Anton Proskurnikov

List of Publications by Year
in descending order

130	2,095	471509 17	254184 43
papers	citations	h-index	g-index

131	131	131	1078
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Macroscopic Noisy Bounded Confidence Models With Distributed Radical Opinions. IEEE Transactions on Automatic Control, 2021, 66, 1174-1189.	5.7	6
2	Structural Balance via Gradient Flows Over Signed Graphs. IEEE Transactions on Automatic Control, 2021, 66, 3169-3183.	5.7	8
3	Convergence Analysis of Weighted SPSA-based Consensus Algorithm in Distributed Parameter Estimation Problem. IFAC-PapersOnLine, 2021, 54, 126-131.	0.9	0
4	The development of Lyapunov direct method in application to synchronization systems. Journal of Physics: Conference Series, 2021, 1864, 012065.	0.4	1
5	Group dynamics on multidimensional object threat appraisals. Social Networks, 2021, 65, 157-167.	2.1	5
6	Impulsive Goodwinâ€™s Oscillator Model of Endocrine Regulation: Local Feedback Leads to Multistability. , 2021, , .		0
7	Fast Simulation of Analog Circuit Blocks Under Nonstationary Operating Conditions. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2021, 11, 1355-1368.	2.5	3
8	Learning Hidden Influences in Large-Scale Dynamical Social Networks: A Data-Driven Sparsity-Based Approach, in Memory of Roberto Tempo. IEEE Control Systems, 2021, 41, 61-103.	0.8	19
9	Deep Integration of INS and DP: from Theory to Experiments. IFAC-PapersOnLine, 2021, 54, 132-138.	0.9	2
10	Self-synchronization of unbalanced rotors and the swing equation. IFAC-PapersOnLine, 2021, 54, 71-76.	0.9	3
11	The sunflower equation: novel stability criteria. IFAC-PapersOnLine, 2021, 54, 135-140.	0.9	0
12	Weighted SPSA-based Consensus Algorithm for Distributed Cooperative Target Tracking. , 2021, , .		1
13	Lyapunov Event-Triggered Stabilization With a Known Convergence Rate. IEEE Transactions on Automatic Control, 2020, 65, 507-521.	5.7	30
14	Special issue dedicated to Prof. Alexander L. Fradkov. International Journal of Control, 2020, 93, 171-172.	1.9	0
15	Leonovâ€™s method of nonlocal reduction for pointwise stability of phase systems. , 2020, , .		0
16	New criteria for gradientâ€“like behavior of synchronization systems with distributed parameters. , 2020, , .		0
17	On Dissipativity Conditions for Linearized Models of Locally Active Circuit Blocks. , 2020, , .		0
18	Bounded Input Dissipativity of Linearized Circuit Models. IEEE Transactions on Circuits and Systems I: Regular Papers, 2020, 67, 2064-2077.	5.4	4

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19	Optimal universal controllers for roll stabilization. Ocean Engineering, 2020, 197, 106911.	4.3	2
20	Consensus-based Distributed Algorithm for Multisensor-Multitarget Tracking under Unknownâ€“butâ€“Bounded Disturbances. IFAC-PapersOnLine, 2020, 53, 3589-3595.	0.9	4
21	Dynamical Social Networks. , 2020, , 1-11.		1
22	New Results on Delay Robustness of Consensus Algorithms. , 2020, , .		3
23	Collision-avoiding decentralized control for vehicle platoons: a mechanical perspective. IFAC-PapersOnLine, 2020, 53, 15235-15240.	0.9	2
24	Recurrent averaging inequalities in multi-agent control and social dynamics modeling. Annual Reviews in Control, 2020, 49, 95-112.	7.9	7
25	Leonovâ€™s nonlocal reduction technique for nonlinear integro-differential equations. IFAC-PapersOnLine, 2020, 53, 6398-6403.	0.9	0
26	Dynamical Networks of Social Influence: Modern Trends and Perspectives. IFAC-PapersOnLine, 2020, 53, 17616-17627.	0.9	8
27	Does sample-time emulation preserve exponential stability?. , 2020, , .		2
28	Volterra Equations with Periodic Nonlinearities: Multistability, Oscillations and Cycle Slipping. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2019, 29, 1950068.	1.7	11
29	Comprehending Complexity: Data-Rate Constraints in Large-Scale Networks. IEEE Transactions on Automatic Control, 2019, 64, 4252-4259.	5.7	8
30	Positive contagion and the macrostructures of generalized balance. Network Science, 2019, 7, 445-458.	1.0	5
31	Impulsive model of endocrine regulation with a local continuous feedback. Mathematical Biosciences, 2019, 310, 128-135.	1.9	7
32	Mathematical Structures in Group Decision-Making on Resource Allocation Distributions. Scientific Reports, 2019, 9, 1377.	3.3	18
33	A simple positive state observer for multidimensional Goodwin's oscillator. , 2019, , .		0
34	Long-term Behavior of Mean-field Noisy Bounded Confidence Models with Distributed Radicals. , 2019, , .		2
35	Stability of systems with periodic nonlinearities: a method of periodic Lyapunov functionals. , 2019, , .		2
36	New results on cycleâ€“slipping in pendulumâ€“like systems. Cybernetics and Physics, 2019, , 167-175.	0.3	0

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37	Dynamics and structure of social networks from a systems and control viewpoint: A survey of Roberto Tempoâ€™s contributions. Online Social Networks and Media, 2018, 7, 45-59.	3.6	8
38	A tutorial on modeling and analysis of dynamic social networks. Part II. Annual Reviews in Control, 2018, 45, 166-190.	7.9	180
39	A Guiding Vector-Field Algorithm for Path-Following Control of Nonholonomic Mobile Robots. IEEE Transactions on Control Systems Technology, 2018, 26, 1372-1385.	5.2	72
40	Dichotomy and Stability of Disturbed Systems with Periodic Nonlinearities. , 2018, , .		2
41	Forced Solutions of Disturbed Pendulum-Like Lur'e Systems. , 2018, , .		3
42	Synchronization of networked oscillators under nonlinear integral coupling. IFAC-PapersOnLine, 2018, 51, 56-61.	0.9	3
43	Mathematical modeling of endocrine regulation subject to circadian rhythm. Annual Reviews in Control, 2018, 46, 148-164.	7.9	10
44	Lyapunov Design for Event-Triggered Exponential Stabilization. , 2018, , .		6
45	Local and global analysis of endocrine regulation as a non-cyclic feedback system. Automatica, 2018, 91, 190-196.	5.0	7
46	Tsypkin and Juryâ€“Lee Criteria for Synchronization and Stability of Discrete-Time Multiagent Systems. Automation and Remote Control, 2018, 79, 1057-1073.	0.8	5
47	Evolution of clusters in large-scale dynamical networks. Cybernetics and Physics, 2018, , 102-129.	0.3	10
48	Synchronization of Goodwin's Oscillators under Boundedness and Nonnegativeness Constraints for Solutions. IEEE Transactions on Automatic Control, 2017, 62, 372-378.	5.7	20
49	A tutorial on modeling and analysis of dynamic social networks. Part I. Annual Reviews in Control, 2017, 43, 65-79.	7.9	322
50	Differential inequalities in multi-agent coordination and opinion dynamics modeling. Automatica, 2017, 85, 202-210.	5.0	16
51	Novel Multidimensional Models of Opinion Dynamics in Social Networks. IEEE Transactions on Automatic Control, 2017, 62, 2270-2285.	5.7	226
52	Guiding vector field algorithm for a moving path following problem * *The work was supported in part by the European Research Council (ERC-StG-307207), the Netherlands Organization for Scientific Research (NWO-vidi-14134) and RFBR, grants 17-08-01728, 17-08-00715 and 17-08-01266. IFAC-PapersOnLine, 2017, 50, 6983-6988.	0.9	15
53	Opinion evolution in time-varying social influence networks with prejudiced agents. IFAC-PapersOnLine, 2017, 50, 11896-11901.	0.9	26
54	Simple synchronization protocols for heterogeneous networks: beyond passivity. IFAC-PapersOnLine, 2017, 50, 9426-9431.	0.9	17

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55	Pogromsky acknowledges his partial support during his stay with the ITMO university by Government of Russian Federation grant (074-U01), Russian Federation President Grant N14.Y31.16.9281-HIII, and the Ministry of Education and Science of Russian Federation (project 14.Z50.31.0031), (Secs. 1,3,4). A. Matveev acknowledges his support by RSF 14-21-00041p and the Saint Petersburg State University (Secs.)	0.9	1
56	An impulsive model of endocrine regulation with two negative feedback loops * *The work was supported in part by the European Research Council (ERC-StG-307207). IFAC-PapersOnLine, 2017, 50, 14717-14722.	0.9	4
57	Singular Perturbations of Volterra Equations with Periodic Nonlinearities. Stability and Oscillatory Properties * *The results were obtained at Institute for Problems of Mechanical Engineering of the Russian Academy of Sciences (IPME RAS) and supported by Russian Science Foundation (RSF) grant 16-19-00057. IFAC-PapersOnLine, 2017, 50, 8454-8459.	0.9	1
58	Modulus consensus in discrete-time signed networks and properties of special recurrent inequalities. , 2017, , .		7
59	Synchronization of Pulse-Coupled Oscillators and Clocks Under Minimal Connectivity Assumptions. IEEE Transactions on Automatic Control, 2017, 62, 5873-5879.	5.7	30
60	Dichotomic differential inequalities and multi-agent coordination. , 2016, , .		2
61	Phase locking, oscillations and cycle slipping in synchronization systems. , 2016, , .		5
62	Optimal controllers for rudder roll damping with an autopilot in the loop**The work was supported in part by the European Research Council (ERCStG-307207), RFBR, grant 14-08-01015 and Russian Federation Presidentâ€™s Grant MD-6325.2016.8.. IFAC-PapersOnLine, 2016, 49, 562-567.	0.9	5
63	Polarization in coopetitive networks of heterogeneous nonlinear agents. , 2016, , .		9
64	Consensus robustness against inner delays. Electronic Notes in Discrete Mathematics, 2016, 51, 7-14.	0.4	3
65	On Periodic Solutions of Singularly Perturbed Integro-differential Volterra Equations with Periodic Nonlinearities**The work was partly supported by RFBR (14-08-01015) and St. Petersburg State University, grant 6.38.230.2015. Theorem 1 is obtained under sole support of Russian Science Foundation grant 16-19-00057 at Institute for Problems of Mechanical Engineering RAS.. IFAC-PapersOnLine, 2016, 49, 160-165.	0.9	5
66	Speed-gradient entropy maximization in networks. , 2016, , .		1
67	A New Randomized Algorithm for Community Detection in Large Networks**The results of the paper have been obtained at IPME RAS under support of Russian Foundation for Basic Research (RFBR) grant 16-07-00890. IFAC-PapersOnLine, 2016, 49, 31-35.	0.9	7
68	Stability properties of the Goodwin-Smith oscillator model with additional feedback**The work was supported in part by the European Research Council (ERCStG-307207), RFBR, grant 14-08-01015 and St. Petersburg State University, grant 6.38.230.2015. Theorem 2 was obtained under sole support of Russian Science Foundation (RSF), grant 14-29-00142, at Institute for Problems in Mechanical Engineering RAS.. IFAC-PapersOnLine, 2016, 49, 131-136.	0.9	7
69	Stability and oscillations of singularly perturbed phase synchronization systems with distributed parameters. , 2016, , .		1
70	A novel homogenous protocol for multi-agent clustering over directed graphs. , 2016, , .		1
71	Problem of uniform deployment on a line segment for second-order agents. Automation and Remote Control, 2016, 77, 1248-1258.	0.8	15
72	Pagerank and opinion dynamics: missing links and extensions. , 2016, , .		5

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73	Network science on belief system dynamics under logic constraints. Science, 2016, 354, 321-326.	12.6	252
74	Problems and methods of network control. Automation and Remote Control, 2016, 77, 1711-1740.	0.8	30
75	Control of Educational Processes Using SPSA. , 2016, , .		1
76	Opinion Dynamics in Social Networks With Hostile Camps: Consensus vs. Polarization. IEEE Transactions on Automatic Control, 2016, 61, 1524-1536.	5.7	280
77	Universal controllers of V.A. Yakubovich: a systematic approach to LQR problems with uncertain external signalsâˆ—â€”The paper was partially supported by RFBR, grants 13-08-01014 and 14-08-01015, and St. Petersburg State University, grant 6.38.230.2015. Theorems 6 and 13 are obtained at Institute for Problems of Mechanical Engineering RAS and supported solely by Russian Scientific Foundation (RSF),	0.9	3
78	A new extension of the infinite-dimensional KYP lemma in the coercive caseâˆ—â€”The paper was partially supported by RFBR, grants 13-0801014 and 14-08-01015, and St. Petersburg State University, grant 6.38.230.2015. Theorem 10 in Section 4 is supported solely by Russian Scientific Foundation (RSF), grant 14-29-00142.. IFAC-PapersOnLine, 2015, 48, 246-251.	0.9	4
79	The Yakubovich quadratic criterion, F-stability and multi-agent consensus.â€”â€”The paper was partially supported by RFBR, grants 13-0801014 and 14-08-01015 and St. Petersburg State University, grant 6.38.230.2015. Theorems 8 and 9 in Section 2 are obtained in Institute for Problems of Mechanical Engineering RAS and supported by Russian Scientific Foundation only (RSF), grant 14-29-00142. IFAC-PapersOnLine, 2015, 48, 414-419.	0.9	0
80	Entrainment of Goodwin's oscillators by periodic exogenous signals. , 2015, , .		1
81	A new model of opinion dynamics for social actors with multiple interdependent attitudes and prejudices. , 2015, , .		14
82	Asymptotic Properties of Nonlinear Singularly Perturbed Volterra Equationsâˆ—â€”Supported by St. Petersburg State University, grant 6.38.230.2015. IFAC-PapersOnLine, 2015, 48, 604-609.	0.9	2
83	Consensus in nonlinear stationary networks with identical agents. Automation and Remote Control, 2015, 76, 1551-1565.	0.8	4
84	Cycle slipping in nonlinear circuits under periodic nonlinearities and time delays. , 2015, , .		3
85	Event-based synchronization in biology: Dynamics of pulse coupled oscillators. , 2015, , .		3
86	Transient processes in synchronization systems governed by singularly perturbed Volterra equations. , 2015, , .		0
87	A general criterion for synchronization of incrementally dissipative nonlinearly coupled agents. , 2015, , .		9
88	Popov-Type Criterion for Consensus in Nonlinearly Coupled Networks. IEEE Transactions on Cybernetics, 2015, 45, 1537-1548.	9.5	21
89	Consensus and polarization in Altafini's model with bidirectional time-varying network topologies. , 2014, , .		17
90	Problem of cycle-slipping for infinite dimensional systems with MIMO nonlinearities. , 2014, , .		2

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91	Uniform deployment of second-order agents on a line segment. , 2014, , .		1
92	Opinion dynamics using Altafini's model with a time-varying directed graph. , 2014, , .		9
93	Consensus between nonlinearly coupled discrete-time agents. , 2014, , .		2
94	Asymptotic estimates for gradient-like distributed parameter systems with periodic nonlinearities. , 2014, , .		5
95	Frequency-domain criteria for consensus in multiagent systems with nonlinear sector-shaped couplings. Automation and Remote Control, 2014, 75, 1982-1995.	0.8	11
96	Average consensus for nonlinearly coupled agents: quadratic criteria. , 2014, , .		4
97	Nonlinear Consensus Algorithms with Uncertain Couplings. Asian Journal of Control, 2014, 16, 1277-1288.	3.0	17
98	Average consensus in networks with nonlinearly delayed couplings and switching topology. Automatica, 2013, 49, 2928-2932.	5.0	37
99	Consensus in switching networks with sectorial nonlinear couplings: Absolute stability approach. Automatica, 2013, 49, 488-495.	5.0	37
100	Consensus in switching symmetric networks of first-order agents with delayed relative measurements. , 2013, , .		2
101	Average consensus in switching nonlinearly coupled networks with time-varying delays.* *The paper was partially supported by RFBR, grants 11-08-01218 and 12-01-00808. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 457-461.	0.4	5
102	The Circle Criterion for Synchronization in Nonlinearly Coupled Networks.. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 737-742.	0.4	2
103	The Popov Criterion For Consensus Between Delayed Agents. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 693-698.	0.4	2
104	Stability of continuous-time consensus algorithms for switching networks with bidirectional interaction. , 2013, , .		16
105	Average consensus in symmetric nonlinearly coupled delayed networks. , 2013, , .		0
106	DP Systems for Track Control of Dredging Vessels. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 453-458.	0.4	4
107	Thrust Ability Diagrams for Multi-Thruster Marine Vessels. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 152-157.	0.4	3
108	Universal controllers in model matching optimal control problems for unknown external signals. Journal of Computer and Systems Sciences International, 2012, 51, 214-227.	0.6	4

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109	Consensus in symmetric multi-agent networks with sector nonlinear couplings. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 1237-1242.	0.4	3
110	Consensus in Networks of Integrators With Fixed Topology and Delayed Nonlinear Couplings. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 8945-8950.	0.4	5
111	Optimal model matching problem for stochastic signals with an unknown fast decreasing spectral density. Doklady Mathematics, 2011, 83, 126-130.	0.6	1
112	Adaptive regulators in tracking problems for uncertain linear discrete-time systems. Doklady Mathematics, 2011, 84, 582-585.	0.6	0
113	Signal invariance and trajectory steering problem for an autonomous wheeled robot. , 2011, , .		3
114	Consensus in networks of integrators with unknown nonlinear couplings and communication delays.. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 330-335.	0.4	1
115	Speed gradient control of qubit state*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 81-85.	0.4	3
116	Convergence of Symmetric Nonlinear Consensus Protocols with Quadratically Constrained Couplings. *. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 1400-1405.	0.4	1
117	Thrust Ability Diagrams of DP Vessels: Computational Aspects. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 144-148.	0.4	0
118	Adaptive regulators for the control of an uncertain linear discrete-time system with a reference model. Doklady Mathematics, 2010, 82, 667-670.	0.6	2
119	Synthesis of an adaptive regulator in the stabilization of an uncertain discrete linear system. Doklady Mathematics, 2009, 79, 445-448.	0.6	2
120	Synthesis of an adaptive regulator in the problem of invariance of an uncertain discrete linear system. Doklady Mathematics, 2009, 80, 781-784.	0.6	1
121	Optimal tracking of stochastic signals with unknown spectral density in discrete-time control systems. Doklady Mathematics, 2008, 78, 631-635.	0.6	1
122	The problem of absolute invariance of a linear discrete-time control system. Doklady Mathematics, 2008, 78, 956-960.	0.6	3
123	Dissipativity of T-Periodic Linear Systems. IEEE Transactions on Automatic Control, 2007, 52, 1039-1047.	5.7	21
124	Linear control systems with a reference model. Doklady Mathematics, 2007, 76, 634-637.	0.6	3
125	The problem of the invariance of a control system with respect to some of the output variables. Doklady Mathematics, 2006, 73, 142-146.	0.6	4
126	Universal regulators for optimal tracking of polyharmonic signals in systems with delays. Doklady Mathematics, 2006, 73, 147-151.	0.6	3

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127	Universal regulators for optimal tracking of stochastic signals with an unknown spectral density. Doklady Mathematics, 2006, 74, 614-618.	0.6	5
128	Regular triangulations and Steiner points. St Petersburg Mathematical Journal, 2005, 16, 673-691.	0.4	0
129	Regular triangulations of non-convex polytopes. Russian Mathematical Surveys, 2002, 57, 817-818.	0.6	1
130	Generalized Markovian Quantity Distribution Systems: Social Science Applications. Sociological Science, 0, 7, 487-503.	2.0	3