

# Wei Fan

## List of Publications by Year in descending order

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121  
papers

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citations

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docs citations

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times ranked

1082  
citing authors

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 1  | Millimeter-Wave New Radio Test Zone Validation for MIMO Over-the-Air Testing. IEEE Transactions on Antennas and Propagation, 2022, 70, 1569-1574.  | 5.1 | 5         |
| 2  | Dynamic mmWave Channel Emulation in a Cost-Effective MPAC With Dominant-Cluster Concept. IEEE Transactions on Antennas and Propagation, 2022, 70, 4691-4704.   | 5.1 | 4         |
| 3  | SVM-Assisted Adaptive Kernel Power Density Clustering Algorithm for Millimeter Wave Channels. IEEE Transactions on Antennas and Propagation, 2022, 70, 4014-4026.  | 5.1 | 6         |
| 4  | Semi-Deterministic Dynamic Millimeter-Wave Channel Modeling Based on an Optimal Neural Network Approach. IEEE Transactions on Antennas and Propagation, 2022, 70, 4082-4095.                                 | 5.1 | 7         |
| 5  | Phased Array Calibration Based on Measured Complex Signals in a Compact Multiprobe Setup. IEEE Antennas and Wireless Propagation Letters, 2022, 21, 833-837.   | 4.0 | 3         |
| 6  | A Survey of Dense Multipath and Its Impact on Wireless Systems. IEEE Open Journal of Antennas and Propagation, 2022, 3, 435-460.   | 3.7 | 10        |
| 7  | Fast Array Diagnosis for Subarray Structured 5G Base Station Antennas. IEEE Antennas and Wireless Propagation Letters, 2022, 21, 1393-1397.  | 4.0 | 1         |
| 8  | A Fast Multibeam Measurement Method for Millimeter-Wave Phased Arrays. IEEE Antennas and Wireless Propagation Letters, 2022, 21, 1502-1506.  | 4.0 | 3         |
| 9  | Radio Channel Emulation for Virtual Drive Testing with Site-Specific Channels. , 2022, , .   |     | 2         |
| 10 | On the Phase-Compensated Long-Range VNA-based Channel Sounder for sub-6 GHz, mmWave and sub-THz frequency bands. , 2022, , .   |     | 0         |
| 11 | Fast Array Diagnosis Based on Measured Complex Array Signals with Short Measurement Distance. , 2022, , .  |     | 1         |
| 12 | Achieving Wireless Cable Testing of High-Order MIMO Devices With a Novel Closed-Form Calibration Method. IEEE Transactions on Antennas and Propagation, 2021, 69, 478-487.                                   | 5.1 | 14        |
| 13 | Review on Ray Tracing Channel Simulation Accuracy in Sub-6 GHz Outdoor Deployment Scenarios. IEEE Open Journal of Antennas and Propagation, 2021, 2, 22-37.  | 3.7 | 15        |
| 14 | Design and Experimental Validation of Automated Millimeter-Wave phased Array Antenna-in-Package (AiP) Experimental Platform. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-11.           | 4.7 | 11        |
| 15 | Over-the-Air Testing of 5G Communication Systems: Validation of the Test Environment in Simple-Sectorized Multiprobe Anechoic Chamber Setups. IEEE Antennas and Propagation Magazine, 2021, 63, 40-50.       | 1.4 | 8         |
| 16 | Over-the-Air Array Calibration of mmWave Phased Array in Beam-Steering Mode Based on Measured Complex Signals. IEEE Transactions on Antennas and Propagation, 2021, 69, 7876-7888.                           | 5.1 | 19        |
| 17 | Experimental Comparison of On-Off and All-On Calibration Modes for Beam-Steering Performance of mmWave Phased Array Antenna-in-Package. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-9. | 4.7 | 5         |
| 18 | On Simplification of Ray Tracing Channels in Radio Channel Emulators for Device Testing. , 2021, , .   |     | 4         |

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|----|--|-----|-----------|
| 19 | Spatial fading channel emulation for over-the-air testing of millimeter-wave radios: concepts and experimental validations. <i>Frontiers of Information Technology and Electronic Engineering</i> , 2021, 22, 548-559. | 2.6 | 4         |
| 20 | A Simultaneous Wideband Calibration for Digital Beamforming Arrays at Short Distances [Measurements Corner]. <i>IEEE Antennas and Propagation Magazine</i> , 2021, 63, 102-111.  | 1.4 | 3         |
| 21 | Reducing Correlation in Compact Arrays by Adjusting Near-Field Phase Distribution for MIMO Applications. <i>IEEE Transactions on Vehicular Technology</i> , 2021, 70, 7885-7896.                                       | 6.3 | 14        |
| 22 | Joint Modeling of Received Power, Mean Delay, and Delay Spread for Wideband Radio Channels. <i>IEEE Transactions on Antennas and Propagation</i> , 2021, 69, 4871-4882.  | 5.1 | 3         |
| 23 | Channel Spatial Profile Validation for FR2 New Radio Over-the-air Testing. , 2021, , .   |     | 1         |
| 24 | Modeling Multi-Frequency Characteristics for Classroom and Hall Scenarios at 2-4, 9-11 and 27-29 GHz Bands. <i>IEEE Access</i> , 2021, 9, 14549-14563.   | 4.2 | 4         |
| 25 | Design and Validation of the Phase-Compensated Long-Range Sub-THz VNA-Based Channel Sounder. <i>IEEE Antennas and Wireless Propagation Letters</i> , 2021, 20, 2461-2465.  | 4.0 | 10        |
| 26 | An Improved Complex Signal-Based Calibration Method for Beam-Steering Phased Array. <i>IEEE Antennas and Wireless Propagation Letters</i> , 2021, 20, 2161-2165.   | 4.0 | 5         |
| 27 | Hybrid Precoding for Correlated Multi-user mm-wave Channels Based on Beam Alignment. <i>IEEE Wireless Communications Letters</i> , 2021, , 1-1.  | 5.0 | 1         |
| 28 | Virtual Drive Testing Over-the-Air for Vehicular Communications. <i>IEEE Transactions on Vehicular Technology</i> , 2020, 69, 1203-1213.   | 6.3 | 11        |
| 29 | Cluster Intensity and Spread Characteristics in Classroom Scenario at 10 and 28 GHz Bands. , 2020, , .   |     | 2         |
| 30 | Design and Implementation of a Wideband Dual-Polarized Plane Wave Generator With Tapered Feeding Nonuniform Array. <i>IEEE Antennas and Wireless Propagation Letters</i> , 2020, 19, 1988-1992.                        | 4.0 | 24        |
| 31 | Dynamic Channel Modeling for Indoor Millimeter-Wave Propagation Channels Based on Measurements. <i>IEEE Transactions on Communications</i> , 2020, 68, 5878-5891.  | 7.8 | 34        |
| 32 | On Angular Sampling Intervals for Reconstructing Wideband Channel Spatial Profiles in Directional Scanning Measurements. <i>IEEE Transactions on Vehicular Technology</i> , 2020, 69, 13910-13915.                     | 6.3 | 12        |
| 33 | Split-Ring Resonator-Loaded Baffles for Decoupling of Dual-Polarized Base Station Array. <i>IEEE Antennas and Wireless Propagation Letters</i> , 2020, 19, 1828-1832.  | 4.0 | 44        |
| 34 | On Noise and Interference Modeling for Over-the-air Testing of MIMO Terminals. , 2020, , .   |     | 1         |
| 35 | Low Scattering Plane Wave Generator Design Using a Novel Non-Coplanar Structure for Near-Field Over-the-Air Testing. <i>IEEE Access</i> , 2020, 8, 211348-211357.  | 4.2 | 8         |
| 36 | On Uncertainty Investigation of mmWave Phased-Array Element Control With an All-On-Off Method. <i>IEEE Antennas and Wireless Propagation Letters</i> , 2020, 19, 1993-1997.  | 4.0 | 5         |

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|----|--|-----|-----------|
| 37 | Trajectory-Aided Maximum-Likelihood Algorithm for Channel Parameter Estimation in Ultrawideband Large-Scale Arrays. IEEE Transactions on Antennas and Propagation, 2020, 68, 7131-7143.            | 5.1 | 16        |
| 38 | Phase-Compensated Optical Fiber-Based Ultrawideband Channel Sounder. IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 636-647.  | 4.6 | 23        |
| 39 | On Simple-Sectorized Multi-Probe Anechoic Chamber Design for mmWave Adaptive Terminal. IEEE Access, 2020, 8, 26419-26432.  | 4.2 | 2         |
| 40 | Accurate Channel Sounding with a Phase Stabilizing Scheme. , 2020, , .   |     | 5         |
| 41 | Millimeter-Wave Hybrid Precoder Design With a Fast Iterative Beam Split and Detection Algorithm. IEEE Antennas and Wireless Propagation Letters, 2020, 19, 2368-2372.                              | 4.0 | 1         |
| 42 | System development and experimental validation of a long-range VNA-based channel sounder. IET Microwaves, Antennas and Propagation, 2020, 14, 1733-1741.   | 1.4 | 3         |
| 43 | Near-Field Ultra-Wideband mmWave Channel Characterization Using Successive Cancellation Beamspace UCA Algorithm. IEEE Transactions on Vehicular Technology, 2019, 68, 7248-7259.                   | 6.3 | 18        |
| 44 | Antenna Correlation Under Geometry-Based Stochastic Channel Models. IEEE Antennas and Wireless Propagation Letters, 2019, 18, 2567-2571.   | 4.0 | 6         |
| 45 | Frequency Characteristics of Geometry-Based Clusters in Indoor Hall Environment at SHF Bands. IEEE Access, 2019, 7, 75420-75433.   | 4.2 | 7         |
| 46 | Improved Over-the-Air Phased Array Calibration Based on Measured Complex Array Signals. IEEE Antennas and Wireless Propagation Letters, 2019, 18, 1174-1178.                                       | 4.0 | 28        |
| 47 | Interference Modeling for Low-Height Air-to-Ground Channels in Live LTE Networks. IEEE Antennas and Wireless Propagation Letters, 2019, 18, 2011-2015.   | 4.0 | 17        |
| 48 | A Complexity-Efficient High Resolution Propagation Parameter Estimation Algorithm for Ultra-Wideband Large-Scale Uniform Circular Array. IEEE Transactions on Communications, 2019, 67, 5862-5874. | 7.8 | 29        |
| 49 | Comparing Channel Emulation Algorithms by Using Plane Waves and Spherical Vector Waves in Multiprobe Anechoic Chamber Setups. IEEE Transactions on Antennas and Propagation, 2019, 67, 4091-4103.  | 5.1 | 11        |
| 50 | Frequency Characteristics of Diffuse Scattering in SHF band in Indoor Environments. , 2019, , .  |     | 1         |
| 51 | Comparisons of Channel Emulation Methods for State-of-the-Art Multi-Probe Anechoic Chamber Based Millimeter-Wave Over-the-Air Testing. , 2019, , .   |     | 6         |
| 52 | Throughput Modeling and Validations for MIMO-OTA Testing With Arbitrary Multipath. IEEE Antennas and Wireless Propagation Letters, 2018, 17, 637-640.  | 4.0 | 25        |
| 53 | Virtual Drive Testing of Adaptive Antenna Systems in Dynamic Propagation Scenarios for Vehicle Communications. IEEE Access, 2018, 6, 7829-7838.  | 4.2 | 13        |
| 54 | OTA Evaluation of Mobile Phone Antenna Performance for VoLTE [Measurements Corner]. IEEE Antennas and Propagation Magazine, 2018, 60, 122-130.   | 1.4 | 5         |

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|----|--|-----|-----------|
| 55 | On Channel Emulation Methods in Multiprobe Anechoic Chamber Setups for Over-the-Air Testing. IEEE Transactions on Vehicular Technology, 2018, 67, 6740-6751.                                 | 6.3 | 32        |
| 56 | Millimeter Wave Multi-User Performance Evaluation Based on Measured Channels With Virtual Antenna Array Channel Sounder. IEEE Access, 2018, 6, 12318-12326.                                  | 4.2 | 50        |
| 57 | Emulating UAV Air-to-Ground Radio Channel in Multi-Probe Anechoic Chamber. , 2018, , .   |     | 7         |
| 58 | Characterization of Human Body Shadowing in Measured Millimeter-wave Indoor Channels. , 2018, , .  |     | 4         |
| 59 | Over-the-Air Testing for Carrier Aggregation Enabled MIMO Terminals Using Radiated Two-Stage Method. IEEE Access, 2018, 6, 71622-71631.  | 4.2 | 7         |
| 60 | Experimental Characterization of Millimeter-Wave Indoor Propagation Channels at 28 GHz. IEEE Access, 2018, 6, 76516-76526.   | 4.2 | 30        |
| 61 | Emulating Dynamic Radio Channels for Radiated Testing of Massive MIMO Devices. , 2018, , .   |     | 9         |
| 62 | Performance Testing of Massive MIMO Base Station with Multi-Probe Anechoic Chamber Setups. , 2018, , .   |     | 2         |
| 63 | A Channel Sounder for Massive MIMO and MmWave Channels. IEEE Communications Magazine, 2018, 56, 67-73.   | 6.1 | 25        |
| 64 | Channel Estimation Algorithms and Their Impact on Wideband Millimeter Wave Channel Characteristics. , 2018, , .  |     | 4         |
| 65 | Empirical Study of Near Ground Propagation in Forest Terrain for Internet-of-Things Type Device-to-Device Communication. IEEE Access, 2018, 6, 54052-54063.                                  | 4.2 | 26        |
| 66 | A Flexible Millimeter-Wave Radio Channel Emulator Design With Experimental Validations. IEEE Transactions on Antennas and Propagation, 2018, 66, 6446-6451.                                  | 5.1 | 19        |
| 67 | Analysis of Simulated and Measured Indoor Channels for mm-Wave Beamforming Applications. International Journal of Antennas and Propagation, 2018, 2018, 1-17.                                | 1.2 | 7         |
| 68 | On Radiated Performance Evaluation of Massive MIMO Devices in Multiprobe Anechoic Chamber OTA Setups. IEEE Transactions on Antennas and Propagation, 2018, 66, 5485-5497.                    | 5.1 | 61        |
| 69 | Over-the-Air Radiated Testing of Millimeter-Wave Beam-Steerable Devices in a Cost-Effective Measurement Setup. IEEE Communications Magazine, 2018, 56, 64-71.                                | 6.1 | 132       |
| 70 | Channel Characterization for Wideband Large-Scale Antenna Systems Based on a Low-Complexity Maximum Likelihood Estimator. IEEE Transactions on Wireless Communications, 2018, 17, 6018-6028. | 9.2 | 22        |
| 71 | Wireless Cable Method for High-Order MIMO Terminals Based on Particle Swarm Optimization Algorithm. IEEE Transactions on Antennas and Propagation, 2018, 66, 5536-5545.                      | 5.1 | 10        |
| 72 | A Map-Free Indoor Localization Method Using Ultrawideband Large-Scale Array Systems. IEEE Antennas and Wireless Propagation Letters, 2018, 17, 1682-1686.                                    | 4.0 | 11        |

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|----|--|-----|-----------|
| 73 | Performance testing of MIMO device with the wireless cable method based on particle swarm optimization algorithm. , 2018, , .  |     | 4         |
| 74 | On Low-Pass Phase Noise Mitigation in OFDM System for mmWave Communications. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2018, , 271-280. | 0.3 | 1         |
| 75 | Assessing measurement distances for OTA testing of massive MIMO base station at 28 GHz. , 2017, , .  |     | 17        |
| 76 | Reproducing standard SCME channel models for massive MIMO base station radiated testing. , 2017, , .   |     | 9         |
| 77 | Analytic and experimental investigation of beamforming algorithms for MM-wave channel characterization. , 2017, , .  |     | 0         |
| 78 | A Step Toward 5G in 2020: Low-cost OTA performance evaluation of massive MIMO base stations. IEEE Antennas and Propagation Magazine, 2017, 59, 38-47.  | 1.4 | 101       |
| 79 | Near-Field Signal Model for Large-Scale Uniform Circular Array and Its Experimental Validation. IEEE Antennas and Wireless Propagation Letters, 2017, 16, 1237-1240.                                       | 4.0 | 5         |
| 80 | Channel Sounding System for MM-Wave Bands and Characterization of Indoor Propagation at 28 GHz. International Journal of Wireless Information Networks, 2017, 24, 204-216.                                 | 2.7 | 11        |
| 81 | Experimental Evaluation of User Influence on Test Zone Size in Multi-Probe Anechoic Chamber Setups. IEEE Access, 2017, 5, 18545-18556.   | 4.2 | 16        |
| 82 | Validation of emulated omnidirectional antenna output using directive antenna data. , 2017, , .  |     | 3         |
| 83 | Channel estimation using spherical-wave model for indoor LoS and obstructed LoS scenarios. , 2017, , .   |     | 6         |
| 84 | MIMO Terminal Performance Evaluation With a Novel Wireless Cable Method. IEEE Transactions on Antennas and Propagation, 2017, 65, 4803-4814.   | 5.1 | 35        |
| 85 | Frequency-Invariant Uniform Circular Array for Wideband mm-Wave Channel Characterization. IEEE Antennas and Wireless Propagation Letters, 2017, 16, 641-644.   | 4.0 | 23        |
| 86 | Measured 21.5 GHz Indoor Channels With User-Held Handset Antenna Array. IEEE Transactions on Antennas and Propagation, 2017, 65, 6574-6583.  | 5.1 | 20        |
| 87 | Virtual Large-Scale Array Beamforming Analysis Using Measured Subarray Antenna Patterns. IEEE Access, 2017, 5, 19812-19823.  | 4.2 | 10        |
| 88 | Performance evaluation of sectorized MPAC for 5G UE antenna systems. , 2017, , .   |     | 5         |
| 89 | Recent advances on OTA testing for 5G antenna systems in multi-probe anechoic chamber setups. , 2017, , .  |     | 6         |
| 90 | Phase Noise Effect on MIMO-OFDM Systems with Common and Independent Oscillators. Wireless Communications and Mobile Computing, 2017, 2017, 1-12.   | 1.2 | 11        |

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| 91  | Experimental Evaluation of MIMO Terminals With User Influence in OTA Setups. IEEE Antennas and Wireless Propagation Letters, 2017, 16, 3030-3033.  | 4.0 | 4         |
| 92  | Test Zone Size Characterization With Measured MIMO Throughput for Simulated MPAC Configurations in Conductive Setups. IEEE Transactions on Vehicular Technology, 2017, 66, 10532-10536.                          | 6.3 | 18        |
| 93  | Ultrawideband VNA based channel sounding system for centimetre and millimetre wave bands. , 2016, , .  |     | 11        |
| 94  | Evaluation of massive MIMO systems using time-reversal beamforming technique. , 2016, , .  |     | 8         |
| 95  | Generating Spatial Channel Models in Multi-Probe Anechoic Chamber Setups. , 2016, , .  |     | 3         |
| 96  | Comparative study of centimetric and millimetric propagation channels in indoor environments. , 2016, , .  |     | 3         |
| 97  | Validation of 5G METIS map-based channel model at mmwave bands in indoor scenarios. , 2016, , .  |     | 14        |
| 98  | On Dimensions of OTA Setups for Massive MIMO Base Stations Radiated Testing. IEEE Access, 2016, 4, 5971-5981.  | 4.2 | 45        |
| 99  | Comparison of ray tracing simulations and channel measurements at mmWave bands for indoor scenarios. , 2016, , .   |     | 19        |
| 100 | Measured wideband characteristics of indoor channels at centimetric and millimetric bands. Eurasip Journal on Wireless Communications and Networking, 2016, 2016, .  | 2.4 | 72        |
| 101 | Wideband MIMO Channel Capacity Analysis in Multiprobe Anechoic Chamber Setups. IEEE Transactions on Vehicular Technology, 2016, 65, 2861-2871.   | 6.3 | 36        |
| 102 | MIMO OTA Testing in Small Multiprobe Anechoic Chamber Setups. IEEE Antennas and Wireless Propagation Letters, 2016, 15, 1167-1170.   | 4.0 | 14        |
| 103 | Emulating Ray-Tracing Channels in Multiprobe Anechoic Chamber Setups for Virtual Drive Testing. IEEE Transactions on Antennas and Propagation, 2016, 64, 730-739.  | 5.1 | 37        |
| 104 | On Probe weighting for MIMO OTA testing in anechoic chamber setups. , 2015, , .  |     | 1         |
| 105 | Emulating Realistic Bidirectional Spatial Channels for MIMO OTA Testing. International Journal of Antennas and Propagation, 2015, 2015, 1-13.  | 1.2 | 2         |
| 106 | Over-the-Air Testing of MIMO-Capable Terminals: Evaluation of Multiple-Antenna Systems in Realistic Multipath Propagation Environments Using an OTA Method. IEEE Vehicular Technology Magazine, 2015, 10, 38-46. | 3.4 | 19        |
| 107 | On Angular Sampling Methods for 3-D Spatial Channel Models. IEEE Antennas and Wireless Propagation Letters, 2015, 14, 531-534.   | 4.0 | 23        |
| 108 | Estimating Discrete Power Angular Spectra in Multiprobe OTA Setups. IEEE Antennas and Wireless Propagation Letters, 2014, 13, 349-352.   | 4.0 | 2         |

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|-----|--|-----|-----------|
| 109 | Measurement uncertainty investigation in the multi-probe OTA setups. , 2014, , .   |     | 7         |
| 110 | Estimating power angular spectra in multi-probe setups for terminal testing. , 2014, , .   |     | 0         |
| 111 | Rician Channel Modeling for Multiprobe Anechoic Chamber Setups. IEEE Antennas and Wireless Propagation Letters, 2014, 13, 1761-1764.           | 4.0 | 9         |
| 112 | Probe Selection in Multiprobe OTA Setups. IEEE Transactions on Antennas and Propagation, 2014, 62, 2109-2120.                                  | 5.1 | 34        |
| 113 | Covariance-Based Spatial Channel Structure Emulation for MIMO OTA Testing. IEEE Communications Letters, 2014, 18, 205-208.                     | 4.1 | 2         |
| 114 | Emulating Spatial Characteristics of MIMO Channels for OTA Testing. IEEE Transactions on Antennas and Propagation, 2013, 61, 4306-4314.        | 5.1 | 87        |
| 115 | 3D Channel Model Emulation in a MIMO OTA Setup. , 2013, , .  |     | 13        |
| 116 | Channel Verification Results for the SCME Models in a Multi-Probe Based MIMO OTA Setup. , 2013, , .  |     | 5         |
| 117 | 3D channel emulation in multi-probe setup. Electronics Letters, 2013, 49, 623-625.   | 1.0 | 21        |
| 118 | Channel Spatial Correlation Reconstruction in Flexible Multiprobe Setups. IEEE Antennas and Wireless Propagation Letters, 2013, 12, 1724-1727. | 4.0 | 13        |
| 119 | Antenna Pattern Impact on MIMO OTA Testing. IEEE Transactions on Antennas and Propagation, 2013, 61, 5714-5723.                                | 5.1 | 16        |
| 120 | Measurement Verification of Plane Wave Synthesis Technique Based on Multi-Probe MIMO-OTA Setup. , 2012, , .                                    |     | 13        |
| 121 | Impact of probe placement error on MIMO OTA test zone performance. , 2012, , .   |     | 5         |