

# Josef A Nossek

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

157  
papers

2,086  
citations

25  
h-index

40  
g-index

221  
ext. papers

2,707  
ext. citations

4.4  
avg, IF

5.27  
L-index

#	Paper	IF	Citations
157	Two-Dimensional Channel Parameter Estimation for Millimeter-Wave Systems Using Butler Matrices. <i>IEEE Transactions on Wireless Communications</i> , <b>2021</b> , 20, 2670-2684	9.6	3
156	Position Information From Reflecting Surfaces. <i>IEEE Wireless Communications Letters</i> , <b>2021</b> , 10, 1300-1304	9.9	1
155	Compact Uniform Circular Quarter-Wavelength Monopole Antenna Arrays With Wideband Decoupling and Matching Networks. <i>IEEE Transactions on Antennas and Propagation</i> , <b>2021</b> , 69, 769-783	4.9	7
154	Power Allocation and Parameter Estimation for Multipath-based 5G Positioning. <i>IEEE Transactions on Wireless Communications</i> , <b>2021</b> , 1-1	9.6	6
153	Massive MIMO Channel Estimation With Low-Resolution Spatial Sigma-Delta ADCs. <i>IEEE Access</i> , <b>2021</b> , 9, 109320-109334	3.5	4
152	Channel parameter estimation for millimeter-wave cellular systems with hybrid beamforming. <i>Signal Processing</i> , <b>2020</b> , 176, 107715	4.4	7
151	On Reciprocity in Physically Consistent TDD Systems With Coupled Antennas. <i>IEEE Transactions on Wireless Communications</i> , <b>2020</b> , 19, 6440-6453	9.6	0
150	Limits of Transmit and Receive Array Gain in Massive MIMO <b>2020</b> ,		2
149	Low SNR Asymptotic Rates of Vector Channels With One-Bit Outputs. <i>IEEE Transactions on Information Theory</i> , <b>2020</b> , 66, 7615-7634	2.8	2
148	Rank-One Detector for Kronecker-Structured Constant Modulus Constellations. <i>IEEE Signal Processing Letters</i> , <b>2020</b> , 27, 1420-1424	3.2	3
147	Space-Constrained Mixed-ADC Massive MIMO <b>2019</b> ,		1
146	Low-Complexity separable beamformers for massive antenna array systems. <i>IET Signal Processing</i> , <b>2019</b> , 13, 434-442	1.7	5
145	Performance Limits of Single-Anchor Millimeter-Wave Positioning. <i>IEEE Transactions on Wireless Communications</i> , <b>2019</b> , 18, 5196-5210	9.6	7
144	5G Downlink Multi-Beam Signal Design for LOS Positioning <b>2019</b> ,		6
143	Reconsidering Linear Transmit Signal Processing in 1-Bit Quantized Multi-User MISO Systems. <i>IEEE Transactions on Wireless Communications</i> , <b>2019</b> , 18, 254-267	9.6	6
142	. <i>IEEE Transactions on Signal Processing</i> , <b>2018</b> , 66, 2557-2571	4.8	28
141	Near-Field MIMO Communication Links. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , <b>2018</b> , 65, 3027-3036	3.9	8

140	A Comparison of Hybrid Beamforming and Digital Beamforming With Low-Resolution ADCs for Multiple Users and Imperfect CSI. <i>IEEE Journal on Selected Topics in Signal Processing</i> , <b>2018</b> , 12, 484-498	7.5	49
139	On the Impact of the Mutual Reactance on the Radiated Power and on the Achievable Rates. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , <b>2018</b> , 65, 1179-1183	3.5	1
138	Robust massive MIMO equalization for mmWave systems with low resolution ADCs <b>2018</b> ,		2
137	On the Statistical Properties of Constant Envelope Quantizers. <i>IEEE Wireless Communications Letters</i> , <b>2018</b> , 7, 1006-1009	5.9	1
136	Quantized Constant Envelope Precoding for Frequency Selective Channels <b>2018</b> ,		1
135	Multi-Array 5G V2V Relative Positioning: Performance Bounds <b>2018</b> ,		12
134	Quantized Constant Envelope Precoding With PSK and QAM Signaling. <i>IEEE Transactions on Wireless Communications</i> , <b>2018</b> , 17, 8022-8034	9.6	37
133	Performance comparison of hybrid and digital beamforming with transmitter impairments <b>2017</b> ,		1
132	On PAPR characteristics of DFT-s-OFDM with geometric and probabilistic constellation shaping <b>2017</b> ,		1
131	Performance analysis of FBMC and CP-OFDM in the presence of phase noise <b>2017</b> ,		2
130	Joint MMSE precoder and equalizer for massive MIMO using 1-bit quantization <b>2017</b> ,		7
129	Achievable Rate and Energy Efficiency of Hybrid and Digital Beamforming Receivers With Low Resolution ADC. <i>IEEE Journal on Selected Areas in Communications</i> , <b>2017</b> , 35, 2056-2068	14.2	37
128	LNA characterization methodologies. <i>International Journal of Circuit Theory and Applications</i> , <b>2017</b> , 45, 1185-1202	2	3
127	A Pessimistic Approximation for the Fisher Information Measure. <i>IEEE Transactions on Signal Processing</i> , <b>2017</b> , 65, 386-396	4.8	7
126	FBMC-OQAM with phase noise: Achievable performance and compensation <b>2017</b> ,		3
125	Arbitrary Beam Synthesis of Hybrid Beamforming Systems for Beam Training. <i>IEEE Wireless Communications Letters</i> , <b>2017</b> , 6, 714-717	5.9	2
124	Precoding under instantaneous per-antenna peak power constraint <b>2017</b> ,		2
123	Massive MIMO downlink 1-bit precoding for frequency selective channels <b>2017</b> ,		7

122	Massive MIMO downlink 1-bit precoding with linear programming for PSK signaling <b>2017</b> ,		23
121	Channel estimation in massive MIMO systems using 1-bit quantization <b>2016</b> ,		19
120	Performance analysis for pilot-based 1-bit channel estimation with unknown quantization threshold <b>2016</b> ,		5
119	Spatial coding based on minimum BER in 1-bit massive MIMO systems <b>2016</b> ,		2
118	Measurement-driven quality assessment of nonlinear systems by exponential replacement <b>2016</b> ,		2
117	Minimum BER precoding in 1-Bit massive MIMO systems <b>2016</b> ,		39
116	MMSE precoder for massive MIMO using 1-bit quantization <b>2016</b> ,		48
115	Efficient filter bank multicarrier realizations for 5G <b>2015</b> ,		5
114	Overdemodulation for High-Performance Receivers with Low-Resolution ADC. <i>IEEE Wireless Communications Letters</i> , <b>2015</b> , 4, 169-172	5.9	16
113	1-bit direction of arrival estimation based on Compressed Sensing <b>2015</b> ,		28
112	Covariance based signal parameter estimation of coarse quantized signals <b>2015</b> ,		7
111	Power- and spectral efficient communication system design using 1-bit quantization <b>2015</b> ,		4
110	LNA noise parameter measurement <b>2015</b> ,		1
109	Precoder and equalizer design for multi-user MIMO FBMC/OQAM with highly frequency selective channels <b>2015</b> ,		5
108	Efficient frequency-domain fractionally-spaced equalizer for flexible digital coherent optical receivers <b>2015</b> ,		2
107	Spectral shaping with low resolution signals <b>2015</b> ,		6
106	Asymptotic Parameter Tracking Performance With Measurement Data of 1-Bit Resolution. <i>IEEE Transactions on Signal Processing</i> , <b>2015</b> , 63, 6086-6095	4.8	9
105	Discrete-Time Signals and Systems. <i>Academic Press Library in Signal Processing</i> , <b>2014</b> , 1, 79-112		

104	Information-Preserving Transformations for Signal Parameter Estimation. <i>IEEE Signal Processing Letters</i> , <b>2014</b> , 21, 866-870	3.2	5
103	A Lower Bound for the Fisher Information Measure. <i>IEEE Signal Processing Letters</i> , <b>2014</b> , 21, 796-799	3.2	30
102	Space-time adaptive principle component analysis for time-delay estimation <b>2014</b> ,		2
101	Will the 1-bit GNSS receiver prevail? <b>2014</b> ,		5
100	Estimation of rank deficient covariance matrices with Kronecker structure <b>2014</b> ,		3
99	Design of Single User Limited Feedback Systems. <i>IEEE Transactions on Wireless Communications</i> , <b>2014</b> , 13, 5812-5825	9.6	2
98	Spectral efficient channel estimation algorithms for FBMC/OQAM systems: A comparison <b>2014</b> ,		3
97	The Multiport Communication Theory. <i>IEEE Circuits and Systems Magazine</i> , <b>2014</b> , 14, 27-44	3.2	13
96	Training-Aided Frequency-Domain Channel Estimation and Equalization for Single-Carrier Coherent Optical Transmission Systems. <i>Journal of Lightwave Technology</i> , <b>2014</b> , 32, 4849-4863	4	12
95	Minimizing the energy per bit for pilot-assisted data transmission over quantized channels <b>2014</b> ,		3
94	A signal adaptive array interpolation approach with reduced transformation bias for DOA estimation of highly correlated signals <b>2014</b> ,		7
93	Circuit-Aware Cognitive Radios for Energy-Efficient Communications. <i>IEEE Wireless Communications Letters</i> , <b>2013</b> , 2, 323-326	5.9	3
92	Two-Phase Scheduling and Leakage-Based Precoding in Wireless Cellular Networks. <i>IEEE Transactions on Wireless Communications</i> , <b>2013</b> , 12, 3148-3157	9.6	1
91	Delayed Single-Tap Frequency-Domain Chromatic-Dispersion Compensation. <i>IEEE Photonics Technology Letters</i> , <b>2013</b> , 25, 167-170	2.2	16
90	Training-aided frequency offset estimation in 16-QAM Nyquist transmission systems <b>2013</b> ,		1
89	Throughput maximization for energy harvesting nodes transmitting over time-varying channels <b>2013</b> ,		1
88	Average throughput maximization for energy harvesting transmitters with causal energy arrival information <b>2013</b> ,		1
87	Quantization-loss reduction for signal parameter estimation <b>2013</b> ,		9

86	Training based Channel Estimation for Signal Equalization and OPM in 16 QAM Optical Transmission Systems <b>2012,</b>		2
85	On the physical meaning of the model of two uncoupled isotrops <b>2012,</b>		1
84	CD equalization with non-maximally decimated DFT filter bank <b>2012,</b>		3
83	Structured subchannel impulse response estimation for Filter Bank based Multicarrier systems <b>2012,</b>		7
82	Throughput maximization for energy harvesting nodes with generalized circuit power modelling <b>2012,</b>		6
81	Frequency domain training-aided channel estimation and equalization in time-varying optical transmission systems <b>2012,</b>		1
80	Multi-satellite time-delay estimation for reliable high-resolution GNSS receivers <b>2012,</b>		3
79	Efficient reconstruction of sparse vectors from quantized observations <b>2012,</b>		13
78	An iterative receiver for quantized MIMO systems <b>2012,</b>		19
77	PDL Monitoring based on the Eigenvalues Spread of a Data-Aided Zero-Forcing Frequency Domain Equalizer <b>2012,</b>		2
76	Efficient Training-Based Channel Estimation for Coherent Optical Communication Systems <b>2012,</b>		5
75	Probabilistic power control for heterogeneous cellular networks with closed-access femtocells <b>2011,</b>		3
74	The Extended Invariance Principle for Signal Parameter Estimation in an Unknown Spatial Field. <i>IEEE Transactions on Signal Processing</i> , <b>2011</b> , 59, 3213-3225	4.8	22
73	. <i>IEEE Transactions on Communications</i> , <b>2011</b> , 59, 1591-1603	6.9	40
72	On the relation of circuit theory and signals, systems and communications. <i>AEU - International Journal of Electronics and Communications</i> , <b>2011</b> , 65, 713-717	2.8	
71	Nullators and norators in circuits education: A benefit or an obstacle? <b>2011,</b>		2
70	Modeling and minimization of transceiver power consumption in wireless networks <b>2011,</b>		19
69	Power efficiency in communication systems from a circuit perspective <b>2011,</b>		30

68	Gaussian multiple access channel with compact antenna arrays <b>2011,</b>		2
67	Quantized CDI Based Tomlinson Harashima Precoding for Broadcast Channels <b>2011,</b>		3
66	Optimum chip pulse shape design for timing synchronization <b>2011,</b>		6
65	On the relation of circuit theory and signals, systems and communications <b>2011,</b>		1
64	How to choose the ADC resolution for short range low power communication? <b>2010,</b>		5
63	<b>2010,</b>		1
62	Scheduling and resource allocation in OFDM and FBMC systems: An interactive approach and performance comparison <b>2010,</b>		4
61	Belief propagation based MIMO detection operating on quantized channel output <b>2010,</b>		22
60	Enhancing the Network Sum-Rate without Sharing Channel State Information between Base Stations <b>2010,</b>		2
59	On the Capacity of Generalized- $\alpha$ - $\beta$ Fading MIMO Channels. <i>IEEE Transactions on Signal Processing</i> , <b>2010</b> , 58, 5939-5944	4.8	44
58	Circuit aware design of power-efficient short range communication systems <b>2010,</b>		23
57	Transceiver design in multiuser MISO systems with imperfect transmit CSI <b>2010,</b>		4
56	Mitigation of intercell interference without base station cooperation <b>2010,</b>		3
55	<b>2010,</b>		5
54	Cost-constrained transmit processing in wireless cellular networks with universal frequency reuse <b>2010,</b>		2
53	Toward a Circuit Theory of Communication. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , <b>2010</b> , 57, 1663-1683	3.9	65
52	Channel-adaptive coding for coarsely quantized MIMO systems <b>2010,</b>		1
51	Maximizing LoS MIMO capacity using reconfigurable antenna arrays <b>2010,</b>		9

50	Multiple parameter estimation with quantized channel output <b>2010</b> ,		71
49	On the effects of carrier frequency offset on cyclic prefix based OFDM and filter bank based multicarrier systems <b>2010</b> ,		19
48	. <i>IEEE Transactions on Communications</i> , <b>2010</b> , 58, 1705-1717	6.9	88
47	Mutual Information Statistics and Beamforming Performance Analysis of Optimized LoS MIMO Systems. <i>IEEE Transactions on Communications</i> , <b>2010</b> , 58, 3316-3329	6.9	25
46	Iterative linear MMSE transmit and receive strategies for cellular MIMO networks <b>2009</b> ,		3
45	Efficient SER measurement method for OFDM receivers with nonlinear distortion <b>2009</b> ,		1
44	Physical modeling of communication systems in information theory <b>2009</b> ,		2
43	Transmit and receive array gain of uniform linear arrays of isotrops <b>2009</b> ,		3
42	On energy efficient cross-layer assisted resource allocation in multiuser multicarrier systems <b>2009</b> ,		1
41	Adaptive decision feedback equalization for filter bank based multicarrier systems <b>2009</b> ,		9
40	Rate Balancing in Multiuser MIMO OFDM Systems. <i>IEEE Transactions on Communications</i> , <b>2009</b> , 57, 1370-1380	6.9	25
39	On Multiuser MIMO Multistream Transmission. <i>IEEE Transactions on Vehicular Technology</i> , <b>2009</b> , 58, 5336-5341	6.9	1
38	Models and analysis of streaming video transmission over wireless fading channels. <i>Signal Processing: Image Communication</i> , <b>2009</b> , 24, 651-665	2.8	10
37	<b>2009</b> ,		10
36	Region 8: Importance of basic principles. <i>IEEE Circuits and Systems Magazine</i> , <b>2009</b> , 9, 37-38	3.2	0
35	Analysis of 1-bit output noncoherent fading channels in the low SNR regime <b>2009</b> ,		22
34	Achievable rates in the SIMO-Uplink/MISO-downlink of an FDD system with imperfect CSI <b>2009</b> ,		1
33	Clock synchronization based on distributed hidden state estimation <b>2009</b> ,		2



32	Transmit processing with low resolution D/A-converters <b>2009</b> ,		64
31	MMSE subchannel decision feedback equalization for filter bank based multicarrier systems <b>2009</b> ,		20
30	A Kalman Filter Approach To Clock Synchronization Of Cascaded Network Elements*. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2009</b> , 42, 54-59		2
29	QoS-constrained Energy Minimization in Multiuser Multicarrier Systems. <i>Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering</i> , <b>2009</b> , 185-195	0.2	1
28	Construction of interpretable Radial Basis Function classifiers based on the Random Forest kernel <b>2008</b> ,		4
27	MMSE subcarrier equalization for filter bank based multicarrier systems <b>2008</b> ,		50
26	On maximizing the sum network MISO broadcast capacity <b>2008</b> ,		8
25	Rate-Invariant User Preselection for Complexity Reduction in Multiuser MIMO Systems <b>2008</b> ,		4
24	Maximum likelihood detection for quantized MIMO systems <b>2008</b> ,		18
23	Analysis of Rayleigh-fading channels with 1-bit quantized output <b>2008</b> ,		60
22	Spatial MIMO decision feedback equalizer operating on quantized data. <i>Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing</i> , <b>2008</b> ,	1.6	10
21	The maximum achievable array gain under physical transmit power constraint <b>2008</b> ,		5
20	Adaptive equalization for filter bank based multicarrier systems <b>2008</b> ,		10
19	The extended invariance principle applied to joint time-delay, frequency, and DOA estimation. <i>Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing</i> , <b>2008</b> ,	1.6	1
18	Achieving near-capacity on large discrete memoryless channels with uniform distributed selected input <b>2008</b> ,		3
17	Equalization of multiuser MIMO high speed downlink packet access <b>2008</b> ,		1
16	Circumventing base station cooperation through Kalman prediction of intercell interference <b>2008</b> ,		4
15	On the Problem of Bandwidth Partitioning in FDD Block-Fading Single-User MISO/SIMO Systems. <i>Eurasip Journal on Advances in Signal Processing</i> , <b>2008</b> , 2008,	1.9	1

14	Maximum likelihood delay estimation in a navigation receiver for aeronautical applications. <i>Aerospace Science and Technology</i> , <b>2008</b> , 12, 256-267	4.9	50
13	Out-Of-Band Radiation in Multicarrier Systems: A Comparison <b>2007</b> , 107-116		16
12	Multuser MIMO Channel Measurements and Performance in a Large Office Environment <b>2007</b> ,		13
11	Intercell-Interference in the Gaussian MISO Broadcast Channel <b>2007</b> ,		12
10	Field modelling of a multiconductor digital bus <b>2007</b> ,		1
9	On Ultra-Wideband MIMO Systems with 1-bit Quantized Outputs: Performance Analysis and Input Optimization <b>2007</b> ,		115
8	Capacity and coding for quantized MIMO systems <b>2006</b> ,		25
7	Challenges in Coding for Quantized MIMO Systems <b>2006</b> ,		21
6	Exploiting the short-term and long-term channel properties in space and time: Eigenbeamforming concepts for the BS in WCDMA. <i>European Transactions on Telecommunications</i> , <b>2001</b> , 12, 365-378		33
5	Maximizing the SDMA Mobile Radio Capacity Increase by DOA Sensitive Channel Allocation. <i>Wireless Personal Communications</i> , <b>1999</b> , 11, 63-77	1.9	0
4	DESIGN AND LEARNING WITH CELLULAR NEURAL NETWORKS. <i>International Journal of Circuit Theory and Applications</i> , <b>1996</b> , 24, 15-24	2	25
3	Discrete-time cellular neural networks. <i>International Journal of Circuit Theory and Applications</i> , <b>1992</b> , 20, 453-467	2	154
2	Cellular neural networks: Theory and circuit design. <i>International Journal of Circuit Theory and Applications</i> , <b>1992</b> , 20, 533-553	2	50
1	Improved circuit for switched-capacitor simulation of an inductor. <i>Electronics Letters</i> , <b>1980</b> , 16, 141	1.1	5