

# Lucas Janson

Associate Professor of Statistics

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## Biosketch

Lucas Janson is a Professor in the Department of Statistics and an Affiliate in Computer Science at Harvard University, where he works on high-dimensional inference and statistical machine learning.

## Appointments

**Professor**, Harvard University Department of Statistics, Cambridge, MA (2025–).

**Associate Professor**, Harvard University Department of Statistics, Cambridge, MA (2023–2025).

**Assistant Professor**, Harvard University Department of Statistics, Cambridge, MA (2017–2023).

## Education

**Stanford University** (Stanford, CA), Ph.D. in Statistics, 2017. Advisor: Prof. E. Candès.

**Stanford University** (Stanford, CA), M.S. in Statistics, 2011.

**Stanford University** (Stanford, CA), B.S. in Mathematics (with Honors) and Physics, 2011.

## Affiliations and Memberships

**Affiliate**, Computer Science area of the Harvard School of Engineering and Applied Sciences, Cambridge, MA (2020–present).

**Associate Member**, Broad Institute of MIT and Harvard, Cambridge, MA (2019–present).

**Faculty Associate**, The Salata Institute for Climate and Sustainability at Harvard University (formerly the Harvard University Center for the Environment), Cambridge, MA (2017–present).

## Selected Awards

- COPSS Emerging Leader Award (“For Emerging Leaders in Statistics”; 2025).
- Office of Naval Research N00014-25-1-2269 on “Statistical Inference for Adaptive Data” (PI; \$450,000; 2025–2028).
- Noether Early Career Scholar Award (Awarded by the American Statistical Association for exceptional work in non-parametric statistics; 2024).
- Clark Award (Awarded by the Harvard Faculty of Arts and Sciences; \$10,000; 2023).

- Best Paper Award in Mathematics (Awarded by The International Congress of Basic Science of China for “Panning for gold: ‘model-X’ knockoffs for high dimensional controlled variable selection”; \$25,000; 2023; *declined because no co-authors were able to attend the required in-person award ceremony*).
- Bernoulli Society New Researcher Award 2023 in Mathematical Statistics (Awarded in 2022).
- National Science Foundation DMS-2134157 on “A Theory of Learned Representations in Artificial and Natural Neural Networks” (Co-PI with Boaz Barak, Cengiz Pehlevan, Demba Ba; \$1,100,000; 2022–2024).
- National Science Foundation CBET-2112085 on “AI Institute in Dynamic Systems” (SP with PI/Co-PIs Nathan Kutz, Hod Lipson, Steven Brunton, Na Li, Krithika Manohar; \$20,000,000; 2021–2026).
- National Science Foundation DMS-2045981 on “CAREER: Beyond Conditional Independence: New Model-Free Targets for High-Dimensional Inference” (PI; \$400,000; 2021–2026).
- National Science Foundation IIS-1924984 on “NRI: FND: Robust Grasping by Integrating Machine Learning with Physical Models” (Co-PI with Robert Howe; \$749,998; 2019–2022).
- Harvard Milton Fund on “Statistically Removing Population Structure from GWAS” (\$50k; 2019).
- Jerome H. Friedman Applied Statistics Dissertation Award (2017).
- Joint Statistical Meetings Student Travel Award (2016).
- Qualcomm Innovation Fellowship (5.5% acceptance rate; 2015).
- Statistics Department Teaching Assistant Award (2015).

## Teaching and Training

### *Courses Taught*

- Harvard CS/Stat 184: Introduction to Reinforcement Learning, Fall ‘22, ‘23, ‘24 – Undergraduate Level.
- Harvard Stat 211: Statistical Inference I, Fall ‘17, ‘18, ‘19, ‘20, ‘21, ‘22, ‘23, ‘24 – Graduate Level.
- Harvard Stat 195: Statistical Machine Learning, Fall ‘18, ‘19, ‘20 – Undergraduate Level.

### *Non-Lecture-Based Courses and Reading Groups Run*

- Harvard Stat 305: Statistical Consulting, Fall ‘18, ‘19, ‘20, ‘21, ‘22, ‘23, ‘24 Spring ‘19, ‘20, ‘21, ‘22, ‘23, ‘24, ‘26 – Graduate Level.
- Harvard Reading Group on Generative AI for Statisticians, Summer ‘23 – Graduate Level.
- Harvard Reading Group on Convex Optimization, Spring ‘21 – Graduate Level.
- Harvard Stat 300: Big Ideas in Statistics, Summer ‘20 – Graduate Level.
- Harvard Stat 314: Timely Topics in Statistics, Fall ‘18 – Graduate Level.
- Harvard Stat 315: Modern High-Dimensional Inference, Spring ‘18 – Graduate Level.
- Harvard Stat 303: The Art and Practice of Teaching Statistics, Fall ‘17, Spring ‘18 – Graduate Level.
- Stanford STATS 302: Qualifying Exams Workshop, Summer ‘16 – Graduate Level.
- Stanford STATS 390: Consulting Workshop, Summer ‘14, ‘16 – Graduate Level.

*Undergraduate Student Supervision*

- Danielle Paulson (Spring 2024–Spring 2025; Department of Statistics Concurrent Masters Award).
- Kevin Du (Fall 2023–Spring 2025).
- Grace van Oiste (Fall 2023).
- Maximilian Li (Spring 2023–Spring 2024).
- Alex Cai (Fall 2022–present).
- Vladimir Petrov (Spring 2022–Spring 2024; HCRP Awardee).
- Virginia Ma (Spring 2022–Spring 2023; PRISE Awardee, Department of Statistics Concurrent Masters Award).
- Massimo Aufiero (Spring 2021–Spring 2022).
- Yash Nair (Spring 2021–Spring 2022; PRISE Awardee, Hoopes Prize, Undergraduate Department of Statistics Prize, NSF GRFP).
- Junu Lee (Spring 2020–Spring 2022; Herschel Smith Fellowship, NSF GRFP).
- Asher Spector (Fall 2019–Spring 2021; Hoopes Prize, Undergraduate Department of Statistics Prize, NSF GRFP).
- Stephen Casper (Fall 2020–Spring 2021; Hoopes Prize).
- Jason Huang (Fall 2021).
- David Yang (Fall 2019–Spring 2020).
- Abdul Saleh (Fall 2019–Spring 2020).
- Jessica Huang (Fall 2019–Spring 2020).
- Ryan Plunkett (Fall 2018–Spring 2019).
- Wentong Zhang (Fall 2017–Spring 2018).

*Masters Student Supervision*

- Alec Meade (Fall 2019–Spring 2020).

*Doctoral Student Supervision*

- Nathan Cheng (Spring 2023–present; NSF GRFP).
- Benjamin Schiffer (Fall 2022–present).
- Souharya Sengupta (Fall 2022–present).
- Ritwik Bhaduri (Fall 2021–present).
- Yicong Jiang (Fall 2021–Spring 2025).
- Biyonka Liang (Fall 2020–Spring 2025; Cox Scholarship Honorable Mention).
- Alexandre Bayle (Spring 2020–Fall 2024).
- Dae Woong Ham (Fall 2019–Spring 2024).
- Kelly Zhang (Spring 2019–Spring 2023; Siebel Scholar).
- Feicheng Wang (Fall 2018–Fall 2022).

- Lu Zhang (Spring 2018–Summer 2022; QBio Student Fellowship, Dempster Award, SLDS student paper award).
- Wenshuo Wang (Spring 2018–Spring 2021; Dempster Award).
- Dongming Huang (Fall 2017–Spring 2020).

### *Postdoctoral Student Supervision*

- Shahriar Talebi (Fall 2023–Spring 2025).
- M Ganesh Kumar (Fall 2023–present).
- Nikhil Vyas (Fall 2022–Spring 2024).
- Siyuan Ma (Fall 2019–Summer 2020).

## University Service Activities

- Chair, Harvard Faculty of Arts and Sciences Research Computing Faculty Advisory Group (2023–present).
- Co-organizer of Machine Learning Foundations Seminar (2021–present).
- Harvard Data Science Committee (2021–present).
- Statistics Department Graduate Studies Committee (2020–present).
- Organizer of Harvard Free Statistical Consulting Service (2018–present).
- Statistics Department Undergraduate Studies Committee (2017–present).
- Harvard-UK Fellowships Selection Committee (2026).
- Harvard CMSA Conference on Big Data Organizing Committee (2023).
- Statistics Department Tenure-track Search Committee (2021–2022).
- Electrical Engineering Tenure-track Search Committee (2021–2022).
- Harvard Faculty of Arts and Sciences Research Computing Faculty Advisory Group (2019–2021).
- Harvard Data Science Initiative Postdoctoral Fellow application reviewer (2020).
- William F. Milton Fund proposal reviewer (2020).
- First-Generation Faculty Mentorship Program (2019–2021).
- Paper Selection Committee for Dempster Award (2018–2021).
- Statistics Department Ph.D. Admissions Committee (2017–2021, 2023).
- Statistics Department Colloquium Organizer (Spring 2018–Fall 2018; Fall 2021).

## Professional Service Activities

### *Editorial Service*

- Associate Editor, Journal of the American Statistical Association (2026–).

### *Workshops and Conference Committees*

- Program Committee, ACM-IMS Foundations of Data Science Conference (2020).
- Scientific Committee, Conference on Statistical Learning and Data Science/Nonparametric Statistics (2020).
- Organizing Committee, Eighth Annual New England Machine Learning Day (2019).

### *Proposal Reviewer*

- National Science Foundation

### *Outreach*

- Quoted in "An Asteroid Has a 1-in-63 Chance of Hitting Earth in 2032—Here's What That Means" by Isaac Schultz in Gizmodo (2025).
- Course instructor, Project Teach (2024).
- Activity Co-leader, Harvard Data Adventure Day (2023–present).
- Pre-doctoral Mentor, National Alliance for Doctoral Studies in the Mathematical Sciences (2021–present).
- Quoted in "Like hitting a bullseye with closed eyes" by Juan Siliezar in Harvard Gazette (2021).
- Guest Lecture "How Journalists Can Understand Data Science", ENG CNSR: Narrative Science Journalism (2019).
- Evaluation Chair, SAILORS: Stanford Artificial Intelligence Laboratory Outreach Summer (2016).
- Consultant, Stanford Statistics Free Consulting Service, over 100 consultees helped (2012–2016).
- Member, Statistics for Social Good Working Group at Stanford University (2013–2016).
- Judge, Seton Middle School Science Fair (2014–2016).
- Guest instructor, 30-minute presentation about data science to 6th grade class at Taft Community School (2015).

### *Reviewer*

Journal of the Royal Statistical Society: Series B, Journal of the American Statistical Association, Annals of Statistics, Biometrika, Annals of the Institute of Statistical Mathematics, Bernoulli, Biometrical Journal, Biometrics, Electronic Journal of Statistics, Journal of Computational and Graphical Statistics, Scandinavian Journal of Statistics, SIAM Journal on Mathematics of Data Science, Statistics in Medicine, Statistica Sinica, Statistics & Probability Letters, Statistical Science, Stat, TEST, ACM-IMS Foundations of Data Science Conference (FODS), Information and Inference, INFORMS Journal on Computing, Communications Methods and Measures, Conference on Learning Theory (COLT), Conference on Neural Information Processing Systems (NeurIPS), Journal of Machine Learning Research, Discrete & Computational Geometry, Econometric Theory, Journal of Climate, Proceedings of the National Academy of Sciences (PNAS), PLOS Biology, International Journal of Robotics Research, American Control Conference (ACC), IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), IEEE Conference on Decision and Control (CDC), IEEE International Conference on Robotics and Automation (ICRA), IEEE Robotics and Automation Letters, IEEE Transactions on Aerospace and Electronic Systems, IEEE Transactions on Automation Science and Engineering, IEEE Transactions on Mechatronics, IEEE Transactions on Signal Processing.

## Publications

\* denotes alphabetized author order

### *In Preparation/Under Review*

- [P12] R. Bhaduri\*, A. Bhattacharyya\*, R. Foygel Barber, and **L. Janson**. Conditioning on posterior samples for flexible frequentist goodness-of-fit testing. 2025. [<https://arxiv.org/abs/2511.05281>]
- [P11] N. Cheng, A. Spector, and **L. Janson**. Chiseling: Powerful and Valid Subgroup Selection via Interactive Machine Learning. 2025. [<https://arxiv.org/abs/2509.19490>]
- [P10] A. Bayle, **L. Janson\***, and L. Mackey\*. The Relative Instability of Model Comparison with Cross-validation. 2025. [<https://arxiv.org/abs/2508.04409>]
- [P9] Y. Jiang and **L. Janson**. Semiparametric Inference for Partially Identifiable Data Fusion Estimands via Double Machine Learning. 2025. [<https://arxiv.org/abs/2502.05319>]
- [P8] R. Bhaduri, S. Ma, and **L. Janson**. Compositional Covariate Importance Testing via Partial Conjunction of Bivariate Hypotheses. 2025. [<https://arxiv.org/abs/2501.00566>]
- [P7] B. Schiffer and **L. Janson**. Foundations of Safe Online Reinforcement Learning in the Linear Quadratic Regulator:  $\sqrt{T}$ -Regret. 2025. [<https://arxiv.org/abs/2504.18657>]
- [P6] B. Schiffer and **L. Janson**. Foundations of Safe Online Reinforcement Learning in the Linear Quadratic Regulator: Generalized Baselines. 2025. [<https://arxiv.org/abs/2410.21081>]
- [P5] S. Sengupta and **L. Janson**. The  $\ell$ -test: leveraging sparsity in the Gaussian linear model for improved inference. 2024. [<https://arxiv.org/abs/2406.18390>]
- [P4] S. Ma, C. Huttenhower, and **L. Janson**. Compositional Differential Abundance Testing: Defining and Finding a New Type of Health-Microbiome Associations. 2024. [<https://www.biorxiv.org/content/10.1101/2024.06.04.596112v1>]
- [P3] Y. Nair and **L. Janson**. Randomization Tests for Adaptively Collected Data. 2023. [<https://arxiv.org/abs/2301.05365>]
- [P2] K. Zhang, **L. Janson**, S. Murphy. Statistical Inference After Adaptive Sampling in Non-Markovian Environments. 2022. [<https://arxiv.org/abs/2202.07098>]
- [P1] L. Zhang and **L. Janson**. Floodgate: Inference for Model-Free Variable Importance. 2020. [<https://arxiv.org/abs/2007.01283>]

### *Journal Articles*

- [J25] B. Liang, L. Zhang, and **L. Janson**. Powerful Partial Conjunction Hypothesis Testing via Conditioning. *Biometrika* (in press), 2025+.
- [J24] M. Aufiero and **L. Janson**. Surrogate-Based Global Sensitivity Analysis with Statistical Guarantees via Floodgate. *Journal of Uncertainty Quantification* (in press), 2025+.
- [J23] A. Spector and **L. Janson**. Controlled Discovery and Localization of Signals via Bayesian Linear Programming. *Journal of the American Statistical Association*, 1-12, 2024.

- [J22] T. Lew, R. Bonalli, **L. Janson**, and M. Pavone. Estimating the Convex Hull of the Image of a Set with Smooth Boundary: Error Bounds and Applications. *Discrete & Computational Geometry* (in press), 2024.
- [J21] D. W. Ham, K. Imai\*, and **L. Janson\***. Using Machine Learning to Test Causal Hypotheses in Conjoint Analysis. *Political Analysis*, 32(3):329–344, 2024.
- [J20] R. Foygel Barber\* and **L. Janson\***. Testing Goodness-of-fit and Conditional Independence with Approximate Co-sufficient Sampling. *Annals of Statistics*, 50(5), 2514–2544, 2022.
- [J19] F. Wang and **L. Janson**. Exact Asymptotics for Linear Quadratic Adaptive Control. *Journal of Machine Learning Research*, 22(265):1–112, 2021.
- [J18] W. Wang and **L. Janson**. A Power Analysis of the Conditional Randomization Test and Knockoffs. *Biometrika*, 109(3):631–645, 2022.
- [J17] S. Ma, B. Ren, H. Mallick, Y.S. Moon, E. Schwager, S. Maharjan, T. Tickle, Y. Lu, R. Carmody, E. Franzosa, **L. Janson**, and C. Huttenhower. A Statistical Model for Describing and Simulating Microbial Community Profiles. *PLOS Computational Biology*, 17(9):1–27, 2021.
- [J16] A. Spector and **L. Janson**. Powerful Knockoffs via Minimizing Reconstructability. *Annals of Statistics*, 50(1):252–276, 2022.
- [J15] M. Liu, E. Katsevich, **L. Janson\***, and A. Ramdas\*. Fast and Powerful Conditional Randomization Testing via Distillation. *Biometrika*, 109(2):277–293, 2022.
- [J14] S. Bates\*, E. Candès\*, **L. Janson\***, and W. Wang\*. Metropolized Knockoff Sampling. *Journal of the American Statistical Association*, 116(535):1413–1427, 2021.
- [J13] D. Huang, **L. Janson**. Relaxing the Assumptions of Knockoffs by Conditioning. *Annals of Statistics*, 48(5):3021–3042, 2020.
- [J12] E. Candès\*, Y. Fan\*, **L. Janson\***, and J. Lv\*. Panning for Gold: Model-X Knockoffs for High-dimensional Controlled Variable Selection. *Journal of the Royal Statistical Society: Series B*, 80(3):551–577, 2018.
- [J11] Y. Chow, M. Ghavamzadeh, **L. Janson**, and M. Pavone. Risk-Constrained Reinforcement Learning with Percentile Risk Criteria. *Journal of Machine Learning Research*, 18(167):1–51, 2018.
- [J10] **L. Janson**, B. Ichter, and M. Pavone. Deterministic Sampling-Based Motion Planning: Optimality, Complexity, and Performance. *International Journal of Robotics Research*, 37(1):46–61, 2018.
- [J9] S. Tamang, A. Milstein, H. Sørensen, L. Pedersen, L. Mackey, J. Betterton, **L. Janson**, and N. Shah. Predicting Patient “Cost Blooms” in Denmark: a Longitudinal Population-Based Study. *BMJ Open*, 7(1), 2017.
- [J8] **L. Janson**, R. Foygel Barber, and E. Candès. EigenPrism: Inference for High-Dimensional Signal-to-Noise Ratios. *Journal of the Royal Statistical Society, Series B*, 79(4):1037–1065, 2017.
- [J7] **L. Janson\***, and W. Su\*. Familywise Error Rate Control Via Knockoffs. *Electronic Journal of Statistics*, 10(1):960–975, 2016.
- [J6] **L. Janson**, W. Fithian, and T. Hastie. Effective Degrees of Freedom: A Flawed Metaphor. *Biometrika*, 102(2):479–485, 2015.
- [J5] G. Poultsides, T. Tran, E. Zambrano, **L. Janson**, D. Mohler, M. Well, R. Avedian, B. Visser, J. Lee, K. Ganjoo, E. Harris, J. Norton. Sarcoma Reconstruction With and Without Vascular Reconstruction: A Matched Case-Control Study. *Annals of Surgery*, 262(4):632–640, 2015.

- [J4] S. Gholami, **L. Janson**, D. Worhunsky, T. Tran, M. Squires III, L. Jin, G. Spolverato, K. Votanopoulos, C. Schmidt, S. Weber, M. Bloomston, C. Cho, E. Levine, R. Fields, T. Pawlik, S. Maithel, B. Efron, J. Norton, and G. Poultides. Number of Lymph Nodes Removed and Survival after Gastric Cancer Resection: An Analysis from the US Gastric Cancer Collaborative. *Journal of the American College of Surgeons*, 221(2):291–299, 2015.
- [J3] **L. Janson**, E. Schmerling, A. Clark, and M. Pavone. Fast Marching Tree: a Fast Marching Sampling-Based Method for Optimal Motion Planning in Many Dimensions. *International Journal of Robotics Research*, 34(7):883–921, 2015.
- [J2] **L. Janson** and B. Rajaratnam. A Methodology for Robust Multiproxy Paleoclimate Reconstructions and Modeling of Temperature Conditional Quantiles. *Journal of the American Statistical Association*, 109(505):63–77, 2014.
- [J1] **L. Janson\***, M. Klein\*, H. Lewis\*, A. Lucas\*, A. Marantan\*, and K. Luna. Undergraduate Experiment in Superconductor Point-Contact Spectroscopy with a Nb/Au Junction. *American Journal of Physics*, 80(2):133–140, 2012.

### *Refereed Conference Proceedings*

- [C22] K. Du, Y. Nair, and **L. Janson**. Bernstein–von Mises for Adaptively Collected Data. In *Conference on Neural Information Processing Systems*, San Diego, California, December 2025.
- [C21] N. Vyas, D. Morwani, R. Zhao, I. Shapira, D. Brandfonbrener, **L. Janson**, and S. Kakade. SOAP: Improving and Stabilizing Shampoo using Adam. In *International Conference on Learning Representations*, Singapore, April 2025.
- [C20] D. Morwani\*, I. Shapira\*, N. Vyas\*, E. Malach, S. Kakade, and **L. Janson**. A New Perspective on Shampoo’s Preconditioner. In *International Conference on Learning Representations*, Singapore, April 2025.
- [C19] B. Liang, L. Xu, A. Taneja, M. Tambe, and **L. Janson**. A Bayesian Approach to Online Learning for Contextual Restless Bandits with Applications to Public Health. In *AAAI Conference on Artificial Intelligence: Artificial Intelligence for Social Impact Track (Oral)*, Philadelphia, Pennsylvania, February 2025.
- [C18] N. Boehmer, Y. Nair, S. Shah, **L. Janson**, A. Taneja, and M. Tambe. Evaluating the Effectiveness of Index-Based Treatment Allocation. In *AAAI Conference on Artificial Intelligence: Artificial Intelligence for Social Impact Track (Oral)*, Philadelphia, Pennsylvania, February 2025.
- [C17] M. Li and **L. Janson**. Optimal ablation for interpretability. In *Conference on Neural Information Processing Systems (Spotlight)*, Vancouver, Canada, December 2024.
- [C16] W. Wang, **L. Janson\***, L. Lei\*, and A. Ramdas\*. Total Variation Floodgate for Variable Importance Inference in Classification. In *International Conference on Machine Learning*, Vienna, Austria, July 2024.
- [C15] F. Wang and **L. Janson**. Rate-matching the Regret Lower-bound in the Linear Quadratic Regulator With Unknown Dynamics. In *Conference on Decision and Control*, Singapore, December 2023.
- [C14] A. Koenig, Z. Liu, **L. Janson**, R. Howe. The Role of Tactile Sensing in Learning and Deploying Grasp Refinement Algorithms. In *IEEE/RSJ International Conference on Intelligent Robots and Systems*, Kyoto, Japan, October 2022.



- [C13] T. Lew, **L. Janson**, R. Bonalli, M. Pavone. A Simple and Efficient Sampling-based Algorithm for General Reachability Analysis. In *Learning for Dynamics & Control Conference*, Stanford, California, June 2022.
- [C12] K. Zhang, **L. Janson**, and S. Murphy. Statistical Inference with M-Estimators on Adaptively Collected Data. In *Conference on Neural Information Processing Systems*, December, 2021.
- [C11] P. Bayle, A. Bayle, **L. Janson\***, and L. Mackey\*. Cross-validation Confidence Intervals for Test Error. In *Conference on Neural Information Processing Systems*, December, 2020.
- [C10] K. Zhang, **L. Janson\***, and S. Murphy\*. Inference for Batched Bandits. In *Conference on Neural Information Processing Systems*, December, 2020.
- [C9] K. Solovey, **L. Janson**, E. Schmerling, E. Frazzoli, and M. Pavone. Revisiting the Asymptotic Optimality of RRT\*. In *IEEE Conference on Robotics and Automation*, Paris, France, May 2020.
- [C8] A. Elhafsi, B. Ivanovic, **L. Janson**, and M. Pavone. Map-Predictive Motion Planning in Unknown Environments. In *IEEE Conference on Robotics and Automation*, Paris, France, May 2020.
- [C7] **L. Janson**, T. Hu, and M. Pavone. Safe Motion Planning in Unknown Environments: Optimality Benchmarks and Tractable Policies. In *Robotics: Science and Systems*, Pittsburgh, Pennsylvania, June 2018.
- [C6] E. Schmerling, **L. Janson**, and M. Pavone. Optimal Sampling-Based Motion Planning under Differential Constraints: the Drift Case with Linear Affine Dynamics. In *Conference on Decision and Control*, Osaka, Japan, December 2015.
- [C5] **L. Janson**, B. Ichter, and M. Pavone. Deterministic Sampling-Based Motion Planning: Optimality, Complexity, and Performance. In *International Symposium on Robotics Research*, Sestri Levante, Italy, September 2015.
- [C4] **L. Janson\***, E. Schmerling\*, and M. Pavone. Monte Carlo Motion Planning for Robot Trajectory Optimization Under Uncertainty. In *International Symposium on Robotics Research*, Sestri Levante, Italy, September 2015.
- [C3] J. Starek, J. Gomez, E. Schmerling, **L. Janson**, L. Moreno, and M. Pavone. An Asymptotically-Optimal Sampling-Based Algorithm for Bi-directional Motion Planning. In *IEEE/RSJ International Conference on Intelligent Robots and Systems*, Hamburg, Germany, September 2015.
- [C2] E. Schmerling, **L. Janson**, and M. Pavone. Optimal sampling-based motion planning under differential constraints: the driftless case. In *IEEE Conference on Robotics and Automation*, Seattle, Washington, May 2015.
- [C1] **L. Janson** and M. Pavone. Fast Marching Trees: a fast marching sampling-based method for optimal motion planning in many dimensions. In *International Symposium on Robotics Research*, Singapore, December 2013.

### *Refereed Workshop Proceedings*

- [W4] N. Vyas, D. Morwani, R. Zhao, I. Shapira, D. Brandfonbrener, **L. Janson**, and S. Kakade. SOAP: Improving and Stabilizing Shampoo using Adam. In *Conference on Neural Information Processing Systems Workshop: Optimization for Machine Learning*, Vancouver, Canada, December 2024.
- [W3] V. Petrov, N. Vyas, and **L. Janson**. Transformers Can Reinforcement Learn to Approximate Gittins Index. In *Conference on Neural Information Processing Systems Workshop: Scientific Methods for Understanding Deep Learning*, Vancouver, Canada, December 2024.

- [W2] A. Koenig, Z. Liu, **L. Janson**, R. Howe. Tactile Sensing and its Role in Learning and Deploying Robotic Grasping Controllers. In *IEEE International Conference on Robotics and Automation Workshop: RL for Manipulation*, Philadelphia, Pennsylvania, May 2022.
- [W1] **L. Janson** and M. Pavone. Fast Marching Trees: a fast marching sampling-based method for optimal motion planning in many dimensions. In *Robotics: Science and Systems Workshop: Robotic Exploration, Monitoring, and Information Gathering*, Berlin, Germany, June 2013.

### *Discussion Paper Comments*

- [D2] **L. Janson**. Discussion of ‘A Scale-free Approach for False Discovery Rate Control in Generalized Linear Models’ by Chenguang Dai, Buyu Lin, Xin Xing, and Jun S. Liu. *Journal of the American Statistical Association*, 118(543):1584–1585, 2023.
- [D1] **L. Janson**. Discussion on ‘Random Projection Ensemble Classification’. *Journal of the Royal Statistical Society: Series B*, 79(4):1013–1014, 2017.

### *Ph.D. Thesis*

- [T1] **L. Janson**. A Model-Free Approach to High-Dimensional Inference. PhD thesis, Stanford University, Department of Statistics, 2017.