# Suhas N Diggavi

List of Publications by Year
in descending order



| | | | |
|---|---|---|---|
| 120 papers | 3,852 citations | 257450 24 h-index | 155660 55 g-index |
| 120 all docs | 120 docs citations | 120 times ranked | 2395 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Distortion-Based Lightweight Security for Cyber-Physical Systems. IEEE Transactions on Automatic Control, 2021, 66, 1588-1601. | 5.7 | 4 |
| 2 | QAlign: aligning nanopore reads accurately using current-level modeling. Bioinformatics, 2021, 37, 625-633. | 4.1 | 7 |
| 3 | Joy Thomas: legacy, foundation and the IT society. IEEE BITS the Information Theory Magazine, 2021, , 1-1. | 1.6 | 0 |
| 4 | Data Encoding for Byzantine-Resilient Distributed Optimization. IEEE Transactions on Information Theory, 2021, 67, 1117-1140. | 2.4 | 11 |
| 5 | Shuffled Model of Federated Learning: Privacy, Accuracy and Communication Trade-Offs. IEEE Journal on Selected Areas in Information Theory, 2021, 2, 464-478. | 2.5 | 23 |
| 6 | Group testing for overlapping communities. , 2021, , . | | 18 |
| 7 | Algorithms for Reconstruction Over Single and Multiple Deletion Channels. IEEE Transactions on Information Theory, 2021, 67, 3389-3410. | 2.4 | 5 |
| 8 | Byzantine-Resilient SGD in High Dimensions on Heterogeneous Data. , 2021, , . | | 5 |
| 9 | An entropy reduction approach to continual testing. , 2021, , . | | 11 |
| 10 | Quantization of Distributed Data for Learning. IEEE Journal on Selected Areas in Information Theory, 2021, 2, 987-1001. | 2.5 | 13 |
| 11 | SQuARM-SGD: Communication-Efficient Momentum SGD for Decentralized Optimization. IEEE Journal on Selected Areas in Information Theory, 2021, 2, 954-969. | 2.5 | 13 |
| 12 | Group Testing for Community Infections. IEEE BITS the Information Theory Magazine, 2021, 1, 57-68. | 1.6 | 2 |
| 13 | "Wireless Paint": Code Design for 3D Orientation Estimation with Backscatter Arrays. , 2020, , . | | 2 |
| 14 | Equivalence of ML decoding to a continuous optimization problem. , 2020, , . | | 2 |
| 15 | On Distributed Quantization for Classification. IEEE Journal on Selected Areas in Information Theory, 2020, 1, 237-249. | 2.5 | 11 |
| 16 | Qsparse-Local-SGD: Distributed SGD With Quantization, Sparsification, and Local Computations. IEEE Journal on Selected Areas in Information Theory, 2020, 1, 217-226. | 2.5 | 59 |
| 17 | Generalized Degrees of Freedom of Noncoherent Diamond Networks. IEEE Transactions on Information Theory, 2020, 66, 5228-5260. | 2.4 | 2 |
| 18 | Generalized Degrees Freedom of Noncoherent MIMO Channels With Asymmetric Link Strengths. IEEE Transactions on Information Theory, 2020, 66, 4431-4448. | 2.4 | 1 |

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| 19 | Securing state reconstruction under sensor and actuator attacks: Theory and design. Automatica, 2020, 116, 108920. | 5.0 | 27 |
| 20 | Successive Refinement of Privacy. IEEE Journal on Selected Areas in Information Theory, 2020, 1, 745-759. | 2.5 | 2 |
| 21 | Using mm-Waves for Secret Key Establishment. IEEE Communications Letters, 2019, 23, 1077-1080. | 4.1 | 2 |
| 22 | Symbolwise MAP for Multiple Deletion Channels. , 2019, , . | | 10 |
| 23 | Data Encoding Methods for Byzantine-Resilient Distributed Optimization. , 2019, , . | | 12 |
| 24 | Byzantine-Tolerant Distributed Coordinate Descent. , 2019, , . | | 5 |
| 25 | Models and Information-Theoretic Bounds for Nanopore Sequencing. IEEE Transactions on Information Theory, 2018, 64, 3216-3236. | 2.4 | 25 |
| 26 | Design and Analysis of Stability-Guaranteed PUFs. IEEE Transactions on Information Forensics and Security, 2018, 13, 978-992. | 6.9 | 29 |
| 27 | Degrees of Freedom of Cache-Aided Wireless Interference Networks. IEEE Transactions on Information Theory, 2018, 64, 5359-5380. | 2.4 | 57 |
| 28 | Caching With Partial Adaptive Matching. IEEE Journal on Selected Areas in Communications, 2018, 36, 1831-1842. | 14.0 | 3 |
| 29 | Distorting an Adversary's View in Cyber-Physical Systems. , 2018, , . | | 4 |
| 30 | Toward an Internet of Battlefield Things: A Resilience Perspective. Computer, 2018, 51, 24-36. | 1.1 | 48 |
| 31 | Data Encoding for Byzantine-Resilient Distributed Gradient Descent. , 2018, , . | | 5 |
| 32 | Protecting the Privacy of Networked Multi-Agent Systems Controlled over the Cloud. , 2018, , . | | 5 |
| 33 | Sybil Attack Resilient Traffic Networks: A Physics-Based Trust Propagation Approach. , 2018, , . | | 13 |
| 34 | Energy-Efficiency Gains of Caching for Interference Channels. IEEE Communications Letters, 2018, 22, 1434-1437. | 4.1 | 3 |
| 35 | Will Distributed Computing Revolutionize Peace? The Emergence of Battlefield IoT. , 2018, , . | | 17 |
| 36 | On Maximum Likelihood Reconstruction over Multiple Deletion Channels. , 2018, , . | | 21 |

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| 37 | Approximate Capacity of Fast Fading Interference Channels With no Instantaneous CSIT. IEEE Transactions on Communications, 2018, 66, 6015-6027. | 7.8 | 3 |
| 38 | Harnessing Bursty Interference in Multicarrier Systems With Output Feedback. IEEE Transactions on Information Theory, 2017, 63, 4430-4452. | 2.4 | 10 |
| 39 | Matched Multiuser Gaussian Source Channel Communications via Uncoded Schemes. IEEE Transactions on Information Theory, 2017, 63, 4155-4171. | 2.4 | 15 |
| 40 | Wiretapped Oblivious Transfer. IEEE Transactions on Information Theory, 2017, 63, 2560-2595. | 2.4 | 3 |
| 41 | Enhancing Multiuser MIMO Through Opportunistic D2D Cooperation. IEEE Transactions on Wireless Communications, 2017, 16, 5616-5629. | 9.2 | 12 |
| 42 | On capacity of noncoherent MIMO with asymmetric link strengths. , 2017, , . | | 5 |
| 43 | Secure State Estimation Against Sensor Attacks in the Presence of Noise. IEEE Transactions on Control of Network Systems, 2017, 4, 49-59. | 3.7 | 100 |
| 44 | Multi-Party Secret Key Agreement Over State-Dependent Wireless Broadcast Channels. IEEE Transactions on Information Forensics and Security, 2017, 12, 323-337. | 6.9 | 6 |
| 45 | A distortion based approach for protecting inferences. , 2017, , . | | 4 |
| 46 | Models and information-theoretic bounds for nanopore sequencing. , 2017, , . | | 8 |
| 47 | Implementation of stable PUFs using gate oxide breakdown. , 2017, , . | | 3 |
| 48 | LEDPUF: Stability-guaranteed physical unclonable functions through locally enhanced defectivity. , 2016, , . | | 11 |
| 49 | Secure system identification. , 2016, , . | | 1 |
| 50 | System identification in the presence of adversarial outputs. , 2016, , . | | 8 |
| 51 | An LP Characterization of the Secret-message Capacity of Three Erasure Networks With Feedback. IEEE Transactions on Information Theory, 2016, 62, 2430-2480. | 2.4 | 0 |
| 52 | Hierarchical Coded Caching. IEEE Transactions on Information Theory, 2016, 62, 3212-3229. | 2.4 | 174 |
| 53 | Capacity Results for Multicasting Nested Message Sets Over Combination Networks. IEEE Transactions on Information Theory, 2016, 62, 4968-4992. | 2.4 | 6 |
| 54 | An Approximation Approach to Network Information Theory. Foundations and Trends in Communications and Information Theory, 2015, 12, 1-183. | 3.1 | 15 |

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| 55 | Rate splitting is approximately optimal for fading Gaussian interference channels. , 2015, , . | | 7 |
| 56 | Hierarchical routing over dynamic wireless networks. Random Structures and Algorithms, 2015, 47, 669-709. | 1.1 | 1 |
| 57 | Secure Network Coding With Erasures and Feedback. IEEE Transactions on Information Theory, 2015, 61, 1667-1686. | 2.4 | 9 |
| 58 | When Are Dynamic Relaying Strategies Necessary in Half-Duplex Wireless Networks?. IEEE Transactions on Information Theory, 2015, 61, 1720-1738. | 2.4 | 13 |
| 59 | Gaussian Interference Channel With Intermittent Feedback. IEEE Transactions on Information Theory, 2015, 61, 4663-4699. | 2.4 | 10 |
| 60 | Wireless Network Security: Building on Erasures. Proceedings of the IEEE, 2015, 103, 1826-1840. | 21.3 | 4 |
| 61 | Secret Communication Over Broadcast Erasure Channels With State-Feedback. IEEE Transactions on Information Theory, 2015, 61, 4788-4808. | 2.4 | 11 |
| 62 | Secure Estimation and Control for Cyber-Physical Systems Under Adversarial Attacks. IEEE Transactions on Automatic Control, 2014, 59, 1454-1467. | 5.7 | 958 |
| 63 | An achievable rate region for Gaussian interference channel with intermittent feedback. , 2013, , . | | 1 |
| 64 | Approximately Achieving Gaussian Relay Network Capacity With Lattice-Based QMF Codes. IEEE Transactions on Information Theory, 2013, 59, 8275-8294. | 2.4 | 42 |
| 65 | Computation over Mismatched Channels. IEEE Journal on Selected Areas in Communications, 2013, 31, 666-677. | 14.0 | 14 |
| 66 | The Approximate Capacity of the Gaussian $N$-Relay Diamond Network. IEEE Transactions on Information Theory, 2013, 59, 845-859. | 2.4 | 29 |
| 67 | Security for control systems under sensor and actuator attacks. , 2012, , . | | 41 |
| 68 | Convex optimization for precoder design in MIMO interference networks. , 2012, , . | | 5 |
| 69 | Secret-Key Generation Using Correlated Sources and Channels. IEEE Transactions on Information Theory, 2012, 58, 652-670. | 2.4 | 49 |
| 70 | Subspace Properties of Network Coding and Their Applications. IEEE Transactions on Information Theory, 2012, 58, 2599-2619. | 2.4 | 13 |
| 71 | On the Maximum Achievable Sum-Rate With Successive Decoding in Interference Channels. IEEE Transactions on Information Theory, 2012, 58, 3798-3820. | 2.4 | 33 |
| 72 | Secret-Key Agreement With Channel State Information at the Transmitter. IEEE Transactions on Information Forensics and Security, 2011, 6, 672-681. | 6.9 | 49 |

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| 73 | Secure state-estimation for dynamical systems under active adversaries. , 2011, , . | | 92 |
| 74 | Approximate Characterizations for the Gaussian Source Broadcast Distortion Region. IEEE Transactions on Information Theory, 2011, 57, 124-136. | 2.4 | 21 |
| 75 | On the Capacity of Noncoherent Network Coding. IEEE Transactions on Information Theory, 2011, 57, 1046-1066. | 2.4 | 33 |
| 76 | Wireless Network Information Flow: A Deterministic Approach. IEEE Transactions on Information Theory, 2011, 57, 1872-1905. | 2.4 | 691 |
| 77 | Approximate Capacity of a Class of Gaussian Interference-Relay Networks. IEEE Transactions on Information Theory, 2011, 57, 2837-2864. | 2.4 | 54 |
| 78 | The Achievable Distortion Region of Sending a Bivariate Gaussian Source on the Gaussian Broadcast Channel. IEEE Transactions on Information Theory, 2011, 57, 6419-6427. | 2.4 | 40 |
| 79 | On the sum-capacity with successive decoding in interference channels. , 2011, , . | | 4 |
| 80 | A remark on secret-key generation over correlated fading channels. , 2011, , . | | 5 |
| 81 | Network resource allocation for competing multiple description transmissions. IEEE Transactions on Communications, 2010, 58, 1493-1504. | 7.8 | 5 |
| 82 | Asymmetric Multilevel Diversity Coding and Asymmetric Gaussian Multiple Descriptions. IEEE Transactions on Information Theory, 2010, 56, 4367-4387. | 2.4 | 25 |
| 83 | Facebrowsing: Search and navigation through comparisons. , 2010, , . | | 3 |
| 84 | Approximately achieving Gaussian relay network capacity with lattice codes. , 2010, , . | | 66 |
| 85 | Non-coherent hierarchical cooperation. , 2010, , . | | 1 |
| 86 | Multiple Description Coding for Stationary Gaussian Sources. IEEE Transactions on Information Theory, 2009, 55, 2868-2881. | 2.4 | 9 |
| 87 | Approximating the Gaussian Multiple Description Rate Region Under Symmetric Distortion Constraints. IEEE Transactions on Information Theory, 2009, 55, 3869-3891. | 2.4 | 41 |
| 88 | Optimal Rate-Reliability-Delay Tradeoff in Networks with Composite Links. IEEE Transactions on Communications, 2009, 57, 1390-1401. | 7.8 | 26 |
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| 90 | On the capacity of multisource non-coherent network coding. , 2009, , . | | 10 |

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| 91 | A deterministic approach to wireless network error correction. , 2009, , . | | 0 |
| 92 | Network Coding for Undirected Information Exchange. IEEE Communications Letters, 2009, 13, 25-27. | 4.1 | 3 |
| 93 | Diversity Embedded Codes: Theory and Practice. IEEE Journal on Selected Topics in Signal Processing, 2008, 2, 202-219. | 10.8 | 5 |
| 94 | Introduction to the Issue on MIMO-Optimized Transmission Systems for Delivering Data and Rich Content. IEEE Journal on Selected Topics in Signal Processing, 2008, 2, 121-123. | 10.8 | 0 |
| 95 | Diversity Embedded Spaceâ€“Time Codes. IEEE Transactions on Information Theory, 2008, 54, 33-50. | 2.4 | 42 |
| 96 | Multiuser Successive Refinement and Multiple Description Coding. IEEE Transactions on Information Theory, 2008, 54, 921-931. | 2.4 | 5 |
| 97 | Side-Information Scalable Source Coding. IEEE Transactions on Information Theory, 2008, 54, 5591-5608. | 2.4 | 41 |
| 98 | Successive Refinement Via Broadcast: Optimizing Expected Distortion of a Gaussian Source Over a Gaussian Fading Channel. IEEE Transactions on Information Theory, 2008, 54, 2903-2918. | 2.4 | 66 |
| 99 | Embedded Rank Distance Codes for ISI Channels. IEEE Transactions on Information Theory, 2008, 54, 4866-4886. | 2.4 | 5 |
| 100 | Transmission techniques for relay-interference networks. , 2008, , . | | 81 |
| 101 | Approximate Characterization of Capacity in Gaussian Relay Networks. , 2008, , . | | 3 |
| 102 | Compound Gaussian multiple access channels with noisy feedback. , 2008, , . | | 2 |
| 103 | Information flow over compound wireless relay networks. , 2008, , . | | 4 |
| 104 | Asymmetric Multi-level Diversity Coding. Proceedings of the Data Compression Conference, 2008, , . | 0.0 | 4 |
| 105 | Approximate capacity of Gaussian relay networks. , 2008, , . | | 77 |
| 106 | On Locating Byzantine Attackers. , 2008, , . | | 26 |
| 107 | Network Resource Allocation for Competing Multiple Description Transmissions. , 2008, , . | | 4 |
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| 109 | Hierarchical routing over dynamic wireless networks. Performance Evaluation Review, 2008, 36, 73-84. | 0.6 | 1 |
| 110 | Capacity Upper Bounds for the Deletion Channel. , 2007, , . | | 50 |
| 111 | On Scalable Source Coding With Decoder Side Informations. , 2007, , . | | 3 |
| 112 | Expected Distortion for Gaussian Source with a Broadcast Transmission Strategy over a Fading Channel. , 2007, , . | | 5 |
| 113 | A Deterministic Model for Wreless Relay Networks an its Capacity. , 2007, , . | | 17 |
| 114 | Robust Routing for Dynamic Wireless Networks Based on Stable Embeddings. , 2007, , . | | 1 |
| 115 | Subspace Properties of Randomized Network Coding. , 2007, , . | | 27 |
| 116 | On Multistage Successive Refinement for Wynerâ€“Ziv Source Coding With Degraded Side Informations. IEEE Transactions on Information Theory, 2007, 53, 2946-2960. | 2.4 | 56 |
| 117 | On the Role of Encoder Side-Information in Source Coding for Multiple Decoders. , 2006, , . | | 10 |
| 118 | Multistage successive refinement for Wyner-Ziv source coding with degraded side informations. , 2006, , . | | 10 |
| 119 | A Calculation of the Heegard-Berger Rate-distortion Function for a Binary Source. , 2006, , . | | 3 |
| 120 | Multiuser Successive Refinement and Multiple Description Coding. , 2006, , . | | 1 |