

# Behrouz Farhang-Boroujeny

## List of Publications by Year in descending order

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80  
papers

3,509  
citations

279798

23  
h-index

254184

43  
g-index

86  
all docs

86  
docs citations

86  
times ranked

2071  
citing authors

#	ARTICLE	IF	CITATIONS
1	Frequency Domain Detection and Precoding for Massive MIMO With Single Carrier Modulation. IEEE Transactions on Wireless Communications, 2022, 21, 3232-3248.	9.2	2
2	FBMC Receiver Design and Analysis for Medium and Large Scale Antenna Systems. IEEE Transactions on Vehicular Technology, 2022, 71, 3044-3057.	6.3	5
3	Normalized Matched Filter for Blind Interference Suppression in Filter Bank Multicarrier Spread Spectrum Systems. IEEE Access, 2022, 10, 64270-64282.	4.2	2
4	Spread Spectrum Symbol Detection With Blind Interference Suppression in FBMC-SS. IEEE Open Journal of the Communications Society, 2021, 2, 1630-1646.	6.9	4
5	Efficient Precoding for Single Carrier Modulation in Multi-User Massive MIMO Networks. , 2021, , .		2
6	A Capacity Achieving MIMO Detector Based on Stochastic Sampling. IEEE Open Journal of the Communications Society, 2021, 2, 2436-2448.	6.9	4
7	Examining the Performance of Walsh-DSSS Against FBMC-SS in HF Channels. , 2021, , .		2
8	Spectrally Efficient Pilot Structure and Channel Estimation for Multiuser FBMC Systems. , 2020, , .		2
9	Spread Spectrum Technique Using Staggered Multi-tone. , 2020, , .		1
10	Single Carrier Transmission in Massive MIMO Revisited. , 2020, , .		3
11	Performance Analysis of a Multicarrier Spread Spectrum System in Doubly Dispersive Channels With Emphasis on HF Communications. IEEE Open Journal of the Communications Society, 2020, 1, 462-476.	6.9	8
12	Frequency Domain Multi-User Detection for Single Carrier Modulation with Cyclic Prefix. , 2020, , .		2
13	Cyclic Prefix Direct Sequence Spread Spectrum Capacity Analysis. , 2020, , .		5
14	Normalized Matched Filter for Blind Interference Suppression. , 2018, , .		5
15	Experimental Comparison of FB-MC-SS and DS-SS in HF Channels. , 2018, , .		6
16	RAKE Receiver for HF Filter Bank Multicarrier Spread Spectrum Systems. , 2018, , .		2
17	Filter Bank Multi-Carrier Spread Spectrum with Biorthogonal Signaling for High Speed Data Transmission Through HF Skywave Channels. , 2018, , .		2
18	Filter Bank Multicarrier in Massive MIMO: Analysis and Channel Equalization. IEEE Transactions on Signal Processing, 2018, 66, 3987-4000.	5.3	20

#	ARTICLE	IF	CITATIONS
19	Low Complexity Modem Structure for OFDM-Based Orthogonal Time Frequency Space Modulation. IEEE Wireless Communications Letters, 2018, 7, 344-347.	5.0	130
20	Performance Analysis of Matched Filter Bank for Detection of Linear Frequency Modulated Chirp Signals. IEEE Transactions on Aerospace and Electronic Systems, 2017, 53, 41-54.	4.7	21
21	Capacity Analysis of FBMC-OQAM Systems. IEEE Communications Letters, 2017, 21, 999-1002.	4.1	8
22	Improving Spectral Efficiency of FBMC-OQAM Through Virtual Symbols. IEEE Transactions on Wireless Communications, 2017, 16, 4204-4215.	9.2	21
23	Fault Tolerant Key Generation and Secure Spread Spectrum Communication. IEEE Transactions on Wireless Communications, 2017, 16, 5467-5480.	9.2	5
24	Prototype filter design for FBMC in massive MIMO channels. , 2017, , .		23
25	Excited Markov Chain Monte Carlo MIMO detector with 8-antenna 802.11ac testbed demonstration. , 2017, , .		2
26	An Analytical Study of Circularly Pulse-Shaped FBMC-OQAM Waveforms. IEEE Signal Processing Letters, 2017, 24, 1503-1506.	3.6	10
27	OFDM Without CP in Massive MIMO. IEEE Transactions on Wireless Communications, 2017, 16, 7619-7633.	9.2	20
28	Achieving Near MAP Performance With an Excited Markov Chain Monte Carlo MIMO Detector. IEEE Transactions on Wireless Communications, 2017, 16, 7718-7732.	9.2	24
29	BER performance study of HF band FB-MC-SS. , 2016, , .		12
30	OFDM Inspired Waveforms for 5G. IEEE Communications Surveys and Tutorials, 2016, 18, 2474-2492.	39.4	229
31	A comparison of linear FBMC and circularly shaped waveforms. , 2016, , .		5
32	An underlay communication channel for 5G cognitive mesh networks: Packet design, implementation, analysis, and experimental results. , 2016, , .		8
33	Tail shortening by virtual symbols in FBMC-OQAM signals. , 2015, , .		11
34	HF band filter bank multi-carrier spread spectrum. , 2015, , .		15
35	Frequency spreading equalization in multicarrier massive MIMO. , 2015, , .		24
36	Impact of timing and frequency offsets on multicarrier waveform candidates for 5G. , 2015, , .		83

#	ARTICLE	IF	CITATIONS
37	Filterbank Multicarrier Communications for Underwater Acoustic Channels. IEEE Journal of Oceanic Engineering, 2015, 40, 115-130.	3.8	55
38	Low Complexity CFO Compensation in Uplink OFDMA Systems With Receiver Windowing. IEEE Transactions on Signal Processing, 2015, 63, 2546-2558.	5.3	24
39	Frequency spreading Doppler scaling compensation in underwater acoustic multicarrier communications. , 2015, , .		9
40	Filter Bank Multicarrier Modulation: A Waveform Candidate for 5G and Beyond. Advances in Electrical Engineering, 2014, 2014, 1-25.	1.1	112
41	Pilot decontamination in CMT-based massive MIMO networks. , 2014, , .		14
42	Filter Bank Multicarrier for Massive MIMO. , 2014, , .		48
43	Alleviating the effect of transient background for detection enhancement of nondeterministic chirp signals. , 2014, , .		0
44	Comparison of direct sequence spread spectrum rake receiver with a maximum ratio combining multicarrier spread spectrum receiver. , 2014, , .		2
45	Circularly Pulse-Shaped Waveforms for 5G: Options and Comparisons. , 2014, , .		12
46	On radar detection of chirp signals with nondeterministic parameters in challenging noise background. , 2013, , .		3
47	Beyond OFDM: Best-Effort Dynamic Spectrum Access Using Filterbank Multicarrier. IEEE/ACM Transactions on Networking, 2013, 21, 869-882.	3.8	29
48	Decorrelation MIMO Receiver for Block Fading Channels. IEEE Communications Letters, 2013, 17, 2112-2115.	4.1	0
49	Near Maximum Likelihood Synchronization for Filter Bank Multicarrier Systems. IEEE Wireless Communications Letters, 2013, 2, 235-238.	5.0	26
50	Analysis of the Optimum Precoder in SC-FDMA. IEEE Transactions on Wireless Communications, 2012, 11, 4096-4107.	9.2	41
51	Design and Implementation of an Underlay Control Channel for Cognitive Radios. IEEE Journal on Selected Areas in Communications, 2012, 30, 1875-1889.	14.0	40
52	Beyond OFDM: Best-effort dynamic spectrum access using filterbank multicarrier. , 2012, , .		5
53	Complexity and Performance Comparison of Filter Bank Multicarrier and OFDM in Uplink of Multicarrier Multiple Access Networks. IEEE Transactions on Signal Processing, 2011, 59, 1907-1912.	5.3	97
54	OFDM Versus Filter Bank Multicarrier. IEEE Signal Processing Magazine, 2011, 28, 92-112.	5.6	1,107

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55	Random Access Protocols for Collaborative Spectrum Sensing in Multi-Band Cognitive Radio Networks. IEEE Journal on Selected Topics in Signal Processing, 2011, 5, 124-136.	10.8	26
56	Markov Chain Monte Carlo Detection for Frequency-Selective Channels Using List Channel Estimates. IEEE Journal on Selected Topics in Signal Processing, 2011, 5, 1537-1547.	10.8	19
57	Sensitivity analysis of offset QAM multicarrier systems to residual carrier frequency and timing offsets. Signal Processing, 2011, 91, 1604-1612.	3.7	45
58	Packet Format Design and Decision Directed Tracking Methods for Filter Bank Multicarrier Systems. Eurasip Journal on Advances in Signal Processing, 2010, 2010, .	1.7	24
59	Approaching MIMO capacity using bitwise Markov Chain Monte Carlo detection. IEEE Transactions on Communications, 2010, 58, 423-428.	7.8	41
60	Sensitivity analysis of the multiuser offset QAM multicarrier systems to carrier frequency and timing offsets. , 2010, , .		2
61	Markov Chain Monte Carlo Detectors for Channels With Intersymbol Interference. IEEE Transactions on Signal Processing, 2010, 58, 2206-2217.	5.3	37
62	Analysis of the Stereophonic LMS/Newton Algorithm and Impact of Signal Nonlinearity on Its Convergence Behavior. IEEE Transactions on Signal Processing, 2010, 58, 6080-6092.	5.3	7
63	Cosine Modulated and Offset QAM Filter Bank Multicarrier Techniques: A Continuous-Time Prospect. Eurasip Journal on Advances in Signal Processing, 2010, 2010, .	1.7	94
64	Time-varying carrier offsets in mobile OFDM. IEEE Transactions on Communications, 2009, 57, 2790-2798.	7.8	22
65	Markov Chain Monte Carlo: Applications to MIMO detection and channel equalization. , 2009, , .		4
66	Filterbank Multicarrier Reflectometry for Cognitive Live Wire Testing. IEEE Sensors Journal, 2009, 9, 1831-1837.	4.7	12
67	Implementation of a Markov Chain Monte Carlo Based Multiuser/MIMO Detector. IEEE Transactions on Circuits and Systems I: Regular Papers, 2009, 56, 246-255.	5.4	39
68	Parameter Derivation of Type-2 Discrete-Time Phase-Locked Loops Containing Feedback Delays. IEEE Transactions on Circuits and Systems II: Express Briefs, 2009, 56, 886-890.	3.0	8
69	Filter Bank Spectrum Sensing for Cognitive Radios. IEEE Transactions on Signal Processing, 2008, 56, 1801-1811.	5.3	313
70	Multicarrier communication techniques for spectrum sensing and communication in cognitive radios. , 2008, 46, 80-85.		273
71	Spectral Method of Blind Carrier Tracking for OFDM. IEEE Transactions on Signal Processing, 2008, 56, 2706-2717.	5.3	26
72	A Square-Root Nyquist (M) Filter Design for Digital Communication Systems. IEEE Transactions on Signal Processing, 2008, 56, 2127-2132.	5.3	99

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73	Progressive simulation-based design: A case study example on software defined radio. , 2008, , .		4
74	Prolate Filters for Nonadaptive Multitaper Spectral Estimators With High Spectral Dynamic Range. IEEE Signal Processing Letters, 2008, 15, 457-460.	3.6	4
75	Filterbank Multicarrier and Multicarrier CDMA for Cognitive Radio Systems. , 2007, , .		15
76	Mobility and Carrier Offset Modeling in OFDM. , 2007, , .		5
77	Low-Delay Nonuniform Pseudo-QMF Banks With Application to Speech Enhancement. IEEE Transactions on Signal Processing, 2007, 55, 2110-2121.	5.3	26
78	Spectral Modelling and Low-complexity Blind Carrier Frequency Tracking in OFDM. , 2006, , .		1
79	Engineering the nonlinear phase shift. Optics Letters, 2003, 28, 1945.	3.3	9
80	A VLSI Design for Implementation of Transform Domain Adaptive Filters. VLSI Design, 1999, 9, 119-133.	0.5	0