Thomas Stefan Spengler

List of Publications by Year
in descending order

110	2,768	201575 27	197736 49
papers	citations	h-index	g-index

120	120	120	2147
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Fuzzy outranking for environmental assessment. Case study: iron and steel making industry. Fuzzy Sets and Systems, 2000, 115, 45-65.	1.6	256
2	A methodology for assessing eco-efficiency in logistics networks. European Journal of Operational Research, 2009, 193, 670-682.	3.5	212
3	From closed-loop to sustainable supply chains: the WEEE case. International Journal of Production Research, 2010, 48, 4463-4481.	4.9	161
4	Evaluation of sites for the location of WEEE recycling plants in Spain. Waste Management, 2008, 28, 181-190.	3.7	159
5	Strategic Management of Spare Parts in Closed-Loop Supply Chainsâ€"A System Dynamics Approach. Interfaces, 2003, 33, 7-17.	1.6	112
6	Impact of WEEEâ€directive on reverse logistics in Germany. International Journal of Physical Distribution and Logistics Management, 2005, 35, 337-361.	4.4	97
7	Operations research for sustainability assessment of products: A review. European Journal of Operational Research, 2019, 274, 1-21.	3.5	92
8	Design of regional production networks for second generation synthetic bio-fuel â€“ A case study in Northern Germany. European Journal of Operational Research, 2012, 218, 280-292.	3.5	84
9	Balancing of assembly lines with collaborative robots. Business Research, 2020, 13, 93-132.	4.0	80
10	Analyzing manufacturers' impact on green products' market diffusion â€“ the case of electric vehicles. Journal of Cleaner Production, 2017, 162, S11-S25.	4.6	70
11	Implementation of the WEEE-directiveâ€‰â€"â€‰economic effects and improvement potentials for reuse and recycling in Germany. International Journal of Advanced Manufacturing Technology, 2010, 47, 461-474.	1.5	67
12	Modeling and simulation of order-driven planning policies in build-to-order automobile production. International Journal of Production Economics, 2011, 131, 183-193.	5.1	66
13	Impact assessment in the automotive industry: mandatory market introduction of alternative powertrain technologies. System Dynamics Review, 2010, 26, 239-261.	1.1	60
14	Integrated planning of acquisition, disassembly and bulk recycling: a case study on electronic scrap recovery. OR Spectrum, 2003, 25, 413-442.	2.1	59
15	Assembly Line Balancing with Collaborative Robots under consideration of Ergonomics: a cost-oriented approach. IFAC-PapersOnLine, 2019, 52, 1860-1865.	0.5	54
16	Revenue management in make-to-order manufacturingâ€"an application to the iron and steel industry. OR Spectrum, 2006, 29, 157-171.	2.1	53
17	Negotiation-based coordination in product recovery networks. International Journal of Production Economics, 2008, 111, 334-350.	5.1	50
18	Planning of capacities and orders in build-to-order automobile production: A review. European Journal of Operational Research, 2013, 224, 240-260.	3.5	48

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19	A Hybrid Simulation Approach for Estimating the Market Share Evolution of Electric Vehicles. Transportation Science, 2014, 48, 651-670.	2.6	48
20	Produktionswirtschaft. Springer-Lehrbuch, 2010, , .	0.1	44
21	The influence of emission thresholds and retrofit options on airline fleet planning: An optimization approach. Energy Policy, 2018, 112, 242-257.	4.2	38
22	Assessment of social sustainability hotspots in the supply chain of lithium-ion batteries. Procedia CIRP, 2019, 80, 292-297.	1.0	34
23	Revenue Management in Make-To-Order Manufacturing: Case Study of Capacity Control at ThyssenKrupp VDM. Business Research, 2010, 3, 173-190.	4.0	32
24	Technology and capacity planning for the recycling of lithium-ion electric vehicle batteries in Germany. Journal of Business Economics, 2015, 85, 505-544.	1.3	32
25	Sustainability Assessment and Engineering of Emerging Aircraft Technologiesâ€”Challenges, Methods and Tools. Sustainability, 2020, 12, 5663.	1.6	32
26	Proposal for an integrated approach for the assessment of cross-media aspects relevant for the determination of â€œbest available techniquesâ€•bat in the european union. International Journal of Life Cycle Assessment, 1999, 4, 94-106.	2.2	29
27	Material flow-based economic assessment of landfill mining processes. Waste Management, 2017, 60, 748-764.	3.7	29
28	When and how much to invest? Investment and capacity choice under product life cycle uncertainty. European Journal of Operational Research, 2017, 260, 1105-1114.	3.5	28
29	Harmonizing ergonomics and economics of assembly lines using collaborative robots and exoskeletons. Journal of Manufacturing Systems, 2022, 62, 681-702.	7.6	28
30	Energy-oriented Lot-Sizing and Scheduling considering energy storages. International Journal of Production Economics, 2019, 216, 204-214.	5.1	26
31	Market introduction strategies for alternative powertrains in long-range passenger cars under competition. Transportation Research, Part D: Transport and Environment, 2016, 45, 4-27.	3.2	25
32	Recycling 4.0 â€“ Mapping smart manufacturing solutions to remanufacturing and recycling operations. Procedia CIRP, 2020, 90, 600-605.	1.0	25
33	Integrated Material Flow Analysis and Process Modeling to Increase Energy and Water Efficiency of Industrial Cooling Water Systems. Journal of Industrial Ecology, 2018, 22, 41-54.	2.8	24
34	Facility location planning for treatment of large household appliances in Spain. International Journal of Environmental Technology and Management, 2008, 8, 405.	0.1	22
35	A two-stage bid-price control for make-to-order revenue management. Computers and Operations Research, 2012, 39, 1021-1032.	2.4	21
36	Integrating Agent-based Simulation and System Dynamics to support product strategy decisions in the automotive industry. , 2009, , .		20

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37	Life Cycle Engineering of future aircraft systems: the case of eVTOL vehicles. Procedia CIRP, 2020, 90, 297-302.	1.0	18
38	Redundant configuration of automated flow lines based on â€œIndustry 4.0â€•technologies. Journal of Business Economics, 2017, 87, 877-898.	1.3	17
39	Activity analysis based modeling of global supply chains for sustainability assessment. Journal of Business Economics, 2021, 91, 215-252.	1.3	16
40	Life cycle sustainability assessment of potential battery systems for electric aircraft. Procedia CIRP, 2021, 98, 660-665.	1.0	16
41	Are Sustainable Aviation Fuels a Viable Option for Decarbonizing Air Transport in Europe? An Environmental and Economic Sustainability Assessment. Applied Sciences (Switzerland), 2022, 12, 597.	1.3	16
42	Redundant configuration of robotic assembly lines with stochastic failures. International Journal of Production Research, 2018, 56, 3662-3682.	4.9	15
43	Simulation-Based Analysis of the Potential of Alternative Fuels towards Reducing CO2 Emissions from Aviation. Energies, 2018, 11, 186.	1.6	15
44	Recycling 4.0. , 2020, , .		15
45	Revenue Management Konzepte zur EntscheidungsunterstÃ¼tzung bei der Annahme von KundenauftrÃgen. Zeitschrift FÃ¼r Planung Und Unternehmenssteuerung, 2005, 16, 123-146.	0.3	14
46	Assessing Combined Water-Energy-Efficiency Measures in the Automotive Industry. Procedia CIRP, 2015, 29, 50-55.	1.0	14
47	A reference framework for the holistic evaluation of Industry 4.0 solutions for small-and medium-sized enterprises. IFAC-PapersOnLine, 2019, 52, 427-432.	0.5	14
48	Make-or-buy strategies for electric vehicle batteriesâ€”a simulation-based analysis. Technological Forecasting and Social Change, 2015, 99, 22-34.	6.2	13
49	An extension of the general lot-sizing and scheduling problem (GLSP) with time-dependent energy prices. Journal of Business Economics, 2019, 89, 481-514.	1.3	13
50	A Strategic Framework for the Design of Recycling Networks for Lithium-Ion Batteries from Electric Vehicles. , 2011, , 79-84.		11
51	OEM strategies for vertical integration in the battery value chain. International Journal of Automotive Technology and Management, 2013, 13, 75.	0.4	11
52	A GRASP heuristic for the hot strip mill scheduling problem under consideration of energy consumption. Journal of Business Economics, 2016, 86, 537-573.	1.3	11
53	Socio-economic life cycle assessment of future aircraft systems. Procedia CIRP, 2020, 90, 262-267.	1.0	11
54	Slab scheduling at parallel continuous casters. International Journal of Production Economics, 2015, 170, 551-562.	5.1	10

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55	A fuzzy robustness measure for the scheduling of commissioned product development projects. Fuzzy Sets and Systems, 2019, 377, 125-149.	1.6	9
56	An Integrated Inventory-Transportation System with Periodic Pick-Ups and Leveled Replenishment. Business Research, 2013, 6, 173-194.	4.0	8
57	Decentralized master production and recycling scheduling of lithium-ion batteries: a techno-economic optimization model. Journal of Business Economics, 2021, 91, 253-282.	1.3	8
58	Exploring recycling options in battery supply chains â€“ a life cycle sustainability assessment. Procedia CIRP, 2022, 105, 434-439.	1.0	8
59	Empirical analysis of collaboration potential of SMEs in product recovery networks in Germany. Progress in Industrial Ecology, 2004, 1, 363.	0.1	7
60	Upgrade auctions in build-to-order manufacturing with loss-averse customers. European Journal of Operational Research, 2016, 250, 470-479.	3.5	7
61	Coordinated Planning in Closed-loop Supply Chains and its Implications on the Production and Recycling of Lithium-ion Batteries. Procedia CIRP, 2021, 98, 464-469.	1.0	7
62	Comparison of conventional and electric passenger aircraft for short-haul flights â€“ A life cycle sustainability assessment. Procedia CIRP, 2022, 105, 464-469.	1.0	7
63	Life cycle costing for strategic evaluation of remanufacturing systems. Progress in Industrial Ecology, 2008, 5, 65.	0.1	6
64	A GRASP heuristic for slab scheduling at continuous casters. OR Spectrum, 2014, 36, 693-722.	2.1	6
65	Management of recycling operations for iron and steel making slags. Journal of Business Economics, 2016, 86, 773-808.	1.3	6
66	Spatially Differentiated Sustainability Assessment for the Design of Global Supply Chains. Procedia CIRP, 2018, 69, 435-440.	1.0	6
67	Designing control management systems for parts recovery and spare parts management in the final phase within closed-loop supply chains. International Journal of Integrated Supply Management, 2004, 1, 158.	0.2	5
68	Applying decision-oriented accounting principles for the simulation-based design of logistics systems in production. , 2009, , .		5
69	Estimating and Mitigating Design Risk in a Flexible Distributed Design Process. IEEE Embedded Systems Letters, 2010, 2, 35-38.	1.3	5
70	Energy-oriented production planning with time-dependent energy prices. Procedia CIRP, 2019, 80, 245-250.	1.0	5
71	Supporting Strategic Product Portfolio Planning by Market Simulation. , 2012, , 123-147.		5
72	Project portfolio planning under CO₂ fleet emission restrictions in the automotive industry. Journal of Industrial Ecology, 2022, 26, 937-951.	2.8	5

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73	Extending the Life Cycle of EEEâ€"Findings from a Repair Study in Germany: Repair Challenges and Recommendations for Action. Sustainability, 2022, 14, 2993.	1.6	5
74	Modeling rational decisions in ambiguous situations: a multi-valued logic approach. Business Research, 2019, 12, 271-290.	4.0	4
75	The Volkswagen Pre-Production Center Applies Operations Research to Optimize Capacity Scheduling. Interfaces, 2020, 50, 119-136.	1.6	4
76	Consideration of Redundancies in the Configuration of Automated Flow Lines. Lecture Notes in Logistics, 2016, , 173-185.	0.6	4
77	Designing the technological transformation toward sustainable steelmaking: A framework to provide decision support to industrial practitioners. Procedia CIRP, 2022, 105, 706-711.	1.0	4
78	Life Cycle Engineering Modelling Framework for batteries powering electric aircrafts â€“ the contribution of eVTOLs towards a more sustainable urban mobility. Procedia CIRP, 2022, 105, 368-373.	1.0	4
79	LCA in decision-making processes. International Journal of Life Cycle Assessment, 1996, 1, 221-225.	2.2	3
80	Disassembly planning in closed-loop supply chains: an ERP-based solution. International Journal of Integrated Supply Management, 2004, 1, 139.	0.2	3
81	Multi-item single-source ordering with detailed consideration of transportation capacities. Journal of Business Economics, 2018, 88, 971-1007.	1.3	3
82	Decentralized Planning of Lithium-Ion Battery Production and Recycling. Procedia CIRP, 2020, 90, 700-704.	1.0	3
83	Effects of CO2-Penalty Costs on the Production and Recycling Planning of Lithium-Ion Batteries. Procedia CIRP, 2021, 98, 643-647.	1.0	3
84	Betriebliche Standortplanung und -entwicklung in Metropolregionen. ZWF Zeitschrift Fuer Wirtschaftlichen Fabrikbetrieb, 2018, 113, 503-507.	0.2	3
85	The impact of operation, equipment, and material handling flexibility on the design of matrix-structured manufacturing systems. IFAC-PapersOnLine, 2022, 55, 481-486.	0.5	3
86	Luftemissionen der ProzeÃŸkette: Vergipsung gebrauchter SchwefelsÃure. Chemie-Ingenieur-Technik, 1995, 67, 1634-1638.	0.4	2
87	Product recovery. OR Spectrum, 2006, 28, 1-2.	2.1	2
88	The Transition to Alternative Powertrains: Concept for the Life-Cycle-Oriented Symbiosis of Technology, Product and Product Portfolio Planning. , 2012, , .		2
89	IMPROVING RESOURCE UTILISATION IN PROTOTYPE VEHICLE PRODUCTION. Impact, 2020, 2020, 13-18.	0.2	2
90	Planning and Evaluation of Sustainable Reverse Logistics Systems. , 2006, , 577-582.		2

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91	Market leadership through technology - Backward compatibility in the US Handheld Game Industry. Proceedings - Academy of Management, 2013, 2013, 13671.	0.0	2
92	<title>Policy design in closed-loop supply chains for the integrated management of component recycling and spare parts supply in the electronics industry</title>. , 2004, 5262, 103.		1
93	Towards contract based coordination of distributed product development processes with complete substitution. Journal of Business Economics, 2014, 84, 665-714.	1.3	1
94	Sustainable operations. Journal of Business Economics, 2021, 91, 123.	1.3	1
95	Exploring the three dimensions of sustainability related to clay cups. Procedia CIRP, 2021, 98, 139-144.	1.0	1
96	Coordination in Recycling Networks. , 2008, , 479-484.		1
97	A Framework to Analyze the Reduction Potential of Life Cycle Carbon Dioxide Emissions of Passenger Cars. , 2012, , 55-60.		1
98	Optimale Belegung von StranggieÃŸanlagen mittels 2-dimensionaler Bin-Packing-Modelle. , 2003, , 53-58.		1
99	Limiting CO<SUB align="right">2 fleet emissions in the automotive industry - a portfolio planning approach. International Journal of Automotive Technology and Management, 2020, 20, 349.	0.4	1
100	Life Cycle Assessment as a Strategic Tool in Product Optimization/Produktokobilanzen als strategisches Hilfsmittel bei der Produktopimierung. European Journal of Engineering Education, 1997, 22, 83-92.	1.5	0
101	Int. J. LCA Vol. 4, No. 2, pp. 94â€“106 (1999). Environmental Science and Pollution Research, 1999, 6, 121-121.	2.7	0
102	Redundant Configuration of Automated Flow Lines. IFAC-PapersOnLine, 2016, 49, 751-756.	0.5	0
103	Kreislaufwirtschaft und Recycling. , 2018, , 994-1019.		0
104	Decision support framework for the regional facility location and development planning problem. Journal of Business Economics, 2022, 92, 115-157.	1.3	0
105	Dynamic Bid-Price Policies for Make-to-Order Revenue Management. , 2009, , 103-108.		0
106	Revenue Management fÃ¼r Lagerfahrzeuge. ZWF Zeitschrift Fuer Wirtschaftlichen Fabrikbetrieb, 2011, 106, 536-541.	0.2	0
107	Produktionsprogrammplanung bei Lagerproduktion variantenreicher Automobile. , 2012, , 287-299.		0
108	Automobilmarktsimulation zur strategischen Planung von Produktportfolios im Ãœbergang zur ElektromobilitÃt. , 2012, , 231-243.		0

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109	Limiting CO<SUB align="right">2 fleet emissions in the automotive industry - a portfolio planning approach. International Journal of Automotive Technology and Management, 2020, 20, 349.	0.4	0
110	Distributed Planning in Product Recovery Networks. , 2006, , 179-184.		0