Per Kristian Lehre

List of Publications by Year
in descending order

74	1,659	471061 17	476904 29
papers	citations	h-index	g-index

75	75	75	398
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Black-Box Search by Unbiased Variation. Algorithmica, 2012, 64, 623-642.	1.0	154
2	Escaping Local Optima Using Crossover With Emergent Diversity. IEEE Transactions on Evolutionary Computation, 2018, 22, 484-497.	7.5	118
3	Level-Based Analysis of Genetic Algorithms and Other Search Processes. IEEE Transactions on Evolutionary Computation, 2018, 22, 707-719.	7.5	98
4	On the Impact of Mutation-Selection Balance on the Runtime of Evolutionary Algorithms. IEEE Transactions on Evolutionary Computation, 2012, 16, 225-241.	7.5	63
5	Fitness-levels for non-elitist populations. , 2011, , .		62
6	Runtime Analysis of Non-elitist Populations: From Classical Optimisation to Partial Information. Algorithmica, 2016, 75, 428-461.	1.0	57
7	Dynamic evolutionary optimisation. , 2009, , .		54
8	Faster black-box algorithms through higher arity operators. , 2011, , .		47
9	Escaping Local Optima with Diversity Mechanisms and Crossover. , 2016, , .		47
10	Self-adaptation of Mutation Rates in Non-elitist Populations. Lecture Notes in Computer Science, 2016, , 803-813.	1.0	47
11	Unbiased Black-Box Complexity ofÂParallelÂSearch. Lecture Notes in Computer Science, 2014, , 892-901.	1.0	45
12	A runtime analysis of simple hyper-heuristics. , 2013, , .		36
13	Concentrated Hitting Times of Randomized Search Heuristics with Variable Drift. Lecture Notes in Computer Science, 2014, , 686-697.	1.0	36
14	Black-box search by unbiased variation. , 2010, , .		35
15	On the Effect of Populations in Evolutionary Multi-Objective Optimisation. Evolutionary Computation, 2010, 18, 335-356.	2.3	35
16	Efficient Optimisation of Noisy Fitness Functions with Population-based Evolutionary Algorithms. , 2015, , .		35
17	Crossover can be constructive when computing unique inputâ€“output sequences. Soft Computing, 2011, 15, 1675-1687.	2.1	33
18	Negative Drift in Populations. , 2010, , 244-253.		33

#	Article	IF	Citations
19	Populations Can Be Essential in Tracking Dynamic Optima. Algorithmica, 2017, 78, 660-680.	1.0	32
20	Simplified Runtime Analysis of Estimation of Distribution Algorithms. , 2015, , .		30
21	Level-Based Analysis of the Univariate Marginal Distribution Algorithm. Algorithmica, 2019, 81, 668-702.	1.0	29
22	Improved runtime bounds for the univariate marginal distribution algorithm via anti-concentration. , 2017, , .		28
23	Toward a unifying framework for evolutionary processes. Journal of Theoretical Biology, 2015, 383, 28-43.	0.8	27
24	Theoretical analysis of rank-based mutation - combining exploration and exploitation. , 2009, , .		26
25	Self-Adaptation in Nonelitist Evolutionary Algorithms on Discrete Problems With Unknown Structure. IEEE Transactions on Evolutionary Computation, 2020, 24, 650-663.	7.5	22
26	On the effect of populations in evolutionary multi-objective optimization. , 2006, , .		21
27	Aetiology-specific patterns in end-stage heart failure patients identified by functional annotation and classification of microarray data. European Journal of Heart Failure, 2006, 8, 381-389.	2.9	21
28	Runtime analysis of the (1 + 1) EA on computing unique input output sequences. Information Sciences, 2014, 259, 510-531.	4.0	20
29	Black-box Complexity of Parallel Search with Distributed Populations. , 2015, , .		20
30	On the limitations of the univariate marginal distribution algorithm to deception and where bivariate EDAs might help. , 2019, , .		20
31	When is an estimation of distribution algorithm better than an evolutionary algorithm?. , 2009, , .		19
32	Surfing on the seascape: Adaptation in a changing environment. Evolution; International Journal of Organic Evolution, 2019, 73, 1356-1374.	1.1	18
33	Non-uniform mutation rates for problems with unknown solution lengths. , 2011, , .		17
34	Crossover Can Be Constructive When Computing Unique Input Output Sequences. Lecture Notes in Computer Science, 2008, , 595-604.	1.0	17
35	Refined upper bounds on the expected runtime of non-elitist populations from fitness-levels. , 2014, , .		16
36	Level-Based Analysis of Genetic Algorithms and Other Search Processes. Lecture Notes in Computer Science, 2014, , 912-921.	1.0	15

#	Article	IF	Citations
37	Fixed Parameter Evolutionary Algorithms and Maximum Leaf Spanning Trees: A Matter of Mutation. , 2010, , 204-213.		15
38	Theoretical Runtime Analyses of Search Algorithms on the Test Data Generation for the Triangle Classification Problem. , 2008, , .		14
39	Ant colony optimization and the minimum cut problem. , 2010, , .		14
40	A Parameterised Complexity Analysis of Bi-level Optimisation with Evolutionary Algorithms. Evolutionary Computation, 2016, 24, 183-203.	2.3	14
41	Parallel Black-Box Complexity With Tail Bounds. IEEE Transactions on Evolutionary Computation, 2020, 24, 1010-1024.	7.5	14
42	Emergence of Diversity and Its Benefits for Crossover in Genetic Algorithms. Lecture Notes in Computer Science, 2016, , 890-900.	1.0	14
43	Runtime analysis of search heuristics on software engineering problems. Frontiers of Computer Science, 2009, 3, 64-72.	0.6	12
44	Non-elitist evolutionary algorithms excel in fitness landscapes with sparse deceptive regions and dense valleys. , 2021, , .		12
45	Runtime analysis of the univariate marginal distribution algorithm under low selective pressure and prior noise. , 2019, , .		12
46	Phenotypic complexity and local variations in neutral degree. BioSystems, 2007, 87, 233-242.	0.9	11
47	Evolution under partial information. , 2014, , .		11
48	More precise runtime analyses of non-elitist EAs in uncertain environments. , 2021, , .		11
49	Runtime analysis of (1+l) EA on computing unique input output sequences. , 2007, , .		8
50	On the impact of the mutation-selection balance on the runtime of evolutionary algorithms. , 2009, , .		8
51	Level-Based Analysis of the Population-Based Incremental Learning Algorithm. Lecture Notes in Computer Science, 2018, , 105-116.	1.0	8
52	The genotypic complexity of evolved fault-tolerant and noise-robust circuits. BioSystems, 2007, 87, 224-232.	0.9	7
53	Populations can be Essential in Dynamic Optimisation. , 2015, , .		7
54	Drift analysis. , 2012, , .		6

#	Article	IF	Citations
55	The generalized minimum spanning tree problem. , 2013, , .		5
56	Runtime Analyses of the Population-Based Univariate Estimation of Distribution Algorithms on LeadingOnes. Algorithmica, 2021, 83, 3238-3280.	1.0	5
57	Theoretical Analysis of Stochastic Search Algorithms. , 2018, , 1-36.		5
58	Evolved Digital Circuits and Genome Complexity. , 0, , .		4
59	Theoretical Analysis of Stochastic Search Algorithms. , 2018, , 849-884.		4
60	Runtime Analysis of Population-based Evolutionary Algorithms. , 2016, , .		1
61	Runtime analysis of population-based evolutionary algorithms. , 2017, , .		1
62	Accessibility and Runtime Between Convex Neutral Networks. Lecture Notes in Computer Science, 2006, , 734-741.	1.0	1
63	Theoretical Advances in Evolutionary Dynamic Optimization. Studies in Computational Intelligence, 2013, , 221-240.	0.7	1
64	Editorial to the special issue on â€œTheoretical Foundations of Evolutionary Computationâ€• Theoretical Computer Science, 2012, 425, 2-3.	0.5	0
65	Runtime analysis of evolutionary algorithms. , 2014, , .		0
66	Editorial for the Special Issue on Theoretical Foundations of Evolutionary Computation. IEEE Transactions on Evolutionary Computation, 2014, 18, 625-627.	7.5	0
67	Runtime Analysis of Evolutionary Algorithms. , 2015, , .		0
68	Tutorials at PPSN 2016. Lecture Notes in Computer Science, 2016, , 1012-1022.	1.0	0
69	Runtime analysis of evolutionary algorithms. , 2018, , .		0
70	Runtime analysis of evolutionary algorithms: basic introduction. , 2019, , .		0
71	Preface to the Special Issue on Theory of Genetic and Evolutionary Computation. Algorithmica, 2021, 83, 903-905.	1.0	0
72	Runtime analysis of evolutionary algorithms. , 2021, , .		0

#	Article	IF	Citations
73	Runtime analysis of population-based evolutionary algorithms. , 2021, , .		0
74	Theory Driven Design of Efficient Genetic Algorithms for a Classical Graph Problem. Operations Research/ Computer Science Interfaces Series, 2018, , 125-140.	0.3	0