Dirk Kroese

List of Publications by Year
in descending order

104 papers	7,967 citations	136885 32 h-index	62565 80 g-index
127 all docs	127 docs citations	127 times ranked	7307 citing authors

#	Article	IF	Citations
1	A Tutorial on the Cross-Entropy Method. Annals of Operations Research, 2005, 134, 19-67.	2.6	1,865
2	Kernel density estimation via diffusion. Annals of Statistics, 2010, 38, .	1.4	1,406
3	The Cross-Entropy Method. Information Science and Statistics, 2004, , .	1.8	468
4	Why the Monte Carlo method is so important today. Wiley Interdisciplinary Reviews: Computational Statistics, 2014, 6, 386-392.	2.1	423
5	The Cross-Entropy Method for Continuous Multi-Extremal Optimization. Methodology and Computing in Applied Probability, 2006, 8, 383-407.	0.7	205
6	Convergence properties of the cross-entropy method for discrete optimization. Operations Research Letters, 2007, 35, 573-580.	0.5	115
7	Application of the Cross-Entropy Method to the Buffer Allocation Problem in a Simulation-Based Environment. Annals of Operations Research, 2005, 134, 137-151.	2.6	98
8	The Cross-Entropy Method for Optimization. Handbook of Statistics, 2013, , 35-59.	0.4	92
9	Efficient Monte Carlo simulation via the generalized splitting method. Statistics and Computing, 2012, 22, 1-16.	0.8	87
10	Improved algorithms for rare event simulation with heavy tails. Advances in Applied Probability, 2006, 38, 545-558.	0.4	78
11	Improved algorithms for rare event simulation with heavy tails. Advances in Applied Probability, 2006, 38, 545-558.	0.4	78
12	The Cross-Entropy Method for Network Reliability Estimation. Annals of Operations Research, 2005, 134, 101-118.	2.6	74
13	Chromosome arm aneuploidies shape tumour evolution and drug response. Nature Communications, 2020, 11, 449.	5.8	65
14	An Efficient Algorithm for Rare-event Probability Estimation, Combinatorial Optimization, and Counting. Methodology and Computing in Applied Probability, 2008, 10, 471-505.	0.7	63
15	Efficient estimation of large portfolio loss probabilities in t-copula models. European Journal of Operational Research, 2010, 205, 361-367.	3.5	62
16	Estimating the Number of s-t Paths in a Graph. Journal of Graph Algorithms and Applications, 2007, 11, 195-214.	0.4	59
17	Spatial Process Simulation. Lecture Notes in Mathematics, 2015, , 369-404.	0.1	58
18	Spectral properties of the tandem Jackson network, seen as a quasi-birth-and-death process. Annals of Applied Probability, 2004, 14, 2057.	0.6	56

#	ARTICLE	IF	CITATIONS
19	Statistical Modeling and Computation. , 2014, , .		56
20	Network Reliability Optimization via the Cross-Entropy Method. IEEE Transactions on Reliability, 2007, 56, 275-287.	3.5	51
21	On the importance function in splitting simulation. European Transactions on Telecommunications, 2002, 13, 363-371.	1.2	49
22	A Fast Cross-Entropy Method for Estimating Buffer Overflows in Queueing Networks. Management Science, 2004, 50, 883-895.	2.4	49
23	A simulated annealing algorithm for finding consensus sequences. Bioinformatics, 2002, 18, 1494-1499.	1.8	48
24	Improved cross-entropy method for estimation. Statistics and Computing, 2012, 22, 1031-1040.	0.8	46
25	A Continuous Polling System with General Service Times. Annals of Applied Probability, 1992, 2, 906.	0.6	43
26	Efficient simulation of a tandem Jackson network. ACM Transactions on Modeling and Computer Simulation, 2002, 12, 119-141.	0.6	43
27	HEAVY TAILS, IMPORTANCE SAMPLING AND CROSS–ENTROPY. Stochastic Models, 2005, 21, 57-76.	0.3	40
28	The Generalized Cross Entropy Method, with Applications to Probability Density Estimation. Methodology and Computing in Applied Probability, 2011, 13, 1-27.	0.7	40
29	Application of the cross-entropy method to clustering and vector quantization. Journal of Global Optimization, 2006, 37, 137-157.	1.1	37
30	Generalized Cross-entropy Methods with Applications to Rare-event Simulation and Optimization. Simulation, 2007, 83, 785-806.	1.1	37
31	A Generalized Markov Sampler. Methodology and Computing in Applied Probability, 2004, 6, 29-53.	0.7	32
32	Rare-event probability estimation with conditional Monte Carlo. Annals of Operations Research, 2011, 189, 43-61.	2.6	30
33	The Transform Likelihood Ratio Method for Rare Event Simulation with Heavy Tails. Queueing Systems, 2004, 46, 317-351.	0.6	28
34	Stochastic models for the spread of HIV in a mobile heterosexual population. Mathematical Biosciences, 2007, 208, 98-124.	0.9	26
35	Adaptive independence samplers. Statistics and Computing, 2008, 18, 409-420.	0.8	25
36	Light-Traffic Analysis for Queues with Spatially Distributed Arrivals. Mathematics of Operations Research, 1996, 21, 135-157.	0.8	23

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37	Single-server queues with spatially distributed arrivals. Queueing Systems, 1994, 17, 317-345.	0.6	22
38	Estimating change-points in biological sequences viaÂtheÂcross-entropy method. Annals of Operations Research, 2011, 189, 155-165.	2.6	22
39	The Cross-Entropy Method for Estimation. Handbook of Statistics, 2013, 31, 19-34.	0.4	22
40	Fitting Laguerre tessellation approximations to tomographic image data. Philosophical Magazine, 2016, 96, 166-189.	0.7	22
41	THE TREE CUT AND MERGE ALGORITHM FOR ESTIMATION OF NETWORK RELIABILITY. Probability in the Engineering and Informational Sciences, 2003, 17, 23-45.	0.6	21
42	Controlling the number of HIV infectives in a mobile population. Mathematical Biosciences, 2008, 213, 103-112.	0.9	21
43	Heavy traffic analysis for continuous polling models. Journal of Applied Probability, 1997, 34, 720-732.	0.4	19
44	Truck fleet model for design and assessment of flexible pavements. Journal of Sound and Vibration, 2008, 311, 1161-1174.	2.1	19
45	Identifying Change-Points in Biological Sequences via Sequential Importance Sampling. Environmental Modeling and Assessment, 2009, 14, 577-584.	1.2	17
46	Inverting Laguerre Tessellations. Computer Journal, 2014, 57, 1431-1440.	1.5	17
47	A comparison of cross-entropy and variance minimization strategies. Journal of Applied Probability, 2011, 48, 183-194.	0.4	17
48	Efficient estimation of overflow probabilities in queues with breakdowns. Performance Evaluation, 1999, 36-37, 471-484.	0.9	16
49	Joint Distributions for Interacting Fluid Queues. , 2001, 37, 99-139.		16
50	Graph-based simulated annealing: a hybrid approach to stochastic modeling of complex microstructures. Modelling and Simulation in Materials Science and Engineering, 2013, 21, 055004.	0.8	15
51	Stochastic modeling and predictive simulations for the microstructure of organic semiconductor films processed with different spin coating velocities. Modelling and Simulation in Materials Science and Engineering, 2015, 23, 045003.	0.8	15
52	Stability and performance of greedy server systems. Queueing Systems, 2011, 68, 221-227.	0.6	14
53	A comparison of cross-entropy and variance minimization strategies. Journal of Applied Probability, 2011, 48, 183-194.	0.4	13
54	A General Framework for Consistent Estimation of Charge Transport Properties via Random Walks in Random Environments. Multiscale Modeling and Simulation, 2014, 12, 1108-1134.	0.6	13

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55	Heavy traffic analysis for continuous polling models. Journal of Applied Probability, 1997, 34, 720-732.	0.4	12
56	Efficient simulation of a tandem Jackson network. , 1999, , .		12
57	Non-asymptotic Bandwidth Selection for Density Estimation of Discrete Data. Methodology and Computing in Applied Probability, 2008, 10, 435-451.	0.7	12
58	Optimal generation expansion planning via the Cross-Entropy method. , 2009, , .		12
59	Parallel cross-entropy optimization. , 2007, , .		11
60	Efficient Simulation of Markov Chains Using Segmentation. Methodology and Computing in Applied Probability, 2014, 16, 465-484.	0.7	11
61	Improved Sampling Plans for Combinatorial Invariants of Coherent Systems. IEEE Transactions on Reliability, 2016, 65, 410-424.	3.5	11
62	Cross-Entropy Method. , 2013, , 326-333.		11
63	An optimal sequential procedure for a buying-selling problem with independent observations. Journal of Applied Probability, 2006, 43, 454-462.	0.4	10
64	Stochastic Enumeration Method for Counting Trees. Methodology and Computing in Applied Probability, 2017, 19, 31-73.	0.7	9
65	Splitting for optimization. Computers and Operations Research, 2016, 73, 119-131.	2.4	8
66	Queueing systems on a circle. Zeitschrift Fuer Operations-Research, Serie B: Praxis, 1993, 37, 303-331.	0.3	7
67	Splitting sequential Monte Carlo for efficient unreliability estimation of highly reliable networks. Structural Safety, 2016, 63, 1-10.	2.8	7
68	Network reliability estimation using the tree cut and merge algorithm with importance sampling. , 0, , .		6
69	Designing an Optimal Network Using the Cross-Entropy Method. Lecture Notes in Computer Science, 2005, , 228-233.	1.0	6
70	Approximations to the Lifetime Distribution ofk-Out-of-nSystems with Cold Standby. Mathematics of Operations Research, 1989, 14, 485-501.	0.8	5
71	The Multilevel Splitting algorithm for graph colouring with application to the Potts model. Philosophical Magazine, 2017, 97, 1646-1673.	0.7	4
72	Applications of the Cross-Entropy Method in Reliability. Studies in Computational Intelligence, 2007, , 37-82.	0.7	4

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73	Efficient simulation of charge transport in deep-trap media. , 2012, , .		3
74	Automated State-Dependent Importance Sampling for Markov Jump Processes via Sampling from the Zero-Variance Distribution. Journal of Applied Probability, 2014, 51, 741-755.	0.4	3
75	A critical exponent for shortest-path scaling in continuum percolation. Journal of Physics A: Mathematical and Theoretical, 2014, 47, 505003.	0.7	3
76	Unbiased Estimation of The Reciprocal Mean For Non-Negative Random Variables. , 2019, , .		3
77	Randomized methods for solving the Winner Determination Problem in combinatorial auctions. , 2008, , .		2
78	EXACT POSTERIOR SIMULATION FROM THE LINEAR LASSO REGRESSION. , 2018, , .		2
79	ON A GENERALIZED SPLITTING METHOD FOR SAMPLING FROM A CONDITIONAL DISTRIBUTION. , 2018, , .		2
80	Current Harmonics Generated by Multi-power Converters in Distribution Networks in the Frequency Range of 2-9 kHz. , 2021, , .		2
81	Common Statistical Models. , 2014, , 101-120.		2
82	Monte Carlo Sampling. , 2014, , 195-226.		2
83	On the Decay Rates of Buffers in Continuous Flow Lines. Methodology and Computing in Applied Probability, 2000, 2, 425-441.	0.7	1
84	On the design of multi-type networks via the cross-entropy method. , 0, , .		1
85	Rare event probability estimation for connectivity of large random graphs. , 2014, , .		1
86	Automated State-Dependent Importance Sampling for Markov Jump Processes via Sampling from the Zero-Variance Distribution. Journal of Applied Probability, 2014, 51, 741-755.	0.4	1
87	Without-replacement sampling for particle methods on finite state spaces. Statistics and Computing, 2018, 28, 633-652.	0.8	1
88	Rare Events in Random Geometric Graphs. Methodology and Computing in Applied Probability, 0, , .	0.7	1
89	The Generalized Gibbs Sampler and the Neighborhood Sampler. , 2008, , 537-547.		1
90	Second-order asymptotics in level crossing for differences of renewal processes. Stochastic Processes and Their Applications, 1992, 40, 309-323.	0.4	0

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91	Greedy servers on a torus. , 2011, , .		0
92	Fitting mixture importance sampling distributions via improved cross-entropy. , 2011, , .		0
93	Efficient estimation of tail probabilities of the typical distance in preferential attachment models. , 2016, , .		0
94	A comparison of random walks in dependent random environments. Advances in Applied Probability, 2016, 48, 199-214.	0.4	0
95	On the analysis of independent sets via multilevel splitting. Networks, 2018, 71, 281-301.	1.6	0
96	Splitting for Multi-objective Optimization. Methodology and Computing in Applied Probability, 2018, 20, 517-533.	0.7	0
97	Likelihood. , 2014, , 161-194.		0
98	State Space Models. , 2014, , 323-348.		0
99	Random Variables and Probability Distributions. , 2014, , 23-61.		0
100	Bayesian Inference. , 2014, , 227-262.		0
101	Joint Distributions. , 2014, , 63-97.		0
102	Probability Models. , 2014, , 3-21.		0
103	Queueing Systems on a Circle. , 1993, , 350-355.		0
104	Simulating rare events in queues via neural networks. Queueing Systems, 0, , 1.	0.6	0