

Nikolay Kuznetsov

List of Publications by Year in descending order

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256
papers

7,855
citations

70961

41
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54797

84
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262
all docs

262
docs citations

262
times ranked

1818
citing authors

#	ARTICLE	IF	CITATIONS
1	HIDDEN ATTRACTORS IN DYNAMICAL SYSTEMS. FROM HIDDEN OSCILLATIONS IN HILBERTâ€™KOLMOGOROV, AIZERMAN, AND KALMAN PROBLEMS TO HIDDEN CHAOTIC ATTRACTOR IN CHUA CIRCUITS. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2013, 23, 1330002.	0.7	677
2	Localization of hidden Chua's attractors. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2011, 375, 2230-2233.	0.9	616
3	Hidden attractors in dynamical systems. <i>Physics Reports</i> , 2016, 637, 1-50.	10.3	531
4	Hidden attractor in smooth Chua systems. <i>Physica D: Nonlinear Phenomena</i> , 2012, 241, 1482-1486.	1.3	475
5	Homoclinic orbits, and self-excited and hidden attractors in a Lorenz-like system describing convective fluid motion. <i>European Physical Journal: Special Topics</i> , 2015, 224, 1421-1458.	1.2	330
6	Hidden oscillations in mathematical model of drilling system actuated by induction motor with a wound rotor. <i>Nonlinear Dynamics</i> , 2014, 77, 277-288.	2.7	235
7	TIME-VARYING LINEARIZATION AND THE PERRON EFFECTS. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2007, 17, 1079-1107.	0.7	208
8	Hidden attractor and homoclinic orbit in Lorenz-like system describing convective fluid motion in rotating cavity. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2015, 28, 166-174.	1.7	197
9	Control of multistability in hidden attractors. <i>European Physical Journal: Special Topics</i> , 2015, 224, 1485-1491.	1.2	189
10	Algorithms for finding hidden oscillations in nonlinear systems. The Aizerman and Kalman conjectures and Chua's circuits. <i>Journal of Computer and Systems Sciences International</i> , 2011, 50, 511-543.	0.2	186
11	Analytical-numerical method for attractor localization of generalized Chua's system. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2010, 43, 29-33.	0.4	146
12	Hidden attractors in dynamical models of phase-locked loop circuits: Limitations of simulation in MATLAB and SPICE. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2017, 51, 39-49.	1.7	127
13	Finite-time Lyapunov dimension and hidden attractor of the Rabinovich system. <i>Nonlinear Dynamics</i> , 2018, 92, 267-285.	2.7	125
14	Matlab Code for Lyapunov Exponents of Fractional-Order Systems. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2018, 28, 1850067.	0.7	125
15	Controlling Dynamics of Hidden Attractors. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2015, 25, 1550061.	0.7	119
16	A novel memristive time-delay chaotic system without equilibrium points. <i>European Physical Journal: Special Topics</i> , 2016, 225, 127-136.	1.2	105
17	Hidden chaotic sets in a Hopfield neural system. <i>Chaos, Solitons and Fractals</i> , 2017, 103, 144-150.	2.5	104
18	Hold-In, Pull-In, and Lock-In Ranges of PLL Circuits: Rigorous Mathematical Definitions and Limitations of Classical Theory. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2015, 62, 2454-2464.	3.5	101

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19	On differences and similarities in the analysis of Lorenz, Chen, and Lu systems. Applied Mathematics and Computation, 2015, 256, 334-343.	1.4	100
20	Hidden attractors and multistability in a modified Chua's circuit. Communications in Nonlinear Science and Numerical Simulation, 2021, 92, 105494.	1.7	97
21	Numerical justification of Leonov conjecture on Lyapunov dimension of Rossler attractor. Communications in Nonlinear Science and Numerical Simulation, 2014, 19, 1027-1034.	1.7	91
22	Algorithms for searching for hidden oscillations in the Aizerman and Kalman problems. Doklady Mathematics, 2011, 84, 475-481.	0.1	83
23	Hidden attractors in dynamical systems: systems with no equilibria, multistability and coexisting attractors. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 5445-5454.	0.4	83
24	Unusual dynamics and hidden attractors of the Rabinovich-Fabrikant system. Nonlinear Dynamics, 2017, 88, 791-805.	2.7	76
25	Invariance of Lyapunov exponents and Lyapunov dimension for regular and irregular linearizations. Nonlinear Dynamics, 2016, 85, 195-201.	2.7	71
26	Scenario of the Birth of Hidden Attractors in the Chua Circuit. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2017, 27, 1730038.	0.7	70
27	Analytical Method for Computation of Phase-Detector Characteristic. IEEE Transactions on Circuits and Systems II: Express Briefs, 2012, 59, 633-637.	2.2	67
28	The Lyapunov dimension and its estimation via the Leonov method. Physics Letters, Section A: General, Atomic and Solid State Physics, 2016, 380, 2142-2149.	0.9	65
29	Theory of Hidden Oscillations and Stability of Control Systems. Journal of Computer and Systems Sciences International, 2020, 59, 647-668.	0.2	63
30	Analytical-numerical methods for investigation of hidden oscillations in nonlinear control systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 2494-2505.	0.4	62
31	The Lorenz system: hidden boundary of practical stability and the Lyapunov dimension. Nonlinear Dynamics, 2020, 102, 713-732.	2.7	60
32	Hidden oscillations in nonlinear control systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 2506-2510.	0.4	59
33	Lyapunov dimension formula for the global attractor of the Lorenz system. Communications in Nonlinear Science and Numerical Simulation, 2016, 41, 84-103.	1.7	58
34	Hidden Attractors in Fundamental Problems and Engineering Models: A Short Survey. Lecture Notes in Electrical Engineering, 2016, , 13-25.	0.3	53
35	Tutorial on dynamic analysis of the Costas loop. Annual Reviews in Control, 2016, 42, 27-49.	4.4	51
36	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

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37	Coexistence of single- and multi-scroll chaotic orbits in a single-link flexible joint robot manipulator with stable spiral and index-4 spiral repeller types of equilibria. <i>Nonlinear Dynamics</i> , 2017, 90, 1277-1299.	2.7	49
38	Nonlinear dynamical model of Costas loop and an approach to the analysis of its stability in the large. <i>Signal Processing</i> , 2015, 108, 124-135.	2.1	48
39	Hidden Attractors on One Path: Glukhovskiyâ€™Dolzhansky, Lorenz, and Rabinovich Systems. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2017, 27, 1750115.	0.7	48
40	Algorithm for constructing counterexamples to the Kalman problem. <i>Doklady Mathematics</i> , 2010, 82, 540-542.	0.1	46
41	Hidden attractors in electromechanical systems with and without equilibria. <i>IFAC-PapersOnLine</i> , 2016, 49, 51-55.	0.5	42
42	Multistability and Hidden Attractors in the Dynamics of Permanent Magnet Synchronous Motor. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2019, 29, 1950056.	0.7	42
43	Investigations of the space environment aboard the Universitetsky-Tatâ€™yana and Universitetsky-Tatâ€™yana-2 microsatellites. <i>Solar System Research</i> , 2011, 45, 3-29.	0.3	38
44	Visualization of Four Normal Size Limit Cycles in Two-Dimensional Polynomial Quadratic System. <i>Differential Equations and Dynamical Systems</i> , 2013, 21, 29-34.	0.5	37
45	Algorithm for localizing Chua attractors based on the harmonic linearization method. <i>Doklady Mathematics</i> , 2010, 82, 663-666.	0.1	35
46	Complex dynamics, hidden attractors and continuous approximation of a fractional-order hyperchaotic PWC system. <i>Nonlinear Dynamics</i> , 2018, 91, 2523-2540.	2.7	35
47	Generating grid chaotic sea from system without equilibrium point. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2022, 107, 106194.	1.7	35
48	Analytical-Numerical Localization of Hidden Attractor in Electrical Chuaâ€™s Circuit. <i>Lecture Notes in Electrical Engineering</i> , 2013, , 149-158.	0.3	34
49	Aircraft control with anti-windup compensation. <i>Differential Equations</i> , 2012, 48, 1700-1720.	0.1	32
50	First results of investigating the space environment onboard the Universitetskii-Tatyana satellite. <i>Cosmic Research</i> , 2007, 45, 273-286.	0.2	30
51	Graphical Structure of Attraction Basins of Hidden Chaotic Attractors: The Rabinovichâ€™Fabrikant System. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2019, 29, 1930001.	0.7	29
52	On stability by the first approximation for discrete systems. , 0, , .		28
53	Analytical-Numerical Methods for Hidden Attractorsâ€™ Localization: The 16th Hilbert Problem, Aizerman and Kalman Conjectures, and Chua Circuits. <i>Computational Methods in Applied Sciences (Springer)</i> , 2013, , 41-64.	0.1	28
54	Simulation of Analog Costas Loop Circuits. <i>International Journal of Automation and Computing</i> , 2014, 11, 571-579.	4.5	28

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55	Looking More Closely at the Rabinovich-Fabrikant System. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2016, 26, 1650038.	0.7	28
56	Rigorous mathematical definitions of the hold-in and pull-in ranges for phase-locked loops. IFAC-PapersOnLine, 2015, 48, 710-713.	0.5	27
57	Hidden oscillations in SPICE simulation of two-phase Costas loop with non-linear VCO. IFAC-PapersOnLine, 2016, 49, 45-50.	0.5	27
58	Hidden attractor in the Rabinovich system, Chua circuits and PLL. AIP Conference Proceedings, 2016, , .	0.3	26
59	Empirical model of long-time variations of galactic cosmic ray particle fluxes. Journal of Geophysical Research: Space Physics, 2017, 122, 1463-1472.	0.8	26
60	Hidden Oscillations in Dynamical Systems. 16 Hilbert's Problem, Aizerman's and Kalman's Conjectures, Hidden Attractors in Chua's Circuits. Journal of Mathematical Sciences, 2014, 201, 645-662.	0.1	24
61	Hidden and self-excited attractors in Chua circuit: synchronization and SPICE simulation. International Journal of Parallel, Emergent and Distributed Systems, 2018, 33, 513-523.	0.7	23
62	A Tribute to J. C. Sprott. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2017, 27, 1750221.	0.7	22
63	Approximating hidden chaotic attractors via parameter switching. Chaos, 2018, 28, 013127.	1.0	21
64	Chaos control in the fractional order logistic map via impulses. Nonlinear Dynamics, 2019, 98, 1219-1230.	2.7	21
65	Fractional-order PWC systems without zero Lyapunov exponents. Nonlinear Dynamics, 2018, 92, 1061-1078.	2.7	20
66	Limit cycles of quadratic systems with a perturbed weak focus of order 3 and a saddle equilibrium at infinity. Doklady Mathematics, 2010, 82, 693-696.	0.1	19
67	A short survey on Pyragas time-delay feedback stabilization and odd number limitation. IFAC-PapersOnLine, 2015, 48, 706-709.	0.5	19
68	Limitations of the classical phase-locked loop analysis. , 2015, , .		18
69	Hidden attractors localization in Chua circuit via the describing function method. IFAC-PapersOnLine, 2017, 50, 2651-2656.	0.5	18
70	Handbook of Applications of Chaos Theory. , 0, , .		18
71	Nonlinear Analysis and Design of Phase-Locked Loops. , 0, , .		18
72	Computation of phase detector characteristics in synchronization systems. Doklady Mathematics, 2011, 84, 586-590.	0.1	17

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73	Prediction of Hidden Oscillations Existence in Nonlinear Dynamical Systems: Analytics and Simulation. Advances in Intelligent Systems and Computing, 2013, , 5-13.	0.5	17
74	Nonlinear analysis of classical phase-locked loops in signal's phase space. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 8253-8258.	0.4	17
75	Attractor Dimension Estimates for Dynamical Systems: Theory and Computation. Emergence, Complexity and Computation, 2021, , .	0.2	17
76	SYNCHRONIZATION OF TWO METRONOMES. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 49-52.	0.4	16
77	A direct method for calculating Lyapunov quantities of two-dimensional dynamical systems. Proceedings of the Steklov Institute of Mathematics, 2011, 272, 119-126.	0.1	16
78	Hidden oscillations in stabilization system of flexible launcher with saturating actuators*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 37-41.	0.4	16
79	Hidden Strange Nonchaotic Attractors. Mathematics, 2021, 9, 652.	1.1	16
80	The birth of the global stability theory and the theory of hidden oscillations. , 2020, , .		16
81	Impact of chaotic dynamics on the performance of metaheuristic optimization algorithms: An experimental analysis. Information Sciences, 2022, 587, 692-719.	4.0	16
82	Differential equations of Costas loop. Doklady Mathematics, 2012, 86, 723-728.	0.1	15
83	Aircraft wing rock oscillations suppression by simple adaptive control. Aerospace Science and Technology, 2020, 105, 106049.	2.5	15
84	Limitations of PLL simulation: Hidden oscillations in MatLab and SPICE. , 2015, , .		14
85	Drilling systems failures and hidden oscillations. , 2012, , .		13
86	A short survey on nonlinear models of the classic Costas loop: Rigorous derivation and limitations of the classic analysis. , 2015, , .		13
87	On the Gardner Problem for Phase-Locked Loops. Doklady Mathematics, 2019, 100, 568-570.	0.1	13
88	Analytical-numerical analysis of closed-form dynamic model of Sayano-Shushenskaya hydropower plant: stability, oscillations, and accident. Communications in Nonlinear Science and Numerical Simulation, 2021, 93, 105530.	1.7	13
89	Cycles of two-dimensional systems: Computer calculations, proofs, and experiments. Vestnik St Petersburg University: Mathematics, 2008, 41, 216-250.	0.1	12
90	Dynamics and control of the Stewart platform. Doklady Physics, 2014, 59, 405-410.	0.2	12

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91	Hidden periodic oscillations in drilling system driven by induction motor. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 5872-5877.	0.4	12
92	Methods for suppressing nonlinear oscillations in astatic auto-piloted aircraft control systems. Journal of Computer and Systems Sciences International, 2017, 56, 455-470.	0.2	12
93	Rich dynamics and anticontrol of extinction in a prey-predator system. Nonlinear Dynamics, 2019, 98, 1421-1445.	2.7	12
94	New adaptive synchronization algorithm for a general class of complex hyperchaotic systems with unknown parameters and its application to secure communication. Physica A: Statistical Mechanics and Its Applications, 2022, 586, 126466.	1.2	12
95	Nonlinear Analysis of Charge-Pump Phase-Locked Loop: The Hold-In and Pull-In Ranges. IEEE Transactions on Circuits and Systems I: Regular Papers, 2021, 68, 4049-4061.	3.5	12
96	On problems of Aizerman and Kalman. Vestnik St Petersburg University: Mathematics, 2010, 43, 148-162.	0.1	11
97	Variation of the trapped proton flux in the inner radiation belt of the earth as a function of solar activity. Cosmic Research, 2010, 48, 80-85.	0.2	11
98	Analytic Exact Upper Bound for the Lyapunov Dimension of the Shimizu-Morioka System. Entropy, 2015, 17, 5101-5116.	1.1	11
99	Mathematical modeling of vibrations in turbogenerator sets of Sayano-Shushenskaya Hydroelectric Power Station. Doklady Physics, 2016, 61, 55-60.	0.2	11
100	Dynamics of the Zeraouli-Sprott Map Revisited. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2016, 26, 1650126.	0.7	11
101	The Egan Problem on the Pull-in Range of Type 2 PLLs. IEEE Transactions on Circuits and Systems II: Express Briefs, 2021, 68, 1467-1471.	2.2	11
102	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
103	Global Problems for Differential Inclusions. Kalman and Vyshnegradskii Problems and Chua Circuits. Differential Equations, 2017, 53, 1671-1702.	0.1	10
104	Analytical methods for computation of phase-detector characteristics and PLL design. , 2011, , .		9
105	Simulation of nonlinear models of QPSK costas loop in MatLab Simulink. , 2014, , .		9
106	A simple dynamical model of hydropower plant: stability and oscillations. IFAC-PapersOnLine, 2015, 48, 656-661.	0.5	9
107	Hidden Oscillations in Electromechanical Systems. , 2017, , 119-124.		9
108	On counter-examples to Aizerman and Kalman conjectures. International Journal of Control, 2022, 95, 906-913.	1.2	9

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109	On asymmetric periodic solutions in relay feedback systems. Journal of the Franklin Institute, 2021, 358, 363-383.	1.9	9
110	Hidden Oscillations in Drilling Systems: Torsional Vibrations. Journal of Applied Nonlinear Dynamics, 2013, 2, 83-94.	0.1	9
111	Empirical model of pitch-angle distributions of trapped protons on the inner boundary of the Earth's radiation belt. Cosmic Research, 2012, 50, 13-20.	0.2	8
112	BPSK Costas loop: Simulation of nonlinear models in MatLab Simulink. , 2014, , .		8
113	Nonlinear Phase Shift Compensator for Pilot-Induced Oscillations Prevention. , 2015, , .		8
114	Coincidence of the Gel'fand-Leonov-Yakubovich, Filippov, and Aizerman-Pyatnitskiy definitions. Vestnik St Petersburg University: Mathematics, 2015, 48, 66-71.	0.1	8
115	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.	0.5	8
116	Computation of the lock-in ranges of phase-locked loops with PI filter. IFAC-PapersOnLine, 2016, 49, 36-41.	0.5	8
117	On Flutter Suppression in the Keldysh Model. Doklady Physics, 2018, 63, 366-370.	0.2	8
118	Numerical analysis of dynamical systems: unstable periodic orbits, hidden transient chaotic sets, hidden attractors, and finite-time Lyapunov dimension. Journal of Physics: Conference Series, 2019, 1205, 012034.	0.3	8
119	Coupled Discrete Fractional-Order Logistic Maps. Mathematics, 2021, 9, 2204.	1.1	8
120	Pilot-Induced Oscillations and Their Prevention. Lecture Notes in Networks and Systems, 2020, , 108-123.	0.5	8
121	Localization of hidden attractors of the generalized Chua system based on the method of harmonic balance. Vestnik St Petersburg University: Mathematics, 2010, 43, 242-255.	0.1	7
122	Convergence based anti-windup design method and its application to flight control. , 2012, , .		7
123	Hidden oscillations in drilling system actuated by induction motor. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 86-89.	0.4	7
124	Pull-in range of the PLL-based circuits with proportionally-integrating filter—This work was supported by Saint-Petersburg State University (project 6.39.416.2014, s. 3-4; project 6.38.505.2014, s. 5.) and Russian Scientific Foundation (project 14-21-00041, s. 6).. IFAC-PapersOnLine, 2015, 48, 720-724.	0.5	7
125	Optimal control of data transmission in a mobile two-agent robotic system. Journal of Communications Technology and Electronics, 2016, 61, 1456-1465.	0.2	7
126	Multi-Satellite Operative Monitoring of Near-Earth Radiation within the Universat-SOCRAT Project. Moscow University Physics Bulletin (English Translation of Vestnik Moskovskogo Universiteta,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 57		

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127	Dynamics of the Shapovalov mid-size firm model. Chaos, Solitons and Fractals, 2020, 140, 110239.	2.5	7
128	On the Generalized Gardner Problem for Phase-Locked Loops in Electrical Grids. Doklady Mathematics, 2021, 103, 157-161.	0.1	7
129	Nonlinear Analysis of Phase-Locked Loop (PLL): Global Stability Analysis, Hidden Oscillations and Simulation Problems. , 2014, , 199-207.		7
130	Chaos and Its Degradation-Promoting-Based Control in an Antithetic Integral Feedback Circuit. , 2022, 6, 1622-1627.		7
131	IWCFTA2012 Keynote Speech I - Hidden attractors in dynamical systems: From hidden oscillation in Hilbert-Kolmogorov, Aizerman and Kalman problems to hidden chaotic attractor in Chua circuits. , 2012, , .		6
132	Nonlinear Analysis of Phase-locked Loop-Based Circuits. Advances in Dynamics, Patterns, Cognition, 2014, , 169-192.	0.2	6
133	Control of pneumatically actuated 6-DOF Stewart platform for driving simulator. , 2014, , .		6
134	Motion of a solid driven by six rods of variable length. Doklady Physics, 2014, 59, 153-157.	0.2	6
135	Delayed feedback stabilization of unstable equilibria. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 6818-6825.	0.4	6
136	Hidden oscillations in drilling systems with salient pole synchronous motor. IFAC-PapersOnLine, 2015, 48, 700-705.	0.5	6
137	Parameter Switching Synchronization. Applied Mathematics and Computation, 2017, 313, 94-102.	1.4	6
138	Shadowing in hidden attractors. Nonlinear Dynamics, 2018, 91, 2429-2434.	2.7	6
139	Chimera states in a class of hidden oscillatory networks. Nonlinear Dynamics, 2021, 104, 1645-1655.	2.7	6
140	Drilling Systems: Stability and Hidden Oscillations. Advances in Dynamics, Patterns, Cognition, 2014, , 287-304.	0.2	6
141	Time-delay control for stabilization of the Shapovalov mid-size firm model. IFAC-PapersOnLine, 2020, 53, 16971-16976.	0.5	6
142	Power Supply System For Aircraft With Electric Traction. , 2020, , .		6
143	Nonlinear Models of BPSK Costas Loop. , 2014, , .		6
144	Pattern generation in diffusive networks: How do those brainless centipedes walk?. , 2011, , .		5

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145	Discontinuous differential equations: comparison of solution definitions and localization of hidden Chua attractors. IFAC-PapersOnLine, 2015, 48, 408-413.	0.5	5
146	Counterexamples to the Kalman Conjectures. IFAC-PapersOnLine, 2018, 51, 138-143.	0.5	5
147	Hidden nonlinear oscillations in aircraft stabilization system with restrictions at the actuator control. AIP Conference Proceedings, 2018, , .	0.3	5
148	Homoclinic Bifurcations and Chaos in the Fishing Principle for the Lorenz-like Systems. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2020, 30, 2050124.	0.7	5
149	Jacobi Stability Analysis and the Onset of Chaos in a Two-Degree-of-Freedom Mechanical System. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2021, 31, 2150075.	0.7	5
150	Study of irregular dynamics in an economic model: attractor localization and Lyapunov exponents. Chaos, Solitons and Fractals, 2021, 152, 111365.	2.5	5
151	Existence of homoclinic orbits and heteroclinic cycle in a class of three-dimensional piecewise linear systems with three switching manifolds. Chaos, 2020, 30, 123143.	1.0	5
152	Stability of charge-pump phase-locked loops: the hold-in and pull-in ranges. IFAC-PapersOnLine, 2020, 53, 2022-2026.	0.5	5
153	Harmonic balance analysis of pull-in range and oscillatory behavior of third-order type 2 analog PLLs. IFAC-PapersOnLine, 2020, 53, 6378-6383.	0.5	5
154	Effects of PLL Architecture on MEMS Gyroscope Performance. Gyroscopy and Navigation, 2022, 13, 44-52.	0.7	5
155	Measurement of average projective ranges of ions with energies of hundreds and thousands of keV in silicon using the resistance technique. Physica Status Solidi A, 1980, 62, 459-466.	1.7	4
156	Simplified estimation of proton-induced SEU. , 0, , .		4
157	COMPUTATION OF THE FIRST LYAPUNOV QUANTITY FOR THE SECOND-ORDER DYNAMICAL SYSTEM 1 This work was partly supported by the Dutch-Russian scientific cooperation programme 047.017.018, RFBR project 07â€“01â€“00151, and grant of the President of the Russian Federation for supporting young scientists MK-162.2007.1, project of the Ministry of Education and Science of Russia and Government of Saint-Petersburg PD07â€“1.1â€“63. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 87-89.	0.4	4
158	Algorithm for construction of counterexamples to Aizerman's and Kalman's conjectures*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 24-28.	0.4	4
159	On the problem of lunar radiation environment. Cosmic Research, 2010, 48, 509-516.	0.2	4
160	Nonlinear mathematical models of Costas Loop for general waveform of input signal. , 2012, , .		4
161	Pull-in range of the classical PLL with impulse signals. IFAC-PapersOnLine, 2015, 48, 562-567.	0.5	4
162	Mathematical models of the Costas loop. Doklady Mathematics, 2015, 92, 594-598.	0.1	4

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163	Convergence-based Analysis of Robustness to Delay in Anti-windup Loop of Aircraft Autopilot—This work was supported by Russian Scientific Foundation (project 14-21-00041) and Saint-Petersburg State University.. IFAC-PapersOnLine, 2015, 48, 144-149.	0.5	4
164	Computation of lock-in range for classic PLL with lead-lag filter and impulse signals. IFAC-PapersOnLine, 2016, 49, 42-44.	0.5	4
165	Computation of the phase detector characteristic of a QPSK Costas loop. Doklady Mathematics, 2016, 93, 348-353.	0.1	4
166	Dynamics of a Stewart platform. Vestnik St Petersburg University: Mathematics, 2017, 50, 297-309.	0.1	4
167	Monitoring of Natural and Technogenic Space Hazards: Results of the Lomonosov Mission and Universat-SOCRAT Project. Cosmic Research, 2018, 56, 488-497.	0.2	4
168	On the Keldysh problem of flutter suppression. AIP Conference Proceedings, 2018, , .	0.3	4
169	On lower-bound estimates of the Lyapunov dimension and topological entropy for the Rossler systems. IFAC-PapersOnLine, 2019, 52, 97-102.	0.5	4
170	Localization of hidden oscillations in flight control systems. SPIIRAS Proceedings, 2016, 6, 5.	0.8	4
171	D3 Dihedral Logistic Map of Fractional Order. Mathematics, 2022, 10, 213.	1.1	4
172	Detection and Prediction of Absorbed Radiation Doses from Solar Proton Fluxes onboard Orbital Stations. Cosmic Research, 2004, 42, 203-209.	0.2	3
173	The Rate of Single Event Upsets in Electronic Circuits onboard Spacecraft. Cosmic Research, 2005, 43, 423-431.	0.2	3
174	Lyapunov Quantities and Limit Cycles of Two-dimensional Dynamical Systems. World Scientific Series on Nonlinear Science, Series B, 2010, , 7-28.	0.2	3
175	Simulation of phase-locked loops in phase-frequency domain. , 2012, , .		3
176	Nonlinear problems in control of manufacturing systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 33-42.	0.4	3
177	Elegant analytic computation of phase detector characteristic for non-sinusoidal signals. IFAC-PapersOnLine, 2015, 48, 960-963.	0.5	3
178	Computation of the phase detector characteristic of classical PLL. Doklady Mathematics, 2015, 91, 246-249.	0.1	3
179	A short survey on nonlinear models of QPSK Costas loop. IFAC-PapersOnLine, 2017, 50, 6525-6533.	0.5	3
180	Radiation environment at the end of active functioning of Vernov satellite. Cosmic Research, 2017, 55, 464-468.	0.2	3

#	ARTICLE	IF	CITATIONS
181	Theory of Differential Inclusions and Its Application in Mechanics. , 2018, , 219-239.		3
182	Hidden Nonlinear Oscillations in Controlled Aircraft With Saturated Inputs. , 2018, , .		3
183	Hold-in, Pull-in and Lock-in Ranges for Phase-locked Loop with Tangential Characteristic of the Phase Detector. Procedia Computer Science, 2019, 150, 558-566.	1.2	3
184	On Leonov's Method for Computing the Linearization of Transverse Dynamics and Analyzing Zhukovsky Stability. Vestnik St Petersburg University: Mathematics, 2019, 52, 334-341.	0.1	3
185	A Method for Calculating Absorbed Doses onboard Spacecraft for Interplanetary Missions. Cosmic Research, 2005, 43, 222-224.	0.2	2
186	ANALYSIS OF PHASE-LOCKED SYSTEMS WITH DISCONTINUOUS CHARACTERISTICS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 107-112.	0.4	2
187	PHASE LOCKED LOOPS DESIGN AND ANALYSIS. , 2008, , .		2
188	Nonlinear Analysis of Phase-Locked Loop*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 34-38.	0.4	2
189	Estimation of radiation risk for astronauts on the Moon. Cosmic Research, 2012, 50, 216-220.	0.2	2
190	Modeling, Simulation and Control of Pneumatically Actuated Stewart Platform with Input Quantization. , 2014, , .		2
191	Best's conjecture on pull-in range of two-phase Costas loop. , 2014, , .		2
192	Lyapunov Exponent Sign Reversal: Stability and Instability by the First Approximation. Advances in Dynamics, Patterns, Cognition, 2014, , 41-77.	0.2	2
193	V. A. Yakubovich -mathematician, "father of the field", and herald of intellectual democracy in science and society—See also obituaries published by IFAC (Leonov and Kurzhanski, 2012) and IEEE (Fradkov et al) Tj ETQp15l 0.784814 rgB		2
194	Simulation of PLL with impulse signals in MATLAB: Limitations, hidden oscillations, and pull-in range. , 2015, , .		2
195	Delayed feedback stabilization and the Huijberts's "Michiels's" Nijmeijer problem. Differential Equations, 2016, 52, 1707-1731.	0.1	2
196	Nonlinear analysis of PLL by the harmonic balance method: limitations of the pull-in range estimation.. IFAC-PapersOnLine, 2017, 50, 1451-1456.	0.5	2
197	Suppression of nonlinear wing-rock oscillations by adaptive control with the implicit reference model. AIP Conference Proceedings, 2018, , .	0.3	2
198	Comparison of Measured and Predicted Values of Absorbed Doses from Galactic Cosmic Rays. Cosmic Research, 2019, 57, 44-47.	0.2	2

#	ARTICLE	IF	CITATIONS
199	Chimera states and hidden attractors. <i>Physics of Life Reviews</i> , 2019, 28, 131-133.	1.5	2
200	Coexistence of hidden attractors and multistability in counterexamples to the Kalman conjecture. <i>IFAC-PapersOnLine</i> , 2019, 52, 7-12.	0.5	2
201	Non-linear analysis of a modified QPSK Costas loop. <i>IFAC-PapersOnLine</i> , 2019, 52, 31-35.	0.5	2
202	Stability and Chaotic Attractors of Memristor-Based Circuit with a Line of Equilibria. <i>Lecture Notes in Electrical Engineering</i> , 2020, , 639-644.	0.3	2
203	Time varying feedback control on multi-stability in hidden attractor. <i>European Physical Journal: Special Topics</i> , 2020, 229, 1245-1255.	1.2	2
204	HIGH-FREQUENCY ANALYSIS OF PHASE-LOCKED LOOP AND PHASE DETECTOR CHARACTERISTIC COMPUTATION. , 2011, , .		2
205	Tunisia 2011â€“2014. Bifurcation, revolution, and controlled stabilization. <i>Vestnik Sankt-Peterburgskogo Universiteta, Prikladnaya Matematika, Informatika, Protsessy Upravleniya</i> , 2016, 12, 92-103.	0.1	2
206	Agentâ€“based time delay margin in consensus of multiâ€“agent systems by an eventâ€“triggered control method: Concept and computation. <i>Asian Journal of Control</i> , 2023, 25, 1866-1876.	1.9	2
207	The nature and distribution of radiation-induced defects in silicon along the range of protons and alpha particles. <i>Radiation Effects</i> , 1981, 54, 129-134.	0.4	1
208	Localization of the attractor of the differential equations for the solar wind-magnetosphere-ionosphere model. <i>Doklady Physics</i> , 2010, 55, 471-473.	0.2	1
209	Stability domain analysis of an antiwindup control system for an unstable object. <i>Doklady Mathematics</i> , 2012, 86, 587-590.	0.1	1
210	Radiation in space: Long-term cooperation between SINP MSU and the Lavochkin Association. <i>Solar System Research</i> , 2013, 47, 594-600.	0.3	1
211	Simulation of nonlinear models of modified BPSK Costas loop for non sinusoidal waveforms in MatLab Simulink. , 2014, , .		1
212	Modeling and identification of the Tunisian social system in 2011-2014: bifurcation, revolution, and controlled stabilization. <i>IFAC-PapersOnLine</i> , 2015, 48, 725-729.	0.5	1
213	Predicting GCR fluxes for future space missions. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , 2017, 81, 173-176.	0.1	1
214	Nonlinear model of the optical Costas loop: pull-in range estimation and hidden oscillations. <i>IFAC-PapersOnLine</i> , 2017, 50, 3325-3330.	0.5	1
215	Elegant computation of phase-detector characteristics of BPSK Costas loop with non-sinusoidal signals. , 2017, , .		1
216	Lock-in range of BPSK Costas loop. <i>IFAC-PapersOnLine</i> , 2018, 51, 252-256.	0.5	1

#	ARTICLE	IF	CITATIONS
217	Analysis of the global stability boundaries in type 2 PLLs. Journal of Physics: Conference Series, 2021, 1864, 012062.	0.3	1
218	Attractor as a convex combination of a set of attractors. Communications in Nonlinear Science and Numerical Simulation, 2021, 96, 105721.	1.7	1
219	A non-quadratic criterion for stability of forced oscillations and its application to flight control. , 2013, , .		1
220	Harmonic balance method, Tsytkin locus, and LPRS: comparison and counterexamples. , 2020, , .		1
221	ANALYSIS AND DESIGN OF COMPUTER ARCHITECTURE CIRCUITS WITH CONTROLLABLE DELAY LINE. , 2009, , .		1
222	Nonlinear Analysis of Costas Loop Circuit. , 2012, , .		1
223	Analysis of oscillations in discontinuous Lurie systems via LPRS method. Vibroengineering PROCEDIA, 2019, 25, 177-181.	0.3	1
224	Lyapunov Dimension for Dynamical Systems in Euclidean Spaces. Emergence, Complexity and Computation, 2021, , 257-305.	0.2	1
225	Analysis and Synthesis of Digital SRF-PLL for Synchronization of Converter with the Grid. , 2021, , .		1
226	Global Stability Boundaries and Hidden Oscillations in Dynamical Models with Dry Friction. Advanced Structured Materials, 2022, , 387-411.	0.3	1
227	Oscillations in pulse-width modulated system. , 0, , .		0
228	On the Stability of Nonlinear Systems with the Monotonic Differentiable Nonlinear Characteristics. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2001, 34, 1237-1240.	0.4	0
229	Title is missing!. Cosmic Research, 2001, 39, 333-337.	0.2	0
230	Prediction of Absorbed Doses for Spacecraft Irradiated by Particle Fluxes of Solar Cosmic Rays. Cosmic Research, 2003, 41, 550-554.	0.2	0
231	Estimation of the Probability of Radiation Failures and Single Particle Upsets of Integrated Microcircuits onboard the Fobos-Grunt Spacecraft. Cosmic Research, 2005, 43, 225-227.	0.2	0
232	Proton fluxes measured by low-orbit satellites. Cosmic Research, 2008, 46, 484-488.	0.2	0
233	The HERO project for the study of high-energy primary cosmic radiation. Bulletin of the Russian Academy of Sciences: Physics, 2009, 73, 593-596.	0.1	0
234	Nonlinear analysis of phase-locked loop with squarer. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 80-85.	0.4	0

#	ARTICLE	IF	CITATIONS
235	Response of Costas PLL in the Presence of In-band Interference. IFAC-PapersOnLine, 2015, 48, 714-719.	0.5	0
236	Simulation of movements of heavy mining shovels. , 2015, , .		0
237	Simulation of the classical analog phase-locked loop based circuits. IFAC-PapersOnLine, 2015, 48, 568-573.	0.5	0
238	Drillstring-hole calculation in drilling simulator. , 2015, , .		0
239	UAV control with switched GNSS-Estimator navigation system—This work was supported by Russian Scientific Foundation (project 14-21-00041) and Saint-Petersburg State University.. IFAC-PapersOnLine, 2015, 48, 126-131.	0.5	0
240	Synchronization of hidden chaotic attractors on the example of radiophysical oscillators. , 2017, , .		0
241	Harmonic Balance Method and Stability of Discontinuous Systems. , 2019, , 99-107.		0
242	Synchronization of Hidden Hyperchaotic Attractors in Fractional-Order Complex-Valued Systems with Application to Secure Communications. , 2021, , .		0
243	Optimal control in the New Keynesian model with monetary and fiscal policy interactions. Journal of Physics: Conference Series, 2021, 1864, 012040.	0.3	0
244	Automatic Control Of Inverters In Electrical Networks: Capture Range And Cycle Slipping. Journal of Physics: Conference Series, 2021, 1864, 012063.	0.3	0
245	The study of periodic oscillations and global stability in the Talâ€™™ model via the Tsytkin method and the LPRS method. Journal of Physics: Conference Series, 2021, 1864, 012064.	0.3	0
246	ASYMPTOTIC ANALYSIS OF PHASE CONTROL SYSTEM FOR CLOCKS IN MULTIPROCESSOR ARRAYS. , 2010, , .		0
247	Phase-frequency Domain Model of Costas Loop with Mixer Discriminator. , 2013, , .		0
248	Dimensional Aspects of Almost Periodic Dynamics. Emergence, Complexity and Computation, 2021, , 149-190.	0.2	0
249	Macroeconomic Model with Monetary and Fiscal Policy and Externality: Nonlinear dynamics, Optimization and Control. IFAC-PapersOnLine, 2021, 54, 26-31.	0.5	0
250	The pull-in range and a counterexample to the Egan conjecture for the fourth-order type 2 analog PLL. IFAC-PapersOnLine, 2021, 54, 73-78.	0.5	0
251	Pilot-Induced Oscillation Prevention During the Aircraft Landing. Proceedings of Higher Educational Institutions ÐœÐ°chine Building, 2021, , 3-10.	0.1	0
252	Computational Experiments with the Roots of Fibonacci-like Polynomials as a Window to Mathematics Research. Axioms, 2022, 11, 48.	0.9	0

#	ARTICLE	IF	CITATIONS
253	ALGORITHM FOR CALCULATING TRANSIENTS IN ELECTRICAL CIRCUITS BY THE STATE-VARIABLE METHOD. <i>Intellektualnaya Élektrótehnika</i> , 2022, , 99-115.	0.0	0
254	The Parallel Operation of the Output Three Phase Inverters in the MicroGrid. , 2022, , .		0
255	Identification of Human Model Parameters for the Human-Machine Control Systems Design. , 2022, , .		0
256	Coexisting Chaotic and Periodic Attractors in a Counterexample to the Kalman Conjecture. , 2022, , .		0