

Anton V Proskurnikov

List of Publications by Year in descending order

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110
papers

1,999
citations

516710

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42
g-index

111
all docs

111
docs citations

111
times ranked

1050
citing authors

#	ARTICLE	IF	CITATIONS
1	A tutorial on modeling and analysis of dynamic social networks. Part I. Annual Reviews in Control, 2017, 43, 65-79.	7.9	322
2	Opinion Dynamics in Social Networks With Hostile Camps: Consensus vs. Polarization. IEEE Transactions on Automatic Control, 2016, 61, 1524-1536.	5.7	280
3	Network science on belief system dynamics under logic constraints. Science, 2016, 354, 321-326.	12.6	252
4	Novel Multidimensional Models of Opinion Dynamics in Social Networks. IEEE Transactions on Automatic Control, 2017, 62, 2270-2285.	5.7	226
5	A tutorial on modeling and analysis of dynamic social networks. Part II. Annual Reviews in Control, 2018, 45, 166-190.	7.9	180
6	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
7	Average consensus in networks with nonlinearly delayed couplings and switching topology. Automatica, 2013, 49, 2928-2932.	5.0	37
8	Consensus in switching networks with sectorial nonlinear couplings: Absolute stability approach. Automatica, 2013, 49, 488-495.	5.0	37
9	Synchronization of Pulse-Coupled Oscillators and Clocks Under Minimal Connectivity Assumptions. IEEE Transactions on Automatic Control, 2017, 62, 5873-5879.	5.7	30
10	Lyapunov Event-Triggered Stabilization With a Known Convergence Rate. IEEE Transactions on Automatic Control, 2020, 65, 507-521.	5.7	30
11	Opinion evolution in time-varying social influence networks with prejudiced agents. IFAC-PapersOnLine, 2017, 50, 11896-11901.	0.9	26
12	Dissipativity of T-Periodic Linear Systems. IEEE Transactions on Automatic Control, 2007, 52, 1039-1047.	5.7	21
13	Popov-Type Criterion for Consensus in Nonlinearly Coupled Networks. IEEE Transactions on Cybernetics, 2015, 45, 1537-1548.	9.5	21
14	Synchronization of Goodwin's Oscillators under Boundedness and Nonnegativeness Constraints for Solutions. IEEE Transactions on Automatic Control, 2017, 62, 372-378.	5.7	20
15	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
16	Mathematical Structures in Group Decision-Making on Resource Allocation Distributions. Scientific Reports, 2019, 9, 1377.	3.3	18
17	Consensus and polarization in Altafini's model with bidirectional time-varying network topologies. , 2014, , .		17
18	Nonlinear Consensus Algorithms with Uncertain Couplings. Asian Journal of Control, 2014, 16, 1277-1288.	3.0	17

#	ARTICLE	IF	CITATIONS
19	Simple synchronization protocols for heterogeneous networks: beyond passivity. IFAC-PapersOnLine, 2017, 50, 9426-9431.	0.9	17
20	Differential inequalities in multi-agent coordination and opinion dynamics modeling. Automatica, 2017, 85, 202-210.	5.0	16
21	Stability of continuous-time consensus algorithms for switching networks with bidirectional interaction. , 2013, , .		16
22	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
23	A new model of opinion dynamics for social actors with multiple interdependent attitudes and prejudices. , 2015, , .		14
24	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
25	Mathematical modeling of endocrine regulation subject to circadian rhythm. Annual Reviews in Control, 2018, 46, 148-164.	7.9	10
26	Evolution of clusters in large-scale dynamical networks. Cybernetics and Physics, 2018, , 102-129.	0.3	10
27	Opinion dynamics using Altafini's model with a time-varying directed graph. , 2014, , .		9
28	A general criterion for synchronization of incrementally dissipative nonlinearly coupled agents. , 2015, , .		9
29	Polarization in cooperative networks of heterogeneous nonlinear agents. , 2016, , .		9
30	Dynamics and structure of social networks from a systems and control viewpoint: A survey of Roberto Tempo's contributions. Online Social Networks and Media, 2018, 7, 45-59.	3.6	8
31	Comprehending Complexity: Data-Rate Constraints in Large-Scale Networks. IEEE Transactions on Automatic Control, 2019, 64, 4252-4259.	5.7	8
32	Structural Balance via Gradient Flows Over Signed Graphs. IEEE Transactions on Automatic Control, 2021, 66, 3169-3183.	5.7	8
33	Dynamical Networks of Social Influence: Modern Trends and Perspectives. IFAC-PapersOnLine, 2020, 53, 17616-17627.	0.9	8
34	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
35	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
36	Modulus consensus in discrete-time signed networks and properties of special recurrent inequalities. , 2017, , .		7

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37	Local and global analysis of endocrine regulation as a non-cyclic feedback system. Automatica, 2018, 91, 190-196.	5.0	7
38	Impulsive model of endocrine regulation with a local continuous feedback. Mathematical Biosciences, 2019, 310, 128-135.	1.9	7
39	Recurrent averaging inequalities in multi-agent control and social dynamics modeling. Annual Reviews in Control, 2020, 49, 95-112.	7.9	7
40	Lyapunov Design for Event-Triggered Exponential Stabilization. , 2018, , .		6
41	Macroscopic Noisy Bounded Confidence Models With Distributed Radical Opinions. IEEE Transactions on Automatic Control, 2021, 66, 1174-1189.	5.7	6
42	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
43	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
44	Asymptotic estimates for gradient-like distributed parameter systems with periodic nonlinearities. , 2014, , .		5
45	Phase locking, oscillations and cycle slipping in synchronization systems. , 2016, , .		5
46	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
47	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
48	Pagerank and opinion dynamics: missing links and extensions. , 2016, , .		5
49	Positive contagion and the macrostructures of generalized balance. Network Science, 2019, 7, 445-458.	1.0	5
50	Group dynamics on multidimensional object threat appraisals. Social Networks, 2021, 65, 157-167.	2.1	5
51	DP Systems for Track Control of Dredging Vessels. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 453-458.	0.4	4
52	Average consensus for nonlinearly coupled agents: quadratic criteria. , 2014, , .		4
53	A new extension of the infinite-dimensional KYP lemma in the coercive case \hat{a} — \hat{a} —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
54	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

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55	Bounded Input Dissipativity of Linearized Circuit Models. IEEE Transactions on Circuits and Systems I: Regular Papers, 2020, 67, 2064-2077.	5.4	4
56	Consensus-based Distributed Algorithm for Multisensor-Multitarget Tracking under Unknown-but-Bounded Disturbances. IFAC-PapersOnLine, 2020, 53, 3589-3595.	0.9	4
57	Control of Dynamic Financial Networks. , 2022, 6, 3206-3211.		4
58	Speed gradient control of qubit state*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 81-85.	0.4	3
59	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
60	Signal invariance and trajectory steering problem for an autonomous wheeled robot. , 2011, , .		3
61	Thrust Ability Diagrams for Multi-Thruster Marine Vessels. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 152-157.	0.4	3
62	Universal controllers of V.A. Yakubovich: a systematic approach to LQR problems with uncertain external signals—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), grant 14-29-00142.. IFAC-PapersOnLine, 2015, 48, 557-562.	0.9	3
63	Cycle slipping in nonlinear circuits under periodic nonlinearities and time delays. , 2015, , .		3
64	Event-based synchronization in biology: Dynamics of pulse coupled oscillators. , 2015, , .		3
65	Consensus robustness against inner delays. Electronic Notes in Discrete Mathematics, 2016, 51, 7-14.	0.4	3
66	Forced Solutions of Disturbed Pendulum-Like Lur'e Systems. , 2018, , .		3
67	Synchronization of networked oscillators under nonlinear integral coupling. IFAC-PapersOnLine, 2018, 51, 56-61.	0.9	3
68	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
69	Self-synchronization of unbalanced rotors and the swing equation. IFAC-PapersOnLine, 2021, 54, 71-76.	0.9	3
70	Consensus in switching symmetric networks of first-order agents with delayed relative measurements. , 2013, , .		2
71	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
72	The Popov Criterion For Consensus Between Delayed Agents. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 693-698.	0.4	2

#	ARTICLE	IF	CITATIONS
73	Problem of cycle-slipping for infinite dimensional systems with MIMO nonlinearities. , 2014, , .		2
74	Consensus between nonlinearly coupled discrete-time agents. , 2014, , .		2
75	Asymptotic Properties of Nonlinear Singularly Perturbed Volterra Equations—Supported by St. Petersburg State University, grant 6.38.230.2015. IFAC-PapersOnLine, 2015, 48, 604-609.	0.9	2
76	Dichotomic differential inequalities and multi-agent coordination. , 2016, , .		2
77	Stability of systems with periodic nonlinearities: a method of periodic Lyapunov functionals. , 2019, , .		2
78	Constructive Estimates of the Pull-In Range for Synchronization Circuit Described by Integro-Differential Equations. , 2020, , .		2
79	Leonov's method of nonlocal reduction and its further development. , 2020, , .		2
80	Optimal universal controllers for roll stabilization. Ocean Engineering, 2020, 197, 106911.	4.3	2
81	Delay Robustness of Nonlinear Consensus Protocols: Analytic Criteria. Advances in Delays and Dynamics, 2016, , 125-146.	0.4	2
82	Does sample-time emulation preserve exponential stability?. , 2020, , .		2
83	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
84	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
85	Uniform deployment of second-order agents on a line segment. , 2014, , .		1
86	Entrainment of Goodwin's oscillators by periodic exogenous signals. , 2015, , .		1
87	Speed-gradient entropy maximization in networks. , 2016, , .		1
88	Stability and oscillations of singularly perturbed phase synchronization systems with distributed parameters. , 2016, , .		1
89	A novel homogenous protocol for multi-agent clustering over directed graphs. , 2016, , .		1
90	Control of Educational Processes Using SPSA. , 2016, , .		1

#	ARTICLE	IF	CITATIONS
91	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
92	Robust Output Regulation: Optimization-Based Synthesis and Event-Triggered Implementation. IEEE Transactions on Automatic Control, 2022, 67, 3529-3536.	5.7	1
93	The development of Lyapunov direct method in application to synchronization systems. Journal of Physics: Conference Series, 2021, 1864, 012065.	0.4	1
94	Dynamical Social Networks. , 2020, , 1-11.		1
95	Weighted SPSA-based Consensus Algorithm for Distributed Cooperative Target Tracking. , 2021, , .		1
96	Thrust Ability Diagrams of DP Vessels: Computational Aspects. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 144-148.	0.4	0
97	The Yakubovich quadratic criterion, F-stability and multi-agent consensus.a —a —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, 49, 414-419.	0.9	0
98	Transient processes in synchronization systems governed by singularly perturbed Volterra equations. , 2015, , .		0
99	Nonlinear dynamics of a positive hybrid observer for the impulsive Goodwin's oscillator: a design study. , 2019, , .		0
100	A simple positive state observer for multidimensional Goodwin's oscillator. , 2019, , .		0
101	Special issue dedicated to Prof. Alexander L. Fradkov. International Journal of Control, 2020, 93, 171-172.	1.9	0
102	Leonov's method of nonlocal reduction for pointwise stability of phase systems. , 2020, , .		0
103	Dynamical Social Networks. , 2021, , 647-657.		0
104	Impulsive Goodwin's Oscillator Model of Endocrine Regulation: Local Feedback Leads to Multistability. , 2021, , .		0
105	Average consensus in symmetric nonlinearly coupled delayed networks. , 2013, , .		0
106	Entrainment in harmonically forced continuous and impulsive Goodwin's oscillators: a comparison study. , 2018, , .		0
107	New results on cycle-slipping in pendulum-like systems. Cybernetics and Physics, 2019, , 167-175.	0.3	0
108	Leonov's nonlocal reduction technique for nonlinear integro-differential equations. IFAC-PapersOnLine, 2020, 53, 6398-6403.	0.9	0

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109	The sunflower equation: novel stability criteria. IFAC-PapersOnLine, 2021, 54, 135-140.	0.9	0
110	New Criteria for Self-Synchronization of Two Unbalanced Vibro-Exciters. , 2022, , .		0