Alexander L Zuyev

List of Publications by Year
in descending order

62 papers	439 citations	10 h-index	19 g-index
68 all docs	68 docs citations	68 times ranked	220 citing authors

#	Article	IF	Citations
1	Observer design for a flexible structure with distributed and point sensors. Proceedings of the Institute of Applied Mathematics and Mechanics NAS of Ukraine, 2022, 35, 125-136.	0.0	1
2	Stabilization of Crystallization Models Governed by Hyperbolic Systems. SEMA SIMAI Springer Series, 2021, , 123-135.	0.4	0
3	On the Eigenvalue Distribution for a Beam with Attached Masses. SEMA SIMAI Springer Series, 2021, , 43-56.	0.4	5
4	Analysis of Switching Strategies for the Optimization of Periodic Chemical Reactions with Controlled Flow-Rate. Springer Proceedings in Mathematics and Statistics, 2021, , 59-69.	0.1	0
5	On the orbital stability of periodic trajectories of a class of discontinuous systems. Proceedings in Applied Mathematics and Mechanics, 2021, 21, .	0.2	0
6	Extremum Seeking Approach for Nonholonomic Systems with Multiple Time Scale Dynamics. IFAC-PapersOnLine, 2020, 53, 5392-5398.	0.5	1
7	Partial stabilization of nonholonomic systems with application to multi-agent coordination. , 2020, , .		1
8	Mathematical control theory: nonlinear dynamics and engineering applications. Visnik Nacional Noi Academii Nauk Ukrai Ni, 2020, , 29-27.	0.0	0
9	On stabilization of nonlinear systems with drift by time-varying feedback laws. , 2019, , .		4
10	On exponential stabilization of nonholonomic systems with time-varying drift. IFAC-PapersOnLine, 2019, 52, 156-161.	0.5	0
11	Partial stabilization of stochastic systems with application to rotating rigid bodies. IFAC-PapersOnLine, 2019, 52, 162-167.	0.5	3
12	Partial Stability Concept in Extremum Seeking Problems. IFAC-PapersOnLine, 2019, 52, 682-687.	0.5	5
13	Optimal periodic control of nonlinear chemical reactions with a time-varying flow rate. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900146.	0.2	1
14	Stabilization of underactuated nonlinear systems to non-feasible curves. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900160.	0.2	0
15	Periodic switching strategies for an isoperimetric control problem with application to nonlinear chemical reactions. Applied Mathematical Modelling, 2019, 69, 287-300.	2.2	21
16	Stabilization of non-admissible curves for a class of nonholonomic systems. , 2019, , .		2
17	On extremum seeking controllers based on the Lie bracket approximation in domains with obstacles. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800298.	0.2	4
18	Obstacle Avoidance Problem for Second Degree Nonholonomic Systems. , 2018, , .		10

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19	Modeling and Stabilization of a Rotating Mechanical System with Elastic Plates. IFAC-PapersOnLine, 2018, 51, 493-498.	0.5	0
20	A family of extremum seeking laws for a unicycle model with a moving target: theoretical and experimental studies. , 2018, , .		4
21	Control design for a 2Ââ—Â2 hyperbolic system with application to preferential crystallization. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800455.	0.2	1
22	On a class of generating vector fields for the extremum seeking problem: Lie bracket approximation and stability properties. Automatica, 2018, 94, 151-160.	3.0	68
23	Two-Point Problem for Systems Satisfying the Controllability Condition with Lie Brackets of the Second Order. Journal of Mathematical Sciences, 2017, 220, 301-317.	0.1	0
24	An isoperimetric optimal control problem for a non-isothermal chemical reactor with periodic inputs. Chemical Engineering Science, 2017, 161, 206-214.	1.9	22
25	Motion planning for control-affine systems satisfying low-order controllability conditions. International Journal of Control, 2017, 90, 2517-2537.	1.2	18
26	Extremum Seeking for Time-Varying Functions using Lie Bracket Approximations * *This work is supported in part by the Alexander von Humboldt Foundation, the Deutsche Forschungsgemeinschaft (EB 425/4-1), and the State Fund for Fundamental Research of Ukraine (F63-726).. IFAC-PapersOnLine, 2017, 50, 5522-5528.	0.5	16
27	Obstacle Avoidance Problem for Driftless Nonlinear Systems with Oscillating Controls. IFAC-PapersOnLine, 2017, 50, 10476-10481.	0.5	8
28	Motion planning problem with obstacle avoidance for step-2 bracket-generating systems. Proceedings in Applied Mathematics and Mechanics, 2017, 17, 799-800.	0.2	1
29	Construction of a Lyapunov functional for a class of controlled population balance models. Proceedings in Applied Mathematics and Mechanics, 2017, 17, 827-828.	0.2	2
30	Local steering problem for a class of controlâ€affine systems with application to continuous crystallization processes. Proceedings in Applied Mathematics and Mechanics, 2016, 16, 831-832.	0.2	2
31	Time-varying stabilization of a class of driftless systems satisfying second-order controllability conditions. , 2016, , .		8
32	Exponential Stabilization of Nonholonomic Systems by Means of Oscillating Controls. SIAM Journal on Control and Optimization, 2016, 54, 1678-1696.	1.1	38
33	Reachable Sets of Quasilinear Hyperbolic Control Systems with Applications to Separation Processes. Proceedings in Applied Mathematics and Mechanics, 2015, 15, 647-648.	0.2	0
34	Modelling and control of a shell structure based on a finite dimensional variational formulation. Mathematical and Computer Modelling of Dynamical Systems, 2015, 21, 591-612.	1.4	4
35	Estimation of the Reachable Set for the Problem of Vibrating Kirchhoff Plate. Ukrainian Mathematical Journal, 2015, 66, 1639-1653.	0.1	1
36	Partial Stabilization and Control of Distributed Parameter Systems with Elastic Elements. Lecture Notes in Control and Information Sciences, 2015, , .	0.6	12

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37	Attractors of nonlinear dynamical systems with a weakly monotone measure. Journal of Mathematical Analysis and Applications, 2015, 422, 559-570.	0.5	10
38	Stabilization of a Rotating Body with Euler–Bernoulli Beams. Lecture Notes in Control and Information Sciences, 2015, , 39-96.	0.6	0
39	Control and Stabilization of a Rotating Kirchhoff Plate. Lecture Notes in Control and Information Sciences, 2015, , 169-213.	0.6	0
40	Optimal Stabilization Problem With Minimax Cost in a Critical Case. IEEE Transactions on Automatic Control, 2014, 59, 2512-2517.	3.6	7
41	Optimal stabilization of nonlinear systems by an output feedback law in a critical case. , 2013, , .		0
42	Asymptotic behavior of solutions of a nonlinear system in the critical case of pairs of purely imaginary eigenvalues. Nonlinear Analysis: Theory, Methods & Applications, 2013, 80, 156-178.	0.6	8
43	Approximate controllability of a rotating Kirchhoff plate model. , 2010, , .		3
44	Approximate controllability and spillover analysis of a class of distributed parameter systems. , 2009, , .		2
45	Application of the Return Method to the Steering of Nonlinear Systems. Lecture Notes in Control and Information Sciences, 2009, , 83-91.	0.6	2
46	Localization of the limit set of trajectories of the Euler-Bernoulli equation with control. Ukrainian Mathematical Journal, 2008, 60, 199-210.	0.1	0
47	Stabilization and Observability of a Rotating Timoshenko Beam Model. Mathematical Problems in Engineering, 2007, 2007, 1-19.	0.6	16
48	Partial asymptotic stability of abstract differential equations. Ukrainian Mathematical Journal, 2006, 58, 709-717.	0.1	7
49	Observer design for a flexible manipulator model with a payload. , 2006, , .		9
50	STABILIZATION OF A FLEXIBLE MANIPULATOR MODEL WITH PASSIVE JOINTS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 784-789.	0.4	9
51	Partial asymptotic stabilization of nonlinear distributed parameter systemsâ˜†. Automatica, 2005, 41, 1-10.	3.0	3
52	Stabilizability conditions in terms of critical Hamiltonians and symbols. Systems and Control Letters, 2005, 54, 597-606.	1.3	3
53	Partial asymptotic stabilization of nonlinear distributed parameter systems. Automatica, 2005, 41, 1-10.	3.0	78
54	Control of a flexible manipulator within the framework of the Timoshenko beam model. International Applied Mechanics, 2005, 41, 1418-1425.	0.2	1

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55	Control design for galerkin approximations of a flexible structure. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 311-318.	0.4	1
56	PARTIAL STABILIZATION OF A RIGID BODY WITH SEVERAL ELASTIC BEAMS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2002, 35, 139-144.	0.4	3
57	The Synthesis of Stabilizing Control of a Rigid Body with Attached Elastic Elements. Journal of Automation and Information Sciences, 2002, 34, 10.	0.7	1
58	Motion planning and partial stabilization of infinite-dimensional systems. , 0, , .		1
59	Controllability analysis of a rotating body with flexible beams. , 0, , .		0
60	Control and stabilization of a rotating planar body with flexible attachments. , 0, , .		0
61	Partial asymptotic stability and stabilization of nonlinear abstract differential equations. , 0, , .		8
62	Observability of a flexible manipulator with a payload. , 0, , .		0