

# Peter Jung

## List of Publications by Year in descending order

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Version: 2024-02-01

80  
papers

2,542  
citations

566801

15  
h-index

288905

40  
g-index

83  
all docs

83  
docs citations

83  
times ranked

2284  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | 5G NOW: non-orthogonal, asynchronous waveforms for future mobile applications. IEEE Communications Magazine, 2014, 52, 97-105.  | 4.9 | 1,043     |
| 2  | Sparse Signal Processing Concepts for Efficient 5G System Design. IEEE Access, 2015, 3, 195-208.  | 2.6 | 193       |
| 3  | Towards Massive Connectivity Support for Scalable mMTC Communications in 5G Networks. IEEE Access, 2018, 6, 28969-28992.  | 2.6 | 188       |
| 4  | Non-Bayesian Activity Detection, Large-Scale Fading Coefficient Estimation, and Unsourced Random Access With a Massive MIMO Receiver. IEEE Transactions on Information Theory, 2021, 67, 2925-2951. | 1.5 | 109       |
| 5  | Improved Scaling Law for Activity Detection in Massive MIMO Systems. , 2018, , .  |     | 87        |
| 6  | Compressive random access for post-LTE systems. , 2014, , .   |     | 68        |
| 7  | SPARCs and AMP for Unsourced Random Access. , 2019, , .   |     | 67        |
| 8  | The WSSUS Pulse Design Problem in Multicarrier Transmission. IEEE Transactions on Communications, 2007, 55, 1918-1928.  | 4.9 | 59        |
| 9  | SPARCs for Unsourced Random Access. IEEE Transactions on Information Theory, 2021, 67, 6894-6915.   | 1.5 | 56        |
| 10 | Compressive Random Access Using a Common Overloaded Control Channel. , 2015, , .  |     | 43        |
| 11 | Robust Nonnegative Sparse Recovery and the Nullspace Property of 0/1 Measurements. IEEE Transactions on Information Theory, 2018, 64, 689-703.  | 1.5 | 37        |
| 12 | WSSUS Pulse Design Problem in Multicarrier Transmission. IEEE Transactions on Communications, 2007, 55, 1822-1822.  | 4.9 | 34        |
| 13 | Grant-Free Massive Random Access With a Massive MIMO Receiver. , 2019, , .  |     | 33        |
| 14 | Generalized Approximate Message Passing for Unlimited Sampling of Sparse Signals. , 2018, , .   |     | 30        |
| 15 | Blind Demixing and Deconvolution at Near-Optimal Rate. IEEE Transactions on Information Theory, 2018, 64, 704-727.  | 1.5 | 28        |
| 16 | Compressed Sensing in a Fully Non-Mechanical 350 GHz Imaging Setting. Journal of Infrared, Millimeter, and Terahertz Waves, 2015, 36, 496-512.  | 1.2 | 27        |
| 17 | Pilot-Based Unsourced Random Access With a Massive MIMO Receiver, Interference Cancellation, and Power Control. IEEE Journal on Selected Areas in Communications, 2022, 40, 1522-1534.              | 9.7 | 26        |
| 18 | Robust Iterative Interference Alignment for Cellular Networks With Limited Feedback. IEEE Transactions on Wireless Communications, 2015, 14, 882-894.   | 6.1 | 23        |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 19 | Mask Responses for Single-Pixel Terahertz Imaging. Scientific Reports, 2018, 8, 4886.   | 1.6 | 21        |
| 20 | On time-variant distortions in multicarrier transmission with application to frequency offsets and phase noise. IEEE Transactions on Communications, 2005, 53, 1561-1570.   | 4.9 | 19        |
| 21 | Pilot-Based Unsourced Random Access with a Massive MIMO Receiver in the Quasi-Static Fading Regime. , 2021, , .   |     | 16        |
| 22 | Nearly Doubling the Throughput of Multiuser MIMO Systems Using Codebook Tailored Limited Feedback Protocol. IEEE Transactions on Wireless Communications, 2012, 11, 3921-3931.  | 6.1 | 15        |
| 23 | Super resolution laser line scanning thermography. Optics and Lasers in Engineering, 2020, 134, 106279.   | 2.0 | 15        |
| 24 | Photothermal super resolution imaging: A comparison of different thermographic reconstruction techniques. NDT and E International, 2020, 111, 102228.   | 1.7 | 13        |
| 25 | Classification of Spot-Welded Joints in Laser Thermography Data Using Convolutional Neural Networks. IEEE Access, 2021, 9, 48303-48312.   | 2.6 | 13        |
| 26 | Sparse Model Uncertainties in Compressed Sensing with Application to Convolutions and Sporadic Communication. Applied and Numerical Harmonic Analysis, 2015, , 283-313.   | 0.1 | 12        |
| 27 | Laser excited super resolution thermal imaging for nondestructive inspection of internal defects. Scientific Reports, 2020, 10, 22357.  | 1.6 | 12        |
| 28 | Terahertz Dynamic Aperture Imaging at Standoff Distances Using a Compressed Sensing Protocol. IEEE Transactions on Terahertz Science and Technology, 2019, 9, 364-372.  | 2.0 | 11        |
| 29 | MOCZ for Blind Short-Packet Communication: Practical Aspects. IEEE Transactions on Wireless Communications, 2020, 19, 6675-6692.  | 6.1 | 11        |
| 30 | Multidimensional Reconstruction of Internal Defects in Additively Manufactured Steel Using Photothermal Super Resolution Combined With Virtual Wave-Based Image Processing. IEEE Transactions on Industrial Informatics, 2021, 17, 7368-7378. | 7.2 | 11        |
| 31 | OFDM channel estimation via phase retrieval. , 2015, , .  |     | 10        |
| 32 | Data aggregation and recovery in wireless sensor networks using compressed sensing. International Journal of Sensor Networks, 2016, 22, 209.  | 0.2 | 10        |
| 33 | Blind deconvolution and compressed sensing. , 2016, , .   |     | 10        |
| 34 | Harnessing channel collisions for efficient massive access in 5G networks: A step forward to practical implementation. , 2016, , .  |     | 10        |
| 35 | Stable recovery from the magnitude of symmetrized fourier measurements. , 2014, , .   |     | 8         |
| 36 | Block compressed sensing based distributed resource allocation for M2M communications. , 2016, , .  |     | 8         |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 37 | MOCZ for Blind Short-Packet Communication: Basic Principles. IEEE Transactions on Wireless Communications, 2019, 18, 5080-5097.   | 6.1 | 8         |
| 38 | Recovering Structured Data From Superimposed Non-Linear Measurements. IEEE Transactions on Information Theory, 2020, 66, 453-477.   | 1.5 | 7         |
| 39 | Unsourced Multiuser Sparse Regression Codes achieve the Symmetric MAC Capacity. , 2020, , .   |     | 7         |
| 40 | Photothermal-SR-Net: A Customized Deep Unfolding Neural Network for Photothermal Super Resolution Imaging. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-9. | 2.4 | 7         |
| 41 | Approximation of Lowdin orthogonalization to a spectrally efficient orthogonal overlapping PPM design for UWB impulse radio. Signal Processing, 2012, 92, 649-666.              | 2.1 | 6         |
| 42 | Derandomizing Compressed Sensing With Combinatorial Design. Frontiers in Applied Mathematics and Statistics, 2019, 5, .   | 0.7 | 6         |
| 43 | Mobility Modes for Pulse-Shaped OTFS with Linear Equalizer. , 2020, , .   |     | 6         |
| 44 | Leakage Suppression in Pulse-Shaped OTFS Delay-Doppler-Pilot Channel Estimation. IEEE Wireless Communications Letters, 2022, 11, 1181-1185.                                     | 3.2 | 6         |
| 45 | Capacity and degree-of-freedom of OFDM channels with amplitude constraint. , 2016, , .  |     | 5         |
| 46 | Short-message communication and FIR system identification using Huffman sequences. , 2017, , .  |     | 5         |
| 47 | Simultaneous Structures in Convex Signal Recovery”Revisiting the Convex Combination of Norms. Frontiers in Applied Mathematics and Statistics, 2019, 5, .                       | 0.7 | 5         |
| 48 | Plug-And-Play Learned Gaussian-mixture Approximate Message Passing. , 2021, , .   |     | 5         |
| 49 | Ambiguities on convolutions with applications to phase retrieval. , 2016, , .   |     | 4         |
| 50 | Sparse Non-Negative Recovery from Shifted Symmetric Subgaussian Measurements using NNLS. , 2019, , .  |     | 4         |
| 51 | Reconstruction Methods in THz Single-Pixel Imaging. Applied and Numerical Harmonic Analysis, 2019, , 263-290.   | 0.1 | 4         |
| 52 | Lowdin Transform on FCC Optimized UWB Pulses. , 2010, , .   |     | 3         |
| 53 | Robust nonnegative sparse recovery and 0/1-Bernoulli measurements. , 2016, , .  |     | 3         |
| 54 | Robust message recovery for non-cooperative compute-and-forward relaying. , 2016, , .   |     | 3         |

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|----|--|-----|-----------|
| 55 | On the stability of sparse convolutions. <i>Applied and Computational Harmonic Analysis</i> , 2017, 42, 117-134.   | 1.1 | 3         |
| 56 | A new outlier detection method based on anti-sparse representations. , 2017, , .   |     | 3         |
| 57 | An optically controllable 0.35 THz single-pixel camera for millimeter resolution imaging. , 2017, , .  |     | 3         |
| 58 | Blind sparse recovery from superimposed non-linear sensor measurements. , 2017, , .  |     | 3         |
| 59 | Compressive Rate Estimation With Applications to Device-to-Device Communications. <i>IEEE Transactions on Wireless Communications</i> , 2018, 17, 7001-7012. | 6.1 | 3         |
| 60 | Pulse-Shaped OTFS over Doubly-Dispersive Channels: One-Tap vs. Full LMMSE Equalizers. , 2021, , .  |     | 3         |
| 61 | Robust instance-optimal recovery of sparse signals at unknown noise levels. <i>Information and Inference</i> , 2022, 11, 845-887.                            | 0.9 | 3         |
| 62 | Super-resolution for doubly-dispersive channel estimation. <i>Sampling Theory, Signal Processing, and Data Analysis</i> , 2021, 19, 1.                       | 0.8 | 3         |
| 63 | Blind demixing and deconvolution with noisy data at near optimal rate. , 2017, , .   |     | 3         |
| 64 | L&#x00F6;wdin's approach for orthogonal pulses for UWB impulse radio. , 2010, , .  |     | 2         |
| 65 | Phaseless pilots for OFDM. , 2015, , .   |     | 2         |
| 66 | Cognitive Radios Exploiting Gray Spaces via Compressed Sensing. <i>Frequenz</i> , 2016, 70, .  | 0.6 | 2         |
| 67 | Constrained blind deconvolution using Wirtinger flow methods. , 2017, , .  |     | 2         |
| 68 | Predictive Quality of Service: Adaptation of Platoon Inter-Vehicle Distance to Packet Inter-Reception Time. , 2020, , .                                      |     | 2         |
| 69 | Efficient Tuning-Free l1-Regression of Nonnegative Compressible Signals. <i>Frontiers in Applied Mathematics and Statistics</i> , 2021, 7, .                 | 0.7 | 2         |
| 70 | Clutter Suppression for Indoor Self-Localization Systems by Iteratively Reweighted Low-Rank Plus Sparse Recovery. <i>Sensors</i> , 2021, 21, 6842.           | 2.1 | 2         |
| 71 | Deep Unfolding of Iteratively Reweighted ADMM for Wireless RF Sensing. <i>Sensors</i> , 2022, 22, 3065.  | 2.1 | 2         |
| 72 | On a reverse &#x2113;&lt;inf&gt;2&lt;/inf&gt;-inequality for sparse circular convolutions. , 2013, , .   |     | 1         |

| #  | ARTICLE  | IF | CITATIONS |
|----|--|----|-----------|
| 73 | Determining user specific spectrum usage via sparse channel characteristics. , 2015, , .                 |    | 1         |
| 74 | Short-Term Prediction of Doubly-Dispersive Channels for Pulse-Shaped OTFS using 2D-ConvLSTM. , 2022, , . |    | 1         |
| 75 | Multuser MIMO systems using codebook tailored limited feedback protocol. , 2012, , .                     |    | 0         |
| 76 | Identifying non-adjacent multuser allocations by joint $\hat{\alpha}_1$ -minimization. , 2016, , .       |    | 0         |
| 77 | Effect of anti-sparse prior on PAPR performance analysis. , 2017, , .                                    |    | 0         |
| 78 | Blind Sparse Recovery Using Imperfect Sensor Networks. , 2018, , .                                       |    | 0         |
| 79 | C-RAN-Assisted Non-Coherent Grant-Free Random Access Based on Compute-and-Forward. , 2018, , .           |    | 0         |
| 80 | Extrapolated Projection Methods for PAPR Reduction. , 2018, , .  |    | 0         |