

Henry S. HARRISON, SC.B.

Curriculum vitae

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🔗 <https://hsharrison.github.io>

✉ CENTER FOR THE ECOLOGICAL STUDY OF PERCEPTION & ACTION
✉ DEPARTMENT OF PSYCHOLOGY
✉ UNIVERSITY OF CONNECTICUT
406 BABBIDGE ROAD, U-1020
STORRS, CT 06269-1020

Education

2011-2016 (exp.) **Ph.D.**, *University of Connecticut*, Storrs, CT
in Psychology
Advisor Dr. Till D. Frank

2005-2009 **Sc.B.**, *Brown University*, Providence, RI
in Cognitive Neuroscience
Advisor Dr. Sheila E. Blumstein

Professional experience

- 2016 **Visiting Lecturer in Psychology**
Trinity College, Hartford, CT
- 2011-2016 **Teaching Assistant**, Department of Psychology
University of Connecticut, Storrs, CT
- 2014-2015 **Research Assistant**, Department of Psychology
University of Connecticut, Storrs, CT
- 2009-2011 **Laboratory Manager**, Virtual Environment Navigation Laboratory
Brown University, Providence, RI
- 2008-2009 **Research Assistant**, Virtual Environment Navigation Laboratory
Brown University, Providence, RI
- 2008 **Research Assistant**, Visual Development Unit
University College London, London, U.K.


Publications

- 2016 **Harrison, H. S.**, Turvey, M. T., and Frank, T. D. (accepted for publication). Affordance-based perception-action dynamics: A model of visually guided braking. *Psychological Review*.
- 2015 🔄 Frank, T. D., Profeta, V. L. S., & **Harrison, H. S.** (2015). Interplay between order-parameter and system-parameter dynamics: Considerations on perceptual-cognitive-behavioral mode-mode transitions exhibiting positive and negative hysteresis and response times. *Journal of Biological Physics*, 41(3), 257-292.
🔗 doi:10.1007/s10867-015-9378-z
- 2014 **Harrison, Henry. S.**, Kelty-Stephen, D. G., Vaz, D. V., & Michaels, C. F. (2014). Multiplicative-cascade dynamics in pole balancing. *Physical Review E*, 89, 060903(R).
🔗 doi:10.1103/PhysRevE.89.060903

Published proceedings

- 2015 **Harrison, H. S.**, & Davis, T. J. (2015). Actions are selected according to mutually scaled π -numbers. In Weast-Knapp, J., Malone, M., & Abney, D. (Eds.), *Studies in Perception and Action XIII. Proceedings from the Eighteenth International Conference on Perception and Action*.
- 2015 **Harrison, H. S.**, & Frank, T. D. (2015). Catastrophe theory and pattern formation: Comparing two approaches for understanding hysteretic grasping transitions. In Weast-Knapp, J., Malone, M., & Abney, D. (Eds.), *Studies in Perception and Action XIII. Proceedings from the Eighteenth International Conference on Perception and Action*.

Fellowships

- 2016  **IBACS Graduate Fellowship**
University of Connecticut, Storrs, CT
- 2011-2014 **Outstanding Scholar Fellowship**
University of Connecticut, Storrs, CT

Conference activity




Invited talks

- 2015 **Harrison, H. S.**, Frank, T. D. & Turvey, M. T. (2015, August). Behavioral dynamics of affordance-based control. Invited talk for the 10th Annual Guy Van Orden UConn Workshop on Cognition and Dynamics, Storrs, CT.

Paper presentations

- 2014 **Harrison, H. S.**, Kelty-Stephen, D. G., Vaz, D. G., & Michaels, C. F. (2014, February). Multifractality in pole-balancing data. Paper presented at the 23rd Annual New England Sequencing and Timing Meeting, Amherst, MA.
- 2013 **Harrison, H. S.**, Frank, T. D., & Turvey, M. T. (2013, July). Modeling affordance-based control of visually-guided braking. Paper presented at the 17th International Conference on Perception and Action, Estoril, Portugal.

Poster presentations

- 2015  **Harrison, H. S.**, & Davis, T. J. (2015, July). Selection between differently scaled actions. Poster presented at the 18th International Conference on Perception and Action, Minneapolis and St. Paul, MN.
- 2015  **Harrison, H. S.**, & Frank, T. D. (2015, July). Catastrophe theory and pattern formation: Comparing two approaches for understanding hysteretic transitions. Poster presented at the 18th International Conference on Perception and Action, Minneapolis and St. Paul, MN.
- 2011 **Harrison, H. S.**, & Warren, W. H. (2011, May). Inconsistent routes in moving obstacle avoidance are due to sensitivity to initial conditions, not attention. Poster presented at the 10th Annual Meeting of the Vision Sciences Society, Naples, FL.
 doi:10.1167/11.11.912

Departmental talks

- 2013 **Harrison, H. S.** (2013, September). Modeling affordance-based control and action selection. Talk presented at the Perceiving-Action Workshop, University of Connecticut, Storrs, CT.
- 2011 **Harrison, H. S.** (2011, March). Introducing the locomotion dynamics modeling GUI. Talk presented at the Perception-Action Lab, Brown University, Providence, RI.
- 2010 **Harrison, H. S.** (2010, November). Incorporating speed control into the steering dynamics model. Talk presented at the Perception-Action Lab, Brown University, Providence, RI.
- 2009 **Harrison, H. S.** (2009, May). Attention and moving obstacle avoidance. Talk presented at the Perception-Action Lab, Brown University, Providence, RI.

Teaching

Trinity College






- 2016 **Instructor of Record**, *Perception Laboratory*

University of Connecticut
- 2013-2016 **Laboratory Instructor**, *Principles of Research in Psychology* (4x)
- 2014 **Instructor of Record**, *General Psychology I*




- 2014 **Teaching Assistant**, *Analysis of Experiments*
- 2014 **Instructor**, *Open-Source Science* (unofficial workshop)
- 2013 **Teaching Assistant**, *Laboratory in Sensation and Perception*
- 2012 **Laboratory Instructor**, *General Psychology I Honors*
- 2012 **Co-instructor**, *MATLAB Primer* (unofficial workshop)
- 2011-2012 **Laboratory Instructor**, *General Psychology I* (5x)

Software projects

Stable releases

- 2014-2015  **experimentator**: Experiment-design framework.
- 2015  **trackmaster-python**: Python interface for controlling Trackmaster treadmills.
- 2014  **pyglet2d**: Shape primitives for pyglet.
- 2014  **python-qualisys**: Import data from Qualisys QTM into Python.
- 2012-2013  **sysViewer**: Graphical interface for exploring dynamical systems.

In development

- 2014-  **pypsr**: Phase-space reconstruction tools.
- 2014-  **pyvrpn**: Asynchronous wrapper for the VRPN motion-capture framework.
- 2014-  **pyphase**: Relative phase and other algorithms for analyzing periodic signals.



January 18, 2016