

# Paul H Siegel

## List of Publications by Year in descending order

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77  
papers

1,485  
citations

430754

18  
h-index

414303

32  
g-index

77  
all docs

77  
docs citations

77  
times ranked

771  
citing authors

#	ARTICLE	IF	CITATIONS
1	Windowed Decoding of Protograph-Based LDPC Convolutional Codes Over Erasure Channels. IEEE Transactions on Information Theory, 2012, 58, 2303-2320.	1.5	182
2	Adaptive Methods for Linear Programming Decoding. IEEE Transactions on Information Theory, 2008, 54, 5396-5410.	1.5	96
3	Quantized Iterative Message Passing Decoders with Low Error Floor for LDPC Codes. IEEE Transactions on Communications, 2014, 62, 1-14.	4.9	69
4	Joint-Track Equalization and Detection for Bit Patterned Media Recording. IEEE Transactions on Magnetics, 2010, 46, 3639-3647.	1.2	65
5	Error Floor Approximation for LDPC Codes in the AWGN Channel. IEEE Transactions on Information Theory, 2014, 60, 7416-7441.	1.5	58
6	Codes for Write-Once Memories. IEEE Transactions on Information Theory, 2012, 58, 5985-5999.	1.5	54
7	Adaptive Cut Generation Algorithm for Improved Linear Programming Decoding of Binary Linear Codes. IEEE Transactions on Information Theory, 2012, 58, 6581-6594.	1.5	51
8	Coding Over Sets for DNA Storage. IEEE Transactions on Information Theory, 2020, 66, 2331-2351.	1.5	47
9	Linear locally repairable codes with availability. , 2015, , .		39
10	Error analysis and inter-cell interference mitigation in multi-level cell flash memories. , 2015, , .		38
11	Efficient two-write WOM-codes. , 2010, , .		36
12	Determining and Approaching Achievable Rates of Binary Intersymbol Interference Channels Using Multistage Decoding. IEEE Transactions on Information Theory, 2007, 53, 1416-1429.	1.5	35
13	Write Channel Model for Bit-Patterned Media Recording. IEEE Transactions on Magnetics, 2011, 47, 35-45.	1.2	35
14	Polar Code Constructions Based on LLR Evolution. IEEE Communications Letters, 2017, 21, 1221-1224.	2.5	34
15	Channel Models for Multi-Level Cell Flash Memories Based on Empirical Error Analysis. IEEE Transactions on Communications, 2016, 64, 3169-3181.	4.9	30
16	Multiple-write WOM-codes. , 2010, , .		29
17	Efficient Implementation of Linear Programming Decoding. IEEE Transactions on Information Theory, 2011, 57, 5960-5982.	1.5	28
18	Cyclic linear binary locally repairable codes. , 2015, , .		28

#	ARTICLE	IF	CITATIONS
19	Coding over Sets for DNA Storage. , 2018, , .		28
20	Adaptive Read Thresholds for NAND Flash. IEEE Transactions on Communications, 2015, 63, 3069-3081.	4.9	27
21	Constructions of Partial MDS Codes Over Small Fields. IEEE Transactions on Information Theory, 2019, 65, 3692-3701.	1.5	27
22	Multiple Error-Correcting WOM-Codes. IEEE Transactions on Information Theory, 2012, 58, 2220-2230.	1.5	25
23	Anchor-Based Correction of Substitutions in Indexed Sets. , 2019, , .		24
24	An Upper Bound on the Capacity of the DNA Storage Channel. , 2019, , .		22
25	Non-binary WOM-codes for multilevel flash memories. , 2011, , .		21
26	Lattice-Based WOM Codes for Multilevel Flash Memories. IEEE Journal on Selected Areas in Communications, 2014, 32, 933-945.	9.7	19
27	Graph-Based Decoding in the Presence of ISI. IEEE Transactions on Information Theory, 2011, 57, 2188-2202.	1.5	18
28	Bounds on the Minimum Distance of Punctured Quasi-Cyclic LDPC Codes. IEEE Transactions on Information Theory, 2013, 59, 4584-4597.	1.5	18
29	Permuted successive cancellation decoding for polar codes. , 2017, , .		16
30	Coding for Efficient DNA Synthesis. , 2020, , .		16
31	Error floor approximation for LDPC codes in the AWGN channel. , 2011, , .		15
32	Multihead Multitrack Detection for Next Generation Magnetic Recording, Part I: Weighted Sum Subtract Joint Detection With ITI Estimation. IEEE Transactions on Communications, 2017, 65, 1635-1648.	4.9	15
33	Optimal Parsing Trees for Run-Length Coding of Biased Data. IEEE Transactions on Information Theory, 2008, 54, 841-849.	1.5	11
34	Latency constrained protograph-based LDPC convolutional codes. , 2010, , .		11
35	On distance properties of quasi-cyclic protograph-based LDPC codes. , 2010, , .		11
36	Consecutive Switch Codes. IEEE Transactions on Information Theory, 2018, 64, 2485-2498.	1.5	10

#	ARTICLE	IF	CITATIONS
37	Generalized Partial Orders for Polar Code Bit-Channels. IEEE Transactions on Information Theory, 2019, 65, 7114-7130.	1.5	10
38	Achieving the Capacity of the DNA Storage Channel. , 2020, , .		10
39	On the parallel programming of flash memory cells. , 2010, , .		9
40	Numerical issues affecting LDPC error floors. , 2012, , .		9
41	Multihead multitrack detection in shingled magnetic recording with ITI estimation. , 2015, , .		9
42	Multi-erasure locally recoverable codes over small fields. , 2017, , .		9
43	Functional Error Correction for Robust Neural Networks. IEEE Journal on Selected Areas in Information Theory, 2020, 1, 267-276.	1.9	9
44	Periodic-Finite-Type Shift Spaces. IEEE Transactions on Information Theory, 2011, 57, 3677-3691.	1.5	8
45	Parallel programming of rank modulation. , 2013, , .		8
46	On the Capacity of the Beta-Binomial Channel Model for Multi-Level Cell Flash Memories. IEEE Journal on Selected Areas in Communications, 2016, 34, 2312-2324.	9.7	8
47	Multihead Multitrack Detection for Next Generation Magnetic Recording, Part II: Complexity Reduction Algorithms and Performance Analysis. IEEE Transactions on Communications, 2017, 65, 1649-1661.	4.9	8
48	Multi-Erasure Locally Recoverable Codes Over Small Fields: A Tensor Product Approach. IEEE Transactions on Information Theory, 2020, 66, 2609-2624.	1.5	8
49	Storage coding for wear leveling in flash memories. , 2009, , .		7
50	Shaping Codes for Structured Data. , 2016, , .		7
51	Rate-Constrained Shaping Codes for Structured Sources. IEEE Transactions on Information Theory, 2020, 66, 5261-5281.	1.5	7
52	PR-NN: RNN-Based Detection for Coded Partial-Response Channels. IEEE Journal on Selected Areas in Communications, 2021, 39, 1967-1982.	9.7	7
53	Single-Exclusion Number and the Stopping Redundancy of MDS Codes. IEEE Transactions on Information Theory, 2009, 55, 4155-4166.	1.5	5
54	Optimized Cell Programming for Flash Memories With Quantizers. IEEE Transactions on Information Theory, 2014, 60, 2780-2795.	1.5	5

#	ARTICLE	IF	CITATIONS
55	Coding schemes for inter-cell interference in flash memory. , 2015, , .		5
56	Generalized partial orders for polar code bit-channels. , 2017, , .		5
57	VARIABLE-LENGTH CODES AND FINITE AUTOMATA. Series on Coding Theory and Cryptology, 2010, , 505-584.	0.2	5
58	Universal Polar Coding for Asymmetric Channels. , 2018, , .		4
59	Generalized Weighted Sum Subtract Joint Detection for a Class of Multihead Multitrack Channels. IEEE Transactions on Magnetics, 2019, 55, 1-11.	1.2	4
60	Syndrome-Coupled Rate-Compatible Error-Correcting Codes: Theory and Application. IEEE Transactions on Information Theory, 2020, 66, 2311-2330.	1.5	4
61	On the Stopping Redundancy of MDS Codes. , 2006, , .		3
62	Efficient Algorithms to Find All Small Error-Prone Substructures in LDPC Codes. , 2011, , .		3
63	Consecutive switch codes. , 2016, , .		3
64	WOM with retained messages. , 2012, , .		2
65	Performance of optimal data shaping codes. , 2017, , .		2
66	Syndrome-coupled rate-compatible error-correcting codes. , 2017, , .		2
67	Ladder Codes: A Class of Error-Correcting Codes with Multi-Level Shared Redundancy. , 2018, , .		2
68	On Bi-Modal Constrained Coding. IEEE Transactions on Information Theory, 2021, 67, 1609-1621.	1.5	2
69	On the Capacity of DNA-based Data Storage under Substitution Errors. , 2021, , .		2
70	Performance of flash memories with different binary labelings: A multi-user perspective. , 2016, , .		1
71	Enhancing the Expected Lifetime of NAND Flash by Short $\leq q$ -Ary WOM Codes. IEEE Communications Letters, 2018, 22, 1302-1305.	2.5	1
72	On the Capacity of the Flash Memory Channel with Inter-cell Interference. , 2019, , .		1

#	ARTICLE	IF	CITATIONS
73	On Parity-Preserving Variable-Length Constrained Coding. , 2020, , .		1
74	Covering Codes Using Insertions or Deletions. IEEE Transactions on Information Theory, 2021, 67, 3376-3388.	1.5	1
75	Covering Codes for Insertions and Deletions. , 2020, , .		1
76	Polar Shaping Codes for Costly Noiseless and Noisy Channels. , 2021, , .		0
77	Variable-Length Constrained Coding and Kraft Conditions: The Parity-Preserving Case. IEEE Transactions on Information Theory, 2021, 67, 6179-6192.	1.5	0