

Shunan Zhang

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- RESEARCH INTERESTS** Computational models of higher-order cognition; decision-making; learning; knowledge representation; human inference.
- EDUCATION**
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|--|-----------|
| Ph.D. in Cognitive Sciences
University of California, Irvine, USA
Advisor: Michael D. Lee | 2007-2012 |
| M.S. in Statistics
University of California, Irvine, USA | 2008-2010 |
| M.A. in Social Sciences
University of California, Irvine, USA | 2007-2010 |
| M.A. in Psychology
Brandeis University, USA | 2006-2007 |
| B.S. in Mathematics and Physics
Tsinghua University, China | 2002-2006 |
- JOURNAL ARTICLES**
- Lee, M.D., **Zhang, S.**, & Shi, J. (2011). The wisdom of the crowd playing the Price is Right. *Memory & Cognition*, Volume 39, Issue 5, 914-923.
- Lee, M.D., **Zhang, S.**, Munro, M.N., & Steyvers, M. (2011). Psychological models of human and optimal performance on bandit problems. *Cognitive Systems Research*, 12, 164-174.
- Zhang, S.**, & Lee, M.D. (2010). Optimal experimental design for a class of bandit problems. *Journal of Mathematical Psychology*, 54, 499-508.
- Iverson, G.J., Lee, M.D., **Zhang, S.**, & Wagenmakers, E.-J. (2009). *prep*: An agony in five fits. *Journal of Mathematical Psychology*, Volume 53, Issue 4, 195-202
- UNDER REVIEW** Lee, M.D., & **Zhang, S.** Limited search and environmental regularities: Evaluating the process coherence of take-the-best.
- IN PROGRESS**
- Zhang, S.**, Lee, M.D., Vandekerckhove, J., Gunter, M. and Wagenmakers, E.-J. Vickers' accumulator model is a diffusion model with converging boundary.
- Zhang, S.**, Lee, M.D., Wagenmakers, E.-J. Diffusion model with converging boundaries under stochastic deadlines.
- REFEREED CONFERENCE PAPERS** Asher, D.E., **Zhang, S.**, Zaldivar, A., Lee, M.D., & Krichmar, J.L. (2012). Modeling individual differences in socioeconomic game playing. In N. Miyake, D. Peebles, & R. P. Cooper (Eds.), *Proceedings of the 34th Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society.

Zhang, S., Lee, M.D., Yu, M., & Xin, J. (2011). Modeling category identification using sparse instance representation. In L. Carlson, C. Hlscher, & T.F. Shipley (Eds.), *Proceedings of the 33rd Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society.

Zhang, S., & Lee, M.D. (2010). Cognitive models and the wisdom of crowds: A case study using the bandit problem. In R. Catrambone, & S. Ohlsson (Eds.), *Proceedings of the 32nd Annual Conference of the Cognitive Science Society*, pp. 1118-1123. Austin, TX: Cognitive Science Society.

Zhang, S., Lee, M.D., & Munro, M.N. (2009). Human and optimal exploration and exploitation in bandit problems. In A. Howes, D. Peebles, & R. Cooper (Eds.), *9th International Conference on Cognitive Modeling – ICCM2009*, Manchester, UK.

Lee, M.D., **Zhang, S.**, Munro, M.N., & Steyvers, M. (2009). Using heuristic models to understand human and optimal decision-making on bandit problems. In A. Howes, D. Peebles, & R. Cooper (Eds.), *9th International Conference on Cognitive Modeling – ICCM2009*, Manchester, UK.

AWARDS	<i>Phi Beta Kappa International Scholarship</i>	2011
	<i>Order of Merit Award for Outstanding Scholarship</i> School of Social Sciences, UCIrvine	2011
	<i>2nd Place, Southern California College Students Japanese Speech Contest</i> the Japan Foundation, Los Angeles	2011
	<i>The Associate Dean's Fellowship for Academic Excellence</i> School of Social Sciences, UCIrvine	2010
	<i>Student Travel Award</i> Annual Meetings of the Society for Mathematical Psychology	2008, 2009, 2010, 2011
	<i>Yellott Scholar Award</i> Department of Cognitive Sciences, UCIrvine	2009
	<i>IMBS Summer Research Fellowship</i> Institute of Mathematical and Behavioral Sciences, UCIrvine	2008
	<i>Graduate Fellowship and Teaching Assistantship Appointment</i> School of Social Sciences, UCIrvine	2007-2012
	<i>Merit-based Tuition Scholarship</i> Brandeis University	2006-2007

PROFESSIONAL REVIEWER FOR JOURNALS
ACTIVITIES Psychonomic Bulletin & Review

Peer Reviewed Conferences
Cognitive Science Society : Annual Conference
International Conference on Cognitive Modeling (ICCM)

Other activities

Attendant of Machine Learning Summer School, Sardinia, Italy 2010, May

Visiting student, UvA, supervisor: Eric-Jan Wagenmakers. 2011, Mar – Jun
Project: the Wiener Diffusion Model with converging boundaries.

TALKS SEMINARS

Computational & Cognitive Neuroscience Lab - UCSD
February, 2012. “Computational Models and Optimal Design of the Bandit Problems”

Zhang, S., & Lee, M.D. (2011). The Optimality of Search in Structured Environments. *the 44th Annual Meeting of the Society for Mathematical Psychology*, Portland, USA.

Zhang, S., & Lee, M.D. (2010). The Wisdom of Crowds in Solving Bandit Problems. *the 43rd Annual Meeting of the Society for Mathematical Psychology*, Portland, USA.

Zhang, S., & Lee, M.D. (2009). Optimal Experimental Design for Model Discrimination in Bandit Problems. *the 42nd Annual Meeting of the Society for Mathematical Psychology*, Amsterdam, the Netherlands.

Zhang, S., Lee, M.D., & Munro, M.N. (2008). Using Heuristics to Understand Optimal and Human Strategies in Bandit Problems. *the 41st Annual Meeting of the Society for Mathematical Psychology*, Washington D.C. USA.

POSTERS

Lee, M.D., **Zhang, S.**, & Shi, J. (2010). The Wisdom of the Crowd Playing the Price is Right. *the 43rd Annual Meeting of the Society for Mathematical Psychology*, Portland, USA.

Strom, M., Zebrowitz, L., **Zhang, S.**, & Lee, H.K. (2010). About Face: Cross-Cultural Differences in the Perceptions of Racial Prototypicality. *the Eleventh Annual Meeting of the Society for Personality and Social Psychology*, Las Vegas, USA.

Zhang, S., Lee, M.D., & Munro, M.N. (2009). Human and Optimal Exploration and Exploitation in Bandit Problems. *the Annual Meeting of the Cognitive Science Society*, Amsterdam, the Netherlands.

SELECTED GRADUATE COURSES

in Cognitive Sciences

Attention and Perception
Mathematical Models in Cognitive Processes
Cognitive Robotics
Decision-making and Problem-solving
Computational Neuroscience
Mind and Body Problem
Learning, Memory, and Knowledge Organization
Advanced Bayesian Cognitive Modeling

in Statistics

(sequence in) Statistical Methodology
(sequence in) Advanced Topics in Probability and Statistics
Bayesian Statistics

Bayesian Nonparametrics
Stochastic Processes

in Computer Sciences

Belief Networks
Machine Learning
Intro to Artificial Intelligence
Fundamental Algorithms

**TEACHING
ASSISTANT
EXPERIENCE**

Psych140C Cognitive Sciences	2012 Spring
Psych146MW Writing About Memory	2012 Winter
Psych10A Probability and Statistics	2011 Fall
Psych10A Probability and Statistics	2010 Fall
PubHlth290 Biostatistics	2010 Spring
Econ 15A Probability and Statistics	2009 Fall
Econ 15B Probability and Statistics	2009 Spring
Psych 120P Personality Theory	2008 Fall
Econ 15B Probability and Statistics	2008 Spring
Social Science 9B. General Statistics and Probability	2008 Winter

LANGUAGES

C/C++, Matlab, R, WinBugs, SAS, HTML

Mandarin(Native), English, Japanese(JLPT Level-3)

**OTHER
ACTIVITIES**

UCI Chinese Students and Scholars Association - Dance team member

China Central Conservatory of Music, Gu-Zheng Performance Test L-9 (highest)
Performed for a variety of cultural and professional events