# Hirley Alves

List of Publications by Year
in descending order

| | | | |
|---|---|---|---|
| 119 papers | 2,161 citations | 304368<br>22 h-index | 315357<br>38 g-index |
| 123 all docs | 123 docs citations | 123 times ranked | 1729 citing authors |

| # | ARTICLE | IF | CITATIONS |
|---|---------|----|-----------|
| 1 | Performance of Transmit Antenna Selection Physical Layer Security Schemes. IEEE Signal Processing Letters, 2012, 19, 372-375. | 2.1 | 206 |
| 2 | Performance of Block-Markov Full Duplex Relaying with Self Interference in Nakagami-m Fading. IEEE Wireless Communications Letters, 2013, 2, 311-314. | 3.2 | 130 |
| 3 | Six Key Features of Machine Type Communication in 6G. , 2020, , . | | 108 |
| 4 | Massive Wireless Energy Transfer: Enabling Sustainable IoT Toward 6G Era. IEEE Internet of Things Journal, 2021, 8, 8816-8835. | 5.5 | 94 |
| 5 | Analysis and Performance Optimization of LoRa Networks With Time and Antenna Diversity. IEEE Access, 2018, 6, 32820-32829. | 2.6 | 76 |
| 6 | Exploiting the Direct Link in Full-Duplex Amplify-and-Forward Relaying Networks. IEEE Signal Processing Letters, 2015, 22, 1766-1770. | 2.1 | 64 |
| 7 | Ultrareliable Short-Packet Communications With Wireless Energy Transfer. IEEE Signal Processing Letters, 2017, 24, 387-391. | 2.1 | 57 |
| 8 | Long-Range Low-Power Wireless Networks and Sampling Strategies in Electricity Metering. IEEE Transactions on Industrial Electronics, 2019, 66, 1629-1637. | 5.2 | 49 |
| 9 | Ultra-Reliable Cooperative Short-Packet Communications With Wireless Energy Transfer. IEEE Sensors Journal, 2018, 18, 2161-2177. | 2.4 | 45 |
| 10 | Machine type communications: key drivers and enablers towards the 6G era. Eurasip Journal on Wireless Communications and Networking, 2021, 2021, . | 1.5 | 42 |
| 11 | Performance Analysis of Full-Duplex Relay-Aided NOMA Systems Using Partial Relay Selection. IEEE Transactions on Vehicular Technology, 2020, 69, 622-635. | 3.9 | 40 |
| 12 | A NOMA-Based $Q$-Learning Random Access Method for Machine Type Communications. IEEE Wireless Communications Letters, 2020, 9, 1720-1724. | 3.2 | 37 |
| 13 | Energy Internet via Packetized Management: Enabling Technologies and Deployment Challenges. IEEE Access, 2019, 7, 16909-16924. | 2.6 | 36 |
| 14 | Aggregation and Resource Scheduling in Machine-Type Communication Networks: A Stochastic Geometry Approach. IEEE Transactions on Wireless Communications, 2018, 17, 4750-4765. | 6.1 | 34 |
| 15 | Wireless Powered Communications With Finite Battery and Finite Blocklength. IEEE Transactions on Communications, 2018, 66, 1803-1816. | 4.9 | 33 |
| 16 | Network Slicing for URLLC and eMBB With Max-Matching Diversity Channel Allocation. IEEE Communications Letters, 2020, 24, 658-661. | 2.5 | 32 |
| 17 | An Adaptive Transmission Scheme for Cognitive Decode-and-Forward Relaying Networks: Half Duplex, Full Duplex, or No Cooperation. IEEE Transactions on Wireless Communications, 2016, 15, 5586-5602. | 6.1 | 29 |
| 18 | Ultra-Low Latency, Low Energy, and Massiveness in the 6G Era via Efficient CSIT-Limited Scheme. IEEE Communications Magazine, 2020, 58, 56-61. | 4.9 | 29 |

| # | Article | IF | Citations |
|---|---------|-----|-----------|
| 19 | Enhanced physical layer security through transmit antenna selection. , 2011, , . | | 28 |
| 20 | Performance analysis of full duplex and selective and incremental half duplex relaying schemes. , 2012, , . | | 28 |
| 21 | Effective Capacity and Power Allocation for Machine-Type Communication. IEEE Transactions on Vehicular Technology, 2019, 68, 4098-4102. | 3.9 | 27 |
| 22 | On the Average Spectral Efficiency of Interference-Limited Full-Duplex Networks. , 2014, , . | | 25 |
| 23 | Secrecy Analysis of Transmit Antenna Selection Cooperative Schemes With No Channel State Information at the Transmitter. IEEE Transactions on Communications, 2015, 63, 1330-1342. | 4.9 | 25 |
| 24 | K-Means Spreading Factor Allocation for Large-Scale LoRa Networks. Sensors, 2019, 19, 4723. | 2.1 | 25 |
| 25 | Statistical Analysis of Multiple Antenna Strategies for Wireless Energy Transfer. IEEE Transactions on Communications, 2019, 67, 7245-7262. | 4.9 | 24 |
| 26 | Hybrid Coded Replication in LoRa Networks. IEEE Transactions on Industrial Informatics, 2020, 16, 5577-5585. | 7.2 | 24 |
| 27 | Performance Analysis of Hybrid ARQ for Ultra-Reliable Low Latency Communications. IEEE Sensors Journal, 2019, 19, 3521-3531. | 2.4 | 22 |
| 28 | Joint Power Control and Rate Allocation Enabling Ultra-Reliability and Energy Efficiency in SIMO Wireless Networks. IEEE Transactions on Communications, 2019, 67, 5768-5782. | 4.9 | 21 |
| 29 | Enabling mMTC in Remote Areas: LoRaWAN and LEO Satellite Integration for Offshore Wind Farm Monitoring. IEEE Transactions on Industrial Informatics, 2022, 18, 3744-3753. | 7.2 | 21 |
| 30 | On the Performance of Secure Full-Duplex Relaying under Composite Fading Channels. IEEE Signal Processing Letters, 2015, 22, 867-870. | 2.1 | 19 |
| 31 | LoRa Performance Analysis with Superposed Signal Decoding. IEEE Wireless Communications Letters, 2020, 9, 1865-1868. | 3.2 | 19 |
| 32 | Maximizing the link throughput between smart meters and aggregators as secondary users under power and outage constraints. Ad Hoc Networks, 2016, 41, 57-68. | 3.4 | 18 |
| 33 | Traffic Prediction Based Fast Uplink Grant for Massive IoT. , 2020, , . | | 18 |
| 34 | On the performance of cognitive full-duplex relaying under spectrum sharing constraints. Eurasip Journal on Wireless Communications and Networking, 2015, 2015, . | 1.5 | 17 |
| 35 | On CSI-Free Multiantenna Schemes for Massive RF Wireless Energy Transfer. IEEE Internet of Things Journal, 2021, 8, 278-296. | 5.5 | 17 |
| 36 | Massive Machine-Type Communication and Satellite Integration for Remote Areas. IEEE Wireless Communications, 2021, 28, 74-80. | 6.6 | 17 |

| # | Article | IF | Citations |
|---|---------|-----|-----------|
| 37 | On the performance of two-way half-duplex and one-way full-duplex relaying. , 2013, , . | | 16 |
| 38 | Optimum LoRaWAN Configuration Under Wi-SUN Interference. IEEE Access, 2019, 7, 170936-170948. | 2.6 | 16 |
| 39 | A Low-Complexity Beamforming Design for Multiuser Wireless Energy Transfer. IEEE Wireless Communications Letters, 2021, 10, 58-62. | 3.2 | 16 |
| 40 | Ultra reliable short message relaying with wireless power transfer. , 2017, , . | | 15 |
| 41 | A Predictive Interference Management Algorithm for URLLC in Beyond 5G Networks. IEEE Communications Letters, 2021, 25, 995-999. | 2.5 | 15 |
| 42 | Selective Decode-and-Forward Using Fixed Relays and Packet Accumulation. IEEE Communications Letters, 2011, 15, 707-709. | 2.5 | 14 |
| 43 | Brief survey on full-duplex relaying and its applications on 5G. , 2015, , . | | 14 |
| 44 | Enhanced Transmit Antenna Selection Scheme for Secure Throughput Maximization Without CSI at the Transmitter. IEEE Access, 2016, 4, 4861-4873. | 2.6 | 14 |
| 45 | Ultra Reliable Communication via Optimum Power Allocation for HARQ Retransmission Schemes. IEEE Access, 2020, 8, 89768-89781. | 2.6 | 14 |
| 46 | Non-Orthogonal Multiple Access and Network Slicing: Scalable Coexistence of eMBB and URLLC. , 2021, , . | | 14 |
| 47 | A Learning-Based Fast Uplink Grant for Massive IoT via Support Vector Machines and Long Short-Term Memory. IEEE Internet of Things Journal, 2022, 9, 3889-3898. | 5.5 | 14 |
| 48 | Safeguarding MTC at the Physical Layer: Potentials and Challenges. IEEE Access, 2020, 8, 101437-101447. | 2.6 | 14 |
| 49 | Genetic Algorithm Aided Transmit Power Control in Cognitive Radio Networks. , 2014, , . | | 13 |
| 50 | Cognitive Full-Duplex Decode-and-Forward Relaying Networks With Usable Direct Link and Transmit-Power Constraints. IEEE Access, 2018, 6, 24983-24995. | 2.6 | 13 |
| 51 | Dynamic Multi-Connectivity Activation for Ultra-Reliable and Low-Latency Communication. , 2019, , . | | 13 |
| 52 | On the performance of full-duplex relaying under phy security constraints. , 2014, , . | | 12 |
| 53 | Analysis and Simulation of LoRaWAN LR-FHSS for Direct-to-Satellite Scenario. IEEE Wireless Communications Letters, 2022, 11, 548-552. | 3.2 | 12 |
| 54 | Throughput analysis of cognitive wireless networks with Poisson distributed nodes based on location information. Ad Hoc Networks, 2015, 33, 1-15. | 3.4 | 11 |

| # | Article | IF | Citations |
|---|---------|----|-----------|
| 55 | Average Error Probability in Wireless Sensor Networks With Imperfect Sensing and Communication for Different Decision Rules. IEEE Sensors Journal, 2016, 16, 3948-3957. | 2.4 | 11 |
| 56 | Joint analog and digital self-interference cancellation and full-duplex system performance. , 2017, , . |  | 11 |
| 57 | Performance analysis of ultra-reliable short message decode and forward relaying protocols. Eurasip Journal on Wireless Communications and Networking, 2018, 2018, . | 1.5 | 11 |
| 58 | Performance Analysis of Single-Cell Adaptive Data Rate-Enabled LoRaWAN. IEEE Wireless Communications Letters, 2020, 9, 911-914. | 3.2 | 11 |
| 59 | Throughput performance of parallel and repetition coding in incremental decode-and-forward relaying. Wireless Networks, 2012, 18, 881-892. | 2.0 | 10 |
| 60 | Contention-Based Geographic Forwarding Strategies for Wireless Sensors Networks. IEEE Sensors Journal, 2016, 16, 2186-2195. | 2.4 | 10 |
| 61 | Rate Control under Finite Blocklength for Downlink Cellular Networks with Reliability Constraints. , 2018, , . |  | 10 |
| 62 | Finite Blocklength Error Probability Distribution for Designing Ultra Reliable Low Latency Systems. IEEE Access, 2020, 8, 107353-107363. | 2.6 | 10 |
| 63 | Performance of LoRaWAN for Handling Telemetry and Alarm Messages in Industrial Applications. Sensors, 2020, 20, 3061. | 2.1 | 10 |
| 64 | Machine-type wireless communications enablers for beyond 5G: Enabling URLLC via diversity under hard deadlines. Computer Networks, 2020, 174, 107227. | 3.2 | 10 |
| 65 | Mission Effective Capacityâ€"A Novel Dependability Metric: A Study Case of Multiconnectivity-Enabled URLLC for IIoT. IEEE Transactions on Industrial Informatics, 2022, 18, 4180-4188. | 7.2 | 10 |
| 66 | Network Slicing for eMBB and mMTC with NOMA and Space Diversity Reception. , 2021, , . |  | 10 |
| 67 | Effective Energy Efficiency of Ultrareliable Low-Latency Communication. IEEE Internet of Things Journal, 2021, 8, 11135-11149. | 5.5 | 10 |
| 68 | D2D Assisted Q-Learning Random Access for NOMA-Based MTC Networks. IEEE Access, 2022, 10, 30694-30706. | 2.6 | 10 |
| 69 | An Adaptive Transmission Scheme for Amplify-and-Forward Relaying Networks. IEEE Transactions on Communications, 2016, , 1-1. | 4.9 | 9 |
| 70 | Demand Control Management in Microgrids: The Impact of Different Policies and Communication Network Topologies. IEEE Systems Journal, 2018, 12, 3577-3584. | 2.9 | 9 |
| 71 | Distributed Rate Control in Downlink NOMA Networks With Reliability Constraints. IEEE Transactions on Wireless Communications, 2019, 18, 5410-5423. | 6.1 | 9 |
| 72 | On the Secrecy Performance and Power Allocation in Relaying Networks With Untrusted Relay in the Partial Secrecy Regime. IEEE Transactions on Information Forensics and Security, 2020, 15, 2268-2281. | 4.5 | 9 |

| # | Article | IF | Citations |
|---|---------|----|-----------|
| 73 | On the Optimal Deployment of Power Beacons for Massive Wireless Energy Transfer. IEEE Internet of Things Journal, 2021, 8, 10531-10542. | 5.5 | 9 |
| 74 | Full-duplex communications in interference networks under composite fading channel. , 2014, , . |  | 8 |
| 75 | Throughput maximization in multi-hop wireless networks under a secrecy constraint. Computer Networks, 2016, 109, 13-20. | 3.2 | 8 |
| 76 | Beyond 5G Low-Power Wide-Area Networks: A LoRaWAN Suitability Study. , 2020, , . |  | 8 |
| 77 | On the Secrecy of Interference-Limited Networks under Composite Fading Channels. IEEE Signal Processing Letters, 2015, 22, 1306-1310. | 2.1 | 7 |
| 78 | Joint sampling-communication strategies for smart-meters to aggregator link as secondary users. , 2016, , . |  | 7 |
| 79 | On the performance of ultra-reliable decode and forward relaying under the finite blocklength. , 2017, , . |  | 7 |
| 80 | CSI-Free Rotary Antenna Beamforming for Massive RF Wireless Energy Transfer. IEEE Internet of Things Journal, 2022, 9, 7375-7387. | 5.5 | 7 |
| 81 | CSI-Free vs CSI-Based Multi-Antenna WET for Massive Low-Power Internet of Things. IEEE Transactions on Wireless Communications, 2021, 20, 3078-3094. | 6.1 | 7 |
| 82 | Energy-Efficient Wake-Up Signalling for Machine-Type Devices Based on Traffic-Aware Long Short-Term Memory Prediction. IEEE Internet of Things Journal, 2022, 9, 21620-21631. | 5.5 | 7 |
| 83 | Situational Awareness for Autonomous Ships in the Arctic: mMTC Direct-to-Satellite Connectivity. IEEE Communications Magazine, 2022, 60, 32-38. | 4.9 | 7 |
| 84 | Cooperative overlay secondary transmissions exploiting primary retransmissions. Eurasip Journal on Wireless Communications and Networking, 2013, 2013, . | 1.5 | 6 |
| 85 | On the statistics of the ratio of nonconstrained arbitrary $\alpha$–$\mu$ random variables: A general framework and applications. Transactions on Emerging Telecommunications Technologies, 2020, 31, e3832. | 2.6 | 6 |
| 86 | Massive Wireless Energy Transfer With Statistical CSI Beamforming. IEEE Journal on Selected Topics in Signal Processing, 2021, 15, 1169-1184. | 7.3 | 6 |
| 87 | Fog-RAN Enabled Multi-Connectivity and Multi-Cell Scheduling Framework for Ultra-Reliable Low Latency Communication. IEEE Access, 2022, 10, 7059-7072. | 2.6 | 6 |
| 88 | Performance Analysis of MIMO-NOMA Iterative Receivers for Massive Connectivity. IEEE Access, 2022, 10, 46808-46822. | 2.6 | 6 |
| 89 | Performance of Type-I and Type-II Hybrid ARQ in Decode and Forward Relaying. , 2011, , . |  | 5 |
| 90 | Energy efficiency and throughput performance of power and rate allocation on incremental decode-and-forward relaying. Wireless Networks, 2012, 18, 495-505. | 2.0 | 5 |

| # | Article | IF | Citations |
|---|---------|-----|-----------|
| 91 | Ultra-reliable short message cooperative relaying protocols under Nakagami-m fading. , 2017, , . | | 5 |
| 92 | Finite Blocklength Communications in Smart Grids for Dynamic Spectrum Access and Locally Licensed Scenarios. IEEE Sensors Journal, 2018, 18, 5610-5621. | 2.4 | 5 |
| 93 | Rate Control for Wireless-Powered Communication Network With Reliability and Delay Constraints. IEEE Transactions on Wireless Communications, 2019, 18, 5791-5805. | 6.1 | 5 |
| 94 | Enhanced performance of heterogeneous networks through full-duplex relaying. Eurasip Journal on Wireless Communications and Networking, 2012, 2012, . | 1.5 | 4 |
| 95 | Secure Statistical QoS Provisioning for Machine-Type Wireless Communication Networks. , 2018, , . | | 4 |
| 96 | Hybrid resource scheduling for aggregation in massive machine-type communication networks. Ad Hoc Networks, 2019, 94, 101932. | 3.4 | 4 |
| 97 | Performance Analysis Framework for NOMA Systems over Non-Identical Nakagami-m Fading Channels. , 2019, , . | | 4 |
| 98 | Ultra-Reliable Communication for Critical Machine Type Communication via CRAN-Enabled Multi-Connectivity Diversity Schemes. Sensors, 2021, 21, 8064. | 2.1 | 4 |
| 99 | Hybrid Half- and Full-Duplex Communications under Correlated Lognormal Shadowing. , 2015, , . | | 3 |
| 100 | Multi-class random access wireless network: General results and performance analysis of LoRaWAN. Ad Hoc Networks, 2022, 135, 102946. | 3.4 | 3 |
| 101 | Full-duplex transmission in small area radio communication systems. , 2015, , . | | 2 |
| 102 | Increasing the Throughput of an Unlicensed Wireless Network through Retransmissions. , 2018, , . | | 2 |
| 103 | Event-Based Electricity Metering: An Autonomous Method to Determine Transmission Thresholds. , 2018, , . | | 2 |
| 104 | Achieving Ultra-Reliable Communication via CRAN-Enabled Diversity Schemes. , 2019, , . | | 2 |
| 105 | In-Band Pilot Overhead in Ultra-Reliable Low Latency Decode and Forward Relaying. , 2019, , . | | 2 |
| 106 | Fixed Rate Statistical QoS Provisioning for Markovian Sources in Machine Type Communication. , 2019, , . | | 2 |
| 107 | Enabling URLLC for Low-Cost IoT Devices via Diversity Combining Schemes. , 2020, , . | | 2 |
| 108 | A Throughput and Energy Efficiency Scheme for Unlicensed Massive Machine Type Communications â€. Sensors, 2020, 20, 2357. | 2.1 | 2 |

| # | Article | IF | Citations |
|---|---------|----|-----------|
| 109 | Full Duplex and Wireless-Powered Communications. , 2020, , 219-248. | | 2 |
| 110 | On the fly self-organized base station placement. , 2012, , . | | 1 |
| 111 | Performance of energy detector over Nakagami-m fading for relay-based cognitive radio networks. , 2012, , . | | 1 |
| 112 | Using multiple co-channel femtocells as relays to increase the performance of the outdoor user. , 2013, , . | | 1 |
| 113 | Decision error probability in a two-stage communication network for smart grids with imperfect links. , 2017, , . | | 1 |
| 114 | On the Performance of Cognitive Full-Duplex Relaying Systems under Spectrum Sharing Constraints. , 2013, , . | | 1 |
| 115 | Secure Rate Control and Statistical QoS Provisioning for Cloud-Based IoT Networks. Security and Communication Networks, 2021, 2021, 1-19. | 1.0 | 1 |
| 116 | Throughput performance of incremental decode-and-forward using infra-structured relays and rate allocation. , 2011, , . | | 0 |
| 117 | Throughput of wireless networks with Poisson distributed nodes using location information. , 2014, , . | | 0 |
| 118 | Energy Efficiency of an Unlicensed Wireless Network in the Presence of Retransmissions. , 2018, , . | | 0 |
| 119 | On the SIR Meta Distribution in Massive MTC Networks with Scheduling and Data Aggregation. , 2021, , . | | 0 |