J Macgregor Smith

List of Publications by Year
in descending order

67	1,748	279798	289244
papers	citations	23 h-index	40 g-index

68	68	68	727
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Modeling Vehicular Traffic Flow using M/G/C/C State Dependent Queueing Models. Transportation Science, 1997, 31, 324-336.	4.4	127
2	Topological network design of pedestrian networks. Transportation Research Part B: Methodological, 2001, 35, 107-135.	5.9	115
3	The generalized expansion method for open finite queueing networks. European Journal of Operational Research, 1987, 32, 448-461.	5.7	114
4	Generalized M/G/C/C state dependent queueing models and pedestrian traffic flows. Queueing Systems, 1994, 15, 365-386.	0.9	100
5	An O(n logn) heuristic for steiner minimal tree problems on the euclidean metric. Networks, 1981, 11, 23-39.	2.7	93
6	The buffer allocation problem for general finite buffer queueing networks. IIE Transactions, 2005, 37, 343-365.	2.1	79
7	Asymptotic behavior of the expansion method for open finite queueing networks. Computers and Operations Research, 1988, 15, 157-169.	4.0	78
8	Large production line optimization using simulated annealing. International Journal of Production Research, 2000, 38, 509-541.	7.5	69
9	An M/G/C/C state-dependent network simulation model. Computers and Operations Research, 2005, 32, 919-941.	4.0	57
10	Approximate analysis of M/G/c/c state-dependent queueing networks. Computers and Operations Research, 2007, 34, 2332-2344.	4.0	51
11	An algorithm for the generalized quadratic assignment problem. Computational Optimization and Applications, 2008, 40, 351-372.	1.6	49
12	Optimal design and performance modelling of M/G/1/K queueing systems. Mathematical and Computer Modelling, 2004, 39, 1049-1081.	2.0	43
13	STEINER TREES, STEINER CIRCUITS AND THE INTERFERENCE PROBLEM IN BUILDING DESIGN. Engineering Optimization, 1979, 4, 15-36.	2.6	42
14	Service and capacity allocation in M/G/c/c state-dependent queueing networks. Computers and Operations Research, 2005, 32, 1545-1563.	4.0	39
15	AN 0 (N log N) HEURISTIC ALGORITHM FOR THE RECTILINEAR STEINER MINIMAL TREE PROBLEM. Engineering Optimization, 1980, 4, 179-192.	2.6	36
16	The use of queuing networks in the evaluation of egress from buildings. Environment and Planning B: Planning and Design, 1981, 8, 125-139.	1.7	34
17	Buffer and throughput trade-offs in M/G/1/K queueing networks: A bi-criteria approach. International Journal of Production Economics, 2010, 125, 224-234.	8.9	34
18	Topological network design of general, finite, multi-server queueing networks. European Journal of Operational Research, 2010, 201, 427-441.	5.7	32

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19	Robustness of state-dependent queues and material handling systems. International Journal of Production Research, 2010, 48, 4631-4663.	7.5	32
20	Properties and performance modelling of finite buffer M/G/1/K networks. Computers and Operations Research, 2011, 38, 740-754.	4.0	29
21	On the system optimum of traffic assignment in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si94.gif" overflow="scroll"><mml:mrow><mml:mi>M</mml:mi><mml:mo>/</mml:mo><mml:mi>G</mml:mi><mml:mo>/</mml:mo><mml:mi> state-dependent queueing networks. European Journal of Operational Research, 2010, 201, 183-193.	5.7	27
22	Two level heuristic for the resource constrained scheduling problem. International Journal of Production Research, 1986, 24, 1203-1219.	7.5	26
23	state dependent travel time models and properties. Physica A: Statistical Mechanics and Its Applications, 2014, 395, 560-579.	2.6	25
24	Ak-SHORTEST PATHS ROUTING HEURISTIC FOR STOCHASTIC NETWORK EVACUATION MODELS. Engineering Optimization, 1984, 7, 253-280.	2.6	24
25	Application of Queueing Network Models to Optimization of Resource Allocation within Libraries. Journal of the Association for Information Science and Technology, 1979, 30, 250-263.	1.0	23
26	Buffer and server allocation in general multiâ€server queueing networks. International Transactions in Operational Research, 2010, 17, 257-286.	2.7	23
27	The Multi-Story Space Assignment Problem. Annals of Operations Research, 2010, 179, 77-103.	4.1	22
28	Topological arrangements of M/G/c/K, M/G/c/c queues in transportation and material handling systems. Computers and Operations Research, 2012, 39, 2800-2819.	4.0	20
29	Performance & Optimization of M/G/c/c Building Evacuation Networks. Mathematical Modelling and Algorithms, 2012, 11, 361-386.	0.5	16
30	An O(N2) heuristic for steiner minimal trees in E3. Networks, 1995, 26, 273-289.	2.7	15
31	State-dependent models of material handling systems in closed queueing networks. International Journal of Production Research, 2012, 50, 461-484.	7.5	15
32	Combining Routing and Buffer Allocation Problems in Series-Parallel Queueing Networks. Annals of Operations Research, 2004, 125, 47-68.	4.1	14
33	A Sausage Heuristic for Steiner Minimal Trees in Three-Dimensional Euclidean Space. Mathematical Modelling and Algorithms, 2005, 4, 199-217.	0.5	14
34	Optimal server allocation in general, finite, multiâ€server queueing networks. Applied Stochastic Models in Business and Industry, 2010, 26, 705-736.	1.5	14
35	Queue decomposition & finite closed queueing network models. Computers and Operations Research, 2015, 53, 176-193.	4.0	13
36	Joint optimisation of buffers and network population for closed finite queueing systems. International Journal of Production Research, 2016, 54, 5111-5135.	7.5	13

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37	Quadratic Assignment Problems and M/G/C/C/ State Dependent Network Flows. Journal of Combinatorial Optimization, 2001, 5, 421-443.	1.3	12
38	Optimal server allocation in closed finite queueing networks. Flexible Services and Manufacturing Journal, 2015, 27, 58-85.	3.4	12
39	Topological network design of closed finite capacity supply chain networks. Journal of Manufacturing Systems, 2017, 45, 70-81.	13.9	12
40	An analytical queuing network computer program for the optimal egress problem. Fire Technology, 1982, 18, 18-37.	3.0	11
41	Steiner minimal trees for three points with one convex polygonal obstacle. Annals of Operations Research, 1991, 33, 577-599.	4.1	11
42	Steiner minimal trees, twist angles, and the protein folding problem. Proteins: Structure, Function and Bioinformatics, 2006, 66, 889-902.	2.6	11
43	Optimal Routing in Closed Queueing Networks with State Dependent Queues. Infor, 2011, 49, 45-62.	0.6	11
44	System capacity and performance modelling of finite buffer queueing networks. International Journal of Production Research, 2014, 52, 3125-3163.	7.5	11
45	Minimal length tree networks on the unit sphere. Annals of Operations Research, 1991, 33, 501-535.	4.1	10
46	Steiner Trees and 3-D Macromolecular Conformation. INFORMS Journal on Computing, 2004, 16, 470-485.	1.7	10
47	Exact solution of emerging quadratic assignment problems. International Transactions in Operational Research, 2010, 17, 525-552.	2.7	9
48	Optimal workload allocation in closed queueing networks with state dependent queues. Annals of Operations Research, 2015, 231, 157-183.	4.1	9
49	The use of queuing networks and mixed integer programming to allocate resources optimally within a library layout. Journal of the Association for Information Science and Technology, 1981, 32, 33-42.	1.0	8
50	Steiner Minimal Trees with One Polygonal Obstacle. Algorithmica, 2001, 29, 638-648.	1.3	8
51	A Branch-and-Bound Algorithm to Solve a Multi-level Network Optimization Problem. Mathematical Modelling and Algorithms, 2003, 2, 37-56.	0.5	8
52	Multi-server, Finite Waiting Room,M/G/c/KOptimization Models. Infor, 2007, 45, 257-274.	0.6	7
53	M/G/c/K PERFORMANCE MODELS IN MANUFACTURING AND SERVICE SYSTEMS. Asia-Pacific Journal of Operational Research, 2008, 25, 531-561.	1.3	6
54	The Stochastic Queue Core problem, evacuation networks, and state-dependent queues. European Journal of Operational Research, 2018, 269, 730-748.	5.7	6

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55	Topological network design of state-dependent queueing networks. Networks, 1996, 28, 55-68.	2.7	5
56	CELLULAR ARRANGEMENT PROBLEMS WITH RANDOM FLOWS. Engineering Optimization, 1995, 24, 59-74.	2.6	4
57	Multi-Objective Routing in Stochastic Evacuation Networks. Network Optimization Problems: Algorithms, Applications and Complexity, 1993, , 263-281.	0.1	3
58	Properties of R-Sausages. Discrete and Computational Geometry, 2004, 31, 587-611.	0.6	2
59	Sample Size Corrections for the Maximum Partial Likelihood Estimator. Communications in Statistics Part B: Simulation and Computation, 2004, 33, 35-47.	1.2	1
60	Dilemmas in factory design: paradox and paradigm. OR Spectrum, 2005, 27, 171-193.	3.4	1
61	Geometric Optimization Problems for Steiner Minimal Trees in E 3. Nonconvex Optimization and Its Applications, 2000, , 446-476.	0.1	1
62	Computational Geometry and Topological Network Design. Lecture Notes Series on Computing, 1995, , 351-451.	0.2	1
63	Steiner Minimal Trees in E 3: Theory, Algorithms, and Applications. , 1998, , 1143-1216.		1
64	Introduction to the special issue on Advances inÂManufacturing Systems. Annals of Operations Research, 2011, 182, 1-3.	4.1	0
65	Steiner Minimum Trees in E3: Theory, Algorithms, and Applications. , 2013, , 3179-3259.		0
66	Computational Geometry and Topological Network Design. Lecture Notes Series on Computing, 1992, , 287-385.	0.2	0
67	Closed Queueing Network Performance Models f (G (V , E , N)) $$f{igl (G(V,E,N)igr)}$$. Springer Series in Operations Research, 2018, , 261-329.	1.4	0