

# Scott W. Linderman

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PROFESSIONAL EXPERIENCE	<b>Stanford University</b> Assistant Professor, Department of Statistics Assistant Professor (by courtesy), Computer Science Department Assistant Professor (by courtesy), Electrical Engineering Department Faculty Scholar, Wu Tsai Neurosciences Institute Faculty Affiliate, Stanford Bio-X and Stanford AI Lab	2019-present
	<b>Google Research</b> Visiting Faculty Researcher, Google Brain Team Host: Kevin Murphy	2022
	<b>Columbia University</b> Postdoctoral Fellow, Department of Statistics Advisors: Liam Paninski and David Blei	2016-2019
	<b>Microsoft Corporation</b> Software Development Engineer in Test	2008-2011
EDUCATION	<b>Harvard University</b> Ph.D., Computer Science Advisors: Ryan Adams and Leslie Valiant	2013-2016
	<b>Harvard University</b> S.M., Computer Science Advisor: Leslie Valiant	2011-2013
	<b>Cornell University</b> B.S., Electrical and Computer Engineering <i>Magna cum Laude</i> with Honors in Engineering	2004-2008
HONORS AND AWARDS	McKnight Scholar Award Sloan Research Fellowship Allen Institute Next Generation Leaders Council Best Paper, 20th International Conference on Artificial Intelligence and Statistics (AISTATS) <i>With Christian Naesseth, Francisco Ruiz, and David Blei</i> Leonard J. Savage Award, International Society for Bayesian Analysis <i>Outstanding Dissertation in Applied Methodology</i> Simons Collaboration on the Global Brain Postdoctoral Fellowship Siebel Scholarship National Defense Science and Engineering Graduate Fellowship	2023 2022 2019 2017 2017 2016 2015 2011

PUBLICATIONS

Note: all publications have authors listed in the order as published. Authorship convention in the field: lead senior author is listed last; lead junior author is listed first (and second, when asterisks denote joint lead authorship).

- Jimmy T. H. Smith, Shalini De Mello, Jan Kautz, **Scott W. Linderman**, and Wonmin Byeon. Convolutional state space models for long-range spatiotemporal modeling. *arXiv preprint ArXiv:2310.19694 (to appear at NeurIPS 2023)*, 2023.
- Jay Hennig, Sandra A. Romero Pinto, Takahiro Yamaguchi, **Scott W. Linderman**, Naoshige Uchida, and Samuel J. Gershman. Emergence of belief-like representations through reinforcement learning. *PLoS Computational Biology (in press)*, 2023.
- Yixin Wang, Anthony Degleris, Alex H Williams, and **Scott W Linderman**. Spatiotemporal clustering with Neyman-Scott processes via connections to Bayesian nonparametric mixture models. *Journal of the American Statistical Association (in press)*, 2023.
- Michael Bukwich, Malcolm G Campbell, David Zoltowski, Lyle Kingsbury, Momchil S Tomov, Joshua Stern, HyungGoo R Kim, Jan Drugowitsch, **Scott W Linderman**, and Naoshige Uchida. Competitive integration of time and reward explains value-sensitive foraging decisions and frontal cortex ramping dynamics. *bioRxiv*, 2023.
- Dieterich Lawson, Michael Li, and **Scott Linderman**. NAS-X: Neural Adaptive Smoothing via Twisting. *arXiv preprint ArXiv:2308.14864 (to appear at NeurIPS 2023)*, 2023.
- Hyun Dong Lee, Andrew Warrington, Joshua I. Glaser, and **Scott W. Linderman**. Switching autoregressive low-rank tensor models. *arXiv preprint ArXiv:2306.03291 (to appear at NeurIPS 2023)*, 2023.
- Yixiu Zhao and **Scott W Linderman**. Revisiting structured variational autoencoders. *International Conference on Machine Learning (ICML)*, 2023.
- Mengyu Liu, Aditya Nair, **Scott W Linderman**, and David J Anderson. Periodic hypothalamic attractor-like dynamics during the estrus cycle. *bioRxiv*, 2023.
- Caleb Weinreb, Mohammed Adbal Monium Osman, Libby Zhang, Sherry Lin, Jonah Pearl, Sidharth Annapragada, Eli Conlin, Winthrop F. Gillis, Maya Jay, Shaokai Ye, Alexander Mathis, Mackenzie Weygandt Mathis, Talmo Pereira, **Scott W Linderman\***, and Sandeep Robert Datta\*. Keypoint-MoSeq: parsing behavior by linking point tracking to pose dynamics. *bioRxiv*, 2023.
- Jimmy TH Smith, Andrew Warrington, and **Scott W Linderman**. Simplified state space layers for sequence modeling. *International Conference on Learning Representations (ICLR)*, 2023.  
**Selected for Oral Presentation. (1.5% of all submissions).**

- Jeffrey Markowitz, Winthrop Gillis, Maya Jay, Jeffrey Wood, Ryley Harris, Robert Cieszkowski, Rebecca Scott, David Brann, Dorothy Koveal, Tomasz Kuila, Caleb Weinreb, Mohammed Osman, Sandra R Pinto, Naoschige Uchida, **Scott W Linderman**, Bernardo Sabatini, and Sandeep R Datta. Spontaneous behavior is structured by reinforcement without exogenous reward. *Nature*, 2023.
- Aditya Nair, Tomomi Karigo, Bin Yang, Surya Ganguli, Mark J Schnitzer, **Scott W Linderman**, David J Anderson, and Ann Kennedy. An approximate line attractor in the hypothalamus encodes an aggressive state. *Cell*, 186(1):178–193, 2023.
- Dieterich Lawson, Allan Raventos, Andrew Warrington, and **Scott Linderman**. SIXO: Smoothing inference with twisted objectives. *Advances in Neural Information Processing Systems*, 2022.  
**Selected for Oral Presentation. (1.5% of all submissions).**
- Julia C Costacurta, Lea Duncker, Blue Sheffer, Winthrop Gillis, Caleb Weinreb, Jeffrey Evan Markowitz, Sandeep R. Datta, Alex H Williams, and **Scott Linderman**. Distinguishing discrete and continuous behavioral variability using warped autoregressive HMMs. *Advances in Neural Information Processing Systems*, 2022.
- Ari Beller, Yingchen Xu, **Scott W Linderman**, and Tobias Gerstenberg. Looking into the past: Eye-tracking mental simulation in physical inference. In *Proceedings of the Annual Meeting of the Cognitive Science Society*, volume 44, 2022.
- Celia C. Beron, Shay Q. Neufeld, **Scott W. Linderman\***, and Bernardo L. Sabatini\*. Mice exhibit stochastic and efficient action switching during probabilistic decision making. *Proceedings of the National Academy of Sciences*, 119(15):e2113961119, 2022.
- Albert Lin, Daniel Witvliet, Luis Hernandez-Nunez, **Scott W Linderman**, Aravinthan D T Samuel, and Vivek Venkatachalam. Imaging whole-brain activity to understand behaviour. *Nature Reviews Physics*, pages 1–14, March 2022.
- **Scott W. Linderman**. Weighing the evidence in sharp-wave ripples. *Neuron*, 110(4):568–570, 2022.
- Alex H. Williams and **Scott W. Linderman**. Statistical neuroscience in the single trial limit. *Current Opinion in Neurobiology*, 70:193–205, 2021.
- Jimmy T. H. Smith, **Scott W. Linderman**, and David Sussillo. Reverse engineering recurrent neural networks with Jacobian switching linear dynamical systems. *Advances in Neural Information Processing Systems (NeurIPS)*, 2021.
- Alex H Williams, Erin Kunz, Simon Kornblith, and **Scott W. Linderman**. Generalized shape metrics on neural representations. *Advances in Neural Information Processing Systems (NeurIPS)*, 2021.

- Xinwei Yu, Matthew S Creamer, Francesco Randi, Anuj Kumar Sharma, **Scott W Linderman**, and Andrew Michael Leifer. Fast deep neural correspondence for tracking and identifying neurons in *C. elegans* using semi-synthetic training. *Elife*, 10:e66410, 2021.
- Isabel I C Low, Alex H Williams, Malcolm G Campbell, **Scott W Linderman**, and Lisa M Giocomo. Dynamic and reversible remapping of network representations in an unchanging environment. *Neuron*, August 2021.
- Libby Zhang, Jesse D Marshall, Timothy Dunn, Bence Ölveczky, and **Scott. W Linderman**. Animal pose estimation from video data with a hierarchical von Mises-Fisher-Gaussian model. *Proceedings of the International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2021.
- Arunesh Mittal, **Scott W. Linderman**, John Paisley, and Paul Sajda. Bayesian recurrent state space model for rs-fMRI. *Machine Learning for Health (ML4H) Workshop at NeurIPS 2020*, November 2020.
- Alex H Williams, Anthony Degleris, Yixin Wang, and **Scott W Linderman**. Point process models for sequence detection in high-dimensional neural spike trains. *Advances in Neural Information Processing Systems (NeurIPS)*, 2020.  
**Selected for Oral Presentation (1.1% of all submissions).**
- Joshua I Glaser, Matthew Whiteway, John P Cunningham, Liam Paninski, and **Scott W Linderman**. Recurrent switching dynamical systems models for multiple interacting neural populations. *Advances in Neural Information Processing Systems (NeurIPS)*, 2020.
- Wesley Tansey, Kathy Li, Haoran Zhang, **Scott W Linderman**, Raul Rabadan, David M Blei, and Chris H Wiggins. Dose-response modeling in high-throughput cancer drug screenings: An end-to-end approach. *Biostatistics*, 2020.
- David M. Zoltowski, Jonathan W. Pillow, and **Scott W. Linderman**. A general recurrent state space framework for modeling neural dynamics during decision-making. *Proceedings of the International Conference on Machine Learning (ICML)*, 2020.
- Robert Evan Johnson\*, **Scott W Linderman\***, Thomas Panier, Caroline Lei Wee, Erin Song, Kristian Joseph Herrera, Andrew Miller, and Florian Engert. Probabilistic models of larval zebrafish behavior reveal structure on many scales. *Current Biology*, 30:70–82, 2020.
- Ruoxi Sun\*, **Scott W. Linderman\***, Ian Kinsella, and Liam Paninski. Scalable Bayesian inference of dendritic voltage via spatiotemporal recurrent state space models. *Advances in Neural Information Processing Systems (NeurIPS)*, 2019.  
**Selected for Oral Presentation (0.5% of all submissions).**
- Ifigenia Apostolopoulou, **Scott W. Linderman**, Kyle Miller, and Artur Dubrawski. Mutually regressive point processes. *Advances in Neural Information Processing Systems (NeurIPS)*, 2019.
- Aaron Schein, **Scott W. Linderman**, Mingyuan Zhou, David Blei, and Hanna Wallach. Poisson-randomized gamma dynamical systems. *Advances in Neural Information Processing Systems (NeurIPS)*, 2019.

- Eleanor Batty\*, Matthew Whiteway\*, Shreya Saxena, Dan Biderman, Taiga Abe, Simon Musall, Winthrop Gillis, Jeffrey Markowitz, Anne Churchland, John Cunningham, **Scott W. Linderman**<sup>†</sup>, and Liam Paninski<sup>†</sup>. BehaveNet: nonlinear embedding and Bayesian neural decoding of behavioral videos. *Advances in Neural Information Processing Systems (NeurIPS)*, 2019.
- **Scott W. Linderman**, Annika L. A. Nichols, David M. Blei, Manuel Zimmer, and Liam Paninski. Hierarchical recurrent state space models reveal discrete and continuous dynamics of neural activity in *C. elegans*. *bioRxiv*, 2019.
- Josue Nassar, **Scott W. Linderman**, Monica Bugallo, and Il Memming Park. Tree-structured recurrent switching linear dynamical systems for multi-scale modeling. In *International Conference on Learning Representations (ICLR)*, 2019.
- Jeffrey E. Markowitz, Winthrop F. Gillis, Celia C. Beron, Shay Q. Neufeld, Keiramarie Robertson, Neha D. Bhagat, Ralph E. Peterson, Emalee Peterson, Minsuk Hyun, **Scott W. Linderman**, Bernardo L. Sabatini, and Sandeep Robert Datta. The striatum organizes 3D behavior via moment-to-moment action selection. *Cell*, May 2018.
- Anuj Sharma, Robert E. Johnson, Florian Engert, and **Scott W. Linderman**. Point process latent variable models of freely swimming larval zebrafish. *Advances in Neural Information Processing Systems (NeurIPS)*, 2018.
- Gonzalo E. Mena, David Belanger, **Scott W. Linderman**, and Jasper Snoek. Learning latent permutations with Gumbel-Sinkhorn networks. *International Conference on Learning Representations (ICLR)*, 2018.
- **Scott W. Linderman**, Gonzalo E. Mena, Hal Cooper, Liam Paninski, and John P. Cunningham. Reparameterizing the Birkhoff polytope for variational permutation inference. In *Proceedings of the 21st International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2018.
- Christian A. Naesseth, **Scott W. Linderman**, Rajesh Ranganath, and David M. Blei. Variational Sequential Monte Carlo. In *Proceedings of the 21st International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2018.
- **Scott W. Linderman**\*, Matthew J. Johnson\*, Andrew C. Miller, Ryan P. Adams, David M. Blei, and Liam Paninski. Bayesian learning and inference in recurrent switching linear dynamical systems. In *Proceedings of the 20th International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2017.
- Christian A. Naesseth, Francisco J. R. Ruiz, **Scott W. Linderman**, and David M. Blei. Reparameterization gradients through acceptance-rejection sampling algorithms. In *Proceedings of the 20th International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2017. **Received Best Paper Award.**
- **Scott W. Linderman** and David M. Blei. Comment: A discussion of “Nonparametric Bayes modeling of populations of networks”. *Journal of the American Statistical Association*, 112(520):1543–1547, 2017.
- **Scott W. Linderman** and Samuel J. Gershman. Using computational theory to constrain statistical models of neural data. *Current Opinion in Neurobiology*, 46:14 – 24, 2017.

- **Scott W. Linderman.** *Bayesian methods for discovering structure in neural spike trains.* PhD thesis, Harvard University, 2016. **Received the Savage Award from the International Society for Bayesian Analysis.**
- **Scott W. Linderman,** Ryan P. Adams, and Jonathan W. Pillow. Bayesian latent structure discovery from multi-neuron recordings. In *Advances in Neural Information Processing Systems (NIPS)*, 2016.
- Huseyin Melih Elibol, Vincent Nguyen, **Scott W. Linderman,** Matthew J. Johnson, Amna Hashmi, and Finale Doshi-Velez. Cross-corpora unsupervised learning of trajectories in autism spectrum disorders. *Journal of Machine Learning Research*, 17(133):1–38, 2016.
- **Scott W. Linderman,** Matthew J. Johnson, Matthew A. Wilson, and Zhe Chen. A Bayesian nonparametric approach to uncovering rat hippocampal population codes during spatial navigation. *Journal of Neuroscience Methods*, 263:36–47, 2016.
- **Scott W. Linderman\***, Matthew J. Johnson\*, and Ryan P. Adams. Dependent multinomial models made easy: Stick-breaking with the Pólya-gamma augmentation. In *Advances in Neural Information Processing Systems (NIPS)*, pages 3438–3446, 2015.
- **Scott W. Linderman** and Ryan P. Adams. Scalable Bayesian inference for excitatory point process networks. *arXiv preprint arXiv:1507.03228*, 2015.
- **Scott W. Linderman,** Christopher H. Stock, and Ryan P. Adams. A framework for studying synaptic plasticity with neural spike train data. In *Advances in Neural Information Processing Systems (NIPS)*, pages 2330–2338, 2014.
- **Scott W. Linderman** and Ryan P. Adams. Discovering latent network structure in point process data. In *Proceedings of the International Conference on Machine Learning (ICML)*, pages 1413–1421, 2014.

RESEARCH  
SUPPORT

*Pending Grants and Awards*

- **Behavioral and Neural Correlates of Human Mood States**  
Total Amount: \$424,788  
Funding Agency: NIH  
Award Period: 07/01/23 - 06/30/2025  
Lead PI: C. Keller  
*Role: Co-I*
- **Investigating the neural mechanisms of repetitive brain stimulation with invasive and noninvasive electrophysiology in humans**  
Total Amount: \$3,827,007  
Funding Agency: NIH  
Award Period: 07/01/23 - 06/30/2028  
Lead PI: C. Keller  
*Role: Co-I*
- **Unified, Scalable, and Reproducible Neurostatistical Software**  
Total Amount: \$1,343,808  
Funding Agency: NIH  
Award Period: 07/01/23 - 06/30/2028  
Lead PI: A. Williams  
*Role: MPI*

*Current Grants and Awards*

- **Machine Learning Methods for Discovering Structure in Neural and Behavioral Data**  
 Total Amount: \$225,000  
 Funding Agency: McKnight Foundation  
 Award Period: 07/01/23 - 06/30/2026  
 Lead PI: S. Linderman
- **Deconstructing the serotonin system in the mouse brain**  
 Total Amount: \$3,953,554  
 Funding Agency: NIH  
 Award Period: 04/01/23 - 03/31/2028  
 Lead PI: L. Luo  
*Role: MPI*
- **BRAID: DenPro3D Dendritic Processing of Spike Sequences in Biological and Artificial Brains**  
 Total Amount: \$1,999,991  
 Funding Agency: NSF  
 Award Period: 07/01/2022 - 06/30/2026  
 Lead PI: K. Boahen  
*Role: Key Personnel*
- **Dendritic Computation for Knowledge Systems**  
 Total Amount: \$462,963  
 Funding Agency: Stanford Institute for Human-Centered Artificial Intelligence  
 Award Period: 09/01/2022-08/31/2023  
 Lead PI: K. Boahen  
*Role: Co-PI*
- **CRCNS: Deonstructing the time-varying dynamics of motor cortex in freely moving behavior**  
 Total Amount: \$2,000,893  
 Funding Agency: NSF/NIH  
 Award Period: 07/15/2022 - 04/30/2027  
 Lead PI: P. Nuyujukian  
*Role: Co-PI*
- **Discovering structure in neural and behavioral data**  
 Total Amount: \$75,000  
 Funding Agency: Alfred P. Sloan Foundation  
 Award Period: 09/15/2022 - 09/14/2024 Lead PI: S. Linderman
- **The dynamics of neural representations for distinct spatial contexts and memory episodes**  
 Total award: \$1,981,193  
 Funding agency: NIH – NIMH  
 Award number: Pending  
 Award period: 04/01/2022 – 03/31/2027  
 Lead PI: L. Giacomo  
*Role: Co-I*
- **Probing the Dorsolateral Prefrontal Cortex and Central Executive Network for Improving Neuromodulation in Depression**  
 Total award: \$1,226,978  
 Funding agency: CRCNS US-France Research Proposal  
 Award number: R01MH129018  
 Award period: 07/1/2021-06/30/2026

Lead PI: C. Keller  
*Role: Co-I*

- **Discovering repeating neural motifs representing sequenced behavior**  
Total award: \$36,000  
Funding agency: Simons Foundation (Simons Collaboration on the Global Brain)  
Award number: 697092  
Award period: 07/01/2020 – 06/30/2023  
Lead PI: B. Sabatini  
*Role: Co-PI*
- **Toward a unified framework for dopamine signaling in the striatum**  
Total award: \$18,505,241  
Funding agency: NIH NINDS (Natl. Inst. of Neurological Disorders and Stroke)  
Award number: 1U19NS113201  
Award period: 8/15/2019 – 7/31/2024  
Lead PI: B. Sabatini  
*Role: MPI*
- **Neural representation of mating partners by male *C. elegans***  
Total award: \$3,316,395  
Funding agency: NIH NINDS (Natl. Inst. of Neurological Disorders and Stroke)  
Award number: 1R01NS113119  
Award period: 8/15/2019 – 7/31/2024  
Lead PI: P. Sternberg  
*Role: MPI*

*Completed Grants and Awards*

- **Multi-modal Inference in Brains, Minds, and Machines**  
Total award: \$75,000  
Funding Agency: Stanford Institute for Human-Centered Artificial Intelligence  
Award number: N/A  
Award period: 3/13/2019 – 3/12/2020  
Lead PI: T. Gerstenberg  
*Role: Co-PI*
- **Scalable probabilistic inference for mechanistic models: Bridging the gap between scientific modelling and machine learning**  
Total award: €6,000  
Funding agency: Bavaria–California Technology Center (BaCaTeC)  
Award number: N/A  
Award period: 1/1/2019 – 6/1/2020  
Lead PI: J. Macke *Role: Co-PI*

TEACHING  
EXPERIENCE

- **STATS220/320: Machine Learning Methods for Neural Data Analysis**, Stanford University 2023  
Instructor: Scott Linderman
- **STATS305C: Applied Statistics III**, Stanford University 2022  
Instructor: Scott Linderman
- **STATS271/371: Applied Bayesian Statistics**, Stanford University 2021  
Instructor: Scott Linderman



- **STATS220/320: Machine Learning Methods for Neural Data Analysis**, Stanford University 2021  
Instructor: Scott Linderman
- **STATS215: Statistical Models in Biology**, Stanford University 2020  
Instructor: Scott Linderman
- **CS229: Biology and Complexity**, Harvard University 2015  
Instructor: Leslie Valiant
- **CS228: Computational Learning Theory**, Harvard University 2014  
Instructor: Leslie Valiant
- **CS281: Advanced Machine Learning**, Harvard University 2013  
Instructor: Ryan Adams
- **Columbia Advanced Machine Learning Seminar** 2016-2017  
web: <https://casmls.github.io>

STUDENT  
ADVISING

- Julia Costacurta, Graduate Student, Stanford Electrical Engineering 2021-present
- Xavier Gonzalez, Graduate Student, Stanford Statistics 2022-present
- Amber Hu, Graduate Student, Stanford Statistics 2022-present
- Dieterich Lawson, Graduate Student, Stanford Computer Science 2020-2023  
*Currently: Research Scientist, Google.*
- Hyun Dong Lee, Graduate Student, Stanford Computer Science 2022-present  
*Co-advised with Prof. Emily Fox*
- Alisa Levin, Graduate Student, Stanford Computer Science 2022-present
- Matthew MacKay, Graduate Student, Stanford Statistics 2021-present
- Jimmy Smith, Graduate Student, Stanford ICME 2019-present
- Libby Zhang, Graduate Student, Stanford Electrical Engineering 2019-present
- Yixiu Zhao, Graduate Student, Stanford Applied Physics 2020-present
- Blue Sheffer, Graduate Student, Stanford Computer Science 2019-2021

POSTDOCTORAL  
ADVISING

- Lea Duncker, Postdoctoral Researcher, Stanford Statistics and EE 2021-present  
*Co-advised with Prof. Krishna Shenoy*
- Elizabeth DuPre, Postdoctoral Researcher, Stanford Psychology 2022-present  
*Co-advised with Prof. Russ Poldrack*
- Andrew Warrington, Postdoctoral Researcher, Stanford Statistics 2021-present
- Alex Williams, Postdoctoral Researcher, Stanford Statistics 2019-2021  
*Currently: Assistant Professor, NYU and Group Leader, Flatiron Institute.*
- David Zoltowski, Postdoctoral Researcher, Stanford Statistics 2022-present  
*Co-advised with Dr. David Sussillo*

PROFESSIONAL  
SERVICE

- **Summer School Organization and Teaching:**
  - Co-Lead Projects Team, Neuromatch Academy Summer School, . 2022
  - Neuromatch Academy Summer School, Executive Committee. Co-Chair of Projects. 2022-23
  - Allen Institute Summer Workshop on the Dynamic Brain, Lecturer. 2021-2023
  - JAX Short Course on Machine Learning for Quantifying Behavior, Lecturer. 2022
  
- **Conference and Workshop Organization:**
  - Program Committee, Comp. and Sys. Neuro. Conference (COSYNE) 2022-2023
  - Co-Organizer, ML Interp. for Scientific Discovery Wkshp. at ICML 2020
  - Co-Organizer, Learning Meaningful Repr. of Life Wkshp. at NeurIPS 2019
  - Co-Organizer, Automated Neuro-behavioral Analysis Wkshp at COSYNE 2017
  - Co-Organizer, Discovering Structure in Neural Data Wkshp at COSYNE 2014
  
- **Conference Area Chair:**
  - Neural Information Processing Systems (NeurIPS) 2019-22
  - International Conference on Learning Representations (ICLR) 2021
  - International Conference on Machine Learning (ICML) 2021
  - International Conference on Artificial Intelligence and Statistics (AISTATS) 2021-23
  
- **Journal and Conference Reviewing:**
  - Annals of Applied Statistics
  - Biometrika
  - AAAI Conference on Artificial Intelligence (AAAI)
  - eLife
  - IEEE Transactions on Signal Processing
  - International Conference on Machine Learning (ICML)
  - International Conference on Artificial Intelligence and Statistics (AISTATS)
  - Journal of Computational Neuroscience
  - Nature
  - Nature Methods
  - Nature Communications
  - Neural Computation
  - Neural Information Processing Systems (NeurIPS)
  - PLoS Computational Biology
  - SIAM Journal on Applied Dynamical Systems (SIADS)

INVITED TALKS

- Biostatistics Seminar, University of North Carolina, Chapel Hill. Septemper 7, 2023.
  
- Cosyne Workshop on Generative Models for Neural/Behavioral Data Analysis. March 14, 2023.
  
- Machine Learning Seminar, Memorial Sloan-Kettering Cancer Center. December 6, 2022.
  
- NeuroTheory Seminar, Columbia University. December 5, 2022.
  
- Gaze Meets ML Workshop, NeurIPS. December 3, 2022.
  
- Neuroscience Seminar, UCSD. September 27, 2022.
  
- Neuroscience Semianr, University of Chicago. October 25, 2022.

- Short Course on Machine Learning Methods for Quantifying Behavior, JAX Laboratories. October 12, 2022.
- Joint Statistics Meeting (JSM), Contributed Talk. August 1, 2022.
- International Society for Bayesian Analysis, Contributed Talk. July 1, 2022.
- Stanford-Berkeley Joint Statistics Colloquium, UC Berkeley. April 19, 2022.
- Statistics Seminar, University of Connecticut. April 13, 2022.
- External Seminar Series, Gatsby Unit, UCL. January 12, 2022.
- Neuroscience Seminar, Boston University. November 3, 2021.
- SymPOSEium, University of Minnesota. October 14, 2021.
- CRCNS Workshop on Large Scale Neuroscience, NYU. October 9, 2021.
- Bernstein Conference on Theoretical Neuroscience, Berlin (virtual). September 22, 2021.
- Biostatistics Seminar, University of California, Berkeley. April 12, 2021.
- Statistics Seminar, University of California, Los Angeles. March 4, 2021.
- Statistics Seminar, University of British Columbia. November 3, 2020.
- Biostatistics Seminar, Duke University. October 23, 2020.
- Online Workshop on Linking Behavior and Neural Dynamics, LMU München. October 16, 2020.
- Mind, Brain, Computation, and Technology Seminar, Stanford University. October 12, 2020.
- Bernstein Workshop on Inferring and Testing Optimality in Perception and Neurons. September 29, 2020.
- SIAM Minisymposium on Machine Learning and Control Theory for Whole Brain Activity. June 26, 2020.
- ML Tea, Gatsby Computational Unit, University College London. April 24, 2020.
- Statistics Seminar, University of California, Davis. April 23, 2020.
- Cosyne Workshop on Interpretable Computational Neuroscience. March 1, 2020.
- Information Systems Laboratory (ISL) Colloquium, Stanford University. February 13, 2020.
- Chan Zuckerberg Institute. January 31, 2020.
- Google Brain. January 22, 2020.
- Institute of Neuroscience Seminar. University of Oregon. November 21, 2019.
- Allen Institute for Brain Science. Seattle, WA. November 12, 2019.
- Biostatistics Workshop. Stanford University. October 24, 2019.
- Society for Neuroscience Virtual Conference on Machine Learning in Neuroscience. June 26,, 2019.

- Harvard University. April 12, 2019.
- Cosyne Workshop on Social Behavior. Lisbon, Portugal. March 5, 2019.
- Cosyne Workshop on Data, dynamics, and computation: Using data driven methods to ground mechanistic theory. Lisbon, Portugal. March 4, 2019.
- Theoretical and Computational Neuroscience Annual Conference, Gulf Coast Consortium. February 1, 2019.
- NeuroNex Workshop, Rice and Baylor University. January 31, 2019.
- Applied Math Seminar, Yale University. January 29, 2019.
- Artificial Intelligence Seminar, Cornell University. September 28, 2018.
- Center for Neuroengineering and Computation Seminar, Columbia University. September 24, 2018.
- Simons Collaboration on the Global Brain, New York Area Postdoc Meeting. September 20, 2018.
- Air Force Research Laboratory, Rome, NY. August 27, 2018.
- IACS Seminar, Stony Brook University. July 13, 2018.
- Simons Workshop on Manifold Discovery. April 6, 2018.
- Statistics Department, Stanford University. April 5, 2018.
- Allen Institute for Brain Science. March 28, 2018.
- Paul Allen School of Computer Science and Engineering, University of Washington. March 26, 2018.
- Janelia Farm Research Campus. February 28, 2018.
- Stanford Neurosciences Institute, Stanford University. February 20, 2018.
- Zuckerman Institute, Columbia University. February 13, 2018.
- Statistics Department, Columbia University. February 12, 2018.
- Biophysics Department, University of Washington. February 5, 2018.
- Center for Brain Science, Harvard University. January 30, 2018.
- Project SEM Multidisciplinary University Research Initiative (MURI), Princeton University. September 17, 2017.
- Air Force Research Laboratory, Rome, NY. August 7, 2017.
- Princeton Neurosciences Institute, Princeton University. June 22, 2017.
- Machine Learning and Friends Seminar, UMass Amherst. May 4, 2017.
- Models, Inference, and Algorithms (MIA) Seminar, The Broad Institute. April 12, 2017.
- Workshop on High-Dimensional Neuro-Behavioral Analysis, Cosyne. February 28, 2017.
- Statistical Analysis of Neural Data Seminar, Stanford University. February 22, 2017.

- Connectomics II Workshop, Neural Information Processing Systems (NIPS). December 10, 2016.
- Statistics and Math Reading Club, The Broad Institute. October 19, 2015.
- Computational Statistics and Neuroscience Seminar, Columbia University. March 18, 2015.
- Machine Learning and Friends, University of Massachusetts at Amherst. February 12, 2015.
- Applied Statistics Seminar, University of Washington. January 8th, 2015.
- Harvard Center for Brain Science (CBS) Neurolunch, December 3rd, 2014.
- Harvard Computer Science Colloquium. July 24th, 2014.
- Boston Data Mining Meetup. May 1st, 2014.