# Angelo Alessandri

List of Publications by Year
in descending order

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|---|---|---|---|
| 132<br>papers | 2,744<br>citations | 186265<br>28<br>h-index | 197818<br>49<br>g-index |
| 132<br>all docs | 132<br>docs citations | 132<br>times ranked | 1456<br>citing authors |

| # | Article | IF | Citations |
|---|---------|-----|-----------|
| 1 | Moving-horizon state estimation for nonlinear discrete-time systems: New stability results and approximation schemes. Automatica, 2008, 44, 1753-1765. | 5.0 | 232 |
| 2 | Receding-horizon estimation for discrete-time linear systems. IEEE Transactions on Automatic Control, 2003, 48, 473-478. | 5.7 | 170 |
| 3 | Design of state estimators for uncertain linear systems using quadratic boundedness. Automatica, 2006, 42, 497-502. | 5.0 | 127 |
| 4 | On Estimation Error Bounds for Receding-Horizon Filters Using Quadratic Boundedness. IEEE Transactions on Automatic Control, 2004, 49, 1350-1355. | 5.7 | 118 |
| 5 | Design of Luenberger Observers for a Class of Hybrid Linear Systems. Lecture Notes in Computer Science, 2001, , 7-18. | 1.3 | 113 |
| 6 | Fault detection of actuator faults in unmanned underwater vehicles. Control Engineering Practice, 1999, 7, 357-368. | 5.5 | 108 |
| 7 | Receding-horizon estimation for switching discrete-time linear systems. IEEE Transactions on Automatic Control, 2005, 50, 1736-1748. | 5.7 | 106 |
| 8 | Optimal control of freeways via speed signalling and ramp metering. Control Engineering Practice, 1998, 6, 771-780. | 5.5 | 85 |
| 9 | Stubborn state observers for linear time-invariant systems. Automatica, 2018, 88, 1-9. | 5.0 | 79 |
| 10 | Moving-horizon estimation with guaranteed robustness for discrete-time linear systems and measurements subject to outliers. Automatica, 2016, 67, 85-93. | 5.0 | 78 |
| 11 | A neural state estimator with bounded errors for nonlinear systems. IEEE Transactions on Automatic Control, 1999, 44, 2028-2042. | 5.7 | 72 |
| 12 | Nonlinear optimization for freeway control using variable-speed signaling. IEEE Transactions on Vehicular Technology, 1999, 48, 2042-2052. | 6.3 | 71 |
| 13 | Min-Max and Predictive Control for the Management of Distribution in Supply Chains. IEEE Transactions on Control Systems Technology, 2011, 19, 1075-1089. | 5.2 | 61 |
| 14 | Moving-Horizon State Estimation for Nonlinear Systems Using Neural Networks. IEEE Transactions on Neural Networks, 2011, 22, 768-780. | 4.2 | 61 |
| 15 | Increasing-gain observers for nonlinear systems: Stability and design. Automatica, 2015, 57, 180-188. | 5.0 | 59 |
| 16 | Fault diagnosis for nonlinear systems using a bank of neural estimators. Computers in Industry, 2003, 52, 271-289. | 9.9 | 51 |
| 17 | Robust receding-horizon state estimation for uncertain discrete-time linear systems. Systems and Control Letters, 2005, 54, 627-643. | 2.3 | 48 |
| 18 | Fast Moving Horizon State Estimation for Discrete-Time Systems Using Single and Multi Iteration Descent Methods. IEEE Transactions on Automatic Control, 2017, 62, 4499-4511. | 5.7 | 47 |

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|---|---------|-----|-----------|
| 19 | Modeling and Feedback Control for Resource Allocation and Performance Analysis in Container Terminals. IEEE Transactions on Intelligent Transportation Systems, 2008, 9, 601-614. | 8.0 | 46 |
| 20 | Advances in moving horizon estimation for nonlinear systems. , 2010, , . | | 46 |
| 21 | Luenberger observers for switching discrete-time linear systems. International Journal of Control, 2007, 80, 1931-1943. | 1.9 | 44 |
| 22 | Design of observers for lipschitz nonlinear systems using LMI. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 459-464. | 0.4 | 43 |
| 23 | Modelling and Optimal Receding-horizon Control of Maritime Container Terminals. Mathematical Modelling and Algorithms, 2007, 6, 109-133. | 0.5 | 41 |
| 24 | Design of observers for switched discrete-time linear systems. , 0, , . | | 37 |
| 25 | A maximum-likelihood Kalman filter for switching discrete-time linear systems. Automatica, 2010, 46, 1870-1876. | 5.0 | 37 |
| 26 | Neural approximators for nonlinear finite-memory state estimation. International Journal of Control, 1997, 67, 275-302. | 1.9 | 33 |
| 27 | Design of Asymptotic Estimators: An Approach Based on Neural Networks and Nonlinear Programming. IEEE Transactions on Neural Networks, 2007, 18, 86-96. | 4.2 | 32 |
| 28 | Feedback Optimal Control of Distributed Parameter Systems by Using Finite-Dimensional Approximation Schemes. IEEE Transactions on Neural Networks and Learning Systems, 2012, 23, 984-996. | 11.3 | 32 |
| 29 | Min-Max Moving-Horizon Estimation for Uncertain Discrete-Time Linear Systems. SIAM Journal on Control and Optimization, 2012, 50, 1439-1465. | 2.1 | 31 |
| 30 | Time-varying increasing-gain observers for nonlinear systems. Automatica, 2013, 49, 2845-2852. | 5.0 | 30 |
| 31 | Sliding-mode estimators for a class of non-linear systems affected by bounded disturbances. International Journal of Control, 2003, 76, 226-236. | 1.9 | 28 |
| 32 | Predictive Control of Container Flows in Maritime Intermodal Terminals. IEEE Transactions on Control Systems Technology, 2013, 21, 1423-1431. | 5.2 | 25 |
| 33 | Management of logistics operations in intermodal terminals by using dynamic modelling and nonlinear programming. Maritime Economics and Logistics, 2009, 11, 58-76. | 4.0 | 24 |
| 34 | A recursive algorithm for nonlinear least-squares problems. Computational Optimization and Applications, 2007, 38, 195-216. | 1.6 | 23 |
| 35 | Observer-based stabilisation of linear systems with parameter uncertainties by using enhanced LMI conditions. International Journal of Control, 2015, 88, 1189-1200. | 1.9 | 23 |
| 36 | Optimization-based learning with bounded error for feedforward neural networks. IEEE Transactions on Neural Networks, 2002, 13, 261-273. | 4.2 | 22 |

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|---|---------|----|-----------|
| 37 | Optimization based on quasi-Monte Carlo sampling to design state estimators for non-linear systems. Optimization, 2010, 59, 963-984. | 1.7 | 21 |
| 38 | Parameter estimation of fire propagation models using level set methods. Applied Mathematical Modelling, 2021, 92, 731-747. | 4.2 | 21 |
| 39 | Nonlinear modeling of complex large-scale plants using neural networks and stochastic approximation. IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans, 1997, 27, 750-757. | 2.9 | 20 |
| 40 | Motion Control for Autonomous Navigation in Blue and Narrow Water Using Switched Controllers. Journal of Marine Science and Engineering, 2019, 7, 196. | 2.6 | 17 |
| 41 | Dynamic mode decomposition for the inspection of three-regime separated transitional boundary layers using a least squares method. Physics of Fluids, 2019, 31, 044103. | 4.0 | 17 |
| 42 | Optimal Control of Propagating Fronts by Using Level Set Methods and Neural Approximations. IEEE Transactions on Neural Networks and Learning Systems, 2019, 30, 902-912. | 11.3 | 16 |
| 43 | Synchronization in Networks of Identical Nonlinear Systems via Dynamic Dead Zones. , 2019, 3, 667-672. | | 16 |
| 44 | Stubborn and Dead-Zone Redesign for Nonlinear Observers and Filters. IEEE Transactions on Automatic Control, 2021, 66, 667-682. | 5.7 | 16 |
| 45 | A new LMI condition for decentralized observer-based control of linear systems with nonlinear interconnections. , 2014, , . | | 14 |
| 46 | Design of sliding-mode observers and filters for nonlinear dynamic systems. , 0, , . | | 13 |
| 47 | Stubborn ISS Redesign for Nonlinear High-Gain Observers. IFAC-PapersOnLine, 2017, 50, 15422-15427. | 0.9 | 13 |
| 48 | State Observers for Systems Subject to Bounded Disturbances Using Quadratic Boundedness. IEEE Transactions on Automatic Control, 2020, 65, 5352-5359. | 5.7 | 13 |
| 49 | Luenberger Observers For Switching Discrete-Time Linear Systems. , 0, , . | | 11 |
| 50 | Modeling and Identification of Nonlinear Dynamics for Freeway Traffic by Using Information From a Mobile Cellular Network. IEEE Transactions on Control Systems Technology, 2009, 17, 952-959. | 5.2 | 11 |
| 51 | Evaluation of Resilience of Interconnected Systems Based on Stability Analysis. Lecture Notes in Computer Science, 2013, , 180-190. | 1.3 | 11 |
| 52 | Optimization of approximating networks for optimal fault diagnosis. Optimization Methods and Software, 2005, 20, 241-266. | 2.4 | 10 |
| 53 | Results on stubborn Luenberger observers for linear time-invariant plants. , 2015, , . | | 10 |
| 54 | Input-output stability for optimal estimation problems. International Mathematical Forum, 0, 2, 593-617. | 0.1 | 10 |

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|---|---------|----|-----------| 
| 55 | Fast moving horizon state estimation for discrete‐time systems with linear constraints. International Journal of Adaptive Control and Signal Processing, 2020, 34, 706-720. | 4.1 | 9 |
| 56 | Functional Optimal Estimation Problems and Their Solution by Nonlinear Approximation Schemes. Journal of Optimization Theory and Applications, 2007, 134, 445-466. | 1.5 | 8 |
| 57 | Optimal control of level sets dynamics. , 2014, , . | | 8 |
| 58 | Further results on the optimal control of fronts generated by level set methods. , 2016, , . | | 8 |
| 59 | Neural state estimators for direct model-based fault diagnosis. , 1998, , . | | 7 |
| 60 | On the convergence of EDF-based parameters optimization for neural networks. , 0, , . | | 6 |
| 61 | Robust Receding-Horizon Estimation for Discrete-time Linear Systems in the Presence of Bounded Uncertainties. , 0, , . | | 6 |
| 62 | Moving-horizon estimation for discrete-time linear systems with measurements subject to outliers. , 2014, , . | | 6 |
| 63 | Moving-horizon estimation for discrete-time linear and nonlinear systems using the gradient and Newton methods. , 2016, , . | | 6 |
| 64 | Synchronization of interconnected linear systems via dynamic saturation redesign. IFAC-PapersOnLine, 2019, 52, 622-627. | 0.9 | 6 |
| 65 | Nonlinear predictive control for the management of container flows in maritime intermodal terminals. , 2008, , . | | 5 |
| 66 | Extended Kalman filtering to design optimal controllers of fronts generated by level set methods. , 2016, , . | | 5 |
| 67 | On the enhancement of high-gain observers for state estimation of nonlinear systems. , 2016, , . | | 5 |
| 68 | Moving horizon estimation: Open problems, theoretical progress, and new application perspectives. International Journal of Adaptive Control and Signal Processing, 2020, 34, 703-705. | 4.1 | 5 |
| 69 | Lyapunov Functions for State Observers of Dynamic Systems Using Hamilton–Jacobi Inequalities. Mathematics, 2020, 8, 202. | 2.2 | 5 |
| 70 | Nonlinear Model Predictive Control for Resource Allocation in the Management of Intermodal Container Terminals. Lecture Notes in Control and Information Sciences, 2009, , 205-213. | 1.0 | 5 |
| 71 | Fault Detection Through Dynamics Monitoring for Unmanned Underwater Vehicles. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2000, 33, 951-956. | 0.4 | 4 |
| 72 | Sliding-window neural state estimation in a power plant heater line. International Journal of Adaptive Control and Signal Processing, 2001, 15, 815-836. | 4.1 | 4 |

| # | Article | IF | Citations |
|---|---------|----|-----------|
| 73 | New convergence conditions for receding-horizon state estimation of nonlinear discrete-time systems. , 2004, , . | | 4 |
| 74 | Maximum-likelihood Kalman filtering for switching discrete-time linear systems. , 2008, , . | | 4 |
| 75 | Design of time-varying state observers for nonlinear systems by using input-to-state stability. , 2013, , . | | 4 |
| 76 | Model-Based Fault Detection and Estimation for Linear Time Invariant and Piecewise Affine Systems by Using Quadratic Boundedness. , 2018, , . | | 4 |
| 77 | Minimum-Distance Receding-Horizon State Estimation for Switching Discrete-Time Linear Systems. , 2007, , 347-358. | | 4 |
| 78 | Hysteresis-based switching observers for linear systems using quadratic boundedness. Automatica, 2022, 136, 109982. | 5.0 | 4 |
| 79 | Sliding-Mode Estimators for a Class of Nonlinear Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2000, 33, 155-160. | 0.4 | 3 |
| 80 | Receding-horizon estimation for switching discrete-time linear systems. , 2004, , . | | 3 |
| 81 | Sliding-Mode State Observers for a Class of Nonlinear Continuous-Time Systems. Proceedings of the American Control Conference, 2007, , . | 0.0 | 3 |
| 82 | Moving-horizon state estimation for nonlinear systems using neural networks. , 2008, , . | | 3 |
| 83 | Minimizing Sequences for a Family of Functional Optimal Estimation Problems. Journal of Optimization Theory and Applications, 2010, 147, 243-262. | 1.5 | 3 |
| 84 | State observers with first-/second-order sliding-mode for nonlinear systems with bounded noises. , 2010, , . | | 3 |
| 85 | Output feedback control for discrete-time linear systems by using luenberger observers under unknown switching. , 2013, , . | | 3 |
| 86 | Black-box Modeling and Optimal Control of a Two-Phase Flow by Using Navier-Stokes Equations and Level Set Methods. , 2018, , . | | 3 |
| 87 | State and observer-based feedback control of normal flow equations. Automatica, 2020, 117, 108980. | 5.0 | 3 |
| 88 | Detection of Flow-Regime Transitions Using Dynamic Mode Decomposition and Moving Horizon Estimation. IEEE Transactions on Control Systems Technology, 2021, 29, 1324-1331. | 5.2 | 3 |
| 89 | ANN Application For On-Line Power System Security Assessment. , 2006, , . | | 2 |
| 90 | Identification of freeway macroscopic models using information from mobile phones. , 2006, , . | | 2 |

| # | Article | IF | Citations |
|---|---------|-----|-----------|
| 91 | Robust receding-horizon estimation for uncertain discrete-time linear systems via semidefinite programming. , 2007, , . | | 2 |
| 92 | Sliding-mode state estimation for a class of multi-output nonlinear continuous-time systems. , 2007, , . | | 2 |
| 93 | Connections between stability and asymptotic stability of nonlinear switched systems. Nonlinear Analysis: Hybrid Systems, 2007, 1, 501-509. | 3.5 | 2 |
| 94 | Moving Horizon Trend Identification Based on Switching Models for Data Driven Decomposition of Fluid Flows. , 2018, , . | | 2 |
| 95 | State Observation for Lipschitz Nonlinear Dynamical Systems Based on Lyapunov Functions and Functionals. Mathematics, 2020, 8, 1424. | 2.2 | 2 |
| 96 | On Hamilton-Jacobi Approaches to State Reconstruction for Dynamic Systems. Advances in Mathematical Physics, 2020, 2020, 1-13. | 0.8 | 2 |
| 97 | Black-Box Modeling and Optimal Control of a Two-Phase Flow Using Level Set Methods. IEEE Transactions on Control Systems Technology, 2022, 30, 520-534. | 5.2 | 2 |
| 98 | Optimistic vs Pessimistic Moving-Horizon Estimation for Quasiâ€"LPV Discrete-Time Systems. IFAC-PapersOnLine, 2020, 53, 5004-5009. | 0.9 | 2 |
| 99 | State observer design method for a class of nonâ€‹linear systems. IET Control Theory and Applications, 2020, 14, 1648-1655. | 2.1 | 2 |
| 100 | Receding-horizon estimation for noisy nonlinear discrete-time systems. , 0, , . | | 1 |
| 101 | Design of Observers with Commutation-Dependent Gains for Linear Switching Systems. Proceedings of the American Control Conference, 2007, , . | 0.0 | 1 |
| 102 | Identification of freeway traffic dynamics using fluid and black-box nonlinear models. , 2007, , . | | 1 |
| 103 | Nonparametric nonlinear regression using polynomial and neural approximators: a numerical comparison. Computational Management Science, 2009, 6, 5-24. | 1.3 | 1 |
| 104 | Approximate Solution of Feedback Optimal Control Problems for Distributed Parameter Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 987-992. | 0.4 | 1 |
| 105 | Rate-based Optimal Control of Priority Traffic Using a Deterministic Fluid Model. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 11477-11482. | 0.4 | 1 |
| 106 | Integer tree-based search and mixed-integer optimal control of distribution chains. , 2011, , . | | 1 |
| 107 | Optimal control of PDE-based systems by using a finite-dimensional approximation scheme. , 2013, , . | | 1 |
| 108 | On increasing-gain observers for nonlinear continuous-time systems. , 2013, , . | | 1 |

| # | Article | IF | Citations |
|---|---------|-----|-----------|
| 109 | Output feedback control for a class of switching discrete-time linear systems. , 2014, , . | | 1 |
| 110 | Robust predictive control for the management of multi-echelon distribution chains. , 2014, , . | | 1 |
| 111 | Adaptive state estimation for nonlinear systems based on the increasing-gain observer. , 2015, , . | | 1 |
| 112 | Moving horizon state estimation for constrained discrete-time systems by using fast descent methods. , 2017, , . | | 1 |
| 113 | On-line Mode Decomposition of Fluid Flows Using Moving Horizon Estimation. , 2019, , . | | 1 |
| 114 | Optimal Propagating Fronts Using Hamilton-Jacobi Equations. Mathematics, 2019, 7, 1122. | 2.2 | 1 |
| 115 | Stabilization of diffusive systems using backstepping and the circle criterion. International Journal of Heat and Mass Transfer, 2020, 149, 119132. | 4.8 | 1 |
| 116 | Optimal Control of Level Sets Generated by the Normal Flow Equation. Springer Proceedings in Mathematics and Statistics, 2018, , 29-41. | 0.2 | 1 |
| 117 | DESIGN OF RECEDING-HORIZON FILTERS FOR DISCRETE-TIME LINEAR SYSTEMS USING QUADRATIC BOUNDEDNESS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2002, 35, 173-178. | 0.4 | 0 |
| 118 | Application of neural control to economic growth problems. , 0, , . | | 0 |
| 119 | Freeway Incident Detection Using Traffic Information from Mobile Phones. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2003, 36, 933-938. | 0.4 | 0 |
| 120 | Sliding-Mode State Estimators for Lipschitz Nonlinear Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2003, 36, 729-734. | 0.4 | 0 |
| 121 | Design of Parameterized State Observers and Controllers for a Class of Nonlinear Continuous-Time Systems. , 2006, , . | | 0 |
| 122 | MODE ESTIMATION TECHNIQUES FOR SWITCHING DISCRETE-TIME LINEAR SYSTEMS.. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 253-258. | 0.4 | 0 |
| 123 | Sliding-mode state observers for multi-output nonlinear systems with bounded noises on dynamics and measurements. , 2009, , . | | 0 |
| 124 | Computationally Efficient, Approximate Moving Horizon State Estimation for Nonlinear Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 759-764. | 0.4 | 0 |
| 125 | Optimal and Predictive Control of Distribution Chains by Using Integer Tree-Based Search and Mixed-Integer Programming. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 238-244. | 0.4 | 0 |
| 126 | Convex optimization approach to observer-based stabilization of linear systems with parameter uncertainties. , 2013, , . | | 0 |

| # | Article | IF | Citations |
|---|---------|----|-----------|
| 127 | Optimal control of parallel buffers by using output feedback based on Practical Observers. , 2016, , . | | 0 |
| 128 | Parameter identification of the normal flow equation by using adaptive estimation. , 2017, , . | | 0 |
| 129 | Modeling and Estimation of Thermal Flows Based on Transport and Balance Equations. Advances in Mathematical Physics, 2020, 2020, 1-10. | 0.8 | 0 |
| 130 | Modeling and Estimation of Amnioserosa Cell Mechanical Behavior Using Moving Horizon Estimation. , 2021, , . | | 0 |
| 131 | State Observer Design Method for a Class of Nonlinear Systems. IFAC-PapersOnLine, 2020, 53, 4935-4940. | 0.9 | 0 |
| 132 | Control of Normal Flow PDEs with ISS Properties. , 2021, , . | | 0 |