

# Shahram ShahbazPanahi

## List of Publications by Year in descending order

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137  
papers

3,111  
citations

304368

22  
h-index

174990

52  
g-index

137  
all docs

137  
docs citations

137  
times ranked

1797  
citing authors

#	ARTICLE	IF	CITATIONS
1	Convex Optimization-Based Beamforming. IEEE Signal Processing Magazine, 2010, 27, 62-75.	4.6	447
2	Distributed Beamforming for Relay Networks Based on Second-Order Statistics of the Channel State Information. IEEE Transactions on Signal Processing, 2008, 56, 4306-4316.	3.2	374
3	Optimal Distributed Beamforming for Two-Way Relay Networks. IEEE Transactions on Signal Processing, 2010, 58, 1238-1250.	3.2	328
4	Joint Relay Selection and Power Allocation for Two-Way Relay Networks. IEEE Signal Processing Letters, 2011, 18, 91-94.	2.1	179
5	Multiple Peer-to-Peer Communications Using a Network of Relays. IEEE Transactions on Signal Processing, 2009, 57, 3053-3062.	3.2	150
6	User-Centric Cell-Free Massive MIMO Networks: A Survey of Opportunities, Challenges and Solutions. IEEE Communications Surveys and Tutorials, 2022, 24, 611-652.	24.8	115
7	Robust Downlink Beamforming Based on Outage Probability Specifications. IEEE Transactions on Wireless Communications, 2007, 6, 3498-3503.	6.1	101
8	Unified Optimization Framework for Multi-Static Radar Code Design Using Information-Theoretic Criteria. IEEE Transactions on Signal Processing, 2013, 61, 5401-5416.	3.2	82
9	Single-Carrier Equalization for Asynchronous Two-Way Relay Networks. IEEE Transactions on Signal Processing, 2014, 62, 5793-5808.	3.2	70
10	Coarse Trajectory Design for Energy Minimization in UAV-Enabled. IEEE Transactions on Vehicular Technology, 2020, 69, 9483-9496.	3.9	68
11	Robust Downlink Power Control in Wireless Cellular Systems. Eurasip Journal on Wireless Communications and Networking, 2004, 2004, 1.	1.5	67
12	Energy Harvesting Cooperative Communication Systems. IEEE Transactions on Wireless Communications, 2014, 13, 6118-6131.	6.1	67
13	Joint Receive-Transmit Beamforming for Multi-Antenna Relaying Schemes. IEEE Transactions on Signal Processing, 2010, 58, 4966-4972.	3.2	49
14	A Semi-Closed-Form Solution to Optimal Distributed Beamforming for Two-Way Relay Networks. IEEE Transactions on Signal Processing, 2012, 60, 1511-1516.	3.2	45
15	Filter-and-Forward Distributed Beamforming for Two-Way Relay Networks With Frequency Selective Channels. IEEE Transactions on Signal Processing, 2012, 60, 1927-1941.	3.2	43
16	Optimal spectrum sharing and power allocation for OFDM-based two-way relaying. , 2010, , .		42
17	Mobility-Aided Wireless Sensor Network Localization via Semidefinite Programming. IEEE Transactions on Wireless Communications, 2013, 12, 5966-5978.	6.1	41
18	Distributed peer-to-peer beamforming for multiuser relay networks. , 2009, , .		39

#	ARTICLE	IF	CITATIONS
19	Performance Tradeoffs in Amplify-and-Forward Bidirectional Network Beamforming. IEEE Transactions on Signal Processing, 2012, 60, 4196-4209.	3.2	38
20	Multi-Carrier Asynchronous Bi-Directional Relay Networks: Joint Subcarrier Power Allocation and Network Beamforming. IEEE Transactions on Wireless Communications, 2013, 12, 3796-3812.	6.1	31
21	Downlink Resource Allocation in Multiuser Cell-Free MIMO Networks With User-Centric Clustering. IEEE Transactions on Wireless Communications, 2022, 21, 1482-1497.	6.1	31
22	A semi-closed form solution to the SNR balancing problem of two-way relay network beamforming. , 2010, , .		28
23	Filter-and-forward distributed beamforming for relay networks in frequency selective fading channels. , 2009, , .		26
24	Achievable rate region and sum-rate maximization for network beamforming for bi-directional relay networks. , 2010, , .		24
25	Distributed Resource Allocation Optimization for User-Centric Cell-Free MIMO Networks. IEEE Transactions on Wireless Communications, 2022, 21, 3099-3115.	6.1	24
26	Distributed Peer-to-Peer Multiplexing using Ad Hoc Relay Networks. , 2008, , .		23
27	Sum-Rate Optimal Network Beamforming and Subcarrier Power Allocation for Multi-Carrier Asynchronous Two-Way Relay Networks. IEEE Transactions on Signal Processing, 2015, 63, 4129-4143.	3.2	23
28	Max-SNR Opportunistic Routing for Large-Scale Energy Harvesting Sensor Networks. IEEE Transactions on Green Communications and Networking, 2018, 2, 506-516.	3.5	22
29	A semi-closed-form solution to optimal decentralized beamforming for two-way relay networks. , 2009, , .		16
30	Filter-and-forward multiple peer-to-peer beamforming in relay networks with frequency selective channels. , 2010, , .		16
31	Sum-Rate Maximization for Active Channels. IEEE Signal Processing Letters, 2013, 20, 771-774.	2.1	15
32	Sparse Signal Recovery Based Imaging in the Presence of Mode Conversion With Application to Non-Destructive Testing. IEEE Transactions on Signal Processing, 2016, 64, 1352-1364.	3.2	15
33	Distributed Massive MIMO Systems With Non-Reciprocal Channels: Impacts and Robust Beamforming. IEEE Transactions on Communications, 2018, 66, 5261-5277.	4.9	15
34	Joint Spectrum Sharing and Power Allocation for OFDM-Based Two-Way Relaying. IEEE Transactions on Wireless Communications, 2015, 14, 3294-3308.	6.1	14
35	Pre-Channel Equalization and Distributed Beamforming in Asynchronous Single-Carrier Bi-Directional Relay Networks. IEEE Transactions on Signal Processing, 2016, 64, 3968-3983.	3.2	14
36	A New Approach to Spatial Power Spectral Density Estimation for Multiple Incoherently Distributed Sources. , 2007, , .		13

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37	Joint subcarrier power loading and distributed beamforming in OFDM-based asynchronous relay networks. , 2009, , .		13
38	On Achievable SNR Region for Multi-User Multi-Carrier Asynchronous Bidirectional Relay Networks. IEEE Transactions on Wireless Communications, 2015, 14, 3219-3230.	6.1	13
39	Jointly Optimal Pre- and Post-Channel Equalization and Distributed Beamforming in Asynchronous Bidirectional Relay Networks. IEEE Transactions on Signal Processing, 2017, 65, 4593-4608.	3.2	13
40	Dynamic QoS-Aware Resource Assignment in Cloud-Based Content-Delivery Networks. IEEE Access, 2018, 6, 2298-2309.	2.6	13
41	Semi-Blind Time-Domain Channel Estimation for Frequency-Selective Multiuser Massive MIMO Systems. IEEE Transactions on Communications, 2019, 67, 1045-1058.	4.9	13
42	Network beamforming based on second order statistics of the channel state information. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , .	1.8	12
43	Sum-Rate Maximization for Active Channels With Unequal Subchannel Noise Powers. IEEE Transactions on Signal Processing, 2014, 62, 4187-4198.	3.2	12
44	Hybrid Analog and Digital Beamforming Design for Channel Estimation in Correlated Massive MIMO Systems. IEEE Transactions on Signal Processing, 2021, 69, 5784-5800.	3.2	12
45	MUSIC-based array imaging in multi-modal ultrasonic non-destructive testing. , 2012, , .		11
46	A Distributed Reflector Localization Approach to Ultrasonic Array Imaging in Non-Destructive Testing Applications. IEEE Transactions on Signal Processing, 2014, 62, 3863-3873.	3.2	11
47	On Sum-Rate Maximization Approach to Network Beamforming and Power Allocation for Asynchronous Single-Carrier Two-Way Relay Networks. IEEE Access, 2017, 5, 13699-13711.	2.6	11
48	Blind and Semiblind Channel and Carrier Frequency-Offset Estimation in Orthogonally Space-Time Block Coded MIMO Systems. IEEE Transactions on Signal Processing, 2008, 56, 702-711.	3.2	10
49	Optimal network beamforming for bi-directional relay networks. , 2009, , .		10
50	Optimal Spectrum Leasing and Resource Sharing in Two-Way Relay Networks. IEEE Transactions on Signal Processing, 2014, 62, 5030-5045.	3.2	10
51	Robust Adaptive Beamforming Based on Worst-Case Performance Optimization. , 2005, , 49-89.		9
52	Optimal Network Beamforming in Collaborative Relay Networks With Centralized Energy Harvesting. IEEE Transactions on Signal Processing, 2016, 64, 6005-6016.	3.2	9
53	Joint Power Allocation and Access Point Selection for Cell-free Massive MIMO. , 2020, , .		9
54	Filter-and-Forward Distributed Beamforming for Two-Way Relay Networks with Frequency Selective Channels. , 2010, , .		8

#	ARTICLE	IF	CITATIONS
55	A Two-Way Network Beamforming Approach Based on Total Power Minimization With Symmetric Relay Beamforming Matrices. IEEE Access, 2017, 5, 12458-12474.	2.6	8
56	On RRH Placement for Multi-User Distributed Massive MIMO Systems. IEEE Access, 2018, 6, 70597-70614.	2.6	8
57	Popularity Tracking for Proactive Content Caching with Dynamic Factor Analysis. , 2019, , .		8
58	Resource Allocation and Scheduling in Non-coherent User-centric Cell-free MIMO. , 2021, , .		8
59	Asynchronous Two-Way MIMO Relaying: A Multi-Relay Scenario. IEEE Transactions on Wireless Communications, 2018, 17, 4270-4287.	6.1	7
60	Detecting the number of signals in wireless DS-CDMA networks. IEEE Transactions on Communications, 2008, 56, 1189-1197.	4.9	6
61	An SNR balancing approach to two-way relaying. , 2009, , .		6
62	Asynchronous bidirectional relay-assisted communications. , 2012, , .		6
63	A total power minimization approach to relay selection for two-way relay networks. , 2012, , .		6
64	A New Model for Array Spatial Signature for Two-Layer Imaging With Applications to Nondestructive Testing Using Ultrasonic Arrays. IEEE Transactions on Signal Processing, 2015, 63, 2464-2475.	3.2	6
65	Optimal Resource Sharing and Network Beamforming in Multi-Carrier Bidirectional Relay Networks. IEEE Transactions on Signal Processing, 2015, 63, 6354-6367.	3.2	6
66	Joint Subchannel Pairing and Power Allocation in Multichannel MABC-Based Two-Way Relaying. IEEE Transactions on Wireless Communications, 2016, 15, 620-632.	6.1	6
67	Low-Complexity ADMM-Based Algorithm for Robust Multi-Group Multicast Beamforming in Large-Scale Systems. IEEE Transactions on Signal Processing, 2022, 70, 2046-2061.	3.2	6
68	Closed-form blind channel estimation in orthogonally coded MIMO-OFDM systems. , 2010, , .		5
69	Two-way cooperative communications with statistical channel knowledge. Signal Processing, 2013, 93, 3363-3370.	2.1	5
70	Sum-Rate Maximization for Two-Way Active Channels. IEEE Transactions on Signal Processing, 2016, 64, 1369-1382.	3.2	5
71	On Total Transmission Power Minimization Approach to Decentralized Beamforming in Single-Carrier Asynchronous Bidirectional Relay-Assisted Communication Networks. IEEE Access, 2019, 7, 30966-30979.	2.6	5
72	Statistical Analysis of Downlink Zero-Forcing Beamforming. IEEE Wireless Communications Letters, 2020, 9, 1965-1969.	3.2	5

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73	Exploiting Multiple Shift Invariances in Multidimensional Harmonic Retrieval of Damped Exponentials. , 0, , .		4
74	Semi-Blind Multi-User MIMO Channel Estimation Based on Capon and MUSIC Techniques. , 0, , .		4
75	Blind channel estimation in MIMO-OFDM systems using semi-definite relaxation. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , .	1.8	4
76	Mobility diversity in mobile wireless networks. , 2011, , .		4
77	Distributed beamforming and subcarrier power allocation for OFDM-based asynchronous two-way relay networks. , 2012, , .		4
78	Opportunistic Routing in Large-Scale Energy Harvesting Sensor Networks. , 2016, , .		4
79	Semi-Blind Channel Estimation for Frequency-Selective Massive MIMO Systems. , 2018, , .		4
80	Stochastic QoE-Aware Optimization in Cloud-Based Content Delivery Networks. IEEE Access, 2018, 6, 32662-32672.	2.6	4
81	A Worst-Case Performance Optimization Based Design Approach to Robust Symbol-Level Precoding for Downlink MU-MIMO. , 2019, , .		4
82	MMSE-Based Channel Estimation for Hybrid Beamforming Massive MIMO with Correlated Channels. , 2020, , .		4
83	Capacity maximization for distributed beamforming in one- and bi-directional relay networks. , 2011, , .		3
84	Optimal resource allocation in energy harvesting amplify-and-forward relay networks. , 2013, , .		3
85	SNR-per-unit-power optimization in relay networks. , 2013, , .		3
86	Experimental results of compressive sensing based imaging in ultrasonic non-destructive testing. , 2013, , .		3
87	Energy harvesting for relay-assisted communications. , 2014, , .		3
88	Achievable SNR and rate regions for OFDM-based asynchronous two-way relay networks. , 2014, , .		3
89	The Impact of Hardware Calibration Errors on the Performance of Massive MIMO Systems. , 2016, , .		3
90	Throughput Maximization with an Energy Outage Constraint for Energy Harvesting Links. , 2017, , .		3

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91	MDP modeling of resource provisioning in virtualized content-delivery networks. , 2017, , .		3
92	RWP+: A New Random Waypoint Model for High-Speed Mobility. IEEE Communications Letters, 2021, 25, 3748-3752.	2.5	3
93	Finite-Alphabet Symbol-Level Multiuser Precoding for Massive MU-MIMO Downlink. IEEE Transactions on Signal Processing, 2021, 69, 5595-5610.	3.2	3
94	Deep Generative Models for Downlink Channel Estimation in FDD Massive MIMO Systems. IEEE Transactions on Signal Processing, 2022, 70, 2000-2014.	3.2	3
95	Exploiting the Structure of OSTBC's to Improve the Robustness of Worst-Case Optimization Based Linear Multi-User MIMO Receivers. , 0, , .		2
96	Sum-rate maximization for active channels: Unequal noise power over different subchannels. , 2013, , .		2
97	Jointly optimal distributed beamforming and power control in asynchronous two-way relay networks. , 2015, , .		2
98	Large Scale Energy Harvesting Sensor Networks with Applications in Smart Cities. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2016, , 215-226.	0.2	2
99	Recent advances in network beamforming. , 2018, , 403-477.		2
100	One-Bit Quantized Constructive Interference Based Precoding for Massive Multiuser MIMO Downlink. , 2020, , .		2
101	Power-Optimal Distributed Beamforming for Multi-Carrier Asynchronous Bidirectional Relay Networks. IEEE Transactions on Signal and Information Processing Over Networks, 2021, 7, 114-129.	1.6	2
102	Optimizing RRH Placement Under a Noise-Limited Point-to-Point Wireless Backhaul. , 2021, , .		2
103	Recent Advances in Orthogonal Space-Time Block Coding. , 2005, , 105-168.		1
104	Distributed network beamforming with a multi-antenna receiver. , 2011, , .		1
105	Filter-and-forward distributed beamforming for two-way relay networks with frequency selective channels. , 2012, , .		1
106	Joint pairing and power allocation optimization in multichannel MABC-based two-way relaying. , 2014, , .		1
107	Optimal resource sharing and network beamforming for bidirectional relay networks. , 2014, , .		1
108	Optimal power allocation and network beamforming for OFDM-based relay networks. , 2014, , .		1

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109	Immersion ultrasonic array imaging using a new array spatial signature in different imaging algorithms. , 2014, , .		1
110	Symmetric beamforming for multi-antenna two-way relay networks. , 2015, , .		1
111	Multiple Peer-to-Peer Bidirectional Cooperative Communications Using Massive MIMO Relays. , 2018, , .		1
112	Joint Power Allocation and Distributed Beamforming Design for Multi-Carrier Asynchronous Two-Way Relay Networks. , 2019, , .		1
113	Proof of the Equivalency of MSE-Constrained and Rate-Constrained Power Optimization Approaches to Distributed Bi-Directional Beamforming. IEEE Transactions on Signal and Information Processing Over Networks, 2020, 6, 460-478.	1.6	1
114	Admm-Based Fast Algorithm for Robust Multi-Group Multicast Beamforming. , 2021, , .		1
115	Joint Power Allocation and Distributed Equalization Design for OFDM-Based Filter-and-Forward Two-Way Multi-Relay Networks. IEEE Transactions on Signal Processing, 2021, 69, 4652-4668.	3.2	1
116	Semiblind Channel and Carrier Frequency-Offset Estimation for Orthogonally Space-Time Block Coded MIMO Systems. , 2007, , .		0
117	Experimental performance evaluation of blind channel estimation for orthogonal space-time block codes. , 2008, , .		0
118	Time reversal Bayesian ultrasonic array imaging for non-destructive testing. , 2011, , .		0
119	On the design and performance of TDBC-based bi-directional network beamforming. , 2011, , .		0
120	A relay selection approach to bidirectional collaborative communications with imperfect CSI. , 2011, , .		0
121	Power control for two-way relay networks under per-node power constraint. , 2012, , .		0
122	Corrections to "Achievable Rate Region under Joint Distributed Beamforming and Power Allocation for Two-Way Relay Networks" [Nov 12 4026-4037]. IEEE Transactions on Wireless Communications, 2013, 12, 5373-5373.	6.1	0
123	Multi-relay network design using power-normalized SNR. , 2013, , .		0
124	Optimal spectrum leasing and network beamforming for two-way relay networks. , 2014, , .		0
125	Multi-layer ultrasonic imaging for non-destructive testing applications. , 2014, , .		0
126	Ultrasonic array imaging for immersion non-destructive testing. , 2014, , .		0

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127	Mobile distributed compressive sensing for spectrum sensing. , 2014, , .		0
128	Total power minimization for two-way networks with multi-antenna relays. , 2015, , .		0
129	Jointly optimal pre- and post-channel equalization and network beamforming in asynchronous two-way relay networks. , 2015, , .		0
130	Sum-rate maximization for asynchronous two-way relay networks. , 2015, , .		0
131	Network beamforming for asynchronous MIMO two-way relay networks. , 2017, , .		0
132	A Novel Spatio-Temporal Frequency-Domain Imaging Technique for Two-Layer Materials Using Ultrasonic Arrays. IEEE Access, 2018, 6, 8977-8989.	2.6	0
133	Resource Allocation for Two-Way Active Channels with Unequal Subchannel Noise Powers. , 2019, , .		0
134	Equivalency of MSE- and Rate-Constrained Power Optimization Methods for Distributed Beamforming. , 2019, , .		0
135	Characterization of the MSE Region under a Total Power Budget for Asynchronous Two-Way Relay Networks. , 2019, , .		0
136	Distributed Equalization and Power Allocation For Multi-Carrier Bidirectional Filter-and-Forward Relay Networks. , 2020, , .		0
137	Analysis and Design of Distributed MIMO Networks With a Wireless Fronthaul. IEEE Transactions on Communications, 2022, 70, 980-998.	4.9	0