Jr-Shin Li

List of Publications by Year
in descending order

81	1,712	331670 21	289244 40
papers	citations	h-index	g-index

81	81	81	835
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Interpretable Design of Reservoir Computing Networks Using Realization Theory. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 6379-6389.	11.3	2
2	Controllability and Accessibility on Graphs for Bilinear Systems Over Lie Groups. IEEE Transactions on Automatic Control, 2023, 68, 2277-2292.	5.7	2
3	Model Learning and Knowledge Sharing for Cooperative Multiagent Systems in Stochastic Environment. IEEE Transactions on Cybernetics, 2021, 51, 5717-5727.	9.5	5
4	Pattern Formation in Spin Ensembles. , 2021, , 1691-1697.		0
5	A Nested Two-Stage Clustering Method for Structured Temporal Sequence Data. Knowledge and Information Systems, 2021, 63, 1627-1662.	3.2	1
6	On Numerical Examination of Uniform Ensemble Controllability for Linear Ensemble Systems. , 2021, , .		1
7	Optimization of periodic input waveforms for global entrainment of weakly forced limit-cycle oscillators. Nonlinear Dynamics, 2021, 105, 2247-2263.	5.2	7
8	On Numerical Examination of Uniform Ensemble Controllability for Linear Ensemble Systems. , 2021, 5, 1898-1903.		0
9	Ensemble Control on Lie Groups. SIAM Journal on Control and Optimization, 2021, 59, 3805-3827.	2.1	2
10	Combinatorics-Based Approaches to Controllability Characterization for Bilinear Systems. SIAM Journal on Control and Optimization, 2021, 59, 3574-3599.	2.1	1
11	Controllability of Sobolev-Type Linear Ensemble Systems. , 2021, , .		0
12	Graphical Characterizations for Structural Controllability of Drifted Bilinear Systems. , 2021, , .		0
13	Diffusion Histology Imaging Combining Diffusion Basis Spectrum Imaging (DBSI) and Machine Learning Improves Detection and Classification of Glioblastoma Pathology. Clinical Cancer Research, 2020, 26, 5388-5399.	7.0	18
14	Parallel residual projection: a new paradigm for solving linear inverse problems. Scientific Reports, 2020, 10, 12846.	3.3	1
15	On Separating Points for Ensemble Controllability. SIAM Journal on Control and Optimization, 2020, 58, 2740-2764.	2.1	7
16	Analyzing Controllability of Bilinear Systems on Symmetric Groups: Mapping Lie Brackets to Permutations. IEEE Transactions on Automatic Control, 2020, 65, 4895-4901.	5.7	7
17	Real-time Inference and Detection of Disruptive EEG Networks for Epileptic Seizures. Scientific Reports, 2020, 10, 8653.	3.3	42
18	Learning to Control Neurons using Aggregated Measurements. , 2020, , .		2

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19	Pattern Formation in Spin Ensembles. , 2020, , 1-7.		0
20	Dynamics reconstruction and classification via Koopman features. Data Mining and Knowledge Discovery, 2019, 33, 1710-1735.	3.7	2
21	Biophysically interpretable inference of single neuron dynamics. Journal of Computational Neuroscience, 2019, 47, 61-76.	1.0	2
22	A Phase Model Based Control of Periodic Deferrable Loads in Demand Response Programs. , 2018, , .		0
23	Optimal Control of Bilinear Ensembles with Free-Endpoint Constraints. , 2018, , .		0
24	On the Computation of Control Inputs for Linear Ensembles. , 2018, , .		2
25	Inferring dynamic topology for decoding spatiotemporal structures in complex heterogeneous networks. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 9300-9305.	7.1	36
26	Optimal Phase-to-Phase Control of Chemical Oscillations. Industrial & Engineering Chemistry Research, 2018, 57, 7764-7770.	3.7	4
27	On controllability of time-varying linear population systems with parameters in unbounded sets. Systems and Control Letters, 2018, 118, 94-100.	2.3	4
28	A phase model approach for thermostatically controlled load demand response. Applied Energy, 2018, 228, 667-680.	10.1	23
29	Free-endpoint optimal control of inhomogeneous bilinear ensemble systems. Automatica, 2018, 95, 306-315.	5.0	20
30	Fixed-Endpoint Optimal Control of Bilinear Ensemble Systems. SIAM Journal on Control and Optimization, 2017, 55, 3039-3065.	2.1	18
31	Exact broadband excitation of two-level systems by mapping spins to springs. Nature Communications, 2017, 8, 446.	12.8	19
32	Explicit Input Signal Design for Stable Linear Ensemble Systems * *This work was supported in part by the National Natural Science Foundation of China under the grant 61573044, the National Science Foundation under the awards ECCS-1509342 and CMMI-1462796, and the Air Force Office of Scientific Research under the award FA9550-17-1-0166.. IFAC-PapersOnLine, 2017, 50, 3051-3056.	0.9	2
33	Controllability of linear ensemble systems with constant drift and linear parameter variation. , 2017, , .		0
34	Computing controllability of systems on SO(n) over graphs. , 2017, , .		2
35	Phase-selective entrainment of nonlinear oscillator ensembles. Nature Communications, 2016, 7, 10788.	12.8	61
36	Control of ensemble systems on special orthogonal groups. , 2016, , .		5

#	Article	IF	Citations
37	An iterative method for computing optimal controls for bilinear quadratic tracking problems. , 2016, , .		3
38	On controllability of discrete-time linear ensemble systems with linear parameter variation. , 2016, , .		4
39	Ensemble Control of Time-Invariant Linear Systems with Linear Parameter Variation. IEEE Transactions on Automatic Control, 2016, 61, 2808-2820.	5.7	29
40	Uniform and selective excitations of spin ensembles with rf inhomogeneity. , 2015, , .		5
41	Optimal Control and Stochastic Synchronization of Phase Oscillators**This work was supported by the National Science Foundation under the award 1301148.. IFAC-PapersOnLine, 2015, 48, 83-88.	0.9	1
42	Fixed-endpoint minimum-energy control of bilinear ensemble systems. , 2015, , .		6
43	Minimum energy subharmonic synchronization of an uncertain nonlinear oscillator. , 2015, , .		0
44	Constrained charge-balanced minimum-power controls for spiking neuron oscillators. Systems and Control Letters, 2015, 75, 124-130.	2.3	18
45	Design of Charge-Balanced Time-Optimal Stimuli for Spiking Neuron Oscillators. Neural Computation, 2014, 26, 2223-2246.	2.2	14
46	Minimum-Time Quantum Transport With Bounded Trap Velocity. IEEE Transactions on Automatic Control, 2014, 59, 733-738.	5.7	17
47	Optimal Subharmonic Entrainment of Weakly Forced Nonlinear Oscillators. SIAM Journal on Applied Dynamical Systems, 2014, 13, 1654-1693.	1.6	15
48	Optimal Waveform for Fast Entrainment of Weakly Forced Nonlinear Oscillators. Physical Review Letters, 2013, 111, 024102.	7.8	68
49	Control and Synchronization of Neuron Ensembles. IEEE Transactions on Automatic Control, 2013, 58, 1919-1930.	5.7	67
50	Ensemble controllability of time-invariant linear systems. , 2013, , .		5
51	Optimal ensemble control of stochastic time-varying linear systems. Systems and Control Letters, 2013, 62, 1057-1064.	2.3	9
52	Optimal control of neurons using the homotopy perturbation method. , 2013, , .		2
53	Optimal ensemble control of stochastic linear systems. , 2013, , .		1
54	Optimal entrainment of neural oscillator ensembles. Journal of Neural Engineering, 2012, 9, 046015.	3.5	43

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55	Synthesis of optimal ensemble controls for linear systems using the singular value decomposition. , 2012, , .		17
56	Time-optimal adiabatic-like expansion of Bose-Einstein condensates. , 2012, , .		0
57	Optimal control in molecular-level gene manipulation. , 2012, , .		0
58	Optimal Control of Inhomogeneous Ensembles. IEEE Transactions on Automatic Control, 2012, 57, 2021-2032.	5.7	51
59	Charge-balanced time-optimal control for spiking neuron oscillators. , 2012, , .		2
60	Time-optimal frictionless atom cooling in harmonic traps. , 2012, , .		0
61	Ensemble Control of Finite-Dimensional Time-Varying Linear Systems. IEEE Transactions on Automatic Control, 2011, 56, 345-357.	5.7	94
62	Minimum-Time Frictionless Atom Cooling in Harmonic Traps. SIAM Journal on Control and Optimization, 2011, 49, 2440-2462.	2.1	30
63	A multidimensional pseudospectral method for optimal control of quantum ensembles. Journal of Chemical Physics, 2011, 134, 044128.	3.0	31
64	Optimal design of minimum-power stimuli for phase models of neuron oscillators. Physical Review E, 2011, 83, 061916.	2.1	54
65	Optimal trajectories for efficient atomic transport without final excitation. Physical Review A, 2011, 84, .	2.5	119
66	Constrained minimum-power control of spiking neuron oscillators. , 2011, , .		5
67	Optimal pulse design in quantum control: A unified computational method. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 1879-1884.	7.1	101
68	Optimal Asymptotic Entrainment of Phase-Reduced Oscillators. , 2011, , .		5
69	Control of a Network of Spiking Neurons. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 314-319.	0.4	9
70	Constrained minimum-energy optimal control of the dissipative Bloch equations. Systems and Control Letters, 2010, 59, 601-607.	2.3	10
71	Constrained Kalman filtering for IMRT optimization. , 2010, , .		0
72	Frictionless atom cooling in harmonic traps: A time-optimal approach. Physical Review A, 2010, 82, .	2.5	90

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73	Real-time dynamic Pricing for multiproduct models with time-dependent customer arrival rates. , 2009, , .		2
74	A new perspective on control of uncertain complex systems. , 2009, , .		5
75	Ensemble Control of Bloch Equations. IEEE Transactions on Automatic Control, 2009, 54, 528-536.	5.7	170
76	A pseudospectral method for optimal control of open quantum systems. Journal of Chemical Physics, 2009, 131, 164110.	3.0	31
77	Ensemble control of linear systems. , 2007, , .		7
78	Ensemble Controllability of the Bloch Equations. , 2006, , .		10
79	Control of inhomogeneous quantum ensembles. Physical Review A, 2006, 73, .	2.5	173
80	Sensitivity enhancement in NMR of macromolecules by application of optimal control theory. Journal of Biomolecular NMR, 2005, 32, 23-30.	2.8	35
81	Broadband relaxation-optimized polarization transfer in magnetic resonance. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 14742-14747.	7.1	56