

Naira Hovakimyan

List of Publications by Year in descending order

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Version: 2024-02-01

96
papers

2,566
citations

331670

21
h-index

276875

41
g-index

97
all docs

97
docs citations

97
times ranked

1100
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Adaptive Control Theory. , 2010, , . | | 366 |
| 2 | Design and Analysis of a Novel L_1 Adaptive Control Architecture With Guaranteed Transient Performance. IEEE Transactions on Automatic Control, 2008, 53, 586-591. | 5.7 | 339 |
| 3 | L_1 adaptive control for safety-critical systems. IEEE Control Systems, 2011, 31, 54-104. | 0.8 | 146 |
| 4 | Path Following for Small Unmanned Aerial Vehicles Using L_1 Adaptive Augmentation of Commercial Autopilots. Journal of Guidance, Control, and Dynamics, 2010, 33, 550-564. | 2.8 | 137 |
| 5 | L_1 Adaptive Output-Feedback Controller for Non-Strictly-Positive-Real Reference Systems: Missile Longitudinal Autopilot Design. Journal of Guidance, Control, and Dynamics, 2009, 32, 717-726. | 2.8 | 107 |
| 6 | Dynamic Inversion for Nonaffine-in-Control Systems via Time-Scale Separation. Part I. Journal of Dynamical and Control Systems, 2007, 13, 451-465. | 0.8 | 87 |
| 7 | GUARANTEED STRATEGIES FOR NONLINEAR MULTI-PLAYER PURSUIT-EVASION GAMES. International Game Theory Review, 2010, 12, 1-17. | 0.5 | 77 |
| 8 | L_1 Adaptive Output Feedback Controller for Systems of Unknown Dimension. IEEE Transactions on Automatic Control, 2008, 53, 815-821. | 5.7 | 71 |
| 9 | Guaranteed Transient Performance with L_1 Adaptive Controller for Systems with Unknown Time-varying Parameters and Bounded Disturbances: Part I. Proceedings of the American Control Conference, 2007, , . | 0.0 | 70 |
| 10 | Novel L_1 Adaptive Control Methodology for Aerial Refueling with Guaranteed Transient Performance. Journal of Guidance, Control, and Dynamics, 2008, 31, 182-193. | 2.8 | 66 |
| 11 | Adaptive output feedback control of a class of multi-input multi-output systems using neural networks. International Journal of Control, 2004, 77, 1318-1329. | 1.9 | 58 |
| 12 | L_1 adaptive controller for tailless unstable aircraft in the presence of unknown actuator failures. International Journal of Control, 2009, 82, 705-720. | 1.9 | 47 |
| 13 | Cooperative Trajectory Generation Using Pythagorean Hodograph Bézier Curves. Journal of Guidance, Control, and Dynamics, 2016, 39, 1744-1763. | 2.8 | 46 |
| 14 | Vision-Based Cyclic Pursuit for Cooperative Target Tracking. Journal of Guidance, Control, and Dynamics, 2013, 36, 617-622. | 2.8 | 43 |
| 15 | Vision-based target tracking and motion estimation using a small UAV. , 2010, , . | | 41 |
| 16 | Geometric 3D Path-Following Control for a Fixed-Wing UAV on $SO(3)$. , 2011, , . | | 36 |
| 17 | Stabilization of Cascaded Systems via L_1 Adaptive Controller with Application to a UAV Path Following Problem and Flight Test Results. Proceedings of the American Control Conference, 2007, , . | 0.0 | 33 |
| 18 | Optimal Motion Planning for Differentially Flat Systems Using Bernstein Approximation. , 2018, 2, 181-186. | | 29 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | L1 Adaptive Output Feedback Controller for Systems with Time-varying Unknown Parameters and Bounded Disturbances. Proceedings of the American Control Conference, 2007, , . | 0.0 | 28 |
| 20 | Novel Stealthy Attack and Defense Strategies for Networked Control Systems. IEEE Transactions on Automatic Control, 2020, 65, 3847-3862. | 5.7 | 28 |
| 21 | Evaluation of an L1 Adaptive Flight Control Law on Calspan's Variable-Stability Learjet. Journal of Guidance, Control, and Dynamics, 2017, 40, 1051-1060. | 2.8 | 27 |
| 22 | Design of a Flight Envelope Protection System for NASA's Transport Class Model. Journal of Guidance, Control, and Dynamics, 2017, 40, 863-877. | 2.8 | 27 |
| 23 | L1 Stability Augmentation System for Calspan's Variable-Stability Learjet. , 2016, , . | | 25 |
| 24 | L ₁ adaptive controller for a class of systems with unknown nonlinearities: Part I. , 2008, , . | | 24 |
| 25 | Distributed Control of Uncertain Networked Systems: A Decoupled Design. IEEE Transactions on Automatic Control, 2013, 58, 2536-2549. | 5.7 | 24 |
| 26 | Adaptive Dynamic Inversion for Nonaffine-in-Control Uncertain Systems via Time-Scale Separation. Part II. Journal of Dynamical and Control Systems, 2008, 14, 33-41. | 0.8 | 22 |
| 27 | Dynamic inversion for multivariable non-affine-in-control systems via time-scale separation. International Journal of Control, 2008, 81, 1960-1967. | 1.9 | 22 |
| 28 | Flight Envelope Protection for NASA's Transport Class Model. , 2014, , . | | 22 |
| 29 | L1 Adaptive Output Feedback Controller to Systems of Unknown Dimension. Proceedings of the American Control Conference, 2007, , . | 0.0 | 21 |
| 30 | L1 Adaptive Controller for a Missile longitudinal Autopilot Design. , 2008, , . | | 21 |
| 31 | L1 Adaptive Controller for Tailless Unstable Aircraft. Proceedings of the American Control Conference, 2007, , . | 0.0 | 19 |
| 32 | Cooperative target tracking in balanced circular formation: Multiple UAVs tracking a ground vehicle. , 2013, , . | | 19 |
| 33 | Adaptive Robust Quadratic Programs using Control Lyapunov and Barrier Functions. , 2020, , . | | 18 |
| 34 | L ₁ adaptive controller for nonlinear systems in the presence of unmodelled dynamics: Part II. , 2008, , . | | 16 |
| 35 | L1 adaptive output regulator design with application to Managed Pressure Drilling. Journal of Process Control, 2016, 42, 1-13. | 3.3 | 16 |
| 36 | L1 Adaptive Control Within a Flight Envelope Protection System. Journal of Guidance, Control, and Dynamics, 2017, 40, 1013-1026. | 2.8 | 15 |

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| 37 | L1 Adaptive Augmentation of a Helicopter Baseline Controller. , 2013, , . | | 14 |
| 38 | Positive invariant set estimation of adaptive controller in the presence of input saturation. International Journal of Adaptive Control and Signal Processing, 2013, 27, 1012-1030. | 4.1 | 14 |
| 39 | Optimal Multivehicle Motion Planning Using Bernstein Approximants. IEEE Transactions on Automatic Control, 2021, 66, 1453-1467. | 5.7 | 14 |
| 40 | Safe Feedback Motion Planning: A Contraction Theory and $\hat{\sigma}_1$ -Adaptive Control Based Approach. , 2020, , . | | 14 |
| 41 | Adaptive Dynamic Inversion via Time-Scale Separation. , 2006, , . | | 13 |
| 42 | Multi-Criteria Optimization for Filter Design of L1 Adaptive Control. Journal of Optimization Theory and Applications, 2014, 161, 557-581. | 1.5 | 12 |
| 43 | Cooperative Target Tracking with Time-Varying Formation Radius. , 2015, , . | | 12 |
| 44 | L_1 Adaptive Output Feedback Augmentation for Missile Systems. IEEE Transactions on Aerospace and Electronic Systems, 2018, 54, 680-692. | 4.7 | 12 |
| 45 | Tube-Certified Trajectory Tracking for Nonlinear Systems With Robust Control Contraction Metrics. IEEE Robotics and Automation Letters, 2022, 7, 5528-5535. | 5.1 | 12 |
| 46 | L_1 adaptive controller for systems in the presence of unmodelled actuator dynamics. , 2007, , . | | 11 |
| 47 | On the construction of barrier in a visibility based pursuit evasion game. , 2014, , . | | 11 |
| 48 | A Multirate Adaptive Control for MIMO Systems with Application to Cyber-Physical Security. , 2018, , . | | 11 |
| 49 | Stabilization and Optimal Trajectory Generation for a Compact Aerial Manipulation System with a Delta-type Parallel Robot. , 2018, , . | | 11 |
| 50 | L1 Adaptive Control of a UAV for Aerobiological Sampling. Proceedings of the American Control Conference, 2007, , . | 0.0 | 10 |
| 51 | Coordinated vision-based tracking for multiple UAVs. , 2015, , . | | 10 |
| 52 | Range Identification in the Presence of Unknown Motion Parameters for Perspective Vision Systems. Proceedings of the American Control Conference, 2007, , . | 0.0 | 9 |
| 53 | L_1 adaptive controller for MIMO systems with unmatched uncertainties using modified piecewise constant adaptation law. , 2012, , . | | 9 |
| 54 | Bottom hole pressure estimation and adaptive control in managed pressure drilling system. International Journal of Adaptive Control and Signal Processing, 2017, 31, 545-561. | 4.1 | 9 |

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|----|---|-----|-----------|
| 55 | Guaranteed Collision Avoidance Based on Line-of-Sight Angle and Time-to-Collision. , 2018, , . | | 9 |
| 56 | Consistent approximation of optimal control problems using Bernstein polynomials. , 2019, , . | | 9 |
| 57 | Attack-resilient Estimation for Linear Discrete-time Stochastic Systems with Input and State Constraints. , 2019, , . | | 9 |
| 58 | Improving the Robustness of Reinforcement Learning Policies With $\{L_{\{1}}\}$ Adaptive Control. IEEE Robotics and Automation Letters, 2022, 7, 6574-6581. | 5.1 | 9 |
| 59 | Decentralized adaptive output feedback control via input/output inversion. International Journal of Control, 2006, 79, 1538-1551. | 1.9 | 8 |
| 60 | L_{∞} adaptive controller for multi-input multi-output systems in the presence of unmatched disturbances. , 2008, , . | | 7 |
| 61 | Time Coordination and Collision Avoidance Using Leader-Follower Strategies in Multi-Vehicle Missions. Robotics, 2021, 10, 34. | 3.5 | 7 |
| 62 | Impact of Confirmation Bias on Competitive Information Spread in Social Networks. IEEE Transactions on Control of Network Systems, 2021, 8, 816-827. | 3.7 | 7 |
| 63 | L_{∞} Adaptive Augmentation for Geometric Tracking Control of Quadrotors. , 2022, , . | | 6 |
| 64 | Vision-based tracking using intelligent excitation. International Journal of Control, 2008, 81, 1763-1778. | 1.9 | 5 |
| 65 | An $\hat{\sigma}_{\infty}$ adaptive control design for output-feedback sampled-data systems. , 2017, , . | | 5 |
| 66 | Dual-rate L_{∞} adaptive controller for cyber-physical sampled-data systems. , 2017, , . | | 5 |
| 67 | Socially Aware Path Planning for a Flying Robot in Close Proximity of Humans. ACM Transactions on Cyber-Physical Systems, 2019, 3, 1-24. | 2.5 | 5 |
| 68 | Hidden Markov Model Estimation-Based Q-learning for Partially Observable Markov Decision Process. , 2019, , . | | 5 |
| 69 | Intent-Aware Probabilistic Trajectory Estimation for Collision Prediction with Uncertainty Quantification. , 2019, , . | | 5 |
| 70 | A Simplified Approach to Analyze Complementary Sensitivity Tradeoffs in Continuous-Time and Discrete-Time Systems. IEEE Transactions on Automatic Control, 2020, 65, 1697-1703. | 5.7 | 5 |
| 71 | Design of Command Limiting Control Law Using Exponential Potential Functions. Journal of Guidance, Control, and Dynamics, 2021, 44, 441-448. | 2.8 | 5 |
| 72 | Novel $\hat{\sigma}_{\infty}$ neural network adaptive control architecture with guaranteed transient performance. , 2007, , . | | 4 |

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|----|--|-----|-----------|
| 73 | Time-critical coordinated path following for multiple UAVs via L_1 adaptive output feedback controllers. , 2007, , . | | 4 |
| 74 | A Flight Envelope Protection Method Based on Potential Functions. , 2017, , . | | 4 |
| 75 | Sensitivity analysis of linear continuous-time feedback systems subject to control and measurement noise: An information-theoretic approach. Systems and Control Letters, 2019, 133, 104548. | 2.3 | 4 |
| 76 | Detectability of Intermittent Zero-Dynamics Attack in Networked Control Systems. , 2019, , . | | 4 |
| 77 | Guaranteed Collision Avoidance in Multivehicle Cooperative Missions Using Speed Adjustment. Journal of Aerospace Information Systems, 2020, 17, 436-453. | 1.4 | 4 |
| 78 | Sensitivity Analysis of Continuous-Time Systems based on Power Spectral Density. , 2018, , . | | 3 |
| 79 | Flight Control Methods for Multirotor UAS. , 2019, , . | | 3 |
| 80 | A multilevel sampled-data approach for resilient navigation and control of autonomous systems. International Journal of Robust and Nonlinear Control, 2020, 30, 1071-1097. | 3.7 | 3 |
| 81 | L_1 Adaptive Output Feedback for Nonsquare Systems With Arbitrary Relative Degree. IEEE Transactions on Automatic Control, 2021, 66, 895-901. | 5.7 | 3 |
| 82 | Command Limiting for Aerial Vehicles With Rate Control Augmentation Systems. IEEE Transactions on Aerospace and Electronic Systems, 2021, 57, 1702-1712. | 4.7 | 3 |
| 83 | Integrated estimator and L_1 adaptive controller for well drilling systems. , 2009, , . | | 2 |
| 84 | Robustness of L_1 adaptive controllers in the gap metric. , 2010, , . | | 2 |
| 85 | A Bank Angle Protection Method Based on Potential Functions for Nonlinear Aircraft Model. , 2017, , . | | 2 |
| 86 | A Bank Angle Protection Method Based on Exponential Potential Functions. , 2018, , . | | 2 |
| 87 | Robust Nonlinear Tracking Control with Exponential Convergence Using Contraction Metrics and Disturbance Estimation. Sensors, 2022, 22, 4743. | 3.8 | 2 |
| 88 | Guaranteed Transient Performance with L_1 Adaptive Controller for Parametric Strict Feedback Systems. , 2007, , . | | 1 |
| 89 | Active control of visual sensor for navigation and guidance. Computational Management Science, 2010, 7, 85-110. | 1.3 | 1 |
| 90 | Noise attenuation over additive Gaussian channels. , 2010, , . | | 1 |

| # | ARTICLE | IF | CITATIONS |
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| 91 | Robustness of L_1 adaptive controllers in the gap metric in the presence of nonzero initialization. , 2010, , . | | 1 |
| 92 | A Path Planning Framework for a Flying Robot in Close Proximity of Humans. , 2019, , . | | 1 |
| 93 | Control of continuous-time systems with communication constraints: Linear quadratic stabilization and fundamental limitations. , 2010, , . | | 0 |
| 94 | L_1 adaptive control of uncertain networked control systems. , 2013, , . | | 0 |
| 95 | Load Capacity Improvements in Nucleic Acid Based Systems Using Discrete-Time Feedback Control. , 2018, , . | | 0 |
| 96 | Guest Editorial: Autonomous systems: Navigation, learning, and control. IET Cyber-Systems and Robotics, 2021, 3, 279-280. | 1.8 | 0 |