

# 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  | Covering Codes Using Insertions or Deletions. IEEE Transactions on Information Theory, 2021, 67, 3376-3388.   | 1.5 | 1         |
| 2  | On Bi-Modal Constrained Coding. IEEE Transactions on Information Theory, 2021, 67, 1609-1621.   | 1.5 | 2         |
| 3  | PR-NN: RNN-Based Detection for Coded Partial-Response Channels. IEEE Journal on Selected Areas in Communications, 2021, 39, 1967-1982.              | 9.7 | 7         |
| 4  | Polar Shaping Codes for Costly Noiseless and Noisy Channels. , 2021, , .  |     | 0         |
| 5  | Variable-Length Constrained Coding and Kraft Conditions: The Parity-Preserving Case. IEEE Transactions on Information Theory, 2021, 67, 6179-6192.  | 1.5 | 0         |
| 6  | On the Capacity of DNA-based Data Storage under Substitution Errors. , 2021, , .  |     | 2         |
| 7  | Coding Over Sets for DNA Storage. IEEE Transactions on Information Theory, 2020, 66, 2331-2351.   | 1.5 | 47        |
| 8  | On Parity-Preserving Variable-Length Constrained Coding. , 2020, , .  |     | 1         |
| 9  | Rate-Constrained Shaping Codes for Structured Sources. IEEE Transactions on Information Theory, 2020, 66, 5261-5281.                                | 1.5 | 7         |
| 10 | Functional Error Correction for Robust Neural Networks. IEEE Journal on Selected Areas in Information Theory, 2020, 1, 267-276.                     | 1.9 | 9         |
| 11 | Coding for Efficient DNA Synthesis. , 2020, , .   |     | 16        |
| 12 | Multi-Erasure Locally Recoverable Codes Over Small Fields: A Tensor Product Approach. IEEE Transactions on Information Theory, 2020, 66, 2609-2624. | 1.5 | 8         |
| 13 | Syndrome-Coupled Rate-Compatible Error-Correcting Codes: Theory and Application. IEEE Transactions on Information Theory, 2020, 66, 2311-2330.      | 1.5 | 4         |
| 14 | Achieving the Capacity of the DNA Storage Channel. , 2020, , .  |     | 10        |
| 15 | Covering Codes for Insertions and Deletions. , 2020, , .  |     | 1         |
| 16 | Generalized Partial Orders for Polar Code Bit-Channels. IEEE Transactions on Information Theory, 2019, 65, 7114-7130.                               | 1.5 | 10        |
| 17 | Generalized Weighted Sum Subtract Joint Detection for a Class of Multihead Multitrack Channels. IEEE Transactions on Magnetics, 2019, 55, 1-11.     | 1.2 | 4         |
| 18 | Anchor-Based Correction of Substitutions in Indexed Sets. , 2019, , .   |     | 24        |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 19 | On the Capacity of the Flash Memory Channel with Inter-cell Interference. , 2019, , .   |     | 1         |
| 20 | An Upper Bound on the Capacity of the DNA Storage Channel. , 2019, , .  |     | 22        |
| 21 | Constructions of Partial MDS Codes Over Small Fields. IEEE Transactions on Information Theory, 2019, 65, 3692-3701.   | 1.5 | 27        |
| 22 | Consecutive Switch Codes. IEEE Transactions on Information Theory, 2018, 64, 2485-2498.   | 1.5 | 10        |
| 23 | Ladder Codes: A Class of Error-Correcting Codes with Multi-Level Shared Redundancy. , 2018, , .   |     | 2         |
| 24 | Universal Polar Coding for Asymmetric Channels. , 2018, , .   |     | 4         |
| 25 | Enhancing the Expected Lifetime of NAND Flash by Short $q$ -Ary WOM Codes. IEEE Communications Letters, 2018, 22, 1302-1305.  | 2.5 | 1         |
| 26 | Coding over Sets for DNA Storage. , 2018, , .   |     | 28        |
| 27 | Polar Code Constructions Based on LLR Evolution. IEEE Communications Letters, 2017, 21, 1221-1224.  | 2.5 | 34        |
| 28 | 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        |
| 29 | 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         |
| 30 | Permuted successive cancellation decoding for polar codes. , 2017, , .  |     | 16        |
| 31 | Generalized partial orders for polar code bit-channels. , 2017, , .   |     | 5         |
| 32 | Performance of optimal data shaping codes. , 2017, , .  |     | 2         |
| 33 | Syndrome-coupled rate-compatible error-correcting codes. , 2017, , .  |     | 2         |
| 34 | Multi-erasure locally recoverable codes over small fields. , 2017, , .  |     | 9         |
| 35 | Shaping Codes for Structured Data. , 2016, , .  |     | 7         |
| 36 | Channel Models for Multi-Level Cell Flash Memories Based on Empirical Error Analysis. IEEE Transactions on Communications, 2016, 64, 3169-3181.   | 4.9 | 30        |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 37 | 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         |
| 38 | Performance of flash memories with different binary labelings: A multi-user perspective. , 2016, , .   |     | 1         |
| 39 | Consecutive switch codes. , 2016, , .  |     | 3         |
| 40 | Linear locally repairable codes with availability. , 2015, , .   |     | 39        |
| 41 | Multihead multitrack detection in shingled magnetic recording with ITI estimation. , 2015, , .   |     | 9         |
| 42 | Coding schemes for inter-cell interference in flash memory. , 2015, , .  |     | 5         |
| 43 | Cyclic linear binary locally repairable codes. , 2015, , .   |     | 28        |
| 44 | Error analysis and inter-cell interference mitigation in multi-level cell flash memories. , 2015, , .  |     | 38        |
| 45 | Adaptive Read Thresholds for NAND Flash. IEEE Transactions on Communications, 2015, 63, 3069-3081.   | 4.9 | 27        |
| 46 | Quantized Iterative Message Passing Decoders with Low Error Floor for LDPC Codes. IEEE Transactions on Communications, 2014, 62, 1-14.                           | 4.9 | 69        |
| 47 | Optimized Cell Programming for Flash Memories With Quantizers. IEEE Transactions on Information Theory, 2014, 60, 2780-2795.                                     | 1.5 | 5         |
| 48 | Lattice-Based WOM Codes for Multilevel Flash Memories. IEEE Journal on Selected Areas in Communications, 2014, 32, 933-945.                                      | 9.7 | 19        |
| 49 | Error Floor Approximation for LDPC Codes in the AWGN Channel. IEEE Transactions on Information Theory, 2014, 60, 7416-7441.                                      | 1.5 | 58        |
| 50 | Bounds on the Minimum Distance of Punctured Quasi-Cyclic LDPC Codes. IEEE Transactions on Information Theory, 2013, 59, 4584-4597.                               | 1.5 | 18        |
| 51 | Parallel programming of rank modulation. , 2013, , .   |     | 8         |
| 52 | Numerical issues affecting LDPC error floors. , 2012, , .  |     | 9         |
| 53 | WOM with retained messages. , 2012, , .  |     | 2         |
| 54 | 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        |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 55 | Codes for Write-Once Memories. IEEE Transactions on Information Theory, 2012, 58, 5985-5999.  | 1.5 | 54        |
| 56 | Multiple Error-Correcting WOM-Codes. IEEE Transactions on Information Theory, 2012, 58, 2220-2230.  | 1.5 | 25        |
| 57 | Windowed Decoding of Protograph-Based LDPC Convolutional Codes Over Erasure Channels. IEEE Transactions on Information Theory, 2012, 58, 2303-2320. | 1.5 | 182       |
| 58 | Non-binary WOM-codes for multilevel flash memories. , 2011, , .   |     | 21        |
| 59 | Error floor approximation for LDPC codes in the AWGN channel. , 2011, , .   |     | 15        |
| 60 | Write Channel Model for Bit-Patterned Media Recording. IEEE Transactions on Magnetics, 2011, 47, 35-45.   | 1.2 | 35        |
| 61 | Graph-Based Decoding in the Presence of ISI. IEEE Transactions on Information Theory, 2011, 57, 2188-2202.  | 1.5 | 18        |
| 62 | Periodic-Finite-Type Shift Spaces. IEEE Transactions on Information Theory, 2011, 57, 3677-3691.  | 1.5 | 8         |
| 63 | Efficient Implementation of Linear Programming Decoding. IEEE Transactions on Information Theory, 2011, 57, 5960-5982.                              | 1.5 | 28        |
| 64 | Efficient Algorithms to Find All Small Error-Prone Substructures in LDPC Codes. , 2011, , .   |     | 3         |
| 65 | Joint-Track Equalization and Detection for Bit Patterned Media Recording. IEEE Transactions on Magnetics, 2010, 46, 3639-3647.                      | 1.2 | 65        |
| 66 | Efficient two-write WOM-codes. , 2010, , .  |     | 36        |
| 67 | Multiple-write WOM-codes. , 2010, , .   |     | 29        |
| 68 | On the parallel programming of flash memory cells. , 2010, , .  |     | 9         |
| 69 | Latency constrained protograph-based LDPC convolutional codes. , 2010, , .  |     | 11        |
| 70 | On distance properties of quasi-cyclic protograph-based LDPC codes. , 2010, , .   |     | 11        |
| 71 | VARIABLE-LENGTH CODES AND FINITE AUTOMATA. Series on Coding Theory and Cryptology, 2010, , 505-584.   | 0.2 | 5         |
| 72 | Storage coding for wear leveling in flash memories. , 2009, , .   |     | 7         |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 73 | Single-Exclusion Number and the Stopping Redundancy of MDS Codes. IEEE Transactions on Information Theory, 2009, 55, 4155-4166.   | 1.5 | 5         |
| 74 | Optimal Parsing Trees for Run-Length Coding of Biased Data. IEEE Transactions on Information Theory, 2008, 54, 841-849.   | 1.5 | 11        |
| 75 | Adaptive Methods for Linear Programming Decoding. IEEE Transactions on Information Theory, 2008, 54, 5396-5410.   | 1.5 | 96        |
| 76 | 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        |
| 77 | On the Stopping Redundancy of MDS Codes. , 2006, , .  |     | 3         |