Shachar Lovett

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/9360840/publications.pdf

Version: 2024-02-01

80	948	759055	839398
papers	citations	12	18
		h-index	g-index

81	81	81	333
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Sparse MDS Matrices over Small Fields: A Proof of the GM-MDS Conjecture. SIAM Journal on Computing, 2021, 50, 1248-1262.	0.8	1
2	Log-rank and lifting for AND-functions. , 2021, , .		5
3	Point Location and Active Learning: Learning Halfspaces Almost Optimally. , 2020, , .		1
4	XOR lemmas for resilient functions against polynomials. , 2020, , .		3
5	Near-optimal Linear Decision Trees for k-SUM and Related Problems. Journal of the ACM, 2019, 66, 1-18.	1.8	13
6	Higher-order Fourier Analysis and Applications. Foundations and Trends in Theoretical Computer Science, 2019, 13, 247-448.	2.0	3
7	The Independence Number of the Birkhoff Polytope Graph, and Applications to Maximally Recoverable Codes. SIAM Journal on Computing, 2019, 48, 1425-1435.	0.8	3
8	On the Beckâ€Fiala conjecture for random set systems. Random Structures and Algorithms, 2019, 54, 665-675.	0.6	3
9	Structure of Protocols for XOR Functions. SIAM Journal on Computing, 2018, 47, 208-217.	0.8	17
10	Algebraic Attacks against Random Local Functions and Their Countermeasures. SIAM Journal on Computing, 2018, 47, 52-79.	0.8	11
11	The List Decoding Radius for Reedâ€“Muller Codes Over Small Fields. IEEE Transactions on Information Theory, 2018, 64, 4382-4391.	1.5	5
12	Non-Malleable Codes from Additive Combinatorics. SIAM Journal on Computing, 2018, 47, 524-546.	0.8	11
13	The Robust Sensitivity of Boolean Functions. , 2018, , 1822-1833.		0
14	MDS Matrices over Small Fields: A Proof of the GM-MDS Conjecture. , 2018, , .		15
15	Near-optimal linear decision trees for k-SUM and related problems. , 2018, , .		7
16	The Gram-Schmidt walk: a cure for the Banaszczyk blues. , 2018, , .		10
17	A counterexample to a strong variant of the Polynomial Freiman-Ruzsa conjecture in Euclidean space. Discrete Analysis, 2018, , .	2.8	16
18	Probabilistic Existence of Large Sets of Designs. , 2018, , 1545-1556.		2

#	Article	IF	Citations
19	On the structure of the spectrum of small sets. Journal of Combinatorial Theory - Series A, 2017, 148, 1-14.	0.5	0
20	Probabilistic existence of regular combinatorial structures. Geometric and Functional Analysis, 2017, 27, 919-972.	0.6	12
21	On the Impossibility of Entropy Reversal, and Its Application to Zero-Knowledge Proofs. Lecture Notes in Computer Science, 2017, , 31-55.	1.0	3
22	Active Classification with Comparison Queries. , 2017, , .		12
23	The Independence Number of the Birkhoff Polytope Graph, and Applications to Maximally Recoverable Codes. , 2017, , .		5
24	Rectangles Are Nonnegative Juntas. SIAM Journal on Computing, 2016, 45, 1835-1869.	0.8	29
25	General systems of linear forms: Equidistribution and true complexity. Advances in Mathematics, 2016, 292, 446-477.	0.5	8
26	Algebraic attacks against random local functions and their countermeasures. , 2016, , .		26
27	Affine-malleable extractors, spectrum doubling, and application to privacy amplification. , 2016, , .		4
28	Structure of Protocols for XOR Functions. , 2016, , .		8
29	An improved lower bound for arithmetic regularity. Mathematical Proceedings of the Cambridge Philosophical Society, 2016, 161, 193-197.	0.3	4
30	Communication is Bounded by Root of Rank. Journal of the ACM, 2016, 63, 1-9.	1.8	15
31	Constructive Discrepancy Minimization by Walking on the Edges. SIAM Journal on Computing, 2015, 44, 1573-1582.	0.8	27
32	A tail bound for readâ€‹k families of functions. Random Structures and Algorithms, 2015, 47, 99-108.	0.6	18
33	Group representations that resist random sampling. Random Structures and Algorithms, 2015, 47, 605-614.	0.6	1
34	Improved Noisy Population Recovery, and Reverse Bonami-Beckner Inequality for Sparse Functions. , 2015, , .		5
35	Rectangles Are Nonnegative Juntas. , 2015, , .		18
36	The List Decoding Radius of Reed-Muller Codes over Small Fields. , 2015, , .		4

#	Article	IF	Citations
37	An Additive Combinatorics Approach Relating Rank to Communication Complexity. Journal of the ACM, 2014, 61, 1-18.	1.8	5
38	Communication is bounded by root of rank. , 2014, , .		30
39	Correlation Testing for Affine Invariant Properties on $mathbb{F}_p^n$ in the High Error Regime. SIAM Journal on Computing, 2014, 43, 1417-1455.	0.8	1
40	Variety Evasive Sets. Computational Complexity, 2014, 23, 509-529.	0.2	7
41	The Freimanâ€“Ruzsa theorem over finite fields. Journal of Combinatorial Theory - Series A, 2014, 125, 333-341.	0.5	5
42	New Bounds for Matching Vector Families. SIAM Journal on Computing, 2014, 43, 1654-1683.	0.8	7
43	Nontrivial t-designs over finite fields exist for all t. Journal of Combinatorial Theory - Series A, 2014, 127, 149-160.	0.5	18
44	Pseudorandom generators for CC0[p] and the Fourier spectrum of low-degree polynomials over finite fields. Computational Complexity, 2013, 22, 679-725.	0.2	3
45	Estimating the Distance from Testable Affine-Invariant Properties. , 2013, , .		6
46	Every locally characterized affine-invariant property is testable. , 2013, , .		16
47	New bounds for matching vector families. , 2013, , .		10
48	A Space Lower Bound for Dynamic Approximate Membership Data Structures. SIAM Journal on Computing, 2013, 42, 2182-2196.	0.8	2
49	Testing Low Complexity Affine-Invariant Properties. , 2013, , .		8
50	Subspace evasive sets. , 2012, , .		33
51	Probabilistic existence of rigid combinatorial structures. , 2012, , .		7
52	Large Deviation Bounds for Decision Trees and Sampling Lower Bounds for AC0-Circuits. , 2012, , .		5
53	Constructive Discrepancy Minimization by Walking on the Edges. , 2012, , .		30
54	Equivalence of polynomial conjectures in additive combinatorics. Combinatorica, 2012, 32, 607-618.	0.6	9

#	Article	IF	Citations
55	An Additive Combinatorics Approach Relating Rank to Communication Complexity. , 2012, , .		8
56	Pseudorandom Generators for Read-Once ACC^0. , 2012, , .		0
57	Random low-degree polynomials are hard to approximate. Computational Complexity, 2012, 21, 63-81.	0.2	6
58	Bounded-Depth Circuits Cannot Sample Good Codes. Computational Complexity, 2012, 21, 245-266.	0.2	13
59	Weight Distribution and List-Decoding Size of Reedâ€“Muller Codes. IEEE Transactions on Information Theory, 2012, 58, 2689-2696.	1.5	29
60	Almost K-Wise vs. K-Wise Independent Permutations, and Uniformity for General Group Actions. Lecture Notes in Computer Science, 2012, , 350-361.	1.0	6
61	Linear Systems over Finite Abelian Groups. , 2011, , .		3
62	New Extension of the Weil Bound for Character Sums with Applications to Coding. , 2011, , .		12
63	Bounded-Depth Circuits Cannot Sample Good Codes. , 2011, , .		12
64	Higher-Order Fourier Analysis Of $${mathbb{F}_{p}^n}$$ And The Complexity Of Systems Of Linear Forms. Geometric and Functional Analysis, 2011, 21, 1331-1357.	0.6	10
65	Correlation testing for affine invariant properties on Fpnin the high error regime. , 2011, , .		4
66	Title is missing!. Theory of Computing, 2011, 7, 185-188.	0.3	4
67	Correlation Bounds for Poly-size $mbox{m AC}^0$ Circuits with n 1â€‰â^'â€‰o(1) Symmetric Gates. Lecture Notes in Computer Science, 2011, , 640-651.	1.0	4
68	The Complexity of Boolean Functions in Different Characteristics. Computational Complexity, 2010, 19, 235-263.	0.2	6
69	Holes in Generalized Reedâ€“Muller Codes. IEEE Transactions on Information Theory, 2010, 56, 2583-2586.	1.5	1
70	A Lower Bound for Dynamic Approximate Membership Data Structures. , 2010, , .		16
71	Pseudorandom Generators for CC0[p] and the Fourier Spectrum of Low-Degree Polynomials over Finite Fields. , 2010, , .		3
72	On the Complexity of Boolean Functions in Different Characteristics. , 2009, , .		3

#	Article	IF	Citations
73	On cryptography with auxiliary input. , 2009, , .		134
74	Random Low Degree Polynomials are Hard to Approximate. Lecture Notes in Computer Science, 2009, , 366-377.	1.0	2
75	Pseudorandom Bit Generators That Fool Modular Sums. Lecture Notes in Computer Science, 2009, , 615-630.	1.0	18
76	Title is missing!. Theory of Computing, 2009, 5, 69-82.	0.3	21
77	Worst Case to Average Case Reductions for Polynomials. , 2008, , .		30
78	ALMOST EUCLIDEAN SECTIONS OF THE N-DIMENSIONAL CROSS-POLYTOPE USING O(N) RANDOM BITS. Communications in Contemporary Mathematics, 2008, 10, 477-489.	0.6	6
79	Inverse conjecture for the gowers norm is false. , 2008, , .		25
80	Unconditional pseudorandom generators for low degree polynomials. , 2008, , .		19