

# Liang Liu

## List of Publications by Year in descending order

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45  
papers

5,576  
citations

331259

21  
h-index

500791

28  
g-index

46  
all docs

46  
docs citations

46  
times ranked

3730  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | Wireless Information Transfer with Opportunistic Energy Harvesting. IEEE Transactions on Wireless Communications, 2013, 12, 288-300.  | 6.1 | 578       |
| 2  | Wireless Information and Power Transfer: A Dynamic Power Splitting Approach. IEEE Transactions on Communications, 2013, 61, 3990-4001.  | 4.9 | 491       |
| 3  | Secrecy Wireless Information and Power Transfer With MISO Beamforming. IEEE Transactions on Signal Processing, 2014, 62, 1850-1863.   | 3.2 | 491       |
| 4  | Channel Estimation for Intelligent Reflecting Surface Assisted Multiuser Communications: Framework, Algorithms, and Analysis. IEEE Transactions on Wireless Communications, 2020, 19, 6607-6620.      | 6.1 | 462       |
| 5  | Joint Transmit Beamforming and Receive Power Splitting for MISO SWIPT Systems. IEEE Transactions on Wireless Communications, 2014, 13, 3269-3280.   | 6.1 | 448       |
| 6  | Massive Connectivity With Massive MIMO—Part I: Device Activity Detection and Channel Estimation. IEEE Transactions on Signal Processing, 2018, 66, 2933-2946.   | 3.2 | 434       |
| 7  | Multiuser MISO Beamforming for Simultaneous Wireless Information and Power Transfer. IEEE Transactions on Signal Processing, 2014, 62, 4798-4810.   | 3.2 | 430       |
| 8  | Multi-Antenna Wireless Powered Communication With Energy Beamforming. IEEE Transactions on Communications, 2014, 62, 4349-4361.   | 4.9 | 394       |
| 9  | Sparse Signal Processing for Grant-Free Massive Connectivity: A Future Paradigm for Random Access Protocols in the Internet of Things. IEEE Signal Processing Magazine, 2018, 35, 88-99.              | 4.6 | 314       |
| 10 | Fundamental Trade-offs in Communication and Trajectory Design for UAV-Enabled Wireless Network. IEEE Wireless Communications, 2019, 26, 36-44.  | 6.6 | 160       |
| 11 | Joint Task Assignment and Resource Allocation for D2D-Enabled Mobile-Edge Computing. IEEE Transactions on Communications, 2019, 67, 4193-4207.  | 4.9 | 152       |
| 12 | Secrecy Wireless Information and Power Transfer in Fading Wiretap Channel. IEEE Transactions on Vehicular Technology, 2016, 65, 180-190.  | 3.9 | 141       |
| 13 | CoMP in the Sky: UAV Placement and Movement Optimization for Multi-User Communications. IEEE Transactions on Communications, 2019, 67, 5645-5658.   | 4.9 | 133       |
| 14 | Massive Connectivity With Massive MIMO—Part II: Achievable Rate Characterization. IEEE Transactions on Signal Processing, 2018, 66, 2947-2959.  | 3.2 | 115       |
| 15 | Collaborative Wireless Energy and Information Transfer in Interference Channel. IEEE Transactions on Wireless Communications, 2015, 14, 545-557.  | 6.1 | 92        |
| 16 | Multi-Beam UAV Communication in Cellular Uplink: Cooperative Interference Cancellation and Sum-Rate Maximization. IEEE Transactions on Wireless Communications, 2019, 18, 4679-4691.                  | 6.1 | 92        |
| 17 | Achieving Global Optimality for Weighted Sum-Rate Maximization in the K-User Gaussian Interference Channel with Multiple Antennas. IEEE Transactions on Wireless Communications, 2012, 11, 1933-1945. | 6.1 | 84        |
| 18 | Joint Power Control and Fronthaul Rate Allocation for Throughput Maximization in OFDMA-Based Cloud Radio Access Network. IEEE Transactions on Communications, 2015, 63, 4097-4110.                    | 4.9 | 78        |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 19 | A D2D-Based Protocol for Ultra-Reliable Wireless Communications for Industrial Automation. IEEE Transactions on Wireless Communications, 2018, 17, 5045-5058.         | 6.1 | 69        |
| 20 | Optimized Uplink Transmission in Multi-Antenna C-RAN With Spatial Compression and Forward. IEEE Transactions on Signal Processing, 2015, 63, 5083-5095.               | 3.2 | 59        |
| 21 | Multiuser MISO beamforming for simultaneous wireless information and power transfer. , 2013, , .  |     | 47        |
| 22 | Channel Estimation for Intelligent Reflecting Surface Assisted Multiuser Communications. , 2020, , .  |     | 46        |
| 23 | Cross-Layer Design for Downlink Multihop Cloud Radio Access Networks With Network Coding. IEEE Transactions on Signal Processing, 2017, 65, 1728-1740.                | 3.2 | 39        |
| 24 | Secrecy wireless information and power transfer in fading wiretap channel. , 2014, , .  |     | 28        |
| 25 | NOMA-Based Energy-Efficiency Optimization for UAV Enabled Space-Air-Ground Integrated Relay Networks. IEEE Transactions on Vehicular Technology, 2022, 71, 4129-4141. | 3.9 | 22        |
| 26 | Downlink SINR balancing in C-RAN under limited fronthaul capacity. , 2016, , .  |     | 19        |
| 27 | Massive device connectivity with massive MIMO. , 2017, , .  |     | 19        |
| 28 | Towards Reliable UAV Swarm Communication in D2D-Enhanced Cellular Networks. IEEE Transactions on Wireless Communications, 2021, 20, 1567-1581.                        | 6.1 | 19        |
| 29 | Device-Free Sensing in OFDM Cellular Network. IEEE Journal on Selected Areas in Communications, 2022, 40, 1838-1853.  | 9.7 | 19        |
| 30 | An uplink-downlink duality for cloud radio access network. , 2016, , .  |     | 17        |
| 31 | Covariance-Based Joint Device Activity and Delay Detection in Asynchronous mMTC. IEEE Signal Processing Letters, 2022, 29, 538-542.                                   | 2.1 | 13        |
| 32 | An Efficient Algorithm For Device Detection And Channel Estimation In Asynchronous IOT Systems. , 2021, , .   |     | 12        |
| 33 | A Two-Stage Radar Sensing Approach based on MIMO-OFDM Technology. , 2020, , .   |     | 10        |
| 34 | Secrecy wireless information and power transfer with MISO beamforming. , 2013, , .  |     | 9         |
| 35 | Cooperative Interference Cancellation for Multi-Beam UAV Uplink Communication: A DoF Analysis. , 2018, , .  |     | 8         |
| 36 | Transmit beamforming for simultaneous wireless information and power transfer. , 2018, , 479-506.   |     | 6         |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 37 | A Covariance-based User Activity Detection and Channel Estimation Approach with Novel Pilot Design. , 2020, , .   |     | 6         |
| 38 | Uplink-Downlink Duality Between Multiple-Access and Broadcast Channels With Compressing Relays. IEEE Transactions on Information Theory, 2021, 67, 7304-7337. | 1.5 | 5         |
| 39 | Joint Sparse Beamforming and Network Coding for Downlink Multi-Hop Cloud Radio Access Networks. , 2016, , .   |     | 4         |
| 40 | On Massive IoT Connectivity with Temporally-Correlated User Activity. , 2021, , .   |     | 4         |
| 41 | Detection of Abrupt Change in Channel Covariance Matrix for Multi-Antenna Communication. , 2021, , .  |     | 3         |
| 42 | How to Diagonalize a MIMO Channel With Arbitrary Transmit Covariance?. IEEE Wireless Communications Letters, 2016, 5, 352-355.                                | 3.2 | 1         |
| 43 | Fronthaul-Aware Design for Cloud Radio Access Networks. , 2017, , 48-75.  |     | 1         |
| 44 | Channel Diagonalization for Cloud Radio Access. IEEE Wireless Communications Letters, 2018, 7, 622-625.   | 3.2 | 1         |
| 45 | Efficiently and Globally Solving Joint Beamforming and Compression Problem in the Cooperative Cellular Network Via Lagrangian Duality. , 2022, , .            |     | 1         |