

# Dongning Guo

## List of Publications by Year in descending order

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Version: 2024-02-01

107  
papers

6,073  
citations

201674

27  
h-index

189892

50  
g-index

108  
all docs

108  
docs citations

108  
times ranked

4296  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | Applications and Techniques for Fast Machine Learning in Science. <i>Frontiers in Big Data</i> , 2022, 5, 787421.   | 2.9  | 20        |
| 2  | Deep Reinforcement Learning for Joint Spectrum and Power Allocation in Cellular Networks. , 2021, , .   |      | 17        |
| 3  | Joint Routing and Resource Allocation for Millimeter Wave Picocellular Backhaul. <i>IEEE Transactions on Wireless Communications</i> , 2020, 19, 783-794.                 | 9.2  | 22        |
| 4  | Liveness and Consistency of Bitcoin and Prism Blockchains: The Non-lockstep Synchronous Case. , 2020, , .   |      | 4         |
| 5  | Scheduling for Cellular Federated Edge Learning With Importance and Channel Awareness. <i>IEEE Transactions on Wireless Communications</i> , 2020, 19, 7690-7703.         | 9.2  | 128       |
| 6  | Grant-Free NOMA with Device Activity Learning Using Long Short-Term Memory. <i>IEEE Wireless Communications Letters</i> , 2020, , 1-1.                                    | 5.0  | 21        |
| 7  | Importance- and Channel-Aware Scheduling in Cellular Federated Edge Learning. , 2020, , .   |      | 1         |
| 8  | Deep Actor-Critic Learning for Distributed Power Control in Wireless Mobile Networks. , 2020, , .   |      | 13        |
| 9  | Multi-Agent Deep Reinforcement Learning for Dynamic Power Allocation in Wireless Networks. <i>IEEE Journal on Selected Areas in Communications</i> , 2019, 37, 2239-2250. | 14.0 | 357       |
| 10 | Asynchronous Neighbor Discovery Using Coupled Compressive Sensing. , 2019, , .  |      | 21        |
| 11 | Beam Acquisition and Training in Millimeter Wave Networks With Narrowband Pilots. <i>IEEE Journal on Selected Areas in Communications</i> , 2019, 37, 2759-2771.          | 14.0 | 9         |
| 12 | Resource Allocation in Public Safety Broadband Networks With Rapid-Deployment Access Points. <i>IEEE Transactions on Vehicular Technology</i> , 2018, 67, 1660-1671.      | 6.3  | 6         |
| 13 | Network Localization and Synchronization Using Full-Duplex Radios. <i>IEEE Transactions on Signal Processing</i> , 2018, 66, 714-728.                                     | 5.3  | 40        |
| 14 | Initial Access and Beamforming in Multi-cell mmWave Networks Using Narrowband Pilots. , 2018, , .   |      | 1         |
| 15 | Large-Scale Spectrum Allocation for Cellular Networks via Sparse Optimization. <i>IEEE Transactions on Signal Processing</i> , 2018, 66, 5470-5483.                       | 5.3  | 8         |
| 16 | Multiuser Simultaneous Two-Way Ranging. <i>IEEE Transactions on Wireless Communications</i> , 2018, 17, 5107-5119.  | 9.2  | 2         |
| 17 | Sharing of Unlicensed Spectrum by Strategic Operators. <i>IEEE Journal on Selected Areas in Communications</i> , 2017, 35, 668-679.                                       | 14.0 | 27        |
| 18 | Licensed and Unlicensed Spectrum Allocation in Heterogeneous Networks. <i>IEEE Transactions on Communications</i> , 2017, 65, 1815-1827.                                  | 7.8  | 28        |

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 19 | Capacity of Gaussian Many-Access Channels. IEEE Transactions on Information Theory, 2017, 63, 3516-3539.  | 2.4  | 97        |
| 20 | Scalable Spectrum Allocation and User Association in Networks With Many Small Cells. IEEE Transactions on Communications, 2017, 65, 2931-2942.                              | 7.8  | 21        |
| 21 | Sparse Channel Estimation for Massive MIMO with 1-Bit Feedback Per Dimension. , 2017, , .   |      | 12        |
| 22 | 1000-Cell Global Spectrum Management. , 2017, , .   |      | 7         |
| 23 | Localization and synchronization in wireless networks using full-duplex radios. , 2017, , .   |      | 2         |
| 24 | Cloud-based resource allocation and cooperative transmission in large cellular networks. , 2017, , .  |      | 0         |
| 25 | Public Safety Broadband Network with Rapid-deployment Base Stations. , 2016, , 173-198.   |      | 5         |
| 26 | Allocation of licensed and unlicensed spectrum in heterogeneous networks. , 2016, , .   |      | 5         |
| 27 | Energy-Efficient Cell Activation, User Association, and Spectrum Allocation in Heterogeneous Networks. IEEE Journal on Selected Areas in Communications, 2016, 34, 823-831. | 14.0 | 95        |
| 28 | A generalized LDPC framework for robust and sublinear compressive sensing. , 2016, , .  |      | 3         |
| 29 | Multiuser two-way ranging. , 2016, , .  |      | 6         |
| 30 | Tracking angles of departure and arrival in a mobile millimeter wave channel. , 2016, , .   |      | 124       |
| 31 | Maximizing Mobile Coverage via Optimal Deployment of Base Stations and Relays. IEEE Transactions on Vehicular Technology, 2016, 65, 5060-5072.                              | 6.3  | 18        |
| 32 | Resource management in 5G: A tale of two timescales. , 2015, , .  |      | 11        |
| 33 | Interference-aware routing and spectrum allocation for millimeter wave backhaul in urban picocells. , 2015, , .   |      | 7         |
| 34 | Robust sublinear complexity Walsh-Hadamard transform with arbitrary sparse support. , 2015, , .   |      | 5         |
| 35 | The public safety wireless broadband network with airdropped sensors. , 2015, , .   |      | 7         |
| 36 | Drone-assisted public safety wireless broadband network. , 2015, , .  |      | 57        |

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|----|---|------|-----------|
| 37 | Distributed Bi-Directional Training of Nonlinear Precoders and Receivers in Cellular Networks. IEEE Transactions on Signal Processing, 2015, 63, 5597-5608. | 5.3  | 8         |
| 38 | Traffic-Driven Spectrum Allocation in Heterogeneous Networks. IEEE Journal on Selected Areas in Communications, 2015, 33, 2027-2038.                        | 14.0 | 47        |
| 39 | Virtual Full Duplex Wireless Broadcasting via Compressed Sensing. IEEE/ACM Transactions on Networking, 2014, 22, 1659-1671.                                 | 3.8  | 33        |
| 40 | Many-broadcast channels: Definition and capacity in the degraded case. , 2014, , .  |      | 7         |
| 41 | Repurposing Blu-ray movie discs as quasi-random nanoimprinting templates for photon management. Nature Communications, 2014, 5, 5517.                       | 12.8 | 57        |
| 42 | Traffic driven resource allocation in heterogenous wireless networks. , 2014, , .   |      | 7         |
| 43 | Information-Estimation Relationships Over Binomial and Negative Binomial Models. IEEE Transactions on Information Theory, 2014, 60, 2630-2646.              | 2.4  | 8         |
| 44 | In-Band Full-Duplex Wireless: Challenges and Opportunities. IEEE Journal on Selected Areas in Communications, 2014, 32, 1637-1652.                          | 14.0 | 1,720     |
| 45 | Wireless MIMO Switching: Weighted Sum Mean Square Error and Sum Rate Optimization. IEEE Transactions on Information Theory, 2013, 59, 5297-5312.            | 2.4  | 33        |
| 46 | Downlink Noncoherent Cooperation without Transmitter Phase Alignment. IEEE Transactions on Wireless Communications, 2013, 12, 3920-3931.                    | 9.2  | 5         |
| 47 | Neighbor discovery for wireless networks via compressed sensing. Performance Evaluation, 2013, 70, 457-471.   | 1.2  | 43        |
| 48 | On information-Estimation relationships over binomial and negative binomial models. , 2013, , .   |      | 3         |
| 49 | Multicarrier Beamforming With Limited Feedback: A Rate Distortion Approach. IEEE Transactions on Information Theory, 2013, 59, 916-927.                     | 2.4  | 4         |
| 50 | Error Exponent for Gaussian Channels With Partial Sequential Feedback. IEEE Transactions on Information Theory, 2013, 59, 4757-4766.                        | 2.4  | 7         |
| 51 | Throughput and Stability for Relay-Assisted Wireless Broadcast with Network Coding. IEEE Journal on Selected Areas in Communications, 2013, 31, 1506-1516.  | 14.0 | 20        |
| 52 | The public safety broadband network: A novel architecture with mobile base stations. , 2013, , .  |      | 17        |
| 53 | Wireless MIMO switching: Sum rate optimization. , 2013, , .   |      | 0         |
| 54 | On the capacity-achieving input for additive inverse Gaussian channels. , 2013, , .   |      | 2         |

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|----|---|------|-----------|
| 55 | Entropy functions and determinant inequalities. , 2012, , .   |      | 2         |
| 56 | Wireless MIMO Switching with Zero Forcing and Network Coding. IEEE Journal on Selected Areas in Communications, 2012, 30, 1452-1463.                                      | 14.0 | 22        |
| 57 | Bidirectional channel estimation using adaptive pilots. , 2012, , .   |      | 2         |
| 58 | Energy management of dense wireless heterogeneous networks over slow timescales. , 2012, , .  |      | 5         |
| 59 | The Degrees of Freedom of Isotropic MIMO Interference Channels Without State Information at the Transmitters. IEEE Transactions on Information Theory, 2012, 58, 341-352. | 2.4  | 53        |
| 60 | Spatial Interference Cancellation for Multiantenna Mobile Ad Hoc Networks. IEEE Transactions on Information Theory, 2012, 58, 1660-1676.                                  | 2.4  | 133       |
| 61 | Wireless MIMO switching with zero-forcing relaying. , 2011, , .   |      | 9         |
| 62 | Joint Channel Probing and Proportional Fair Scheduling in Wireless Networks. IEEE Transactions on Wireless Communications, 2011, 10, 3496-3505.                           | 9.2  | 5         |
| 63 | Uplink-downlink bidirectional training of multiuser MIMO filters and precoders. , 2011, , .   |      | 2         |
| 64 | Estimation in Gaussian Noise: Properties of the Minimum Mean-Square Error. IEEE Transactions on Information Theory, 2011, 57, 2371-2385.                                  | 2.4  | 186       |
| 65 | Ergodic Fading Z-Interference Channels Without State Information at Transmitters. IEEE Transactions on Information Theory, 2011, 57, 2627-2647.                           | 2.4  | 30        |
| 66 | Derivative of Mutual Information at Zero SNR: The Gaussian-Noise Case. IEEE Transactions on Information Theory, 2011, 57, 7307-7312.                                      | 2.4  | 4         |
| 67 | Neighbor discovery in wireless networks using compressed sensing with Reed-Muller codes. , 2011, , .  |      | 18        |
| 68 | Exploiting peer-to-peer state exchange for distributed medium access control. , 2011, , .   |      | 2         |
| 69 | Wireless peer-to-peer mutual broadcast via sparse recovery. , 2011, , .   |      | 6         |
| 70 | Statistical Physics of Signal Estimation in Gaussian Noise: Theory and Examples of Phase Transitions. IEEE Transactions on Information Theory, 2010, 56, 1400-1416.       | 2.4  | 40        |
| 71 | Limited-Rate Channel State Feedback for Multicarrier Block Fading Channels. IEEE Transactions on Information Theory, 2010, 56, 6116-6132.                                 | 2.4  | 9         |
| 72 | The maximum stable broadcast throughput for wireless line networks with network coding and topology control. , 2010, , .  |      | 2         |

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|----|---|------|-----------|
| 73 | Virtual full-duplex wireless communication via rapid on-off-division duplex. , 2010, , .  |      | 31        |
| 74 | On the capacity region of fading Z-interference channels without CSIT. , 2010, , .  |      | 3         |
| 75 | Capacity region of layered erasure one-sided interference channels without CSIT. , 2010, , .  |      | 3         |
| 76 | Compressed neighbor discovery for wireless ad hoc networks: The Rayleigh fading case. , 2009, , .   |      | 15        |
| 77 | On the Entropy Rate of Hidden Markov Processes Observed Through Arbitrary Memoryless Channels. IEEE Transactions on Information Theory, 2009, 55, 1460-1467.      | 2.4  | 17        |
| 78 | A message-passing approach for joint channel estimation, interference mitigation, and decoding. IEEE Transactions on Wireless Communications, 2009, 8, 6008-6018. | 9.2  | 45        |
| 79 | A single-letter characterization of optimal noisy compressed sensing. , 2009, , .   |      | 35        |
| 80 | Relative entropy and score function: New information-estimation relationships through arbitrary additive perturbation. , 2009, , .                                |      | 24        |
| 81 | Limited feedback for multicarrier block fading channels: A rate distortion approach. , 2009, , .  |      | 2         |
| 82 | Mutual Information and Conditional Mean Estimation in Poisson Channels. IEEE Transactions on Information Theory, 2008, 54, 1837-1849.                             | 2.4  | 81        |
| 83 | Multiuser Detection of Sparsely Spread CDMA. IEEE Journal on Selected Areas in Communications, 2008, 26, 421-431.   | 14.0 | 127       |
| 84 | Vector Precoding for Wireless MIMO Systems and its Replica Analysis. IEEE Journal on Selected Areas in Communications, 2008, 26, 530-540.                         | 14.0 | 73        |
| 85 | Throughput Optimal Control for Relay-Assisted Wireless Broadcast with Network Coding. , 2008, , .   |      | 16        |
| 86 | Neighbor discovery in wireless ad hoc networks based on group testing. , 2008, , .  |      | 27        |
| 87 | Channel State and Receiver State feedback for frequency-selective block fading channels. , 2008, , .  |      | 1         |
| 88 | On the entropy and filtering of hidden Markov processes observed through arbitrary memoryless channels. , 2008, , .   |      | 0         |
| 89 | Estimation of non-Gaussian random variables in Gaussian noise: Properties of the MMSE. , 2008, , .  |      | 38        |
| 90 | A Unified Approach to Power control in Large Energy-Constrained CDMS Systems. IEEE Transactions on Wireless Communications, 2008, 7, 1208-1216.                   | 9.2  | 27        |

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|-----|---|------|-----------|
| 91  | On the delay and throughput of digital and analog network coding for wireless broadcast. , 2008, , .  |      | 27        |
| 92  | Random Sparse Linear Systems Observed Via Arbitrary Channels: A Decoupling Principle. , 2007, , .   |      | 33        |
| 93  | Performance of Turbo Decision-Feedback Detection for Downlink OFDM. , 2007, , .   |      | 5         |
| 94  | Error Exponent for Gaussian Channels with Partial Sequential Feedback. , 2007, , .  |      | 5         |
| 95  | Proof of Entropy Power Inequalities Via MMSE. , 2006, , .   |      | 32        |
| 96  | Performance of multicarrier CDMA in frequency-selective fading via statistical physics. IEEE Transactions on Information Theory, 2006, 52, 1765-1774.   | 2.4  | 24        |
| 97  | A simple proof of the entropy-power inequality. IEEE Transactions on Information Theory, 2006, 52, 2165-2166.   | 2.4  | 97        |
| 98  | Asymptotic Mean-Square Optimality of Belief Propagation for Sparse Linear Systems. , 2006, , .  |      | 41        |
| 99  | Error performance of multicarrier CDMA in frequency-selective fading. , 2005, , .   |      | 2         |
| 100 | Mutual Information and Minimum Mean-Square Error in Gaussian Channels. IEEE Transactions on Information Theory, 2005, 51, 1261-1282.                    | 2.4  | 838       |
| 101 | Randomly Spread CDMA: Asymptotics Via Statistical Physics. IEEE Transactions on Information Theory, 2005, 51, 1983-2010.                                | 2.4  | 297       |
| 102 | Additive non-Gaussian noise channels: mutual information and conditional mean estimation. , 2005, , .   |      | 23        |
| 103 | Performance of synchronous multirate CDMA via statistical physics. , 2005, , .  |      | 1         |
| 104 | Asymptotic normality of linear multiuser receiver outputs. IEEE Transactions on Information Theory, 2002, 48, 3080-3095.                                | 2.4  | 90        |
| 105 | A matrix-algebraic approach to linear parallel interference cancellation in CDMA. IEEE Transactions on Communications, 2000, 48, 152-161.               | 7.8  | 113       |
| 106 | Linear parallel interference cancellation in long-code CDMA multiuser detection. IEEE Journal on Selected Areas in Communications, 1999, 17, 2074-2081. | 14.0 | 76        |
| 107 | Mutual information and conditional mean estimation in Poisson channels. , 0, , .  |      | 29        |