

# Stevan S DubljeviÄ

## List of Publications by Year in descending order

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159  
papers

1,677  
citations

304368

22  
h-index

344852

36  
g-index

160  
all docs

160  
docs citations

160  
times ranked

867  
citing authors

#	ARTICLE	IF	CITATIONS
1	Predictive control of transport-reaction processes. Computers and Chemical Engineering, 2005, 29, 2335-2345.	2.0	109
2	Predictive control of parabolic PDEs with state and control constraints. International Journal of Robust and Nonlinear Control, 2006, 16, 749-772.	2.1	109
3	Predictive control of parabolic PDEs with boundary control actuation. Chemical Engineering Science, 2006, 61, 6239-6248.	1.9	96
4	Analysis on accident-causing factors of urban buried gas pipeline network by combining DEMATEL, ISM and BN methods. Journal of Loss Prevention in the Process Industries, 2019, 61, 49-57.	1.7	77
5	Boundary optimal (LQ) control of coupled hyperbolic PDEs and ODEs. Automatica, 2013, 49, 526-533.	3.0	60
6	Output and error feedback regulator designs for linear infinite-dimensional systems. Automatica, 2017, 83, 170-178.	3.0	52
7	Output regulation for a class of linear boundary controlled first-order hyperbolic PIDE systems. Automatica, 2017, 85, 43-52.	3.0	47
8	A new Lyapunov design approach for nonlinear systems based on Zubov's method. Automatica, 2002, 38, 1999-2007.	3.0	45
9	Distributed nonlinear control of diffusion-convection-reaction processes. International Journal of Robust and Nonlinear Control, 2004, 14, 133-156.	2.1	44
10	Lipid production optimization and optimal control of heterotrophic microalgae fed-batch bioreactor. Chemical Engineering Science, 2012, 84, 619-627.	1.9	43
11	Optimal boundary control of a diffusion-convection-reaction PDE model with time-dependent spatial domain: Czochralski crystal growth process. Chemical Engineering Science, 2012, 67, 111-119.	1.9	41
12	PDE backstepping control of one-dimensional heat equation with time-varying domain. Automatica, 2015, 54, 41-48.	3.0	36
13	Linear model predictive control for transport-reaction processes. AIChE Journal, 2017, 63, 2644-2659.	1.8	35
14	Order-reduction of parabolic PDEs with time-varying domain using empirical eigenfunctions. AIChE Journal, 2013, 59, 4142-4150.	1.8	33
15	Output regulation problem for a class of regular hyperbolic systems. International Journal of Control, 2016, 89, 113-127.	1.2	31
16	Optimal boundary control of coupled parabolic PDE-ODE systems using infinite-dimensional representation. Journal of Process Control, 2015, 33, 102-111.	1.7	29
17	Backstepping output-feedback control of moving boundary parabolic PDEs. European Journal of Control, 2015, 21, 27-35.	1.6	29
18	Long range pipeline leak detection and localization using discrete observer and support vector machine. AIChE Journal, 2019, 65, e16532.	1.8	29

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19	Predictive Output Feedback Control of Parabolic Partial Differential Equations (PDEs). <i>Industrial &amp; Engineering Chemistry Research</i> , 2006, 45, 8421-8429.	1.8	28
20	Boundary model predictive control of Kuramoto–Sivashinsky equation with input and state constraints. <i>Computers and Chemical Engineering</i> , 2010, 34, 1655-1661.	2.0	25
21	The state feedback servo-regulator for countercurrent heat-exchanger system modelled by system of hyperbolic PDEs. <i>European Journal of Control</i> , 2016, 29, 51-61.	1.6	25
22	Studies on feedback control of cardiac alternans. <i>Computers and Chemical Engineering</i> , 2008, 32, 2086-2098.	2.0	24
23	A CAST-based causal analysis of the catastrophic underground pipeline gas explosion in Taiwan. <i>Engineering Failure Analysis</i> , 2020, 108, 104343.	1.8	23
24	Model predictive control of Kuramoto–Sivashinsky equation with state and input constraints. <i>Chemical Engineering Science</i> , 2010, 65, 4388-4396.	1.9	22
25	LQ-boundary control of a diffusion-convection-reaction system. <i>International Journal of Control</i> , 2012, 85, 171-181.	1.2	22
26	Control of parabolic PDEs with time-varying spatial domain: Czochralski crystal growth process. <i>International Journal of Control</i> , 2013, 86, 1467-1478.	1.2	21
27	Linear matrix inequalities (LMIs) observer and controller design synthesis for parabolic PDE. <i>European Journal of Control</i> , 2014, 20, 227-236.	1.6	20
28	Model predictive control of axial dispersion chemical reactor. <i>Journal of Process Control</i> , 2014, 24, 1671-1690.	1.7	19
29	Optimal control of an advection-dominated catalytic fixed-bed reactor with catalyst deactivation. <i>Journal of Process Control</i> , 2013, 23, 1508-1514.	1.7	18
30	Characteristics-based model predictive control of selective catalytic reduction in diesel-powered vehicles. <i>Journal of Process Control</i> , 2016, 47, 98-110.	1.7	17
31	Model predictive control of solar thermal system with borehole seasonal storage. <i>Computers and Chemical Engineering</i> , 2017, 101, 59-72.	2.0	17
32	Fault detection and estimation for a class of PIDE systems based on boundary observers. <i>International Journal of Robust and Nonlinear Control</i> , 2019, 29, 5867-5885.	2.1	17
33	Model predictive control for regular linear systems. <i>Automatica</i> , 2020, 119, 109066.	3.0	17
34	Dynamic Modeling and Real-Time Monitoring of Froth Flotation. <i>Minerals (Basel, Switzerland)</i> , 2015, 5, 570-591.	0.8	16
35	Modelling and control of solar thermal system with borehole seasonal storage. <i>Renewable Energy</i> , 2017, 100, 114-128.	4.3	16
36	Optimal control of convection–diffusion process with time-varying spatial domain: Czochralski crystal growth. <i>Journal of Process Control</i> , 2011, 21, 1361-1369.	1.7	15

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37	Observer and filter design for linear transport-reaction systems. <i>European Journal of Control</i> , 2019, 49, 26-43.	1.6	12
38	Optimal boundary control of cardiac alternans. <i>International Journal of Robust and Nonlinear Control</i> , 2009, 19, 135-150.	2.1	11
39	Control of cardiac alternans by mechanical and electrical feedback. <i>Physical Review E</i> , 2014, 90, 012706.	0.8	11
40	Transfer Learning for Dynamic Feature Extraction Using Variational Bayesian Inference. <i>IEEE Transactions on Knowledge and Data Engineering</i> , 2022, 34, 5524-5535.	4.0	11
41	Control of cardiac alternans in an electromechanical model of cardiac tissue. <i>Computers in Biology and Medicine</i> , 2015, 63, 108-117.	3.9	10
42	Three-Phases Dynamic Modelling of Column Flotation Process. <i>IFAC-PapersOnLine</i> , 2018, 51, 99-104.	0.5	10
43	Infinite-dimensional LQ optimal control of a dimethyl ether (DME) catalytic distillation column. <i>Journal of Process Control</i> , 2012, 22, 1655-1669.	1.7	9
44	Boundary model predictive control of thin film thickness modelled by the Kuramoto-Sivashinsky equation with input and state constraints. <i>Journal of Process Control</i> , 2013, 23, 1362-1379.	1.7	9
45	Optimal continuous-time state estimation for linear finite and infinite-dimensional chemical process systems with state constraints. <i>Journal of Process Control</i> , 2015, 35, 127-142.	1.7	9
46	Effects of mechano-electrical feedback on the onset of alternans: A computational study. <i>Chaos</i> , 2019, 29, 063126.	1.0	9
47	Discrete mechanics optimal control (DMOC) and model predictive control (MPC) synthesis for reaction-diffusion process system with moving actuator. , 2010, , .		8
48	Model predictive temperature tracking in crystal growth processes. <i>Computers and Chemical Engineering</i> , 2014, 71, 323-330.	2.0	8
49	Economic model predictive control for transport-reaction systems with target profiles. <i>Control Engineering Practice</i> , 2021, 107, 104684.	3.2	8
50	Output feedback compensation to state and measurement delays for a first-order hyperbolic PIDE with recycle. <i>Automatica</i> , 2021, 128, 109565.	3.0	8
51	Optimal mechano-electric stabilization of cardiac alternans. <i>Chemical Engineering Science</i> , 2008, 63, 5425-5433.	1.9	7
52	Crystal radius and temperature regulation in Czochralski crystallization process. , 2013, , .		7
53	Temperature distribution reconstruction in Czochralski crystal growth process. <i>AIChE Journal</i> , 2014, 60, 2839-2852.	1.8	7
54	Optimal tracking control for a class of boundary controlled linear coupled hyperbolic PDE systems: Application to plug flow reactor with temperature output feedback. <i>European Journal of Control</i> , 2018, 39, 21-34.	1.6	7

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55	Boundary observer design for a class of semi-linear hyperbolic PDE systems with recycle loop. International Journal of Control, 2021, 94, 1089-1101.	1.2	7
56	Model predictive control of a non-isothermal axial dispersion tubular reactor with recycle. Computers and Chemical Engineering, 2021, 145, 107159.	2.0	7
57	Discrete-time modeling and output regulation of gas pipeline networks. Journal of Process Control, 2021, 98, 30-40.	1.7	7
58	Boundary predictive control of parabolic PDEs. , 2006, , .		6
59	Pacing Real-Time Spatiotemporal Control of Cardiac Alternans. Proceedings of the American Control Conference, 2007, , .	0.0	6
60	Boundary control synthesis for a lithium-ion battery thermal regulation problem. AIChE Journal, 2013, 59, 3782-3796.	1.8	6
61	Finite-dimensional output feedback regulator for a mono-tubular heat exchanger process. IFAC-PapersOnLine, 2016, 49, 54-59.	0.5	6
62	Single-step full-state feedback control design for nonlinear hyperbolic PDEs. International Journal of Control, 2019, 92, 2484-2498.	1.2	6
63	Heat exchanger system boundary regulation. AIChE Journal, 2019, 65, e16623.	1.8	6
64	Output Regulation of Linearized Column Froth Flotation Process. IEEE Transactions on Control Systems Technology, 2021, 29, 249-262.	3.2	6
65	Predictive output feedback control of parabolic PDEs. , 2006, , .		5
66	Constraints-Driven Optimal Actuation Policies for Diffusion-Reaction Processes with Collocated Actuators and Sensors. Industrial & Engineering Chemistry Research, 2008, 47, 105-115.	1.8	5
67	Analysis of Melt Flow Mixing in Czochralski Crystal Growth Process. Industrial & Engineering Chemistry Research, 2012, 51, 8675-8683.	1.8	5
68	Model Predictive Control of Mineral Column Flotation Process. Mathematics, 2018, 6, 100.	1.1	5
69	A Simulation Study of the Role of Mechanical Stretch in Arrhythmogenesis during Cardiac Alternans. Biophysical Journal, 2021, 120, 109-121.	0.2	5
70	Dynamic Modelling and Model Predictive Control of a Continuous Pulp Digester. AIChE Journal, 0, , e17534.	1.8	5
71	Modeling and Dynamical Analysis of the Wave Equation of Sucker-Rod Pumping System. , 2012, , .		4
72	Transient Fluid Temperature Estimation in Wellbores. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 108-113.	0.4	4

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73	Mechanical perturbation control of cardiac alternans. <i>Physical Review E</i> , 2018, 97, 052407.	0.8	4
74	Pipeline Leak Detection Swimming Robot Design and Deployment. , 2018, , .		4
75	Discrete-Time Kalman Filter Design for Linear Infinite-Dimensional Systems. <i>Processes</i> , 2019, 7, 451.	1.3	4
76	Hyperbolicity of the heat equation. <i>IFAC-PapersOnLine</i> , 2019, 52, 63-67.	0.5	4
77	Dissipative boundary PI controller for an adiabatic plug-flow reactor with mass recycle. <i>IFAC-PapersOnLine</i> , 2019, 52, 68-73.	0.5	4
78	Finite-dimensional regulators for a class of regular hyperbolic PDE systems. <i>International Journal of Control</i> , 2019, 92, 778-795.	1.2	4
79	Output regulation boundary control of first-order coupled linear MIMO hyperbolic PIDE systems. <i>International Journal of Control</i> , 2020, 93, 410-423.	1.2	4
80	Model Predictive Control of Jacket Tubular Reactors with a Reversible Exothermic Reaction. <i>Industrial &amp; Engineering Chemistry Research</i> , 2020, 59, 18921-18936.	1.8	4
81	Output regulation for a first-order hyperbolic PIDE with state and sensor delays. <i>European Journal of Control</i> , 2022, 65, 100643.	1.6	4
82	LQR control of an infinite dimensional time-varying CSTR-PFR system*. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2011, 44, 14446-14451.	0.4	3
83	Linear quadratic optimal boundary control of a diffusion-convection-reaction system. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2011, 44, 12048-12053.	0.4	3
84	Computation of empirical eigenfunctions of parabolic PDEs with time-varying domain. , 2012, , .		3
85	Receding horizon optimal operation and control of a solar-thermal district heating system. <i>AIChE Journal</i> , 2018, 64, 1217-1233.	1.8	3
86	Discrete output regulator design for linear distributed parameter systems. <i>International Journal of Control</i> , 2022, 95, 603-619.	1.2	3
87	Discrete Output Regulator Design for the Linearized Saint-Venant-Exner Model. <i>Processes</i> , 2020, 8, 915.	1.3	3
88	Quo Vadis Advanced Chemical Process Control. <i>Canadian Journal of Chemical Engineering</i> , 0, , .	0.9	3
89	Application of optimal boundary control to reaction-diffusion system with time-varying spatial domain. , 2011, , .		2
90	Model predictive control of selective catalytic reduction in diesel-powered vehicles. , 2015, , .		2

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91	Port-Hamiltonian Representation and Discretization of Undamped Wave Equation System. IFAC-PapersOnLine, 2016, 49, 309-314.	0.5	2
92	PI-control design of continuum models of production systems governed by scalar hyperbolic partial differential equation. IFAC-PapersOnLine, 2018, 51, 584-589.	0.5	2
93	Linear Model Predictive Control for Schrödinger Equation. , 2018, , .		2
94	Actuator fault detection and estimation for linear hyperbolic PDEs with Fredholm integrals. , 2019, , .		2
95	Discrete Output Regulator Design for a Mono-tubular Reactor with Recycle. , 2019, , .		2
96	Linear model predictive control for a cascade ODE-PDE system. , 2020, , .		2
97	Linear Model Predictive Control for a Coupled CSTR and Axial Dispersion Tubular Reactor with Recycle. Mathematics, 2020, 8, 711.	1.1	2
98	Discrete-time model-based output regulation of fluid flow systems. European Journal of Control, 2021, 57, 1-13.	1.6	2
99	Adaptive Fault Estimation for Hyperbolic PDEs. Mathematics, 2021, 9, 1613.	1.1	2
100	Observer canonical form based robust fault detection and estimation for hyperbolic spatiotemporal dynamic systems. IET Cyber-Systems and Robotics, 2020, 2, 168-180.	1.1	2
101	Dissipative Boundary Control for an Adiabatic Plug Flow Reactor With Mass Recycle. IEEE Access, 2022, 10, 30939-30948.	2.6	2
102	Predictive control of diffusion-reaction processes. , 0, , .		1
103	Predictive Control of Infinite Dimensional Systems. , 2006, , .		1
104	Mechano-electric suppression of cardiac alternans. , 2008, , .		1
105	Optimal boundary control of Kuramoto-Sivashinsky equation. , 2009, , .		1
106	Multiscale optimal control of transport-reaction system with time varying spatial domain. , 2010, , .		1
107	Cardiac alternans annihilation by distributed mechano-electric feedback (MEF). , 2011, 2011, 259-62.		1
108	Distributed optimal control of a Dimethyl Ether (DME) catalytic distillation column. , 2011, , .		1

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109	Model predictive control formulation for a class of time-varying linear parabolic PDEs. , 2011, , .		1
110	Model predictive control of Czochralski crystal growth process. , 2011, , .		1
111	Optimal control of a class of linear nonautonomous parabolic PDE via two-parameter semigroup representation. , 2011, , .		1
112	Aspects of controllability and observability for time-varying PDE systems. , 2012, , .		1
113	Distributed temperature estimation in Czochralski crystal growth process. , 2014, , .		1
114	Dynamical Analysis of Melt Flow in the Bridgman Process. Industrial & Engineering Chemistry Research, 2014, 53, 17811-17817.	1.8	1
115	Backstepping control of PDEs with time-varying domain. , 2014, , .		1
116	LQ (optimal) control of hyperbolic PDAEs. International Journal of Control, 0, , 1-11.	1.2	1
117	Boundary optimal control of coupled parabolic PDE-ODE systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 1574-1579.	0.4	1
118	State feedback output regulation for a class of hyperbolic PDE systems. , 2015, , .		1
119	Low-order optimal regulation of parabolic PDEs with time-dependent domain. AIChE Journal, 2015, 61, 494-502.	1.8	1
120	Optimal control of a distributed solar collector field. , 2017, , .		1
121	Robust State Estimation for Positive Real Infinite- Dimensional Systems With Actuator and Sensor Faults. IEEE Systems Journal, 2020, , 1-8.	2.9	1
122	Fast model predictive control based on sensitivity analysis strategy. IET Control Theory and Applications, 2020, 14, 708-716.	1.2	1
123	Hyperbolicity of reaction-transport processes. AIChE Journal, 2021, 67, e17135.	1.8	1
124	Robust tracking control of column froth flotation process with an unknown disturbance. AIChE Journal, 2021, 67, e17233.	1.8	1
125	Model predictive control of diffusion-reaction processes. Chemical Industry and Chemical Engineering Quarterly, 2005, 11, 10-18.	0.4	1
126	Modeling and stability analysis of a class of convective distributed thermodynamic systems. , 2019, , .		1



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127	Nonlinear discrete-time state feedback regulators with assignable closed-loop dynamics. , 2001, , .		0
128	Constraints driven optimal actuation policies for diffusion processes with collocated actuators and sensors. Proceedings of the American Control Conference, 2007, , .	0.0	0
129	Optimal boundary control of cardiac alternans. Proceedings of the American Control Conference, 2007, , .	0.0	0
130	Optimal mechano-electric stabilization of cardiac alternans. , 2008, , .		0
131	Boundary model predictive control of Kuramoto-Sivashinsky equation with input and point state constraints. , 2009, , .		0
132	Optimal control of transport-reaction system with time varying spatial domain. , 2010, , .		0
133	Boundary model predictive control of thin film thickness modelled by Kuramoto-Sivashinsky equation with input and state constraints. , 2012, , .		0
134	Optimal LQ-Control of a PDAE Model of a Catalytic Distillation Process1. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 75-80.	0.4	0
135	Boundary moving horizon estimator for approximate models of parabolic PDEs. , 2013, , .		0
136	Linear matrix inequalities (LMIs) based observer and controller design for second order parabolic PDE. , 2014, , .		0
137	Model predictive control of the cardiac amplitude of alternans PDE. , 2014, , .		0
138	Single-step feedback linearization with assignable dynamics for hyperbolic PDE. , 2015, , .		0
139	Optimal State Estimation for Linear Systems with State Constraints. IFAC-PapersOnLine, 2015, 48, 153-157.	0.5	0
140	Constrained optimal boundary state estimation for dissipative systems. , 2015, , .		0
141	Explicit/multi-parametric model predictive control of dissipative distributed parameter systems. , 2015, , .		0
142	Model predictive control of coupled hyperbolic PDEs and ODEs. , 2016, , .		0
143	Output feedback regulator for infinite-dimensional systems. , 2016, , .		0
144	State feedback output regulation for a boundary controlled linear $2 \times 2$ hyperbolic system. , 2017, , .		0

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145	Actuator Fault Detection and Estimation for a Class of Hyperbolic PDEs Using Filter-Based Observer. , 2018, , .		0
146	State and output feedback regulator designs for distributed parameter systems. , 2018, , .		0
147	Dynamical Analysis and Model Predictive Control of an Auto-Thermal Reactor. Industrial & Engineering Chemistry Research, 2019, 58, 13686-13698.	1.8	0
148	Discrete Kalman Filter Design for Kuramoto-Sivashinsky Equation. , 2019, , .		0
149	Model Predictive Control of Ginzburg-Landau Equation. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2019, , 75-90.	0.2	0
150	Robust state estimation for a class of hyperbolic systems with boundary sensor uncertain parameter. , 2020, , .		0
151	Discrete Output Regulator Design for a Coupled ODE-PDE System. , 2020, , .		0
152	Development of a swimming robot for pipeline leak detection. , 2020, , .		0
153	Model Predictive Controller Design for Pulp Digester. , 2021, , .		0
154	Robust Model Predictive Control for a system of coupled PDEs-ODEs. , 2021, , .		0
155	Application of non-linear discretetime feedback regulators with assignable closed-loop dynamics. Hemijska Industrija, 2003, 57, 120-125.	0.3	0
156	Computation of empirical eigenfunctions of parabolic PDEs with non-trivial time-varying domain. , 2013, , .		0
157	Linear Model Predictive Control for Time Delay Systems*. , 2020, , .		0
158	Internal Model Controller Design of Linearized Ginzburg-Landau Equation. IFAC-PapersOnLine, 2020, 53, 7728-7733.	0.5	0
159	Model Predictive Control of a Second-order Hyperbolic transport-reaction process. AIChE Journal, 0, , .	1.8	0