Boris Andrievsky

List of Publications by Year
in descending order

131	1,854	361413	315739
papers	citations	20 h-index	38 g-index

136	136	136	904
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Parameter Estimation for Hindmarshâ€“Rose Neurons. Electronics (Switzerland), 2022, 11, 885.	3.1	2
2	Identification of Human Model Parameters for the Human-Machine Control Systems Design. , 2022, , .		0
3	Adaptive Multiple Synchronization and Phase Shift Control for Mechatronic Vibrational Setup. , 2022, , .		2
4	Control of Phase Shift in Two-Rotor Vibration Units. IEEE Transactions on Control Systems Technology, 2021, 29, 1316-1323.	5.2	12
5	Optimization of the manned aircraft pitch angle control loop with actuator rate limitation and nonlinear correction. Journal of Physics: Conference Series, 2021, 1864, 012055.	0.4	3
6	Development and Simulation of Motion Control System for Small Satellites Formation. Electronics (Switzerland), 2021, 10, 3111.	3.1	7
7	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.	5.7	13
8	Observer-based boundary control of the sineâ€“Gordon model energy. Automatica, 2020, 113, 108682.	5.0	10
9	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.	3.1	5
10	Aircraft wing rock oscillations suppression by simple adaptive control. Aerospace Science and Technology, 2020, 105, 106049.	4.8	15
11	Output Feedback Energy Control of String PDE Model. IFAC-PapersOnLine, 2019, 52, 138-143.	0.9	2
12	Two-point Output Feedback Boundary Control for Semilinear Hyperbolic Systems. IFAC-PapersOnLine, 2019, 52, 54-59.	0.9	0
13	Hidden Nonlinear Oscillations in Controlled Aircraft With Saturated Inputs. , 2018, , .		3
14	Energy Synchronization of Pendulum Mechanisms. , 2018, , .		3
15	Information Transmission Over the Limited-rate Communication Channel by Chaotic Signal Modulation and Non-linear Observer.. IFAC-PapersOnLine, 2018, 51, 91-96.	0.9	0
16	Suppression of nonlinear wing-rock oscillations by adaptive control with the implicit reference model. AIP Conference Proceedings, 2018, , .	0.4	2
17	Adaptive control of quadrotors spatial motion in formation with implicit reference model. AIP Conference Proceedings, 2018, , .	0.4	3
18	Improved adaptive coding procedure for transferring the navigation data between UAVs in formation. AIP Conference Proceedings, 2018, , .	0.4	3

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19	Boundary energy control of a system governed by the nonlinear Kleinâ€“Gordon equation. Mathematics of Control, Signals, and Systems, 2018, 30, 1.	2.3	8
20	Formation control of a group of unmanned aerial vehicles with data exchange over a packet erasure channel. , 2018, , .		6
21	Robustness of Pecoraâ€“Carroll synchronization under communication constraints. Systems and Control Letters, 2018, 111, 27-33.	2.3	10
22	Passification based simple adaptive control of quadrotor attitude: Algorithms and testbed results. AIP Conference Proceedings, 2017, , .	0.4	5
23	Control methods for localization of nonlinear waves. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20160212.	3.4	6
24	Simple adaptive control of quadrotor attitude. Algorithms and experimental results. , 2017, , .		7
25	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.	1.9	16
26	Robust observers and Pecora-Carroll synchronization with limited information. , 2017, , .		2
27	Synchronization and state estimation of nonlinear physical systems under communication constraints. , 2016, , .		1
28	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.	0.9	5
29	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.	0.9	5
30	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.	0.9	9
31	Hidden Oscillations In The Closed-Loop Aircraft-Pilot System And Their Prevention* *This work was supported by Russian Science Foundation (project 14-21-00041) and Saint-Petersburg State University.. IFAC-PapersOnLine, 2016, 49, 30-35.	0.9	8
32	Energy-Conserving Algorithm for Earth Observation via GEO Satellite Radar. IEEE Geoscience and Remote Sensing Letters, 2016, , 1-3.	3.1	0
33	Nonlinear processing of accelerometer and magnetometer measurements for vehicles monitoringâˆ—â€”This work was partially financially supported by Government of Russian Federation, Grant 074-U01, by the Ministry of Education and Science of Russian Federation (Project 14.Z50.31.0031) and by the Russian Foundation for Basic Research (Proj. N 13-0800925). The first author is grateful to Professor Wolfgang Birk, without whose help and support this article would not even exist and PhD Student Roland Hostettler, both. IFAC-PapersOnLine, 2015, 48, 484-488.	0.9	0
34	Adaptive Zooming Strategy in Discrete-time Implementation of Sliding-mode Controlâˆ—â€”The work was performed in IPME RAS, supported by RSF (grant 14-29-00142).. IFAC-PapersOnLine, 2015, 48, 319-326.	0.9	4
35	Passification based signal-parametric adaptive controller for agents in formationâˆ—â€”The work was performed in the IPME RAS, supported by RSF (grant 14-29-00142).. IFAC-PapersOnLine, 2015, 48, 222-226.	0.9	9
36	Convergence-based Analysis of Robustness to Delay in Anti-windup Loop of Aircraft Autopilotâˆ—â€”This work was supported by Russian Scientific Foundation (project 14-21-00041) and Saint-Petersburg State University.. IFAC-PapersOnLine, 2015, 48, 144-149.	0.9	4

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37	Feedback control for some solutions of the sine-Gordon equation. Applied Mathematics and Computation, 2015, 269, 17-22.	2.2	17
38	Passification based synchronization of nonlinear systems under communication constraints and bounded disturbances. Automatica, 2015, 55, 287-293.	5.0	33
39	Quadrocopters Formation Control Over the Limited-band Communication Networkâˆ—â€—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.	0.9	1
40	UAV control with switched GNSS-Estimator navigation systemâˆ—â€—This work was supported by Russian Scientific Foundation (project 14-21-00041) and Saint-Petersburg State University.. IFAC-PapersOnLine, 2015, 48, 126-131.	0.9	0
41	Recursive Identification of Motion Model Parameters for ultralight UAVâˆ—â€—The work was performed in IPME RAS, supported by RSF (grant 14-29-00142).. IFAC-PapersOnLine, 2015, 48, 233-237.	0.9	9
42	Stabilization of PVTOL aircraft by supertwisting algorithms. , 2015, , .		4
43	Modeling, Simulation and Control of Pneumatically Actuated Stewart Platform with Input Quantization. , 2014, , .		2
44	Vehicle speed estimation using roadside sensors. , 2014, , .		11
45	Adaptive coding for maneuvering UAV tracking over the digital communication channel. , 2014, , .		6
46	Stability and performance of networked control of quadrocopters formation flight. , 2014, , .		4
47	Vehicle classification using measurements from accelerometers mounted on the road surface. , 2014, , .		5
48	Control of pneumatically actuated 6-DOF Stewart platform for driving simulator. , 2014, , .		6
49	State estimation and synchronization of pendula systems over digital communication channels. European Physical Journal: Special Topics, 2014, 223, 773-793.	2.6	17
50	Frequency and time-domain analysis on performance of a production line operated by observer-based distributed control. International Journal of Systems Science, 2013, 44, 1885-1896.	5.5	2
51	Nonlinear problems in control of manufacturing systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 33-42.	0.4	3
52	Randomized Algorithm for UAVs Group Flight Optimization. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 205-208.	0.4	16
53	Hidden oscillations in aircraft flight control system with input saturation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 75-79.	0.4	49
54	Control of MEMS Gyroscope Oscillation Using Speed Gradient Algorithm. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 1-4.	0.4	3

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55	Switching algorithm for data fusion of small low-cost UAV navigation system. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 206-211.	0.4	10
56	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
57	A non-quadratic criterion for stability of forced oscillations and its application to flight control. , 2013, , .		1
58	Convergence based anti-windup design method and its application to flight control. , 2012, , .		7
59	State estimation of complex oscillatory system with uniform quantization under data rate constraints. , 2012, , .		1
60	Kink and solitary waves may propagate together. Physical Review E, 2012, 85, 046604.	2.1	11
61	Aircraft control with anti-windup compensation. Differential Equations, 2012, 48, 1700-1720.	0.7	32
62	Multipendulum mechatronic setup: Design and experiments. Mechatronics, 2012, 22, 76-82.	3.3	14
63	Robust Simple Adaptive Control with Relaxed Passivity and PID control of a Helicopter Benchmark. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 2315-2320.	0.4	10
64	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
65	Passification Based Synchronization of Nonlinear Systems Under Communication Constraintsâ‹†. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 6561-6566.	0.4	2
66	Adaptive-based methods for information transmission by means of chaotic signal source modulation. Automation and Remote Control, 2011, 72, 1967-1980.	0.8	5
67	Global stabilization of the unstable Reaction-Wheel Pendulum. Automation and Remote Control, 2011, 72, 1981-1993.	0.8	21
68	Solitary wave interactions and reshaping in coupled systems. Wave Motion, 2011, 48, 773-781.	2.0	9
69	Passification-based robust flight control design. Automatica, 2011, 47, 2743-2748.	5.0	24
70	Influence of coupling on nonlinear waves localization. Communications in Nonlinear Science and Numerical Simulation, 2011, 16, 3964-3970.	3.3	5
71	Passification-based robust flight control system design. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 66-71.	0.4	0
72	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

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73	Control and observation via communication channels with limited bandwidth. Gyroscopy and Navigation, 2010, 1, 126-133.	1.3	4
74	Control and estimation under information constraints: Toward a unified theory of control, computation and communications. Automation and Remote Control, 2010, 71, 572-633.	0.8	72
75	Estimation and Control Under Information Constraints for LAAS Helicopter Benchmark. IEEE Transactions on Control Systems Technology, 2010, 18, 1180-1187.	5.2	49
76	CONTROL OF OSCILLATIONS IN MANUFACTURING NETWORKS. World Scientific Series on Nonlinear Science, Series B, 2010, , 121-130.	0.2	1
77	Decentralized feedback control of a line of manufacturing machines. , 2009, , .		3
78	State estimation of passifiable lurie systems via limited-capacity communication channel. , 2009, , .		7
79	Application of passification method to controlled synchronization of tree networks under information constraints. , 2009, , .		2
80	Synchronization of Passifiable Lurie Systems Via Limited-Capacity Communication Channel. IEEE Transactions on Circuits and Systems I: Regular Papers, 2009, 56, 430-439.	5.4	44
81	Behavior analysis of harmonically forced chain of pendulums. , 2009, , .		3
82	Discrete-event implementation of observer-based feedback control of manufacturing system. , 2009, , .		5
83	Observer-based Production control of Manufacturing Machines. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 264-269.	0.4	5
84	Passificationâ€based adaptive control of linear systems: Robustness issues. International Journal of Adaptive Control and Signal Processing, 2008, 22, 590-608.	4.1	16
85	9th IFAC Workshop â€œAdaptation and Learning in Control and Signal Processingâ€•(ALCOSP 2007) and 3rd IFAC Workshop â€œPeriodic Control Systemsâ€•(PSYCO 2007). Automation and Remote Control, 2008, 69, 733-736.	0.8	1
86	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.	5.4	51
87	Final Comments by the Authors. European Journal of Control, 2008, 14, 341.	2.6	0
88	Adaptive Control Design and Experiments for LAAS â€œHelicopterâ€•Benchmark. European Journal of Control, 2008, 14, 329-339.	2.6	15
89	Hybrid quantised observer for multi-input-multi-output nonlinear systems. , 2008, , .		3
90	Synchronization of nonlinear systems under information constraints. Chaos, 2008, 18, 037109.	2.5	33

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91	Controlled synchronization under information constraints. Physical Review E, 2008, 78, 036210.	2.1	38
92	Synchronization of passifiable Lurie systems via limited capacity communication channel. , 2008, , .		2
93	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
94	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
95	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
96	Passification-Based Adaptive Control with Implicit Reference Model*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 342-350.	0.4	7
97	ADAPTIVE PASSIFICATION-BASED FAULT-TOLERANT FLIGHT CONTROL. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 715-720.	0.4	17
98	Adaptive Parameter Identification for Simplified 3D-Motion Model of â€˜LAAS Helicopter Benchmark'1. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 244-249.	0.4	1
99	Adaptive Coding for Transmission of Position Information Over the Limited-band Communication Channel1. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 447-452.	0.4	6
100	Adaptive Control of 3DOF Motion for LAAS Helicopter Benchmark: Design and Experiments. Proceedings of the American Control Conference, 2007, , .	0.0	57
101	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
102	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
103	Synchronization and phase relations in the motion of two-pendulum system. International Journal of Non-Linear Mechanics, 2007, 42, 895-901.	2.6	69
104	Adaptive observer-based synchronization of the nonlinear nonpassifiable systems. Automation and Remote Control, 2007, 68, 1186-1200.	0.8	8
105	Control of chaos: methods and applications in mechanics. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2006, 364, 2279-2307.	3.4	55
106	PASSIFICATION-BASED ADAPTIVE CONTROL : ROBUSTNESS ISSUES 1. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 273-278.	0.4	4
107	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
108	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

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109	Method of passification in adaptive control, estimation, and synchronization. Automation and Remote Control, 2006, 67, 1699-1731.	0.8	80
110	Dynamics and control of oscillations in a complex crystalline lattice. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 353, 24-29.	2.1	16
111	Chaotic observer-based synchronization under information constraints. Physical Review E, 2006, 73, 066209.	2.1	57
112	Singular Perturbation Analysis of Energy Control Systems. JVC/Journal of Vibration and Control, 2006, 12, 331-353.	2.6	2
113	ROBUST PASSIFICATION VIA STATIC OUTPUT FEEDBACK â€“ LMI RESULTS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 820-825.	0.4	12
114	Control of the coupled double pendulums system. Mechatronics, 2005, 15, 1289-1303.	3.3	39
115	Final comments by the authors. European Journal of Control, 2005, 11, 81.	2.6	0
116	Combined Adaptive Controller for UAV Guidance. European Journal of Control, 2005, 11, 71-79.	2.6	43
117	Control of Chaos: Methods and Applications. II. Applications. Automation and Remote Control, 2004, 65, 505-533.	0.8	134
118	Singular perturbations of systems controlled by energy-speed-gradient method. , 2004, , .		7
119	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
120	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
121	Control of Chaos: Methods and Applications. I. Methods. Automation and Remote Control, 2003, 64, 673-713.	0.8	179
122	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
123	Adaptive synchronization methods for signal transmission on chaotic carriers. Mathematics and Computers in Simulation, 2002, 58, 285-293.	4.4	44
124	FEEDBACK RESONANCE IN SINGLE AND COUPLED 1-DOF OSCILLATORS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1999, 09, 2047-2057.	1.7	25
125	Information transmission by adaptive synchronization with chaotic carrier and noisy channel. , 0, , .		11
126	Combined adaptive autopilot for an UAV flight control. , 0, , .		16

#	Article	IF	Citations
127	Phase relations in the synchronized motion of two-pendulum system. , 0, , .		0
128	Speed-gradient control of cooled atom dynamics in potential of standing wave. , 0, , .		2
129	Computation of the Excitability Index for Linear Oscillators. , 0, , .		7
130	Modeling and synchronization of the mechatronic vibrational stand. , 0, , .		1
131	Adaptive control experiments for LAAS "helicopter" benchmark. , 0, , .		9