

**THE UNIVERSITY OF TEXAS AT AUSTIN**  
**Cockrell School of Engineering**  
**Resume**

**FULL NAME:** David Fridovich-Keil **TITLE:** Assistant Professor

**DEPARTMENT:** Aerospace Engineering and Engineering Mechanics

**CONTACT INFORMATION**

Department of Aerospace Engineering and Engineering Mechanics  
 The University of Texas at Austin  
 2617 Wichita Street, C0600  
 Austin, TX 78712  
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**EDUCATION**

University of California, Berkeley	Electrical Engineering & Computer Sciences	Ph.D.	2020
Princeton University	Electrical Engineering	B.S.E.	2015

**CURRENT AND PREVIOUS ACADEMIC POSITIONS**

Assistant Professor, The University of Texas at Austin	August 2021 - present
Post-Doctoral Researcher, Stanford University	September 2020 - June 2021
Post-Doctoral Researcher, University of California, Berkeley	June 2020 - August 2020

**OTHER PROFESSIONAL EXPERIENCE**

Advisor, AeroVect Technologies Inc. Motion planning, prediction, and control for autonomous vehicles.	August 2023 - present
Software Engineering Intern, Nuro Inc. Motion planning and prediction algorithm development for autonomous vehicles.	Summer 2018
Software Engineering Intern, Applied Science & Technology Research Institute Image processing for consumer electronics.	Summer 2014
Embedded Systems Intern, Sentinel Photonics Signal processing for lightweight, high-precision gas sensing.	Summer 2013

**HONORS AND AWARDS**

NSF CAREER Award	2024
Demetri Angelakos Memorial Achievement Award	2020
Robotics: Science & Systems Pioneer	2019
Top Reviewer at NeurIPS	2019
Outstanding Graduate Student Instructor	2018
Charles Ira Young Memorial Prize	2015
G. David Forney Jr. Prize	2015
James Hayes-Edger Palmer Prize	2015
NSF Graduate Research Fellowship	2015

## MEMBERSHIPS IN PROFESSIONAL AND HONORARY SOCIETIES

Member, The Institute of Electrical and Electronics Engineers (IEEE)

Member, The American Institute of Aeronautics and Astronautics (AIAA)

## PUBLICATIONS

### Refereed Journal Publications in Rank as Assistant Professor<sup>1</sup>

- J1 S. Chen, Y. E. Bayiz, D. Fridovich-Keil, and U. Topcu, “Relationship design for socially-aware behavior in static games,” *Journal of Autonomous Agents and Multi-Agent Systems*, vol. 39, March 2025 [pdf](#)
- J2 T. *Qiu* and D. Fridovich-Keil, “Inferring occluded agent behavior in dynamic games from noise-corrupted observations,” *Robotics and Automation Letters*, vol. 9, pp. 11489–11496, November 2024 [pdf](#)
- J3 J. Li, S. Sojoudi, C. **Tomlin**, and D. Fridovich-Keil, “The Computation of Approximate Feedback Stackelberg Equilibria in Multi-Player Nonlinear Constrained Dynamic Games,” *SIAM Journal on Optimization*, vol. 34, pp. 3723–3749, December 2024 [pdf](#)
- J4 J. *Im*, Y. Yu, D. Fridovich-Keil, and U. Topcu, “Coordination in Noncooperative Multiplayer Matrix Games via Reduced Rank Correlated Equilibria,” *Control Systems Letters*, vol. 8, pp. 1637–1642, June 2024 [pdf](#)
- J5 R. S. *Thakkar*, A. S. Samyal, D. Fridovich-Keil, Z. Xu, and U. Topcu, “Hierarchical control for cooperative teams in competitive autonomous racing,” *IEEE Transactions on Intelligent Vehicles*, vol. 9, pp. 4845–4860, May 2024 [pdf](#)
- J6 H. *Khan* and D. Fridovich-Keil, “Leadership inference for multi-agent interactions,” *Robotics and Automation Letters*, vol. 9, pp. 4671–4678, March 2024 [pdf](#)
- J7 R. S. *Thakkar*, A. S. Samyal, D. Fridovich-Keil, Z. Xu, and U. Topcu, “Hierarchical control for head-to-head autonomous racing,” *Journal of Field Robotics*, vol. 4, pp. 46–69, February 2024 [pdf](#)
- J8 L. Peters, A. Bajcsy, C.-Y. Chiu, D. Fridovich-Keil, F. Laine, L. Ferranti, and J. Alonso-Mora, “Contingency games for multi-agent interaction,” *Robotics and Automation Letters*, vol. 9, pp. 2208–2215, January 2024 [pdf](#)
- J9 L. Peters, V. Rubies-Royo, C. J. **Tomlin**, L. Ferranti, J. Alonso-Mora, C. Stachniss, and D. Fridovich-Keil, “Online and offline learning of player objectives from partial observations in dynamic games,” *International Journal of Robotics Research*, vol. 42, pp. 917–937, June 2023 [pdf](#)
- J10 F. Laine, D. Fridovich-Keil, C.-Y. Chiu, and C. **Tomlin**, “The computation of approximate generalized feedback Nash equilibria,” *SIAM Journal on Optimization*, vol. 33, no. 1, pp. 294–318, 2023 [pdf](#)
- J11 Y. Yu, J. *Salfity*, D. Fridovich-Keil, and U. Topcu, “Inverse matrix games with unique quantal response equilibrium,” *Control Systems Letters*, vol. 7, pp. 643–648, October 2022 [pdf](#)

### Refereed Journal Publications in Submission

- SJ1 N. *Strohmeier*, S. Vishwanath, and D. Fridovich-Keil, “An Improved Redemption Pricing Mechanism for Crypto-Backed Stablecoins using Dynamic Games and Optimal Control,” *ACM Distributed Ledger Technologies*, Submitted April 2025 [pdf](#)
- SJ2 X. *Liu*, F. Fotiadis, J. Li, M. Karabag, J. Milzman, D. Fridovich-Keil, and U. Topcu, “Approximate Feedback Nash Equilibria with Sparse Inter-Agent Dependencies,” in *IEEE Transactions on Automatic Control*, Submitted April 2025 [pdf](#)
- SJ3 K. *Gupta*, R. Allen, D. Fridovich-Keil, and U. Topcu, “More Information is Not Always Better: Connections between Zero-Sum Local Nash Equilibria in Feedback and Open-Loop Information Patterns,” *Control Systems Letters*, Submitted March 2025 [pdf](#)

<sup>1</sup>Underlines identify myself, *italics* mark students and postdocs I supervise(d) or co-supervise(d) at UT, and **bold** marks PhD and postdoc advisors. Asterisks\* indicate equal contribution.

- SJ4 D. H. Lee, K. Donnell, M. Z. Li, and D. [Fridovich-Keil](#), “A Convex Formulation of Game-theoretic Hierarchical Routing,” *Control Systems Letters*, Submitted March 2025 [pdf](#)
- SJ5 S. Agarwal\*, H. Khan\*, S. Chinchali, and D. [Fridovich-Keil](#), “A Framework for Finding Local Saddle Points in Two-Player Zero-Sum Black-Box Games,” *Transactions on Machine Learning Research*, Submitted February 2025 [pdf](#)
- SJ6 J. Im, F. Fotiadis, D. Delahaye, U. Topcu, and D. [Fridovich-Keil](#), “Noncooperative Equilibrium Selection via a Trading-based Auction,” *IEEE Transactions on Automatic Control*, Submitted February 2025 [pdf](#)
- SJ7 D. H. Lee, L. Peters, and D. [Fridovich-Keil](#), “You Can’t Always Get What You Want: Games of Ordered Preference,” *Robotics and Automation Letters*, Submitted January 2025 [pdf](#)
- SJ8 M. O. Karabag, S. Smith, N. Mehr, D. [Fridovich-Keil](#), and U. Topcu, “When Should a Leader Act Sub-optimally? The Role of Inferability in Repeated Stackelberg Games,” *IEEE Transactions on Automatic Control*, Submitted September 2024 [pdf](#)

### Refereed Journal Publications Prior to Joining UT Austin

- PJ1 E. Rolf\*, D. [Fridovich-Keil](#)\*, M. Simchowitz, B. Recht, and C. J. [Tomlin](#), “A successive-elimination approach to adaptive robotic sensing,” *IEEE Transactions on Robotics*, vol. 37, pp. 34–47, July 2020 [pdf](#)
- PJ2 D. [Fridovich-Keil](#)\*, A. Bajcsy\*, J. F. Fisac, S. L. Herbert, S. Wang, A. D. Dragan, and C. J. [Tomlin](#), “Confidence-aware motion prediction for real-time collision avoidance,” *International Journal of Robotics Research*, vol. 29, June 2019 [pdf](#)
- PJ3 R. Dobbe, O. Sondermeijer, D. [Fridovich-Keil](#), D. Arnold, D. Callaway, and C. J. [Tomlin](#), “Towards distributed energy services: Decentralizing optimal power flow with machine learning,” *IEEE Transactions on Smart Grid*, vol. 11, pp. 1296–1306, August 2019 [pdf](#)

### Refereed Conference Proceedings in Rank as Assistant Professor

- C1 J. Levy, J. Gibson, B. Vlahov, E. Tevere, E. Theodorou, D. [Fridovich-Keil](#), and P. Spieler, “Meta-learning online dynamics model adaptation in off-road autonomous driving,” in *Robotics: Science and Systems (RSS)*, Accepted April 2025 [pdf](#)
- C2 S. Swanbeck, D. I. Meza, J. Rosenbaum, D. [Fridovich-Keil](#), and M. Pryor, “GaTORS: A Game-Theoretic Tool for Optimal Robot Selection and Design in Surface Coverage Applications,” in *International Conference on Ubiquitous Robots (UR)*, Accepted April 2025
- C3 C. Koprulu\*, P. Li\*, T. Qiu\*, R. Zhao, T. Westenbroek, D. [Fridovich-Keil](#), S. Chinchali, and U. Topcu, “Dense dynamics-aware reward synthesis: Integrating prior experience with demonstrations,” in *International Conference on Learning for Dynamics & Control (L4DC)*, Accepted February 2025 [pdf](#)
- C4 W. Ward, Y. Yu, J. Levy, N. Mehr, D. [Fridovich-Keil](#), and U. Topcu, “Active Inverse Learning in Stackelberg Trajectory Games,” in *American Control Conference (ACC)*, Accepted January 2025 [pdf](#)
- C5 I. Remy, D. [Fridovich-Keil](#), and K. Leung, “Learning responsibility allocations for multi-agent interactions: A differentiable optimization approach with control barrier functions,” in *American Control Conference (ACC)*, Accepted January 2025 [pdf](#)
- C6 A. López and D. [Fridovich-Keil](#), “Decomposing Control Lyapunov Functions for Efficient Reinforcement Learning,” in *American Control Conference (ACC)*, Accepted January 2025 [pdf](#)
- C7 J. Hsin, S. Agarwal, A. Thorpe, L. Sentis, and D. [Fridovich-Keil](#), “Symbolic Regression on Sparse and Noisy Data with Gaussian Processes,” in *American Control Conference (ACC)*, Accepted January 2025 [pdf](#)
- C8 F. Palafox\*, J. Milzman\*, D. H. Lee, R. Park, and D. [Fridovich-Keil](#), “Smooth information gathering in two-player noncooperative games,” in *International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, Accepted December 2024 [pdf](#)

- C9 H. Khan, A. Thorpe, and D. [Fridovich-Keil](#), “Act Natural! Projecting Autonomous System Trajectories Into Naturalistic Behavior Sets,” in *IFAC Workshop on Cyber-Physical Human Systems (CPHS)*, December 2024 [pdf](#)
- C10 J. Levy\*, T. Westenbroek\*, and D. [Fridovich-Keil](#), “Learning to walk from three minutes of real-world data with semi-structured dynamics models,” in *Conference on Robot Learning (CoRL)*, November 2024 [pdf](#)
- C11 Y. Yu, A. Thorpe, J. Milzman, D. [Fridovich-Keil](#), and U. Topcu, “Sensing resource allocation against data-poisoning attacks in traffic routing,” in *IEEE Conference on Decision and Control (CDC)*, December 2024 [pdf](#)
- C12 X. Liu\*, L. Peters\*, J. Alonso-Mora, U. Topcu, and D. [Fridovich-Keil](#), “Auto-Encoding Bayesian Inverse Games,” in *Workshop on the Algorithmic Foundations of Robotics (WAFR)*, October 2024 [pdf](#)
- C13 F. [Palafox](#), Y. Yu, and D. [Fridovich-Keil](#), “Learning hyperplanes for multi-robot collision avoidance in space,” in *AAS/AIAA Astrodynamics Specialist Conference*, August 2024 [pdf](#)
- C14 B. [Barkley](#), A. Zhang, and D. [Fridovich-Keil](#), “An investigation of time reversal symmetry in reinforcement learning,” in *International Conference on Learning for Dynamics & Control (L4DC)*, pp. 68–79, PMLR, July 2024 [pdf](#)
- C15 M. O. Karabag, S. Smith, D. [Fridovich-Keil](#), and U. Topcu, “Encouraging Inferable Behavior for Autonomy: Repeated Bimatrix Stackelberg Games with Observations,” in *American Control Conference*, July 2024 [pdf](#)
- C16 T. Wolf, D. [Fridovich-Keil](#), and B. A. Jones, “Mutual information-based trajectory planning for cislunar space object tracking using successive convexification,” in *AIAA SCITECH Forum*, January 2024 [pdf](#)
- C17 J. Li, C.-Y. Chiu, L. Peters, F. [Palafox](#), M. Karabag, J. Alonso-Mora, S. Sojoudi, C. **Tomlin**, and D. [Fridovich-Keil](#), “Scenario-game ADMM: A parallelized scenario-based solver for stochastic noncooperative games,” in *IEEE Conference on Decision and Control (CDC)*, December 2023 [pdf](#)
- C18 S. Chen, Y. Yu, D. [Fridovich-Keil](#), and U. Topcu, “Soft-Bellman Equilibrium in Affine Markov Games: Forward Solutions and Inverse Learning,” in *IEEE Conference on Decision and Control (CDC)*, December 2023 [pdf](#)
- C19 A. Patil, Y. Zhou, D. [Fridovich-Keil](#), and T. Tanaka, “Risk-minimizing two-player zero-sum stochastic differential game via path integral control,” in *IEEE Conference on Decision and Control (CDC)*, December 2023 [pdf](#)
- C20 T. [Westenbroek](#), J. Levy, and D. [Fridovich-Keil](#), “Enabling efficient, reliable real-world reinforcement learning with approximate physics-based models,” in *Conference on Robot Learning (CoRL)*, pp. 2478–2497, PMLR, November 2023 [pdf](#)
- C21 J. Sun, S. Kousik, D. [Fridovich-Keil](#), and M. **Schwager**, “Connected autonomous vehicle motion planning with video predictions from smart, self-supervised infrastructure,” in *IEEE International Conference on Intelligent Transportation Systems (ITSC)*, September 2023 [pdf](#)
- C22 J. Li, C.-Y. Chiu, L. Peters, S. Sojoudi, C. J. **Tomlin**, and D. [Fridovich-Keil](#), “Cost inference for feedback dynamic games from noisy partial state observations and incomplete trajectories,” in *International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, June 2023 [pdf](#)
- C23 P. Washington, D. [Fridovich-Keil](#), and M. **Schwager**, “GrAVITree: Graph-based approximate value function in a tree,” in *American Control Conference (ACC)*, June 2023 [pdf](#)
- C24 Y. Yu, S. Chen, D. [Fridovich-Keil](#), and U. Topcu, “Cost design in atomic routing games,” in *American Control Conference (ACC)*, June 2023 [pdf](#)
- C25 S. Agarwal, D. [Fridovich-Keil](#), and S. P. Chinchali, “Robust forecasting for robotic control: A game-theoretic approach,” in *IEEE International Conference on Robotics and Automation (ICRA)*, June 2023 [pdf](#)
- C26 M. O. Karabag, D. [Fridovich-Keil](#), and U. Topcu, “Alternating direction method of multipliers for decomposable saddle-point problems,” in *2022 58th Annual Allerton Conference on Communication, Control, and Computing*, IEEE, September 2022 [pdf](#)

- C27 J. Sun, S. Kousik, D. [Fridovich-Keil](#), and M. **Schwager**, “Self-supervised traffic advisors: Distributed, multi-view traffic prediction for smart cities,” in *IEEE International Conference on Intelligent Transportation Systems (ITSC)*, October 2022 [pdf](#)
- C28 C.-Y. Chiu and D. [Fridovich-Keil](#), “GTP-SLAM: Game-theoretic priors for simultaneous localization and mapping in multi-agent scenarios,” in *IEEE Conference on Decision and Control (CDC)*, December 2022 [pdf](#)
- C29 L. Peters, D. [Fridovich-Keil](#), L. Ferranti, C. Stachniss, J. Alonso-Mora, and F. Laine, “Learning mixed strategies in trajectory games,” in *Robotics: Science and Systems (RSS)*, July 2022 [pdf](#)
- C30 D. R. Anthony, D. P. Nguyen, D. [Fridovich-Keil](#), and J. F. Fisac, “Back to the future: Efficient, time-consistent solutions in reach-avoid games,” in *IEEE International Conference on Robotics and Automation (ICRA)*, May 2022 [pdf](#)
- C31 J. Li, D. [Fridovich-Keil](#), S. Sojoudi, and C. **Tomlin**, “Augmented Lagrangian method for instantaneously constrained reinforcement learning problems,” in *IEEE Conference on Decision and Control (CDC)*, December 2021 [pdf](#)

#### Refereed Conference Publications: In Submission

- SC1 C. *Armstrong\**, R. *Park\**, X. *Liu*, K. *Gupta*, and D. [Fridovich-Keil](#), “Inferring Foresightedness in Dynamic Noncooperative Games,” *Robotics and Automation Letters*, Submitted April 2025 [pdf](#)
- SC2 L. Yang, B. Werner, R. Cosner, D. [Fridovich-Keil](#), P. Culbertson, and A. Ames, “SHIELD: Safety on Humanoids via CBFs In Expectation on Learned Dynamics,” in *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, Submitted March 2025 [video](#)
- SC3 X. *Liu\**, C. Neary, K. *Gupta*, C. Ellis, U. Topcu, and D. [Fridovich-Keil](#), “Multi-Fidelity Policy Gradient Algorithms,” in *Reinforcement Learning Conference*, Submitted February 2025 [pdf](#)
- SC4 K. *Gupta*, X. *Liu*, R. Allen, U. Topcu, and D. [Fridovich-Keil](#), “Second-Order Algorithms for Finding Local Nash Equilibria in Zero-Sum Games,” in *International Conference on Machine Learning (ICML)*, Submitted January 2025 [pdf](#)
- SC5 B. *Barkley* and D. [Fridovich-Keil](#), “Stealing That Free Lunch: Exposing the Limits of Dyna-Style Reinforcement Learning,” in *International Conference on Machine Learning (ICML)*, Submitted January 2025 [pdf](#)

#### Refereed Conference Proceedings Prior to Joining UT Austin

- PC1 L. Peters, D. [Fridovich-Keil](#), V. Rubies-Royo, C. **Tomlin**, and C. Stachniss, “Inferring objectives in continuous dynamic games from noise-corrupted partial state observations,” in *Robotics: Science and Systems (RSS)*, July 2021 [pdf](#)
- PC2 D. [Fridovich-Keil](#) and C. J. **Tomlin**, “Approximate solutions to a class of reachability games,” in *IEEE International Conference on Robotics and Automation (ICRA)*, June 2021 [pdf](#)
- PC3 C.-Y. Chiu\*, D. [Fridovich-Keil\\*](#), and C. J. **Tomlin**, “Encoding defensive driving as a dynamic Nash game,” in *IEEE International Conference on Robotics and Automation (ICRA)*, June 2021 [pdf](#)
- PC4 F. Laine, D. [Fridovich-Keil](#), C.-Y. Chiu, and C. J. **Tomlin**, “Multi-hypothesis interactions in game-theoretic motion planning,” in *IEEE International Conference on Robotics and Automation (ICRA)*, June 2021 [pdf](#)
- PC5 T. Westenbroek, E. Mazumdar, D. [Fridovich-Keil](#), V. Prabhu, C. J. **Tomlin**, and S. S. Sastry, “Adaptive control for linearizable systems using on-policy reinforcement learning,” in *IEEE Conference on Decision and Control (CDC)*, December 2020 [pdf](#)
- PC6 D. [Fridovich-Keil\\*](#), V. Rubies-Royo\*, and C. J. **Tomlin**, “An iterative quadratic method for general-sum differential games with feedback linearizable dynamics,” in *IEEE International Conference on Robotics and Automation (ICRA)*, June 2020 [pdf](#)
- PC7 D. [Fridovich-Keil](#), E. Ratner, L. Peters, A. D. Dragan, and C. J. **Tomlin**, “Efficient iterative linear-quadratic approximations for nonlinear multi-player general-sum differential games,” in *IEEE International Conference on Robotics and Automation (ICRA)*, June 2020 [pdf](#)

- PC8 L. Peters, D. [Fridovich-Keil](#), C. J. **Tomlin**, and Z. Sunberg, “Inference-based strategy alignment for general-sum differential games,” in *International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, May 2020 [pdf](#)
- PC9 T. Westenbroek\*, D. [Fridovich-Keil](#)\*, E. Mazumdar\*, S. Arora, V. Prabhu, S. S. Sastry, and C. J. **Tomlin**, “Feedback linearization for unknown systems via reinforcement learning,” in *IEEE International Conference on Robotics and Automation (ICRA)*, June 2020 [pdf](#)
- PC10 V. Rubies-Royo, D. [Fridovich-Keil](#), S. L. Herbert, and C. J. **Tomlin**, “A classification-based approach for approximate reachability,” in *IEEE International Conference on Robotics and Automation (ICRA)*, May 2019 [pdf](#)
- PC11 S. L. Herbert\*, A. Bajcsy\*, D. [Fridovich-Keil](#), J. F. Fisac, S. Deglurkar, A. D. Dragan, and C. J. **Tomlin**, “A scalable framework for real-time multi-robot, multi-human collision avoidance,” in *IEEE International Conference on Robotics and Automation (ICRA)*, May 2019 [pdf](#)
- PC12 D. [Fridovich-Keil](#)\*, J. F. Fisac\*, and C. J. **Tomlin**, “Safely probabilistically complete real-time planning and exploration in unknown environments,” in *IEEE International Conference on Robotics and Automation (ICRA)*, May 2019 [pdf](#)
- PC13 J. F. Fisac\*, A. Bajcsy\*, S. L. Herbert, D. [Fridovich-Keil](#), S. Wang, C. J. **Tomlin**, and A. D. Dragan, “Probabilistically safe robot planning with confidence-based human predictions,” in *Robotics: Science and Systems (RSS)*, June 2018 [pdf](#)
- PC14 D. [Fridovich-Keil](#)\*, S. L. Herbert\*, J. F. Fisac, S. Deglurkar, and C. J. **Tomlin**, “Planning, fast and slow: A framework for adaptive real-time safe trajectory planning,” in *IEEE International Conference on Robotics and Automation (ICRA)*, May 2018 [pdf](#)
- PC15 R. Dobbe\*, D. [Fridovich-Keil](#)\*, and C. J. **Tomlin**, “Fully decentralized policies for multi-agent systems: An information theoretic approach,” in *Advances in Neural Information Processing Systems (NeurIPS)*, pp. 2941–2950, December 2017 [pdf](#)
- PC16 D. [Fridovich-Keil](#), N. Hanford, M. P. Chapman, C. J. **Tomlin**, M. K. Farrens, and D. Ghosal, “A model predictive control approach to flow pacing for TCP,” in *Allerton Conference on Communication, Control, and Computation*, pp. 988–994, October 2017 [pdf](#)
- PC17 D. [Fridovich-Keil](#), E. Nelson, and A. Zakhor, “AtomMap: A probabilistic amorphous 3D map representation for robotics and surface reconstruction,” in *IEEE International Conference on Robotics and Automation (ICRA)*, pp. 3110–3117, June 2017 [pdf](#)

### Other Major Publications

- M1 D. [Fridovich-Keil](#), *Smooth Game Theory*. 2024 [pdf](#)

### Software

- W1 D. [Fridovich-Keil](#), “MixedComplementarityProblems.jl,” 2024 [code](#)
- W2 D. [Fridovich-Keil](#), “ILQGames: Iterative linear-quadratic games,” 2019 [code](#)
- W3 D. [Fridovich-Keil](#), “FaSTrack: Fast and safe tracking,” 2018 [code](#)

### INVITED ORAL PRESENTATIONS<sup>2</sup>

- O1 March 2025, “Auto-Encoding Bayesian Inverse Games,” Computer Science department seminar, Vanderbilt University
- O2 February 2025, “Auto-Encoding Bayesian Inverse Games,” Guest lecture, UC San Diego [video](#)
- O3 February 2025, “Auto-Encoding Bayesian Inverse Games,” Guest lecture, UC Berkeley
- O4 February 2025, “Auto-Encoding Bayesian Inverse Games,” Robotics Seminar, University of Utah
- O5 November 2024, “Auto-Encoding Bayesian Inverse Games,” Guest lecture, University of Washington

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<sup>2</sup>D. Fridovich-Keil was the sole presenter.



- O6 July 2024, “Information-Aware Algorithms for Smooth Dynamic Games,” Robotics seminar, NASA Jet Propulsion Laboratory
- O7 June 2024, “Information-Aware Algorithms for Smooth Dynamic Games,” Distinguished Webinar in AI/Cyber, University of North Dakota
- O8 May 2024, “Auto-Encoding Bayesian Inverse Games,” Neuro-Symbolic Systems (NeuS) Conference, UC Berkeley
- O9 April 2024, “Information-Aware Algorithms for Smooth Dynamic Games,” GRASP seminar, Penn
- O10 April 2024 “An Introduction to Trajectory Optimization,” RBT 350 Guest lecture, UT Austin
- O11 March 2024, “Inverse games: a MPEC by any other name...,” Interactive Robotics Guest lecture, CMU
- O12 December 2023, “Dynamic Game Models for Multi-Agent Interactions: The Role of Information in Designing Efficient Algorithms,” Workshop on Models and Algorithms for Path Planning, UT Austin
- O13 December 2023, “Differential Games: A Brief History and Modern Developments,” ASEN 6519 Guest lecture, CU Boulder
- O14 November 2023, “An Introduction to Trajectory Optimization,” RBT 350 Guest lecture, UT Austin
- O15 October 2023, “Nested Optimization and Feedback Games,” CMS 248 Guest lecture, Caltech
- O16 September 2023, “Regulating a Digitally-Transformed NAS: A Game-Theoretic Perspective,” Workshop on Clean Slate Approaches to Crewed and Uncrewed Air Traffic Operations, UC Berkeley
- O17 September 2023, “Dynamic Game Models for Multi-Agent Interactions: The Role of Information in Designing Efficient Algorithms,” Robotics Seminar, University of Illinois–Urbana Champaign
- O18 July 2023, “Dynamic Game Models for Multi-Agent Interactions: The Role of Information in Designing Efficient Algorithms,” Control-X Seminar, University of Washington
- O19 June 2023, “Dynamic Game Models for Multi-Agent Interactions: The Role of Information in Designing Efficient Algorithms,” Robotics Seminar, Northeastern University
- O20 May 2023, “Dynamic Game Models for Multi-Agent Interactions: The Role of Information in Designing Efficient Algorithms,” Robotics Seminar, TU Delft
- O21 May 2023, “Dynamic Game Models for Multi-Agent Interactions: The Role of Information in Designing Efficient Algorithms,” Robotics Seminar, Princeton University
- O22 April 2023, “Dynamic Game Models for Multi-Agent Interactions: Forward and Inverse Solutions,” Babuška Forum, Oden Institute, UT Austin
- O23 November 2022, “Dynamic Game Models for Multi-Agent Interactions: Forward and Inverse Solutions,” CMS/EC 248 Guest lecture, Caltech
- O24 October 2022, “Dynamic Game Models for Multi-Agent Interactions: Forward and Inverse Solutions,” Nuro [video](#)
- O25 September 2022, “Mixing Continuous Strategies: A Case Study in Trajectory Games,” Allerton, UIUC
- O26 May 2022, “Learning Mixed Strategies in Lifted Trajectory Games,” Autonomy Talks, ETH Zürich [video](#)
- O27 May 2022, “What is Feedback, Really?” EE290 Guest lecture, UC Berkeley
- O28 April 2022, “Learning to Compete: Efficient Solutions for Noncooperative Games,” Texas Robotics Symposium, UT Austin
- O29 April 2022, “Learning in Noncooperative Games: Efficient Algorithms and Open Challenges,” Amazon Robotics
- O30 November 2021, “A Brief Tour of Dynamic Games for Multi-Agent Modeling,” Aerospace Engineering and Engineering Mechanics External Advisory Committee, UT Austin
- O31 November 2021, “A Brief Tour of Dynamic Games for Multi-Agent Modeling,” Aerospace Engineering Department Seminar, CU Boulder

- O32 October 2021, “A Brief Tour of Dynamic Games for Multi-Agent Modeling,” Control, Autonomy, and Robotics Seminar, UT Austin
- O33 July 2021, “A Brief Tour of Dynamic Games for Multi-Agent Modeling,” Workshop on Perception and Control for Autonomous Navigation in Crowded, Dynamic Environments, Robotics: Science & Systems [video](#)
- O34 July 2021, Robotics Research Debate, Robotics: Science & Systems Pioneers Workshop.
- O35 July 2021, “A Brief Tour of Dynamic Games for Multi-Agent Modeling,” Semiautonomous Seminar, UC Berkeley.
- O36 April 2021, “Parallelizable Methods for Multimodal Stochastic Optimal Control,” NASA ULI Joint Meeting, Stanford.
- O37 2019, “A Scalable Framework for Real-Time Multi-Robot, Multi-Human Collision Avoidance,” Connected and Automated Vehicles, University of Michigan.
- O38 2019, “Iterative Linear Quadratic Approximations for Nonlinear Differential Games,” Robotic Manipulation and Interaction, UC Berkeley.
- O39 2019, “Iterative Linear Quadratic Approximations for Nonlinear Multi-Player General-Sum Differential Games,” Berkeley Artificial Intelligence Lab, UC Berkeley.
- O40 2019, “Toward Robust Autonomy in Multi-Agent Safety-Critical Systems,” DARPA Assured Autonomy Program, Northrop Grumman.
- O41 2019, “Toward Robust Autonomy in Uncertain Safety-Critical Systems,” Nuro.
- O42 2019, “Toward Robust Autonomy in Uncertain Safety-Critical Systems,” Postmates X.



**David Fridovich-Keil, Assistant Professor**  
The University of Texas at Austin  
Department of Aerospace Engineering and Engineering Mechanics

Dr. David Fridovich-Keil directs the Control and Learning for Autonomous Robotics (CLeAR) Laboratory, and is a core member of both the Texas Robotics consortium and the Oden Institute for Computational Engineering and Sciences. He received his B.S.E. in Electrical Engineering from Princeton University and his Ph.D. in Electrical Engineering & Computer Sciences from the University of California, Berkeley. His research spans optimal control, dynamic game theory, learning for control and robot safety. Fridovich-Keil is the recipient of an NSF Graduate Research Fellowship and an NSF CAREER Award.