

# Anton V Proskurnikov

## List of Publications by Year in descending order

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110  
papers

1,999  
citations

516710

16  
h-index

265206

42  
g-index

111  
all docs

111  
docs citations

111  
times ranked

1050  
citing authors

#	ARTICLE	IF	CITATIONS
1	Robust Output Regulation: Optimization-Based Synthesis and Event-Triggered Implementation. IEEE Transactions on Automatic Control, 2022, 67, 3529-3536.	5.7	1
2	Control of Dynamic Financial Networks. , 2022, 6, 3206-3211.		4
3	New Criteria for Self-Synchronization of Two Unbalanced Vibro-Exciters. , 2022, , .		0
4	Macroscopic Noisy Bounded Confidence Models With Distributed Radical Opinions. IEEE Transactions on Automatic Control, 2021, 66, 1174-1189.	5.7	6
5	Structural Balance via Gradient Flows Over Signed Graphs. IEEE Transactions on Automatic Control, 2021, 66, 3169-3183.	5.7	8
6	Dynamical Social Networks. , 2021, , 647-657.		0
7	The development of Lyapunov direct method in application to synchronization systems. Journal of Physics: Conference Series, 2021, 1864, 012065.	0.4	1
8	Group dynamics on multidimensional object threat appraisals. Social Networks, 2021, 65, 157-167.	2.1	5
9	Impulsive Goodwin's Oscillator Model of Endocrine Regulation: Local Feedback Leads to Multistability. , 2021, , .		0
10	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
11	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
12	Self-synchronization of unbalanced rotors and the swing equation. IFAC-PapersOnLine, 2021, 54, 71-76.	0.9	3
13	The sunflower equation: novel stability criteria. IFAC-PapersOnLine, 2021, 54, 135-140.	0.9	0
14	Weighted SPSA-based Consensus Algorithm for Distributed Cooperative Target Tracking. , 2021, , .		1
15	Lyapunov Event-Triggered Stabilization With a Known Convergence Rate. IEEE Transactions on Automatic Control, 2020, 65, 507-521.	5.7	30
16	Special issue dedicated to Prof. Alexander L. Fradkov. International Journal of Control, 2020, 93, 171-172.	1.9	0
17	Leonov's method of nonlocal reduction for pointwise stability of phase systems. , 2020, , .		0
18	Constructive Estimates of the Pull-In Range for Synchronization Circuit Described by Integro-Differential Equations. , 2020, , .		2

#	ARTICLE	IF	CITATIONS
19	Leonov's method of nonlocal reduction and its further development. , 2020, , .		2
20	Bounded Input Dissipativity of Linearized Circuit Models. IEEE Transactions on Circuits and Systems I: Regular Papers, 2020, 67, 2064-2077.	5.4	4
21	Optimal universal controllers for roll stabilization. Ocean Engineering, 2020, 197, 106911.	4.3	2
22	Consensus-based Distributed Algorithm for Multisensor-Multitarget Tracking under Unknown-but-Bounded Disturbances. IFAC-PapersOnLine, 2020, 53, 3589-3595.	0.9	4
23	Dynamical Social Networks. , 2020, , 1-11.		1
24	Recurrent averaging inequalities in multi-agent control and social dynamics modeling. Annual Reviews in Control, 2020, 49, 95-112.	7.9	7
25	Leonov'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	Nonlinear dynamics of a positive hybrid observer for the impulsive Goodwin's oscillator: a design study. , 2019, , .		0
34	A simple positive state observer for multidimensional Goodwin's oscillator. , 2019, , .		0
35	Stability of systems with periodic nonlinearities: a method of periodic Lyapunov functionals. , 2019, , .		2
36	New results on cycle-slipping in pendulum-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 Tempo'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	Forced Solutions of Disturbed Pendulum-Like Lur'e Systems. , 2018, , .		3
41	Synchronization of networked oscillators under nonlinear integral coupling. IFAC-PapersOnLine, 2018, 51, 56-61.	0.9	3
42	Mathematical modeling of endocrine regulation subject to circadian rhythm. Annual Reviews in Control, 2018, 46, 148-164.	7.9	10
43	Lyapunov Design for Event-Triggered Exponential Stabilization. , 2018, , .		6
44	Local and global analysis of endocrine regulation as a non-cyclic feedback system. Automatica, 2018, 91, 190-196.	5.0	7
45	Evolution of clusters in large-scale dynamical networks. Cybernetics and Physics, 2018, , 102-129.	0.3	10
46	Entrainment in harmonically forced continuous and impulsive Goodwin's oscillators: a comparison study. , 2018, , .		0
47	Synchronization of Goodwin's Oscillators under Boundedness and Nonnegativeness Constraints for Solutions. IEEE Transactions on Automatic Control, 2017, 62, 372-378.	5.7	20
48	A tutorial on modeling and analysis of dynamic social networks. Part I. Annual Reviews in Control, 2017, 43, 65-79.	7.9	322
49	Differential inequalities in multi-agent coordination and opinion dynamics modeling. Automatica, 2017, 85, 202-210.	5.0	16
50	Novel Multidimensional Models of Opinion Dynamics in Social Networks. IEEE Transactions on Automatic Control, 2017, 62, 2270-2285.	5.7	226
51	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
52	Opinion evolution in time-varying social influence networks with prejudiced agents. IFAC-PapersOnLine, 2017, 50, 11896-11901.	0.9	26
53	Simple synchronization protocols for heterogeneous networks: beyond passivity. IFAC-PapersOnLine, 2017, 50, 9426-9431.	0.9	17
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

#	ARTICLE	IF	CITATIONS
55	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
56	Modulus consensus in discrete-time signed networks and properties of special recurrent inequalities. , 2017, , .		7
57	Synchronization of Pulse-Coupled Oscillators and Clocks Under Minimal Connectivity Assumptions. IEEE Transactions on Automatic Control, 2017, 62, 5873-5879.	5.7	30
58	Dichotomic differential inequalities and multi-agent coordination. , 2016, , .		2
59	Phase locking, oscillations and cycle slipping in synchronization systems. , 2016, , .		5
60	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
61	Polarization in cooperative networks of heterogeneous nonlinear agents. , 2016, , .		9
62	Consensus robustness against inner delays. Electronic Notes in Discrete Mathematics, 2016, 51, 7-14.	0.4	3
63	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
64	Speed-gradient entropy maximization in networks. , 2016, , .		1
65	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
66	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
67	Stability and oscillations of singularly perturbed phase synchronization systems with distributed parameters. , 2016, , .		1
68	A novel homogenous protocol for multi-agent clustering over directed graphs. , 2016, , .		1
69	Pagerank and opinion dynamics: missing links and extensions. , 2016, , .		5
70	Network science on belief system dynamics under logic constraints. Science, 2016, 354, 321-326.	12.6	252
71	Control of Educational Processes Using SPSA. , 2016, , .		1
72	Opinion Dynamics in Social Networks With Hostile Camps: Consensus vs. Polarization. IEEE Transactions on Automatic Control, 2016, 61, 1524-1536.	5.7	280

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73	Delay Robustness of Nonlinear Consensus Protocols: Analytic Criteria. <i>Advances in Delays and Dynamics</i> , 2016, , 125-146.	0.4	2
74	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. <i>IFAC-PapersOnLine</i> , 2015, 48, 557-562.	0.9	3
75	A new extension of the infinite-dimensional KYP lemma in the coercive case—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. <i>IFAC-PapersOnLine</i> , 2015, 48, 246-251.	0.9	4
76	The Yakubovich quadratic criterion, F-stability and multi-agent consensus.—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. <i>IFAC-PapersOnLine</i> , 2015, 48, 414-419.	0.9	0
77	Entrainment of Goodwin's oscillators by periodic exogenous signals. , 2015, , .		1
78	A new model of opinion dynamics for social actors with multiple interdependent attitudes and prejudices. , 2015, , .		14
79	Asymptotic Properties of Nonlinear Singularly Perturbed Volterra Equations—Supported by St. Petersburg State University, grant 6.38.230.2015. <i>IFAC-PapersOnLine</i> , 2015, 48, 604-609.	0.9	2
80	Cycle slipping in nonlinear circuits under periodic nonlinearities and time delays. , 2015, , .		3
81	Event-based synchronization in biology: Dynamics of pulse coupled oscillators. , 2015, , .		3
82	Transient processes in synchronization systems governed by singularly perturbed Volterra equations. , 2015, , .		0
83	A general criterion for synchronization of incrementally dissipative nonlinearly coupled agents. , 2015, , .		9
84	Popov-Type Criterion for Consensus in Nonlinearly Coupled Networks. <i>IEEE Transactions on Cybernetics</i> , 2015, 45, 1537-1548.	9.5	21
85	Consensus and polarization in Altafini's model with bidirectional time-varying network topologies. , 2014, , .		17
86	Problem of cycle-slipping for infinite dimensional systems with MIMO nonlinearities. , 2014, , .		2
87	Uniform deployment of second-order agents on a line segment. , 2014, , .		1
88	Opinion dynamics using Altafini's model with a time-varying directed graph. , 2014, , .		9
89	Consensus between nonlinearly coupled discrete-time agents. , 2014, , .		2
90	Asymptotic estimates for gradient-like distributed parameter systems with periodic nonlinearities. , 2014, , .		5

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91	Average consensus for nonlinearly coupled agents: quadratic criteria. , 2014, , .		4
92	Nonlinear Consensus Algorithms with Uncertain Couplings. Asian Journal of Control, 2014, 16, 1277-1288.	3.0	17
93	Average consensus in networks with nonlinearly delayed couplings and switching topology. Automatica, 2013, 49, 2928-2932.	5.0	37
94	Consensus in switching networks with sectorial nonlinear couplings: Absolute stability approach. Automatica, 2013, 49, 488-495.	5.0	37
95	Consensus in switching symmetric networks of first-order agents with delayed relative measurements. , 2013, , .		2
96	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
97	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
98	The Popov Criterion For Consensus Between Delayed Agents. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 693-698.	0.4	2
99	Stability of continuous-time consensus algorithms for switching networks with bidirectional interaction. , 2013, , .		16
100	Average consensus in symmetric nonlinearly coupled delayed networks. , 2013, , .		0
101	DP Systems for Track Control of Dredging Vessels. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 453-458.	0.4	4
102	Thrust Ability Diagrams for Multi-Thruster Marine Vessels. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 152-157.	0.4	3
103	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
104	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
105	Signal invariance and trajectory steering problem for an autonomous wheeled robot. , 2011, , .		3
106	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
107	Speed gradient control of qubit state*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 81-85.	0.4	3
108	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

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109	Thrust Ability Diagrams of DP Vessels: Computational Aspects. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 144-148.	0.4	0
110	Dissipativity of T-Periodic Linear Systems. IEEE Transactions on Automatic Control, 2007, 52, 1039-1047.	5.7	21