Alexander Barg

List of Publications by Year
in descending order

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65 papers	1,872 citations	304743 22 h-index	265206 42 g-index
65 all docs	65 docs citations	65 times ranked	864 citing authors

#	Article	IF	Citations
1	Node Repair on Connected Graphs. IEEE Transactions on Information Theory, 2022, 68, 3081-3095.	2.4	4
2	Recoverable Systems. IEEE Transactions on Information Theory, 2022, 68, 3681-3699.	2.4	2
3	A construction of maximally recoverable codes. Designs, Codes, and Cryptography, 2022, 90, 939-945.	1.6	4
4	High-Rate Storage Codes on Triangle-Free Graphs. IEEE Transactions on Information Theory, 2022, 68, 7787-7797.	2.4	2
5	Cyclic and Convolutional Codes With Locality. IEEE Transactions on Information Theory, 2021, 67, 755-769.	2.4	6
6	STOLARSKY'S INVARIANCE PRINCIPLE FOR FINITE METRIC SPACES. Mathematika, 2021, 67, 158-186.	0.5	6
7	Capacity of Dynamical Storage Systems. IEEE Transactions on Information Theory, 2021, 67, 329-346.	2.4	2
8	Guest Editorial Special Issue: â€œFrom Deletion-Correction to Graph Reconstruction: In Memory of Vladimir I. Levenshteinâ€• IEEE Transactions on Information Theory, 2021, 67, 3187-3189.	2.4	1
9	Capacity and Construction of Recoverable Systems. , 2021, , .		1
10	Regenerating codes on graphs. , 2021, , .		1
11	Bounds for discrepancies in the Hamming space. Journal of Complexity, 2021, 65, 101552.	1.3	2
12	Explicit Constructions of MSR Codes for Clustered Distributed Storage: The Rack-Aware Storage Model. IEEE Transactions on Information Theory, 2020, 66, 886-899.	2.4	25
13	Repair of RS codes with optimal access and error correction. , 2020, , .		1
14	Cyclic LRC codes with hierarchy and availability. , 2020, , .		4
15	Enabling Optimal Access and Error Correction for the Repair of Reedâ€“Solomon Codes. IEEE Transactions on Information Theory, 2020, 66, 7439-7456.	2.4	12
16	Error Correction Based on Partial Information. IEEE Transactions on Information Theory, 2020, 66, 1396-1404.	2.4	4
17	On Fault Tolerance, Locality, and Optimality in Locally Repairable Codes. ACM Transactions on Storage, 2020, 16, 1-32.	2.1	11
18	Cooperative Repair: Constructions of Optimal MDS Codes for All Admissible Parameters. IEEE Transactions on Information Theory, 2019, 65, 1639-1656.	2.4	30

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19	Codes With Hierarchical Locality From Covering Maps of Curves. IEEE Transactions on Information Theory, 2019, 65, 6056-6071.	2.4	16
20	Explicit constructions of MSR codes for the rack-aware storage model. , 2019, , .		0
21	The Repair Problem for Reedâ€“Solomon Codes: Optimal Repair of Single and Multiple Erasures With Almost Optimal Node Size. IEEE Transactions on Information Theory, 2019, 65, 2673-2695.	2.4	29
22	Optimal locally private estimation under ell_{p} loss for $1le ple 2$. Electronic Journal of Statistics, 2019, 13, .	0.7	2
23	Exploiting Locality for Improved Decoding of Binary Cyclic Codes. IEEE Transactions on Communications, 2018, 66, 2346-2358.	7.8	6
24	Construction of Polar Codes for Arbitrary Discrete Memoryless Channels. IEEE Transactions on Information Theory, 2018, 64, 309-321.	2.4	20
25	The repair problem under connectivity constraints: Explicit MSR codes for the rack-aware model of distributed storage. , 2018, , .		3
26	Codes on Curves with Hierarchical Locality. , 2018, , .		3
27	Combinatorial Alphabet-Dependent Bounds for Locally Recoverable Codes. IEEE Transactions on Information Theory, 2018, 64, 3481-3492.	2.4	36
28	Optimal Schemes for Discrete Distribution Estimation Under Locally Differential Privacy. IEEE Transactions on Information Theory, 2018, 64, 5662-5676.	2.4	77
29	Explicit Constructions of High-Rate MDS Array Codes With Optimal Repair Bandwidth. IEEE Transactions on Information Theory, 2017, 63, 2001-2014.	2.4	148
30	Locally Recoverable Codes on Algebraic Curves. IEEE Transactions on Information Theory, 2017, 63, 4928-4939.	2.4	51
31	Achieving Secrecy Capacity of the Wiretap Channel and Broadcast Channel With a Confidential Component. IEEE Transactions on Information Theory, 2017, 63, 1311-1324.	2.4	37
32	Explicit Constructions of Optimal-Access MDS Codes With Nearly Optimal Sub-Packetization. IEEE Transactions on Information Theory, 2017, 63, 6307-6317.	2.4	102
33	A study on the impact of locality in the decoding of binary cyclic codes. , 2017, , .		1
34	Optimal schemes for discrete distribution estimation under local differential privacy. , 2017, , .		10
35	Fractional decoding: Error correction from partial information. , 2017, , .		7
36	Group Testing Schemes From Codes and Designs. IEEE Transactions on Information Theory, 2017, 63, 7131-7141.	2.4	8

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37	Locally Recoverable Codes from Algebraic Curves and Surfaces. Association for Women in Mathematics Series, 2017, , 95-127.	0.4	23
38	Group testing schemes from low-weight codewords of BCH codes. , 2016, , .		2
39	Cyclic LRC codes, binary LRC codes, and upper bounds on the distance of cyclic codes. International Journal of Information and Coding Theory, 2016, 3, 345.	0.3	34
40	Bounds on the Parameters of Locally Recoverable Codes. IEEE Transactions on Information Theory, 2016, 62, 3070-3083.	2.4	96
41	Locally recoverable codes on algebraic curves. , 2015, , .		7
42	Finite two-distance tight frames. Linear Algebra and Its Applications, 2015, 475, 163-175.	0.9	30
43	Restricted Isometry Property of Random Subdictionaries. IEEE Transactions on Information Theory, 2015, 61, 4440-4450.	2.4	17
44	Bounds on locally recoverable codes with multiple recovering sets. , 2014, , .		63
45	Linear codes on posets with extension property. Discrete Mathematics, 2014, 317, 1-13.	0.7	9
46	A Family of Optimal Locally Recoverable Codes. IEEE Transactions on Information Theory, 2014, 60, 4661-4676.	2.4	386
47	New Bounds for Spherical Two-Distance Sets. Experimental Mathematics, 2013, 22, 187-194.	0.7	15
48	Polar Codes for q-Ary Channels, $q=2^{r}$. IEEE Transactions on Information Theory, 2013, 59, 955-969.	2.4	68
49	On the Number of Errors Correctable with Codes on Graphs. IEEE Transactions on Information Theory, 2011, 57, 910-919.	2.4	10
50	Coding for High-Density Recording on a 1-D Granular Magnetic Medium. IEEE Transactions on Information Theory, 2011, 57, 7403-7417.	2.4	25
51	Codes in Permutations and Error Correction for Rank Modulation. IEEE Transactions on Information Theory, 2010, 56, 3158-3165.	2.4	120
52	Secret Key Generation for a Pairwise Independent Network Model. IEEE Transactions on Information Theory, 2010, 56, 6482-6489.	2.4	61
53	On the Fingerprinting Capacity Under the Marking Assumption. IEEE Transactions on Information Theory, 2008, 54, 2678-2689.	2.4	28
54	Performance Analysis of Algebraic Soft-Decision Decoding of Reedâ€“Solomon Codes. IEEE Transactions on Information Theory, 2008, 54, 5012-5018.	2.4	4

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55	Common Randomness, Multiuser Secrecy and Tree Packing. , 2008, , .		4
56	A bound on Grassmannian codes. Journal of Combinatorial Theory - Series A, 2006, 113, 1629-1635.	0.8	7
57	A class of I.P.P. codes with efficient identification. Journal of Complexity, 2004, 20, 137-147.	1.3	21
58	Error Exponents of Expander Codes under Linear-Complexity Decoding. SIAM Journal on Discrete Mathematics, 2004, 17, 426-445.	0.8	24
59	On Some Polynomials Related to Weight Enumerators of Linear Codes. SIAM Journal on Discrete Mathematics, 2002, 15, 155-164.	0.8	11
60	A Hypergraph Approach to the Identifying Parent Property: The Case of Multiple Parents. SIAM Journal on Discrete Mathematics, 2001, 14, 423-431.	0.8	69
61	Linear Codes with Exponentially Many Light Vectors. Journal of Combinatorial Theory - Series A, 2001, 96, 396-399.	0.8	14
62	Strengthening the Gilbertâ€“Varshamov bound. Linear Algebra and Its Applications, 2000, 307, 119-129.	0.9	13
63	A large family of sequences with low periodic correlation. Discrete Mathematics, 1997, 176, 21-27.	0.7	3
64	The Matroid of Supports of A Linear Code. Applicable Algebra in Engineering, Communications and Computing, 1997, 8, 165-172.	0.5	28
65	Incomplete sums, DC-constrained codes, and codes that maintain synchronization. Designs, Codes, and Cryptography, 1993, 3, 105-116.	1.6	6