Stanley B Gershwin

List of Publications by Year
in descending order

93 papers	5,545 citations	109137 35 h-index	85405 71 g-index
95 all docs	95 docs citations	95 times ranked	1663 citing authors

#	Article	IF	Citations
1	Manufacturing flow line systems: a review of models and analytical results. Queueing Systems, 1992, 12, 3-94.	0.6	630
2	An Algorithm for the Computer Control of a Flexible Manufacturing System. IIE Transactions, 1983, 15, 353-362.	2.1	558
3	An Efficient Decomposition Method for the Approximate Evaluation of Tandem Queues with Finite Storage Space and Blocking. Operations Research, 1987, 35, 291-305.	1.2	446
4	PRODUCTION CONTROL FOR A TANDEM TWO-MACHINE SYSTEM. IIE Transactions, 1993, 25, 5-20.	2.1	278
5	Information inaccuracy in inventory systems: stock loss and stockout. IIE Transactions, 2005, 37, 843-859.	2.1	249
6	A comparison of production-line control mechanisms. International Journal of Production Research, 1997, 35, 789-804.	4.9	204
7	Modeling and Analysis of Three-Stage Transfer Lines with Unreliable Machines and Finite Buffers. Operations Research, 1983, 31, 354-380.	1.2	183
8	Efficient algorithms for buffer space allocation. Annals of Operations Research, 2000, 93, 117-144.	2.6	183
9	Short-term production scheduling of an automated manufacturing facility. IBM Journal of Research and Development, 1985, 29, 392-400.	3.2	162
10	Dynamic model-based techniques for the detection of incidents on freeways. IEEE Transactions on Automatic Control, 1980, 25, 347-360.	3.6	155
11	Analysis of Transfer Lines Consisting of Two Unreliable Machines with Random Processing Times and Finite Storage Buffers. A I I E Transactions, 1981, 13, 2-11.	0.3	155
12	Integrated quality and quantity modeling of a production line. OR Spectrum, 2005, 27, 287-314.	2.1	119
13	Design and operation of manufacturing systems: the control-point policy. IIE Transactions, 2000, 32, 891-906.	2.1	115
14	Computation of optimal singular controls. IEEE Transactions on Automatic Control, 1970, 15, 67-73.	3.6	102
15	An algorithm for the computer control of production in a flexible manufacturing system. , 1981, , .		101
16	A Decomposition Method For The Approximate Evaluation Of Capacitated Transfer Lines With Unreliable Machines And Random Processing Times. IIE Transactions, 1987, 19, 150-159.	2.1	99
17	Assembly/Disassembly Systems: An Efficient Decomposition Algorithm for Tree-Structured Networks. IIE Transactions, 1991, 23, 302-314.	2.1	99
18	Dynamic Scheduling and Routing for Flexible Manufacturing Systems that Have Unreliable Machines. Operations Research, 1988, 36, 279-292.	1.2	96

#	Article	IF	Citations
19	Dynamic setup scheduling and flow control in manufacturing systems. Discrete Event Dynamic Systems: Theory and Applications, 1991, 1, 149-175.	0.6	96
20	Analysis of a general Markovian two-stage continuous-flow production system with a finite buffer. International Journal of Production Economics, 2009, 120, 327-339.	5.1	90
21	Flow optimization in flexible manufacturing systems. International Journal of Production Research, 1985, 23, 81-96.	4.9	78
22	Analysis of long flow lines with quality and operational failures. IIE Transactions, 2008, 40, 284-296.	2.1	70
23	The future of manufacturing systems engineering. International Journal of Production Research, 2018, 56, 224-237.	4.9	70
24	The uncertainty threshold principle: Some fundamental limitations of optimal decision making under dynamic uncertainty. IEEE Transactions on Automatic Control, 1977, 22, 491-495.	3.6	68
25	An approximate analytical method for evaluating the performance of closed-loop flow systems with unreliable machines and finite buffers. International Journal of Production Research, 2007, 45, 3085-3111.	4.9	67
26	An efficient buffer design algorithm for production line profit maximization. International Journal of Production Economics, 2009, 122, 725-740.	5.1	66
27	A decomposition method for analyzing inhomogeneous assembly/disassembly systems. Annals of Operations Research, 2000, 93, 91-115.	2.6	63
28	Pilot study of computer-based urban traffic management. Transportation Research Part B: Methodological, 1980, 14, 203-217.	2.8	56
29	Equivalence relations in queueing models of Fork/Join networks with blocking. Performance Evaluation, 1989, 10, 233-245.	0.9	53
30	A decomposition method for approximate evaluation of continuous flow multi-stage lines with general Markovian machines. Annals of Operations Research, 2013, 209, 5-40.	2.6	52
31	Performance evaluation of a two-machine line with a finite buffer and condition-based maintenance. Reliability Engineering and System Safety, 2017, 166, 61-72.	5.1	49
32	An efficient new job release control methodology. International Journal of Production Research, 2009, 47, 703-731.	4.9	48
33	Production and Subcontracting Strategies for Manufacturers with Limited Capacity and Volatile Demand. Annals of Operations Research, 2004, 125, 205-232.	2.6	46
34	Hewlett-Packard Uses Operations Research to Improve the Design of a Printer Production Line. Interfaces, 1998, 28, 24-36.	1.6	45
35	A controllability theory for nonlinear systems. IEEE Transactions on Automatic Control, 1971, 16, 37-46.	3.6	40
36	A discrete-time differential dynamic programming algorithm with application to optimal orbit transfer. AIAA Journal, 1970, 8, 1616-1626.	1.5	36

#	Article	IF	Citations
37	Approximate analysis of production systems operated by a CONWIP/finite buffer hybrid control policy. International Journal of Production Research, 2000, 38, 2845-2869.	4.9	36
38	Modelling and analysis of Markovian continuous flow systems with a finite buffer. Annals of Operations Research, 2011, 182, 5-30.	2.6	32
39	Estimation of Roadway Traffic Density on Freeways Using Presence Detector Data. Transportation Science, 1980, 14, 232-261.	2.6	30
40	A segmentation approach for solving buffer allocation problems in large production systems. International Journal of Production Research, 2016, 54, 6121-6141.	4.9	30
41	A decomposition approximation for three-machine closed-loop production systems with unreliable machines, finite buffers and a fixed population. IIE Transactions, 2009, 41, 562-574.	2.1	27
42	Throughput estimation in cyclic queueing networks with blocking. Annals of Operations Research, 1998, 79, 207-229.	2.6	26
43	Impact of Production Control and System Factors in Semiconductor Wafer Fabrication. IEEE Transactions on Semiconductor Manufacturing, 2008, 21, 376-389.	1.4	25
44	Scheduling job shops with delays. International Journal of Production Research, 1991, 29, 1407-1422.	4.9	24
45	A hierarchical framework for discrete event scheduling in manufacturing systems. , 1988, , 197-216.		23
46	Production control with backlog-dependent demand. IIE Transactions, 2009, 41, 511-523.	2.1	21
47	Analysis of two-machine lines with multiple failure modes. IIE Transactions, 2002, 34, 51-62.	2.1	19
48	Part sojourn time distribution in a two-machine line. European Journal of Operational Research, 2016, 248, 146-158.	3.5	14
49	Discrete time model for two-machine one-buffer transfer lines with restart policy. Annals of Operations Research, 2013, 209, 41-65.	2.6	12
50	Improvement of the evaluation of closed-loop production systems with unreliable machines and finite buffers. Computers and Industrial Engineering, 2014, 75, 239-256.	3.4	12
51	Modeling and analysis of two unreliable batch machines with a finite buffer in between. IIE Transactions, 2010, 42, 405-421.	2.1	11
52	Part Waiting Time Distribution in a Two-Machine Line. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 457-462.	0.4	11
53	A Network Flow Model for the Performance Evaluation and Design of Material Separation Systems For Recycling. IEEE Transactions on Automation Science and Engineering, 2013, 10, 65-75.	3.4	11
54	A hierarchical framework for manufacturing systems scheduling: A two-machine example. , 1987, , .		10

#	ARTICLE	IF	CITATIONS
55	Modeling waste production into two-machineâ€"one-buffer transfer lines. IIE Transactions, 2013, 45, 591-604.	2.1	10
56	Models and solving procedures for continuous-time production planning. IIE Transactions, 2000, 32, 93-103.	2.1	9
57	Perturbation strategies for optimal traffic reassignment. IEEE Transactions on Automatic Control, 1979, 24, 3-12.	3.6	8
58	An efficient decomposition method for the approximate evaluation of production lines with finite storage space. , 1984, , 645-658.		8
59	Models and solving procedures for continuous-time production planning. IIE Transactions, 2000, 32, 93-103.	2.1	8
60	Energy payback for energy systems ensembles during growth. , 2010, , .		8
61	Heuristic Production and Sale Policy for a Two-Product-Type Manufacturing System With Downward Substitution. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2015, 45, 929-942.	5.9	7
62	Applicability of adaptive control to real problemsâ€"trends and opinions. Automatica, 1978, 14, 407-408.	3.0	6
63	Controlling job arrivals with processing time windows into Batch Processor Buffer. Annals of Operations Research, 2011, 191, 193-218.	2.6	6
64	Heuristic control of multiple batch processors with incompatible job families and future job arrivals. International Journal of Production Research, 2012, 50, 4206-4219.	4.9	6
65	Modelling and analysis of a multi-stage system involving batch processors with incompatible job families. International Journal of Operational Research, 2013, 17, 449.	0.1	6
66	Analysis of the Lead Time Distribution in Closed Loop Manufacturing Systems. IFAC-PapersOnLine, 2016, 49, 307-312.	0.5	6
67	Editorial: Opportunities for control in manufacturing. IEEE Transactions on Automatic Control, 1985, 30, 833-833.	3.6	5
68	Performance evaluation of a make-tO-stock production line with a two-parameter-per-machine policy: the control point policy. IIE Transactions, 2004, 36, 221-236.	2.1	5
69	Peak-Load Traffic Administration of a Rural Multiplexer with Concentration. Bell System Technical Journal, 1974, 53, 261-281.	0.6	4
70	A hierarchical scheduling policy applied to printed circuit board assembly. Robotics and Computer-Integrated Manufacturing, 1984, 1, 299-305.	6.1	4
71	An Efficient Buffer Design Algorithm for Production Line Profit Maximization. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 510-515.	0.4	4
72	Control of a Single Batch Processor With Incompatible Job Families and Future Job Arrivals. IEEE Transactions on Semiconductor Manufacturing, 2011, 24, 208-222.	1.4	4

#	Article	IF	Citations
73	Evaluating the performance of look-ahead policies for upstream serial processor with downstream batch processor serving incompatible job families and finite buffer sizes. International Journal of Operational Research, 2012, 15, 260.	0.1	4
74	Net CO_2 emissions from global photovoltaic development. RSC Advances, 2014, 4, 58652-58659.	1.7	3
75	Stability of Prioritized Scheduling Policies in Manufacturing Systems With Setup Times. IEEE Transactions on Automatic Control, 2014, 59, 1606-1611.	3.6	3
76	Dynamic scheduling in make-to-stock production systems with setup times and random breakdowns: performance analysis and improved policies. International Journal of Production Research, 0, , 1-19.	4.9	3
77	Modeling and design of multi-stage separation systems. , 2010, , .		2
78	The Additive Property in Long Line Optimization. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 754-759.	0.4	2
79	An assignment principle for urban networks based on travel budgets. Transportation Research Part B: Methodological, 1984, 18, 441-458.	2.8	1
80	A real-time dynamic lot-sizing heuristic for a manufacturing system subject to random setup times. International Journal of Production Research, 1996, 34, 1625-1641.	4.9	1
81	Design and operation of manufacturing systems: the control-point policy. IIE Transactions, 2000, 32, 891-906.	2.1	1
82	Simulation experimental investigation on job release control in semiconductor wafer fabrication. , 2007, , .		1
83	Online control of a batch processor with incompatible job families under correlated future arrivals. , 2008, , .		1
84	The Hedging Zone Policy for Real-Time Scheduling of Sequence-Dependent Setups. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 1487-1491.	0.4	1
85	How do quantity and quality really interact? Precise models instead of strong opinions. , 2006, 39, 33-39.		1
86	On the higher derivatives of Bellman's equation. Journal of Mathematical Analysis and Applications, 1969, 28, 120-127.	0.5	0
87	Short term production scheduling of an automated manufacturing facility. , 1984, , 613-632.		0
88	Stochastic models for the design, coordination, and control of manufacturing systems. OR Spectrum, 2005, 27, 167-169.	2.1	0
89	HOW DO QUANTITY AND QUALITY REALLY INTERACT? PRECISE MODELS INSTEAD OF STRONG OPINIONS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 33-39.	0.4	0
90	Analysis of an unreliable batch machine and a finite buffer fed by an unreliable single-item machine: partial batches. , 2007, , .		0

#	Article	IF	Citations
91	Schedule evaluation in unstable manufacturing environments. International Journal of Production Economics, 2009, 121, 183-194.	5.1	0
92	Introduction to the special issue on Advances inÂManufacturing Systems. Annals of Operations Research, 2011, 182, 1-3.	2.6	0
93	Stochastic Stability of a Prioritized Control Policy for Scheduling Failure-Prone Machines with Setups. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 176-181.	0.4	0