

Thomas Stefan Spengler

List of Publications by Year in descending order

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Version: 2024-02-01

110
papers

2,768
citations

201575

27
h-index

197736

49
g-index

120
all docs

120
docs citations

120
times ranked

2147
citing authors

#	ARTICLE	IF	CITATIONS
1	Decision support framework for the regional facility location and development planning problem. <i>Journal of Business Economics</i> , 2022, 92, 115-157.	1.3	0
2	Are Sustainable Aviation Fuels a Viable Option for Decarbonizing Air Transport in Europe? An Environmental and Economic Sustainability Assessment. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 597.	1.3	16
3	Project portfolio planning under CO ₂ fleet emission restrictions in the automotive industry. <i>Journal of Industrial Ecology</i> , 2022, 26, 937-951.	2.8	5
4	Harmonizing ergonomics and economics of assembly lines using collaborative robots and exoskeletons. <i>Journal of Manufacturing Systems</i> , 2022, 62, 681-702.	7.6	28
5	Comparison of conventional and electric passenger aircraft for short-haul flights – A life cycle sustainability assessment. <i>Procedia CIRP</i> , 2022, 105, 464-469.	1.0	7
6	Exploring recycling options in battery supply chains – a life cycle sustainability assessment. <i>Procedia CIRP</i> , 2022, 105, 434-439.	1.0	8
7	Designing the technological transformation toward sustainable steelmaking: A framework to provide decision support to industrial practitioners. <i>Procedia CIRP</i> , 2022, 105, 706-711.	1.0	4
8	Life Cycle Engineering Modelling Framework for batteries powering electric aircrafts – the contribution of eVTOLs towards a more sustainable urban mobility. <i>Procedia CIRP</i> , 2022, 105, 368-373.	1.0	4
9	Extending the Life Cycle of EEE – Findings from a Repair Study in Germany: Repair Challenges and Recommendations for Action. <i>Sustainability</i> , 2022, 14, 2993.	1.6	5
10	The impact of operation, equipment, and material handling flexibility on the design of matrix-structured manufacturing systems. <i>IFAC-PapersOnLine</i> , 2022, 55, 481-486.	0.5	3
11	Decentralized master production and recycling scheduling of lithium-ion batteries: a techno-economic optimization model. <i>Journal of Business Economics</i> , 2021, 91, 253-282.	1.3	8
12	Activity analysis based modeling of global supply chains for sustainability assessment. <i>Journal of Business Economics</i> , 2021, 91, 215-252.	1.3	16
13	Coordinated Planning in Closed-loop Supply Chains and its Implications on the Production and Recycling of Lithium-ion Batteries. <i>Procedia CIRP</i> , 2021, 98, 464-469.	1.0	7
14	Life cycle sustainability assessment of potential battery systems for electric aircraft. <i>Procedia CIRP</i> , 2021, 98, 660-665.	1.0	16
15	Sustainable operations. <i>Journal of Business Economics</i> , 2021, 91, 123.	1.3	1
16	Exploring the three dimensions of sustainability related to clay cups. <i>Procedia CIRP</i> , 2021, 98, 139-144.	1.0	1
17	Effects of CO ₂ -Penalty Costs on the Production and Recycling Planning of Lithium-Ion Batteries. <i>Procedia CIRP</i> , 2021, 98, 643-647.	1.0	3
18	Balancing of assembly lines with collaborative robots. <i>Business Research</i> , 2020, 13, 93-132.	4.0	80

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19	Socio-economic life cycle assessment of future aircraft systems. <i>Procedia CIRP</i> , 2020, 90, 262-267.	1.0	11
20	Life Cycle Engineering of future aircraft systems: the case of eVTOL vehicles. <i>Procedia CIRP</i> , 2020, 90, 297-302.	1.0	18
21	Decentralized Planning of Lithium-Ion Battery Production and Recycling. <i>Procedia CIRP</i> , 2020, 90, 700-704.	1.0	3
22	Recycling 4.0 – Mapping smart manufacturing solutions to remanufacturing and recycling operations. <i>Procedia CIRP</i> , 2020, 90, 600-605.	1.0	25
23	IMPROVING RESOURCE UTILISATION IN PROTOTYPE VEHICLE PRODUCTION. <i>Impact</i> , 2020, 2020, 13-18.	0.2	2
24	Sustainability Assessment and Engineering of Emerging Aircraft Technologies – Challenges, Methods and Tools. <i>Sustainability</i> , 2020, 12, 5663.	1.6	32
25	The Volkswagen Pre-Production Center Applies Operations Research to Optimize Capacity Scheduling. <i>Interfaces</i> , 2020, 50, 119-136.	1.6	4
26	Recycling 4.0. , 2020, , .		15
27	Limiting CO ₂ fleet emissions in the automotive industry - a portfolio planning approach. <i>International Journal of Automotive Technology and Management</i> , 2020, 20, 349.	0.4	1
28	Limiting CO ₂ fleet emissions in the automotive industry - a portfolio planning approach. <i>International Journal of Automotive Technology and Management</i> , 2020, 20, 349.	0.4	0
29	Assessment of social sustainability hotspots in the supply chain of lithium-ion batteries. <i>Procedia CIRP</i> , 2019, 80, 292-297.	1.0	34
30	Energy-oriented production planning with time-dependent energy prices. <i>Procedia CIRP</i> , 2019, 80, 245-250.	1.0	5
31	Modeling rational decisions in ambiguous situations: a multi-valued logic approach. <i>Business Research</i> , 2019, 12, 271-290.	4.0	4
32	Energy-oriented Lot-Sizing and Scheduling considering energy storages. <i>International Journal of Production Economics</i> , 2019, 216, 204-214.	5.1	26
33	A fuzzy robustness measure for the scheduling of commissioned product development projects. <i>Fuzzy Sets and Systems</i> , 2019, 377, 125-149.	1.6	9
34	Assembly Line Balancing with Collaborative Robots under consideration of Ergonomics: a cost-oriented approach. <i>IFAC-PapersOnLine</i> , 2019, 52, 1860-1865.	0.5	54
35	A reference framework for the holistic evaluation of Industry 4.0 solutions for small-and medium-sized enterprises. <i>IFAC-PapersOnLine</i> , 2019, 52, 427-432.	0.5	14
36	An extension of the general lot-sizing and scheduling problem (GLSP) with time-dependent energy prices. <i>Journal of Business Economics</i> , 2019, 89, 481-514.	1.3	13

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37	Operations research for sustainability assessment of products: A review. European Journal of Operational Research, 2019, 274, 1-21.	3.5	92
38	Multi-item single-source ordering with detailed consideration of transportation capacities. Journal of Business Economics, 2018, 88, 971-1007.	1.3	3
39	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
40	The influence of emission thresholds and retrofit options on airline fleet planning: An optimization approach. Energy Policy, 2018, 112, 242-257.	4.2	38
41	Redundant configuration of robotic assembly lines with stochastic failures. International Journal of Production Research, 2018, 56, 3662-3682.	4.9	15
42	Spatially Differentiated Sustainability Assessment for the Design of Global Supply Chains. Procedia CIRP, 2018, 69, 435-440.	1.0	6
43	Simulation-Based Analysis of the Potential of Alternative Fuels towards Reducing CO2 Emissions from Aviation. Energies, 2018, 11, 186.	1.6	15
44	Kreislaufwirtschaft und Recycling. , 2018, , 994-1019.		0
45	Betriebliche Standortplanung und -entwicklung in Metropolregionen. ZWF Zeitschrift Fuer Wirtschaftlichen Fabrikbetrieb, 2018, 113, 503-507.	0.2	3
46	Material flow-based economic assessment of landfill mining processes. Waste Management, 2017, 60, 748-764.	3.7	29
47	Analyzing manufacturers' impact on green products' market diffusion – the case of electric vehicles. Journal of Cleaner Production, 2017, 162, S11-S25.	4.6	70
48	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
49	Redundant configuration of automated flow lines based on “Industry 4.0” technologies. Journal of Business Economics, 2017, 87, 877-898.	1.3	17
50	Redundant Configuration of Automated Flow Lines. IFAC-PapersOnLine, 2016, 49, 751-756.	0.5	0
51	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
52	Management of recycling operations for iron and steel making slags. Journal of Business Economics, 2016, 86, 773-808.	1.3	6
53	Upgrade auctions in build-to-order manufacturing with loss-averse customers. European Journal of Operational Research, 2016, 250, 470-479.	3.5	7
54	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

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55	Consideration of Redundancies in the Configuration of Automated Flow Lines. Lecture Notes in Logistics, 2016, , 173-185.	0.6	4
56	Assessing Combined Water-Energy-Efficiency Measures in the Automotive Industry. Procedia CIRP, 2015, 29, 50-55.	1.0	14
57	Slab scheduling at parallel continuous casters. International Journal of Production Economics, 2015, 170, 551-562.	5.1	10
58	Make-or-buy strategies for electric vehicle batteriesâ€™a simulation-based analysis. Technological Forecasting and Social Change, 2015, 99, 22-34.	6.2	13
59	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
60	A Hybrid Simulation Approach for Estimating the Market Share Evolution of Electric Vehicles. Transportation Science, 2014, 48, 651-670.	2.6	48
61	A GRASP heuristic for slab scheduling at continuous casters. OR Spectrum, 2014, 36, 693-722.	2.1	6
62	Towards contract based coordination of distributed product development processes with complete substitution. Journal of Business Economics, 2014, 84, 665-714.	1.3	1
63	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
64	An Integrated Inventory-Transportation System with Periodic Pick-Ups and Leveled Replenishment. Business Research, 2013, 6, 173-194.	4.0	8
65	OEM strategies for vertical integration in the battery value chain. International Journal of Automotive Technology and Management, 2013, 13, 75.	0.4	11
66	Market leadership through technology - Backward compatibility in the US Handheld Game Industry. Proceedings - Academy of Management, 2013, 2013, 13671.	0.0	2
67	The Transition to Alternative Powertrains: Concept for the Life-Cycle-Oriented Symbiosis of Technology, Product and Product Portfolio Planning. , 2012, , .		2
68	A two-stage bid-price control for make-to-order revenue management. Computers and Operations Research, 2012, 39, 1021-1032.	2.4	21
69	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
70	A Framework to Analyze the Reduction Potential of Life Cycle Carbon Dioxide Emissions of Passenger Cars. , 2012, , 55-60.		1
71	Supporting Strategic Product Portfolio Planning by Market Simulation. , 2012, , 123-147.		5
72	Produktionsprogrammplanung bei Lagerproduktion variantenreicher Automobile. , 2012, , 287-299.		0

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73	Automobilmarktsimulation zur strategischen Planung von Produktportfolios im Ãœbergang zur ElektromobilitÃ¤t. , 2012, , 231-243.		0
74	A Strategic Framework for the Design of Recycling Networks for Lithium-Ion Batteries from Electric Vehicles. , 2011, , 79-84.		11
75	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
76	Revenue Management f¼r Lagerfahrzeuge. ZWF Zeitschrift Fuer Wirtschaftlichen Fabrikbetrieb, 2011, 106, 536-541.	0.2	0
77	Implementation of the WEEE-directiveâ€”economic effects and improvement potentials for reuse and recycling in Germany. International Journal of Advanced Manufacturing Technology, 2010, 47, 461-474.	1.5	67
78	Impact assessment in the automotive industry: mandatory market introduction of alternative powertrain technologies. System Dynamics Review, 2010, 26, 239-261.	1.1	60
79	Revenue Management in Make-To-Order Manufacturing: Case Study of Capacity Control at ThyssenKrupp VDM. Business Research, 2010, 3, 173-190.	4.0	32
80	From closed-loop to sustainable supply chains: the WEEE case. International Journal of Production Research, 2010, 48, 4463-4481.	4.9	161
81	Estimating and Mitigating Design Risk in a Flexible Distributed Design Process. IEEE Embedded Systems Letters, 2010, 2, 35-38.	1.3	5
82	Produktionswirtschaft. Springer-Lehrbuch, 2010, , .	0.1	44
83	Integrating Agent-based Simulation and System Dynamics to support product strategy decisions in the automotive industry. , 2009, , .		20
84	Applying decision-oriented accounting principles for the simulation-based design of logistics systems in production. , 2009, , .		5
85	A methodology for assessing eco-efficiency in logistics networks. European Journal of Operational Research, 2009, 193, 670-682.	3.5	212
86	Dynamic Bid-Price Policies for Make-to-Order Revenue Management. , 2009, , 103-108.		0
87	Negotiation-based coordination in product recovery networks. International Journal of Production Economics, 2008, 111, 334-350.	5.1	50
88	Evaluation of sites for the location of WEEE recycling plants in Spain. Waste Management, 2008, 28, 181-190.	3.7	159
89	Facility location planning for treatment of large household appliances in Spain. International Journal of Environmental Technology and Management, 2008, 8, 405.	0.1	22
90	Life cycle costing for strategic evaluation of remanufacturing systems. Progress in Industrial Ecology, 2008, 5, 65.	0.1	6

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91	Coordination in Recycling Networks. , 2008, , 479-484.		1
92	Product recovery. OR Spectrum, 2006, 28, 1-2.	2.1	2
93	Revenue management in make-to-order manufacturingâ€”an application to the iron and steel industry. OR Spectrum, 2006, 29, 157-171.	2.1	53
94	Planning and Evaluation of Sustainable Reverse Logistics Systems. , 2006, , 577-582.		2
95	Distributed Planning in Product Recovery Networks. , 2006, , 179-184.		0
96	Revenue Management Konzepte zur EntscheidungsunterstÃ¼tzung bei der Annahme von KundenauftrÃ¤gen. Zeitschrift fÃ¼r Planung Und Unternehmenssteuerung, 2005, 16, 123-146.	0.3	14
97	Impact of WEEEâ€™directive on reverse logistics in Germany. International Journal of Physical Distribution and Logistics Management, 2005, 35, 337-361.	4.4	97
98	<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
99	Disassembly planning in closed-loop supply chains: an ERP-based solution. International Journal of Integrated Supply Management, 2004, 1, 139.	0.2	3
100	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
101	Empirical analysis of collaboration potential of SMEs in product recovery networks in Germany. Progress in Industrial Ecology, 2004, 1, 363.	0.1	7
102	Integrated planning of acquisition, disassembly and bulk recycling: a case study on electronic scrap recovery. OR Spectrum, 2003, 25, 413-442.	2.1	59
103	Strategic Management of Spare Parts in Closed-Loop Supply Chainsâ€™A System Dynamics Approach. Interfaces, 2003, 33, 7-17.	1.6	112
104	Optimale Belegung von StranggieÃŸanlagen mittels 2-dimensionaler Bin-Packing-Modelle. , 2003, , 53-58.		1
105	Fuzzy outranking for environmental assessment. Case study: iron and steel making industry. Fuzzy Sets and Systems, 2000, 115, 45-65.	1.6	256
106	Proposal for an integrated approach for the assessment of cross-media aspects relevant for the determination of â€™best available techniquesâ€™bat in the european union. International Journal of Life Cycle Assessment, 1999, 4, 94-106.	2.2	29
107	Int. J. LCA Vol. 4, No. 2, pp. 94â€™106 (1999). Environmental Science and Pollution Research, 1999, 6, 121-121.	2.7	0
108	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

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109	LCA in decision-making processes. <i>International Journal of Life Cycle Assessment</i> , 1996, 1, 221-225.	2.2	3
110	Luftemissionen der Prozeßkette: Vergipfung gebrauchter Schwefelsäure. <i>Chemie-Ingenieur-Technik</i> , 1995, 67, 1634-1638.	0.4	2