

Moshe Schwartz

List of Publications by Year in descending order

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114
papers

1,902
citations

361413

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330143

37
g-index

115
all docs

115
docs citations

115
times ranked

565
citing authors

#	ARTICLE	IF	CITATIONS
1	Rank Modulation for Flash Memories. IEEE Transactions on Information Theory, 2009, 55, 2659-2673.	2.4	210
2	On the stopping distance and the stopping redundancy of codes. IEEE Transactions on Information Theory, 2006, 52, 922-932.	2.4	125
3	Codes for Asymmetric Limited-Magnitude Errors With Application to Multilevel Flash Memories. IEEE Transactions on Information Theory, 2010, 56, 1582-1595.	2.4	117
4	Correcting Charge-Constrained Errors in the Rank-Modulation Scheme. IEEE Transactions on Information Theory, 2010, 56, 2112-2120.	2.4	91
5	Correcting Limited-Magnitude Errors in the Rank-Modulation Scheme. IEEE Transactions on Information Theory, 2010, 56, 2551-2560.	2.4	72
6	Duplication-Correcting Codes for Data Storage in the DNA of Living Organisms. IEEE Transactions on Information Theory, 2017, 63, 4996-5010.	2.4	70
7	Codes and Anticodes in the Grassman Graph. Journal of Combinatorial Theory - Series A, 2002, 97, 27-42.	0.8	64
8	Quasi-Cross Lattice Tilings With Applications to Flash Memory. IEEE Transactions on Information Theory, 2012, 58, 2397-2405.	2.4	46
9	Error-correcting codes for rank modulation. , 2008, , .		44
10	Construction of Partial MDS and Sector-Disk Codes With Two Global Parity Symbols. IEEE Transactions on Information Theory, 2016, 62, 2673-2681.	2.4	44
11	Systematic Error-Correcting Codes for Rank Modulation. IEEE Transactions on Information Theory, 2015, 61, 17-32.	2.4	40
12	Snake-in-the-Box Codes for Rank Modulation. IEEE Transactions on Information Theory, 2012, 58, 5471-5483.	2.4	37
13	On Optimal Locally Repairable Codes With Super-Linear Length. IEEE Transactions on Information Theory, 2020, 66, 4853-4868.	2.4	35
14	Semiconstrained Systems. IEEE Transactions on Information Theory, 2016, 62, 1688-1702.	2.4	33
15	The structure of single-track Gray codes. IEEE Transactions on Information Theory, 1999, 45, 2383-2396.	2.4	32
16	Codes for Multi-Level Flash Memories: Correcting Asymmetric Limited-Magnitude Errors. , 2007, , .		30
17	Efficiently computing the permanent and Hafnian of some banded Toeplitz matrices. Linear Algebra and Its Applications, 2009, 430, 1364-1374.	0.9	30
18	The Capacity of String-Duplication Systems. IEEE Transactions on Information Theory, 2016, 62, 811-824.	2.4	29

#	ARTICLE	IF	CITATIONS
19	Universal rewriting in constrained memories. , 2009, , .		28
20	Constant-Weight Gray Codes for Local Rank Modulation. IEEE Transactions on Information Theory, 2011, 57, 7431-7442.	2.4	26
21	Constrained Codes as Networks of Relations. IEEE Transactions on Information Theory, 2008, 54, 2179-2195.	2.4	24
22	Two-Dimensional Cluster-Correcting Codes. IEEE Transactions on Information Theory, 2005, 51, 2121-2132.	2.4	23
23	On the Labeling Problem of Permutation Group Codes Under the Infinity Metric. IEEE Transactions on Information Theory, 2012, 58, 6595-6604.	2.4	22
24	Sequence reconstruction for Grassmann graphs and permutations. , 2013, , .		21
25	Locality and Availability of Array Codes Constructed From Subspaces. IEEE Transactions on Information Theory, 2019, 65, 2648-2660.	2.4	21
26	Perfect Constant-Weight Codes. IEEE Transactions on Information Theory, 2004, 50, 2156-2165.	2.4	19
27	Optimal permutation anticodes with the infinity norm via permanents of $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll">\langle \text{mml:mo stretchy="false">(\langle \text{mml:mo}>\langle \text{mml:mn}>0\langle \text{mml:mn}>\langle \text{mml:mo}>, \langle \text{mml:mo}>\langle \text{mml:mn}>1\langle \text{mml:mn}>\langle \text{mml:mo}> \text{Tj ETQ} 1 0.784314 r 110, 1761-1774.$	2.4	19
28	On the non-existence of lattice tilings by quasi-crosses. European Journal of Combinatorics, 2014, 36, 130-142.	0.8	19
29	Reconstruction Codes for DNA Sequences With Uniform Tandem-Duplication Errors. IEEE Transactions on Information Theory, 2020, 66, 2658-2668.	2.4	18
30	On Optimal Locally Repairable Codes With Multiple Disjoint Repair Sets. IEEE Transactions on Information Theory, 2020, 66, 2402-2416.	2.4	17
31	On Optimal Locally Repairable Codes and Generalized Sector-Disk Codes. IEEE Transactions on Information Theory, 2021, 67, 686-704.	2.4	17
32	A Construction of Maximally Recoverable Codes With Order-Optimal Field Size. IEEE Transactions on Information Theory, 2022, 68, 204-212.	2.4	17
33	On the asymptotic performance of iterative decoders for product codes. , 2005, , .		16
34	Rank modulation for flash memories. , 2008, , .		16
35	A stochastic model for genomic interspersed duplication. , 2015, , .		15
36	Duplication-correcting codes for data storage in the DNA of living organisms. , 2016, , .		14

#	ARTICLE	IF	CITATIONS
37	Coding for Optimized Writing Rate in DNA Storage. , 2020, , .		14
38	Noise and uncertainty in string-duplication systems. , 2017, , .		13
39	Single-Error Detection and Correction for Duplication and Substitution Channels. IEEE Transactions on Information Theory, 2020, 66, 6908-6919.	2.4	13
40	New Bounds on the Capacity of Multidimensional Run-Length Constraints. IEEE Transactions on Information Theory, 2011, 57, 4373-4382.	2.4	12
41	Partial MDS (PMDS) and Sector-Disk (SD) codes that tolerate the erasure of two random sectors. , 2014, , .		12
42	Estimation of duplication history under a stochastic model for tandem repeats. BMC Bioinformatics, 2019, 20, 64.	2.6	11
43	Generalized Gray Codes for Local Rank Modulation. IEEE Transactions on Information Theory, 2013, 59, 6664-6673.	2.4	10
44	Trajectory Codes for Flash Memory. IEEE Transactions on Information Theory, 2013, 59, 4530-4541.	2.4	10
45	File updates under random/arbitrary insertions and deletions. , 2015, , .		10
46	Improved Lower Bounds on the Size of Balls Over Permutations With the Infinity Metric. IEEE Transactions on Information Theory, 2017, 63, 6227-6239.	2.4	10
47	On the Access Complexity of PIR Schemes. , 2019, , .		10
48	Optimal 2-Dimensional 3-Dispersion Lattices. Lecture Notes in Computer Science, 2003, , 216-225.	1.3	10
49	Constant-weight Gray codes for local rank modulation. , 2010, , .		9
50	Coding for the ℓ_∞ -Limited Permutation Channel. IEEE Transactions on Information Theory, 2017, 63, 7676-7686.	2.4	9
51	Rank-Modulation Codes for DNA Storage With Shotgun Sequencing. IEEE Transactions on Information Theory, 2019, 65, 50-64.	2.4	9
52	Optimal tri-stance anticodes in certain graphs. Journal of Combinatorial Theory - Series A, 2006, 113, 189-224.	0.8	8
53	Limited-Magnitude Error-Correcting Gray Codes for Rank Modulation. IEEE Transactions on Information Theory, 2017, , 1-1.	2.4	8
54	Reconstruction Codes for DNA Sequences with Uniform Tandem-Duplication Errors. , 2018, , .		8

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55	On the Capacity of the Precision-Resolution System. IEEE Transactions on Information Theory, 2010, 56, 1028-1037.	2.4	7
56	Linear covering codes and error-correcting codes for limited-magnitude errors. Designs, Codes, and Cryptography, 2014, 73, 329-354.	1.6	7
57	Bounds for Permutation Rate-Distortion. IEEE Transactions on Information Theory, 2016, 62, 703-712.	2.4	7
58	Uncertainty of Reconstructing Multiple Messages from Uniform-Tandem-Duplication Noise. , 2020, , .		7
59	On Lattice Packings and Coverings of Asymmetric Limited-Magnitude Balls. IEEE Transactions on Information Theory, 2021, 67, 5104-5115.	2.4	7
60	On a construction for constant-weight Gray codes for local rank modulation. , 2010, , .		6
61	The capacity of string-duplication systems. , 2014, , .		6
62	Evolution of N-Gram Frequencies Under Duplication and Substitution Mutations. , 2018, , .		6
63	Single-Error Detection and Correction for Duplication and Substitution Channels. , 2019, , .		6
64	An efficient shift rule for the prefer-max De Bruijn sequence. Discrete Mathematics, 2019, 342, 226-232.	0.7	6
65	Evolution of k -Mer Frequencies and Entropy in Duplication and Substitution Mutation Systems. IEEE Transactions on Information Theory, 2020, 66, 3171-3186.	2.4	6
66	Network-Coding Solutions for Minimal Combination Networks and Their Sub-Networks. IEEE Transactions on Information Theory, 2020, 66, 6786-6798.	2.4	6
67	Optimal Locally Repairable Codes: An Improved Bound and Constructions. IEEE Transactions on Information Theory, 2022, 68, 5060-5074.	2.4	6
68	Correcting limited-magnitude errors in the rank-modulation scheme. , 2010, , .		5
69	File Updates Under Random/Arbitrary Insertions and Deletions. IEEE Transactions on Information Theory, 2017, 63, 6487-6513.	2.4	5
70	Locality and availability of array codes constructed from subspaces. , 2017, , .		5
71	Erasure Correction of Scalar Codes in the Presence of Stragglers. , 2018, , .		5
72	Network Coding Solutions for the Combination Network and its Subgraphs. , 2019, , .		5

#	ARTICLE	IF	CITATIONS
73	The Generalized Covering Radii of Linear Codes. IEEE Transactions on Information Theory, 2021, 67, 8070-8085.	2.4	5
74	Quasi-cross lattice tilings with applications to flash memory. , 2011, , .		4
75	Generalized Gray codes for local rank modulation. , 2011, , .		4
76	Snake-in-the-box codes for rank modulation. , 2012, , .		4
77	On the non-existence of lattice tilings by quasi-crosses. , 2013, , .		4
78	Bounds for permutation rate-distortion. , 2014, , .		4
79	Limited-magnitude error-correcting Gray codes for rank modulation. , 2016, , .		4
80	Encoding semiconstrained systems. , 2016, , .		4
81	Non-linear cyclic codes that attain the Gilbert-Varshamov bound. , 2017, , .		4
82	Rank modulation codes for DNA storage. , 2017, , .		4
83	Improved Coding Over Sets for DNA-Based Data Storage. IEEE Transactions on Information Theory, 2022, 68, 118-129.	2.4	4
84	On tilings of asymmetric limited-magnitude balls. European Journal of Combinatorics, 2022, 100, 103450.	0.8	4
85	Constrained Codes as Networks of Relations. , 2007, , .		3
86	Quasi-linear network coding. , 2014, , .		3
87	Gray Codes and Enumerative Coding for Vector Spaces. IEEE Transactions on Information Theory, 2014, 60, 271-281.	2.4	3
88	Bounds on the size of balls over permutations with the infinity metric. , 2015, , .		3
89	Semiconstrained systems. , 2015, , .		3
90	The capacity of some PÄ³lya string models. , 2016, , .		3

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91	On Independence and Capacity of Multidimensional Semiconstrained Systems. IEEE Transactions on Information Theory, 2018, 64, 6461-6483.	2.4	3
92	On Encoding Semiconstrained Systems. IEEE Transactions on Information Theory, 2018, 64, 2474-2484.	2.4	3
93	Infinity-Norm Permutation Covering Codes From Cyclic Groups. IEEE Transactions on Information Theory, 2018, 64, 5219-5230.	2.4	3
94	On the Gap Between Scalar and Vector Solutions of Generalized Combination Networks. IEEE Transactions on Information Theory, 2021, 67, 5580-5591.	2.4	3
95	New Bounds on the Capacity of Multi-dimensional RLL-Constrained Systems. Lecture Notes in Computer Science, 2006, , 225-234.	1.3	3
96	On the Generalized Covering Radii of Reed-Muller Codes. IEEE Transactions on Information Theory, 2022, 68, 4378-4391.	2.4	3
97	Distributed broadcasting and mapping protocols in directed anonymous networks. , 2007, , .		2
98	On Optimal Locally Repairable Codes with Super-Linear Length. , 2019, , .		2
99	On Optimal Locally Repairable Codes and Generalized Sector-Disk Codes. , 2020, , .		2
100	Uncertainty of Reconstruction With List-Decoding From Uniform-Tandem-Duplication Noise. IEEE Transactions on Information Theory, 2021, 67, 4276-4287.	2.4	2
101	On the Capacity of Precision-Resolution Constrained Systems. , 2006, , .		1
102	On the labeling problem of permutation group codes under the infinity metric. , 2011, , .		1
103	On optimal anticode over permutations with the infinity norm. , 2011, , .		1
104	Coding for the ∞ -limited permutation channel. , 2015, , .		1
105	Multidimensional semiconstrained systems. , 2017, , .		1
106	The Entropy Rate of Some \mathbb{Z}^3 String Models. IEEE Transactions on Information Theory, 2019, 65, 8180-8193.	2.4	1
107	Hierarchical erasure correction of linear codes. Finite Fields and Their Applications, 2020, 68, 101743.	1.0	1
108	An Improved Bound for Optimal Locally Repairable Codes. , 2021, , .		1

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109	The Generalized Covering Radii of Linear Codes. , 2021, , .		1
110	Sequence Reconstruction for Limited-Magnitude Errors. IEEE Transactions on Information Theory, 2022, 68, 4422-4434.	2.4	1
111	On the Reverse-Complement String-Duplication System. IEEE Transactions on Information Theory, 2022, 68, 7184-7197.	2.4	1
112	On the Gap between Scalar and Vector Solutions of Generalized Combination Networks. , 2020, , .		0
113	On Tilings of Asymmetric Limited-Magnitude Balls. , 2021, , .		0
114	Improved Rank-Modulation Codes for DNA Storage With Shotgun Sequencing. IEEE Transactions on Information Theory, 2022, 68, 3719-3730.	2.4	0