Mihailo R JovanoviÄ

List of Publications by Year
in descending order

162 papers	4,857 citations	172207 29 h-index	118652 62 g-index
163 all docs	163 docs citations	163 times ranked	2354 citing authors

#	Article	IF	Citations
1	Sparsity-promoting dynamic mode decomposition. Physics of Fluids, 2014, 26, .	1.6	595
2	Design of Optimal Sparse Feedback Gains via the Alternating Direction Method of Multipliers. IEEE Transactions on Automatic Control, 2013, 58, 2426-2431.	3.6	351
3	Componentwise energy amplification in channel flows. Journal of Fluid Mechanics, 2005, 534, 145-183.	1.4	338
4	Coherence in Large-Scale Networks: Dimension-Dependent Limitations of Local Feedback. IEEE Transactions on Automatic Control, 2012, 57, 2235-2249.	3.6	327
5	Sparsity-Promoting Optimal Wide-Area Control of Power Networks. IEEE Transactions on Power Systems, 2014, 29, 2281-2291.	4.6	179
6	Optimal Control of Vehicular Formations With Nearest Neighbor Interactions. IEEE Transactions on Automatic Control, 2012, 57, 2203-2218.	3.6	150
7	Augmented Lagrangian Approach to Design of Structured Optimal State Feedback Gains. IEEE Transactions on Automatic Control, 2011, 56, 2923-2929.	3.6	146
8	Input-output analysis of high-speed axisymmetric isothermal jet noise. Physics of Fluids, 2016, 28, .	1.6	109
9	Algorithms for Leader Selection in Stochastically Forced Consensus Networks. IEEE Transactions on Automatic Control, 2014, 59, 1789-1802.	3.6	106
10	Colour of turbulence. Journal of Fluid Mechanics, 2017, 812, 636-680.	1.4	103
11	Sparsity-promoting optimal control for a class of distributed systems. , 2011, , .		94
12	An ADMM algorithm for optimal sensor and actuator selection. , 2014, , .		92
13	Model-based design of transverse wall oscillations for turbulent drag reduction. Journal of Fluid Mechanics, 2012, 707, 205-240.	1.4	91
14	Input-Output Analysis and Decentralized Optimal Control of Inter-Area Oscillations in Power Systems. IEEE Transactions on Power Systems, 2016, 31, 2434-2444.	4.6	90
15	Design of Optimal Sparse Interconnection Graphs for Synchronization of Oscillator Networks. IEEE Transactions on Automatic Control, 2014, 59, 2457-2462.	3.6	74
16	The Proximal Augmented Lagrangian Method for Nonsmooth Composite Optimization. IEEE Transactions on Automatic Control, 2019, 64, 2861-2868.	3.6	74
17	Reattachment streaks in hypersonic compression ramp flow: an inputâ€“output analysis. Journal of Fluid Mechanics, 2019, 880, 113-135.	1.4	71
18	From Bypass Transition to Flow Control and Data-Driven Turbulence Modeling: An Inputâ€“Output Viewpoint. Annual Review of Fluid Mechanics, 2021, 53, 311-345.	10.8	70

#	Article	IF	Citations
19	Controlling the onset of turbulence by streamwise travelling waves. Part 1. Receptivity analysis. Journal of Fluid Mechanics, 2010, 663, 70-99.	1.4	65
20	Controller architectures: Tradeoffs between performance and structure. European Journal of Control, 2016, 30, 76-91.	1.6	64
21	Simulation and stability analysis of oblique shock-wave/boundary-layer interactions at Mach 5.92. Physical Review Fluids, 2018, 3, .	1.0	54
22	Controlling the onset of turbulence by streamwise travelling waves. Part 2. Direct numerical simulation. Journal of Fluid Mechanics, 2010, 663, 100-119.	1.4	52
23	Transient growth without inertia. Physics of Fluids, 2010, 22, .	1.6	52
24	Energy amplification in channel flows of viscoelastic fluids. Journal of Fluid Mechanics, 2008, 601, 407-424.	1.4	50
25	Self-sustaining turbulence in a restricted nonlinear model of plane Couette flow. Physics of Fluids, 2014, 26, 105112.	1.6	48
26	Nonmodal amplification of stochastic disturbances in strongly elastic channel flows. Journal of Non-Newtonian Fluid Mechanics, 2011, 166, 755-778.	1.0	46
27	On the optimal design of structured feedback gains for interconnected systems. , 2009, , .		42
28	Algorithms for leader selection in large dynamical networks: Noise-free leaders. , 2011, , .		42
29	Algorithms for leader selection in large dynamical networks: Noise-corrupted leaders. , 2011, , .		41
30	On the design of optimal structured and sparse feedback gains via sequential convex programming. , 2014, , .		40
31	A Passivity-Based Approach to Stability of Spatially Distributed Systems With a Cyclic Interconnection Structure. IEEE Transactions on Automatic Control, 2008, 53, 75-86.	3.6	38
32	Turbulence suppression in channel flows by small amplitude transverse wall oscillations. Physics of Fluids, 2008, 20, .	1.6	38
33	Effect of topological dimension on rigidity of vehicle formations: Fundamental limitations of local feedback. , 2008, , .		35
34	Model-based design of riblets for turbulent drag reduction. Journal of Fluid Mechanics, 2021, 906, .	1.4	35
35	Frequency responses of streamwise-constant perturbations in channel flows of Oldroyd-B fluids. Journal of Fluid Mechanics, 2009, 625, 411-434.	1.4	31
36	Understanding viscoelastic flow instabilities: Oldroyd-B and beyond. Journal of Non-Newtonian Fluid Mechanics, 2022, 302, 104742.	1.0	31

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37	Worst-case amplification of disturbances in inertialess Couette flow of viscoelastic fluids. Journal of Fluid Mechanics, 2013, 723, 232-263.	1.4	30
38	Stochastic receptivity analysis of boundary layer flow. Physical Review Fluids, 2019, 4, .	1.0	30
39	Convergence and Sample Complexity of Gradient Methods for the Model-Free Linearâ€“Quadratic Regulator Problem. IEEE Transactions on Automatic Control, 2022, 67, 2435-2450.	3.6	29
40	Sparse and optimal wide-area damping control in power networks. , 2013, , .		27
41	Frequency Analysis and Norms of Distributed Spatially Periodic Systems. IEEE Transactions on Automatic Control, 2008, 53, 2266-2279.	3.6	26
42	Sparse feedback synthesis via the alternating direction method of multipliers. , 2012, , .		25
43	Topology identification of undirected consensus networks via sparse inverse covariance estimation. , 2016, , .		25
44	Global exponential convergence of gradient methods over the nonconvex landscape of the linear quadratic regulator. , 2019, , .		24
45	On the Linear Convergence of Random Search for Discrete-Time LQR. , 2021, 5, 989-994.		24
46	Design of optimal controllers for spatially invariant systems with finite communication speed. Automatica, 2011, 47, 880-889.	3.0	22
47	Topology Design for Stochastically Forced Consensus Networks. IEEE Transactions on Control of Network Systems, 2018, 5, 1075-1086.	2.4	21
48	Proximal Algorithms for Large-Scale Statistical Modeling and Sensor/Actuator Selection. IEEE Transactions on Automatic Control, 2020, 65, 3441-3456.	3.6	21
49	Identification of sparse communication graphs in consensus networks. , 2012, , .		20
50	Low-Complexity Modeling of Partially Available Second-Order Statistics: Theory and an Efficient Matrix Completion Algorithm. IEEE Transactions on Automatic Control, 2017, 62, 1368-1383.	3.6	20
51	Sparsity-promoting optimal control of consensus and synchronization networks. , 2014, , .		19
52	Robustness of Accelerated First-Order Algorithms for Strongly Convex Optimization Problems. IEEE Transactions on Automatic Control, 2021, 66, 2480-2495.	3.6	19
53	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si10.gif" display="inline" overflow="scroll"><mml:msub><mml:mrow><mml:mi mathvariant="script">H</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:math> norm of linear time-periodic systems: A perturbation analysis. Automatica, 2008, 44, 2090-2098.	3.0	18
54	Input-Output Analysis of Shock Boundary Layer Interaction. , 2018, , .		18

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55	Proximal gradient flow and Douglasâ€“Rachford splitting dynamics: Global exponential stability via integral quadratic constraints. Automatica, 2021, 123, 109311.	3.0	17
56	On the peaking phenomenon in the control of vehicular platoons. Systems and Control Letters, 2008, 57, 528-537.	1.3	16
57	Sparsity-promoting optimal control of systems with symmetries, consensus and synchronization networks. Systems and Control Letters, 2017, 103, 1-8.	1.3	16
58	Synchronization of diffusively-coupled limit cycle oscillators. Automatica, 2013, 49, 3613-3622.	3.0	15
59	Least-Squares Approximation of Structured Covariances. IEEE Transactions on Automatic Control, 2009, 54, 1643-1648.	3.6	14
60	On the optimality of localised distributed controllers. International Journal of Systems, Control and Communications, 2010, 2, 82.	0.2	14
61	On the optimal dissemination of information in social networks. , 2012, , .		14
62	An interior point method for growing connected resistive networks. , 2015, , .		14
63	On identifying sparse representations of consensus networks. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 305-310.	0.4	13
64	Global exponential stability of primal-dual gradient flow dynamics based on the proximal augmented Lagrangian. , 2019, , .		13
65	Structured Decentralized Control of Positive Systems With Applications to Combination Drug Therapy and Leader Selection in Directed Networks. IEEE Transactions on Control of Network Systems, 2019, 6, 352-362.	2.4	13
66	A formula for frequency responses of distributed systems with one spatial variable. Systems and Control Letters, 2006, 55, 27-37.	1.3	12
67	Perturbation of system dynamics and the covariance completion problem. , 2016, , .		12
68	A primal-dual laplacian gradient flow dynamics for distributed resource allocation problems. , 2018, , .		12
69	Architecture Induced by Distributed Backstepping Design. IEEE Transactions on Automatic Control, 2007, 52, 108-113.	3.6	11
70	Optimal Sensor Selection via Proximal Optimization Algorithms. , 2018, , .		11
71	On optimal link creation for facilitation of consensus in social networks. , 2014, , .		10
72	Alternating direction optimization algorithms for covariance completion problems. , 2015, , .		10

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73	Optimal spatial growth of streaks in oblique shock/boundary layer interaction. , 2017, , .		10
74	Modeling mode interactions in boundary layer flows via the parabolized Floquet equations. Physical Review Fluids, 2019, 4, .	1.0	10
75	Transient growth analysis of oblique shock-wave/boundary-layer interactions at Mach 5.92. Physical Review Fluids, 2020, 5, .	1.0	10
76	Topology identification and design of distributed integral action in power networks. , 2016, , .		9
77	A method of multipliers algorithm for sparsity-promoting optimal control. , 2016, , .		9
78	On the optimal synchronization of oscillator networks via sparse interconnection graphs. , 2012, , .		8
79	State covariances and the matrix completion problem. , 2013, , .		8
80	Sparsity-promoting optimal control of spatially-invariant systems. , 2014, , .		8
81	Convex synthesis of symmetric modifications to linear systems. , 2015, , .		8
82	On the convexity of a class of structured optimal control problems for positive systems. , 2016, , .		8
83	Sparsity-promoting dynamic mode decomposition for systems with inputs. , 2016, , .		8
84	Variance Amplification of Accelerated First-Order Algorithms for Strongly Convex Quadratic Optimization Problems. , 2018, , .		8
85	Amplification of localized body forces in channel flows of viscoelastic fluids. Journal of Non-Newtonian Fluid Mechanics, 2018, 260, 40-53.	1.0	8
86	Remarks on the stability of spatially distributed systems with a cyclic interconnection structure. Proceedings of the American Control Conference, 2007, , .	0.0	7
87	Performance of leader-follower networks in directed trees and lattices. , 2012, , .		7
88	An ADMM algorithm for matrix completion of partially known state covariances. , 2013, , .		7
89	Completion of partially known turbulent flow statistics. , 2014, , .		7
90	Decentralized optimal control of inter-area oscillations in bulk power systems. , 2015, , .		7

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91	Edge addition in directed consensus networks. , 2017, , .		7
92	Distributed design of optimal structured feedback gains. , 2017, , .		7
93	An Exponentially Convergent Primal-Dual Algorithm for Nonsmooth Composite Minimization. , 2018, , .		7
94	On the state-space design of optimal controllers for distributed systems with finite communication speed. , 2008, , .		6
95	Damping mechanisms in dynamic mode atomic force microscopy applications. , 2009, , .		6
96	On new characterizations of social influence in social networks. , 2013, , .		6
97	Sparse quadratic regulator. , 2013, , .		6
98	The use of the r* heuristic in covariance completion problems. , 2016, , .		6
99	Interaction of an oblique shock with a transitional Mach 5.92 boundary layer. , 2016, , .		6
100	Study of Trip-Induced Hypersonic Boundary Layer Transition. , 2017, , .		6
101	On the Exponential Convergence Rate of Proximal Gradient Flow Algorithms. , 2018, , .		6
102	Performance of noisy Nesterov's accelerated method for strongly convex optimization problems. , 2019, , .		6
103	Localized stress amplification in inertialess channel flows of viscoelastic fluids. Journal of Non-Newtonian Fluid Mechanics, 2021, 291, 104514.	1.0	6
104	On the lack of gradient domination for linear quadratic Gaussian problems with incomplete state information. , 2021, , .		6
105	Transition control using an array of streamwise vortices. , 2006, , .		5
106	On the dual decomposition of linear quadratic optimal control problems for vehicular formations. , 2010, , .		5
107	Computation of frequency responses for linear time-invariant PDEs on a compact interval. Journal of Computational Physics, 2013, 250, 246-269.	1.9	5
108	Sparsity-promoting optimal control of systems with invariances and symmetries. IFAC-PapersOnLine, 2016, 49, 636-641.	0.5	5

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109	Distributed proximal augmented Lagrangian method for nonsmooth composite optimization. , 2018, , .		5
110	Random search for learning the linear quadratic regulator. , 2020, , .		5
111	A Second Order Primal-Dual Method for Nonsmooth Convex Composite Optimization. IEEE Transactions on Automatic Control, 2022, 67, 4061-4076.	3.6	5
112	Computation of the frequency responses for distributed systems with one spatial variable. , 2011, , .		4
113	Synchronization of limit cycle oscillations in diffusively-coupled systems. , 2013, , .		4
114	On the properties of optimal weak links in consensus networks. , 2014, , .		4
115	Convex reformulation of a robust optimal control problem for a class of positive systems. , 2016, , .		4
116	Leader selection in directed networks. , 2016, , .		4
117	The effect of sponge layers on global stability analysis of Blasius boundary layer flow. , 2017, , .		4
118	A second order primal-dual algorithm for nonsmooth convex composite optimization. , 2017, , .		4
119	On the optimal localized feedback design for multi-vehicle systems. , 2010, , .		3
120	A frequency domain analysis of compressible linearized Navier-Stokes equations in a hypersonic compression ramp flow. , 2020, , .		3
121	Well-conditioned ultraspherical and spectral integration methods for resolvent analysis of channel flows of Newtonian and viscoelastic fluids. Journal of Computational Physics, 2021, 439, 110241.	1.9	3
122	Transient Growth of Accelerated Optimization Algorithms. IEEE Transactions on Automatic Control, 2023, 68, 1823-1830.	3.6	3
123	On using the streamwise traveling waves for variance suppression in channel flows. Proceedings of the American Control Conference, 2007, , .	0.0	2
124	Model-based analysis of polymer drag reduction in a turbulent channel flow. , 2013, , .		2
125	Design of optimal coupling gains for synchronization of nonlinear oscillators. , 2015, , .		2
126	Customized algorithms for growing connected resistive networks. IFAC-PapersOnLine, 2016, 49, 968-973.	0.5	2

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127	Low-complexity stochastic modeling of spatially-evolving flows. , 2017, , .		2
128	State and noise covariance estimation in power grids using limited nodal PMUs. , 2017, , .		2
129	On the stability of gradient flow dynamics for a rank-one matrix approximation problem. , 2018, , .		2
130	Transient growth of accelerated first-order methods. , 2020, , .		2
131	Computing Stabilizing Feedback Gains via a Model-Free Policy Gradient Method. , 2023, 7, 407-412.		2
132	Synthesis of H<inf>2</inf> optimal static structured controllers: Primal and dual formulations. , 2009, , .		1
133	Variance amplification in channel flows of strongly elastic polymer solutions. , 2009, , .		1
134	Preventing transition to turbulence using streamwise traveling waves: direct numerical simulations. , 2010, , .		1
135	On the optimal localized feedback design for vehicular platoons. , 2010, , .		1
136	Preventing transition to turbulence using streamwise traveling waves: theoretical analysis. , 2010, , .		1
137	Worst-case amplification of disturbances in inertialess flows of viscoelastic fluids. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 14458-14463.	0.4	1
138	Input-output analysis of heated axisymmetric turbulent jets. , 2016, , .		1
139	Topology Identification via Growing a Chow-Liu Tree Network. , 2018, , .		1
140	Drag reduction in turbulent channel flow over spatially periodic surfaces. , 2019, , .		1
141	Data-driven proximal algorithms for the design of structured optimal feedback gains. , 2019, , .		1
142	Boundary layer receptivity analysis via the algebraic Lyapunov equation. , 2020, , .		1
143	On the least-squares approximation of structured covariances. Proceedings of the American Control Conference, 2007, , .	0.0	0
144	Perturbation analysis of eigenvalues of a class of self-adjoint operators. , 2008, , .		0

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145	Energy amplification in a parallel Blasius boundary layer flow subject to free-stream turbulence. , 2008, , .		0
146	Remarks on computing the H<inf>2</inf> norm of incompressible fluids using descriptor state-space formulation. , 2008, , .		0
147	Input-output analysis of the 2D/3C model in channel flows of viscoelastic fluids. , 2008, , .		0
148	Transient response of velocity fluctuations in inertialess channel flows of viscoelastic fluids. , 2010, , .		0
149	Spatially-localized optimal control of transition to turbulence. , 2011, , .		0
150	Slow-fast decomposition of an inertialess flow of viscoelastic fluids. , 2012, , .		0
151	Turbulent drag reduction by streamwise traveling waves. , 2012, , .		0
152	Turbulent drag reduction by transverse wall oscillations. , 2012, , .		0
153	Vehicular Chains. , 2014, , 1-10.		0
154	Structured covariance completion via proximal algorithms. , 2017, , .		0
155	Transient growth in oblique shock wave/laminar boundary layer interactions at Mach 5.92. , 2018, , .		0
156	Low-complexity modeling of mode interactions in boundary layer flows. , 2018, , .		0
157	Spatio-temporal impulse responses in channel flow of viscoelastic fluids. , 2018, , .		0
158	Relating global and local stochastic receptivity analysis of boundary layer flows. , 2019, , .		0
159	Model-Free Linear Quadratic Regulator. Studies in Systems, Decision and Control, 2021, , 173-185.	0.8	0
160	Vehicular Chains. , 2021, , 2418-2425.		0
161	Global exponential stability of the Douglas-Rachford splitting dynamics. IFAC-PapersOnLine, 2020, 53, 7350-7354.	0.5	0
162	A Passivity-Based Approach to Stability of Spatially Distributed Systrems With a Cyclic Interconnection Structure. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2009, , .	0.1	0