MARK STEYVERS

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PROFESSIONAL POSITIONS

2009 -	Full Professor, Department of Cognitive Sciences, University of California, Irvine.
2005 -	Joint faculty appointment with Computer Science Department, University of California, Irvine.
2005 - 2025	Joint faculty appointment with Department of Psychology and Social Behavior, University of California, Irvine.
2005 - 2009	Associate Professor, Department of Cognitive Sciences, University of California, Irvine.
2002 - 2005	Assistant Professor, Department of Cognitive Sciences, University of California, Irvine.

EDUCATION

2000 - 2002	Postdoctoral fellow. Stanford University
1995 - 2000	PhD, Indiana University, Joint degree in Cognitive Psychology and Cognitive Science.
1994	BA, University of Amsterdam, Psychology (Cum Laude).

AWARDS AND HONORS

2025	Richard M. Shiffrin Distinguished Alumni Award. Inaugural recipient.
2022 - 2025	Chancellor's Fellow (July 1, 2022 to June 30, 2025)
2020	Noyce Fellow award by the Noyce UCI initiative. Dec 16.

	Award for Research Data Stewardship by Future of Privacy Forum and Alfred P. Sloan Foundation. March 27.
2005	Early Investigator Award from Society for Experimental Psychologists (SEP)
2004	New Investigator Award. American Psychological Association Division 3 – Journal of Experimental Psychology, Learning, Memory & Cognition.
2011	Best paper award at 2011 Cognitive Science Conference. Category: Applied Cognition.
2011	Faculty Mentor of the Month award (Feb 2011) from UROP (Undergraduate Research Opportunities Program).
2008	Best paper award at 2008 Cognitive Science Conference. Category: computational modeling of high-level cognition.
2002	Research Achievement Award. Indiana University, Cognitive Science Program.
2000	J.R. Kantor Graduate Award for accomplished graduate careers.
1999 - 2000	Research Fellowship of Indiana University College of Arts and Sciences.

PROFESSIONAL AFFILIATIONS

2025 -	Center for Language, Intelligence, and Computation (CLIC)
2022 -	CTBS (Center for Theoretical Behavioral Sciences)
2018-	Fellow of UCI Center for the Neurobiology of Learning and Memory
2015 -	Center for Cognitive Neuroscience & Engineering (UCI)
2007 - 2020	Center for Machine Learning and Intelligent Systems (UCI)
2006 -	Society for Mathematical Psychology
2005 -	Elected Fellow for the Society of Experimental Psychologists (SEP)
2002 - 2022	IMBS, Institute of Mathematical Behavioral Sciences, University of California, Irvine (member).
2000 -	Psychonomics Society
2000 -	Cognitive Science Society

EDITORIAL POSITIONS

2018 - Associate Editor for Computational Brain & Behavior

2015 - Consulting Editor for Psychological Review

2014 - 2018 Associate Editor for Psychonomic Bulletin & Review.

2014 - 2019 Editorial Board Member of Behavior Research Methods

2010 - Consulting Editor for Journal of Mathematical Psychology

2007 - 2009 Editorial Board Member for Psychonomic Bulletin & Review.

2006 Editorial Board Member for Journal of Experimental Psychology: Learning, Memory, and Cognition.

UNIVERSITY SERVICE

2025 - Executive Committee AI in Science Institute

2024 - Chair of the Department of Cognitive Sciences

2022- Undergraduate Director, Department of Cognitive Sciences

2023- Executive Committee CTBS (Center for Theoretical Behavioral Sciences)

2019 - 2022 Executive Committee IMBS (Institute Mathematical Behavioral Sciences)

2016 - 2018 Executive Committee (School of Social Sciences)

2014 - Faculty advisory board member for UCI Center in Data Science

2010 - 2017 Conflict of Interest Oversight Committee, UC Irvine.

PROFESSIONAL SERVICE

2023 Search committee to select Editor of JEP: Learning Memory and Cognition

2019 Chair of search committee for Editor of Behavior Research Methods journal

2018 Judge for UCI Big Ideas Challenge

2017 Special Award Judge for Intel Science and Engineering Fair, Los Angeles (May 16-17)

2016- Advisory Council Member for Central China Normal University School of Psychology

2012 - 2014 President of the Society of Mathematical Psychology

2015 - Advisory Council Member for Indiana University Cognitive Science Program

2009 - Executive board member of Society of Mathematical Psychology

2004 Briefing on text mining techniques at the White House Office of Science and Technology Policy, Washington, D.C.

CONFERENCE ORGANIZATION

2024 Member on panel "*Collaborative AI and Modeling of Humans*" at AAAI. Feb 22.

2023 Conference organization committee. *Mind & Machine Intelligence Summit: AI and Decision-Making*. Apr 13-14, UC Santa Barbara.

2022 Co-organizer. APS symposium on *Advancing Human-AI Communication and Interaction*. May 28.

2019 Co-organizer. NSF Workshop on Integrating Neural and Behavioral Data. Columbus Ohio. May 24.

2018 Co-organizer. *Psychonomics Collaborative Symposium, Osaka, Japan.*

2015 Text and Data Mining for Interactive Learning Symposium. UCI Data Science Initiative. Co-Chair. May 8.

2013 Program Committee CrowdConf 2013

2013 Program Committee UAI conference (Uncertainty in Artificial Intelligence)

2013 Co-organizer of IMBS conference on Wisdom of Crowds (Apr 18-19)

2007 Area Chair for NIPS 2007 (Neural Information Processing Systems)

2007 Conference Chair for meeting of the Society of Mathematical Psychology (with Michael Lee). Meeting held in Irvine.

2006 AAAI-06 Program Committee Member (National Conference on Artificial Intelligence)

2003 Co-organizer of NIPS (Neural Information Processing Systems) workshop on "Syntax, Semantics, and Statistics" with Rich Shiffrin, David Blei and Tom Griffiths.

2003 Session Chair: National Academy of Sciences Colloquium “Mapping Knowledge Domains”.

Ad-hoc reviewing (Journals)

Science, Psychological Review, Proceedings of the National Academy of Sciences, Nature Human Behavior, Nature Communications, Cognition, Cognitive Science, Psychonomic Bulletin & Review, Memory & Cognition, Journal of Memory and Language, Behavior Research Methods, Instruments, & Computers, BMC Bioinformatics, Trends in Cognitive Sciences, Journal of Mathematical Psychology Journal of Experimental Psychology: Learning, Memory, and Cognition, Journal of Learning and Memory, Journal of Artificial Intelligence Research, Journal of Experimental Psychology: Human Perception and Performance, Journal of Experimental Psychology: General, topiCS, Psychological Science, Acta Psychologica, Transactions on Multimedia Computing Communications and Applications, Journal of Problem Solving, Marketing Science, International Journal of Computer Games Technology, Decision Analysis, Decision, PLOS Computational Biology, Current Directions in Psychological Science.

Ad-hoc reviewing (Conferences/Organizations)

Neural Information Processing Systems (NeurIPS), Cognitive Science Society, Air Force Office of Scientific Research, International Conference of Machine Learning (ICML), NSF Perception, Action, and Cognition Program, Austrian Science Fund, Uncertainty in Artificial Intelligence (UAI), CrowdConf.

CONSULTING AND BUSINESS ACTIVITIES

2021 Consultant for Siminsights

2015 - 2017 Consultant for Gimbal

2014 - 2018 Scientific Advisory Board for CrowdSmart.io

2013 - 2014 Consultant for Rubicon

2009 - 2010 Consultant for eBay

2009 - 2010 Partner in Data Analytics, LLC, Irvine, CA.

2008 Consultant for PeopleBest

2006 - 2008 Consultant for Yahoo!

2007 Consultant for Merriam Webster

2006 Consultant for Netflix

2005 – 2008 Partner in TopicSeek, LLC, Irvine, CA.

2004 Consultant for Institute of Defense Analysis, Washington, D.C.

2004 - Scientific Advisory Board of Medical Care Corporation in Irvine.

STUDENTS

Postdocs

Brandon Turner (2011-2012) – Associate Professor at Ohio State University
Tracy Holsclaw (Partial supervision; 2012-2013)
Mike Yi (2011-2013)

Current PhD students

Heliodoro Tejeda (2020 – present)
Lukas Mayer (2023—present)
Xinyue Hu (2023—present)
Hinn Zhang (2025—present)

Former PhD students

Aakriti Kumar (2019 – 2024)
Alfred (Songyu) Liu (2023 – present)
Alex Bower (2018 – 2022)
Arseny Moskovitz (2017 - 2022) – Postdoc at Santa Fe institute
Dan Barsever (2021 – 2022)
Stephen Bennet (2014 – 2020)
Garren Gaut (2013-2018) -- Lieberman Research Worldwide in Los Angeles
Brent Miller (2008-2014) – Postdoc at Vanderbilt University
Sean Tauber (2008-2013) – Postdoc at University of Adelaide
Miles Munro (2007) – Visiting Asst. Professor Wesleyan University, now at Nuance Communications
Pernille Hemmer (2011) – Associate Professor at Rutgers University
Mike Yi (2011) – Coursera
Tim Rubin – Postdoc at Indiana University / SurveyMonkey

PhD Thesis Committees

Joetta Goebel (2003; CogSci), Michelle Miller (2005; CogSci), Colleen Nilson (2005; CogSci), Kayoko Okada (2005; CogSci), Chaitanya Chemedugunta (2009; CS). Matt Zeigenfuse (2010; CogSci), Shunan Zhang (June 4, 2012; CogSci). America Chambers (Sept, 2013; ICS). James Pooley (Dec 2013; CogSci). James Foulds (May 2014; ICS). Grant Walker (March 1, 2016; CogSci). Paul Williams, (Jan, 2017, International Examiner). Irina Danileiko (Apr 26, 2018, CogSci). Garren Gaut (May 9, 2018, CogSci, Chair). Percy Mistry (May 29, 2018, Cogsci, Member). Maime Guan (July 3, Cogsci, Member). Pele Schramm (Sept 6, 2019, CogSci, Member). Emily Sumner (Apr 24, 2020, CogSci, Member). Shafee Mohammed (June 16, 2020, Education, Member). Disi Ji (Nov 18, 2020, Computer Science, Member). Trisha Patel (Dec 7, 2020, University of Illinois, Psychology, Member). Stephen Bennett (Dec 10, 2020, Chair). Alex Teghipco (Nov 22, 2021, CogSci, Member). Arseny Moskovitz (May 18, 2022, CogSci, Chair). Dan Barsever (May 23, 2022, CogSci, Member/Co-advised). Alex Bower (June 1, 2022, CogSci, Chair). Holly Westfall (May 24, 2023, CogSci, Member). Nicolas Alonso (Nov 3, 2023, CogSci, Member). Mark Himmelstein (Dec 1, 2023, Psychology, External Examiner). Priyam Das (Dec 14, 2023, CogSci, Chair). Aakriti Kumar (March 8, 2024, CogSci, Chair). Lauren Montgomery (May 21, 2024, CogSci, Member). Jesus Manuel Villarreal Ulloa (May 23, CogSci, Member). Shaida Abachi (June 6, 2024, CogSci, Member). Yi Feng (June 13, Education, Member). Markelle Kelly (May 20, 2025, ICS, Member). Sajjad Torrabian (Aug 12, CogSci, Member).

PhD Candidacy Committees

Colleen Nilson (2003; CogSci), Michele Miller (2003; CogSci), Kayoko Okada (2004; CogSci), Bozhena Bidyuk (2005; ICS), Keita Fujii (2005; ICS), Miles Munro (2005; Cogsci; Chair) Jared Smith (2006; CogSci), Doug Grimes (2006; ICS), Chaitanya Chemudugunta (2006; ICS), Mike Yi (2007; CogSci; Chair), Matt Zeigenfuse (2009; CogSci), Shunan Zhang (2009; CogSci), Brian Marion (2010; CogSci), Sean Tauber (2010; CogSci), America Chambers (2010; ICS), James Pooley (2011; CogSci), Jennifer Lindsay (2011; CogSci), Robin Kaplan (Aug 23 2011; PSB), Chris Dubois (Nov 16 2011; ICS), Matthew Glass (Jun 22 2012; LPS), Grant Walker (Feb 25, 2015; CogSci), Michael Nunez (March 9, 2015; CogSci concentration exam); Padma Sharma (Sept 1, 2016; Economics advancement exam, outside member); Maime Hongyang (March 1, 2016, CogSci advancement, member); Tamara Tate (March 16, 2017, Education, outside member). Garren Gaut (May 2017, Chair). Prachi Mistry (June 8, 2017, CogSci, member). Tiffany Hwu (Dec 11, 2017, CogSci Member). Kyle Savinelli (May 30, 2018, CogSci, Member), Mac Strelioff (May 31, 2018, Member), Stephen Bennett (June 13, CogSci, Chair). Emily Sumner (Oct 10, 2018, CogSci Member), Shafee Mohammed (Dec 12, 2018, Education, Member), Alandi Jessica Bates (March 19, Concentration exam, Member), Disi Ji (June 6, 2019, ICS, Member), Vatche Baboyan (July 10, 2019, CogSci Advancement, Member), Paulina Silva (Nov 26, 2019, concentration exam, Member), Bobby Thomas (Dec 3, 2019, concentration exam, Member), Trisha Patel (Dec 6, 2019, University of Illinois, Psychology, Member), Alex Bower (Jan 29, advancement exam, Chair), Dan Barsever (Apr 7, advancement exam, Member). Arseny Moskvichev (May 20, 2020, concentration exam, Chair). Arseny Moskvichev (Aug 31, 2020, advancement exam, Chair). Aakriti Kumar (Dec 9, 2020, Concentration Exam, Chair), Dylan Slack (Apr 14, 2021,

Advancement Exam, Member). Lauren Montgomery (May 13, 2021, second year concentration exam, Member). Jeff Coon (May 28, 2021, advancement exam, Member). Holly Westfall (Nov 3, 2021, Advancement Exam, Member). Andrew Hansen (Nov 15, 2021, second year concentration exam, Member). Nidhi Banavar (Nov 24, 2021, second year concentration exam, Member). Kevin Nam (Apr 21, 2022, second year concentration exam, Member). Nicolas Alonso (May 13, 2022, advancement, Member). Aakriti Kumar (May 31, 2022, advancement exam, Chair). Mark Beers (Sept 6, 2022, second year concentration exam, Member). Yi Feng (Nov 29, 2022, dissertation proposal, Education, Member). Christopher Lechuga (Dec 5, 2022, dissertation proposal, Education, Member). Lauren Montgomery (Feb 24, 2023, advancement exam, CogSci, Member). Jesus Villarreal Ulloa (Feb 27, 2023, advancement exam, CogSci, Member). Andrew Hansen (Feb 27, 2023, advancement exam, CogSci, Member). Priyam Das (March 21, 2023, advancement exam, CogSci, Chair). Hin Wai Lui (May 2, 2023, advancement exam, CS, Member). Markelle Kelly (May 9, 2023, advancement exam, CS, Member), Doreen Yii Jie Hii (Sept 7, 2023, advancement exam, CogSci, Member). Theodoros Konstantinou Kapogianis (Sept 11, 2023, advancement exam, CNLM, Member). Sajjad Torabian (Sept 18, 2023, advancement exam, Member). Helena Garcia Escudero (Nov 6, 2023, Physics department, Member). Nora Hargen (Nov 29, 2023, advancement exam, CogSci, Member). Angela Shen (Jan 17, 2024, second year exam, CogSci, Member). Shaida Abachi (Jan 17, 2024, advancement exam, CogSci, Member). Nora Bradford (Apr 4, 2024, advancement exam, CogSci, Member). Kathleen Kaye Sy Medriano (May 31, 2024, concentration exam, CogSci, member). Helio Tejeda (June 12, 2024, concentration exam, Chair). Mark Beers (Sept 10, 2024, advancement exam, Member). Angela Chen (Sept 17, 2024, advancement exam, Member). Caterina Belem (Dec 2, 2024, advancement exam, CS, Member). Garret Mauter (March 17, 2025, concentration exam, Member). Helio Tejeda (April 16, 2025, advancement exam, Chair). Kathleen Medriano (June 9, 2025, advancement exam, Member). Mahbod Mehrvarz (Aug 25, advancement exam, CogSci, member). ZhaoBin Li (Oct 6, 2025, concentration exam, cogSci, Chair).

Masters Students supervised

Archana Raghunathan (2006), Michael Bacon (2008), Nicole Beckage (2011)

Undergraduate Students Supervised

Golnoosh Farzaneh (2003; independent study project), Angela Nelson (2003-2004; independent study project; summer undergraduate research program), Uyen Lee (2003; research project), Mercedes Lavoy (2004; independent study project; summer undergraduate research program; undergraduate research opportunities program), Pooja Reddy (2004; independent study project), Michelle Clark (2004; independent study project), Nick Punt (2004-2005; independent study project), Pernille Hemmer (2005; summer undergraduate research program), Steve Meissner (2006-2007; undergraduate research opportunities program), Amir Ali Habibi (2007; research project), Surina Ramirez (2007; research project), Hao-Ting Wu (2007; research project), Christina Maranhao (2009; research project), Michael Baumm (2009; UROP), Jenny Shi (2009; SURP; UROP), Annie Ditta (2010; research project). Sarah Hunt (2011-2012; research project), Alexes Starkweather (2020, UROP).

RESEARCH GRANTS

2025 – 2029 National Science Foundation. Title: *HCC: RI: Medium: Understanding Human-AI Interaction with Bayesian Learning* (10/1/2025-9/30/2029). This project aims to develop new models for Bayesian assessment of latent abilities of human and AI agents, incorporating effects such as dynamic changes in ability over time, the effect of AI advice, and varying degrees of problem difficulty. The project will also develop new approaches to adaptive decision policies in human-AI contexts and explore new directions in terms of the human experience in human-AI interaction models, accounting for subjective human factors such as fairness and perceived teamwork. Total budget: $900,000. **Role: Co-PI**.

2025 Honda Research Institute (HRI) at San Jose. Title: *Ad hoc Interaction Dynamics in Multi-User Collaboration (*9/25/2025 – 12/31/2025). This project focuses on multi-human interaction dynamics in short-term collaborative tasks. The objective is to analyze how ad-hoc human groups self-organize, interact and adapt when working under conditions of minimal structure and time pressure. The project will build the foundation for future investigations involving AI agents in the loop. Total Budget: $83,004. **Role: PI**.

2023 – 2025 Honda Research Institute (HRI) at Detroit. Title: *Agent to Agent Communication – Human AI Teaming* (9/1/2023-8/31/2025). The project aims to understand how human-AI teaming can be used to improve human situational awareness in spatial environments. The project will develop and test a Bayesian framework to optimize communication between human-AI teams. Total budget: $434,605. **Role: PI**.

2023 – 2025 Honda Research Institute (HRI) at San Jose. Title: *Enhancing Harmonious behavior in Hybrid Mobility Society* (7/10/2023-5/9/2025). For future hybrid mobility societies, it becomes increasingly important to cooperatively adapt the behavior of the autonomous and semi-autonomous agents to ensure not only safety and efficiency, but also overall wellbeing of humans. The project aims to develop an empirical and theoretical framework to understand how prosocial behavior by autonomous agents affects human well-being and in turn foster prosocial behavior towards other autonomous agents and humans. Total budget: $427,688. **Role: PI**.

2023 – 2025 MURI (Multidisciplinary University Research Initiative) funded by ONR (Office of Naval Research). Title: *Computational Cognitive Neuroscience Framework for Attentional Control Traits and States*. The project aims to develop a multi-level neurocomputational architecture for attention control (AC) and effective training strategies and personalized interventions to enhance AC, especially in high-pressure environments encountered by military personnel. The project involves extensive cross-university collaboration and requires the engagement of both US

teams (Washington University St. Louis and Brown University) and Australian teams (8/1/2023 – 5/19/2025). Total Budget: $4,499,306 (with possibility of future funding of $3,000,256). UCI Budget: $712,330. **Role: Co-I**.

2021 - 2022 UCI intramural funding from the Noyce initiative for research on theory-of-mind in human-AI collaboration. The goal of the project is to work with researchers at UC Santa Barbara to conduct empirical studies and develop new computational frameworks to understand how humans make inferences about the knowledge, beliefs, and capabilities of other humans or AI agents and how AI can be augmented with theory-of-mind capabilities to better understand and predict human behavior. Project has funded 14 GSRs. **Role: PI**.

2021 - 2021 IARPA (Intelligence Advanced Research Projects Activity). Title: *Leveraging Insights from Collective Human Expertise to Predict Important Nodes (Lynchpin)*. This project will apply a novel wisdom-of-crowds method to generate human ground truth estimates of a node's structural importance within complex, multi-tier supply chains. The human data is then used to train a novel algorithm for automatically identifying hidden risks and bottlenecks within supply networks. Such tools have been sorely lacking in the current COVID-19 response, hampering the ability of companies to anticipate and adapt to operational disruptions occurring beyond the first tier of direct suppliers. Role: **Consultant**.

2020 - 2023 ARC (Australian Research Council) Discovery Project. Title: *Linking arterial, brain and cognitive integrity in healthy older adults*. ARC-DP200101471. This project aims to deliver new fundamental knowledge about the link between arterial status (i.e., cerebrovascular reactivity and arterial elasticity), cognitive control ability, and brain structure and function in healthy ageing adults. The project examines how functionally exercising the prefrontal cortex impacts the status of the regional arteries that supply this brain region, as well as its structure and function. This is a collaborative effort with the Un. of Newcastle, Australia, University of Illinois, and UC Irvine. Total budget: $539,056. Budget for Steyvers supports travel. Role: **Partner Investigator**.

2019 – 2022 NSF. Title: "EAGER: AI-DCL: Hybrid human algorithm predictions: balancing effort, accuracy, and perceived autonomy" (award number 1927245). This project combines machine learning and psychology research to optimize the joint accuracy of human-machine algorithm system considering limited human resources and potential trade-offs in human and algorithmic prediction accuracy. In addition, the project investigates the effect of perceived autonomy on user engagement and drop out. Overall, the aim is to build hybrid systems where humans are considered not merely as exchangeable "cogs" in the system but as vital resources that need to be engaged and retained in order to maximize long-term accuracy. Budget: $293,923. (10/1/2019 – 9/31/2022). **Role: PI**.

2019 – 2025 NSF. Title "RI: Medium: Assessment of Machine Learning Algorithms in the Wild" (award number 1900644). This project supports research to advance the field of machine learning and cognitive science by developing new crowd-sourcing methods and algorithms for assessing and understanding how black-box algorithms and humans can work together to make effective predictions. Budget: $1,199,898 (10/1/2019 – 9/30/2025). **Role: Co-PI**.

2017 - 2021 IARPA (Intelligence Advanced Research Projects Activity). Title: *SAGE: Synergistic Anticipation of Geopolitical Events*. In this project, part of the Hybrid Forecasting Competition (HFC) program, we build a hybridized geopolitical forecasting platform that combines human forecasts for geopolitical events with machine learning models. These models can manifest as machine forecasts about the outcome of an event, or tools to help the human comb through large amounts of data to find evidence of historical events. Combining the strengths of these two forecasting sources should result in a system that is able to produce more accurate forecasts than any one input. The goal of these hybrid forecasting platforms is to get humans to work with machines in order to produce these accurate forecasts. This is a collaborative effort with USC, Stanford University, Fordham University and Columbia University. Budget: $843,561. **Role: PI (UC Irvine team)**.

2017 - 2019 ABC Visiting Professor (VIP) grant from the University of Amsterdam, the Netherlands. This grant supports travel and accommodations for innovative international researchers to engage in long-term collaborations with one of the research programs of ABC (Amsterdam Brain and Cognition). Approx. $8000.

2017 - 2020 ARC (Australian Research Council) Discovery Project. Title: *Modelling trajectories of cognitive control in adolescents and young adults*. This project aims to (1) develop an innovative modelling framework that will jointly model multiple measures of behavior, brain function and brain structure in order to characterize developmental trajectories of cognitive control in typically-developing young people, and (2) test the model's ability to predict future psychosocial outcomes. This is a collaborative effort with the Un. of Newcastle, Australia, University of Amsterdam, the Netherlands, and UC Irvine. Total budget: Approx. $492K AUD. Budget for Steyvers supports travel ($11K AUD). Role: **Partner Investigator**.

2015 – 2019 NSF, NCS-FO. Title: *Understanding Individual Differences in Cognitive Performance: Joint Hierarchical Bayesian Modeling of Behavioral and Neuroimaging Data*. The aim of the project is to improve our understanding of individual differences through the development and application of a hierarchical Bayesian framework to jointly model data from behavioral performance, task fMRI, resting state fMRI, MRI, and DTI. This is a collaborative effort with the Ohio State University. Budget: Approx. $300K. **Role: PI**.

2013 – 2016 NIH, NIDA (National Institute on Drug Abuse). Title: *Development and feasibility of computer based fidelity monitoring for Motivational Interviewing*. The general goal of the proposed project is to develop new methodologies to automatically score the MI fidelity of therapists by analyzing the text and speech in therapy transcripts. This is a collaborative effort with the Un. of Utah, Un. of Washington, and the Un. of Southern California. R34 DA034860-01. UCI Budget: Approx. $119K. **Role: PI**.

2013 – 2015 IARPA (Intelligence Advanced Research Projects Activity) and the Good Judgment Project. Title: *Aggregative Contingent Estimation System.* Within the larger forecasting project directed by the Good Judgment Team, my goal as a consultant is to develop and apply Bayesian signal detection analyses to measure AUC (Area Under the Curve) for individual forecasters and for aggregates as well as individual difference correlates of the AUC and other measures of forecasting expertise. The primary for this contract is the Good Judgment Team. **Role: Consultant**.

2011- 2016 National Institute of Mental Health (NIMH). Title: *Adaptive experimental method for evaluating computational models of cognition.* Collaborative grant with Ohio State University to develop novel adaptive design optimization methods to maximize the informativeness of the experimental results. Approx. $1.25M in direct costs. PI: Jay Myung. **Role: Consultant**.

2011 - 2013 IARPA (Intelligence Advanced Research Projects Activity). Title: *Aggregative Contingent Estimation System.* We investigate novel approaches to aggregate forecasting judgments across experts in the intelligence community. This is a collaborative effort with six other universities and a defense contractor (Applied Research Associates; ARA). Total budget approx. $4.5M over two years. UC Irvine budget approx. $500K. **Role: PI (UC Irvine team)**.

2010 - 2011 IARPA (Intelligence Advanced Research Projects Activity), Knowledge Discovery and Dissemination Program. Title: *Probabilistic Alignment and Distributed Analysis*. This is a collaborative effort with seven other universities and a defense contractor (Science Applications International Corporation; SAIC). UC Irvine budget $330K. **Role: Co-I**.

2010 - 2016 National Institute on Alcohol Abuse and Alcoholism (NIAAA). Title: *Automating Behavioral Coding via Text-Mining and Speech Signal Processing*. In this research, we use probabilistic topic models and speech signal processing to automatically analyze therapy sessions. The models learn the associations between text, acoustic features, and behavioral codes assigned by therapists with the goal to automate the coding of the therapy transcripts and predict the effectiveness of therapy. This is a collaborative effort with the Un. of Washington and the Un. of Southern California. Total Amount: $3.1M. Amount for UC Irvine: $830K. **Role: co-PI (entire team)**.

2010 – 2011 NAVY SBIR/STTR program (Solicitation STTR 2010.A: Topic - N10A - T029*).* Title: *Using Stylistic Topic Models to Detect Deception Through Unusual Linguistic Activity*. A small grant to collaborate with a small business (KitWare) for the development of a system to identify deceptive behavior in unstructured documents, particularly behavior signaled by deviations from an author's usual linguistic patterns. Amount: $39,590. (Co-PI: Pearl). **Role: PI**.

2009 - 2010 Council on Research, Computing and Library Resources (CORCLR). Title: *Linguistic Cues to Social Information*. A small seed grant designed to develop the large-scale database and the computational techniques to automatically identify social information available in text. Amount: $13,000. (PI: Pearl). **Role: Co-PI**

2008 AFRL/AFOSR supplemental grant. Title: *Modeling Exploration and Exploitation in Structured Environments*, 7/1/2008 – 9/30/2008. Amount: $60,000. (PI Michael Lee). **Role: Co-PI.**

2008 – 2009 NSF-DARPA-NSA consortium, Knowledge Discovery and Dissemination Program. Title: *Statistical Topic Modeling of Documents, Entities, and Network Data*. In this research, we develop fast and scalable algorithms that can generate interpretable topical summaries of documents in time on the order of minutes or less. We also develop statistical principles and algorithms for social network models that incorporate both document content and entity attributes, e.g., as in sets of emails and blogs. Finally, we develop new statistical models that leverage ontologies for topic extraction from noisy blogs and email. Amount: $391,000. (PI Smyth). 8/1/2008-7/31/2009. **Role: Co-PI**.

2008 – 2012 Australian Research Council Discovery Project DP0878858 . Title: A new kind of dynamics for psychology. Amount: $657,000. (PI Scott Brown). **Role: Consultant**

2007 – 2009 AFRL/AFOSR. Title: *Modeling Exploration and Exploitation in Structured Environments*. In this research, we study dynamic decision-making tasks where people must choose between a set of alternatives, each with different unknown reward rates, to maximize the total reward. A key feature of the task is that it challenges people to balance the exploration of unfamiliar choices with the exploitation of familiar ones. We use a Bayesian model of optimal decision-making on the task, in which how people balance exploration with exploitation depends on their assumptions about the distribution of reward rates. 1/1/2007 – 11/30/2009. Amount: $456,031. (PI Michael Lee). **Role: Co-PI.**

2006 – 2007 NSF-DARPA-NSA consortium, Knowledge Discovery and Dissemination Program. Title: *Entity-Topic Modeling, Querying, and Analysis*. This research centers on a novel statistical modeling framework that relates entities, documents, and words via a set of latent topics. We demonstrate how statistical entity-topic modeling can provide a powerful set of new techniques for information retrieval on entities across multiple text sources and relational databases. Amount: $300,000. (PI Smyth). **Role: Co-PI**.

2005 – 2006 NSF-ARMY consortium. Title: *Online Topic Extraction and Change Detection from Massive Multilingual Text Streams*. 9/1/2005 – 8/31/2006. We develop a new generation of statistical topic modeling algorithms that can handle massive streaming text sources. We demonstrate the capabilities of these algorithms by developing a prototype system that monitors and extracts topics over time from online news sources in a variety of languages. Amount $120,000. (PI Smyth). **Role: Co-PI**

2005 NSF-DARPA-NSA consortium. Title: *Knowledge Discovery and Dissemination (KDD) evaluation*, 7/1/2005-8/1/2005. In this proposal we will use the topic model as a common component in our approach to three different prediction tasks of the KDD challenge. We will use the author-topic model for predicting edges in networks and the standard topic model for predicting changes in topics over time, and information retrieval. Amount: $55,000. (PI Smyth). **Role: Co-I**

2004 – 2007 AFRL/AFOSR. Title: *Inference in dynamic environments*, 7/1/2004 – 12/31/2007. An empirical and theoretical investigation into dynamic decision-making environments. We develop simple dynamic signal detection models to measure the trial-by-trial changes in decision processes in lexical decision, recognition memory, various perceptual tasks as well as simulated battle field environments. Amount: $371,616. (Co-PI: Brown). **Role: PI**

2003 – 2004 Council on Research, Computing and Library Resources (CORCLR). Title: *The Dynamics of Decision Making and Criterion Setting: Data and Theory*, 7/1/2003 – 6/30/2004. This small seed grant served to purchase initial equipment to collect pilot data for the AFRL/AFOSR grant. Amount: $11,950. (PI Brown). **Role: Co-PI**

2002 – 2006 NSF-DARPA-NSA consortium, Knowledge Discovery and Dissemination Program. Title: *Entity-Based Data Mining from Spatiotemporal and Text-Based Data Streams*, 10/1/2002 – 5/1/2007. Amount: $726,600. (PI Smyth). **Role: Co-I**

PRESS COVERAGE/PUBLICITY

Sept 8, 2025 Nature News: Can researchers stop AI making up citations?

Jan 22, 2025 UCI News: UC Irvine study finds mismatch between human perception and reliability of AI-assisted language tools. Also reported in discourse on development, techxplore.

Jan 29, 2024 Forbes magazine: Four ways to empower businesses through AI

July 31, 2023 UCI News: Innovator of the Year Award Nominees

March 7, 2022	UCI News: UCI researchers develop hybrid human-machine framework for building smarter AI. Also reported in Science Daily, AZoRobotics, India Education Diary, Unite.ai.
Apr 7, 2022	Radio interview with Middle East Broadcasting Networks.
Sept 1, 2020	UCI School of Social Sciences News. Online brain games show learning ability in one area can predict performance in another
June 1, 2020	OC Register. FPF Award for Research Data Stewardship
May 20, 2020	Future of Privacy Forum. FPF Honors UC-Irvine/Lumos Labs Partnership with First-Ever Award for Research Data Stewardship
	Politico Morning-Tech. The Future of Privacy Forum awarded its first-ever Research Data Stewardship prize
Oct 30, 2019	Market Report Gazette. Tremendous Opportunities in Online brain Training Market
Sept 3, 2019	NewstalkZB. Study finds 'brain training' can prevent mental decline
Aug 28, 2019	University of California News: Why grandpa and grandma should be playing video games
Aug 19, 2019	Daily Mail: "You really CAN teach an old dog new tricks: Hard work, persistence and practice can help elderly people improve their skills".
	UCI News: "Online brain games can extend in-game 'cognitive youth' into old age, UCI-led study finds". Also reported in Science Daily, Technology Networks.coms, Futurity.com, Consumeraffairs.com, Scienmag.com, and Earth.com. Similar stories were reported in Mobihealthnews and News Medical Life Sciences, MNN.com, and Studyfinds.org.
	Newcastle Herald : "Brain training research examined the Lumosity app". Report was syndicated by 125 other Australian news sources
	Pharma Industry Reports: Cognitive Youth Can Be Extended In-Game By Online Brain Games Into Old Age
Jan, 2017	Commented on Nature article ("*How to find the right answer when the 'wisdom of the crowd' fails*", Nature, 541, 2017):
March, 2016	Trends in Cognitive Sciences Spotlight article "Cognitive Models and Bridge between Brain and Behavior" by Brad Love. Discusses the joint modeling research papers by Turner, Rodriguez, Norcia, McClure, & Steyvers (2016) and Turner, Forstmann, Wagenmakers, Brown, Sederberg, and Steyvers (2013).

Oct 10, 2012 BBC's Future column: "*Intelligence agencies turn to crowdsourcing*". Reports on new forecasting site developed in ACES-IARPA project in which UC Irvine collaborates with ARA, the research firm mentioned in the article. http://www.bbc.com/future/story/20121009-for-all-of-our-eyes-only

Aug 21, 2012 Los Angeles Times: *U.S. intelligence tests crowd-sourcing against its experts*.

Sept 19, 2011 UCI Campus News: "*Crowd Mentality: UCI cognitive scientists are aggregating people's opinions to forecast the future*". The news story was also picked up by physorg (Sept 21) and was featured in UCI Social Science News (Aug 31).

Dec 2010 Communications of the ACM (Dec 2010, Vol 53, No. 12, p. 17). "*Topic models vs. Unstructured data*". Discusses the promise of topic modeling to explore and understand huge collections of unlabeled information.

Aug 2011 C4ISR Journal (Aug p. 24-25). "*Crowd wisdom: U.S. Intelligence researchers seek public help with forecasting experiment*". Discusses the forecasting system that is built by a team of universities, including UC Irvine, under the IARPA ACES grant

July, 2011 Wired Magazine: "*Spy Agency's Next Top Analyst: You*". Discusses the forecasting system that is built by a team of universities, including UC Irvine, under the IARPA ACES grant

Dec 8, 2007 New Scientist (issue 2633, page 27). "*Do our brains work like Google?*". A report on the article by Griffiths, Steyvers, Flirl (2007) in Psychological Science.

Dec 1, 2007 New Scientist (issue 2632). "*Monitoring email could spot alienated employees"*. A report on how the Author-Topic model can be used to monitor company email.

Nov 13, 2007 NRC Handelsblad: "*Human memory googling for words*" (original title: "*Menselijk geheugen 'googlet' naar woorden*"). A summary of results from the Griffiths, Steyvers, Firl (2007) paper in Psychological Science.

June 22, 2007 Science (Vol 316, p. 1693). "*Congress Splits Over Plan to Consolidate Intelligence Research*". Contains brief excerpts from interviews with scientists about the synergy between intelligence agencies and the scientific community.

March 27, 2007 OC Register: "*Air Force gives UC Irvine $456,000 to study how people make decisions*"

July 26, 2006 UCI News release*: "UCI Researchers "Text Mine" The New York Times, Demonstrating Ease And Evolution Of Potent New Technology*". Reported by *OC Register*, *United Press International*, *ScienceDaily*, *Medical News Today*,

Daily India, *Malaysian Sun*, *PhysOrg*, *Chronicle of Higher Education*, *Top Tech News*, *Supercomputing online*.

June 2004 APA Science Policy Insider News: "*Data Mining at the White House*".

April 6, 2004 NSF Press release: *"Here There Be Data: Mapping the Landscape of Science".*

PUBLICATION LIST (34,788 citations, h-index of 68 via Google Scholar as of Oct 12, 2025)

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(B5) Steyvers, M., Shiffrin, R.M., & Nelson, D.L. (2004). Word Association Spaces for Predicting Semantic Similarity Effects in Episodic Memory. In A. Healy (Ed.), *Experimental cognitive psychology and its applications*, 237-249: American Psychological Association.

(B6) Steyvers, M., & Griffiths, T.L. (2007). Probabilistic Topic Models. In T. Landauer, D. McNamara, S. Dennis & W. Kintsch (Eds.) *Handbook of Latent Semantic Analysis*, pp. 427-448. Erlbaum. Mahwah, New Jersey.

(B7) Steyvers, M. & Griffiths, T.L. (2008). Rational Analysis as a Link between Human Memory and Information Retrieval. In N. Chater and M Oaksford (Eds.) *The Probabilistic Mind: Prospects from Rational Models of Cognition*. Oxford University Press, pp. 327-347.

(B8) Steyvers, M. & Hemmer, P. (2012). Reconstruction from Memory in Naturalistic Environments. In Brian H. Ross (Ed.) *The Psychology of Learning and Motivation*, Vol 56. Elsevier Publishing, pp. 126-144.

(B9) Steyvers, M. (2014). The Collective Memory Performance in a Recognition Memory Task. In Raaijmakers, Criss, Goldstone, Nosofsky, and Steyvers (Ed.) *Cognitive Modeling in Perception and Memory*. Routledge / Taylor & Francis, pp. 229-242.

(B10) Steyvers, M., Miller, B. (2015). Cognition and Collective Intelligence. In Bernstein, M. and Malone, T.W. (Eds.) *Handbook of Collective Intelligence*. MIT Press, pp. 119-138.

(B11) Hawkins, G.E., Cavanagh, J.F., Brown, S.D., and Steyvers, M. (2020). Cognitive Models As A Tool To Link Decision Behavior With EEG Signals. In B. Forstmann and B. Turner (Eds). *An Introduction to Model-Based Cognitive Neuroscience*. Springer.

Papers in Refereed Conference Proceedings

(C1) Steyvers, M. & Grünwald, P. (1996). A recurrent network that performs a context-sensitive task. In: *Proceedings of the Eighteenth Annual Conference of the Cognitive Science Society* (pp. 335-339). La Jolla, CA. Lawrence Erlbaum Associates.

(C2) Goldstone, R.L., Steyvers, M. & Larimer, K. (1996). Categorical Perception of Novel Dimensions. In *Proceedings of the Eighteenth Annual Conference of the Cognitive Science Society* (pp. 243-248). La Jolla, CA. Lawrence Erlbaum Associates.

(C3) Steyvers, M., Wagenmakers, E.J.M., Shiffrin, R.M., Zeelenberg, R., & Raaijmakers, J.G.W. (2001). A Bayesian model for the time-course of lexical processing. In: *Proceedings of the Fourth International Conference on Cognitive Modeling*. George Mason University, Fairfax, VA.

(C4) Griffiths, T.L., & Steyvers, M. (2002). A probabilistic approach to semantic representation. In Gray W. and Schunn, C. (eds): *Proceedings of the Twenty-Fourth Annual Conference of Cognitive Science Society*, pp. 381-386. Erlbaum.

(C5) Griffiths, T.L., & Steyvers, M. (2002). Prediction and semantic association. In: *Advances in Neural Information Processing Systems, 15,* pp. 11-18. MIT Press.

(C6) Rosen-Zvi, M., Griffiths T., Steyvers, M., & Smyth, P. (2004). The Author-Topic Model for Authors and Documents. In *20th Conference on Uncertainty in Artificial Intelligence,* pp. 487-494. AUAI Press, Arlington, Virginia. (29% acceptance rate).

(C7) Steyvers, M., Smyth, P., Rosen-Zvi, M., Griffiths T. (2004). Probabilistic Author-Topic Models for Information Discovery. In W. Kim, R. Kohavi, J. Gehrke, and W. DuMouchel (Eds.) *The Tenth ACM SIGKDD International Conference on Knowledge Discovery and Data Mining,* pp. 306-315, ACM, New York. (12% acceptance rate for full papers).

(C8) Griffiths, T.L., & Steyvers, M., Blei, D.M., & Tenenbaum, J.B. (2005). Integrating Topics and Syntax. In: *Advances in Neural Information Processing Systems, 17* (Saul, L.K et al., eds), 537-544. MIT Press.

(C9) Navarro, D. J., Griffiths, T. L., Steyvers, M. & Lee, M. D. (2005). Modeling individual differences with Dirichlet processes. In B. G. Bara, L. W. Barsalou & M. Bucciarelli (Eds.) *Proceedings of the 27th Annual Conference of the Cognitive Science Society* (pp. 1594-1599). Mahwah, NJ: Lawrence Erlbaum

(C10) Steyvers, M., & Brown, S. (2006). Prediction and Change Detection. In Y. Weiss, B. Scholkopf, and J. Platt (Eds.) *Advances in Neural Information Processing Systems, 18,* pp. 1281-1288. MIT Press. (27% acceptance rate).

(C11) Newman, D., Chemudugunta, C., Smyth, P., & Steyvers, M. (2006). Analyzing entities and topics in news articles using statistical topic models. In: Springer Lecture Notes in Computer Science (LNCS) series -- *IEEE International Conference on Intelligence and Security Informatics*. (31% acceptance rate).

(C12) Newman, D., Chemudugunta, C., Smyth, P., & Steyvers, M. (2006). Statistical entity-topic

models. *The Twelfth ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*. Philadelphia (23% acceptance rate).

(C13) Chemudugunta, C., Smyth, P., & Steyvers, M. (2007). Modeling General and Specific Aspects of Documents with a Probabilistic Topic Model. In: *Advances in Neural Information Processing Systems, 19*. (24% acceptance rate)

(C14) Hemmer, P. & Steyvers, M. (2008). A Bayesian Account of Reconstructive Memory. In V. Sloutsky, B. Love, and K. McRae (Eds.) *Proceedings of the 30th Annual Conference of the Cognitive Science Society*. Mahwah, NJ: Lawrence Erlbaum. (30% acceptance rate for oral presentation) [BEST PAPER AWARD IN COMPUTATIONAL MODELING OF HIGH-LEVEL COGNITION]

(C15) Chemudugunta, C., Holloway, A., Smyth, P., & Steyvers, M. (2008). Modeling Documents by Combining Semantic Concepts with Unsupervised Statistical Learning. In: *7th International Semantic Web Conference*. (16% acceptance rate)

(C16) Chemudugunta, Smyth, P., & Steyvers, M. (2008). Combining Concept Hierarchies and Statistical Topic Models. In: *ACM 17th Conference on Information and Knowledge Management*. (34% acceptance rate)

(C17) Lee, M.D., Grothe, E., & Steyvers, M. (2009). Conjunction and Disjunction Fallacies in Prediction Markets. In N. Taatgen, H. van Rijn, L. Schomaker and J.Nerbonne (Eds.) *Proceedings of the 31th Annual Conference of the Cognitive Science Society*, pp. 1639-1644. Mahwah, NJ: Lawrence Erlbaum.

(C18) Hemmer, P. & Steyvers, M. (2009). Integrating Episodic and Semantic Information in Memory for Natural Scenes. In N. Taatgen, H. van Rijn, L. Schomaker and J.Nerbonne (Eds.) *Proceedings of the 31th Annual Conference of the Cognitive Science Society,* pp. 1557-1562. Mahwah, NJ: Lawrence Erlbaum.

(C19) Rubin, T., & Steyvers, M. (2009). A Topic Model For Movie Choices and Ratings. In: *Proceedings of the Ninth International Conference on Cognitive Modeling*. Manchester, UK.

(C20) Lee, M.D., Zhang, S., Munro, M., & Steyvers, M. (2009). Using Heuristic Models to Understand Human and Optimal Decision-Making on Bandit Problems. In: *Proceedings of the Ninth International Conference on Cognitive Modeling*. Manchester, UK.

(C21) Miller, B., Hemmer, P., Steyvers, M., & Lee, M.D. (2009). The Wisdom of Crowds in Ordering Problems. In: *Proceedings of the Ninth International Conference on Cognitive Modeling*. Manchester, UK.

(C22) Steyvers, M., Lee, M.D., Miller, B., & Hemmer, P. (2009). The Wisdom of Crowds in the

Recollection of Order Information. In Y. Bengio and D. Schuurmans and J. Lafferty and C. K. I. Williams and A. Culotta (Eds.) *Advances in Neural Information Processing Systems, 22,* pp. 1785-1793. MIT Press. (24% acceptance rate).

(C23) Pearl, L., Goldwater, S., & Steyvers, M. (2010) How Ideal Are We? Incorporating Human Limitations into Bayesian Models of Word Segmentation, *BUCLD 34: Proceedings of the 34th annual Boston University Conference on Child Language Development*, Somerville, MA: Cascadilla Press, 315-326.

(C24) Pearl, L., & Steyvers, M. (2010). Identifying Emotions, Intentions, and Attitudes in Text Using a Game with a Purpose. *NAACL-HLT 2010 Workshop on Computational Approaches to Analysis and Generation of Emotion in Text*. Los Angeles, CA.

(C25) Hemmer, P., Steyvers, M., & Miller, B. (2010). The Wisdom of Crowds with Informative Priors. In S. Ohlson, and R. Catrambone (Eds.) *Proceedings of the 32nd Annual Conference of the Cognitive Science Society,* pp. 1130-1135. Mahwah, NJ: Lawrence Erlbaum.

(C26) Yi, S.K.M., Steyvers, M., Lee, M.D., & Dry, M. (2010). Wisdom of Crowds in Minimum Spanning Tree Problems. In S. Ohlson, and R. Catrambone (Eds.) *Proceedings of the 32nd Annual Conference of the Cognitive Science Society,* pp. 1840-1845. Mahwah, NJ: Lawrence Erlbaum.

(C27) Holloway, A., Smyth, P, & Steyvers, M. (2010). Learning concept graphs from text with stick-breaking priors. *Advances in Neural Information Processing Systems, 23* (24% acceptance rate).

(C28) Merkle, E.C., & Steyvers, M. (2011). A Psychological Model for Aggregating Judgments of Magnitude. In J. Salerno, S.J. Yang, D. Nau, S.-K Chai (Eds.), *Social Computing, Behavioral Modeling, and Prediction, Lecture Notes in Computer Science 6589* (pp. 236-243). Heidelberg: Springer.

(C29) Lee, M.D., Steyvers, M., de Young, M., & Miller, B. (2011). A model-based approach to measuring expertise in ranking tasks. In L. Carlson, C. Hölscher, & T.F. Shipley (Eds.), *Proceedings of the 33rd Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society. [BEST PAPER AWARD IN APPLIED COGNITION CATEGORY OF THE COMPUTATIONAL MODELING PRIZE]

(C30) Miller, B., & Steyvers, M. (2011). The Wisdom of Crowds with Communication. In L. Carlson, C. Hölscher, & T.F. Shipley (Eds.), *Proceedings of the 33rd Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society.

(C31) Tauber, S., & Steyvers, M. (2011). Using inverse planning and theory of mind for social goal inference. In L. Carlson, C. Hölscher, & T.F. Shipley (Eds.), *Proceedings of the 33rd*

Annual Conference of the Cognitive Science Society. Austin, TX: Cognitive Science Society.

(C32) Rubin, T., Zeigenfuse, M., & Steyvers, M. (2011). A Model of Concept Generalization and Feature Representation in Hierarchies. In L. Carlson, C. Hölscher, & T.F. Shipley (Eds.), *Proceedings of the 33rd Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society.

(C33) Turner, B., & Steyvers, M. (2011). A Wisdom of the Crowd Approach to Forecasting. *2nd NIPS workshop on Computational Social Science and the Wisdom of Crowds*.

(C34) Beckage, N., Steyvers, M., & Butts, C. (2012). Route choice in individuals—semantic network navigation. In. N. Miyake, D. Peebles, and R.P. Cooper (Eds.), *Proceedings of the 34th Annual Conference of the Cognitive Science Society*. Cognitive Science Society (pp. 108-113).

(C35) Warnaar, D. B., Merkle, E. C., Steyvers, M., Wallsten, T. S., Stone, E. R., Budescu, D. V., Yates, J. F., Sieck, W. R., Arkes, H. R., Argenta, C. F., Shin, Y., & Carter, J. N. (2012). The aggregative contingent estimation system: Selecting, rewarding, and training experts in a wisdom of crowds approach to forecasting. *Proceedings of the 2012 Association for the Advancement of Artificial Intelligence Spring Symposium Series* (*AAAI Technical Report SS-12-06*), 75–76.

(C36) Tauber, S., Steyvers, M. (2013). Inference of Subjective Prior Knowledge: An Integrative Bayesian Approach. In M. Knauff, M. Pauen, Sebanz, N., and Wachsmuth (Eds.), *Proceedings of the 35th Annual Conference of the Cognitive Science Society*. Cognitive Science Society. (pp. 3510-3515).

(C37) Qiang, L., Steyvers, M., & Ihler, A. (2013). Scoring Workers in Crowdsourcing: How Many Control Questions are Enough? *Advances in Neural Information Processing Systems, 26* (25% acceptance rate).

(C38) Kim, W., Pitt, M., Lu, Z.L., Steyvers, M., Gu, H., & Myung, J.I. (2014). A Hierarchical Adaptive Approach to the Optimal Design of Experiments. *Proceedings of the 36th Annual Conference of the Cognitive Science Society*. Cognitive Science Society (pp 749-754).

(C39) Lee, M.D., Liu, E.C., & Steyvers, M. (2015). The roles of knowledge and memory in generating top-10 lists. In D.C. Noelle & R. Dale (Eds.), *Proceedings of the 37th Annual Conference of the Cognitive Science Society*, pp. 1267-1272. Austin, TX: Cognitive Science Society.

(C40) Bennett, S.T., Benjamin, A.S., & Steyvers, M. (2017). A Bayesian model of knowledge and metacognitive control. In Gunzelmann, G., Howes, A., Tenbrink, T. and Davelaar, E.

(Eds.), *Proceedings of the 39th Annual Conference of the Cognitive Science Society*, pp. 1623-1628. Austin, TX: Cognitive Science Society.

(C41) Miller, B., & Steyvers, M. (2017). Leveraging Consistency in Responding within Individuals to Improve Group Accuracy for Rank-Ordering Problems. In Gunzelmann, G., Howes, A., Tenbrink, T. and Davelaar, E. (Eds.), *Proceedings of the 39th Annual Conference of the Cognitive Science Society*, pp. 793-798. Austin, TX: Cognitive Science Society.

(C42) Sumner, E., Steyvers, M., & Sarnecka, B.W. (2019). It's not the treasure, it's the hunt: Children are more explorative on an explore/exploit task than adults. In Goel, A., Seifert, S., and Freksa, C. (Eds.), *Proceedings of the 41th Annual Conference of the Cognitive Science Society*, pp. 2891-2897. Austin, TX: Cognitive Science Society.

(C43) Kumar, A., Balota, D., & Steyvers, M. (2019). Distant Concept Connectivity in Network-Based and Spatial Word Representations. In Goel, A., Seifert, S., and Freksa, C. (Eds.), *Proceedings of the 41th Annual Conference of the Cognitive Science Society*, pp. 1348-1354. Austin, TX: Cognitive Science Society.

(C44) Moskvichev, A., Tikhonov, R. & Steyvers, M. (2019). A Picture is Worth 7.17 Words: Learning Categories from Examples and Definitions. In Goel, A., Seifert, S., and Freksa, C. (Eds.), *Proceedings of the 41th Annual Conference of the Cognitive Science Society*, pp. 2406-2412. Austin, TX: Cognitive Science Society.

(C45) Bower, A.H., Burton, A., Batchelder, W. & Steyvers, M. (2019). An Insight into Language: Investigating Lexical and Morphological Effects in Compound Remote Associate Problem Solving. In Goel, A., Seifert, S., and Freksa, C. (Eds.), *Proceedings of the 41th Annual Conference of the Cognitive Science Society*, pp. 166-173. Austin, TX: Cognitive Science Society.

(C46) Ji, D., Logan, R., Smyth, P., & Steyvers, M. (2019). Bayesian Evaluation of Black Box Classifiers. *ICML Workshop on Uncertainty & Robustness in Deep Learning*.

(C47) Moskvichev, A., & Steyvers, M. (2019). Word Games as milestones for NLP research. *Fourth Games and Natural Language Processing Workshop (GAMNLP-19)*.

(C48) Morstatter, F., Galstyan, A., Satyukov, G. Benjamin, D., Abeliuk, A., Mirtaheri, M., Szekely, P., Ferrara, E., Matsui, A., Steyvers, M., Bennet, S., Budescu, D., Himmelstein, M., Ward, M., Beger, A., Catasta, M., Sosic, R., Leskovec, J., Atanasov, P., Joseph, R., Sethi, R., Abbas, A. (2019). SAGE: A Hybrid Geopolitical Event Forecasting System. *Proceedings of the 28th International Joint Conference on Artificial Intelligence*, pp. 6557-6559.

(C49) Bower, A.H., & Steyvers, M. (2020). An Aha! Walks into a Bar: Joke Completion as a

Form of Insight Problem Solving. In S. Denison, M. Mack, Y. Xu, and B.C. Armstrong (Eds.), *Proceedings of the 42th Annual Conference of the Cognitive Science Society*, pp. 3034-3040. Austin, TX: Cognitive Science Society.

(C50) Ji, D., Smyth, P., & Steyvers, M. (2020). Can I Trust My Fairness Metric? Assessing Fairness with Unlabeled Data and Bayesian Inference? *Advances in Neural Information Processing Systems (NeurIPS), 34* (20% acceptance rate).

(C51) Ji, D., Logan, R., Smyth, P., & Steyvers, M. (2021). Active Bayesian Assessment of Black-Box Classifiers? *Thirty-Fifth AAAI Conference on Artificial Intelligence, 35* (21% acceptance rate).

(C52) Kumar, A., Patel, T., Benjamin, A. & Steyvers, M. (2021). Explaining Algorithm Aversion with Metacognitive Bandits. *Proceedings of the Annual Meeting of the Cognitive Science Society, 43(43)*, pp. 2780-2786. Austin, TX: Cognitive Science Society.

(C53) Kerrigan, G., Smyth, P., & Steyvers, M. (2021). Combining Human Predictions with Model Probabilities via Confusion Matrices and Calibration. *Advances in Neural Information Processing Systems (NeurIPS), 35* (26% acceptance rate).

(C54) Kumar, A., Tejeda, H., & Steyvers, M. (2022). An Empirical Investigation of Reliance on AI-Assistance in a Noisy-Image Classification Task. *Hybrid Human Artificial Intelligence (HHAI), 352, 235-237.*

(C55) Kumar, A., Akash, K., Mehrota, S., Misu, T., & Steyvers, M. (2023). When Do Drivers Intervene In Autonomous Driving? Contrasting Drivers' Perceived Risk Across Two Mobility Types. *ACM/IEEE International Conference on Human-Robot Interaction* (HRI), pp. 301-305. ACM Digital Library

(C56) Kumar, A., Tejeda, H., & Steyvers, M. (2023). How Displaying AI Confidence Affects Reliance and Hybrid Human-AI Performance. *Hybrid Human Artificial Intelligence (HHAI), 368, 234-242. 38% acceptance rate.*

(C57) Kumar, A., & Steyvers, M. (2023). Help me help you: A computational model for goal inference and action planning. *Proceedings of the Annual Meeting of the Cognitive Science Society, 45(45)*, pp. 486-492. Austin, TX: Cognitive Science Society. (18% acceptance rate for oral presentation).

(C58) Kelly, M., Kumar, A. Smyth, P., & Steyvers, M. (2023). Capturing humans' mental models of AI: an item response theory approach. *ACM Conference on Fairness, Accountability, and Transparency,* pp 1723-1734.

(C59) Wang, X., Zhu, W., Saxon, M., Steyvers, M., Wan, W.Y. (2024). Large Language Models Are Implicitly Topic Models: Explaining and Finding Good Demonstrations for In-Context

Learning. *Advances in Neural Information Processing Systems (NeurIPS), 36 (26% acceptance rate)*

(C60) Showalter, S., Boyd, A., Smyth, P., & Steyvers, M. (2024). Bayesian Online Learning for Consensus Prediction. *The 27th International Conference on Artificial Intelligence and Statistics (AISTATS)*. PMLR, 238.

(C61) Hu, X., Akash, K., Mehrota, S., Misu, T., & Steyvers, M. (2024). Prosocial Acts Towards AI Shaped By Reciprocation And Awareness. *Proceedings of the Annual Meeting of the Cognitive Science Society*, 46, 2270-2277.

(C62) Karny, S., Mayer, L.W., Ayoub, J., Tian, D., Song, M., Moradi-Pari, E., Su, H., & Steyvers, M. (2024). Learning with AI Assistance: A Path to Better Task Performance or Dependence? *ACM's 2024 Collective Intelligence Conference*, Boston, MA, pp 10-17.

(C63) Liu, S., & Steyvers, M. (2024). Combining Human and AI Strengths in Object Counting under Information Asymmetry. *Proceedings of the AAAI Conference on Human Computation and Crowdsourcing*, 12(1), 86-94. (*27% acceptance rate).*

(C64) Belem, C.G., Kelly, M., Steyvers, M., Singh, S., & Smyth, P. (2024). Perceptions of Linguistic Uncertainty by Language Models and Humans. *Proceedings of the 2024 Conference on Empirical Methods in Natural Language Processing (EMNLP), 8467—8502*

(C65) Kumar, A., Tham, R.H. & Steyvers, M. (2025). Seeing Things Differently: The Role of Differing Perspectives in Advice-Taking In D. Barner, N.R. Bramley, A. Ruggeri and C.M. Walker (Eds.)*, Proceedings of the 47th Annual Meeting of the Cognitive Science Society, 1054-1060.*

(C66) Li, Z., & Steyvers, M. (2025). Metacognitive Sensitivity in Human-AI Decision-Making. In D. Barner, N.R. Bramley, A. Ruggeri and C.M. Walker (Eds.)*, Proceedings of the 47th Annual Meeting of the Cognitive Science Society, 1773-1779.*

(C67) Kelly, M., Boyd, A.J., Showalter, S., Smyth, P., & Steyvers, M. (2025). Bayesian Consensus Prediction for Correlated Human Experts and Classifiers. *Proceedings of the International Conference on Machine Learning* (ICML).

(C68) Hu, X., Mehrota, S., Zahedi, Z., Misu, T., Akash, K. & Steyvers, M. (2025). Does Observing Helping Robots Promote Prosociality? Challenges of Learning from Observation in Spatial Environments. *Proceedings of the ACM Collective Intelligence Conference, 159-168*.

Published Abstracts & Workshop papers (peer reviewed)

(W1) Turner, B. & Steyvers, M. (2013). A Bayesian framework for simultaneously modeling neural and behavioral data. *Neuroscience, 2013*. Program Number: 9331. Online.

(W2) Qiang, L., Steyvers, M., Fisher, J.W., & Ihler, A. (2013). On Reliable Crowdsourcing and the Use of Ground Truth Information. *CrowdScale at HCOMP 2013: The 1st Conference on Human Computation & Crowdsourcing*.

(W3) Hemmer, P., Shi, J. & Steyvers, M. (2010). The influence of Real-World Knowledge on Recall for Height [Abstract]. In S. Ohlsson & R. Catrambone (Eds.), *Proceedings of the 32nd Annual Conference of the Cognitive Science Society* (p. 2402). Austin, TX: Cognitive Science Society.

(W4) Bower, A. & Steyvers, M. (2021). The Funny Thing About Algorithm Aversion: Investigating Bias Toward AI Humor. *Proceedings of the Annual Meeting of the Cognitive Science Society, 43(43)*, pp. 3173. Austin, TX: Cognitive Science Society.

(W5) Kumar, A., Patel, T., Benjamin, A. & Steyvers, M. (2021). Metacognitive Bandits: When Do Humans Seek AI Assistance? *ICRA Workshop on Social Intelligence in Humans and Robots*.

(W6) Kumar, A., Tejeda, H., & Steyvers, M. (2022). An Empirical Investigation of Reliance on AI-Assistance in a Noisy-Image Classification Task. *Workshop on Trust and Reliance in AI-Human Teams at CHI 2022*.

(W7) Wang, X, Zhu, W., Saxon, M., Steyvers, M., & Wang, W.Y. (2023). Large Language Models Are Implicitly Topic Models: Explaining and Finding Good Demonstrations for In-Context Learning. *International Conference on Machine Learning (ICML) ES-FoMO.*

(W8) Belem, C., Kelly, M., Singh, S., Steyvers, M., Smyth, P. (2024). Can LMs interpret verbalized uncertainty? TrustNLP: Fourth Workshop on Trustworthy Natural Language Processing at the *Annual Conference of the North American Chapter of the Association for Computational Linguistics* (NAACL).

(W9) Li, Z., & Steyvers, M. (2025). Selecting the Best AI Model in AI-Assisted Decision-Making Tasks: Balancing Accuracy and Confidence Discrimination. *AAAI 2025 Bridge Workshop on Collaborative AI and Modeling of Humans*.

(W10) Steyvers, M., Mayer, L., Ayoub, J. (2025). A Cognitive Framework for Timely AI Communication. *Proceedings of the Cognitive Science Society*. In D. Barner, N.R. Bramley, A. Ruggeri and C.M. Walker (Eds.)*, Proceedings of the 47th Annual Meeting of the Cognitive Science Society, 6236.*

Technical Reports

(T1) Chemudugunta, C., Smyth, P., & Steyvers, M. (2008). Text Modeling using Unsupervised Topic Models and Concept Hierarchies. *Technical Report.*

(T2) Rubin, T.N., Chambers, A., Smyth, P., & Steyvers, M. (2011). Statistical Topic Models for Multi-Label Document Classification. *Technical Report. ArXiv: 1107.2462v1.*

(T3) Bennett, S.T., & Steyvers, M. (2020). Estimating COVID-19 Antibody Seroprevalence in Santa Clara County, California. A re-analysis of Bendavid et al. *MedRxiv preprint:* https://doi.org/10.1101/2020.04.24.20078824.

INVITED TALKS

Plenary/keynote talks

2023 *SPIE Medical Imaging*. San Diego. Keynote talk: "Human-AI Collaboration". Feb 21, 2023.

2019 *Eighth Annual Midwestern Cognitive Science*. Ohio State University. Title: Modeling Age and Practice Effects in Large-Scale Cognitive Training Data. May 25, 2019.

2016 *The fourth meeting of Computational Behavioral Sciences*. Title: Bayesian models of Metacognitive Control. Central China Normal University. Oct 12, 2016.

2015 *Indiana University Cognitive Science 25th anniversary*. Title: Indiana University Cognitive Science 25th anniversary. Keynote address. Apr 17, 2015.

ICCM (International Conference of Cognitive Modeling). Groningen, the Netherlands. Title: Combining Human Judgments with Cognitive Modeling. Keynote address.

2012 *Indiana Horizons of Knowledge Plenary Lecture at the Midwest Cognitive Science Conference. Indiana University, Bloomington*. Combining Human Judgments in General Knowledge and Forecasting Tasks. (May 7)

2010 *Conference on Uncertainty in Artificial Intelligence (UAI).* Catalina, CA. Plenary talk (wisdom of crowds research).

Other invited talks

2025 *Hybrid Collective Intelligence: Perspectives and Challenges: Webinar. "*Uncertainty communication with LLMs". Feb 25.

2024 *AI Institute for Societal Decision Making (AI-SDM): Workshop on Human-AI Teaming. "*Uncertainty Communication in Human-AI Teaming". Sept 27.

Digital Learning Lab, UCI School of Education. "Human-AI Collaboration". June 7*.*

*Rutgers University. Center for Cognitive Science Colloquia Series. "*Human-AI Collaboration". Apr 30.

2023 *AI Innovations in Life Science. Southern California Biomedical Council.* Long Beach, CA. Oct 27

Southern California AI & Biomedicine Symposium. UC Irvine. Oct 9. "Human-AI Collaboration".

Mind and Machine Intelligence Mellichamp Initiative Annual Sumit: AI and Decision Making, Apr 14, "Mental Models in Human-AI Collaboration".

2023 *Santa Fe Institute.* Seminar. March 1, "Human-AI Collaboration".

2022 *Noyce research showcase, UC Irvine. Nov 30.* "Human-AI Collaboration".

AI/ML Seminar, Department of Computer Science, UC Irvine. Oct 24. "Human-AI Collaboration".

NSF Augmented Intelligence Workshop. June 23. "Human-AI Collaboration".

UC Santa Barbara, department of Psychology and Brain Sciences. Colloquium. May 19. "Human-AI Collaboration".

2021 *UC Santa Barbara, department of Psychology and Brain Sciences.* Colloquium. Dec 3. "Human-AI Collaboration".

2020 *Context and Episodic Memory Symposium (CEMS).* Serving as discussant. Aug 17-19, 2020.

2019 *Princeton University.* Workshop on "Scaling Cognitive Science"*.* Dec 17, 2019*.*

2018 *Stanford University (HCI group).* Learning, Memory, and Metacognitive Control. Nov 9, 2018.

Psychonomics Collaborative Symposium (co-organizer), Osaka, Japan. Making a wiser crowd: benefits of individual metacognitive control over question selection*. Sept 2, 2018.*

University of Illinois at Urbana Champaign. Models for Metacognitive Control for Learning and Memory. Seminar. March 2, 2018

2017 *UC Irvine. Memory and Meaning Conference.* Reconstructive Memory in Naturalistic Environments*. Apr 28, 2017.*

2016 *Wuhan University, Computer Science Department*. Wisdom of Crowds in combinatorial problems. Oct 14, 2016.

School of engineering, Central China Normal University. Topic models for analyzing unstructured text. Oct 13, 2016.

2015 *IMBS, University of California, Irvine*. Crowdsourcing, Big Data, and Social Media in the Behavioral Sciences: Applications, Methods, and Theory. Dec 5.

Chapman University, Computational Sciences Seminar. Invited seminar on wisdom of crowds. May 5.

2014 *Rutgers University, Center for Cognitive Science*. Invited colloquium on topic modeling. Dec 2.

Data Science Initiative, UC Irvine. Invited presentation on topic modeling. Oct 24.

Seoul National University "Asia-Pacific Conference on Computational Behavioral Sciences" (APCCBS). Oct 14.

Heidelberg, Germany, Summer School "The Language of Interaction: quantitative tools from engineering, computer science, and clinical psychology" in (Jul 28-Aug1). Presentations on topic models and natural language processing.

IARPA workshop on Bayesian modeling. Talk title: Bayesian reasoning with groups of people.

2013 *University of California, Irvine*. IMBS conference on Wisdom of Crowds.

University of Pennsylvania. Department of Psychology. Talk title: Signal Detection Models for Forecasting Judgments.

ICML (International Conference on Machine Learning), workshop on "Machine Learning meets Crowdsourcing". Talk title: Aggregating Human Judgments in Combinatorial Problems.

2012 *Cognitive Modeling of Perception and Memory. A Festschrift for Richard M. Shiffrin*, *Indiana University, Bloomington*. Reconstructing the Past by Aggregating Retrieved Memories

University of Massachusetts, Amherst. Department of Computer Science (Social Computing Seminar Series). Combining Human Judgments in General Knowledge and Forecasting Tasks.

2011 *Brown University*. Department of Cognitive, Linguistic and Psychological Sciences. Colloquium on reconstructive memory and a separate colloquium on wisdom of crowds research.

Social Sciences Expert Speaker Series with Cognitive Science. Presentation at UC Irvine for external communities in Irvine area.

2010 *University of California, Los Angeles (UCLA)*. Psychology Department. Colloquium on wisdom of crowds research.

University of California, San Diego (UCSD). Psychology Department. Colloquium on wisdom of crowds research.

Information Sciences Institute (ISI) at University of Southern California. Presentation on wisdom of crowds research.

Fox Audience Network. Santa Monica, CA. Presentation on topic modeling

2009 *Google.* Irvine, CA. Tech Talk. Presentation on wisdom of crowds research.

University of California, Irvine. Artificial Intelligence and Machine Learning Group (AI/ML) at School of Information and Computer Sciences. Seminar (wisdom of crowds research)

Washington University, St Louis. Colloquium (wisdom of crowds research)

Indiana University, Bloomington. Colloquium (wisdom of crowds research)

Royal Netherlands Academy of Arts and Sciences (KNAW), Amsterdam, The Netherlands. Symposium on Causality (wisdom of crowds research)

2008 *Institute of Mathematical Behavioral Sciences (*IMBS*)*. Colloquium.

National Science Foundation, *Arlington, VA*. Workshop on Workshop on Higher Cognition in Adolescents and Young Adults: Social, Behavioral, and Biological Influences on Learning

University of Leuven, Belgium. Workshop on Formal Models in the Study of Natural Language concepts.

University of South Florida, Tampa. Festschrift for Doug Nelson.

2007 *University of California, Los Angeles*. Graduate Summer School: "Probabilistic Models of Cognition: The Mathematics of Mind" held at IPAM (Institute for Pure and Applied Mathematics). Seminar.

University of California, Irvine. Artificial Intelligence and Machine Learning Group (AI/ML) at School of Information and Computer Sciences. Seminar.

2006 *University of Rochester*. Department of Brain and Cognitive Sciences. Colloquium.

Beijing Normal University, China. State Key Laboratory of Cognitive Neuroscience and Learning. Seminar.

Gatsby Computational Neuroscience Unit, *London, UK*. Symposium on "The probabilistic mind: Prospects for rational models of cognition"

Birckbeck College, London, UK. Workshop on dynamics of information processing.

University of California, San Diego. Department of Psychology. Colloquium.

Ohio State University. Department of Psychology. Colloquium.

Eastern Psychological Association. Symposium on "Perception of Random Sequences"

2005 *University of South Florida*. Department of Psychology. Colloquium.

Defense Science and Technology Organization. Department of Defense, Adelaide, Australia. Adelaide Mental Life conference. Keynote speaker.

University of California, Irvine. Department of Psychology and Social Behavior. Colloquium.

University of California, Los Angeles. Workshop on "Probabilistic Models of Cognition: The Mathematics of Mind" at IPAM (Institute for Pure and Applied Mathematics).

2004 *University of Newcastle, Australia*. Departmental seminar.

University of Leuven, Belgium. Workshop on Formal Models in the Study of Natural Language concepts.

University of Colorado, Boulder. LSA workshop for LSA: A road to meaning.

University of California, San Diego. AI research seminar.

2003 *Iowa State University*. Department of Psychology. Colloquium.

University of California, Riverside. Psychology Department, Cognitive Lunch.

2002 *Annual Meeting of the Cognitive Science Society*. Rumelhart Symposium Honoring Richard Shiffrin

Carnegie Mellon University. Department of Psychology.

University of Maryland, College Park. Department of Psychology.

University of California, Irvine. Department of Cognitive Sciences.

Georgia Institute of Technology. Department of Psychology.

2001 *Barnard College*. Department of Psychology.

Stanford University. Department of Psychology.

University of Washington. Department of Psychology

OTHER PRESENTATIONS AT CONFERENCES & MEETINGS

2025 *Collective Learning Network (supported by the National Science Foundation program in Science of Learning and Augmented Intelligence)*. Feb 13, 2025.

2023 *Annual Summer Interdisciplinary Conference,* Kranjska Gora, Slovenia*. July 5.*

2022 *Noyce Symposium Panel on Cybersecurity, AI, and Policy*. Nov 2. UC Santa Barbara.

APS symposium on Advancing Human-AI Communication and Interaction. May 28.

2021 *Annual Summer Interdisciplinary Conference,* San Martino di Castrozza, Italy*.*

2020 *Annual meeting of the Society for Mathematical Psychology (Virtual).*

2019 *Annual Meeting of the Psychonomic Society*, Montreal, Canada.

Annual meeting of the Society for Mathematical Psychology, Montreal, Canada*.*

2018 *Annual Meeting of the Psychonomic Society*, New Orleans.

Annual meeting of the Society for Mathematical Psychology, Madison*,* WI*.*

2015 *Annual meeting of the Society for Mathematical Psychology,* Newport Beach, CA*.*

2014 *Annual Summer Interdisciplinary Conference,* Moab, Utah.

Annual meeting of the Society for Mathematical Psychology, Quebec, CA*.*

2013 *Annual Interdisciplinary Conference*, Teton Village, Jackson Hole, Wyoming.

Annual meeting of the Society for Mathematical Psychology, Potsdam, Germany*.*

2011 *Annual Context and Episodic Memory Symposium (CEMS)*. Philadelphia

2010 *Annual Meeting of the Psychonomic Society*, St. Louis, MO.

Annual meeting of the Society for Mathematical Psychology, Portland, OR.

2009 *Cognitive Science Conference*, Amsterdam, The Netherlands. Symposium on rational process models.

Neural Information Processing Systems (NIPS), Vancouver, B.C.

Annual Meeting of the Psychonomic Society, Boston, MA.

2008 *Neural Information Processing Systems* (NIPS), Whistler, British Columbia. Workshop on "Machine learning meet Human Learning".

Annual Meeting of the Psychonomic Society, Chicago, IL.

Annual meeting of the Society for Mathematical Psychology, Washington, D.C.

2007 *Annual Meeting of the Psychonomic Society*, Long Beach.

Annual Summer Interdisciplinary Conference. Kalymnos, Greece.

2006 *Neural Information Processing Systems* (NIPS), Vancouver, B.C.

Annual Meeting of the Psychonomic Society, Houston.

Annual meeting of the Society for Mathematical Psychology, Vancouver, BC.

Society of Experimental Psychologists (*SEP*), San Diego, CA.

2005 *Annual Meeting of the Psychonomic Society*, Toronto.

Annual meeting of the Society for Mathematical Psychology, Memphis, Tennessee.

Annual Summer Interdisciplinary Conference. Briancon, France.

Annual Episodic Memory Symposium. Philadelphia.

Annual Interdisciplinary Conference, Teton Village, Jackson Hole, Wyoming.

2004 *Annual Meeting of the Psychonomic Society*, Minneapolis, MN

Annual Meeting of the Society for Mathematical Psychology. Ann Arbor, Michigan.

Annual Summer Interdisciplinary Conference. Cavalese, Italy.

Annual Interdisciplinary Conference, Teton Village, Jackson Hole, Wyoming.

2003 *Neural Information Processing Systems* (NIPS). Workshop on "Syntax, Semantics, and Statistics"

Annual Episodic Memory Symposium. New Orleans.

Annual Meeting of the Psychonomic Society. Vancouver, BC (poster).

Annual Summer Interdisciplinary Conference. Squamish, British Columbia, Canada.

Annual Interdisciplinary Conference, Teton Village, Jackson Hole, Wyoming.

2002 *Annual Summer Interdisciplinary Conference*. Squamish, British Columbia, Canada.

Annual Interdisciplinary Conference, Teton Village, Jackson Hole, Wyoming.

2001 *Annual Interdisciplinary Conference*, Teton Village, Jackson Hole, Wyoming.

2000 *Rocky Mountain Psychological Association*, Tucson, Arizona.

Hoosier Mental Life Conference, Notre Dame, Indiana.

Annual Interdisciplinary Conference, Teton Village, Jackson Hole, Wyoming.

1999 *Annual Interdisciplinary Conference*, Teton Village, Jackson Hole, Wyoming.

Annual meeting of the Society for Mathematical Psychology, Santa Cruz, California.

1996 *Hoosier Mental Life*, Evanston, Illinois.

1994 *Conference on Oscillations in Neural Systems*, Arlington, Texas.

Cognition Group, University of Amsterdam, Amsterdam, The Netherlands.