

Alexander Fradkov

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5092482/publications.pdf>

Version: 2024-02-01

314
papers

6,025
citations

81743

39
h-index

110170

64
g-index

327
all docs

327
docs citations

327
times ranked

2246
citing authors

#	ARTICLE	IF	CITATIONS
1	Parameter Estimation for Hindmarsh-Rose Neurons. Electronics (Switzerland), 2022, 11, 885.	1.8	2
2	Adaptive Multiple Synchronization and Phase Shift Control for Mechatronic Vibrational Setup. , 2022, , ,		2
3	Control of Phase Shift in Two-Rotor Vibration Units. IEEE Transactions on Control Systems Technology, 2021, 29, 1316-1323.	3.2	12
4	Finite-Differential Nonsmooth Speed-Gradient Control: Stability, Passivity, Robustness. SIAM Journal on Control and Optimization, 2021, 59, 1370-1392.	1.1	2
5	Adaptive synchronization in the complex heterogeneous networks of Hindmarsh-Rose neurons. Chaos, Solitons and Fractals, 2021, 150, 111170.	2.5	15
6	Synchronization of nonlinearly coupled networks based on circle criterion. Chaos, 2021, 31, 103110.	1.0	5
7	Speed Gradient Method and Its Applications. Automation and Remote Control, 2021, 82, 1463-1518.	0.4	18
8	A historical perspective of adaptive control and learning. Annual Reviews in Control, 2021, 52, 18-41.	4.4	44
9	Machine Learning and Artificial Intelligence in the Works of V.A. Yakubovich. Vestnik St Petersburg University: Mathematics, 2021, 54, 381-383.	0.1	1
10	Output Feedback Energy Control of the Sine-Gordon PDE Model Using Collocated Spatially Sampled Sensing and Actuation. IEEE Transactions on Automatic Control, 2020, 65, 1484-1498.	3.6	13
11	Delayed and Switched Control of Formations on a Line Segment: Delays and Switches Do Not Matter. IEEE Transactions on Automatic Control, 2020, 65, 794-800.	3.6	16
12	Observer-based boundary control of the sine-Gordon model energy. Automatica, 2020, 113, 108682.	3.0	10
13	Energy control of the pendulum without measuring its angular velocity. , 2020, , ,		0
14	Control of Two Satellites Relative Motion over the Packet Erasure Communication Channel with Limited Transmission Rate Based on Adaptive Coder. Electronics (Switzerland), 2020, 9, 2032.	1.8	5
15	Discrete-time Deployment of Agents on a Line Segment: Delays and Switches Do Not Matter. Automation and Remote Control, 2020, 81, 637-648.	0.4	3
16	On robustness against disturbances of passive systems with multiple invariant sets. International Journal of Control, 2020, , 1-13.	1.2	0
17	Early History of Machine Learning. IFAC-PapersOnLine, 2020, 53, 1385-1390.	0.5	59
18	Adaptive stabilization of minimum-phase systems under quantized measurements. IFAC-PapersOnLine, 2020, 53, 3761-3766.	0.5	1

#	ARTICLE	IF	CITATIONS
19	Adaptive control of synchronization for the heterogeneous Hindmarsh-Rose network. IFAC-PapersOnLine, 2020, 53, 146-151.	0.5	2
20	Desynchronization in Oscillatory Networks Based on Yakubovich Oscillatory. IFAC-PapersOnLine, 2020, 53, 1037-1042.	0.5	1
21	Adaptive and Robust Control in the USSR. IFAC-PapersOnLine, 2020, 53, 1373-1378.	0.5	7
22	Complex partial synchronization patterns in networks of delay-coupled neurons. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20180128.	1.6	25
23	On robust stability of multistable passive systems. , 2019, , .		0
24	Output Feedback Energy Control of String PDE Model. IFAC-PapersOnLine, 2019, 52, 138-143.	0.5	2
25	Data Exchange with Adaptive Coding between Quadrotors in a Formation. Automation and Remote Control, 2019, 80, 150-163.	0.4	5
26	On synchronization in heterogeneous FitzHugh-Nagumo networks. Chaos, Solitons and Fractals, 2019, 121, 85-91.	2.5	26
27	Angular Velocity and Phase Shift Control of Mechatronic Vibrational Setup. IFAC-PapersOnLine, 2019, 52, 436-441.	0.5	8
28	Two-point Output Feedback Boundary Control for Semilinear Hyperbolic Systems. IFAC-PapersOnLine, 2019, 52, 54-59.	0.5	0
29	Desynchronization control of FitzHugh-Nagumo networks with random topology. IFAC-PapersOnLine, 2019, 52, 640-645.	0.5	4
30	The Method of Averaged Models for Discrete-Time Adaptive Systems. Automation and Remote Control, 2019, 80, 1755-1782.	0.4	3
31	Frequency-domain estimates of the sampling interval in multirate nonlinear systems by time-delay approach. International Journal of Control, 2019, 92, 1985-1992.	1.2	6
32	Adaptive control of time-varying non-linear plants by speed-gradient algorithms. Informatsionno-Upravliaiushchie Sistemy, 2019, , 37-44.	0.3	4
33	A team of soccer robots for RoboCup competitions in SSL league: system and algorithms. Informatsionno-Upravliaiushchie Sistemy, 2019, , 19-25.	0.3	0
34	Selective excitation of identical conservative port-Hamiltonian systems by a single control. , 2019, , .		0
35	Artificial intelligence based neurofeedback. Cybernetics and Physics, 2019, , 287-291.	0.2	5
36	Adaptive stabilisation of discrete LTI plant with bounded disturbances via finite capacity channel. International Journal of Control, 2018, 91, 2451-2459.	1.2	2

#	ARTICLE	IF	CITATIONS
37	Disturbance Compensation With Finite Spectrum Assignment for Plants With Input Delay. IEEE Transactions on Automatic Control, 2018, 63, 298-305.	3.6	35
38	Control of nonlinear shock waves propagation for isothermal Euler equations. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2018, 98, 448-453.	0.9	1
39	Energy Synchronization of Pendulum Mechanisms. , 2018, , .		3
40	Adaptive synchronization of two coupled non-identical Hindmarsh-Rose systems by the Speed Gradient method. IFAC-PapersOnLine, 2018, 51, 12-14.	0.5	6
41	Analysis of Two-layer Network of FitzHugh-Nagumo Oscillators with Different Layer Topology. IFAC-PapersOnLine, 2018, 51, 235-240.	0.5	0
42	Information Transmission Over the Limited-rate Communication Channel by Chaotic Signal Modulation and Non-linear Observer.. IFAC-PapersOnLine, 2018, 51, 91-96.	0.5	0
43	GENERIC and Speed-Gradient Principle. IFAC-PapersOnLine, 2018, 51, 121-126.	0.5	2
44	Dynamics of an escort probability-based systems which tend to maximize its Tsallis entropy. IFAC-PapersOnLine, 2018, 51, 180-185.	0.5	1
45	In-domain energy control of the sine-Gordon model. , 2018, , .		3
46	On Synchronization in FitzHugh-Nagumo Networks with Small Delays. , 2018, , .		1
47	Energy Tracking for the Sine-Gordon Equation with Dissipation via Boundary Control* . , 2018, , .		2
48	Boundary energy control of a system governed by the nonlinear Klein-Gordon equation. Mathematics of Control, Signals, and Systems, 2018, 30, 1.	1.4	8
49	Formation control of a group of unmanned aerial vehicles with data exchange over a packet erasure channel. , 2018, , .		6
50	The Speed-Gradient Algorithm in the Inverse Stoker Problem for a Synchronous Electric Machine. Vestnik St Petersburg University: Mathematics, 2018, 51, 82-86.	0.1	3
51	Robotics Education in Saint Petersburg Secondary School. Advances in Intelligent Systems and Computing, 2018, , 38-49.	0.5	2
52	Robustness of Pecora-Carroll synchronization under communication constraints. Systems and Control Letters, 2018, 111, 27-33.	1.3	10
53	Projected Dynamics of Constrained Hamiltonian Systems. , 2018, , .		0
54	Feedback control of monotonic shocks. Journal of Physics: Conference Series, 2017, 788, 012030.	0.3	0

#	ARTICLE	IF	CITATIONS
55	Control using new passivity property with differentiation at both ports. , 2017, , .		11
56	Nonsmooth and discontinuous speed-gradient algorithms. Nonlinear Analysis: Hybrid Systems, 2017, 25, 99-113.	2.1	11
57	Teaching Robotics in Secondary School. IFAC-PapersOnLine, 2017, 50, 12155-12160.	0.5	21
58	Bifurcation and synchronization analysis of neural mass model subpopulations. IFAC-PapersOnLine, 2017, 50, 14741-14745.	0.5	4
59	Simple adaptive control of quadrotor attitude. Algorithms and experimental results. , 2017, , .		7
60	Horizons of cybernetical physics. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20160439.	1.6	2
61	Energy control of distributed parameter systems via speed-gradient method: case study of string and sine-Gordon benchmark models. International Journal of Control, 2017, 90, 2554-2566.	1.2	16
62	Popov-like criterion for the complex-variable systems 1 1The work was supported by the SPbSU grant 6.38.230.2015. The Lyapunov function existence criterion (Section 4.1) was obtained in IPME RAS under sole support of RSF, grant 14-29-00142.. !FAC-PapersOnLine, 2017, 50, 8157-8162.	0.5	1
63	Section 3 were developed under support of RSF (grant 14-29-00142) in IPME RAS. The results of Section 4 were developed under support of Russian Federation President Grant (No. 14.W01.16.6325-MD) Tj ETQq1 1 0.784314 rgBT ₁ /Overlo Basic Research No. 17-08-01266, 17-08-01728 and Government of Russian Federation, Grant 074-U01.. IFAC-PapersOnLine, 2017, 50, 9619-9624	0.5	1
64	Teaching Robotics in Secondary School: Examples and Outcomes. IFAC-PapersOnLine, 2017, 50, 12167-12172.	0.5	1
65	Event-triggered sampled-data energy control of a pendulum * *This work was supported by Saint Petersburg State University, (grant 6.38.230.2015) and by Government of Russian Federation, Grant 074-U01. The proof of avoidance of Zeno phenomenon in continuous event-trigger was performed in IPME RAS under support of Russian Science Foundation (grant 14-29-00142). The results for event-trigger with a constant threshold (Proposition 2) was performed under support of the Russian Foundation for Basic Research, Gran. IFAC-PapersOnLine, 2017, 50, 15295-15300.	0.5	4
66	Scientific School of Vladimir Yakubovich in the 20th century. IFAC-PapersOnLine, 2017, 50, 5231-5237.	0.5	3
67	Sliding Mode-based Speed-gradient Control of the String Energy * *The work was supported in part by the Government of the Russian Federation under Grant 074-U01. Stability analysis (Section 3.1) is performed in IPME under support of Russian Science Foundation (grant 14-29-00142).. IFAC-PapersOnLine, 2017, 50, 8484-8489.	0.5	7
68	Event-triggered adaptive control of minimum-phase systems. IFAC-PapersOnLine, 2017, 50, 4276-4281.	0.5	4
69	Robust observers and Pecora-Carroll synchronization with limited information. , 2017, , .		2
70	Further progress in control of localized nonlinear waves. Journal of Physics: Conference Series, 2017, 937, 012043.	0.3	0
71	Horizons of cybernetical physics. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20160223.	1.6	26
72	Control over Internet of Oscillations for Group of Pendulums. , 2017, , 205-213.		0

#	ARTICLE	IF	CITATIONS
73	Control of antikinks of the Sine Gordon equation. AIP Conference Proceedings, 2016, , .	0.3	0
74	Passification of MIMO linear systems with respect to given output. , 2016, , .		1
75	Control of oscillations in vibration machines: Start up and passage through resonance. Chaos, 2016, 26, 116310.	1.0	13
76	Education and research mechatronic complex for studying vibration devices and processes. Journal of Machinery Manufacture and Reliability, 2016, 45, 369-374.	0.1	9
77	Adaptive Control of Synchronization in Delay-Coupled Heterogeneous Networks of FitzHugh-Nagumo Nodes. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2016, 26, 1650058.	0.7	23
78	Feedback control of the sine-Gordon antikink. Wave Motion, 2016, 65, 147-155.	1.0	11
79	Adaptive Coding For Data Exchange Between Quadrotors In The Formation**The work was performed in the IPME RAS and supported by the Russian Science Foundation (grant 14-29-00142).. IFAC-PapersOnLine, 2016, 49, 275-280.	0.5	5
80	Adaptive Stabilization of Linear Systems Through a Two-Way Channel with Limited Capacity. IFAC-PapersOnLine, 2016, 49, 164-168.	0.5	1
81	Mechatronic Laboratory Setup For Study Of Controlled Nonlinear Vibrations* *The work was performed in the IPME RAS and supported by the Russian Science Foundation (grant 14-29-00142). The sample-data control system analysis (Sec. 5.2) is supported by SPbSU (grant 6.38.230.2015). IFAC-PapersOnLine, 2016, 49, 1-6.	0.5	5
82	Cybernetic model of the shock induced wave evolution in solids. Procedia Structural Integrity, 2016, 2, 994-1001.	0.3	8
83	Boundary Energy Control of the Sine-Gordon Equation**This work was performed in IPME RAS, supported by RSF (grant 14-29-00142).. IFAC-PapersOnLine, 2016, 49, 148-153.	0.5	9
84	Time-varying observer of the supporting body velocity for vibration units. IFAC-PapersOnLine, 2016, 49, 18-23.	0.5	3
85	Controlled synchronization in two hybrid FitzHugh-Nagumo systems. IFAC-PapersOnLine, 2016, 49, 137-141.	0.5	8
86	Control of localized non-linear strain waves in complex crystalline lattices. International Journal of Non-Linear Mechanics, 2016, 86, 174-184.	1.4	10
87	Dynamics of the f-divergence minimization processes based on the speed-gradient principle. , 2016, , .		2
88	Speed-gradient entropy maximization in networks. , 2016, , .		1
89	Robust Control of Multi-Machine Power Systems Caused by Perturbation of Mechanical Input Power and Variable Unknown Communication Time-Delay**The proof of control algorithms was proposed in Appendix A is supported solely by the grant from the Russian Science Foundation (project No.) Tj ETQq1 1 0.784314 rgBT /Overlock 10 supported solely by the Russian Federation President Grant (No. 14.W01.16.6325-MD (MD-6325.2016.8)). The other researches were p. IFAC-PapersOnLine, 2016, 49, 24-29.	0.5	0
90	Synchronization in heterogeneous FitzHugh-Nagumo networks with hierarchical architecture. Physical Review E, 2016, 94, 012203.	0.8	25

#	ARTICLE	IF	CITATIONS
91	Speed-Gradient Control of the Brockett Integrator. SIAM Journal on Control and Optimization, 2016, 54, 2116-2131.	1.1	8
92	Event-Triggered Control of Sampled-Data Nonlinear Systems**This work was supported by Saint Petersburg State University, (grant 6.38.230.2015) and by Government of Russian Federation, Grant 074-U01. The Lyapunov-Krasovskii functional based analysis of closed-loop switched system was performed in IPME RAS under support of Russian Science Foundation (grant 14-29-00142). IFAC-PapersOnLine, 2016, 49, 12-17.	0.5	9
93	Problems and methods of network control. Automation and Remote Control, 2016, 77, 1711-1740.	0.4	30
94	Robust nonlinear sampled-data system analysis based on Fridman's method and Sâ€ procedure. International Journal of Robust and Nonlinear Control, 2016, 26, 201-217.	2.1	12
95	Adaptively Controlled Synchronization of Delay-Coupled Networks. Understanding Complex Systems, 2016, , 47-63.	0.3	1
96	Energy control of a pendulum with quantized feedback. Automatica, 2016, 67, 171-177.	3.0	13
97	Dynamics of non-stationary processes that follow the maximum of the RÃ©nyi entropy principle. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2016, 472, 20150324.	1.0	11
98	Localization of the sine-Gordon equation solutions. Communications in Nonlinear Science and Numerical Simulation, 2016, 39, 29-37.	1.7	9
99	Adaptive control of passifiable linear systems with quantized measurements and bounded disturbances. Systems and Control Letters, 2016, 88, 62-67.	1.3	33
100	Equivalence of MIMO Circle Criterion to Existence of Quadratic Lyapunov Function. IEEE Transactions on Automatic Control, 2016, 61, 1895-1899.	3.6	7
101	Control Engineering at High Schools and Universities. Advances in Educational Technologies and Instructional Design Book Series, 2016, , 141-170.	0.2	3
102	Sampled-Data Control of Nonlinear Systems Based on Fridman's Analysis and Passification Designâ€—â€—The work is supported by Saint Petersburg State University, (grant 6.38.230.2015). The procedure and conditions for controller design were obtained in IPME RAS under support of Russian Scientific Foundation (grant 14-29-00142). IFAC-PapersOnLine, 2015, 48, 685-690.	0.5	5
103	Compensation of disturbances in multi-machine power systems caused by perturbation of mechanical input power. , 2015, , .		2
104	Dynamics of differential entropy maximization process via the Speed Gradient principle. , 2015, , .		0
105	About the necessity of Popov criterion for a special Lyapunov function existence for the systems with multiple nonlinearities. Automation and Remote Control, 2015, 76, 801-808.	0.4	3
106	My Teacher. IFAC-PapersOnLine, 2015, 48, 1033-1036.	0.5	0
107	Controlled Passage through Resonance for Flexible Vibration Units. Mathematical Problems in Engineering, 2015, 2015, 1-8.	0.6	4
108	Simulation of MEPP via speed-gradient principle. , 2015, , .		0

#	ARTICLE	IF	CITATIONS
109	Synchronization of passifiable linear networks by output feedback. , 2015, , .		0
110	Nonsmooth Speed-Gradient algorithms. , 2015, , .		2
111	Passification-based adaptive control: Uncertain input and output delays. Automatica, 2015, 54, 107-113.	3.0	23
112	Design of impulsive adaptive observers for improvement of persistency of excitation. International Journal of Adaptive Control and Signal Processing, 2015, 29, 765-782.	2.3	43
113	Adaptive time-delayed stabilization of steady states and periodic orbits. Physical Review E, 2015, 91, 012906.	0.8	19
114	Feedback control for some solutions of the sine-Gordon equation. Applied Mathematics and Computation, 2015, 269, 17-22.	1.4	17
115	Compensation of disturbances for MIMO systems with quantized output. Automatica, 2015, 60, 239-244.	3.0	28
116	Linear matrix inequality-based analysis of the discrete-continuous nonlinear multivariable systems. Automation and Remote Control, 2015, 76, 989-1004.	0.4	7
117	Dynamics of non-stationary nonlinear processes that follow the maximum of differential entropy principle. Communications in Nonlinear Science and Numerical Simulation, 2015, 29, 488-498.	1.7	9
118	Robust control of multi-machine power systems with compensation of disturbances. International Journal of Electrical Power and Energy Systems, 2015, 73, 584-590.	3.3	12
119	Speed Gradient and MaxEnt Principles for Shannon and Tsallis Entropies. Entropy, 2015, 17, 1090-1102.	1.1	18
120	Approximate Consensus in Stochastic Networks With Application to Load Balancing. IEEE Transactions on Information Theory, 2015, 61, 1739-1752.	1.5	90
121	Passification based synchronization of nonlinear systems under communication constraints and bounded disturbances. Automatica, 2015, 55, 287-293.	3.0	33
122	Quadcopters Formation Control Over the Limited-band Communication Network—This work was performed in the IPME RAS and supported by the Russian Scientific Foundation (project 14-29-00142).. IFAC-PapersOnLine, 2015, 48, 85-90.	0.5	1
123	Passification-based decentralized adaptive synchronization of dynamical networks with time-varying delays. Journal of the Franklin Institute, 2015, 352, 52-72.	1.9	44
124	Approximate consensus in multi-agent nonlinear stochastic systems. , 2014, , .		10
125	Adaptive coding for maneuvering UAV tracking over the digital communication channel. , 2014, , .		6
126	Analysis of nonlinear local voting protocol for stochastic dynamical networks. , 2014, , .		0

#	ARTICLE	IF	CITATIONS
127	Synchronization of nonlinear systems over intranet: Cart-pendulum case study. , 2014, , .		5
128	Robust synchronization of linear dynamical networks with compensation of disturbances. International Journal of Robust and Nonlinear Control, 2014, 24, 2774-2784.	2.1	42
129	Simple and robust adaptive control. International Journal of Adaptive Control and Signal Processing, 2014, 28, 563-566.	2.3	5
130	Controlling cluster synchronization by adapting the topology. Physical Review E, 2014, 90, 042914.	0.8	47
131	State estimation and synchronization of pendula systems over digital communication channels. European Physical Journal: Special Topics, 2014, 223, 773-793.	1.2	17
132	Passification-based adaptive control with quantized measurements. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 1477-1482.	0.4	1
133	Robust Control of Aircraft Lateral Movement 1. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 5199-5204.	0.4	3
134	Robust Control with Compensation of Disturbances for Systems with Quantized Output1. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 730-735.	0.4	9
135	Adaptive time-delayed feedback control. IEICE Proceeding Series, 2014, 1, 674-677.	0.0	2
136	Exciting multi-DOF systems by feedback resonance. Automatica, 2013, 49, 1782-1789.	3.0	11
137	Decentralized adaptive control of synchronization of dynamic system networks at bounded disturbances. Automation and Remote Control, 2013, 74, 829-844.	0.4	9
138	Robust control for a network of electric power generators. Automation and Remote Control, 2013, 74, 1851-1862.	0.4	22
139	Vladimir Andreevich Yakubovich [Obituary]. IEEE Control Systems, 2013, 33, 89-91.	1.0	3
140	Robust control of electric generator in the case of time-dependent mechanical power. Journal of Computer and Systems Sciences International, 2013, 52, 750-758.	0.2	18
141	Passification Based Controlled Synchronization of Complex Networks. Springer Proceedings in Complexity, 2013, , 993-996.	0.2	0
142	Adaptive control of systems with fast varying unknown delay in measurements. , 2013, , .		2
143	Decentralized adaptive controller for synchronization of nonlinear dynamical heterogeneous networks. International Journal of Adaptive Control and Signal Processing, 2013, 27, 729-740.	2.3	7
144	Structured adaptive control for solving LMIs. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 426-431.	0.4	2

#	ARTICLE	IF	CITATIONS
145	Combined Speed-gradient Controlled Synchronization of Multimachine Power Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 59-63.	0.4	2
146	Multiple Controlled Synchronization for 3-Rotor Vibration Unit with Varying Payload. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 5-10.	0.4	8
147	9th IFAC Symposium on Advances in Control Education (ACE 2012) [Conference Reports]. IEEE Control Systems, 2013, 33, 71-76.	1.0	0
148	Robust and Adaptive Passification Based Consensus Control of Dynamical Networks. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 707-711.	0.4	1
149	Sampled-Data Control of Nonlinear Oscillations Based on LMIs and Fridman's Method. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 95-100.	0.4	8
150	Rainbow Runner glider as a testbed for robust and adaptive control methods*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 270-275.	0.4	3
151	Adaptive synchronization in delay-coupled networks of Stuart-Landau oscillators. Physical Review E, 2012, 85, 016201.	0.8	98
152	CONTROL OF SYNCHRONIZATION IN DELAY-COUPLED NETWORKS. International Journal of Modern Physics B, 2012, 26, 1246007.	1.0	14
153	On finite time resonance entrainment in multi-DOF systems. , 2012, , .		2
154	Approximate consensus in multi-agent stochastic systems with switched topology and noise. , 2012, , .		10
155	Control Engineering At School: Learning By Examples. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 118-123.	0.4	3
156	Approximate consensus in the dynamic stochastic network with incomplete information and measurement delays. Automation and Remote Control, 2012, 73, 1765-1783.	0.4	28
157	Natural wave control in lattices of linear oscillators. Systems and Control Letters, 2012, 61, 887-893.	1.3	1
158	State estimation of complex oscillatory system with uniform quantization under data rate constraints. , 2012, , .		1
159	Control of oscillatory behavior of multispecies populations. Ecological Modelling, 2012, 227, 1-6.	1.2	16
160	Multipendulum mechatronic setup: Design and experiments. Mechatronics, 2012, 22, 76-82.	2.0	14
161	Adaptive tuning of feedback gain in time-delayed feedback control. Chaos, 2011, 21, 043111.	1.0	39
162	Robust Synchronization of Linear Networks with Compensation of Disturbances1. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 1255-1260.	0.4	8

#	ARTICLE	IF	CITATIONS
163	Teaching of robotics and control jointly in the University and in the high school based on LEGO Mindstorms NXT. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 9824-9829.	0.4	6
164	IMPULSIVE ADAPTIVE OBSERVERS: IMPROVING PERSISTENCY OF EXCITATION. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 2326-2331.	0.4	2
165	Passification Based Synchronization of Nonlinear Systems Under Communication Constraints. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 6561-6566.	0.4	2
166	Adaptive synchronization of nonlinear networks with delayed couplings under incomplete control and incomplete measurements*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 1249-1254.	0.4	1
167	International conferences in control systems: Traditions and trends. Automation and Remote Control, 2011, 72, 160-163.	0.4	2
168	Synchronization in networks of linear agents with output feedbacks. Automation and Remote Control, 2011, 72, 1615-1626.	0.4	43
169	Adaptive-based methods for information transmission by means of chaotic signal source modulation. Automation and Remote Control, 2011, 72, 1967-1980.	0.4	5
170	Passification-based robust flight control design. Automatica, 2011, 47, 2743-2748.	3.0	24
171	Controlled passage through resonance in mechanical systems. Journal of Sound and Vibration, 2011, 330, 1065-1073.	2.1	22
172	Decentralized adaptive controller for synchronization of dynamical networks with delays and bounded disturbances. , 2011, , .		9
173	Synchronization of linear object networks by output feedback. , 2011, , .		6
174	Speed-gradient principle for description of transient dynamics in systems obeying maximum entropy principle. AIP Conference Proceedings, 2011, , .	0.3	8
175	Passification-based robust flight control system design. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 66-71.	0.4	0
176	Adaptive coding for position estimation in formation flight control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 72-76.	0.4	3
177	Decentralized Adaptive Controller for Synchronization of Nonlinear Dynamical Heterogeneous Networks. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 324-329.	0.4	0
178	Speed gradient control of qubit state*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 81-85.	0.4	3
179	Control and observation via communication channels with limited bandwidth. Gyroscopy and Navigation, 2010, 1, 126-133.	0.7	4
180	Control and estimation under information constraints: Toward a unified theory of control, computation and communications. Automation and Remote Control, 2010, 71, 572-633.	0.4	72

#	ARTICLE	IF	CITATIONS
181	Estimation and Control Under Information Constraints for LAAS Helicopter Benchmark. IEEE Transactions on Control Systems Technology, 2010, 18, 1180-1187.	3.2	49
182	Wave control in the lattices of linear oscillators. , 2010, , .		1
183	Multipendulum Mechatronic Setup for Studying Control and Synchronization. World Scientific Series on Nonlinear Science, Series B, 2010, , 211-222.	0.2	3
184	Hybrid Quantised Observer for Multi-input-multi-output Nonlinear Systems. World Scientific Series on Nonlinear Science, Series B, 2010, , 89-102.	0.2	2
185	State estimation of passifiable lurie systems via limited-capacity communication channel. , 2009, , .		7
186	Input-to-output stabilization of nonlinear systems via backstepping. International Journal of Robust and Nonlinear Control, 2009, 19, 613-633.	2.1	8
187	Adaptive synchronization of a network of interconnected nonlinear Lurie systems. Automation and Remote Control, 2009, 70, 1190-1205.	0.4	25
188	Adaptive control of linear systems with coordinatewise-parametric perturbations of white noise type. Vestnik St Petersburg University: Mathematics, 2009, 42, 204-211.	0.1	1
189	Application of passification method to controlled synchronization of tree networks under information constraints. , 2009, , .		2
190	Synchronization of Passifiable Lurie Systems Via Limited-Capacity Communication Channel. IEEE Transactions on Circuits and Systems I: Regular Papers, 2009, 56, 430-439.	3.5	44
191	Cyber-physical laboratory based on LEGO Mindstorms NXT - first steps. , 2009, , .		8
192	Behavior analysis of harmonically forced chain of pendulums. , 2009, , .		3
193	Decentralized adaptive synchronization in nonlinear dynamical networks with nonidentical nodes. , 2009, , .		5
194	Oscillatority of Nonlinear Systems with Static Feedback. SIAM Journal on Control and Optimization, 2009, 48, 618-640.	1.1	38
195	Robust and Adaptive Observer-Based Partial Stabilization for a Class of Nonlinear Systems. IEEE Transactions on Automatic Control, 2009, 54, 1591-1595.	3.6	6
196	Passification-based adaptive control of linear systems: Robustness issues. International Journal of Adaptive Control and Signal Processing, 2008, 22, 590-608.	2.3	16
197	Adaptive input-to-output stabilization of nonlinear systems. International Journal of Adaptive Control and Signal Processing, 2008, 22, 949-967.	2.3	3
198	Robust adaptive -gain control of polytopic MIMO LTI systems - LMI results. Systems and Control Letters, 2008, 57, 881-887.	1.3	43

#	ARTICLE	IF	CITATIONS
199	9th IFAC Workshop "Adaptation and Learning in Control and Signal Processing" (ALCOSP 2007) and 3rd IFAC Workshop "Periodic Control Systems" (PSYCO 2007). Automation and Remote Control, 2008, 69, 733-736.	0.4	1
200	Adaptive Observer-Based Synchronization of Chaotic Systems With First-Order Coder in the Presence of Information Constraints. IEEE Transactions on Circuits and Systems I: Regular Papers, 2008, 55, 1685-1694.	3.5	51
201	Yakubovich's oscillatory of circadian oscillations models. Mathematical Biosciences, 2008, 216, 187-191.	0.9	16
202	Adaptive Control Design and Experiments for LAAS "Helicopter" Benchmark. European Journal of Control, 2008, 14, 329-339.	1.6	15
203	Control algorithm design for passing through resonance of two-rotor vibration unit. , 2008, , .		0
204	Hybrid quantised observer for multi-input-multi-output nonlinear systems. , 2008, , .		3
205	Synchronization of nonlinear systems under information constraints. Chaos, 2008, 18, 037109.	1.0	33
206	Passification of linear systems with respect to given output. , 2008, , .		7
207	Speed-gradient Entropy Principle for Nonstationary Processes. Entropy, 2008, 10, 757-764.	1.1	24
208	Control of a noise-induced transition in a nonlinear dynamical system. Physical Review E, 2008, 77, 026201.	0.8	7
209	Controlled synchronization under information constraints. Physical Review E, 2008, 78, 036210.	0.8	38
210	Synchronization of passifiable Lurie systems via limited capacity communication channel. , 2008, , .		2
211	Control of wave motion in the chain of pendulums. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 3136-3141.	0.4	7
212	Observer-based synchronization of discrete-time chaotic systems under communication constraints. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 3719-3724.	0.4	5
213	STATE ESTIMATION OVER THE LIMITED-BAND COMMUNICATION CHANNEL FOR PITCH MOTION CONTROL OF LAAS HELICOPTER BENCHMARK1. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 407-412.	0.4	10
214	Passification-Based Adaptive Control with Implicit Reference Model*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 342-350.	0.4	7
215	ADAPTIVE PASSIFICATION-BASED FAULT-TOLERANT FLIGHT CONTROL. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 715-720.	0.4	17
216	Dissipativity of T-Periodic Linear Systems. IEEE Transactions on Automatic Control, 2007, 52, 1039-1047.	3.6	21

#	ARTICLE	IF	CITATIONS
217	Adaptive Control of 3DOF Motion for LAAS Helicopter Benchmark: Design and Experiments. Proceedings of the American Control Conference, 2007, , .	0.0	57
218	Adaptive Identification of Angular Motion Model Parameters for LAAS Helicopter Benchmark. Control Applications (CCA), Proceedings of the IEEE International Conference on, 2007, , .	0.0	7
219	Finite time practical stabilization of nonlinear detectable systems by uniting control. , 2007, , .		1
220	Information Transmission by Means of Chaos-Based Frequency Modulation and Adaptive Identification. Control Applications (CCA), Proceedings of the IEEE International Conference on, 2007, , .	0.0	0
221	Synchronization and phase relations in the motion of two-pendulum system. International Journal of Non-Linear Mechanics, 2007, 42, 895-901.	1.4	69
222	The optimality of the velocity-gradient method in the problem of controlling the escape from a potential well. Prikladnaya Matematika I Mekhanika, 2007, 71, 809-818.	0.4	0
223	ConicS-procedure and constrained dissipativity for linear systems. International Journal of Robust and Nonlinear Control, 2007, 17, 405-413.	2.1	1
224	Adaptive observer-based synchronization of the nonlinear nonpassifiable systems. Automation and Remote Control, 2007, 68, 1186-1200.	0.4	8
225	Control of passage through a resonance area during the start of a two-rotor vibration machine. Journal of Machinery Manufacture and Reliability, 2007, 36, 380-385.	0.1	9
226	Control of chaos: methods and applications in mechanics. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2006, 364, 2279-2307.	1.6	55
227	CONIC S-PROCEDURE AND CONSTRAINED DISSIPATIVITY FOR LINEAR SYSTEMS 1. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 279-284.	0.4	0
228	PASSIFICATION-BASED ADAPTIVE CONTROL : ROBUSTNESS ISSUES 1. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 273-278.	0.4	4
229	ANALYSIS OF A CHAOTIC SYNCHRONISATION SYSTEM UNDER INFORMATION CONSTRAINTS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 142-147.	0.4	1
230	ADAPTIVE OBSERVER-BASED SYNCHRONISATION OF CHAOTIC SYSTEMS IN PRESENCE OF INFORMATION CONSTRAINTS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 269-274.	0.4	4
231	TEXT AND IMAGE TRANSMISSION BASED ON ADAPTIVE SYNCHRONIZATION OF NONLINEAR NONPASSIFIABLE CHAOTIC SYSTEMS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 329-334.	0.4	3
232	Vladimir Andreevich Yakubovich. Automation and Remote Control, 2006, 67, 1530-1546.	0.4	5
233	Method of passification in adaptive control, estimation, and synchronization. Automation and Remote Control, 2006, 67, 1699-1731.	0.4	80
234	Adaptive tuning to bifurcation for time-varying nonlinear systems. Automatica, 2006, 42, 417-425.	3.0	28

#	ARTICLE	IF	CITATIONS
235	Dynamics and control of oscillations in a complex crystalline lattice. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 353, 24-29.	0.9	16
236	Robust and Adaptive Partial Stabilization for a Class of Nonlinearly Parameterized Systems. , 2006, , .		3
237	Adaptive Input-to-Output Stabilization of Nonlinear Systems. , 2006, , .		1
238	Chaotic observer-based synchronization under information constraints. Physical Review E, 2006, 73, 066209.	0.8	57
239	Singular Perturbation Analysis of Energy Control Systems. JVC/Journal of Vibration and Control, 2006, 12, 331-353.	1.5	2
240	Control Of Isomerization In Ensembles Of Nonrigid Molecules based on Classical and Quantum-mechanical Models, LiCN. , 2006, , .		1
241	ROBUST PASSIFICATION VIA STATIC OUTPUT FEEDBACK " LMI RESULTS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 820-825.	0.4	12
242	SPEED-GRADIENT CONTROL OF PASSING THROUGH RESONANCE IN ONE- AND TWO-DIMENSIONAL MOTION. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 848-853.	0.4	2
243	SPEED-GRADIENT ALGORITHMS FOR UNDERACTUATED NONLINEAR SYSTEMS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 842-847.	0.4	3
244	Control of chaos: Methods and applications in engineering. Annual Reviews in Control, 2005, 29, 33-56.	4.4	301
245	Time domain interpretations of frequency domain inequalities on (semi)finite ranges. Systems and Control Letters, 2005, 54, 681-691.	1.3	106
246	Control of the coupled double pendulums system. Mechatronics, 2005, 15, 1289-1303.	2.0	39
247	Oscillation conditions of nonlinear systems with static feedback. Automation and Remote Control, 2005, 66, 249-264.	0.4	3
248	Control of the Observables in the Finite-Level Quantum Systems. Automation and Remote Control, 2005, 66, 734-745.	0.4	17
249	43rd International Conference on Decision and Control (IEEE CDC 2004). Automation and Remote Control, 2005, 66, 1357-1361.	0.4	3
250	The Second International Conference "Physics and Control". Automation and Remote Control, 2005, 66, 2033-2034.	0.4	0
251	Application of cybernetic methods in physics. Physics-Uspokhi, 2005, 48, 103-127.	0.8	54
252	Combined Adaptive Controller for UAV Guidance. European Journal of Control, 2005, 11, 71-79.	1.6	43

#	ARTICLE	IF	CITATIONS
253	Adaptive Partial Observers with Application to Time-Varying Chaotic Systems. , 2005, , 27-35.		4
254	Restricted frequency inequality is equivalent to restricted dissipativity. , 2004, , .		9
255	Excitation of oscillations in nonlinear systems under static feedback. , 2004, , .		7
256	Determining parameters of ferroelectric crystals by method of optimization. Technical Physics Letters, 2004, 30, 1013-1016.	0.2	0
257	Tracking control of the boost converter. IET Control Theory and Applications, 2004, 151, 218-224.	1.7	35
258	Control of Chaos: Methods and Applications. II. Applications. Automation and Remote Control, 2004, 65, 505-533.	0.4	134
259	Singular perturbations of systems controlled by energy-speed-gradient method. , 2004, , .		7
260	Energy Speed-Gradient Control of Satellite Oscillations. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 417-422.	0.4	1
261	Speed-gradient control of energy in singularly perturbed systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 979-984.	0.4	2
262	Shunting Method for Control of Homing Missiles with Uncertain Parameters. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 593-598.	0.4	5
263	Speed-gradient control for passage of unbalanced rotor through resonance in plane motion. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 1087-1092.	0.4	3
264	On General Definitions of Synchronization. Series on Stability, Vibration and Control of Systems - Series A, 2004, , 179-188.	0.0	5
265	Necessary and Sufficient Conditions for the Passivability of Linear Distributed Systems. Automation and Remote Control, 2003, 64, 517-530.	0.4	7
266	Control of Chaos: Methods and Applications. I. Methods. Automation and Remote Control, 2003, 64, 673-713.	0.4	179
267	How to Publish a Good Article and to Reject a Bad One. Notes of a Reviewer. Automation and Remote Control, 2003, 64, 1643-1650.	0.4	4
268	“RUSYCON” Portal of Scientific Information. Automation and Remote Control, 2003, 64, 1820-1825.	0.4	1
269	Radiationless recombination mechanisms in GaN surface layers determined from photoluminescence. Physica Status Solidi A, 2003, 195, 106-111.	1.7	0
270	Passification of Non-square Linear Systems and Feedback Yakubovich-Kalman-Popov Lemma. European Journal of Control, 2003, 9, 577-586.	1.6	75

#	ARTICLE	IF	CITATIONS
271	Control applications in physics: From control of chaos to quantum control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2003, 36, 5-6.	0.4	0
272	Feedback design of control algorithms for dissociation of diatomic molecules. , 2003, , .		0
273	NUMERICAL AND EXPERIMENTAL EXCITABILITY ANALYSIS OF MULTI-PENDULUM MECHATRONICS SYSTEM. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2002, 35, 55-60.	0.4	4
274	CONTROL OF CHAOS: SURVEY 1997-2000. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2002, 35, 131-142.	0.4	35
275	Self-synchronization and controlled synchronization: general definition and example design. Mathematics and Computers in Simulation, 2002, 58, 367-384.	2.4	111
276	High-temperature annealing of bulk GaN layers. Technical Physics Letters, 2002, 28, 994-996.	0.2	2
277	VSS-version of energy-based control for swinging up a pendulum. Systems and Control Letters, 2001, 44, 45-56.	1.3	58
278	Stabilization of invariant sets for nonlinear systems with applications to control of oscillations. International Journal of Robust and Nonlinear Control, 2001, 11, 215-240.	2.1	38
279	Semi-adaptive control of convexly parametrized systems with application to temperature regulation of chemical reactors. International Journal of Adaptive Control and Signal Processing, 2001, 15, 415-426.	2.3	37
280	Passification of nonsquare linear systems. , 2001, , .		8
281	Stabilization of Invariant Sets in Nonlinear Systems: Chetaev's Bundles and Speed-Gradient. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2000, 33, 45-50.	0.4	0
282	Stabilization of invariant sets for nonlinear non-affine systems. Automatica, 2000, 36, 1709-1715.	3.0	57
283	A controlled closing theorem. Differential Equations, 2000, 36, 813-818.	0.1	0
284	ADAPTIVE OBSERVER-BASED SYNCHRONIZATION FOR COMMUNICATION. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2000, 10, 2807-2813.	0.7	116
285	ADAPTIVE CONTROL OF RECURRENT TRAJECTORIES BASED ON LINEARIZATION OF POINCARÉ MAP. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2000, 10, 621-637.	0.7	9
286	Energy control of one-degree-of-freedom oscillators in presence of bounded force disturbances. , 1999, , .		9
287	Feedback resonance in nonlinear oscillators. , 1999, , .		13
288	FEEDBACK RESONANCE IN SINGLE AND COUPLED 1-DOF OSCILLATORS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1999, 09, 2047-2057.	0.7	25

#	ARTICLE	IF	CITATIONS
289	Exploring nonlinearity by feedback. <i>Physica D: Nonlinear Phenomena</i> , 1999, 128, 159-168.	1.3	50
290	On adaptive observer-based synchronization for communication. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 1999, 32, 2029-2034.	0.4	10
291	Nonlinear and Adaptive Control of Complex Systems. , 1999, , .		300
292	Modelling, simulation and experiment with double pendulum chaotic toy. , 1999, , .		2
293	Trajectory-approximation-based adaptive control for nonlinear systems under matching conditions. <i>Automatica</i> , 1998, 34, 287-299.	3.0	25
294	Exponential Feedback Passivity and Stabilizability of Nonlinear Systems. <i>Automatica</i> , 1998, 34, 697-703.	3.0	152
295	Strict Quasipassivity and Ultimate Boundedness for Nonlinear Control Systems. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 1998, 31, 505-510.	0.4	5
296	Stabilization of Invariant Manifolds for Nonlinear Nonaffine Systems. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 1998, 31, 213-218.	0.4	5
297	Dynamics and control of thin film growth process from a multicomponent gas. <i>Journal Physics D: Applied Physics</i> , 1997, 30, 2794-2797.	1.3	2
298	Gradient Control of H [∞] -non Map Dynamics. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 1997, 07, 701-705.	0.7	8
299	Adaptive synchronization of chaotic systems based on speed gradient method and passification. <i>IEEE Transactions on Circuits and Systems Part 1: Regular Papers</i> , 1997, 44, 905-912.	0.1	104
300	Adaptive control of oscillatory and chaotic systems based on linearization of Poincaré map. , 1997, , .		9
301	Control of oscillations in Hamiltonian systems. , 1997, , .		25
302	Self-excited oscillatory regimes in the growth of thin films from a multicomponent vapor: Dynamics and control. <i>Technical Physics</i> , 1997, 42, 1027-1030.	0.2	0
303	Adaptive control synthesis for a chua circuit by the velocity gradient method. <i>Cybernetics and Systems Analysis</i> , 1997, 33, 251-258.	0.4	0
304	On self-synchronization and controlled synchronization. <i>Systems and Control Letters</i> , 1997, 31, 299-305.	1.3	246
305	Speed gradient control of chaotic continuous-time systems. <i>IEEE Transactions on Circuits and Systems Part 1: Regular Papers</i> , 1996, 43, 907-913.	0.1	83
306	Swinging control of nonlinear oscillations. <i>International Journal of Control</i> , 1996, 64, 1189-1202.	1.2	126

#	ARTICLE	IF	CITATIONS
307	A passification approach to adaptive nonlinear stabilization. Systems and Control Letters, 1996, 28, 73-84.	1.3	60
308	Nonlinear adaptive control of feedback passive systems. Automatica, 1995, 31, 1053-1060.	3.0	78
309	Asymptotic stability of a class of adaptive systems. International Journal of Adaptive Control and Signal Processing, 1993, 7, 255-260.	2.3	27
310	A comparison of adaptive and nonadaptive feedback for discrete-time plants with dead time. IEEE Transactions on Automatic Control, 1993, 38, 492-495.	3.6	1
311	Speed gradient adaptive control algorithms for mechanical systems. International Journal of Adaptive Control and Signal Processing, 1992, 6, 211-220.	2.3	14
312	Quadratic Lyapunov functions in the adaptive stability problem of a linear dynamic target. Siberian Mathematical Journal, 1976, 17, 341-348.	0.2	97
313	Duality theorems for certain nonconvex extremal problems. Siberian Mathematical Journal, 1973, 14, 247-264.	0.2	32
314	Nonlinear and Adaptive Control of Chaos. , 0, , 129-157.		0