

Sergey Edward Lyshevski

List of Publications by Year in descending order

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87
papers

619
citations

840776
11
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all docs

89
docs citations

89
times ranked

333
citing authors

#	ARTICLE	IF	CITATIONS
1	Analysis of Multi-Degree-of-Freedom Inertial Sensors for Cyber-Physical Systems. , 2021, , .		1
2	Probabilistic Models of Information Management in Cyber-Physical Systems. , 2021, , .		1
3	Information-Centric Cyberattack Analysis and Spatiotemporal Networks Applied to Cyber-Physical Systems. , 2020, , .		2
4	Analysis of data-driven processing in inertial measurement systems for wireless optical communication applications. , 2019, , .		1
5	Object recognition, identification and classification for intelligent surveillance and reconnaissance platforms. , 2019, , .		0
6	Real-Time Dynamic Data Processing and Fusion: Multi-Degree-of-Freedom MEMS Inertial Sensors. , 2018, , .		0
7	Design and Evaluations of 3D-Printed Microthrusters with Nanothermite Propellants. , 2018, , .		1
8	Multi-Agent Distributed Coordination and Control For Aerial Systems. , 2018, , .		0
9	Control of high-precision direct-drive mechatronic servos: Tracking control with adaptive friction estimation and compensation. Mechatronics, 2017, 43, 1-5.	3.3	12
10	Signal Processing in Cyber-Physical MEMS Sensors: Inertial Measurement and Navigation Systems. IEEE Transactions on Industrial Electronics, 2017, 64, 9618-9625.	7.9	31
11	Secure communication and signal processing in inertial navigation systems. , 2017, , .		5
12	Measuring spatiotemporal magnetic fields by hall effect sensors with post-processing solutions. , 2017, , .		0
13	Information fusion and data-driven processing in inertial measurement units for cyber-physical systems. , 2017, , .		2
14	Power electronics, microelectronics and propulsion systems for solar-powered unmanned aerial vehicles. , 2016, , .		0
15	Data processing analysis in nano-and microelectronics processing platforms. , 2016, , .		0
16	Signal processing in MEMS inertial measurement units for dynamic motional control. , 2016, , .		7
17	Analysis of high-performance DC-DC switching converters. , 2016, , .		0
18	Nanotechnology for portable energy systems: Modular photovoltaics, energy storage and electronics. , 2016, , .		0

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19	Control of dynamic microsystems. International Journal of Systems Science, 2015, 46, 2770-2780.	5.5	0
20	Microstepping and high-performance control of permanent-magnet stepper motors. Energy Conversion and Management, 2014, 85, 245-253.	9.2	13
21	Identification of induction motor parameters for self-commissioning procedure: A new algorithm and experimental verification. , 2014, , .		3
22	Nano and molecular technologies in microelectronics, MEMS and electronic systems. , 2013, , .		0
23	Information-theoretic estimates of communication and processing in nanoscale and quantum optoelectronic systems. , 2013, , .		1
24	Identification of induction motor parameters adaptively controlling stator currents. , 2013, , .		3
25	Precision control of mechatronic systems with electromagnetically-steered moving masses. International Journal of Advanced Mechatronic Systems, 2013, 5, 306.	0.2	1
26	Quantum molecular sensing, communication and processing by photons. , 2012, , .		3
27	Nonlinear analysis and tracking control of advanced airframe aircraft. , 2012, , .		0
28	Nano-, NanoBio- and NanoBioMedical- Technologies: Enabling sensing, communication and processing paradigms. , 2012, , .		2
29	Hardware, software and algorithmic solutions for quantum data processing. , 2012, , .		1
30	Nanotechnology enabled self-sustained power systems and high-power-density electronics for autonomous flight vehicles. , 2012, , .		0
31	Graphene: Quantum-mechanical outlook. , 2011, , .		0
32	Multi-state digital and quantum signal processing and emerging nanoelectronic processing hardware: complexity, performance and capabilities. , 2011, , .		0
33	Molecular sensing and processing on photons. , 2011, , .		0
34	Soft-switching sliding mode control of power generation systems. , 2011, , .		0
35	Quantum-mechanical analysis of single molecule quantum electronic devices. , 2011, , .		1
36	Quantum processing: Feasibility studies and solutions. , 2011, , .		1

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37	Tracking control of direct-drive servos. , 2011, , .		0
38	Belief trees and networks for biometric applications. Soft Computing, 2011, 15, 3-11.	3.6	4
39	High-power density miniscale power generation and energy harvesting systems. Energy Conversion and Management, 2011, 52, 46-52.	9.2	21
40	Molecular and BioMolecular communication: Waveguides and possible role of microtubules. , 2011, , .		1
41	Design of tracking control laws using nonlinear aircraft models. , 2011, , .		0
42	Clean high-energy density renewable power generation systems with soft-switching sliding mode control laws. , 2011, , .		10
43	Engineered and Natural Processing: Neurocomputing and Neuromorphological Processing Platforms. , 2009, , .		0
44	Computing Paradigms for Logic Nanocells. Journal of Computational and Theoretical Nanoscience, 2008, 5, 2377-2395.	0.4	4
45	Quantum-Effect Multi-Terminal Molecular Electronic Devices. , 2008, , .		0
46	Quantum Mechanics and Electromagnetics of Weak Magnetic Field Sensing, Storage and Retrieval in Biosystems and Engineered Systems. , 2008, , .		0
47	Neuroarchitectronics and Neuromorphological Molecular Processing Platforms. , 2008, , .		0
48	Neuronal Processing, Reconfigurable Neural Networks and Stochastic Computing. , 2008, , .		11
49	Characterization of Physical Defects and Fault Analysis of Molecular and Nanoscaled Integrated Circuits. , 2008, , .		0
50	Molecular and Biomolecular Processing: Three-Dimensional-Topology Processing and Memory Cells. , 2008, , .		0
51	Rhodopsin Photon Receptor Energetics: Studies of Biomolecular Sensing and Processing. , 2008, , .		0
52	Active electromagnetic-vibroacoustic control and optimization of microelectromechanical motion devices. , 2007, , .		0
53	Design, optimization, analysis and control topics in nanotechnology ad MEMS courses. , 2007, , .		2
54	BioMEMS and Molecular Processing: Engineering Biomimetics in Design of MEMS and Processing Platforms. , 2007, , .		0

#	ARTICLE	IF	CITATIONS
55	An Electromagnetic MEMS Actuator for Micropumps. , 2006, , .		14
56	MOEMS With Thin-Film Crystals. , 2006, , .		0
57	Control of neurotransmitters in brain neurons using soft-switching sliding mode control. , 2006, , .		0
58	Control of stochastic systems and molecular fluidic electronic devices. , 2006, , .		0
59	Design of nano- and microsystems with novel control laws. , 2006, , .		0
60	Control of Neurotransmitters in Brain Neurons Using Soft-Switching Sliding Mode Control. , 2006, , .		0
61	Control of Stochastic Systems and Molecular Fluidic Electronic Devices. , 2006, , .		0
62	Design of Nano- and Microsystems With Novel Control Laws. , 2006, , .		0
63	Modeling transport through single-molecule junctions. Open Physics, 2005, 3, .	1.7	3
64	Fuzzy control with random delays using invariant cones and its application to control of energy processes in microelectromechanical motion devices. Energy Conversion and Management, 2005, 46, 1305-1318.	9.2	4
65	Modeling and control of MEMS with high speed synchronous micromotors and controllers/drivers-on-VLSI-chip ICs. Energy Conversion and Management, 2003, 44, 667-679.	9.2	5
66	Analysis and Design of Advanced Miniscale Mechatronic Systems: Synthesis of Intelligent Flight Servos. International Journal of Smart Engineering System Design, 2002, 4, 115-123.	0.2	0
67	High-torque density integrated electro-mechanical flight actuators. IEEE Transactions on Aerospace and Electronic Systems, 2002, 38, 174-182.	4.7	23
68	Smart flight control surfaces with microelectromechanical systems. IEEE Transactions on Aerospace and Electronic Systems, 2002, 38, 543-552.	4.7	18
69	Performance functionals and dynamic systems' optimization. International Journal of Systems Science, 2002, 33, 823-830.	5.5	2
70	Nonlinear modeling and robust control of synchronous reluctance motors. Energy Conversion and Management, 2002, 43, 523-536.	9.2	8
71	Modeling and identification of induction micromachines in microelectromechanical systems applications. Energy Conversion and Management, 2002, 43, 2123-2133.	9.2	2
72	Mechatronic curriculum "retrospect and prospect. Mechatronics, 2002, 12, 195-205.	3.3	17

#	ARTICLE	IF	CITATIONS
73	Integrated micro- and miniscale electromechanical systems with permanent-magnet servo-motors and VLSI driversâ€“controllers. <i>Mechatronics</i> , 2002, 12, 1115-1131.	3.3	3
74	Control Systems Theory with Engineering Applications. , 2001, , .		97
75	Optimal structural synthesis, modeling, and control of micro-mechatronic systems. <i>Mechatronics</i> , 2001, 11, 837-851.	3.3	1
76	Control of high performance induction motors: theory and practice. <i>Energy Conversion and Management</i> , 2001, 42, 877-898.	9.2	12
77	Non-linear control of advanced direct drive robots: Theory and experiments. <i>International Journal of Control</i> , 2001, 74, 638-647.	1.9	3
78	Energy conversion and optimal energy management in dieselâ€“electric drivetrains of hybrid-electric vehicles. <i>Energy Conversion and Management</i> , 2000, 41, 13-24.	9.2	27
79	Analysis of auxiliary power systems with conventional synchronous generators. <i>Energy Conversion and Management</i> , 2000, 41, 1379-1387.	9.2	1
80	Nonlinear identification and control of aircraft. <i>International Journal of Systems Science</i> , 2000, 31, 923-935.	5.5	3
81	Nonlinear control of mechatronic systems with permanent-magnet DC motors. <i>Mechatronics</i> , 1999, 9, 539-552.	3.3	51
82	Design of the constrained controllers for uncertain nonlinear systems using the Lyapunov stability theory. <i>Journal of the Franklin Institute</i> , 1999, 336, 1075-1092.	3.4	5
83	Robust control of nonlinear continuous-time systems with parameter uncertainties and input bounds. <i>International Journal of Systems Science</i> , 1999, 30, 247-259.	5.5	34
84	State-Space Model Identification of Deterministic Nonlinear Systems: Nonlinear Mapping Technology and Application of the Lyapunov Theory. <i>Automatica</i> , 1998, 34, 659-664.	5.0	31
85	Nonlinear Control of Servo - Systems Actuated by Permanent-Magnet Synchronous Motors. <i>Automatica</i> , 1998, 34, 1231-1238.	5.0	24
86	Motion control of electromechanical servo-devices with permanent-magnet stepper motors. <i>Mechatronics</i> , 1997, 7, 521-536.	3.3	18
87	Nano- and Micro-Electromechanical Systems. , 0, , .		39