

Boris Sokolov

List of Publications by Year in descending order

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120
papers

6,456
citations

136940

32
h-index

69246

77
g-index

125
all docs

125
docs citations

125
times ranked

3050
citing authors

#	ARTICLE	IF	CITATIONS
1	The impact of digital technology and Industry 4.0 on the ripple effect and supply chain risk analytics. International Journal of Production Research, 2019, 57, 829-846.	7.5	965
2	Ripple effect in the supply chain: an analysis and recent literature. International Journal of Production Research, 2018, 56, 414-430.	7.5	495
3	The Ripple effect in supply chains: trade-off "efficiency-flexibility-resilience"™ in disruption management. International Journal of Production Research, 2014, 52, 2154-2172.	7.5	451
4	Literature review on disruption recovery in the supply chain. International Journal of Production Research, 2017, 55, 6158-6174.	7.5	444
5	A dynamic model and an algorithm for short-term supply chain scheduling in the smart factory industry 4.0. International Journal of Production Research, 2016, 54, 386-402.	7.5	417
6	Blockchain-oriented dynamic modelling of smart contract design and execution in the supply chain. International Journal of Production Research, 2020, 58, 2184-2199.	7.5	315
7	Reconfigurable supply chain: the X-network. International Journal of Production Research, 2020, 58, 4138-4163.	7.5	261
8	A multi-structural framework for adaptive supply chain planning and operations control with structure dynamics considerations. European Journal of Operational Research, 2010, 200, 409-420.	5.7	219
9	Scheduling in production, supply chain and Industry 4.0 systems by optimal control: fundamentals, state-of-the-art and applications. International Journal of Production Research, 2019, 57, 411-432.	7.5	206
10	Control and system-theoretic identification of the supply chain dynamics domain for planning, analysis and adaptation of performance under uncertainty. European Journal of Operational Research, 2013, 224, 313-323.	5.7	189
11	A survey on control theory applications to operational systems, supply chain management, and Industry 4.0. Annual Reviews in Control, 2018, 46, 134-147.	7.9	151
12	Optimal distribution (re)planning in a centralized multi-stage supply network under conditions of the ripple effect and structure dynamics. European Journal of Operational Research, 2014, 237, 758-770.	5.7	144
13	Disruption-driven supply chain (re)-planning and performance impact assessment with consideration of pro-active and recovery policies. Transportation Research, Part E: Logistics and Transportation Review, 2016, 90, 7-24.	7.4	123
14	Structural quantification of the ripple effect in the supply chain. International Journal of Production Research, 2016, 54, 152-169.	7.5	114
15	Cloud supply chain: Integrating Industry 4.0 and digital platforms in the "Supply Chain-as-a-Service". Transportation Research, Part E: Logistics and Transportation Review, 2022, 160, 102676.	7.4	109
16	Applicability of optimal control theory to adaptive supply chain planning and scheduling. Annual Reviews in Control, 2012, 36, 73-84.	7.9	103
17	Hybrid fuzzy-probabilistic approach to supply chain resilience assessment. IEEE Transactions on Engineering Management, 2018, 65, 303-315.	3.5	100
18	Adaptive Supply Chain Management. , 2010, , .		98

#	ARTICLE	IF	CITATIONS
19	Scheduling of recovery actions in the supply chain with resilience analysis considerations. <i>International Journal of Production Research</i> , 2018, 56, 6473-6490.	7.5	86
20	Dynamic supply chain scheduling. <i>Journal of Scheduling</i> , 2012, 15, 201-216.	1.9	85
21	Digital Supply Chain Twins: Managing the Ripple Effect, Resilience, and Disruption Risks by Data-Driven Optimization, Simulation, and Visibility. <i>Profiles in Operations Research</i> , 2019, , 309-332.	0.4	81
22	Minimization of disruption-related return flows in the supply chain. <i>International Journal of Production Economics</i> , 2017, 183, 503-513.	8.9	79
23	Dynamic recovery policies for time-critical supply chains under conditions of ripple effect. <i>International Journal of Production Research</i> , 2016, 54, 7245-7258.	7.5	73
24	Advanced river flood monitoring, modelling and forecasting. <i>Journal of Computational Science</i> , 2015, 10, 77-85.	2.9	70
25	Integrated detection of disruption scenarios, the ripple effect dispersal and recovery paths in supply chains. <i>Annals of Operations Research</i> , 2022, 319, 609-631.	4.1	63
26	Dual problem formulation and its application to optimal redesign of an integrated production–distribution network with structure dynamics and ripple effect considerations. <i>International Journal of Production Research</i> , 2013, 51, 5386-5403.	7.5	62
27	Integration of aggregate distribution and dynamic transportation planning in a supply chain with capacity disruptions and the ripple effect consideration. <i>International Journal of Production Research</i> , 2015, 53, 6963-6979.	7.5	58
28	A control approach to scheduling flexibly configurable jobs with dynamic structural-logical constraints. <i>IIE Transactions</i> , 2021, 53, 21-38.	2.4	52
29	Simultaneous structural–operational control of supply chain dynamics and resilience. <i>Annals of Operations Research</i> , 2019, 283, 1191-1210.	4.1	49
30	Structure dynamics control approach to supply chain planning and adaptation. <i>International Journal of Production Research</i> , 2012, 50, 6133-6149.	7.5	43
31	Schedule coordination in cyber-physical supply networks Industry 4.0. <i>IFAC-PapersOnLine</i> , 2016, 49, 839-844.	0.9	39
32	The inter–disciplinary modelling of supply chains in the context of collaborative multi–structural cyber–physical networks. <i>Journal of Manufacturing Technology Management</i> , 2012, 23, 976-997.	6.4	38
33	Robust dynamic schedule coordination control in the supply chain. <i>Computers and Industrial Engineering</i> , 2016, 94, 18-31.	6.3	35
34	Disaster Risk Assessment Based on Heterogeneous Geospatial Information. <i>Journal of Automation and Information Sciences</i> , 2010, 42, 32-45.	0.7	35
35	Disruptions in supply chains and recovery policies: state-of-the art review. <i>IFAC-PapersOnLine</i> , 2016, 49, 1436-1441.	0.9	32
36	Schedule robustness analysis with the help of attainable sets in continuous flow problem under capacity disruptions. <i>International Journal of Production Research</i> , 2016, 54, 3397-3413.	7.5	31

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37	Integrated scheduling of material flows and information services in industry 4.0 supply networks. IFAC-PapersOnLine, 2015, 48, 1533-1538.	0.9	30
38	Dynamic co-ordinated scheduling in the supply chain under a process modernisation. International Journal of Production Research, 2013, 51, 2680-2697.	7.5	28
39	Supply Chain Design With Disruption Considerations: Review of Research Streams on the Ripple Effect in the Supply Chain. IFAC-PapersOnLine, 2015, 48, 1700-1707.	0.9	26
40	Integrated supply chain planning based on a combined application of operations research and optimal control. Central European Journal of Operations Research, 2011, 19, 299-317.	1.8	24
41	Robot master slave and supervisory control with large time delays of control signals and feedback. Applied Mathematical Sciences, 2016, 10, 1783-1796.	0.1	24
42	Multi-stage supply chain scheduling with non-preemptive continuous operations and execution control. International Journal of Production Research, 2014, 52, 4059-4077.	7.5	21
43	CONTROL THEORY APPLICATIONS TO OPERATIONS SYSTEMS, SUPPLY CHAIN MANAGEMENT AND INDUSTRY 4.0 NETWORKS. IFAC-PapersOnLine, 2018, 51, 1536-1541.	0.9	21
44	Integrated modelling of agile enterprise networks. International Journal of Agile Systems and Management, 2007, 2, 23.	0.3	20
45	Optimal Control Algorithms and Their Analysis for Short-Term Scheduling in Manufacturing Systems. Algorithms, 2018, 11, 57.	2.1	20
46	Ripple Effect in the Supply Chain: Definitions, Frameworks and Future Research Perspectives. Profiles in Operations Research, 2019, , 1-33.	0.4	18
47	Integrated dynamic scheduling of material flows and distributed information services in collaborative cyber-physical supply networks. International Journal of Systems Science: Operations and Logistics, 2014, 1, 18-26.	3.0	17
48	Dynamic analysis of space robot remote control system. AIP Conference Proceedings, 2018, , .	0.4	17
49	Analysis of position optimization method applicability in supply chain management problem. , 2015, , .		14
50	ON APPLICABILITY OF OPTIMAL CONTROL THEORY TO ADAPTIVE SUPPLY CHAIN PLANNING AND SCHEDULING. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 423-434.	0.4	13
51	Multiple models of information fusion processes: Quality definition and estimation. Journal of Computational Science, 2014, 5, 380-386.	2.9	12
52	Quantitative Models of Collaborative Networks. International Federation for Information Processing, 2005, , 387-394.	0.4	11
53	Multi-disciplinary analysis of interfaces "Supply Chain Event Management - RFID - control theory". International Journal of Integrated Supply Management, 2013, 8, 52.	0.3	10
54	Development of intelligent information systems for operational river-flood forecasting. Herald of the Russian Academy of Sciences, 2016, 86, 24-33.	0.6	10

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55	Exact and heuristic methods for integrated supply chain design reliability analysis. International Journal of Integrated Supply Management, 2016, 10, 206.	0.3	10
56	A Dynamic Approach to Multi-stage Job Shop Scheduling in an Industry 4.0-Based Flexible Assembly System. IFIP Advances in Information and Communication Technology, 2017, , 475-482.	0.7	10
57	A Conceptual Framework for Modeling Complex Adaptation of Collaborative Networks. , 2006, , 15-22.		10
58	Situational Modelling for Structural Dynamics Control of Industry-Business Processes and Supply Chains. Studies in Computational Intelligence, 2010, , 279-308.	0.9	10
59	Ripple Effect in the Time-Critical Food Supply Chains and Recovery Policies. IFAC-PapersOnLine, 2015, 48, 1682-1687.	0.9	9
60	Proactive Scheduling and Reactive Real-Time Control in Industry 4.0. Profiles in Operations Research, 2020, , 11-37.	0.4	9
61	Methodological Basis of Socio-Cyber-Physical Systems Structure-Dynamics Control and Management. Communications in Computer and Information Science, 2016, , 610-617.	0.5	9
62	Optimal control representation of the mathematical programming model for supply chain dynamic reconfiguration. IFAC-PapersOnLine, 2017, 50, 4994-4999.	0.9	8
63	Stability Analysis in the Framework of Decision Making Under Risk and Uncertainty. , 2006, , 211-218.		8
64	Introduction to Scheduling in Industry 4.0 and Cloud Manufacturing Systems. Profiles in Operations Research, 2020, , 1-9.	0.4	8
65	Complex Objects Remote Sensing Forest Monitoring and Modeling. Advances in Intelligent Systems and Computing, 2014, , 445-453.	0.6	7
66	Control of inventory dynamics: A survey of special cases for products with low demand. Annual Reviews in Control, 2020, 49, 306-320.	7.9	7
67	Intellectualization of control: cyber-physical supply chain risk analytics. IFAC-PapersOnLine, 2019, 52, 355-360.	0.9	6
68	A Model-Oriented System for Operational Forecasting of River Floods. Herald of the Russian Academy of Sciences, 2019, 89, 405-417.	0.6	5
69	Simulation Vs. Optimization Approaches to Ripple Effect Modelling in the Supply Chain. Lecture Notes in Logistics, 2018, , 34-39.	0.8	5
70	New concept of RFID reader networks structure: hardware and software architecture. , 2009, , .		4
71	Intelligent technology for space and ground based monitoring of natural objects in cross-boder Eu-Russia territory. , 2012, , .		4
72	APPLICATION OF CONTROL THEORETIC TOOLS TO SUPPLY CHAIN DISRUPTION MANAGEMENT. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 1926-1931.	0.4	4

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73	Combined approach to the complex objects control and stability analysis of management decisions. International Journal of Risk Assessment and Management, 2020, 23, 106.	0.1	4
74	Adaptation-Based Supply Chain Resilience. Lecture Notes in Logistics, 2013, , 267-287.	0.8	4
75	Integrated Adaptive Design and Planning of Supply Networks. Lecture Notes in Business Information Processing, 2010, , 152-163.	1.0	4
76	Integrated situational modelling of industry-business processes for every stage of their life cycle. , 2008, , .		3
77	Complex Objects Remote Sensing Monitoring and Modeling: Methodology, Technology and Practice. , 2013, , .		3
78	Intelligent Integrated Decision Support Systems for Territory Management. Advances in Intelligent Systems and Computing, 2015, , 321-331.	0.6	3
79	Coordination of the supply chain schedules with re-scheduling considerations. IFAC-PapersOnLine, 2015, 48, 1509-1514.	0.9	3
80	Models and methods for multicriteria situational flexible reassignment of control functions in man-machine systems. , 2016, , .		3
81	Methodology and integrated modeling technologies for synthesis of cyber-physical production systems modernization programs and plans. IFAC-PapersOnLine, 2019, 52, 642-647.	0.9	3
82	INTEGRATED MODELLING ENVIRONMENT FOR DECISION MAKING SUPPORT IN SUPPLY CHAIN MANAGEMENT: CONCEPTUAL APPROACH. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 594-599.	0.4	2
83	Control theory application to spacecraft scheduling problem. , 2014, , .		2
84	Conceptual and Formal Modelling of Monitoring Systems Structure-Dynamics Control. Advances in Intelligent Systems and Computing, 2016, , 391-401.	0.6	2
85	Integrated Planning and Scheduling with Dynamic Analysis and Control of Service Level and Costs. Operations Research/ Computer Science Interfaces Series, 2016, , 263-283.	0.3	2
86	Comparison of ERP Systems with Blockchain Platform. Advances in Intelligent Systems and Computing, 2019, , 240-247.	0.6	2
87	An Empirical Examination of the Consistency Ratio in the Analytic Hierarchy Process (AHP). IFIP Advances in Information and Communication Technology, 2021, , 477-485.	0.7	2
88	Structure Dynamics Control-Based Service Scheduling in Collaborative Cyber-Physical Supply Networks. International Federation for Information Processing, 2012, , 280-288.	0.4	2
89	Scheduling in Production, Supply Chain and Industry 4.0 Systems by Optimal Control: Fundamentals, State-of-the-Art, and Applications. SSRN Electronic Journal, 0, , .	0.4	2
90	Methodology and Structure Adaptation Algorithm for Complex Technical Objects Reconfiguration Models. Advances in Intelligent Systems and Computing, 2017, , 319-328.	0.6	2

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91	Dynamic Models of Self-organization Through Mass Behavior in Society. Advances in Intelligent Systems and Computing, 2018, , 114-123.	0.6	2
92	RFID-based Adaptive Feedbacks between Supply Chain Scheduling and Execution Control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 435-440.	0.4	1
93	Task re-allocation in temporary production networks. International Journal of Integrated Supply Management, 2013, 8, 107.	0.3	1
94	Analysis of dynamic scheduling robustness with the help of attainable sets. , 2014, , .		1
95	RFID Technology for Adaptation of Complex Systems Scheduling and Execution Control Models. Advances in Intelligent Systems and Computing, 2016, , 433-442.	0.6	1
96	Flexible flow shop scheduling for continuous production. International Journal of Service and Computing Oriented Manufacturing, 2016, 2, 189.	0.2	1
97	The methodology of situational and competence centers development in order to increase the national economic and social stability. , 2017, , .		1
98	Modification of Multiple-model Description and Planning and Update Control Algorithms of Supply Chain. IFAC-PapersOnLine, 2019, 52, 1972-1977.	0.9	1
99	Models And Algorithms For Abilities Evaluation Of Active Moving Objects Control System. , 2016, , .		1
100	Creation of image models for evolving objects on dynamically changing scenes. Journal of Applied Engineering Science, 2017, 15, 540-545.	0.9	1
101	Robust classification of texture land forest inventory based on model of minimally sufficient features. Journal of Applied Engineering Science, 2017, 15, 236-241.	0.9	1
102	Model-Algorithmic Support for Abilities Calculating of Control System Based on Projection Operators. Advances in Intelligent Systems and Computing, 2019, , 342-348.	0.6	1
103	Methodology of Complex Objects Structural Dynamics Proactive Management and Control Theory and Its Application. Lecture Notes in Networks and Systems, 2020, , 169-177.	0.7	1
104	ISSUES IN SUPPLY CHAIN STABILITY ESTIMATION IN FLEXIBLE SUPPLY NETWORKS AND POSSIBLE METHODS AND TOOLS FOR THEIR DECISION. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 570-575.	0.4	0
105	ATTAINABLE SETS AND THEIR POSSIBLE APPLICATIONS TO SUPPLY CHAIN ANALYSIS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 578-583.	0.4	0
106	DEVELOPING AN ADAPTIVE FRAMEWORK FOR SUSTAINABLE SUPPLY NETWORKS. , 2012, , 109-131.		0
107	STRUCTURE DYNAMICS CONTROL-BASED INTEGRATION OF AGGREGATE DISTRIBUTION AND DYNAMIC TRANSPORTATION PLANNING. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 1920-1925.	0.4	0
108	An Innovative Framework for Integrated Space-Ground Monitoring. , 2015, , .		0

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109	Models and algorithms of operational planning and control of dynamical objects with application of the Pontryagin's Maximum principle. , 2017, , .		0
110	System of indicators of the quality of human-machine interaction in three-dimensional visualization in decision support systems. , 2017, , .		0
111	Application of decision-making support technology for management of space vehicle life cycle. , 2017, , .		0
112	Mathematical model and algorithm of operation scheduling for monitoring situation in local waters. MATEC Web of Conferences, 2017, 113, 02012.	0.2	0
113	Multiple-model description and generalised algorithm of ship-building wharf scheduling. International Journal of Service and Computing Oriented Manufacturing, 2018, 3, 238.	0.2	0
114	Performance Impact Analysis of Disruption Propagations in the Supply Chain. Profiles in Operations Research, 2019, , 163-180.	0.4	0
115	A Model of an Integrated Analytics Decision Support System for Situational Proactive Control of Recovery Processes in Service-Modularized Supply Chain. Profiles in Operations Research, 2019, , 129-144.	0.4	0
116	Control Theory Application to Complex Technical Objects Scheduling Problem Solving. Advances in Intelligent Systems and Computing, 2017, , 172-179.	0.6	0
117	Segmentation Algorithm for the Evolutionary Biological Objects Images on a Complex Background. Advances in Intelligent Systems and Computing, 2019, , 151-171.	0.6	0
118	Problems of Socio-Cyber-Physical Systems Development and Implementation: State-of-Art and Directs of Research. Advances in Intelligent Systems and Computing, 2020, , 596-606.	0.6	0
119	Integrated Scheduling of Information Services and Logistics Flows in the Omnichannel System. Profiles in Operations Research, 2020, , 125-140.	0.4	0
120	Cyber-Physical System Adaptation in One Control Problem for Supply Chain. Lecture Notes in Control and Information Sciences - Proceedings, 2022, , 591-597.	0.1	0