Nikolay A. Atanasov

Contact Information

Franklin Antonio Hall 3304
University of California San Diego
9500 Gilman Drive
La Jolla, CA 92093, USA

E-mail: natanasov@ucsd.edu
Web: natanaso.github.io

Academic Appointments

Associate Professor Jul. 2024 - Present
Department of Electrical and Computer Engineering
University of California San Diego, La Jolla, CA

Assistant Professor Jul. 2017 - Jun. 2024
Department of Electrical and Computer Engineering
University of California San Diego, La Jolla, CA

Postdoctoral Researcher Sep. 2015 - Jun. 2017
Department of Mechanical Engineering and Applied Mechanics
University of Pennsylvania, Philadelphia, PA
Advisors: Vijay Kumar and George J. Pappas

Education

Ph.D., Electrical and Systems Engineering Dec. 2015
University of Pennsylvania, Philadelphia, PA
Thesis: *Active Information Acquisition with Mobile Robots*
Advisors: George J. Pappas and Kostas Daniilidis
Joseph and Rosaline Wolf Best Dissertation Award

M.S., Electrical Engineering Aug. 2012
University of Pennsylvania, Philadelphia, PA

B.S., Electrical Engineering May 2008
Trinity College, Hartford, CT

Research Interests

- robotics, machine learning, control theory, optimization, computer vision
- Bayesian inference; simultaneous localization and mapping (SLAM); distributed optimization; object recognition; system identification; active sensing
- motion planning; optimal control; reinforcement learning; multi-agent reinforcement learning; inverse reinforcement learning; safe control; active information acquisition using autonomous ground and aerial mobile robots

Honors & Awards

- **Best Paper Award**, IEEE RAS Technical Committee on Robot Control 2024
  for "Port-Hamiltonian Neural ODE Networks on Lie Groups for Robot Dynamics Learning and Control"

- **Honorable Mention, IEEE Trans on Robotics King-Sun Fu Memorial Best Paper Award** 2024
  for "Port-Hamiltonian Neural ODE Networks on Lie Groups for Robot Dynamics Learning and Control"
- **IEEE RAS Early Academic Career Award in Robotics and Automation** 2023
  Awarded by the IEEE Robotics and Automation Society (RAS)
- **NSF Faculty Early Career Development (CAREER) Award** 2021
  Awarded by the National Science Foundation (NSF)
- **Best ECE Graduate Teacher Award**, University of California, San Diego 2018, 2024
  Awarded by the Department of Electrical and Computer Engineering
- **Best Paper Award**, IEEE International Conference on Robotics and Automation (ICRA) 2017
  for "Probabilistic Data Association for Semantic SLAM"
- **Joseph and Rosaline Wolf Best Ph.D. Dissertation Award**, University of Pennsylvania 2015
  Awarded by the School of Engineering and Applied Science
- **Best Poster Awards**
  - RSS Workshop on Leveraging Implicit Methods for Aerial Autonomy 2025
  - IEEE ICRA Workshop on Future of Construction 2025
  - IEEE ICRA Workshop on Collaborative Perception and Learning 2023
  - UC San Diego, Research Expo 2019
- **Phi Beta Kappa Society** 2008
- **President's Fellow**, Trinity College, Hartford, CT 2007 - 2008
  Awarded for outstanding work in the Engineering major
- **Thomas Holland Scholarship**, Trinity College, Hartford, CT 2006 - 2008
  Awarded for attaining the highest rank in the junior and senior classes
- **Phi Gamma Delta Teaching Fellowship**, Trinity College, Hartford, CT 2006, 2007
  Awarded for aiding the Department of Mathematics in its instructional endeavors

Teaching Experience

- **Instructor**, ECE276A: Sensing and Estimation in Robotics, UC San Diego Winter 2026
- **Instructor**, ECE276B: Planning and Learning in Robotics, UC San Diego Spring 2025
- **Instructor**, ECE276A: Sensing and Estimation in Robotics, UC San Diego Winter 2025
- **Instructor**, ECE171A: Linear Control System Theory, UC San Diego Fall 2024
- **Instructor**, ECE276B: Planning and Learning in Robotics, UC San Diego Spring 2024
- **Instructor**, ECE276A: Sensing and Estimation in Robotics, UC San Diego Winter 2024
- **Instructor**, ECE171A: Linear Control System Theory, UC San Diego Fall 2023
- **Instructor**, ECE276B: Planning and Learning in Robotics, UC San Diego Spring 2023
- **Instructor**, ECE276A: Sensing and Estimation in Robotics, UC San Diego Winter 2023
- **Instructor**, ECE171A: Linear Control System Theory, UC San Diego Fall 2022
- **Instructor**, ECE276B: Planning and Learning in Robotics, UC San Diego Spring 2022
- **Instructor**, ECE276A: Sensing and Estimation in Robotics, UC San Diego Winter 2022
- **Instructor**, ECE171A: Linear Control System Theory, UC San Diego Fall 2021
- **Instructor**, ECE276B: Planning and Learning in Robotics, UC San Diego Spring 2021
- **Instructor**, ECE276A: Sensing and Estimation in Robotics, UC San Diego Winter 2021
- **Instructor**, ECE276B: Planning and Learning in Robotics, UC San Diego Spring 2020
- **Instructor**, ECE276A: Sensing and Estimation in Robotics, UC San Diego Winter 2020
- **Instructor**, ECE276B: Planning and Learning in Robotics, UC San Diego Spring 2019
- **Instructor**, ECE276A: Sensing and Estimation in Robotics, UC San Diego Winter 2019
- **Instructor**, ECE276B: Planning and Learning in Robotics, UC San Diego Winter 2018
- **Instructor**, ECE276A: Sensing and Estimation in Robotics, UC San Diego Fall 2017
- **Instructor**, ESE650: Learning in Robotics, University of Pennsylvania Spring 2017
- **Guest Lecturer**, ESE617: Nonlinear Systems and Control, University of Pennsylvania Fall 2015

- **Guest Lecturer**, ESE500: Linear Systems Theory, University of Pennsylvania Fall 2011
- **Teaching Assistant**, ESE500: Linear Systems Theory, University of Pennsylvania Fall 2010, Fall 2011
- **Teaching Assistant**, Calculus I, Trinity College, Hartford, CT Fall 2006, Fall 2007
- **Teaching Assistant**, Calculus II, Trinity College, Hartford, CT Spring 2006, Spring 2007
- **Teaching Assistant**, Intro to Computer Science, Trinity College, Hartford, CT Fall 2005

Journal Papers

J45. Y. Yi, J. Cortés, and N. Atanasov, "Constrained variational inference via safe particle flow," *IEEE Control Systems Letters*, vol. 9, pp. 2579–2584, 2025

J44. Z. Li, Y. Yi, Z. Niu, and N. Atanasov, "EAST: Environment-aware safe tracking for robot navigation in dynamic environments," *Autonomous Robots*, vol. 49, no. 36, 2025

J43. X. Liu, J. Lei, A. Prabhu, Y. Tao, I. Spasojevic, P. Chaudhari, N. Atanasov, and V. Kumar, "SlideSLAM: Sparse, lightweight, decentralized metric-semantic SLAM for multi-robot navigation," *IEEE Transactions on Robotics*, 2025

J42. A. Altawaitan, J. Stanley, S. Ghosal, T. Duong, and N. Atanasov, "Learned IMU bias prediction for invariant visual inertial odometry," *IEEE Robotics and Automation Letters (RA-L)*, vol. 10, no. 11, pp. 11 872–11 879, 2025

J41. H. Cao, G. J. Pappas, and N. Atanasov, "PKF: Probabilistic data association Kalman filter for multi-object tracking," *IEEE Robotics and Automation Letters (RA-L)*, vol. 10, no. 11, pp. 11 506–11 513, 2025

J40. E. Sebastián, T. Duong, N. Atanasov, E. Montijano, and C. Sagüés, "Physics-informed multi-agent reinforcement learning for distributed multi-robot problems," *IEEE Transactions on Robotics (T-RO)*, vol. 41, pp. 4499–4517, 2025

J39. M. Alyaseen, N. Atanasov, and J. Cortés, "Safe control of second-order systems with linear positional constraints," *IEEE Control Systems Letters (L-CSS)*, vol. 9, pp. 1279–1284, 2025

J38. K. Long, Y. Yi, Z. Dai, S. Herbert, J. Cortés, and N. Atanasov, "Sensor-based distributionally robust control for safe robot navigation in dynamic environments," *The International Journal of Robotics Research (IJRR)*, 2025

J37. W. Zhang, M. J. Khojasteh, N. Atanasov, and F. Meyer, "Importance sampling with stochastic particle flow and diffusion optimization," *IEEE Signal Processing Letters (SPL)*, vol. 32, pp. 2304–2308, 2025

J36. P. Paritosh, N. Atanasov, and S. Martínez, "Distributed Bayesian estimation in sensor networks: Consensus on marginal densities," *IEEE Transactions on Network Science and Engineering (T-NSE)*, vol. 12, no. 4, pp. 2848–2862, 2025

J35. P. Paritosh, N. Atanasov, and S. Martínez, "Distributed variational inference for online supervised learning," *IEEE Transactions on Control of Network Systems (T-CNS)*, vol. 12, no. 3, pp. 1843–1855, 2025

J34. A. Asgharivaskasi, F. Girke, and N. Atanasov, "Riemannian optimization for active mapping with robot teams," *IEEE Transactions on Robotics (T-RO)*, vol. 41, pp. 1077–1097, 2025

J33. M. Alyaseen, N. Atanasov, and J. Cortés, "Continuity and boundedness of minimum-norm CBF-safe controllers," *IEEE Transactions on Automatic Control (TAC)*, vol. 70, no. 6, pp. 4148–4154, 2025

J32. C. Nguyen, A. Altawaitan, T. Duong, N. Atanasov, and Q. Nguyen, "Variable-frequency model learning and predictive control for jumping maneuvers on legged robots," *IEEE Robotics and Automation Letters (RA-L)*, vol. 10, no. 2, pp. 1321–1328, 2025

J31. B. Wang, J. Xie, and N. Atanasov, "Distributed multi-agent reinforcement learning with one-hop neighbors and compute straggler mitigation," *IEEE Transactions on Control of Network Systems (T-CNS)*, vol. 12, no. 2, pp. 1300–1312, 2025

J30. H. Cao, S. Shreedharan, and N. Atanasov, "Multi-robot object SLAM using distributed variational inference," *IEEE Robotics and Automation Letters (RA-L)*, vol. 9, no. 10, pp. 8722–8729, 2024

J29. K. Long, J. Cortés, and N. Atanasov, "Distributionally robust policy and Lyapunov-certificate learning," *IEEE Open Journal of Control Systems (OJ-CSYS)*, vol. 3, pp. 375–388, 2024

J28. T. Duong, A. Altawaitan, J. Stanley, and N. Atanasov, "Port-Hamiltonian neural ODE networks on Lie groups for robot dynamics learning and control," *IEEE Transactions on Robotics (T-RO)*, vol. 40, pp.

3695–3715, 2024

J27. Q. Feng and N. Atanasov, "TerrainMesh: Metric-semantic terrain reconstruction from aerial images using joint 2D-3D learning," *IEEE Transactions on Robotics (T-RO)*, vol. 40, pp. 1457–1475, 2024

J26. P. Mestres, K. Long, N. Atanasov, and J. Cortés, "Feasibility analysis and regularity characterization of distributionally robust safe stabilizing controllers," *IEEE Control Systems Letters (L-CSS)*, vol. 8, pp. 91–96, 2024

J25. T. Wang, V. Dhiman, and N. Atanasov, "Inverse reinforcement learning for autonomous navigation via differentiable semantic mapping and planning," *Autonomous Robots*, vol. 47, pp. 809–830, 2023

J24. Z. Li and N. Atanasov, "Governor-parameterized barrier function for safe output tracking with locally sensed constraints," *Automatica*, vol. 152, p. 110996, 2023

J23. J. A. Placed, J. Strader, H. Carrillo, N. Atanasov, V. Indelman, L. Carlone, and J. A. Castellanos, "A survey on active simultaneous localization and mapping: State of the art and new frontiers," *IEEE Transactions on Robotics (T-RO)*, vol. 39, no. 3, pp. 1686–1705, 2023

J22. A. Asgharivaskasi and N. Atanasov, "Semantic octree mapping and Shannon mutual information computation for robot exploration," *IEEE Transactions on Robotics (T-RO)*, vol. 39, no. 3, pp. 1910–1928, 2023

J21. X. Cai, B. Schlotfeldt, K. Khosoussi, N. Atanasov, G. J. Pappas, and J. P. How, "Energy-aware, collision-free information gathering for heterogeneous robot teams," *IEEE Transactions on Robotics (T-RO)*, vol. 39, no. 4, pp. 2585–2602, 2023

J20. V. Dhiman, M. J. Khojasteh, M. Franceschetti, and N. Atanasov, "Control barriers in Bayesian learning of system dynamics," *IEEE Transactions on Automatic Control (TAC)*, vol. 68, no. 1, pp. 214–229, 2023

J19. Y. Yi, S. Koga, B. Gavrea, and N. Atanasov, "Control synthesis for stability and safety by differential complementarity problem," *IEEE Control Systems Letters (L-CSS)*, vol. 7, pp. 895–900, 2023

J18. Z. Li, T. Duong, and N. Atanasov, "Robust and safe autonomous navigation for systems with learned SE(3) Hamiltonian dynamics," *IEEE Open Journal of Control Systems (OJ-CSYS)*, vol. 1, pp. 164–179, 2022

J17. M. Ostertag, N. Atanasov, and T. Rosing, "Trajectory planning and optimization for minimizing uncertainty in persistent monitoring applications," *Springer Journal of Intelligent and Robotic Systems*, vol. 106, no. 2, 2022

J16. T. Duong, M. Yip, and N. Atanasov, "Autonomous navigation in unknown environments with sparse Bayesian kernel-based occupancy mapping," *IEEE Transactions on Robotics (T-RO)*, vol. 38, no. 6, pp. 3694–3712, 2022

J15. K. Long, V. Dhiman, M. Leok, J. Cortés, and N. Atanasov, "Safe control synthesis with uncertain dynamics and constraints," *IEEE Robotics and Automation Letters (RA-L)*, vol. 7, no. 3, pp. 7295–7302, 2022

J14. T. Duong and N. Atanasov, "Adaptive control of SE(3) Hamiltonian dynamics with learned disturbance features," *IEEE Control Systems Letters (L-CSS)*, vol. 6, pp. 2773–2778, 2022

J13. E. Zobeidi, A. Koppel, and N. Atanasov, "Dense incremental metric-semantic mapping for multi-agent systems via sparse Gaussian process regression," *IEEE Transactions on Robotics (T-RO)*, vol. 38, no. 5, pp. 3133–3153, 2022

J12. P. Paritosh, N. Atanasov, and S. Martinez, "Distributed bayesian estimation of continuous variables over time-varying directed networks," *IEEE Control Systems Letters (L-CSS)*, vol. 6, pp. 2545–2550, 2022

J11. S. W. Chen, T. Wang, N. Atanasov, V. Kumar, and M. Morari, "Large scale model predictive control with neural networks and primal active sets," *Automatica*, vol. 135, p. 109947, 2022

J10. Y. Kantaros, B. Schlotfeldt, N. Atanasov, and G. J. Pappas, "Sampling-based planning for non-myopic multi-robot information gathering," *Autonomous Robots*, vol. 45, pp. 1029–1046, 2021

J9. K. Long, C. Qian, J. Cortés, and N. Atanasov, "Learning barrier functions with memory for robust safe navigation," *IEEE Robotics and Automation Letters (RA-L)*, vol. 6, no. 3, pp. 4931–4938, 2021

J8. R. Ivanov, N. Atanasov, M. Pajic, J. Weimer, G. J. Pappas, and I. Lee, "Continuous estimation using context-dependent discrete measurements," *IEEE Transactions on Automatic Control (TAC)*, vol. 64,

no. 1, pp. 235–250, 2019
J7. S. Liu, K. Mohta, N. Atanasov, and V. Kumar, "Search-based motion planning for aggressive flight in SE(3)," *IEEE Robotics and Automation Letters (RA-L)*, vol. 3, no. 3, pp. 2439–2446, 2018
J6. B. Schlotfeldt, D. Thakur, N. Atanasov, V. Kumar, and G. J. Pappas, "Anytime planning for decentralized multi-robot active information gathering," *IEEE Robotics and Automation Letters (RA-L)*, vol. 3, no. 2, pp. 1025–1032, 2018
J5. K. Mohta, M. Watterson, Y. Mulgaonkar, S. Liu, C. Qu, A. Makineni, K. Saulnier, K. Sun, A. Zhu, J. Delmerico, K. Karydis, N. Atanasov, G. Loianno, D. Scaramuzza, K. Daniilidis, C. J. Taylor, and V. Kumar, "Fast, autonomous flight in GPS-denied and cluttered environments," *Journal of Field Robotics (JFR)*, vol. 35, no. 1, pp. 101–120, 2018
J4. N. Atanasov, M. Zhu, K. Daniilidis, and G. J. Pappas, "Localization from semantic observations via the matrix permanent," *The International Journal of Robotics Research (IJRR)*, vol. 35, pp. 73–99, 2015
J3. N. Atanasov, J. Le Ny, and G. J. Pappas, "Distributed algorithms for stochastic source seeking with mobile robot networks," *ASME Journal of Dynamic Systems, Measurement, and Control (JDSMC)*, vol. 137, no. 3, pp. 031 011–031 011–9, 2015
J2. N. Atanasov, B. Sankaran, J. Le Ny, G. J. Pappas, and K. Daniilidis, "Nonmyopic view planning for active object classification and pose estimation," *IEEE Transactions on Robotics (T-RO)*, vol. 30, no. 5, pp. 1078–1090, 2014
J1. J. Ning and N. Atanasov, "Delineation of systolic and diastolic heart murmurs via wavelet transform and autoregressive modeling," *International Journal of Bioelectromagnetism*, vol. 12, no. 3, 2010

Conference Papers

C82. K. Long, J. Cortés, and N. Atanasov, "Certifying stability of reinforcement learning policies using generalized Lyapunov functions," in *Conference on Neural Information Processing Systems (NeurIPS)*, 2025
C81. B. Rabiei, M. Kumar A. R., Z. Dai, S. L. S. R. Pilla, Q. Dong, and N. Atanasov, "LTLCodeGen: Code generation of syntactically correct temporal logic for robot task planning," in *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2025, pp. 19 240–19 247
C80. R.-Z. Qiu, Y. Hu, Y. Song, G. Yang, Y. Fu, J. Ye, J. Mu, R. Yang, N. Atanasov, S. Scherer, and X. Wang, "Learning generalizable feature fields for mobile manipulation," in *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2025, pp. 20 952–20 959
C79. W. Zhan, Q. Dong, E. Sebastián, and N. Atanasov, "LATMOS: Latent automaton task model from observation sequences," in *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2025, pp. 21 032–21 039
C78. K. Long, H. Parwana, G. Fainekos, B. Hoxha, H. Okamoto, and N. Atanasov, "Neural configuration distance function for continuum robot control," in *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2025, pp. 358–364
C77. Y. Tian, H. Cao, S. Kim, and N. Atanasov, "MISO: Multiresolution submap optimization for efficient globally consistent neural implicit reconstruction," in *Robotics: Science and Systems (RSS)*, 2025
C76. S. Matada*, L. Bhan*, Y. Shi, and N. Atanasov, "Generalizable motion planning via operator learning," in *International Conference on Learning Representations (ICLR)*, 2025
C75. S. Beck*, C. Nguyen*, T. Duong, N. Atanasov, and Q. Nguyen, "High accuracy aerial maneuvers on legged robots using variational integrator discretized trajectory optimization," in *IEEE International Conference on Robotics and Automation (ICRA)*, 2025, pp. 10 253–10 260
C74. M. Zhou, M. Shaikh, V. Chaubey, P. Haggerty, S. Koga, D. Panagou, and N. Atanasov, "Control strategies for pursuit-evasion under occlusion using visibility and safety barrier functions," in *IEEE International Conference on Robotics and Automation (ICRA)*, 2025, pp. 12 863–12 869
C73. E. Zobeidi and N. Atanasov, "A deep signed directional distance function for shape representation," in *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2024, pp. 2689–2695
C72. P. Mestres, K. Long, M. Leok, N. Atanasov, and J. Cortés, "Stabilization of nonlinear systems through

control barrier functions," in *IEEE Conference on Decision and Control (CDC)*, 2024, pp. 8858–8863

C71. K. Long, K. Tran, M. Leok, and N. Atanasov, "Safe stabilizing control for polygonal robots in dynamic elliptical environments," in *American Control Conference (ACC)*, 2024, pp. 312–317

C70. Z. Dai, A. Asgharivaskasi, T. Duong, S. Lin, M.-E. Tzes, G. J. Pappas, and N. Atanasov, "Optimal scene graph planning with large language model guidance," in *IEEE International Conference on Robotics and Automation (ICRA)*, 2024, pp. 14 062–14 069

C69. A. Altawaitan, J. Stanley, S. Ghosal, T. Duong, and N. Atanasov, "Hamiltonian dynamics learning from point cloud observations for nonholonomic mobile robot control," in *IEEE International Conference on Robotics and Automation (ICRA)*, 2024, pp. 16 937–16 944

C68. B. Huang, Y. Chen, T. Wang, Y. Qin, Y. Yang, N. Atanasov, and X. Wang, "Dynamic handover: Throw and catch with bimanual hands," in *Conference on Robot Learning (CoRL)*, 2023

C67. E. Sebastián, T. Duong, N. Atanasov, E. Montijano, and C. Sagüés, "Learning to identify graphs from node trajectories in multi-robot networks," in *IEEE International Symposium on Multi-Robot and Multi-Agent Systems (MRS)*, 2023, pp. 142–148

C66. V. Duruisseaux, T. Duong, M. Leok, and N. Atanasov, "Lie group forced variational integrator networks for learning and control of robot systems," in *Learning for Dynamics and Control (L4DC)*, 2023, pp. 731–744

C65. K. Long, Y. Yi, J. Cortés, and N. Atanasov, "Distributionally robust Lyapunov function search under uncertainty," in *Learning for Dynamics and Control (L4DC)*, 2023, pp. 864–877

C64. P. Yang, S. Koga, A. Asgharivaskasi, and N. Atanasov, "Policy learning for active target tracking over continuous SE(3) trajectories," in *Learning for Dynamics and Control (L4DC)*, 2023, pp. 64–75

C63. K. Long*, Y. Yi*, J. Cortés, and N. Atanasov, "Safe and stable control synthesis for uncertain system models via distributionally robust optimization," in *American Control Conference (ACC)*, 2023, pp. 4651–4658

C62. E. Sebastian, T. Duong, N. Atanasov, E. Montijano, and C. Sagüés, "LEMURS: Learning distributed multi-robot interactions," in *IEEE International Conference on Robotics and Automation (ICRA)*, 2023, pp. 7713–7719

C61. D. Larsson, A. Asgharivaskasi, J. Lim, N. Atanasov, and P. Tsiotras, "Information-theoretic abstraction of semantic octree models for integrated perception and planning," in *IEEE International Conference on Robotics and Automation (ICRA)*, 2023, pp. 6937–6943

C60. P. Yang, Y. Liu, S. Koga, A. Asgharivaskasi, and N. Atanasov, "Learning continuous control policies for information-theoretic active perception," in *IEEE International Conference on Robotics and Automation (ICRA)*, 2023, pp. 2098–2104

C59. A. Asgharivaskasi, S. Koga, and N. Atanasov, "Active mapping via gradient ascent optimization of Shannon mutual information over continuous SE(3) trajectories," in *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2022

C58. B. Wang, J. Xie, and N. Atanasov, "DARL1N: Distributed multi-agent reinforcement learning with one-hop neighbors," in *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2022

C57. T. Wang and N. Atanasov, "WFA-IRL: Inverse reinforcement learning of autonomous behaviors encoded as weighted finite automata," in *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2022

C56. Z. Li, T. Duong, and N. Atanasov, "Safe autonomous navigation for systems with learned SE(3) Hamiltonian dynamics," in *Learning for Dynamics and Control (L4DC)*, 2022

C55. J. Di, E. Zobeidi, A. Koppel, and N. Atanasov, "Distributed Gaussian process mapping for robot teams with time-varying communication," in *American Control Conference (ACC)*, 2022

C54. S. Koga, A. Asgharivaskasi, and N. Atanasov, "Active SLAM over continuous trajectory and control: A covariance-feedback approach," in *American Control Conference (ACC)*, 2022

C53. M. Shan, Q. Feng, Y. Jau, and N. Atanasov, "ELLIPSDF: Joint object pose and shape optimization with a bi-level ellipsoid and signed distance function description," in *IEEE/CVF International Conference on Computer Vision (ICCV)*, 2021

C52. T. Zhao, Q. Feng, S. Jadhav, and N. Atanasov, "CORSAIR: Convolutional object retrieval and symmetry-

aided registration," in *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2021

C51. S. Koga, A. Asgharivaskasi, and N. Atanasov, "Active exploration and mapping via iterative covariance regulation over continuous SE(3) trajectories," in *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2021

C50. T. Duong and N. Atanasov, "Hamiltonian-based neural ODE networks on the SE(3) manifold for dynamics learning and control," in *Robotics: Science and Systems (RSS)*, 2021

C49. A. Asgharivaskasi and N. Atanasov, "Active Bayesian multi-class mapping from range and semantic segmentation observations," in *IEEE International Conference on Robotics and Automation (ICRA)*, 2021

C48. Q. Feng and N. Atanasov, "Mesh reconstruction from aerial images for outdoor terrain mapping using joint 2D-3D learning," in *IEEE International Conference on Robotics and Automation (ICRA)*, 2021

C47. X. Cai, B. Schlotfeldt, K. Khosoussi, N. Atanasov, G. J. Pappas, and J. P. How, "Non-monotone energy-aware information gathering for heterogeneous robot teams," in *IEEE International Conference on Robotics and Automation (ICRA)*, 2021

C46. B. Wang, J. Xie, and N. Atanasov, "Coding for distributed multi-agent reinforcement learning," in *IEEE International Conference on Robotics and Automation (ICRA)*, 2021

C45. P. Paritosh, N. Atanasov, and S. Martinez, "Marginal density averaging for distributed node localization from local edge measurements," in *IEEE Conference on Decision and Control (CDC)*, 2020

C44. E. Zobeidi, A. Koppel, and N. Atanasov, "Dense incremental metric-semantic mapping via sparse Gaussian process regression," in *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2020

C43. M. Shan, Q. Feng, and N. Atanasov, "OrcVIO: Object residual constrained visual-inertial odometry," in *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2020

C42. Q. Feng and N. Atanasov, "Fully convolutional geometric features for category-level object alignment," in *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2020

C41. T. Wang, V. Dhiman, and N. Atanasov, "Learning navigation costs from demonstrations with semantic observations," in *Learning for Dynamics and Control (L4DC)*, 2020

C40. M. J. Khojasteh, V. Dhiman, M. Franceschetti, and N. Atanasov, "Probabilistic safety constraints for learned high relative-degree system dynamics," in *Learning for Dynamics and Control (L4DC)*, 2020

C39. T. Duong, N. Das, M. Yip, and N. Atanasov, "Autonomous navigation in unknown environments using sparse kernel-based occupancy mapping," in *IEEE International Conference on Robotics and Automation (ICRA)*, 2020

C38. Z. Li, Ö. Arslan, and N. Atanasov, "Fast and safe path-following control using a state-dependent directional metric," in *IEEE International Conference on Robotics and Automation (ICRA)*, 2020

C37. T. Wang, V. Dhiman, and N. Atanasov, "Learning navigation costs from demonstration in partially observable environments," in *IEEE International Conference on Robotics and Automation (ICRA)*, 2020

C36. K. Saulnier, N. Atanasov, G. J. Pappas, and V. Kumar, "Information theoretic active exploration in signed distance fields," in *IEEE International Conference on Robotics and Automation (ICRA)*, 2020

C35. S. Kulgod, W. Chen, J. Huang, Y. Zhao, and N. Atanasov, "Temporal logic guided locomotion planning and control in cluttered environments," in *American Control Conference (ACC)*, 2020

C34. P. Paritosh, N. Atanasov, and S. Martinez, "Hypothesis assignment and partial likelihood averaging for cooperative estimation," in *IEEE Conference on Decision and Control (CDC)*, 2019

C33. Q. Feng, Y. Meng, M. Shan, and N. Atanasov, "Localization and mapping using instance-specific mesh models," in *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2019

C32. S. Guo and N. Atanasov, "Information filter occupancy mapping using decomposable radial kernels," in *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2019

C31. B. Schlotfeldt, N. Atanasov, and G. J. Pappas, "Maximum information bounds for planning active sensing trajectories," in *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2019

C30. Y. Kantaros, B. Schlotfeldt, N. Atanasov, and G. J. Pappas, "Asymptotically optimal planning for non-myopic multi-robot information gathering," in *Robotics: Science and Systems (RSS)*, 2019

C29. P. Tecchio, N. Atanasov, S. Shahrampour, and G. J. Pappas, "N-dimensional distributed network localization with noisy range measurements and arbitrary anchor placement," in *American Control Con-*

ference (ACC), 2019

C28. M. Ostertag, N. Atanasov, and T. Rosing, "Robust velocity control for minimum steady state uncertainty in persistent monitoring applications," in *American Control Conference (ACC)*, 2019

C27. N. Atanasov, S. Bowman, K. Daniilidis, and G. J. Pappas, "A unifying view of geometry, semantics, and data association in SLAM," in *International Joint Conference on Artificial Intelligence (IJCAI)*, 2018

C26. A. Khan, C. Zhang, N. Atanasov, K. Karydis, V. Kumar, and D. D. Lee, "Memory augmented control networks," in *International Conference on Learning Representations (ICLR)*, 2018

C25. S. Chen, K. Saulnier, N. Atanasov, D. D. Lee, V. Kumar, G. J. Pappas, and M. Morari, "Approximating explicit model predictive control using constrained neural networks," in *American Control Conference (ACC)*, 2018

C24. K. Sun, K. Saulnier, N. Atanasov, G. J. Pappas, and V. Kumar, "Dense 3-D mapping with spatial correlation via Gaussian filtering," in *American Control Conference (ACC)*, 2018

C23. S. Liu, N. Atanasov, K. Mohta, and V. Kumar, "Search-based motion planning for quadrotors using linear quadratic minimum time control," in *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2017

C22. M. Zhang, N. Atanasov, and K. Daniilidis, "Active end-effector pose selection for tactile object recognition through Monte Carlo tree search," in *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2017

C21. A. Zhu, N. Atanasov, and K. Daniilidis, "Event-based visual inertial odometry," in *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2017

C20. A. Zhu, N. Atanasov, and K. Daniilidis, "Event-based feature tracking with probabilistic data association," in *IEEE International Conference on Robotics and Automation (ICRA)*, 2017

C19. S. Bowman, N. Atanasov, K. Daniilidis, and G. Pappas, "Probabilistic data association for semantic SLAM," in *IEEE International Conference on Robotics and Automation (ICRA)*, 2017

C18. S. Chen, N. Atanasov, A. Khan, K. Karydis, D. D. Lee, and V. Kumar, "Neural network memory architectures for autonomous robot navigation," in *Multi-disciplinary Conference on Reinforcement Learning and Decision Making (RLDM)*, 2017

C17. V. Tzoumas, N. Atanasov, A. Jadbabaie, and G. J. Pappas, "Scheduling nonlinear sensors for stochastic process estimation," in *American Control Conference (ACC)*, 2017

C16. C. Di Franco, A. Prorok, N. Atanasov, B. Kempke, P. Dutta, V. Kumar, and G. J. Pappas, "Calibration-free network localization using non-line-of-sight ultra-wideband measurements," in *ACM/IEEE International Conference on Information Processing in Sensor Networks (IPSN)*, 2017

C15. J. Fu, N. Atanasov, U. Topcu, and G. Pappas, "Optimal temporal logic planning in probabilistic semantic maps," in *IEEE International Conference on Robotics and Automation (ICRA)*, 2016

C14. R. Ivanov, N. Atanasov, J. Weimer, M. Pajic, A. Simpao, M. Rehman, G. Pappas, and I. Lee, "Estimation of blood oxygen content using context-aware filtering," in *ACM/IEEE International Conference on Cyber-Physical Systems (ICCPS)*, 2016

C13. R. Ivanov, N. Atanasov, M. Pajic, G. J. Pappas, and I. Lee, "Robust estimation using context-aware filtering," in *Allerton Conference on Communication, Control, and Computing*, 2015

C12. N. Atanasov, J. Le Ny, K. Daniilidis, and G. J. Pappas, "Decentralized active information acquisition: Theory and application to multi-robot slam," in *IEEE International Conference on Robotics and Automation (ICRA)*, 2015, pp. 4775–4782

C11. N. Atanasov, R. Tron, V. M. Preciado, and G. J. Pappas, "Joint estimation and localization in sensor networks," in *IEEE Conference on Decision and Control (CDC)*, 2014, pp. 6875–6882

C10. M. Zhu, N. Atanasov, G. J. Pappas, and K. Daniilidis, "Active deformable part models inference," in *European Conference on Computer Vision (ECCV)*, vol. 8695, 2014, pp. 281–296

C9. N. Atanasov, M. Zhu, K. Daniilidis, and G. J. Pappas, "Semantic localization via the matrix permanent," in *Robotics: Science and Systems (RSS)*, 2014

C8. N. Atanasov, J. Le Ny, K. Daniilidis, and G. J. Pappas, "Information acquisition with sensing robots: Algorithms and error bounds," in *IEEE International Conference on Robotics and Automation (ICRA)*, 2014, pp. 6447–6454

C7. N. Atanasov*, B. Sankaran*, J. Le Ny, T. Koletschka, G. J. Pappas, and K. Daniilidis, "Hypothesis testing framework for active object detection," in *IEEE International Conference on Robotics and Automation (ICRA)*, 2013, pp. 4216–4222

C6. N. Atanasov, J. Le Ny, N. Michael, and G. J. Pappas, "Stochastic source seeking in complex environments," in *IEEE International Conference on Robotics and Automation (ICRA)*, 2012, pp. 3013–3018

C5. T. Ning, J. Ning, N. Atanasov, and K.-S. Hsieh, "A fast heart sounds detection and heart murmur classification algorithm," in *IEEE International Conference on Signal Processing (ICSP)*, vol. 3, 2012

C4. J. Ning, N. Atanasov, and T. Ning, "Quantitative analysis of heart sounds and systolic heart murmurs using wavelet transform and AR modeling," in *IEEE International Conference on Engineering in Medicine and Biology (EMBC)*, 2009

C3. N. Atanasov and T. Ning, "Isolation of systolic heart murmurs using wavelet transform and energy index," in *IEEE Congress on Image and Signal Processing (CISP)*, 2008

C2. N. Atanasov and T. Ning, "Quantitative delineation of heart murmurs using features derived from autoregressive modeling," in *IEEE Northeast Bioengineering Conference (NEBC)*, 2007

C1. T. Ning, S. Bhandari, and N. Atanasov, "Restoration of multi-channel spectral estimation affected by sampling jitters," in *IEEE Northeast Bioengineering Conference (NEBC)*, 2007

Workshop Papers

W15. Z. Dai, H. Shin, Y. Tian, K. M. B. Lee, and N. Atanasov, "Learning scene-level signed directional distance function for aerial autonomy," in *Workshop on Leveraging Implicit Methods for Aerial Autonomy at RSS*, 2025

W14. S. Kim, W. Chung, Y. Tian, Z. Dai, A. Shukla, H. Su, and N. Atanasov, "Seeing the bigger picture: 3D latent mapping for mobile manipulation policy learning," in *Workshop on Mobile Manipulation and Workshop on Learned Robot Representations at RSS*, 2025

W13. D. M. Kim, K. M. B. Lee, Y. H. Seo, N. Raicevic, R. B. Li, K. Long, C. S. Yoon, D. M. Kang, B. J. Lim, Y. P. Kim, N. Atanasov, T. Nguyen, S. W. Jun, and Y. W. Kim, "A shared-autonomy construction robotic system for overhead works," in *Workshop on Future of Construction at IEEE ICRA*, 2025

W12. S. Koga, M. Zhou, D. Panagou, and N. Atanasov, "Hide and seek with visibility constraints using control barrier functions," in *Workshop on Integrated Perception, Planning, and Control for Physically and Contextually-Aware Robot Autonomy at IEEE/RSJ IROS*, 2023

W11. A. Asgharivaskasi and N. Atanasov, "Distributed optimization with consensus constraint for multi-robot semantic octree mapping," in *Workshop on Collaborative Perception and Learning at IEEE ICRA*, 2023

W10. T. Duong and N. Atanasov, "Physics-guided learning-based adaptive control on the se(3) manifold," in *Workshop on Physical Reasoning and Inductive Biases for the Real World at NeurIPS*, 2021

W9. T. Wang and N. Atanasov, "Learning navigation costs from demonstration via differentiable planning," in *South California Robotics Symposium*, 2019

W8. Q. Feng, Y. Meng, M. Shan, and N. Atanasov, "Localization and mapping using instance-specific mesh models," in *South California Robotics Symposium*, 2019

W7. P. Paritosh, N. Atanasov, and S. Martinez, "Distributed estimation algorithms on optimally assigned hypotheses," in *South California Robotics Symposium*, 2019

W6. Q. Feng, Y. Meng, and N. Atanasov, "Dense spatial segmentation from sparse semantic information," in *Workshop on Learning and Inference in Robotics at RSS*, 2018

W5. B. Schlotfeldt, N. Atanasov, and G. J. Pappas, "Adversarial information acquisition," in *Workshop on Adversarial Robotics at RSS*, 2018

W4. M. Shan and N. Atanasov, "A spatiotemporal model with visual attention for video classification," in *Workshop on Articulated Model Tracking at RSS*, 2017

W3. R. Ivanov, N. Atanasov, M. Pajic, I. Lee, and G. J. Pappas, "Robust localization using context-aware filtering," in *Workshop on Multiview Geometry in Robotics at RSS*, 2015

W2. M. Lauri, N. Atanasov, G. J. Pappas, and R. Ritala, "Active object recognition via monte carlo tree

search," in *Workshop on Beyond Geometric Constraints at IEEE ICRA*, 2015

W1. M. Zhu, N. Atanasov, G. J. Pappas, and K. Daniilidis, "Active deformable part models inference," in *Workshop on Parts and Attributes at ECCV*, 2014

Patents

1. A. Zhu, N. Atanasov, K. Daniilidis, "Event-based Feature Tracking," US Patent # 11,138,742 B2; WIPO PCT WO 2018/152214 A1.
2. S. Bowman, N. Atanasov, K. Daniilidis, G. J. Pappas, "Probabilistic Data Association for Simultaneous Localization and Mapping," US Patent # 11,187,536 B2.

Seminars and Talks

1. "Robot Dynamics Learning and Control using Port-Hamiltonian Neural ODE Networks," Workshop on Advances to the Theory and Applications in Aerospace Control, IEEE Conference on Control Technology and Applications (CCTA), San Diego, CA, USA, August 2025.
2. "Particle-Based and Distributionally Robust Uncertainty Quantification for Safe Robot Control," Workshop on Statistical Uncertainty Quantification in the Era of AI-Enabled Robots, Robotics: Science and Systems (RSS), Los Angeles, CA, USA, June 2025.
3. "Encoding Sparsity Constraints and Physics Knowledge in Multi-Agent Reinforcement Learning," Workshop on Scalable and Resilient Multi-Robot Systems, Robotics: Science and Systems (RSS), Los Angeles, CA, USA, June 2025.
4. "Learning Implicit Feature Environment Models for Mobile Robot Autonomy," Workshop on Leveraging Implicit Methods for Aerial Autonomy, Robotics: Science and Systems (RSS), Los Angeles, CA, USA, June 2025.
5. "Aerial Robot Autonomy for Metric-Semantic Terrain Mapping," Workshop on Autonomy Under Duress – Robots in Wildland Fire, IEEE International Conference on Robotics and Automation (ICRA), Atlanta, GA, USA, May 2025.
6. "Learning Environment Models for Mobile Robot Autonomy," Robotics Institute Seminar, Carnegie Mellon University, Pittsburgh, PA, USA, March 2025.
7. "Robot Dynamics Learning and Control using Port-Hamiltonian Neural ODE Networks," Minisymposium on Structure-Preserving Machine Learning for Physical Applications, SIAM Conference on Computational Science and Engineering (CSE), Fort Worth, TX, US, March 2025.
8. "Active Bayesian Inference for Collaborative Robot Mapping," NSF NRI-FRR PI Meeting, Baltimore, MD, USA, April 2024.
9. "Elements of Generalizable Mobile Robot Autonomy," Semiautonomous Seminar, UC Berkeley, Berkeley, CA, USA, March 2024.
10. "Elements of Generalizable Mobile Robot Autonomy," USC Control Seminar, University of Southern California, Los Angeles, CA, USA, March 2024.
11. "Elements of Generalizable Mobile Robot Autonomy," MIT Robotics Seminar, Cambridge, MA, USA, March 2024.
12. "Distributed Optimization with Consensus Constraints for Multi-Robot Mapping," Workshop on Collaborative Perception and Learning, IEEE International Conference on Robotics and Automation (ICRA), London, UK, June 2023.
13. "Distributionally Robust Safety and Stability for Systems with Learned Models and Constraints," Workshop on Safe and Robust Learning for Reception-based Planning and Control, American Control Conference (ACC), San Diego, CA, USA, May 2023.
14. "Metric-Semantic Mapping and Dynamics Learning for Safe Autonomous Robot Navigation," Ming Hsieh Institute Cyber-Physical Systems Seminar Series, University of Southern California, Los Angeles, CA, USA, March 2023.
15. "Safe Stabilization and Tracking for Dynamical Systems under Model Uncertainty," Control Systems and Dynamics Seminar, UC San Diego, La Jolla, CA, USA, February 2023.

16. "Multi-Robot Metric-Semantic Mapping," ECE UCR Colloquium, UC Riverside, Riverside, CA, USA, November 2022.
17. "Multi-Robot Metric-Semantic Mapping," Illinois Robotics Seminar, University of Illinois Urbana-Champaign, September 2022.
18. "Signed Directional Distance Functions," Workshop on Robotic Perception and Mapping, IEEE International Conference on Robotics and Automation (ICRA), May 2022.
19. "Autonomous Robot Mapping, Navigation, and Exploration," ECE 297 Seminar Series, UC Los Angeles, Los Angeles, CA, April 2022.
20. "Challenges and Opportunities in Mobile Robot Autonomy," Faculty-to-Faculty (F2F) Seminar Series, UC San Diego, La Jolla, CA, April 2022.
21. "Object Pose and Shape Optimization for Simultaneous Localization and Mapping," Pixel Cafe Seminar, UC San Diego, La Jolla, CA, April 2021.
22. "Autonomous Control of Aerial Robots for Environmental Monitoring," IEEE RAS/CS/IAS Connecticut Chapter, March 2021.
23. "Active Information Acquisition using Collaborative Autonomous Robots," Workshop on Collaborative Intelligent Autonomous Actions against an Intelligent Adversary, Army Research Lab, December 2020.
24. "A unifying view of geometry, semantics, and data association in SLAM," Workshop on Emerging Learning and Algorithmic Methods for Data Association in Robotics, IEEE International Conference on Robotics and Automation (ICRA), May 2020.
25. "OrcVIO: Object residual constrained Visual-Inertial Odometry," Information Theory and Applications (ITA) Workshop, San Diego, CA, February 2020
26. "Autonomous Exploration and Mapping using Inertial, Geometric, and Semantic Information," Jet Propulsion Laboratory, Pasadena, CA, December. 2019
27. "Autonomous Exploration and Mapping using Inertial, Geometric, and Semantic Information," UCSD Robotics Graduate Student Association, , UC San Diego, La Jolla, CA, November 2019
28. "Autonomous Exploration and Mapping using Visual, Inertial, and Semantic Information," DCL Seminar Series, Georgia Institute of Technology, Atlanta, GA, April 2019.
29. "Autonomous Exploration and Mapping using Visual, Inertial, and Semantic Information," Lockheed Martin Robotics Seminar Series, University of Maryland, College Park, MD, March 2019.
30. "Semantic Mapping and Autonomous Navigation in Unknown Environments," Workshop on Intelligent Systems with Real-Time Learning, Knowledge Bases, and Information Retrieval, University of Texas, Austin, TX, January 2019.
31. "Active and Adversarial Information Acquisition," Workshop on "Adversarial Robotics," Robotics: Science and Systems (RSS) Conference, Pittsburgh, PA, June 2018.
32. "Artificial Intelligence: A Path Forward," panel at the West Conference sponsored by AFCEA International and the U.S. Naval Institute, San Diego, CA, February 2018.
33. "Semantic Localization and Mapping," Panel on Advanced Robotic Imaging, The Indus Entrepreneurs, San Diego, CA, October 2017.
34. "Semantic Mapping and Mission Planning in Robotics," Machine Learning and Formal Methods Seminar, Dagstuhl, Germany, August 2017.
35. "Using Semantic Information in Robot Localization, Mapping, and Mission Planning," ATA Engineering, San Diego, CA, August 2017.
36. "Metric-Semantic SLAM with Probabilistic Data Association," Artificial Intelligence Think Tank, Gordon Engineering Leadership Center, UC San Diego, La Jolla, CA, June 2017.
37. "Acquiring Metric and Semantic Information Using Autonomous Robots" at UC San Diego, Georgia Tech, MIT, University of Minnesota, UT Austin, Duke, Princeton, NYU, Stanford, ETH Zurich, BU, CMU, UC Berkeley, February-April 2016.
38. "Active Information Acquisition with Mobile Robots" at UC Berkeley, UC Los Angeles, University of Southern California, and California Institute of Technology, February 2015.
39. "Distributed Information Acquisition with Mobile Sensors," Workshop on Humans and Sensing in

Cyber-Physical Systems, Robotics: Science and Systems (RSS) Conference, Berkeley, CA, July 2014.

Outreach Activities

1. Mentored undergraduate and K12 students through UCSD outreach programs:
   - ECE Spring/Summer Research Internship Program (SRIP): 2 students in 2018; 4 students in 2019; 5 students in 2020; 3 students in 2021; 6 students in 2022; 3 students in 2023; 3 students in 2024; 2 students in 2025;
   - Summer Training Academy for Research Success (STARS): 1 student in 2019; 1 student in 2022; 1 student in 2024;
   - International Summer Research Program (ISRP): 1 student in 2017; 1 student in 2018; 1 student in 2019; 2 students in 2023; 2 students in 2025;
   - ENLACE Summer Research Program: 1 student in 2019; 4 students in 2021; 2 students in 2022; 1 student in 2023; 2 students in 2025;
   - Regents Scholars Research Initiative (RSRI): 1 student in 2019; 2 students in 2020; 2 students in 2023; 1 student in 2025;
   - Guided Engineering Apprenticeship in Research (GEAR): 1 student in 2020-2021; 2 students in 2021-2022; 2 students in 2022-2023; 1 student in 2023-2024; 1 student in 2024-2025;
   - STEMULATE Community College Summer Research Program: 1 student in 2024;
   - EMPOWER Scholars Program: 1 student in 2025;
2. Contextual Robotics Institute Lab Tour, EMPOWER Transfer Engineering Students, UC San Diego, La Jolla, CA, October 2025.
3. "Introduction to Mobile Robot Autonomy," lecture at San Diego State University Robotics Camp, July 2025.
4. Co-organized session on "Mapping and Control for Autonomous Robot Vehicles" for high-school students from the Data Jam community outreach program visiting UCSD for the TILOS Outreach Day, May 2025.
5. "ECE Department at UCSD and Mobile Robot Autonomy," Presentation at ECE Day Kickoff Event, UC San Diego, La Jolla, CA, April 2023.
6. Contextual Robotics Institute Lab Tour, ECE Day 2023, UC San Diego, La Jolla, CA, April 2023.
7. Contextual Robotics Institute Lab Tour, First Tech Challenge high-school students, UC San Diego, La Jolla, CA, March 2023.
8. Contextual Robotics Institute Lab Tour, Sweetwater Highschool students, UC San Diego, La Jolla, CA, February 2023.
9. Co-organized 4 robotics tutorials on mapping, planning, optimization, learning (https://github.com/ExistentialRobotics/robotics-workshop) at HKN and IEEE Chapters, UC San Diego and San Diego State University, Spring 2021.
10. "Autonomous Control of Aerial Robots for Environmental Monitoring," IEEE Technical Seminar for undergraduate students, The College of New Jersey (TCNJ), March 2021.
11. "Terrain Mapping and Safe Control of Aerial Robots for Wildfire Detection," Guest Lecture at HKN and IEEE, UCSD and SDSU Chapters, October 2020.
12. "Introduction to Robot Localization and Mapping," lecture for the UCSD Splash High-School Program, UC San Diego, La Jolla, CA, April 2019.
13. "Introduction to Robot Localization and Mapping," lectures for the UCSD Splash High-School Program, UC San Diego, La Jolla, CA, May 2018.
14. "Introduction to Robotics," lecture for the California State Summer School for Mathematics and Science (COSMOS) Program, July 2017.

Professional Activities

Journal and Conference Organization:

1. Program Co-Chair, Learning for Dynamics and Control (L4DC) Conference, 2026.
2. Publications Chair, Robotics: Science and Systems (RSS), 2018.
3. Area Chair, Robotics: Science and Systems (RSS), 2025.
4. Associate Editor, IEEE Robotics and Automation Letters (RA-L), 2020, 2021, 2022, 2023, 2024, 2025.
5. Associate Editor, IEEE International Conference on Robotics and Automation (ICRA), 2017, 2018, 2019, 2024, 2025, 2026.
6. Editor, IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2024, 2025.
7. Associate Editor, IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2020, 2021, 2022, 2023.
8. Workshops and Tutorials Co-Chair, IEEE International Conference on Robotics and Automation (ICRA), 2022.
9. Area Chair, Conference on Robot Learning (CoRL), 2020.
10. Associate Editor, The International Journal of Robotics Research, Special Issue on RSS 2018.
11. Session Chair, Robotics: Science and Systems (RSS), 2018, 2025.
12. Session Chair, IEEE International Conference on Robotics and Automation (ICRA), 2022, 2023, 2024, 2025.
13. Session Chair, Learning for Dynamics and Control (L4DC) Conference, 2023.
14. Session Chair, IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2020, 2025.
15. Session Chair, American Control Conference (ACC), 2019.

Workshop Organization:

1. Co-organizer, Workshop on "Robot Safety under Uncertainty from 'Intangible' Specifications," IEEE International Conference on Robotics and Automation (ICRA), Atlanta, GA, USA, May 2025.
2. Co-organizer, Invited Session on "AI for Autonomous Robot Systems," Information Theory and Applications (ITA) Workshop, San Diego, CA, February 2025.
3. Co-organizer, Workshop on "Robotic Perception and Mapping: Frontier Vision and Learning Techniques," IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Detroit, MI, USA, October 2023.
4. Co-organizer, Workshop on "Integrated Perception, Planning, and Control for Physically and Contextually-Aware Robot Autonomy," IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Detroit, MI, USA, October 2023.
5. Co-organizer, Workshop on "Safe Robot Control with Learned Motion and Environment Models," IEEE International Conference on Robotics and Automation (ICRA), Xi'an, China, June 2021.
6. Program committee member, Workshop on "Algorithms and Architectures for Learning in-the-Loop Systems in Autonomous Flight," IEEE International Conference on Robotics and Automation (ICRA), Montreal, Canada, May 2019.
7. Program committee member, "Work-in-Progress Abstracts, Demos, and Posters," International Conference on Cyber-Physical Systems (ICCPS), Montreal, Canada, April, 2019.
8. Co-organizer, Workshop on "Perception, Inference, and Learning for Joint Semantic, Geometric, and Physical Understanding," IEEE International Conference on Robotics and Automation (ICRA), Brisbane, Australia, May 2018.
9. Program committee member, Workshop on "Informative Path Planning and Adaptive Sampling," IEEE International Conference on Robotics and Automation (ICRA), Brisbane, Australia, May 2018.
10. Co-organizer, Workshop on "Learning Perception and Control for Autonomous Flight: Safety, Memory, and Efficiency," Robotics: Science and Systems (RSS), Cambridge, MA, USA, July 2017.
11. Co-organizer, Workshop on "Robot-Environment Interaction for Perception and Manipulation," Robotics: Science and Systems (RSS) Conference, Ann Arbor, MI, USA, June 2016.

Grant Proposal Reviewer:

- NSF CISE Panelist: 2016, 2017, 2018, 2019, 2021, 2022, 2023, 2024, 2025.
- NSF ENG Panelist: 2021, 2025.
- ARL Academic Evaluator: 2025.

Journal Reviewer:

- IEEE Transactions on Robotics (2019-Present)
- IEEE Robotics and Automation Letters (2015-Present)
- The International Journal of Robotics Research (2015-Present)
- IEEE Robotics and Automation Magazine (2014, 2015)
- Elsevier Robotics and Autonomous Systems (2015, 2017)
- Springer Autonomous Robots (2016, 2019, 2022)
- Springer Journal of Intelligent and Robotic Systems (2017)
- IEEE Transactions on Automatic Control (2020-Present)
- IFAC Automatica (2020-Present)
- IEEE Control Systems Letters (2020-Present)
- IEEE Transactions on Control of Network Systems (2015, 2016)
- ASME Journal of Dynamic Systems, Measurement, and Control (2014, 2015)
- IEEE Transactions on Aerospace and Electronic Systems (2018)
- IEEE Transactions on Information Theory (2016, 2017)
- IEEE Transactions on Signal Processing (2017, 2024)
- IEEE Sensors Journal (2013)
- IEEE Transactions on Signal and Information Processing over Networks (2018)
- Elsevier Computer Vision and Image Understanding (2015, 2016)
- Elsevier Artificial Intelligence (2021, 2022)

Conference Reviewer:

- IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS) (2012-Present)
- IEEE International Conference on Robotics and Automation (ICRA) (2014-Present)
- Robotics: Science and Systems (RSS) (2016-Present)
- Conference on Robot Learning (CoRL) (2017)
- IEEE Conference on Computer Vision and Pattern Recognition (CVPR) (2016, 2019, 2025)
- International Conference on Computer Vision (ICCV) (2025-Present)
- European Conference on Computer Vision (ECCV) (2016)
- Conference on Neural Information Processing Systems (NeurIPS) (2019, 2025)
- Conference on Learning for Dynamics and Control (L4DC) (2020-Present
- IEEE Conference on Decision and Control (CDC) (2015-Present)
- American Control Conference (ACC) (2016-Present)
- European Control Conference (ECC) (2019, 2020)
- IFAC World Congress (2017)
- IFAC Conference on Analysis and Design of Hybrid Systems (2017)
- IEEE Multi-conference on Systems and Control (2014)
- IEEE International Conference on Automation Science and Engineering (CASE) (2015)
- International Conference on Advanced Robotics (2015)
- IEEE/SICE International Symposium on System Integration (2015)

Society Membership:

IEEE, Senior Member	2023 - Present
IEEE, Robotics and Automation Society	2014 - Present
IEEE, Control Systems Society	2023 - Present
Phi Beta Kappa Society	2008 - Present

IEEE, Member	2016 - 2023
IEEE, Student Member	2007 - 2016
IEEE, Communication Society	2012 - 2013
IEEE, Engineering in Medicine and Biology Society	2007 - 2008
American Society of Mechanical Engineers (ASME)	2007 - 2008

University Service:

1. UCSD ECE Graduate Recruiting and Admissions Committee, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026.
2. UCSD ECE MS Comprehensive Exam Committee, 2018, 2019, 2020, 2021.
3. UCSD ECE Faculty Search Committee, 2019.
4. UCSD ECE Academic Review Ad Hoc Committee, 2024.
5. UCSD ECE Journal Equivalent Conferences Committee, 2024.

Research Group

Postdoctoral Researchers:

- Brian Lee, Ph.D., Mechanical and Mechatronic Engineering, University of Technology Sydney

Ph.D. Students:

- Hanwen Cao, ECE, UCSD
- Abdullah Altawaitan, ECE, UCSD
- Zhirui Dai, ECE, UCSD
- Yinzhuang Yi, ECE, UCSD, co-advised with Prof. Jorge Cortés (MAE, UCSD)
- Nikola Raicevic, ECE, UCSD
- Dwait Bhatt, ECE, UCSD
- Sunghwan Kim, ECE, UCSD
- Mani Amani, ECE, UCSD and SDSU, co-advised with Prof. Reza Akhavian (CCEE, SDSU)
- Jason Stanley, ECE, UCSD
- Tianji Tang, ECE, UCSD
- Dongge Jia, ECE, UCSD and SDSU, co-advised with Prof. Junfei Xie (ECE, SDSU)

M.S. Students:

- Jay Paek, ECE, UCSD
- Kushagra Mishra, ECE, UCSD
- Eeman Iqbal, ECE, UCSD
- Maitrayee Keskar, ECE, UCSD
- Viswesh Nagaswamy Rajesh, ECE, UCSD
- Cody Wang, CSE, UCSD
- Pranav Malpure, ECE, UCSD
- Chenbin Yu, ECE, UCSD
- Bharath Radhakrishnan, ECE, UCSD
- Tianxing Fan, ECE, UCSD
- Pranav Kulkarni, ECE, UCSD
- Qihao Qian, ECE, UCSD
- Aviral Gupta, ECE, UCSD
- Tzu-Chin (Rick) Ho, ECE, UCSD
- Michael Jiang, ECE, UCSD
- Rohan Nagrik, MAE, UCSD
- Woojeh Chung, CSE, UCSD
- Huaijing Hong, ECE, UCSD

- Subhadeep Chatterjee, ECE, UCSD
- Manoj Manchala, MAE, UCSD
- Raghul Sivakumaran, MAE, UCSD
- Girish Krishnan, ECE, UCSD (GEAR)
- Darren Ng, ECE, UCSD

Undergraduate and K12 Students:

- Minghan Wu, ECE, UCSD
- Anthony Nguyen, ECE, UCSD
- Stephen Huang, ECE, UCSD
- Ryan Teck, ECE, UCSD
- Tarun Jaikumar, Del Norte High School

Postdoctoral Researcher Alumni:

- Yulun Tian, Assistant Professor, University of Michigan, 2025
- Shumon Koga, Associate Professor, Kobe University, 2023
- Vikas Dhiman, Assistant Professor, University of Maine, 2021

Ph.D. Student Alumni:

- Kehan Long, Math, UCSD, co-advised with Prof. Melvin Leok and Prof. Jorge Cortés, 2025
- Arash Asgharivaskasi, ECE, UCSD, 2024
- Thai Duong, ECE, UCSD, 2024
- Tianyu Wang, ECE, UCSD, 2024
- Parth Paritosh, MAE, UCSD, co-advised with Prof. Sonia Martinez, 2023
- Qiaojun Feng, ECE, UCSD, 2023
- Ehsan Zobeidi, ECE, UCSD, 2023
- Zhichao Li, ECE, UCSD, 2023
- Baoqian Wang, ECE, UCSD and SDSU, co-advised with Prof. Junfei Xie, 2023

Ph.D. Student Visitors:

- Eduardo Sebastián Rodríguez, University of Zaragoza, Spring 2022, Fall 2024
- Lucía Güitta López, Comillas Pontifical University, Spring 2024

M.S. Thesis Student Alumni:

- Awies Mohammad Mulla, ECE, UCSD, 2024
- Fritz Girke, Technical University of Munich, 2024
- Rikkert Lensen, Eindhoven University of Technology, 2023
- Zhuolin Niu, MAE, UCSD, 2023
- Alexander Paskal, ECE, UCSD, 2023
- Hojoon Shin, MAE, UCSD, 2023
- Sriram Shreedharan, ECE, UCSD, 2023
- Sutej Kulgod, ECE, UCSD, 2020
- Alexander Khoury, ECE, UCSD, 2019
- Ibrahim Akbar, ECE, UCSD, 2019
- Yue Meng, ECE, UCSD, 2019

M.S. Student Alumni:

- Brandon Szeto, ECE, UCSD, 2025
- Christian Coggan, ECE, UCSD, 2025
- Eashan Gupta, ECE, UCSD, 2025
- Aram Chemishkian, ECE, UCSD, 2025

- Weixiao Zhan, CSE, UCSD, 2025
- Saketh Madhuvarasu, ECE, UCSD, 2025
- Niyas Attasseri, ECE, UCSD, 2025
- Xianrui Zhao, ECE, UCSD, 2025
- Surya Thoguluva Kumaran Babu, ECE, UCSD, 2024
- Behrad Rabiei, ECE, UCSD, 2024
- Mahesh Rameshkumar, MAE, UCSD, 2024
- Sharath Matada, MAE, UCSD, 2024
- Ritika Kumar, ECE, UCSD, 2024
- Animesh Singhal, ECE, UCSD, 2024
- Vrutik Shah, ECE, UCSD, 2024
- Surya Lakshmi Subba Rao Pilla, ECE, UCSD, 2024
- Mustafa Shaikh, ECE, UCSD, 2024 (SRIP)
- Minnan Zhou, ECE, UCSD, 2024
- Vatsalya Chaubey, ECE, UCSD, 2024
- Sumangala Patki, ECE, UCSD, 2024
- Mehul Arora, CSE, UCSD, 2024
- Prithwiraj Paul, ECE, UCSD, 2024
- Saqib Azim, ECE, UCSD, 2023
- Shubham Kumar, ECE, UCSD, 2023
- Sambaran Ghosal, ECE, UCSD, 2023
- Venkata Naga Kishore Nukala, ECE, UCSD, 2023
- Shrey Kansal, MAE, UCSD, 2023
- Rishabh Bhattacharya, ECE, UCSD, 2023
- Peiran Liu, ECE, UCSD, 2023
- Sumanth Cherupally, ECE, UCSD, 2023
- Shusen Lin, ECE, UCSD, 2023
- Rachit Chhabra, MAE, UCSD, 2023
- Abhinav Gupta, CSE, UCSD, 2023
- Aiwei Yin, ECE, UCSD, 2023
- Kunaal Malodhakar, ECE, UCSD, 2023 (SRIP)
- Zhexu Li, CSE, UCSD, 2022 (SRIP)
- Siddhant Saoji, ECE, UCSD, 2022 (SRIP)
- Yaobang Deng, CSE, UCSD, 2022
- Yen-Ting Huang, ECE, UCSD, 2022
- Nikhil Karnwal, ECE, UCSD, 2022
- Allen Zeng, ECE, UCSD, 2022
- Yifan Wu, ECE, UCSD, 2022
- Mo Shan, ECE, UCSD, 2021
- Yuhan Liu, CSE, 2021
- Shiladitya Biswas, ECE, UCSD, 2021
- Tianyu Zhao, ECE, UCSD, 2021
- Mohammed Alyaseen, ECE, UCSD, 2021
- Jinzhao Li, ECE, UCSD, 2020 (SRIP)
- Zihan Wang, UCSD, Summer 2020 (SRIP)
- Sai Jadhav, ECE, UCSD, 2020
- Kun Chen, ECE, UCSD, 2020 (SRIP)
- Harshini Rajachander, ECE, UCSD, 2019
- Siwei Guo, ECE, UCSD, 2018
- Jialiang Liu, ECE, UCSD, Summer 2018 (SRIP)
- Youxing Wang, ECE, UCSD, 2018

Undergraduate and K12 Student Alumni:

- Charlotte Dong, ECE, UCSD, 2025 (SRIP)
- Marvin Cruz, Palomar College, 2025 (STARS)
- Yoongon Kim, ECE, UCSD, 2025
- Run Wang, ECE, UCSD, 2025
- Savva Bogdanov, ECE, UCSD, 2025
- Madhoolika Chodavarapu, ECE, UCSD, 2024
- Zeyu (Jeffrey) Chen, ECE, UCSD, 2024
- Eric Zheng, ECE, UCSD, 2024 (GEAR)
- Risab Sankar, ECE, UCSD, 2024
- Chengkai Yao, ECE, UCSD, 2024
- Aniket Bhosale, ECE, UCSD, 2024
- Muhammad Fadli Alim Arsani, ECE, UCSD, 2023
- Ali Hussain, ECE, UCSD, 2022-2023 (GEAR)
- Shuyan Tan, ECE, UCSD, Fall 2023
- Naythan Chan, MiraCosta College, Summer 2023
- Leo Sun, Del Norte High School, Summer 2023
- Kuang Ting (Tim) Tu, National Tsing Hua University, Summer 2023 (ISRP)
- Xuezhou Xu, National University of Singapore, Summer 2023 (ISRP)
- Aditi Krishnakumar, CogSci, UCSD, 2023
- Anthony Hirales Ahuatzin, CETYS-Tijuana, Mexico, Summer 2021, Summer 2023 (ENLACE)
- Rohan Bosworth, Poway High School, 2021-2023
- Yuchen Zhang, ECE, UCSD, 2023
- Jim Solomon, UC Los Angeles, Summer 2022 (STARS)
- Kevin Alejandro Buzani González, Instituto Tecnológico de Hermosillo, Summer 2022 (ENLACE)
- Sergio Reojas Cabrera, Summer 2022 (ENLACE)
- Anthony Tseng, ECE, UCSD, 2022 (SRIP)
- Gao Zhu, CSE, UCSD, 2022
- Arsalan Sepahpour, ECE, UCSD, 2022
- Jiawen Yu, ECE, UCSD, 2022 (SRIP)
- Adin Ackerman, ECE, UCSD, Summer 2022 (SRIP)
- Minh Pham, ECE, UCSD, 2020-2022
- Peter Stratton, CSE, UCSD, 2019-2022
- Noe Jimenez, ECE, UCSD, 2021-2022 (GEAR)
- Philemon Putra, ECE, UCSD, 2021-2022 (GEAR)
- Shreyas Arora, ECE, UCSD, 2021-2022
- Farnia Nafarifard, ECE, UCSD, 2020-2021 (GEAR)
- Ryan Goh, ECE, UCSD, 2020-2021 (RSRI)
- Aaron Yu, CSE, UCSD, 2020-2021 (RSRI)
- Hannah Hui, ECE, UCSD, 2019-2021 (RSRI, SRIP)
- Ke Ou, ECE, UCSD, Summer 2021
- Juan Pablo Romero, Universidad Nacional Autonoma de Mexico, Summer 2021 (ENLACE)
- Patricia Martinez, Instituto Tecnologico de Reynosa, Summer 2021 (ENLACE)
- Angel Rafael Patino Guerrero, Cobach Plantel Miguel Hidalgo y Costilla, Summer 2021 (ENLACE)
- Kayoon Koh, Canyon Crest Academy, Summer 2021 (ENLACE)
- Xinyang Yu, ECE, UCSD, 2019-2021 (SRIP)
- Weifan Ou, ECE, UCSD, Summer 2020 (SRIP)
- Trung Tran, ECE, UCSD, Summer 2020
- Alex Levine, ECE, UCSD, 2018-2020
- Chang Han, ECE, UCSD, Summer 2019, 2020 (SRIP)
- Mohanad Ahmed, UCSD, Spring 2020

- Gyuseung Hwang, CSE, UCSD, Winter 2020
- Matthew Taber, Cal Poly, Summer 2019 (STARS)
- Bryan Sandoval, CETYS University, Summer 2019 (ENLACE)
- Pou-Chun Kung, National Sun Yat-sen University, Summer 2019 (ISRP)
- Bjorn Johnson, UCSD, Fall 2018 (RSRI)
- Darshan Bulsara, UC Merced, Summer 2018 (STARS)
- Mariana Hernández, Instituto Tecnológico Autónomo de México, Summer 2018 (ENLACE)
- Athena Tsai, National Sun Yat-sen University, Summer 2018 (ISRP)
- Richard Du, UCSD, Spring 2018
- Pengfei Li, Zhejiang University, Summer 2017 (ISRP)

Ph.D. Thesis Committees:

1. Lei Zheng, PhD Thesis Defense (Aug. 2025), HKUST (Guangzhou)
2. Kehan Long, MATH PhD Candidacy Exam (Sep. 2023) and Thesis Defense (Sep. 2025), UCSD
3. Patrick McNamee, MAE PhD Senate Exam (Jul. 2025), UCSD
4. Blark Runfa Li, ECE PhD Qualifying Exam (Jun. 2025), UCSD
5. Zekai Liang, ECE PhD Preliminary Exam (Jun. 2025), UCSD
6. Bhathiya Rathnayake, MAE PhD Thesis Defense (May 2025), UCSD
7. Nirabhra Mandal, MAE PhD Senate Exam (May 2025), UCSD
8. Huong Hoang, ECE PhD Qualifying Exam (May 2025), UCSD
9. Mohamad Qadri, PhD Thesis Proposal (May 2025), CMU
10. Scott Addams, MAE PhD Senate Exam (Mar. 2025), UCSD
11. Abdulaziz Almuzairee, CSE PhD Thesis Proposal (Mar. 2025), UCSD
12. Seth Farrell, CSE PhD Research Exam (Mar. 2025), UCSD
13. Amanda Adkins, CS PhD Thesis Proposal (Feb. 2025), UT Austin
14. Nicholas Corbin, MAE PhD Senate Exam (Jan. 2025), UCSD
15. Xu Shang, ECE PhD Preliminary Exam (Jan. 2025), UCSD
16. Sander Tonkens, MAE PhD Senate Exam (Nov. 2024), UCSD
17. Xu Liu, PhD Thesis Defense (Oct. 2024), University of Pennsylvania
18. Mohammed Alyaseen, MAE PhD Senate Exam (Sep. 2024), UCSD
19. Zheng Gong, MAE PhD Senate Exam (Jun. 2024) and Thesis Defense (Jun. 2025), UCSD
20. Hongzhan Yu, CSE PhD Thesis Proposal (Jun. 2024), UCSD
21. Scott Brown, MAE PhD Senate Exam (Jun. 2024), UCSD
22. David Cavender, MATH PhD Candidacy Exam (May 2024), UCSD
23. Xiaoshuai Zhang, CSE PhD Thesis Proposal (Mar 2024) and Thesis Defense (Aug 2024), UCSD
24. Ruihan Yang, ECE PhD Qualifying Exam (Mar. 2024) and Thesis Defense (May 2025), UCSD
25. Joao Marcos Correia Marques, CS PhD Preliminary Exam (Dec. 2023) and Thesis Defense (May 2025), UIUC
26. Tao-Yi Wan, MAE PhD Senate Exam (Dec. 2023), UCSD
27. Luke Bhan, ECE PhD Preliminary Exam (Nov. 2023), UCSD
28. Fanbo Xiang, CSE PhD Thesis Proposal (Nov. 2023) and Thesis Defense (Aug. 2024)
29. Hengyuan Zhang, CSE PhD Thesis Proposal (Nov. 2023) and Thesis Defense (Apr. 2025)
30. Chinmay Talegaonkar, ECE PhD Preliminary Exam (Nov. 2023), UCSD
31. Pol Mestres-ramon, MAE PhD Senate Exam (Oct. 2023) and Thesis Defense (Jun. 2025), UCSD
32. Elizabeth Peiros, ECE PhD Preliminary Exam (Oct. 2023) and Qualifying Exam (Sep. 2025), UCSD
33. Yun Chang, AeroAstro PhD Thesis Proposal (Aug. 2023) and Thesis Defense (Jun. 2025), MIT
34. Jingya Huang, ECE PhD Preliminary Exam (Jul. 2023) and Qualifying Exam (Aug. 2025), UCSD
35. Junsu Jang, ECE PhD Qualifying Exam (Jul. 2023) and Thesis Defense (Jul. 2025), UCSD
36. Ya-Chien Chang, CSE PhD Thesis Proposal (Jun. 2023) and Thesis Defense (Aug. 2025), UCSD
37. Xiao Liang, ECE PhD Preliminary Exam (Jun. 2023) and Qualifying Exam (Jul 2025), UCSD
38. Christopher Crutchfield, ECE PhD Preliminary Exam (Jun. 2023) and Qualifying Exam (Dec. 2023),

UCSD
39. Zhirui Dai, ECE PhD Preliminary Exam (Jun. 2023) and Qualifying Exam (Jun. 2025), UCSD
40. Hanwen Cao, ECE PhD Preliminary Exam (Jun. 2023) and Qualifying Exam (May 2025), UCSD
41. Ruihan Yang, ECE PhD Preliminary Exam (Apr. 2023), Qualifying Exam (Mar 2024), and Thesis Defense (May 2025), UCSD
42. Michael McCreesh, MAE PhD Senate Exam (Jan. 2023) and Thesis Defense (Jun. 2024), UCSD
43. David Paz, CSE PhD Thesis Proposal (Dec. 2022) and Thesis Defense (Aug. 2023), UCSD
44. Mohammad Ramadan, MAE PhD Senate Exam (Nov. 2022) and Thesis Defense (Apr. 2023), UCSD
45. Zihan Wu, SE PhD Qualifying Exam (Jun. 2022) and Thesis Defense (Mar. 2024), UCSD
46. Bang Du, ECE PhD Preliminary Exam (Jun. 2022) and Qualifying Exam (Nov. 2024), UCSD
47. Yinbo Chen, ECE PhD Preliminary Exam (Jun. 2022), UCSD
48. Xiaoyi Cai, AeroAstro PhD Preliminary Exam (May 2022), Thesis Proposal (Dec. 2022) and Thesis Defense (Oct. 2024), MIT
49. Eshter Grossman, ECE PhD Preliminary Exam (Apr. 2022), UCSD
50. Jiteng Mu, ECE PhD Preliminary Exam (Apr. 2022), UCSD
51. Yuzhe Qin, ECE PhD Preliminary Exam (Mar. 2022), Qualifying Exam (Mar. 2023), and Thesis Defense (May 2024), UCSD
52. Jiacheng Cheng, ECE PhD Preliminary Exam (Feb. 2022), Qualifying Exam (Dec. 2023) and Thesis Defense (Apr. 2025), UCSD
53. Hala Abualsaud, ECE PhD Preliminary Exam (Dec. 2021), UCSD
54. Nikhil Shinde, ECE PhD Preliminary Exam (Dec. 2021) and Qualifying Exam (Dec. 2023), UCSD
55. Khoa Tran, MATH PhD Candidacy Exam (Sep. 2021) and Thesis Defense (May 2023), UCSD
56. Parker Lusk, AeroAstro PhD Proposal Defense (Sep. 2021) and Thesis Defense (Jun. 2023), MIT
57. Valentin Duruisseaux, Math PhD Candidacy Exam (Aug. 2021) and Thesis Defense (Nov. 2023), UCSD
58. Yuheng Zhi, ECE PhD Preliminary Exam (Aug. 2021), UCSD
59. Ramtin Hosseini, ECE PhD Preliminary Exam (Jun. 2021), UCSD
60. Zih-Yun Chiu, ECE PhD Preliminary Exam (Apr. 2021), Qualifying Exam (Nov. 2023), and Thesis Defense (Jun. 2025), UCSD
61. Aditya Arun, ECE PhD Preliminary Exam (Apr. 2021), Qualifying Exam (May 2022), and Thesis Defense (May 2024), UCSD
62. Arash Farokhi Soofi, ECE PhD Preliminary Exam (Apr. 2021), UCSD
63. Jingpei Lu, ECE PhD Preliminary Exam (Feb. 2021), Qualifying Exam (Nov. 2022), and Thesis Defense (Nov. 2024), UCSD
64. Baoqian Wang, ECE PhD Preliminary Exam (Jan. 2021), Qualifying Exam (Nov. 2021), and Thesis Defense (Apr. 2023), UCSD
65. Wenyu Zhang, ECE PhD Preliminary Exam (Dec. 2020), Qualifying Exam (Apr. 2023), and Thesis Defense (Aug. 2025), UCSD
66. Arash Asgharivaskasi, ECE PhD Preliminary Exam (Dec. 2020), Qualifying Exam (Dec. 2022), and Thesis Defense (Aug. 2024), UCSD
67. Sean Bowman, ESE PhD Proposal (Dec. 2020) and Thesis Defense (Dec. 2021), UPenn
68. Imoleayo Abel, MAE PhD Senate Exam (Dec. 2020) and Thesis Defense (Jul. 2022), UCSD
69. Chih-Hui Ho, ECE PhD Qualifying Exam (Nov. 2020) and Thesis Defense (Mar. 2024), UCSD
70. Brent Schlotfeldt, ESE PhD Proposal (Nov. 2020) and Thesis Defense (Apr. 2021), UPenn
71. Menglai Li, ECE PhD Preliminary Exam (Sep. 2019), UCSD
72. Iman Adibnazari, MAE PhD Qualifying Exam (Aug. 2020), UCSD
73. Kelsey Saulnier, ESE PhD Proposal (Aug. 2020) and Thesis Defense (Nov. 2022), UPenn
74. Masih Haseli, MAE PhD Senate Exam (Jul. 2020) and Thesis Defense (Aug. 2022), UCSD
75. Thai Duong, ECE PhD Preliminary Exam (Apr. 2020), Qualifying Exam (Jun. 2022), and Thesis Defense (Apr. 2024), UCSD
76. Ehsan Zobeidi, ECE PhD Preliminary Exam (Mar. 2020), Qualifying Exam (Mar. 2022), Thesis Defense

(Nov. 2023), UCSD
77. Dimitri Schreiber, ECE PhD Preliminary Exam (Mar. 2020), Qualifying Exam (Oct. 2021), and Thesis Defense (Nov. 2022), UCSD
78. Florian Richter, ECE PhD Preliminary Exam (Dec. 2019), Qualifying Exam (Mar. 2021), and Thesis Defense (May 2022), UCSD
79. Yi Li, ECE PhD Preliminary Exam (Sep. 2019), Qualifying Exam (Mar. 2022), and Thesis Defense (Aug. 2024), UCSD
80. Jongha Ryu, ECE PhD Qualifying Exam (Jun. 2019) and Thesis Defense (Jun. 2022), UCSD
81. John Ho, ECE PhD Preliminary Exam (May 2019), UCSD
82. Qiaojun Feng, ECE PhD Preliminary Exam (May 2019), Qualifying Exam (Feb. 2022), and Thesis Defense (Dec. 2023), UCSD
83. Zhichao Li, ECE PhD Preliminary Exam (Apr. 2019), Qualifying Exam (Nov. 2021), and Thesis Defense (Nov. 2023), UCSD
84. Mo Shan, ECE PhD Preliminary Exam (Apr. 2019) and Qualifying Exam (Dec. 2021), UCSD
85. Yunsheng Li, ECE PhD Qualifying Exam (Apr. 2019) and Thesis Defense (Nov. 2021), UCSD
86. Bo Liu, ECE PhD Qualifying Exam (Apr. 2019) and Thesis Defense (Jun. 2021), UCSD
87. Pedro Morgado, ECE PhD Qualifying Exam (Mar. 2019) and Thesis Defense (May 2021), UCSD
88. Jacob Johnson, ECE PhD Preliminary Exam (Feb. 2019), Qualifying Exam (Mar. 2022), and Thesis Defense (Oct. 2023), UCSD
89. Carlos Nieto-Granda, ECE PhD Qualifying Exam (Jan. 2019) and Thesis Defense (Jan. 2020), UCSD
90. Ahmed Qureshi, ECE Preliminary Exam (Jan 2019), UCSD
91. Pedro P. V. Tecchio, ESE PhD Proposal (Dec. 2018) and Thesis Defense (Jul. 2019), UPenn
92. Kartik Mohta, ESE PhD Proposal (Aug. 2018) and Thesis Defense (Nov. 2018), UPenn
93. Aaron Ma, MAE PhD Senate Exam (Nov. 2018) and Thesis Defense (Feb. 2020), UCSD
94. Sikang Liu, MEAM PhD Proposal (May 2018) and Thesis Defense (Oct. 2018), UPenn
95. Michael Ostertag, ECE Preliminary Exam (Oct. 2018) and PhD Qualifying Exam (Mar. 2020), UCSD
96. Dylan Drotman, MAE PhD Senate Exam (Oct. 2018) and Thesis Defense (Mar. 2021), UCSD
97. Nachiket Deo, ECE PhD Qualifying Exam (Sep. 2018) and Thesis Defense (May 2022), UCSD
98. Greame Best, AMME PhD Thesis Committee (Jul. 2018), University of Sydney
99. Huan Yu, MAE PhD Senate Exam (Jun. 2018) and Thesis Defense (Jun. 2019), UCSD
100. Tianyu Wang, ECE PhD Preliminary Exam (May 2018) and Qualifying Exam (Jun. 2021), UCSD
101. Nikhil Das, ECE PhD Qualifying Exam (Nov. 2017) and Thesis Defense (May 2020), UCSD
102. Stephen Chen, MAE PhD Senate Exam (Jul. 2017) and Thesis Defense (Aug. 2019), UCSD
103. Daniel Yang, MAE PhD Senate Exam (Dec. 2016), UCSD

M.S. Thesis Committees:

1. Hung Nguyen, ECE M.S. Thesis Committee (Jun. 2025), UCSD
2. Jerry Yan, ECE M.S. Thesis Committee (Jun. 2025), UCSD
3. Shiqi Yang, ECE M.S. Thesis Committee (Mar. 2025), UCSD
4. Sureel Shah, ECE M.S. Thesis Committee (Sep. 2024), UCSD
5. Fritz Girke, M.S. Thesis Committee (Jul. 2024), Technical University of Munich
6. Kyle Hu, ECE M.S. Thesis Committee (Jun. 2024), UCSD
7. Rikkert Lensen, ME M.S. Thesis Committee (Dec. 2023), Eindhoven University of Technology
8. Nathan Cusson-nadeau, MAE M.S. Thesis Committee (Jul. 2023), UCSD
9. Alexander Paskal, ECE M.S. Thesis Committee (Jun. 2023), UCSD
10. Hojoon Shin, MAE M.S. Thesis Committee (Jun. 2023), UCSD
11. Sriram Shreedharan, ECE M.S. Thesis Committee (Jun. 2023), UCSD
12. Jason Lim, ECE M.S. Thesis Committee (Mar. 2023), UCSD
13. Christopher Crutchfield, ECE M.S. Thesis Committee (Jul. 2022), UCSD
14. Joseph Chang, ECE M.S. Thesis Committee (Aug. 2021), UCSD
15. Mohammed Alyaseen, MAE M.S. Thesis Committee (May 2021), UCSD

16. Liliang Ren, ECE M.S. Thesis Committee (May 2020), UCSD
17. Iman Adibnazari, ECE M.S. Thesis Committee (May 2020), UCSD
18. Taylor Henderson, ECE M.S. Thesis Committee (May 2020), UCSD
19. Sutej Kulgod, ECE M.S. Thesis Committee (May 2020), UCSD
20. You-Yi Jau, ECE M.S. Thesis Committee (May 2020), UCSD
21. Yuzhe Qin, ECE M.S. Thesis Committee (Apr. 2020), UCSD
22. James Smith, ECE M.S. Thesis Committee (Mar. 2020), UCSD
23. David Paz, ECE M.S. Thesis Committee (Feb. 2020), UCSD
24. Alexander Khoury, ECE M.S. Thesis Committee (Aug. 2019), UCSD
25. Ibrahim Akbar, ECE M.S. Thesis Committee (Aug. 2019), UCSD
26. Weiqi Xu, CSE M.S. Thesis Committee (May 2019), UCSD
27. Brian Wilcox, ECE M.S. Thesis Committee (Mar. 2019), UCSD
28. Aravind Seetharaman, ECE M.S. Thesis Committee (Mar. 2019), UCSD
29. Andrew Saad Abd El-Messih, ECE M.S. Thesis Committee (Dec. 2018), UCSD
30. Nicholas Ha, ECE M.S. Thesis Committee (Nov. 2018), UCSD
31. Mayur Bency, ECE M.S. Thesis Committee (Jun. 2018), UCSD
32. Kenny Chen, ECE M.S. Thesis Committee (Jun. 2018), UCSD
33. Francis Joseph, MAE M.S. Thesis Committee (May 2018), UCSD
34. Matthew Epperson, ECE M.S. Thesis Committee (Mar. 2018), UCSD