# Henry S. HARRISON, SC.B.

#### Curriculum vitae

☐ 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

2014-2015 Research Assistant, Department of Psychology

University of Connecticut, Storrs, CT

2011-2015 Teaching 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

- 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.

  7 doi:10.1007/s10867-015-9378-z
- 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). Selection between differently scaled actions. 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 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*.

## 2011-2014 Outstanding Scholar Fellowship

University of Connecticut, Storrs, CT

### Conference activity

#### 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 18the 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 18the 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

- 2013-2015 Laboratory Instructor, Principles of Research in Psychology (3x)
  - 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)

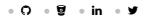
## Software projects

#### Stable releases

- 2014-2015 **Z** experimentator: Experiment-design framework.
  - 2014 **Pyglet2d**: Shape primitives for pyglet.
  - 2014 **O python-qualisys**: Import data from Qualisys QTM into Python.
- 2012-2013 **O 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.



July 14, 2015