Lixian Zhang

List of Publications by Citations

133 papers	10,146 citations	47 h-index	100 g-index
146 ext. papers	11,993 ext. citations	4.5 avg, IF	7 L-index

#	Paper	IF	Citations
133	Stability and Stabilization of Switched Linear Systems With Mode-Dependent Average Dwell Time. *IEEE Transactions on Automatic Control*, **2012**, 57, 1809-1815	5.9	707
132	. *IEEE Transactions on Industrial Informatics*, **2013**, 9, 403-416	11.9	695
131	Stability and stabilization of Markovian jump linear systems with partly unknown transition probabilities. *Automatica*, **2009**, 45, 463-468	5.7	610
130	Asynchronously switched control of switched linear systems with average dwell time. *Automatica*, **2010**, 46, 953-958	5.7	560
129	Stability of switched positive linear systems with average dwell time switching. *Automatica*, **2012**, 48, 1132-1137	5.7	456
128	Necessary and Sufficient Conditions for Analysis and Synthesis of Markov Jump Linear Systems With Incomplete Transition Descriptions. *IEEE Transactions on Automatic Control*, **2010**, 55, 1695-1701	5.9	384
127	Analysis and Synthesis of Markov Jump Linear Systems With Time-Varying Delays and Partially Known Transition Probabilities. *IEEE Transactions on Automatic Control*, **2008**, 53, 2458-2464	5.9	366
126	Mode-dependent H∞ Filtering for discrete-time Markovian jump linear systems with partly unknown transition probabilities. *Automatica*, **2009**, 45, 1462-1467	5.7	310
125	. *Automatica*, **2009**, 45, 2570-2576	5.7	268
124	Asynchronous Filtering of Discrete-Time Switched Linear Systems With Average Dwell Time. *IEEE Transactions on Circuits and Systems I: Regular Papers*, **2011**, 58, 1109-1118	3.9	250
123	. *IEEE Transactions on Circuits and Systems I: Regular Papers*, **2011**, 58, 2755-2764	3.9	235
122	Fault-Tolerant Sliding-Mode-Observer Synthesis of Markovian Jump Systems Using Quantized Measurements. *IEEE Transactions on Industrial Electronics*, **2015**, 62, 5910-5918	8.9	224
121	Robust extended dissipative control for sampled-data Markov jump systems. *International Journal of Control*, **2014**, 87, 1549-1564	1.5	196
120	Stability, ${l}_{2}$ -Gain and Asynchronous ${H}_{{infty}}$ Control of Discrete-Time Switched Systems With Average Dwell Time. *IEEE Transactions on Automatic Control*, **2009**, 54, 2192-2199	5.9	194
119	An Asynchronous Operation Approach to Event-Triggered Control for Fuzzy Markovian Jump Systems With General Switching Policies. *IEEE Transactions on Fuzzy Systems*, **2018**, 26, 6-18	8.3	191
118	Resilient Asynchronous H∞ Filtering for Markov Jump Neural Networks With Unideal Measurements and Multiplicative Noises. *IEEE Transactions on Cybernetics*, **2015**, 45, 2840-52	10.2	181
117	$l_{2}-l_{infty}$ Model Reduction for Switched LPV Systems With Average Dwell Time. *IEEE Transactions on Automatic Control*, **2008**, 53, 2443-2448	5.9	164

98	Robust Stabilization of a Wheeled Mobile Robot Using Model Predictive Control Based on Neurodynamics Optimization. *IEEE Transactions on Industrial Electronics*, **2017**, 64, 505-516	8.9	77
97	A sliding mode approach to robust stabilisation of Markovian jump linear time-delay systems with generally incomplete transition rates. *Nonlinear Analysis: Hybrid Systems*, **2015**, 17, 70-80	4.5	75
96	A novel Lyapunov function for a non-weightedL2 gain of asynchronously switched linear systems. *Automatica*, **2018**, 87, 310-317	5.7	74
95	Uniform Tube Based Stabilization of Switched Linear Systems With Mode-Dependent Persistent Dwell-Time. *IEEE Transactions on Automatic Control*, **2015**, 60, 2994-2999	5.9	67
94	Distributed State Estimation of Sensor-Network Systems Subject to Markovian Channel Switching With Application to a Chemical Process. *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, **2018**, 48, 864-874	7.3	67
93	Robust Control of Networked Systems With Variable Communication Capabilities and Application to a Semi-Active Suspension System. *IEEE/ASME Transactions on Mechatronics*, **2016**, 21, 2097-2107	5.5	67
92	Robust stability criterion for discrete-time uncertain Markovian jumping neural networks with defective statistics of modes transitions. *IEEE Transactions on Neural Networks*, **2011**, 22, 164-70		66
91	Fuzzy model-based predictive control of dissolved oxygen in activated sludge processes. *Neurocomputing*, **2014**, 136, 88-95	5.4	63
90	Stabilization of hidden semi-Markov jump systems: Emission probability approach. *Automatica*, **2019**, 101, 87-95	5.7	51
89	Improved Results on Asymptotic Stabilization for Stochastic Nonlinear Time-Delay Systems With Application to a Chemical Reactor System. *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, **2017**, 47, 195-204	7.3	50
88	Constrained model predictive control for time-varying delay systems: Application to an active car suspension. *International Journal of Control, Automation and Systems*, **2016**, 14, 51-58	2.9	49
87	Stability and Stabilization of a Class of Discrete-Time Fuzzy Systems With Semi-Markov Stochastic Uncertainties. *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, **2016**, 46, 1642-1653	7.3	48
86	H control for asynchronously switched linear parameter-varying systems with mode-dependent average dwell time. *IET Control Theory and Applications*, **2013**, 7, 673-683	2.5	46
85	Mode-identifying time estimation and switching-delay tolerant control for switched systems: An elementary time unit approach. *Automatica*, **2016**, 64, 174-181	5.7	44
84	H model reduction for discrete-time Markov jump linear systems with partially known transition probabilities. *International Journal of Control*, **2009**, 82, 343-351	1.5	44
83	Observed-Mode-Dependent State Estimation of Hidden Semi-Markov Jump Linear Systems. *IEEE Transactions on Automatic Control*, **2020**, 65, 442-449	5.9	43
82	Stability and stabilization of a class of stochastic switching systems with lower bound of sojourn time. *Automatica*, **2018**, 92, 18-28	5.7	42
81	H control of switched linear discrete-time systems with polytopic uncertainties. *Optimal Control Applications and Methods*, **2006**, 27, 273-291	1.7	41

80	Robust stability analysis of Markov jump standard genetic regulatory networks with mixed time delays and uncertainties. *Neurocomputing*, **2013**, 110, 44-50	5.4	40
79	control of a class of discrete-time Markov jump linear systems with piecewise-constant TPs subject to average dwell time switching. *Journal of the Franklin Institute*, **2012**, 349, 1989-2003	4	39
78	Extended finite-time H control for uncertain switched linear neutral systems with time-varying delays. *Neurocomputing*, **2015**, 152, 377-387	5.4	36
77	Formation control of impulsive networked autonomous underwater vehicles under fixed and switching topologies. *Neurocomputing*, **2015**, 147, 291-298	5.4	36
76	Semi-Markov Jump Linear Systems With Incomplete Sojourn and Transition Information: Analysis and Synthesis. *IEEE Transactions on Automatic Control*, **2020**, 65, 159-174	5.9	36
75	Asynchronous Filtering for Discrete-Time Fuzzy Affine Systems With Variable Quantization Density. *IEEE Transactions on Cybernetics*, **2017**, 47, 153-164	10.2	35
74	New results on robust finite-time boundedness of uncertain switched neural networks with time-varying delays. *Neurocomputing*, **2015**, 151, 522-530	5.4	35
73	Dependent model reduction for uncertain discrete-time switched linear systems with average dwell time. *International Journal of Control*, **2009**, 82, 378-388	1.5	35
72	Nonstationary H dynamic output feedback control for discrete-time Markov jump linear systems with actuator and sensor saturations. *International Journal of Robust and Nonlinear Control*, **2016**, 26, 1010-1025	3.6	34
71	H filtering for a class of switched linear parameter varying systems. *International Journal of Systems Science*, **2011**, 42, 781-788	2.3	33
70	Optimal Control of DC-DC Buck Converter via Linear Systems With Inaccessible Markovian Jumping Modes. *IEEE Transactions on Control Systems Technology*, **2016**, 24, 1820-1827	4.8	32
69	p-Times differentiable unbounded functions for robust control of uncertain switched nonlinear systems with tracking constraints. *International Journal of Robust and Nonlinear Control*, **2015**, 25, 2965-2983	3.6	32
68	Analysis and synthesis for networked control systems with uncertain rate of packet losses. *Journal of the Franklin Institute*, **2012**, 349, 2500-2514	4	32
67	Observer-Based Stabilization of Nonhomogeneous Semi-Markov Jump Linear Systems With Mode-Switching Delays. *IEEE Transactions on Automatic Control*, **2019**, 64, 2029-2036	5.9	31
66	Finite-time control for networked switched linear systems with an event-driven communication approach. *International Journal of Systems Science*, **2017**, 48, 236-246	2.3	30
65	Adaptive stabilization of impulsive switched linear time-delay systems: A piecewise dynamic gain approach. *Automatica*, **2019**, 103, 322-329	5.7	30
64	Passivity and passification for Markov jump genetic regulatory networks with time-varying delays. *Neurocomputing*, **2014**, 136, 321-326	5.4	29
63	Control Synthesis of Hidden Semi-Markov Uncertain Fuzzy Systems via Observations of Hidden Modes. *IEEE Transactions on Cybernetics*, **2020**, 50, 3709-3718	10.2	28

62	Stability analysis and stabilization of discrete-time non-homogeneous semi-Markov jump linear systems: A polytopic approach. *Automatica*, **2020**, 120, 109080	5.7	23
61	Analysis and synthesis for a class of stochastic switching systems against delayed mode switching: A framework of integrating mode weights. *Automatica*, **2019**, 99, 99-111	5.7	23
60	Fault Detection, Isolation, andTolerant Control of Vehicles using Soft Computing Methods. *IET Control Theory and Applications*, **2014**, 8, 655-657	2.5	21
59	. *Neurocomputing*, **2015**, 157, 306-314	5.4	21
58	State estimation via Markov switching-channel network and application to suspension systems. *IET Control Theory and Applications*, **2017**, 11, 411-419	2.5	18
57	Switched linear parameter-varying modeling and tracking control for flexible hypersonic vehicle. *Aerospace Science and Technology*, **2019**, 95, 105445	4.9	18
56	A common linear copositive Lyapunov function for switched positive linear systems with commutable subsystems. *International Journal of Systems Science*, **2013**, 44, 1994-2003	2.3	18
55	Model reduction of A class of Markov jump nonlinear systems with time-varying delays via projection approach. *Neurocomputing*, **2015**, 166, 436-446	5.4	17
54	Model reduction for a class of nonstationary Markov jump linear systems. *Journal of the Franklin Institute*, **2012**, 349, 2445-2460	4	17
53	Actor-Critic Reinforcement Learning for Control With Stability Guarantee. *IEEE Robotics and Automation Letters*, **2020**, 5, 6217-6224	4.2	17
52	Stabilization of non-homogeneous hidden semi-Markov Jump systems with limited sojourn-time information. *Automatica*, **2020**, 117, 108963	5.7	17
51	. *Neurocomputing*, **2015**, 165, 414-422	5.4	16
50	Reliable finite-time filtering for impulsive switched linear systems with sensor failures. *Signal Processing*, **2016**, 125, 134-144	4.4	16
49	. *IEEE Transactions on Automatic Control*, **2021**, 66, 2250-2256	5.9	16
48	A μ-dependent approach to H control of uncertain switched linear systems with average dwell time. *Optimal Control Applications and Methods*, **2011**, 32, 15-27	1.7	15
47	Fuzzy modeling approach to predictions of chemical oxygen demand in activated sludge processes. *Information Sciences*, **2013**, 235, 55-64	7.7	14
46	Control design for a hypersonic aircraft using a switched linear parameter-varying system approach. *Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering*, **2013**, 227, 85-95	1	13
45	Time-varying gain-scheduling -error mean square stabilisation of semi-Markov jump linear systems. *IET Control Theory and Applications*, **2016**, 10, 1215-1223	2.5	13

44	Switched Adaptive Control of Air Handling Units With Discrete and Saturated Actuators **2018**, 2, 417-422		12
43	. *Journal of the Franklin Institute*, **2016**, 353, 1358-1385	4	11
42	Stability and Stabilization of Discrete-Time Semi-Markov Jump Linear Systems via Semi-Markov Kernel Approach. *IEEE Transactions on Automatic Control*, **2015**, 1-1	5.9	11
41	Stabilisation of Markov jump linear systems subject to both state and mode detection delays. *IET Control Theory and Applications*, **2014**, 8, 260-266	2.5	11
40	Reinforcement learning control of constrained dynamic systems with uniformly ultimate boundedness stability guarantee. *Automatica*, **2021**, 129, 109689	5.7	11
39	Hybrid filter design of fault detection for networked linear systems with variable packet dropout rate. *IET Control Theory and Applications*, **2019**, 13, 1239-1245	2.5	10
38	Benefits of redundant channels in observer-based H control for discrete-time switched linear systems. *Science China Technological Sciences*, **2016**, 59, 55-62	3.5	9
37	Safe Reinforcement Learning With Stability Guarantee for Motion Planning of Autonomous Vehicles. *IEEE Transactions on Neural Networks and Learning Systems*, **2021**, 32, 5435-5444	10.3	9
36	H Fuzzy control of semi-Markov jump nonlinear systems under error mean square stability. *International Journal of Systems Science*, **2017**, 48, 2291-2299	2.3	8
35	Mode-mismatched estimator design for Markov jump genetic regulatory networks with random time delays. *Neurocomputing*, **2015**, 168, 1121-1131	5.4	8
34	Resilient model approximation for Markov jump time-delay systems via reduced model with hierarchical Markov chains. *International Journal of Systems Science*, **2016**, 47, 3496-3507	2.3	8
33	H model reduction of switched LPV systems via semi-time-varying reduced-order model. *Systems and Control Letters*, **2016**, 98, 25-32	2.4	7
32	Time-varying filter design for semi-Markov jump linear systems with intermittent transmission. *International Journal of Robust and Nonlinear Control*, **2017**, 27, 4035	3.6	6
31	Stability and Stabilization of Discrete-time Markov Jump Piecewise-affine Systems. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2014**, 47, 10475-10480		6
30	Fault detection for discrete-time Markov jump linear systems with partially known transition probabilities **2008**,		6
29	Nonsynchronized State Estimation for Fuzzy Markov Jump Affine Systems With Switching Region Partitions. *IEEE Transactions on Cybernetics*, **2020**, PP,	10.2	5
28	Stabilization of a class of fuzzy stochastic jump systems with partial information on jump and sojourn parameters. *Science China Technological Sciences*, **2021**, 64, 353-363	3.5	5
27	Autonomous and Adaptive Navigation for Terrestrial-Aerial Bimodal Vehicles. *IEEE Robotics and Automation Letters*, **2022**, 7, 3008-3015	4.2	4

No.	Title	IF	Cites
26	Tracking control of hybrid systems with state-triggered jumps and stochastic events and its application. *IET Control Theory and Applications*, **2017**, 11, 1024-1033	2.5	3
25	A BRL for A Class of Discrete-time Markov Jump Linear System with Piecewise-Constant TPs. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2011**, 44, 8699-8704		3
24	Discrete-time Markovian jump linear systems with partly unknown transition probabilities: H□ filtering problem **2008**,		3
23	Estimation for Fuzzy Semi-Markov Jump Systems With Indirectly Accessible Mode Information and Nonideal Data Transmission. *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, **2021**, 51, 4016-4027	7.7	3
22	Guaranteed performance control of switched linear systems: A differential-Riccati-equation-based approach. *Peer-to-Peer Networking and Applications*, **2019**, 12, 1810-1819	3.1	2
21	Control for discrete-time fuzzy Markov jump systems with mode-dependent antecedent parts **2014**,		2
20	Delay-dependent energy-to-peak filter design for stochastic systems with time delay: A delay partitioning approach **2009**,		2
19	Stability and stabilization of discrete-time semi-Markov jump linear systems with delay in controller mode switching **2016**,		2
18	Observation for Markov Jump Piecewise-Affine Systems With Admissible Region-Switching Paths. *IEEE Transactions on Automatic Control*, **2021**, 66, 4319-4326	5.9	2
17	Finite-time switched LPV control of quadrotors with guaranteed performance. *Journal of the Franklin Institute*, **2021**, 358, 7032-7054	4	2
16	Semi-Markov jump linear systems with bi-boundary sojourn time: Anti-modal-asynchrony control. *Automatica*, **2022**, 140, 110270	5.7	2
15	A New Approach to H □ Model Reduction for Positive Systems. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2014**, 47, 3809-3814		1
14	Network-Based Finite-time Sampled-data Observer Design for Switched Linear Systems. *IFAC-PapersOnLine*, **2015**, 48, 590-595	0.7	1
13	Reference tracking control of hypersonic vehicles using switched linear parameter-varying approach **2013**,		1
12	Model Reduction for Switched Linear Discrete-Time Systems with polytopic uncertainties and arbitrary switching. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2008**, 41, 7666-7671		1
11	Switched linear parameter-varying tracking control for quadrotors with large attitude angles and time-varying inertia. *Optimal Control Applications and Methods*, **2021**, 42, 1320-1336	1.7	1
10	A novel control approach for piecewise-affine systems with quantization in both measurement outputs and control inputs **2016**,		1
9	Synchronization Control With Adaptive Friction Compensation of Treadmill-Based Testing Apparatus for Wheeled Planetary Rover. *IEEE Transactions on Industrial Electronics*, **2021**, 1-1	8.9	1

LIST OF PUBLICATIONS

8	Stability and Control of Fuzzy Semi-Markov Jump Systems Under Unknown Semi-Markov Kernel. *IEEE Transactions on Fuzzy Systems*, **2021**, 1-1	8.3	1
7	Cyber-Physical Control. *Complexity*, **2018**, 2018, 1-2	1.6	1
6	Tube-based attitude control of rigid-bodies with magnitude-bounded disturbances. *Automatica*, **2021**, 133, 109845	5.7	1
5	New Results on Stabilization of Stochastic Switching Systems Subject to Partly Available Semi-Markov Kernel. *IFAC-PapersOnLine*, **2020**, 53, 1930-1935	0.7	0
4	Guaranteed cost control of rigid-body attitude systems under control saturation. *International Journal of Robust and Nonlinear Control*, **2021**, 31, 2393-2410	3.6	0
3	Time-Delay Switched Systems. *Studies in Systems, Decision and Control*, **2016**, 205-255	0.8	
2	Stabilization of Continuous-Time Markov Jump Linear Systems with Defective Statistics of Modes Transitions. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2011**, 44, 8693-8698		
1	Finite-time bounded control for quadrotors with extended dissipative performance using a switched system approach. *Transactions of the Institute of Measurement and Control*,014233122210851	1.8	