrake, L.P. Kaelbling, and T. Lozano-Perez. Belief space planning assuming maximum likelihood observations. In *Proceedings of Robotics: Science and Systems*, 2010.
- [22] Russ Tedrake, Ian R. Manchester, Mark M. Tobenkin, and John W. Roberts. LQR-Trees: Feedback motion planning via sums of squares verification. *International Journal of Robotics Research*, 29:1038–1052, July 2010.
- [23] Philipp Reist and Russ Tedrake. Simulation-based LQR-trees with input and state constraints. In *Proceedings of the International Conference on Robotics and Automation (ICRA)*, 2010.
- [24] Elena Glassman and Russ Tedrake. A quadratic regulator-based heuristic for rapidly exploring state space. In *Proceedings of the International Conference on Robotics and Automation (ICRA)*, 2010.
- [25] Fumiya Iida and Russ Tedrake. Minimalistic control of biped walking in rough terrain. *Autonomous Robots*, OnlineFirst:355–368, January 7 2010.
- [26] Jan Peters, Jun Morimoto, Russ Tedrake, and Nicholas Roy. Robot learning [TC Spotlight]. *Robotics and Automation Magazine, IEEE*, 16(3):19–20, September 2009.
- [27] John W. Roberts, Jun Zhang, and Russ Tedrake. Motor learning at intermediate reynolds number: Experiments with policy gradient on the flapping flight of a rigid wing. In *From Motor to Interaction Learning in Robots*. Springer, 2009.
- [28] Russ Tedrake. LQR-Trees: Feedback motion planning on sparse randomized trees. In *Proceedings of Robotics: Science and Systems (RSS)*, page 8, 2009.

- [29] Ian R. Manchester, Uwe Mettin, Fumiya Iida, and Russ Tedrake. Stable dynamic walking over rough terrain: Theory and experiment. In *Proceedings of the International Symposium on Robotics Research (ISRR)*, 2009.
- [30] Katie Byl and Russ Tedrake. Metastable walking machines. *International Journal of Robotics Research*, 28(8):1040–1064, August 1 2009.
- [31] Khashayar Rohanimanesh, Nicholas Roy, and Russ Tedrake. Towards feature selection in actor-critic algorithms. In *Proceedings of the Workshop on Abstraction in Reinforcement Learning (ICML, UAI, COLT 2009)*, Montreal, Canada, June 18 2009.
- [32] Warren Hoberg and Russ Tedrake. System identification of post stall aerodynamics for UAV perching. In *Proceedings of the AIAA Infotech@Aerospace Conference*, Seattle, WA, April 2009. AIAA.
- [33] Joseph Moore and Russ Tedrake. Powerline perching with a fixed-wing UAV. In *Proceedings of the AIAA Infotech@Aerospace Conference*, Seattle, WA, April 2009. AIAA.
- [34] John W. Roberts, Rick Cory, and Russ Tedrake. On the controllability of fixed-wing perching. In *Proceedings of the American Control Conference (ACC)*, 2009.
- [35] Alexander Shkolnik and Russ Tedrake. Path planning in 1000+ dimensions using a task-space Voronoi bias. In *Proceedings of the IEEE/RAS International Conference on Robotics and Automation (ICRA)*. IEEE/RAS, 2009.
- [36] Alexander Shkolnik, Matthew Walter, and Russ Tedrake. Reachability-guided sampling for planning under differential constraints. In *Proceedings of the International Conference on Robotics and Automation (ICRA)*, pages 2859–2865. IEEE/RAS, 2009.
- [37] Fumiya Iida and Russ Tedrake. Minimalistic control of a compass gait robot in rough terrain. In *Proceedings of the IEEE/RAS International Conference on Robotics and Automation (ICRA)*. IEEE/RAS, 2009.
- [38] Katie Byl and Russ Tedrake. Dynamically diverse legged locomotion for rough terrain. In *Proceedings of the IEEE/RAS International Conference on Robotics and Automation (ICRA)*, video submission, May 2009.
- [39] John W. Roberts and Russ Tedrake. Signal-to-noise ratio analysis of policy gradient algorithms. In *Advances of Neural Information Processing Systems (NIPS) 21*, page 8, 2009.
- [40] Abderrahmane Bennis, Miriam Leeser, Gilead Tadmor, and Russ Tedrake. Implementation of a highly parameterized digital PIV system on reconfigurable hardware. In *Proceedings of the Twelfth Annual Workshop on High Performance Embedded Computing (HPEC)*, Lexington, MA, September 2008.
- [41] Katie Byl, Alexander Shkolnik, Sam Prentice, Nicholas Roy, and Russ Tedrake. Reliable dynamic motions for a stiff quadruped. In *Proceedings of the 11th International Symposium on Experimental Robotics (ISER)*, 2008.
- [42] Alexander Shkolnik and Russ Tedrake. High-dimensional underactuated motion planning via task space control. In *Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*. IEEE/RSJ, 2008.

- [43] Rick Cory and Russ Tedrake. Experiments in fixed-wing UAV perching. In *Proceedings of the AIAA Guidance, Navigation, and Control Conference*. AIAA, 2008.
- [44] Katie Byl and Russ Tedrake. Metastable walking on stochastically rough terrain. In *Proceedings of Robotics: Science and Systems IV*, 2008.
- [45] Katie Byl and Russ Tedrake. Approximate optimal control of the compass gait on rough terrain. In *Proc. IEEE International Conference on Robotics and Automation (ICRA)*, 2008.
- [46] Finale Doshi, Emma Brunskill, Alexander Shkolnik, Thomas Kollar, Khash Rohanimanesh, Russ Tedrake, and Nicholas Roy. A supervised learning approach for collision detection in legged locomotion. In *Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems*, 2007.
- [47] Rick Cory and Russ Tedrake. On the controllability of agile fixed-wing flight. In *Proceedings of the 2007 Symposium on Flying Insects and Robots (FIR)*, August 2007.
- [48] Khashayar Rohanimanesh, Nicholas Roy, and Russ Tedrake. Towards feature selection in actor-critic algorithms. Technical report, Massachusetts Institute of Technology Computer Science and Artificial Intelligence Laboratory, 2007.
- [49] Fumiya Iida and Russ Tedrake. Motor control optimization of compliant one-legged locomotion in rough terrain. In *Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems*, 2007.
- [50] Alexander Shkolnik and Russ Tedrake. Inverse kinematics for a point-foot quadruped robot with dynamic redundancy resolution. In *Proceedings of the 2007 IEEE International Conference on Robotics and Automation*, April 2007.
- [51] Katie Byl and Russ Tedrake. Stability of passive dynamic walking on uneven terrain. In Art Kuo, editor, *Proceedings of Dynamic Walking 2006*, May 2006.
- [52] Jerry E. Pratt and Russ Tedrake. Velocity based stability margins for fast bipedal walking. In *Proceedings of the First Ruperto Carola Symposium on Fast Motions in Biomechanics and Robotics: Optimization and Feedback Control*, volume 340, pages 299–324, Sep 2005.
- [53] Russ Tedrake, Teresa Weirui Zhang, and H. Sebastian Seung. Learning to walk in 20 minutes. In *Proceedings of the Fourteenth Yale Workshop on Adaptive and Learning Systems*, Yale University, New Haven, CT, 2005.
- [54] Steven H. Collins, Andy Ruina, Russ Tedrake, and Martijn Wisse. Efficient bipedal robots based on passive-dynamic walkers. *Science*, 307:1082–1085, February 18 2005.
- [55] Russell L Tedrake. *Applied Optimal Control for Dynamically Stable Legged Locomotion*. PhD thesis, Massachusetts Institute of Technology, 2004.
- [56] Russ Tedrake, Teresa Weirui Zhang, and H. Sebastian Seung. Stochastic policy gradient reinforcement learning on a simple 3D biped. In *Proceedings of the IEEE International Conference on Intelligent Robots and Systems (IROS)*, volume 3, pages 2849–2854, Sendai, Japan, September 2004.

- [57] Russ Tedrake, Teresa Weirui Zhang, Ming-fai Fong, and H. Sebastian Seung. Actuating a simple 3D passive dynamic walker. In *Proceedings of the IEEE International Conference on Robotics and Automation (ICRA)*, volume 5, pages 4656–4661, New Orleans, LA, April 2004.
- [58] Russ Tedrake and H. Sebastian Seung. Improved dynamic stability using reinforcement learning. In *5th International Conference on Climbing and Walking Robots and the Support Technologies for Mobile Machines (CLAWAR)*, pages 341–348, Paris, France, September 2002. Professional Engineering Publishing Limited.
- [59] Russ Tedrake. Soaring with descent 3. Proceedings of the 19th American Soar Workshop, 1999.
- [60] Mike van Lent, John Laird, Josh Buckman, Joe Hartford, Steve Houchard, Kurt Steinkraus, and Russ Tedrake. Intelligent agents in computer games. In *Proceedings of the American Association for Artificial Intelligence*, pages 929–930, Orlando, FL, July 1999.

TEACHING

Courses with a * indicate course development (first-time offerings)

Fall, 2011	6.003 - Signals and Systems (Recitations)
Spring, 2011	6.832 - Underactuated Robotics
Fall, 2010	6.01 - Introduction to EECS 1 (Recitations)
Spring, 2010	6.832 - Underactuated Robotics
Spring, 2009	6.832 - Underactuated Robotics
Spring, 2008	6.832 - Underactuated Robotics
IAP, 2008	6.095 - Humanoid Robots Competition
Fall, 2007	6.011 - Introduction to Communication, Control, and Signal Processing (Recitations)
Spring, 2007	6.881 - Underactuated Robotics*
IAP, 2007	6.095 - Humanoid Robots Competition*
Fall, 2006	6.003 - Signals and Systems (Recitations)
Spring, 2006	6.003 - Signals and Systems (Recitations)

CURRENT STUDENTS / RESEARCHERS

Amir Ali Ahmadi (Postdoctoral Associate)
Andy Barry (Ph.D. candidate, Electrical Engineering and Computer Science)
Hongkai Dai (Ph.D. candidate, Electrical Engineering and Computer Science)
Elena Glassman (Ph.D. candidate, Electrical Engineering and Computer Science)
J. Zico Kolter (Postdoctoral Associate)
Anirudha Majumdar (Ph.D. candidate, Electrical Engineering and Computer Science)
Ian Manchester (Research Scientist)
Joseph Moore (Ph.D. candidate, Mechanical and Ocean Engineering)
Ryuma Niiyama (Postdoctoral Associate)
Frank Permenter (Ph.D. candidate, Electrical Engineering and Computer Science)
Robert Platt (Research Scientist)
Michael Posa (Ph.D. candidate, Electrical Engineering and Computer Science)
John Roberts (Ph.D. candidate, Mechanical and Ocean Engineering)
Mark Tobenkin (Ph.D. candidate, Electrical Engineering and Computer Science)

ALUMNI

Katie Byl (Ph.D. 2008), now faculty at University of California, Santa Barbara
 Rick Cory (Ph.D. 2010), now at Disney Research
 Warren Hoburg (Research Staff), now PhD candidate at UC Berkeley
 Vanessa Hsu Chen (M.Eng 2007)
 Fumiya Iida (Postdoc, 2006-2009), now faculty at ETH Zurich
 Zack Jackowski (Masters 2011), now at Boston Dynamics
 Michael Levashov (Masters 2011)
 Kojiro Matsushita (Postdoc)
 Steve Proulx (Research Staff)
 Philipp Reist, now PhD candidate at ETH Zurich
 Khashayar Rohanimanesh (Postdoc), now at eBay research
 Alexander Shkolnik (Ph.D. 2009), now President and CEO of liquidpiston.com

THESES SUPERVISED

Ph.D. Theses

- May, 2010 Rick E. Cory. *Supermaneuverable Perching*. PhD Thesis, Electrical Engineering and Computer Science, Massachusetts Institute of Technology.
- Feb, 2010 Alexander C. Shkolnik. *Sample-Based Motion Planning in High-Dimensional and Differentially-Constrained Systems*. PhD Thesis, Electrical Engineering and Computer Science, Massachusetts Institute of Technology.
- Sep, 2008 Katie Byl. *Metastable Legged-Robot Locomotion*. PhD Thesis, Mechanical and Ocean Engineering, Massachusetts Institute of Technology.

Masters Theses

- Sept, 2011 Michael Y. Levashov. *Modeling, System identification, and control for dynamic locomotion of the LittleDog robot on rough terrain*. Master's Thesis, Massachusetts Institute of Technology.
- May, 2011 Zachary Jackowski. *Design, construction, and experiments with a compass gait walking robot*. Master's Thesis, Massachusetts Institute of Technology.
- Feb, 2011 Joseph Moore. *Powerline perching for a fixed-wing UAV*. Master's Thesis, Massachusetts Institute of Technology.
- Feb, 2010 Elena Glassman. *A Quadratic Regulator-based Heuristic for Rapidly Exploring State Space*. Masters's Thesis, Massachusetts Institute of Technology.
- Feb, 2009 John W. Roberts. *Motor learning on a heaving plate via improved-SNR algorithms*. Master's Thesis, Massachusetts Institute of Technology.
- Feb, 2008 Rick E. Cory. *Perching with Fixed Wings*. Master's Thesis, Electrical Engineering and Computer Science, Massachusetts Institute of Technology. **Winner of the 2008 MIT Computer Science MS Thesis Award.**
- Feb, 2007 Vanessa Hsu. *Passive dynamic walking with knees: A point-foot model*. Master's Thesis, Electrical Engineering and Computer Science, Massachusetts Institute of Technology.

Undergraduate Theses

- June, 2009 Zachary Jackowski. *The Design and Construction of an Autonomous Ornithopter*. Undergraduate Thesis for Mechanical Engineering.
- June, 2007 John Glowa. *Design and Process/Measurement for Immersed Element Control in a Reconfigurable Vertically Falling Soap Film*. Undergraduate Thesis for MIT Mechanical Engineering.
- June, 2006 Arlis Reynolds. *Design and Control of a Clutch for a Minimally-Actuated Biped Based on the Passive-Dynamic Simple Walker*. Undergraduate Thesis for MIT Mechanical Engineering.
- June, 2005 Andrew G. Baines. *Design and control of a knee-clutch mechanism for an under-actuated 3D bipedal robot*. Undergraduate Thesis for MIT Mechanical Engineering.
- June, 2005 Ming-fai Fong. *Design, modeling, and control of a simple 3D bipedal robot*. Undergraduate Thesis for MIT Mechanical Engineering.

CURRENT AND RECENT COLLABORATORS

Drew Bagnell (CMU)
Andrew Biewener (Harvard)
Emilio Bizzi (MIT)
Mark Cutkosky (Stanford)
Mark Drela (MIT)
Emilio Frazzoli (MIT)
Bill Freeman (MIT)
Martial Hebert (CMU)
Hugh Herr (MIT)
Bertold Horn (MIT)
Yann LeCun (NYU)
Miriam Leeser (Northeastern)

David Lentink (Wageningen)
Alexandre Megretski (MIT)
Hongkun Park (Harvard)
Pablo Parrilo (MIT)
Jovan Popovic (Adobe/U Washington)
Jerry Pratt (U West Florida)
Nick Roy (MIT)
Andy Ruina (Cornell)
Sebastian Seung (MIT)
Jean-Jacques Slotine (MIT)
Gilead Tadmor (Northeastern)
Jun Zhang (NYU)

PROFESSIONAL ACTIVITIES & HONORS

- Awards: 2012 Ruth and Joel Spira Award for Distinguished Teaching (2012)
Early Career Spotlight Talk at RSS 2010
2010 Most Active Technical Committee Award for the IEEE Robotics and Automation Society Technical Committee on Robot Learning (2010)
DARPA Young Faculty Award (2009)
Best Paper Award, Robotics: Science and Systems (2009)
Microsoft Research New Faculty Fellowship (2008)
NSF CAREER Award (2008)
X Consortium Career Development Chair (2008)
Jerome H. Saltzer Undergraduate Teaching Award, MIT (2008)
Engineering Distinguished Student Leadership Award, University of Michigan (1999)
Eton Fellowship (1999)
National Defense Science and Engineering Graduate Fellowship Program Honorable Mention (1999)
- Student Awards for Supervised Research: Rick Cory, Boeing Engineering Student of the Year Award (2010)
Elena Glassman, Masterworks Oral Thesis Presentation Award (2009)
Katie Byl, IFRR Student Fellowship Award for paper/presentation at ISER (2008)
Rick Cory, MIT Computer Science Masters Thesis Award (2008)
Rick Cory, Masterworks Oral Thesis Presentation Award (2008)
- Leadership: Director of the CSAIL Center for Robotics (since July, 2012)
Associate Editor for International Journal of Robotics Research (since July, 2010)
Chair of Dynamic Walking 2010 (held at MIT, July, 2010)
Guest Editor: Autonomous Robots Special Issue on RSS 2009
Co-founder and Co-chair of IEEE Technical Committee on Robot Learning
Organizer of Full-Day Workshop: *Robotics Challenges for Machine Learning* at IROS, 2008 (with Nick Roy, Jan Peters, and Jun Morimoto)
Co-organizer of Full-Day Workshop: *Learning for Locomotion* at Robotics - Science and Systems Conference, 2005 (with Jan Peters and Stefan Schaal)
Organizer of MIT Computational Motor Control Journal Club (2001-2003)
- Outreach: "Toddler Robot" exhibit at MIT Museum (2010-present)
Outreach lectures in MIT Women's Technology Program (since 2008), LeadAmerica (since 2010), MASLAB (since 2010)
"Intro to Flapping Flight" workshop at the Cambridge Science Festival (2010)
MIT Hobby Shop Committee (2007-present)
Discover EECS Prefreshman Orientation (Faculty Advisor, 2006 - present)
Lab tours and demos for preschool - college students (continuous 2005-present)
NSF WTEC Robotics Expo (2005)
WPI K-12 Outreach, Pre-College Engineering for Teachers Workshop (2005)
- Organizing Committees: Area Chair for RSS 2010,2009
Associate Editor for ICRA 2012,2010,2008
Associate Editor for IROS 2007

Membership: IEEE (since 2002)
IEEE Robotics & Automation Society (since 2002)
AIAA (since 2007)
Epeians (Engineering Student Leadership Honors Society (since 1997)
Tau Beta Pi (Engineering Honors Society) (since 1997)
Golden Key National Honors Society (since 1997)
Eta Kappa Nu, Beta Epsilon Chapter (since 1996, president 1997)

INVITED TALKS

December 2011 University of North Carolina, Charlotte
November 2011 University of Pennsylvania GRASP Seminar Series
October 2011 Carnegie Mellon Robotics Seminar Series
September 2011 Johns Hopkins University
September 2011 University of Maryland
July 2011 Dynamic Walking (Keynote)
July 2011 ETH Summer School on Dynamic Walking
April 2011 MIT 150 Symposium on Computation and the Transformation of Practically Everything
November 2010 Advanced in Computational Motor Control 2010 (Keynote)
November 2010 UC Santa Barbara Center for Control, Dynamical Systems and Computation (CCDC)
November 2010 UC Berkeley EECS Joint Colloquium Distinguished Lecture Series
August 2010 American Society of Biomechanics Symposium on Machines Inspired by Animal Locomotion
August 2010 MIT Aero/Astro Faculty Lunch
July 2010 Dynamic Walking 2010 (Keynote)
June 2010 Robotics Science and Systems 2010: Early Career Spotlight Talk
June 2010 IMA Workshop on Natural Locomotion in Fluids and on Surfaces: Swimming, Flying and Sliding
March 2010 University of Southern California Day of Distinguished Robotics Lectures
March 2010 California Inst. of Technology Control and Dynamical Systems Seminar
March 2010 Northeastern University CDSP Annual Meeting (Keynote)
February 2010 Boston Dynamics
November 2009 University of Washington Systems and Control Seminar Series
November 2009 MIT Laboratory for Information and Decision Systems (LIDS) Lunch Seminar
September 2009 NSF CMMI Workshop on Neuro-Mechanics
September 2009 US ARMY TARDEC Workshop on Robotics
August 2009 International Symposium of Robotics Research (ISRR)
June 2009 Robotics: Science and Systems UAV Workshop
June 2009 Dynamic Walking (Keynote)
June 2009 University of Michigan, Aero/Astro Department
April 2009 The Learning Workshop (Snowbird)
April 2009 Reinforcement Learning Workshop, Barbados
April 2009 Radcliffe Workshop on Humanitarian Demining
March 2009 International Workshop on Robotics for Young Researchers (Keynote)
February 2009 Georgia Tech RIM Seminar
December 2008 MIT Mechanical Engineering
November 2008 University of Southern California
November 2008 University of California, Berkeley, CIS Seminar
November 2008 Stanford University
October 2008 University of Alberta, Edmonton, AI Seminar
October 2008 University of Illinois at Urbana-Champaign, AI Seminar
September 2008 IROS Workshop on Robot Learning
August 2008 Aurora Flight Sciences
July 2008 Lincoln Labs Chief Technology Office Seminar Series
June 2008 RSS Workshop on Control of Locomotion

May 2008	University of Michigan, CSE @ 50 Celebration
March 2008	Carnegie Mellon University, Robotics Institute Robotics Seminar
March 2008	Northeastern University, Electrical and Computer Engineering
September 2007	Tufts University, Electrical and Computer Engineering Department Seminar
May 2007	MIT Applied Math, Physical Mathematics Seminar
April 2007	International Workshop on Walking Robots for Young Researchers (Keynote)
September 2006	NYU Courant Institute Applied Mathematics Seminar
September 2006	MIT CSAIL Student Retreat (Keynote)
February 2006	MIT Mechanical Engineering Seminar Series
February 2006	MIT CSAIL Robotics Seminar Series
August 2005	BBN Technologies, Cambridge, MA
June 2005	RSS Workshop on Learning Locomotion
April 2005	University of Utah, School of Computing Colloquium
March 2005	Worcester Polytechnic Institute, Computer Science Department Colloquium
March 2005	MIT Computer Science and Artificial Intelligence Laboratory Special Seminar
March 2005	Northeastern University, Department of Electrical and Computer Engineering
February 2005	Yale University, Department of Mechanical Engineering Special Seminar
February 2005	University of Michigan, Computer Science and Engineering Department Seminar
January 2005	University of Pennsylvania, Electrical and Systems Engineering Seminar
October 2004	Cornell University, Theoretical and Applied Mechanics Seminar
March 2004	University of Alberta, Edmonton, AI Seminar
March 2004	University of New Hampshire, Electrical and Computer Engineering Seminar
February 2004	University of Massachusetts, Amherst, Autonomous Learning Lab meeting
December 2003	MIT Computer Science & AI Lab Student Seminar
October 2003	MIT Brain & Cognitive Sciences Student Seminar (Brain Lunch)