Wassim M Haddad

List of Publications by Year
in descending order

314 papers	8,193 citations	71097 41 h-index	88628 70 g-index
318 all docs	318 docs citations	318 times ranked	3895 citing authors

#	Article	IF	Citations
1	Asymptotic and Finite-Time Semistability for Nonlinear Discrete-Time Systems With Application to Network Consensus. IEEE Transactions on Automatic Control, 2023, 68, 766-781.	5.7	8
2	Finite-Time Stabilization and Optimal Feedback Control for Nonlinear Discrete-Time Systems. IEEE Transactions on Automatic Control, 2023, 68, 1685-1691.	5.7	6
3	Dissipativity, inverse optimal control, and stability margins for nonlinear discrete-time stochastic feedback regulators. International Journal of Control, 2023, 96, 2133-2145.	1.9	3
4	Fixed time stability and optimal stabilisation of discrete autonomous systems. International Journal of Control, 2023, 96, 2341-2355.	1.9	5
5	Mixed norm H_2/H_∞ and entropy covariance control: a convex optimisation approach. International Journal of Control, 2022, 95, 985-995.	1.9	2
6	Nonlinear–nonquadratic optimal and inverse optimal control for discrete–time stochastic dynamical systems. International Journal of Robust and Nonlinear Control, 2022, 32, 1487-1509.	3.7	7
7	Dissipativity theory for discrete–time nonlinear stochastic dynamical systems. International Journal of Robust and Nonlinear Control, 2022, 32, 6293-6314.	3.7	9
8	Lyapunov theorems for stability and semistability of discrete-time stochastic systems. Automatica, 2022, 142, 110393.	5.0	9
9	A Secure Control Learning Framework for Cyber-Physical Systems Under Sensor and Actuator Attacks. IEEE Transactions on Cybernetics, 2021, 51, 4648-4660.	9.5	43
10	A Hybrid Thermodynamic Control Protocol for Semistability and Consensus of Network Systems With Intermittent Information. IEEE Transactions on Automatic Control, 2021, 66, 2754-2761.	5.7	5
11	The Role of Systems Biology, Neuroscience, and Thermodynamics in Network Control and Learning. Studies in Systems, Decision and Control, 2021, , 763-817.	1.0	0
12	On finite-time stability and stabilization of nonlinear hybrid dynamical systems. AIMS Mathematics, 2021, 6, 5535-5562.	1.6	5
13	Closed-Loop Control for Fluid Resuscitation: Recent Advances and Future Challenges. Frontiers in Veterinary Science, 2021, 8, 642440.	2.2	7
14	Dissipativity Theory for Discrete-Time Nonlinear Stochastic Dynamical Systems, Part I: Input-Output and State Properties. , 2021, , .		3
15	Lyapunov Theorems for Semistability of Discrete-Time Stochastic Systems with Application to Network Consensus with Random Communication Noise. , 2021, , .		7
16	Asymptotic and Finite Time Semistability for Nonlinear Discrete-Time Systems. , 2021, , .		5
17	Using sensor-fusion and machine-learning algorithms to assess acute pain in non-verbal infants: a study protocol. BMJ Open, 2021, 11, e039292.	1.9	8
18	Finite-Time Stabilization and Optimal Feedback Control for Nonlinear Discrete-Time Systems. , 2021, , .		2

#	Article	IF	Citations
19	A Thermodynamic-Based Control Architecture for Semistability and Consensus of Discrete-Time Nonlinear Network Systems. , 2021, , .		0
20	Polynomial and Multilinear Performance Criteria for Discrete-Time Nonlinear Stochastic Dynamical Systems. , 2021, , .		1
21	Finite Time Stability of Discrete-Time Stochastic Dynamical Systems. , 2021, , .		7
22	Stochastic Semistability for Nonlinear Dynamical Systems With Application to Consensus on Networks With Communication Uncertainty. IEEE Transactions on Automatic Control, 2020, 65, 2826-2841.	5.7	12
23	Condensed matter physics, hybrid energy and entropy principles, and the hybrid first and second laws of thermodynamics. Communications in Nonlinear Science and Numerical Simulation, 2020, 83, 105096.	3.3	6
24	Validation of an automated system for detecting ineffective triggering asynchronies during mechanical ventilation: a retrospective study. Journal of Clinical Monitoring and Computing, 2020, 34, 1233-1237.	1.6	5
25	Adaptive Control for Multiagent Systems with Sensorâ€"Actuator Attacks and Stochastic Disturbances. Journal of Guidance, Control, and Dynamics, 2020, 43, 15-29.	2.8	11
26	Finite-time stability of discrete autonomous systems. Automatica, 2020, 122, 109282.	5.0	44
27	Finite-Time Stability of Discrete Autonomous Systems. , 2020, , .		2
28	A Distributed Output Feedback Adaptive Controller for Leader-Follower Multiagent Systems with Stochastic Disturbances and Sensor-Actuator Attacks. , 2020, , .		1
29	Mixed Norm $\mathscr{H}_2/\mathscr{H}_\infty$ and Entropy Covariance Control: A Convex Optimization Approach. , 2020, , .		0
30	Condensed Matter Physics, the Hybrid Second Law of Thermodynamics, and Hybrid Consensus Protocols for Network Systems. , 2020, , .		0
31	Reinforcement learning-based control of drug dosing with applications to anesthesia and cancer therapy. , 2020, , 251-297.		5
32	Improving transient performance of discreteâ€time model reference adaptive control architectures. International Journal of Adaptive Control and Signal Processing, 2020, 34, 901-918.	4.1	14
33	Universal Feedback Controllers and Inverse Optimality for Nonlinear Stochastic Systems. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2020, 142, .	1.6	4
34	Implications of dissipativity, inverse optimal control, and stability margins for nonlinear stochastic feedback regulators. International Journal of Robust and Nonlinear Control, 2019, 29, 5499-5519.	3.7	5
35	A Fast Parameter Identification Framework for Personalized Pharmacokinetics. Scientific Reports, 2019, 9, 14143.	3.3	5
36	An adaptive learning and control architecture for mitigating sensor and actuator attacks in connected autonomous vehicle platoons. International Journal of Adaptive Control and Signal Processing, 2019, 33, 1788-1802.	4.1	21

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37	An output‐feedback adaptive control architecture for mitigating actuator attacks in cyber‐physical systems. International Journal of Adaptive Control and Signal Processing, 2019, 33, 943-955.	4.1	13
38	Optimal adaptive control of drug dosing using integral reinforcement learning. Mathematical Biosciences, 2019, 309, 131-142.	1.9	24
39	Universal Feedback Controllers and Inverse Optimality for Nonlinear Stochastic Systems. , 2019, , .		1
40	A Secure Control Learning Framework for Cyber-Physical Systems under Sensor Attacks. , 2019, , .		7
41	A Computational Study of a Spatially Continuum Mean Field Model Capturing Loss of Consciousness and the Emergence of Alpha and Gamma Rhythmic Activity in the Neocortex. , 2019, , .		0
42	Finite Time Semistability and Consensus in Networks with Communication Uncertainty. , 2019, , .		0
43	Partial Dissipativity Theory and Partial Stability of Feedback Interconnections for Nonlinear Dynamical Systems. , 2019, , .		0
44	A nonovershooting tracking controller for simultaneous infusion of anesthetics and analgesics. Biomedical Signal Processing and Control, 2019, 49, 375-387.	5.7	12
45	Stochastic differential games and inverse optimal control and stopper policies. International Journal of Control, 2019, 92, 1692-1706.	1.9	0
46	An adaptive control architecture for leader–follower multiagent systems with stochastic disturbances and sensor and actuator attacks. International Journal of Control, 2019, 92, 2561-2570.	1.9	31
47	Dynamic Dissipativity Theory for Stability of Time-Delay Systems. Advances in Delays and Dynamics, 2019, , 33-47.	0.4	0
48	Replicating human expertise of mechanical ventilation waveform analysis in detecting patient-ventilator cycling asynchrony using machine learning. Computers in Biology and Medicine, 2018, 97, 137-144.	7.0	60
49	Abnormal Optimal Trajectory Planning of Multi-Body Systems in the Presence of Holonomic and Nonholonomic Constraints. Journal of Intelligent and Robotic Systems: Theory and Applications, 2018, 89, 51-67.	3.4	3
50	Adaptive Control for Mitigating Sensor and Actuator Attacks in Connected Autonomous Vehicle Platoons. , 2018, , .		11
51	Robust Adaptive Control for Leader-Follower Multiagent Systems with Stochastic Disturbances, System Uncertainty, and Sensor-Actuator Attacks. , 2018, , .		2
52	A Nonovershooting Controller with Integral Action for Multi-input Multi-output Drug Dosing Control. IFAC-PapersOnLine, 2018, 51, 60-65.	0.9	1
53	A Computational Study of a Spatiotemporal Mean Field Model Capturing the Emergence of Alpha and Gamma Rhythmic Activity in the Neocortex. Symmetry, 2018, 10, 568.	2.2	1
54	Energy-Based Feedback Control for Stochastic Dynamical Systems. , 2018, , .		0

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55	AI in the ICU: In the intensive care unit, artificial intelligence can keep watch. IEEE Spectrum, 2018, 55, 31-35.	0.7	27
56	A Fixed-Architecture Framework for Stochastic Nonlinear Controller Synthesis. , 2018, , .		1
57	A pilot study evaluating adaptive closed-loop fluid resuscitation during states of absolute and relative hypovolemia in dogs. Journal of Veterinary Emergency and Critical Care, 2018, 28, 436-446.	1.1	13
58	Energy-based feedback control for stochastic port-controlled Hamiltonian systems. Automatica, 2018, 97, 134-142.	5.0	24
59	A Conservation-Based Distributed Control Architecture for Network Consensus with Stochastic Communication Uncertainty. , 2018, , .		3
60	An Adaptive Control Architecture for Leader-Follower Multiagent Systems with Stochastic Disturbances and Sensor and Actuator Attacks. , 2018, , .		5
61	An adaptive control architecture for cyber-physical system security in the face of sensor and actuator attacks and exogenous stochastic disturbances. Cyber-Physical Systems, 2018, 4, 39-56.	2.0	12
62	An Adaptive Control Architecture for Mitigating Sensor and Actuator Attacks in Cyber-Physical Systems. IEEE Transactions on Automatic Control, 2017, 62, 6058-6064.	5.7	272
63	Mitigating the Effects of Sensor Uncertainties in Networked Multi-Agent Systems. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2017, 139, .	1.6	24
64	Nonlinear-nonquadratic optimal and inverse optimal control for stochastic dynamical systems. International Journal of Robust and Nonlinear Control, 2017, 27, 4723-4751.	3.7	16
65	Approximate Consensus of Multiagent Systems With Inaccurate Sensor Measurements. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2017, 139, .	1.6	5
66	Stochastic finite-time partial stability, partial-state stabilization, and finite-time optimal feedback control. Mathematics of Control, Signals, and Systems, 2017, 29, 1.	2.3	26
67	Partial-State Stabilization and Optimal Feedback Control for Stochastic Dynamical Systems. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2017, 139, .	1.6	4
68	Reinforcement learning-based control of drug dosing for cancer chemotherapy treatment. Mathematical Biosciences, 2017, 293, 11-20.	1.9	67
69	Dissipativity Theory for Nonlinear Stochastic Dynamical Systems. IEEE Transactions on Automatic Control, 2017, 62, 1684-1699.	5.7	31
70	Reinforcement learning-based control for combined infusion of sedatives and analgesics. , 2017, , .		5
71	An adaptive control architecture for cyber-physical system security in the face of sensor and actuator attacks and exogenous stochastic disturbances. , 2017, , .		5
72	Thermodynamics: The Unique Universal Science. Entropy, 2017, 19, 621.	2.2	30

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73	Stochastic Thermodynamics: A Dynamical Systems Approach. Entropy, 2017, 19, 693.	2.2	9
74	Partialâ€state stabilization and optimal feedback control. International Journal of Robust and Nonlinear Control, 2016, 26, 1026-1050.	3.7	14
75	An adaptive sliding mode observer for linear systems under malicious attack. , 2016, , .		5
76	Lyapunov and converse Lyapunov theorems for stochastic semistability. , 2016, , .		1
77	Finite-time partial stability for stochastic dynamical systems. , 2016, , .		0
78	Lyapunov and converse Lyapunov theorems for stochastic semistability. Systems and Control Letters, 2016, 97, 83-90.	2.3	5
79	Nonlinear-nonquadratic optimal and inverse optimal control for stochastic dynamical systems. , 2016, , .		1
80	Adaptive control architectures for mitigating sensor attacks in cyber-physical systems. Cyber-Physical Systems, 2016, 2, 24-52.	2.0	66
81	Mitigating the effects of sensor uncertainties in networked multiagent systems. , 2016, , .		6
82	Partial-state stabilization and optimal feedback control for stochastic dynamical systems. , 2016, , .		1
83	Output Feedback Adaptive Control with Low-Frequency Learning and Fast Adaptation. Journal of Guidance, Control, and Dynamics, 2016, 39, 16-31.	2.8	12
84	Optimal singular control for nonlinear semistabilisation. International Journal of Control, 2016, 89, 1222-1239.	1.9	6
85	Finite-Time Stabilization and Optimal Feedback Control. IEEE Transactions on Automatic Control, 2016, 61, 1069-1074.	5.7	96
86	Adaptive sliding mode control for a general nonlinear multicompartment lung model with input pressure and rate saturation constraints. International Journal of Robust and Nonlinear Control, 2016, 26, 719-736.	3.7	3
87	Dissipativity theory for nonlinear stochastic dynamical systems: Input-output and state properties. , 2016, , .		1
88	Optimal Control of Midazolam Infusion for Post Operative Patients in Intensive Care Units. Asian Journal of Control, 2015, 17, 675-686.	3.0	2
89	A Universal Feedback Controller for Discontinuous Dynamical Systems Using Nonsmooth Control Lyapunov Functions. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2015, 137, .	1.6	4
90	Partial synchronization of biological neural networks and the anesthetic cascade. , 2015, , .		0

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91	A Mechanistic Neural Field Theory of How Anesthesia Suppresses Consciousness: Synaptic Drive Dynamics, Bifurcations, Attractors, and Partial State Equipartitioning. Journal of Mathematical Neuroscience, 2015, 5, 20.	2.4	2
92	Optimal singular control for nonlinear semistabilization. , 2015, , .		1
93	Finite-time partial stability theory and fractional Lyapunov differential inequalities. , 2015, , .		2
94	Optimal Determination of Respiratory Airflow Patterns for a General Multicompartment Lung Mechanics System With Nonlinear Resistance and Compliance Parameters. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2015, 137, .	1.6	1
95	Closed-loop control of anesthesia and mean arterial pressure using reinforcement learning. Biomedical Signal Processing and Control, 2015, 22, 54-64.	5.7	70
96	Finite-time partial stability and stabilization, and optimal feedback control. Journal of the Franklin Institute, 2015, 352, 2329-2357.	3.4	59
97	Optimal control for linear and nonlinear semistabilization. Journal of the Franklin Institute, 2015, 352, 851-881.	3.4	9
98	Optimal control for linear and nonlinear semistabilization. , 2014, , .		2
99	Human Brain Networks: Spiking Neuron Models, Multistability, Synchronization, Thermodynamics, Maximum Entropy Production, and Anesthetic Cascade Mechanisms. Entropy, 2014, 16, 3939-4003.	2.2	15
100	Closed-loop control of anesthesia and mean arterial pressure using reinforcement learning. , 2014, , .		2
101	Adaptive sliding mode control for a general nonlinear multicompartment lung model with input pressure and rate saturation constraints. , 2014, , .		0
102	Partial-state stabilization and optimal feedback control. , 2014, , .		2
103	A Stochastic Mean Field Model for an Excitatory and Inhibitory Synaptic Drive Cortical Neuronal Network. IEEE Transactions on Neural Networks and Learning Systems, 2014, 25, 751-763.	11.3	15
104	Predictive tracking control for a multi-compartment respiratory system with amplitude and rate input constraints. International Journal of Control, 2014, 87, 1141-1152.	1.9	0
105	Formation Control Protocols for Nonlinear Dynamical Systems Via Hybrid Stabilization of Sets. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2014, 136, .	1.6	6
106	Adaptive Estimation Using Multiagent Network Identifiers With Undirected and Directed Graph Topologies. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2014, 136, .	1.6	7
107	From data patterns to mechanistic models in acute critical illness. Journal of Critical Care, 2014, 29, 604-610.	2.2	32
108	Synchronization of biological neural network systems with stochastic perturbations and time delays. Journal of the Franklin Institute, 2014, 351, 1205-1225.	3.4	14

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109	Direct adaptive disturbance rejection control for sedation and analgesia. , 2014, , .		2
110	A general multicompartment lung mechanics model with nonlinear resistance and compliance respiratory parameters. , 2014, , .		14
111	Output feedback sliding mode control for a linear multi-compartment lung mechanics system. International Journal of Control, 2014, , 1-12.	1.9	4
112	Consensus protocols for networked multi-agent systems with a uniformly continuous quasi-resetting architecture. International Journal of Control, 2014, 87, 1716-1727.	1.9	30
113	Set-valued protocols for almost consensus of multiagent systems with uncertain interagent communication. , 2014, , .		5
114	Optimal drug dosing control for intensive care unit sedation by using a hybrid deterministicâ€"stochastic pharmacokinetic and pharmacodynamic model. Optimal Control Applications and Methods, 2013, 34, 547-561.	2.1	7
115	Model Predictive Control for a Multicompartment Respiratory System. IEEE Transactions on Control Systems Technology, 2013, 21, 1988-1995.	5.2	17
116	Output-feedback sliding mode control for a linear multicompartment lung mechanics system. , 2013, , .		2
117	Circular formation control protocols for dynamic unicycles via hybrid stabilization of sets. , 2013, , .		0
118	Dissipative differential inclusions, set-valued energy storage and supply rate maps, and stability of discontinuous feedback systems. Nonlinear Analysis: Hybrid Systems, 2013, 8, 83-108.	3.5	7
119	Low-Frequency Learning and Fast Adaptation in Model Reference Adaptive Control. IEEE Transactions on Automatic Control, 2013, 58, 1080-1085.	5.7	185
120	Thermodynamics-Based Control of Network Systems. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2013, 135, .	1.6	12
121	Low-frequency learning and fast adaptation in model reference adaptive control for safety-critical systems. , 2013, , .		3
122	A Unification between Dynamical System Theory and Thermodynamics Involving an Energy, Mass, and Entropy State Space Formalism. Entropy, 2013, 15, 1821-1846.	2.2	6
123	Semistabilization, feedback dissipativation, system thermodynamics, and limits of performance in feedback control. , 2013, , .		2
124	Clinical Decision Support and Closedâ€Loop Control for Intensive Care Unit Sedation. Asian Journal of Control, 2013, 15, 317-339.	3.0	15
125	Flocking and rendezvous control protocols for nonlinear dynamical systems via hybrid stabilization of sets. , 2013, , .		4
126	Adaptive estimation using multiagent network identifiers with undirected and directed graph topologies. , 2013, , .		0

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127	Consensus protocols for networked multiagent systems with a uniformly continuous quasi-resetting architecture. , 2013, , .		4
128	Singular linear-quadratic control for semistabilization. , 2013, , .		0
129	Consensus control protocols for nonlinear dynamical systems via hybrid stabilization of sets. , 2013, , .		4
130	On the equivalence between dissipativity and optimality of nonlinear controllers for discontinuous dynamical systems. , 2012, , .		1
131	Dissipative differential inclusions, set-valued energy storage and supply rate maps, and discontinuous dynamical systems. , 2012, , .		5
132	Poincaré recurrence and output reversibility in linear dynamical systems. , 2012, , .		1
133	Model predictive control for a multi-compartment respiratory system. , 2012, , .		2
134	Synchronization of biological neural network systems with stochastic perturbations and time delays. , 2012, , .		0
135	A robust adaptive control architecture with L<inf>&#x221E;</inf> transient and steady-state performance guarantees. , 2012, , .		0
136	Thermodynamics-based network systems control by thermal analogy. , 2012, , .		1
137	Optimal Determination of Respiratory Airflow Patterns Using a Nonlinear Multicompartment Model for a Lung Mechanics System. Computational and Mathematical Methods in Medicine, 2012, 2012, 1-11.	1.3	13
138	Output feedback adaptive stabilization and command following for minimum phase dynamical systems with unmatched uncertainties and disturbances. International Journal of Control, 2012, 85, 706-721.	1.9	17
139	Clinical Decision Support and Closed-Loop Control for Cardiopulmonary Management and Intensive Care Unit Sedation Using Expert Systems. IEEE Transactions on Control Systems Technology, 2012, 20, 1343-1350.	5.2	20
140	Extended Kalman-Yakubovich-Popov conditions and stability of feedback interconnections for dissipative discontinuous dynamical systems. , 2012, , .		2
141	Temporal Asymmetry, Entropic Irreversibility, and Finite-Time Thermodynamics: From Parmenidesâ€"Einstein Time-Reversal Symmetry to the Heraclitan Entropic Arrow of Time. Entropy, 2012, 14, 407-455.	2.2	11
142	A robust adaptive control architecture for disturbance rejection and uncertainty suppression with <i>L</i>_{â€°â^žâ€°} transient and steadyâ€state performance guarantees. International Journal of Adaptive Control and Signal Processing, 2012, 26, 1024-1055.	4.1	42
143	Pressure- and Work-Limited Neuroadaptive Control for Mechanical Ventilation of Critical Care Patients. IEEE Transactions on Neural Networks, 2011, 22, 614-626.	4.2	16
144	Output feedback adaptive stabilization and command following for minimum phase dynamical systems with unmatched uncertainties. , 2011, , .		3

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145	Neuroadaptive Output Feedback Control for Automated Anesthesia With Noisy EEG Measurements. IEEE Transactions on Control Systems Technology, 2011, 19, 311-326.	5.2	27
146	A compressive sensing approach for glioma margin delineation using mass spectrometry. , 2011, 2011, 5682-5.		6
147	optimal semistable control for linear dynamical systems: An LMI approach. Journal of the Franklin Institute, 2011, 348, 2898-2910.	3.4	25
148	Neuroadaptive output feedback control for nonlinear nonnegative dynamical systems with actuator amplitude and integral constraints. International Journal of Adaptive Control and Signal Processing, 2011, 25, 483-501.	4.1	11
149	Output feedback adaptive command following and disturbance rejection for nonminimum phase uncertain dynamical systems. International Journal of Adaptive Control and Signal Processing, 2011, 25, 352-373.	4.1	5
150	Addendum to â€˜Output feedback adaptive command following and disturbance rejection for nonminimum phase uncertain dynamical systemsâ€™. International Journal of Adaptive Control and Signal Processing, 2011, 25, 379-381.	4.1	0
151	Multistability, bifurcations, and biological neural networks: A synaptic drive firing model for cerebral cortex transition in the induction of general anesthesia. Nonlinear Analysis: Hybrid Systems, 2011, 5, 554-572.	3.5	20
152	Multistability, bifurcations, and biological neural networks: A synaptic drive firing model for cerebral cortex transition in the induction of general anesthesia. , 2011, , .		4
153	Optimal determination of respiratory airflow patterns using a nonlinear multi-compartment model for a lung-rib-cage system. , 2011, , .		4
154	A derivative-free output feedback adaptive control architecture for minimum phase dynamical systems with unmatched uncertainties. , 2011, , .		0
155	Finite-time semistability, Filippov systems, and consensus protocols for nonlinear dynamical networks with switching topologies. Nonlinear Analysis: Hybrid Systems, 2010, 4, 557-573.	3.5	50
156	Relevance Vector Machine Learning for Neonate Pain Intensity Assessment Using Digital Imaging. IEEE Transactions on Biomedical Engineering, 2010, 57, 1457-1466.	4.2	69
157	Authorâ€™s reply to â€œComments on â€œDistributed nonlinear control algorithms for network consensusâ€• [Automatica 44 (2008) 2375â€“2381]â€• Automatica, 2010, 46, 1569.	5.0	0
158	On robust control algorithms for nonlinear network consensus protocols. International Journal of Robust and Nonlinear Control, 2010, 20, 269-284.	3.7	25
159	A neuroadaptive control architecture for nonlinear uncertain dynamical systems with input actuator constraints. , 2010, , .		1
160	Closed-loop control for cardiopulmonary management and intensive care unit sedation using expert systems. , 2010, , .		1
161	Adaptive reduced-order dynamic compensation for nonlinear uncertain dynamical systems. , 2010, , .		0
162	Optimal drug dosing control for intensive care unit sedation using a hybrid deterministic-stochastic pharmacokinetic and pharmacodynamic model. , 2010, , .		2

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163	A Q-modification neuroadaptive control architecture for discrete-time systems. , 2010, , .		0
164	Limit cycle stability analysis and adaptive control of a multi-compartment model for a pressure-limited respirator and lung mechanics system. International Journal of Control, 2010, 83, 940-955.	1.9	14
165	Heat flow, work energy, chemical reactions, and thermodynamics: a dynamical systems perspective. , 2010, , .		2
166	Pressure- and work-limited neuroadaptive control for mechanical ventilation of critical care patients. , 2010, , .		0
167	Output feedback adaptive command following for nonminimum phase uncertain dynamical systems. , 2010, , .		4
168	Nonnegative and Compartmental Dynamical Systems. , 2010, , .		283
169	Semistability of switched linear systems. , 2009, , .		7
170	Neuroadaptive output feedback control for nonlinear nonnegative dynamical systems with actuator amplitude and integral constraints. , 2009, , .		0
171	Uniform semistability for time-varying dynamical systems and network consensus with time-dependent communication links. , 2009, , .		11
172	Agitation and pain assessment using digital imaging. , 2009, 2009, 2176-9.		25
173	Dissipativity theory for discontinuous dynamical systems: Basic input, state, and output properties, and finite-time stability of feedback interconnections. , 2009, , .		5
174	Closed-loop control for intensive care unit sedation. Bailliere's Best Practice and Research in Clinical Anaesthesiology, 2009, 23, 95-114.	4.0	19
175	Adaptive disturbance rejection control for compartmental systems with application to intraoperative anesthesia influenced by hemorrhage and hemodilution effects. International Journal of Adaptive Control and Signal Processing, 2009, 23, 1-29.	4.1	7
176	Adaptive control for nonlinear uncertain systems with actuator amplitude and rate saturation constraints. International Journal of Adaptive Control and Signal Processing, 2009, 23, 73-96.	4.1	70
177	â„¢ï‹‹$_2$ suboptimal estimation and control for nonnegative dynamical systems. Optimal Control Applications and Methods, 2009, 30, 27-45.	2.1	3
178	Semistability of switched dynamical systems, Part I: Linear system theory. Nonlinear Analysis: Hybrid Systems, 2009, 3, 343-353.	3.5	11
179	Complexity, robustness, self-organization, swarms, and system thermodynamics. Nonlinear Analysis: Real World Applications, 2009, 10, 531-543.	1.7	20
180	$_2$ optimal semistable stabilisation for linear discrete-time dynamical systems with applications to network consensus. International Journal of Control, 2009, 82, 456-469.	1.9	29

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181	On semistability of nonlinear switched systems. , 2009, , .		1
182	A New Neuroadaptive Control Architecture for Nonlinear Uncertain Dynamical Systems: Beyond σ- and e-Modifications. IEEE Transactions on Neural Networks, 2009, 20, 1707-1723.	4.2	92
183	Modeling and analysis of mass-action kinetics. IEEE Control Systems, 2009, 29, 60-78.	0.8	167
184	On semistability of nonlinear switched systems. , 2009, , .		0
185	Semistability, Finite-Time Stability, Differential Inclusions, and Discontinuous Dynamical Systems Having a Continuum of Equilibria. IEEE Transactions on Automatic Control, 2009, 54, 2465-2470.	5.7	122
186	Finite-time stabilization of nonlinear dynamical systems via control vector Lyapunov functions. Journal of the Franklin Institute, 2008, 345, 819-837.	3.4	63
187	Controller synthesis with guaranteed closed-loop phase constraints. Automatica, 2008, 44, 3211-3214.	5.0	6
188	On system state equipartitioning and semistability in network dynamical systems with arbitrary time-delays. Systems and Control Letters, 2008, 57, 670-679.	2.3	18
189	Distributed nonlinear control algorithms for network consensus. Automatica, 2008, 44, 2375-2381.	5.0	235
190	Energy dissipating hybrid control for impulsive dynamical systems. Nonlinear Analysis: Theory, Methods & Applications, 2008, 69, 3232-3248.	1.1	14
191	Finite-time stabilization of nonlinear impulsive dynamical systems. Nonlinear Analysis: Hybrid Systems, 2008, 2, 832-845.	3.5	115
192	Neural network hybrid adaptive control for nonlinear uncertain impulsive dynamical systems. Nonlinear Analysis: Hybrid Systems, 2008, 2, 862-874.	3.5	21
193	Reversibility and PoincarÉ Recurrence in Linear Dynamical Systems. IEEE Transactions on Automatic Control, 2008, 53, 2160-2165.	5.7	3
194	Finite-Time Semistability and Consensus for Nonlinear Dynamical Networks. IEEE Transactions on Automatic Control, 2008, 53, 1887-1900.	5.7	274
195	Finite-time stability for time-varying nonlinear dynamical systems. , 2008, , .		71
196	Semistability theory for differential inclusions with applications to consensus problems in dynamical networks with switching topology. , 2008, , .		18
197	On robust control algorithms for nonlinear network consensus protocols. , 2008, , .		4
198	A new neuroadaptive control architecture for nonlinear uncertain dynamical systems: Beyond σ- and e-modifications. , 2008, , .		13

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199	Direct adaptive control for a mutli-compartmental model of a pressure-limited respirator and lung mechanics system. , 2008, , .		1
200	Neuroadaptive output feedback control for automated anesthesia with noisy EEG measurements. , 2008, , .		2
201	Semistability for time-varying discontinuous dynamical systems with application to agreement problems in switching networks. , 2008, , .		12
202	Continuous and Hybrid Distributed Control for Multiagent Coordination: Consensus, Flocking, and Cyclic Pursuit. Proceedings of the American Control Conference, 2007, , .	0.0	12
203	Limit Cycle Stability Analysis of a Multi-Compartment Model for a Pressure-Limited Respirator and Lung Mechanics System. Proceedings of the American Control Conference, 2007, , .	0.0	5
204	Finite-Time Semistability Theory with Applications to Consensus Protocols in Dynamical Networks. Proceedings of the American Control Conference, 2007, , .	0.0	20
205	H2 Suboptimal Estimation and Control for Nonnegative Dynamical Systems. Proceedings of the American Control Conference, 2007, , .	0.0	0
206	Finite-Time Stabilization of Nonlinear Dynamical Systems via Control Vector Lyapunov Functions. Proceedings of the American Control Conference, 2007, , .	0.0	1
207	Adaptive Control for Compartmental Dynamical Systems with Disturbance Rejection Guarantees. Proceedings of the American Control Conference, 2007, , .	0.0	1
208	Lyapunov and converse Lyapunov theorems for semistability. , 2007, , .		2
209	H$_2$ optimal semistable stabilization for linear discrete-time dynamical systems with applications to network consensus. , 2007, , .		18
210	Time-Domain Sufficient Conditions for Stability Analysis of Linear Neutral Time-Delay Systems. Proceedings of the American Control Conference, 2007, , .	0.0	1
211	Energy- and Entropy-Based Stabilization for Lossless Dynamical Systems via Hybrid Controllers. IEEE Transactions on Automatic Control, 2007, 52, 1604-1614.	5.7	43
212	H$_2$ optimal semistable control for linear dynamical systems: An LMI approach. , 2007, , .		11
213	Neural Network Adaptive Output Feedback Control for Intensive Care Unit Sedation and Intraoperative Anesthesia. IEEE Transactions on Neural Networks, 2007, 18, 1049-1066.	4.2	69
214	Finite-time stabilization of nonlinear impulsive dynamical systems. , 2007, , .		6
215	Control vector Lyapunov functions for large-scale impulsive dynamical systems. Nonlinear Analysis: Hybrid Systems, 2007, 1, 223-243.	3.5	19
216	Hybrid decentralized maximum entropy control for large-scale dynamical systems. Nonlinear Analysis: Hybrid Systems, 2007, 1, 244-263.	3.5	12

#	Article	IF	Citations
217	DIRECT ADAPTIVE CONTROL FOR NONLINEAR MATRIX SECOND‐ORDER SYSTEMS WITH TIME‐VARYING AND SIGN‐INDEFINITE DAMPING AND STIFFNESS OPERATORS. Asian Journal of Control, 2007, 9, 11-19.	3.0	2
218	Direct Adaptive Control of Nonnegative and Compartmental Dynamical Systems with Time Delay. , 2007, , 291-316.		2
219	Adaptive control for nonlinear compartmental dynamical systems with applications to clinical pharmacology. Systems and Control Letters, 2006, 55, 62-70.	2.3	40
220	Stability Analysis of Nonlinear Dynamical Systems using Conley Index Theory. , 2006, , .		2
221	Control Vector Lyapunov Functions for Large-Scale Impulsive Dynamical Systems. , 2006, , .		2
222	On System State Equipartitioning and Semistability in Network Dynamical Systems with Arbitrary Time-Delays. , 2006, , .		5
223	Impulsive and Hybrid Dynamical Systems. , 2006, , .		427
224	Thermodynamic modeling, energy equipartition, and nonconservation of entropy for discrete-time dynamical systems. Advances in Difference Equations, 2005, 2005, 248040.	3.5	17
225	Optimal disturbance rejection control for nonlinear impulsive dynamical systems. Nonlinear Analysis: Theory, Methods & Applications, 2005, 62, 1466-1489.	1.1	13
226	Stability and dissipativity theory for nonnegative dynamical systems: a unified analysis framework for biological and physiological systems. Nonlinear Analysis: Real World Applications, 2005, 6, 35-65.	1.7	161
227	Hybrid adaptive control for non-linear uncertain impulsive dynamical systems. International Journal of Adaptive Control and Signal Processing, 2005, 19, 445-469.	4.1	10
228	A dissipative dynamical systems approach to stability analysis of time delay systems. International Journal of Robust and Nonlinear Control, 2005, 15, 25-33.	3.7	18
229	Adaptive Control of Mammillary Drug Delivery Systems with Actuator Amplitude Constraints and System Time Delays. European Journal of Control, 2005, 11, 586-600.	2.6	20
230	Passivity-Based Neural Network Adaptive Output Feedback Control for Nonlinear Nonnegative Dynamical Systems. IEEE Transactions on Neural Networks, 2005, 16, 387-398.	4.2	49
231	Neural Network Adaptive Control for Nonlinear Nonnegative Dynamical Systems. IEEE Transactions on Neural Networks, 2005, 16, 399-413.	4.2	31
232	Vector dissipativity theory for large-scale impulsive dynamical systems. Mathematical Problems in Engineering, 2004, 2004, 225-262.	1.1	9
233	Optimal fixed-structure control for linear non-negative dynamical systems. International Journal of Robust and Nonlinear Control, 2004, 14, 487-511.	3.7	12
234	Stability theory for nonnegative and compartmental dynamical systems with time delay. Systems and Control Letters, 2004, 51, 355-361.	2.3	254

#	Article	IF	Citations
235	Adaptive control for nonlinear nonnegative dynamical systems. Automatica, 2004, 40, 1637-1642.	5.0	5
236	A Lyapunov-based adaptive control framework for discrete-time non-linear systems with exogenous disturbances. International Journal of Control, 2004, 77, 250-263.	1.9	46
237	Vector dissipativity theory and stability of feedback interconnections for large-scale non-linear dynamical systems. International Journal of Control, 2004, 77, 907-919.	1.9	37
238	Adaptive control for non-negative and compartmental dynamical systems with applications to general anesthesia. International Journal of Adaptive Control and Signal Processing, 2003, 17, 209-235.	4.1	81
239	Energy-based control for hybrid port-controlled Hamiltonian systems. Automatica, 2003, 39, 1425-1435.	5.0	36
240	Direct adaptive control for nonlinear matrix second-order dynamical systems with state-dependent uncertainty. Systems and Control Letters, 2003, 48, 53-67.	2.3	6
241	An invariance principle for nonlinear hybrid and impulsive dynamical systems. Nonlinear Analysis: Theory, Methods & Applications, 2003, 53, 527-550.	1.1	89
242	Robust adaptive control for nonlinear uncertain systems. Automatica, 2003, 39, 551-556.	5.0	62
243	Limit cycle analysis of the verge and foliot clock escapement using impulsive differential equations and Poincaré maps. International Journal of Control, 2003, 76, 1685-1698.	1.9	36
244	Stability and dissipativity theory for discrete-time non-negative and compartmental dynamical systems. International Journal of Control, 2003, 76, 1845-1861.	1.9	44
245	Exponentially dissipative nonlinear dynamical systems: a nonlinear extension of strict positive realness. Mathematical Problems in Engineering, 2003, 2003, 25-45.	1.1	41
246	Nonlinear Adaptive Tracking Of Surface Vessels With Exogenous Disturbances. Asian Journal of Control, 2003, 5, 88-103.	3.0	5
247	Hybrid nonnegative and computational dynamical systems. Mathematical Problems in Engineering, 2002, 8, 493-515.	1.1	19
248	Direct adaptive control for non-linear uncertain systems with exogenous disturbances. International Journal of Adaptive Control and Signal Processing, 2002, 16, 151-172.	4.1	25
249	Non-linear impulsive dynamical systems. Part I: Stability and dissipativity. International Journal of Control, 2001, 74, 1631-1658.	1.9	107
250	Non-linear impulsive dynamical systems. Part II: Stability of feedback interconnections and optimality. International Journal of Control, 2001, 74, 1659-1677.	1.9	53
251	Inverse optimal adaptive control for non-linear uncertain systems with exogenous disturbances. International Journal of Adaptive Control and Signal Processing, 2000, 14, 1-38.	4.1	10
252	Stable ?2-optimal controller synthesis. Optimal Control Applications and Methods, 2000, 21, 107-124.	2.1	2

#	Article	IF	Citations
253	Robust fixed-structure controller synthesis using the implicit small-gain bound. Journal of the Franklin Institute, 2000, 337, 85-96.	3.4	3
254	Stability margins of nonlinear optimal regulators with nonquadratic performance criteria involving cross-weighting terms. Systems and Control Letters, 2000, 39, 71-78.	2.3	10
255	Induced Convolution Operator Norms of Linear Dynamical Systems. Mathematics of Control, Signals, and Systems, 2000, 13, 216-239.	2.3	38
256	Nonlinear robust hierarchical control for nonlinear uncertain systems. Mathematical Problems in Engineering, 2000, 5, 499-542.	1.1	2
257	Resetting Virtual Absorbers for Vibration Control. JVC/Journal of Vibration and Control, 2000, 6, 61-83.	2.6	59
258	Fixed-structure controller synthesis for systems with input nonlinearities and time delay. International Journal of Systems Science, 2000, 31, 1593-1599.	5.5	0
259	Stabilization of linear systems with simultaneous state, actuation, and measurement delays. International Journal of Control, 1999, 72, 1619-1629.	1.9	10
260	Generalized Lyapunov and invariant set theorems for nonlinear dynamical systems. Systems and Control Letters, 1999, 38, 289-295.	2.3	24
261	Nonlinear controllers for nonlinear systems with input nonlinearities. Journal of the Franklin Institute, 1999, 336, 649-664.	3.4	7
262	State space modeling and robust reduced-order control of combustion instabilities. Journal of the Franklin Institute, 1999, 336, 1283-1307.	3.4	3
263	H2-optimal synthesis of controllers with relative degree two. Automatica, 1999, 35, 1169-1173.	5.0	2
264	Optimal discrete-time control for non-linear cascade systems. Journal of the Franklin Institute, 1998, 335, 827-839.	3.4	41
265	Nonlinear fixed-order dynamic compensation for passive systems. International Journal of Robust and Nonlinear Control, 1998, 8, 349-365.	3.7	8
266	Robust controller synthesis for systems with input nonlinearities: a trade-off between gain variation and parametric uncertainty. International Journal of Robust and Nonlinear Control, 1998, 8, 567-583.	3.7	0
267	A unification between nonlinear-nonquadratic optimal control and integrator backstepping. International Journal of Robust and Nonlinear Control, 1998, 8, 879-906.	3.7	5
268	Robust nonlinear feedback control for uncertain linear systems with nonquadratic performance criteria. Systems and Control Letters, 1998, 33, 327-338.	2.3	16
269	H 2, Mixed H2/Hâˇž and H2/L1 Optimally Tuned Passive Isolators and Absorbers. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 1998, 120, 282-287.	1.6	4
270	Active Suspension Control to Improve Vehicle Ride and Handling. Vehicle System Dynamics, 1997, 28, 1-24.	3.7	63

#	ARTICLE	IF	CITATIONS
271	Optimal nonlinear disturbance rejection control for nonlinear cascade systems. International Journal of Control, 1997, 68, 997-1018.	1.9	5
272	Robust nonlinear-nonquadratic feedback control via parameterdependent Lyapunov functions. International Journal of Control, 1997, 66, 843-861.	1.9	11
273	An implicit small gain condition and an upper bound for the real structured singular value. Systems and Control Letters, 1997, 29, 197-205.	2.3	9
274	PROBABILITY-ONE HOMOTOPY ALGORITHMS FOR ROBUST CONTROLLER SYNTHESIS WITH FIXED-STRUCTURE MULTIPLIERS. International Journal of Robust and Nonlinear Control, 1997, 7, 165-185.	3.7	17
275	Guaranteed domains of attraction for multivariable Lurç systems via open Lyapunov surfaces. International Journal of Robust and Nonlinear Control, 1997, 7, 935-949.	3.7	22
276	Fixed-architecture controller synthesis for systems with input-output time-varying nonlinearities. International Journal of Robust and Nonlinear Control, 1997, 7, 675-710.	3.7	40
277	Structured singular value controller synthesis using constant D-scales without D-K iteration. International Journal of Control, 1996, 63, 813-830.	1.9	11
278	Discrete-time mixed-normH_2/H_∞ controller synthesis. Optimal Control Applications and Methods, 1996, 17, 107-121.	2.1	13
279	Discrete-time nonlinear analysis and feedback control with nonquadratic performance criteria. Journal of the Franklin Institute, 1996, 333, 849-860.	3.4	12
280	Complex structured singular value analysis using fixed-structure dynamicD-scales. Mathematical Modelling of Systems, 1996, 2, 299-318.	0.7	2
281	Generalized mixed-μ bounds for real and complex multiple-block uncertainty with internal matrix structure. International Journal of Control, 1996, 64, 789-806.	1.9	32
282	A popov criterion for uncertain linear multivariable systems. Automatica, 1995, 31, 1061-1064.	5.0	27
283	Discrete-time extensions of mixed-μ bounds to monotonic and odd monotonic nonlinearities. International Journal of Control, 1995, 61, 423-441.	1.9	15
284	Applications of Popov controller synthesis to benchmark problems with real parameter uncertainty. Journal of Guidance, Control, and Dynamics, 1994, 17, 759-768.	2.8	22
285	Extensions of mixed-μ bounds to monotonic and odd monotonic nonlinearities using absolute stability theory. International Journal of Control, 1994, 60, 905-951.	1.9	65
286	Explicit construction of quadratic lyapunov functions for the small gain, positivity, circle, and popov theorems and their application to robust stability. part II: Discrete-time theory. International Journal of Robust and Nonlinear Control, 1994, 4, 249-265.	3.7	101
287	Explicit construction of quadratic Lyapunov functions for the small gain, positivity, circle, and popov theorems and their application to robust stability. Part I: Continuous-time theory. International Journal of Robust and Nonlinear Control, 1993, 3, 313-339.	3.7	193
288	Fixed Structure Computation of the Structured Singular Value. , 1993, , .		3

#	ARTICLE	IF	CITATIONS
289	Dissipative H2/hâˇž controller synthesis. , 1993, , .		12
290	Riccati Equation Approaches for Robust Stability and Performance Analysis Using the Small Gain, Positivity, and Popov Theorems. , 1993, , .		3
291	Robust Control Synthesis Examples with Real Parameter Uncertainty using the Popov Criterion. , 1993, , .		1
292	Nonlinear Controllers for Positive Real Systems with Arbitrary Input Nonlinearities. , 1993, , .		1
293	Generalized Fixed-Structure Optimality Conditions for H<inf>2</inf> Optimal Control. , 1993, , .		0
294	Off-axis absolute stability criteria and Î¼-bounds involving non-positive-real plant-dependent multipliers for robust stability and performance with locally slope-restricted monotonic nonlinearities. , 1993, , .		2
295	Optimality Conditions for Reduced-Order Modeling, Estimation and Control for Discrete-Time Linear Periodic Plants. , 1993, , .		1
296	Fixed-order sampled-data estimation. International Journal of Control, 1992, 55, 129-139.	1.9	10
297	The Parabola Test for Robust Stability and Performance: A Unified Extension of the Circle and Popov Criteria. , 1992, , .		1
298	Is there More to Robust Control Theory than Small Gain?. , 1992, , .		2
299	A Maximum Entropy-Type Lyapunov Function for Robust Stability and Performance Analysis. , 1992, , .		7
300	Parameter-Dependent Lyapunov Functions and the Discrete-Time Popov Criterion for Robust Analysis and Synthesis. , 1992, , .		0
301	Small Gain, Circle, Positivity, and Popov Analysis of a Maximaum Entropy Controller for a Benchmark Problem. , 1992, , .		3
302	Robust Stability and Performance Via Fixed-Order Dynamic Compensation: The Discrete-Time Case. , 1992, , .		0
303	Robust stabilization with positive real uncertainty: Beyond the small gain theorem. Systems and Control Letters, 1991, 17, 191-208.	2.3	123
304	On stable fullâ€order and reducedâ€order LQG controllers. Optimal Control Applications and Methods, 1991, 12, 163-172.	2.1	30
305	A New Approach to Disturbance Accomodation and Servocompensator Design. , 1991, , .		1
306	Robust stability and performance via fixed-order dynamic compensation with guaranteed cost bounds. Mathematics of Control, Signals, and Systems, 1990, 3, 139-163.	2.3	101

#	Article	IF	Citations
307	Generalized Riccati equations for the full- and reduced-order mixed-norm standard problem. Systems and Control Letters, 1990, 14, 185-197.	2.3	62
308	On the gap between and entropy performance measures in control design. Systems and Control Letters, 1990, 14, 113-120.	2.3	16
309	Robust Stability and Performance Analysis for State-Space Systems via Quadratic Lyapunov Bounds. SIAM Journal on Matrix Analysis and Applications, 1990, 11, 239-271.	1.4	89
310	Reginal Pole Placement via Optimal Static and Dynamic Output Feedback. , 1990, , .		1
311	Steady-state kalman filtering with an H_{∞} error bound. , 1989, , .		13
312	Steady-state Kalman filtering with an error bound. Systems and Control Letters, 1989, 12, 9-16.	2.3	175
313	A Riccati Equation Approach to the Singular LQG Problem. , 1989, , .		4
314	Complete solution to the nonsingular H_{∞} four block problem. , 1989, , .		2