Raviraj S Adve

List of Publications by Year
in descending order

132 papers	2,850 citations	361045 20 h-index	233125 45 g-index
133 all docs	133 docs citations	133 times ranked	1960 citing authors

#	Article	IF	Citations
1	Selectivity of Protein Interactions Stimulated by Terahertz Signals. IEEE Transactions on Nanobioscience, 2023, 22, 318-328.	2.2	2
2	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
3	Distributed Resource Allocation Optimization for User-Centric Cell-Free MIMO Networks. IEEE Transactions on Wireless Communications, 2022, 21, 3099-3115.	6.1	24
4	Analysis and Design of Distributed MIMO Networks With a Wireless Fronthaul. IEEE Transactions on Communications, 2022, 70, 980-998.	4.9	0
5	SimHumalator: An Open-Source End-to-End Radar Simulator for Human Activity Recognition. IEEE Aerospace and Electronic Systems Magazine, 2022, 37, 6-22.	2.3	17
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	Deep Generative Models for Downlink Channel Estimation in FDD Massive MIMO Systems. IEEE Transactions on Signal Processing, 2022, 70, 2000-2014.	3.2	3
8	Fair Licensed Spectrum Sharing Between Two MNOs Using Resource Optimization in Multi-Cell Multi-User MIMO Networks. IEEE Transactions on Wireless Communications, 2022, 21, 6714-6730.	6.1	1
9	Information Rates of Controlled Protein Interactions Using Terahertz Communication. IEEE Transactions on Nanobioscience, 2021, 20, 9-19.	2.2	15
10	RWP+: A New Random Waypoint Model for High-Speed Mobility. IEEE Communications Letters, 2021, 25, 3748-3752.	2.5	3
11	Secure Beamforming and Ergodic Secrecy Rate Analysis for Amplify-and-Forward Relay Networks With Wireless Powered Jammer. IEEE Transactions on Vehicular Technology, 2021, 70, 3908-3913.	3.9	6
12	Augmenting Experimental Data with Simulations to Improve Activity Classification in Healthcare Monitoring. , 2021, , .		7
13	Resource Allocation and Scheduling in Non-coherent User-centric Cell-free MIMO. , 2021, , .		8
14	Optimizing RRH Placement Under a Noise-Limited Point-to-Point Wireless Backhaul. , 2021, , .		2
15	GAN Based Noise Generation to Aid Activity Recognition when Augmenting Measured WiFi Radar Data with Simulations. , 2021, , .		10
16	Fair Licensed Spectrum Sharing Between Two MNOs Using Resource Optimization. , 2021, , .		1
17	Information rate analysis of ASK-based molecular communication systems with feedback. Nano Communication Networks, 2021, 28, 100339.	1.6	3
18	Modelling the Role of Inter-cellular Communication in Modulating Photosynthesis in Plants. IEEE Transactions on Molecular, Biological, and Multi-Scale Communications, 2021, , 1-1.	1.4	1

#	Article	IF	Citations
19	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
20	Enabling Protein Interactions Using Terahertz Signals for Intra-body Communication. , 2021, , .		2
21	On Channel Estimation to Enable Fair Licensed Spectrum Sharing Between Two MNOs. , 2021, , .		0
22	Statistical Analysis of Downlink Zero-Forcing Beamforming. IEEE Wireless Communications Letters, 2020, 9, 1965-1969.	3.2	5
23	Regulating Molecular Interactions Using Terahertz Communication. , 2020, , .		4
24	Centralized and Distributed Deep Reinforcement Learning Methods for Downlink Sum-Rate Optimization. IEEE Transactions on Wireless Communications, 2020, 19, 8410-8426.	6.1	33
25	Optimizing Downlink Resource Allocation in Multiuser MIMO Networks via Fractional Programming and the Hungarian Algorithm. IEEE Transactions on Wireless Communications, 2020, 19, 5162-5175.	6.1	28
26	Communication in Plants: Comparison of Multiple Action Potential and Mechanosensitive Signals With Experiments. IEEE Transactions on Nanobioscience, 2020, 19, 213-223.	2.2	9
27	Fine Position Estimation of a Myocardium Phantom Using a UWB Radar. , 2019, , .		2
28	Information Theoretic Based Comparative Analysis of Different Communication Signals in Plants. IEEE Access, 2019, 7, 117075-117087.	2.6	8
29	On the Throughput of Wireless Powered Communication Systems With a Multiple Antenna Bidirectional Relay. IEEE Wireless Communications Letters, 2019, 8, 941-944.	3.2	7
30	Scheduling for VoLTE: Resource Allocation Optimization and Low-Complexity Algorithms. IEEE Transactions on Wireless Communications, 2019, 18, 1534-1547.	6.1	18
31	Power Delay Profile in Coordinated Distributed Networks: User-Centric v/s Disjoint Clustering. , 2019, , .		8
32	Design of multiple nearâ€orthogonal spectrallyâ€compliant waveforms via alternating successive convex approximations and projections. IET Radar, Sonar and Navigation, 2019, 13, 781-788.	0.9	1
33	Reinforcement Learning for Cognitive Radar Task Scheduling. , 2019, , .		8
34	Separating Function Estimation Test for Binary Distributed Radar Detection With Unknown Parameters. IEEE Transactions on Aerospace and Electronic Systems, 2019, 55, 1357-1369.	2.6	9
35	Communication and Information Theory of Single Action Potential Signals in Plants. IEEE Transactions on Nanobioscience, 2019, 18, 61-73.	2.2	18
36	Semi-Blind Time-Domain Channel Estimation for Frequency-Selective Multiuser Massive MIMO Systems. IEEE Transactions on Communications, 2019, 67, 1045-1058.	4.9	13

#	Article	IF	Citations
37	Total Power Minimization: Joint Antenna Selection and Beamforming Design. , 2019, , .		1
38	Characterizing Communication Properties of Mechanosensitive Signals. , 2019, , .		0
39	Queue-Aware Joint Dynamic Interference Coordination and Heterogeneous QoS Provisioning in OFDMA Networks. IEEE Transactions on Wireless Communications, 2018, 17, 2571-2587.	6.1	3
40	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
41	On RRH Placement for Multi-User Distributed Massive MIMO Systems. IEEE Access, 2018, 6, 70597-70614.	2.6	8
42	Semi-Blind Channel Estimation for Frequency-Selective Massive MIMO Systems. , 2018, , .		4
43	Updating Beamformers to Respond to Changes in Users. , 2018, , .		0
44	Optimizing Multicell Scheduling and Beamforming via Fractional Programming and Hungarian Algorithm. , 2018, , .		5
45	Policy Gradient for Observer Trajectory Planning with Application in Multi-target Tracking Problems. , 2018, , .		2
46	Multifunction cognitive radar task scheduling using Monte Carlo tree search and policy networks. IET Radar, Sonar and Navigation, 2018, 12, 1437-1447.	0.9	31
47	Machine learning based cognitive radar resource management. , 2018, , .		31
48	Distributed Massive MIMO Systems With Non-Reciprocal Channels: Impacts and Robust Beamforming. IEEE Transactions on Communications, 2018, 66, 5261-5277.	4.9	15
49	Optimizing the MIMO Cellular Downlink: Multiplexing, Diversity, or Interference Nulling?. IEEE Transactions on Communications, 2018, 66, 6068-6080.	4.9	4
50	Throughput Maximization with an Energy Outage Constraint for Energy Harvesting Links. , 2017, , .		3
51	On the Stability of Distributed Power Control Algorithms Under Imperfect Estimation of Channel and Interference. IEEE Transactions on Communications, 2017, 65, 5459-5469.	4.9	1
52	Fusing of binary correlated data with unknown statistics. , 2017, , .		0
53	Training-based adaptive transmit-receive beamforming for random phase radar signals. , 2016, , .		1
54	The Impact of Hardware Calibration Errors on the Performance of Massive MIMO Systems. , 2016, , .		3

#	Article	IF	Citations
55	A Stochastic Analysis of Network MIMO Systems. IEEE Transactions on Signal Processing, 2016, 64, 4113-4126.	3.2	29
56	Distributed detection with unknown SNR: Separating function and GLRT approaches. , 2016, , .		1
57	Bounds on the Capacity of ASK Molecular Communication Channels with ISI. , 2015, , .		3
58	Optimizing large-scale MIMO cellular downlink: Multiplexing, diversity, or interference nulling?. , 2015, , .		5
59	Information Rates of ASK-Based Molecular Communication in Fluid Media. IEEE Transactions on Molecular, Biological, and Multi-Scale Communications, 2015, 1, 277-291.	1.4	10
60	Optimizing placements of backhaul hubs and orientations of antennas in small cell networks. , 2015, , .		13
61	Analyzing the Impact of Access Point Density on the Performance of Finite-Area Networks. IEEE Transactions on Communications, 2015, 63, 5143-5161.	4.9	16
62	Handoff Rate and Coverage Analysis in Multi-Tier Heterogeneous Networks. IEEE Transactions on Wireless Communications, 2015, 14, 2626-2638.	6.1	95
63	Modeling and analysis of ergodic capacity in network MIMO systems. , 2014, , .		4
64	The density penalty for random deployments in uplink CoMP networks. , 2014, , .		0
65	Large-scale MIMO versus network MIMO for multicell interference mitigation. , 2014, , .		16
66	Design and Evaluation of Pattern Reconfigurable Antennas for MIMO Applications. IEEE Transactions on Antennas and Propagation, 2014, 62, 1084-1092.	3.1	64
67	Joint user association and resource allocation in small cell networks with backhaul constraints. , 2014, , .		24
68	Scalable and Efficient Power Control Algorithms for Wireless Networks. IEEE Transactions on Signal Processing, 2014, 62, 2028-2041.	3.2	5
69	Distributed power control subject to channel and interference estimation errors. , 2014, , .		3
70	Tier Association Probability and Spectrum Partitioning for Maximum Rate Coverage in Multi-Tier Heterogeneous Networks. IEEE Communications Letters, 2014, 18, 1791-1794.	2.5	20
71	Required number of small-cells in heterogenous networks with non-uniform traffic distribution. , 2014, , .		2
72	Joint waveform optimization and adaptive processing for random-phase radar signals. , 2014, , .		3

#	Article	IF	Citations
73	Large-Scale MIMO Versus Network MIMO for Multicell Interference Mitigation. IEEE Journal on Selected Topics in Signal Processing, 2014, 8, 930-941.	7.3	108
74	Bounds on the Capacity of ASK Molecular Communication Channels with ISI. , 2014, , .		0
75	Cluster based coordinated beamforming and power allocation for MIMO heterogeneous networks. , 2013, , .		14
76	Modeling the received signal for the Canadian over-the-horizon-radar. , 2013, , .		3
77	Analyzing the reduced required BS density due to CoMP in cellular networks. , 2013, , .		4
78	Hierarchical resource allocation in femtocell networks using graph algorithms. , 2012, , .		20
79	Optimizing limited channel state information in wireless cooperative networks. , 2012, , .		0
80	Application Guidelines for Graduate Schools in the United States and Canada. IETE Journal of Education Online, 2012, 53, 97-103.	0.7	1
81	Distributed clustering and interference avoidance in cognitive femtocell networks. , 2012, , .		2
82	Channel quantization and bit allocation in multi-source multi-relay cooperative networks. , 2012, , .		1
83	Performance evaluation of MIMO pattern reconfigurable antennas. , 2012, , .		1
84	Ionospheric clutter model for high frequency surface wave radar. , 2012, , .		4
85	Distributed clustering and interference management in two-tier networks. , 2012, , .		21
86	Robust STAP for HFSWR in dense target scenarios with nonhomogeneous clutter. , 2012, , .		2
87	Resource allocation to achieve cross-layer metrics in cooperative networks. , 2011, , .		0
88	RF beamforming with closely spaced antennas. , 2011, , .		0
89	Minimizing Sum-MSE Implies Identical Downlink and Dual Uplink Power Allocations. IEEE Transactions on Communications, 2011, 59, 686-688.	4.9	7
90	Optimal rates for decode-and-forward cooperative networks with partial CSI. , 2011, , .		0

#	Article	IF	Citations
91	An Orthogonal Relay Protocol with Improved Diversity-Multiplexing Tradeoff. IEEE Transactions on Wireless Communications, 2011, 10, 2412-2416.	6.1	4
92	MIMO fast fully adaptive processing in Over-the-Horizon Radar. , 2011, , .		8
93	Canadian HF Over-the-Horizon Radar experiments using MIMO techniques to control auroral clutter. , 2010, , .		30
94	Relay selection and power allocation in cooperative cellular networks. IEEE Transactions on Wireless Communications, 2010, 9, 1676-1685.	6.1	94
95	Comprehensive node selection and power allocation in multi-source cooperative mesh networks. , 2010, , .		3
96	SMSE precoder design in a multiuser MISO system with limited feedback. , 2010, , .		3
97	Fractional cooperation and the max-min rate in a multi-source cooperative network. , 2010, , .		1
98	Energy optimization across training and data for multiuser minimum sum-MSE linear precoding. , 2010, , .		2
99	Optimal Relay-Subset Selection and Time-Allocation in Decode-and-Forward Cooperative Networks. , 2009, , .		2
100	Linear processing and sum throughput in the multiuser MIMO downlink. IEEE Transactions on Wireless Communications, 2009, 8, 2652-2661.	6.1	32
101	A Framework to Study the Molecular Communication System. , 2009, , .		31
102	Using the Bhattacharyya parameter for design and analysis of cooperative wireless systems. IEEE Transactions on Wireless Communications, 2009, 8, 1384-1395.	6.1	11
103	Two-dimensional adaptive processing for ionospheric clutter mitigation in High Frequency Surface Wave Radar. , 2009, , .		9
104	Diversity analysis of irregular fractional cooperation. , 2009, , .		0
105	Multiuser linear precoding for cooperating base stations with asynchronous interference. , 2008, , .		0
106	Grassmannian beamforming for MIMO amplify-and-forward relaying. IEEE Journal on Selected Areas in Communications, 2008, 26, 1397-1407.	9.7	185
107	Low complexity and fractional coded cooperation for wireless networks. IEEE Transactions on Wireless Communications, 2008, 7, 1917-1929.	6.1	23
108	Orthogonal frequency division multiplexing in distributed radar apertures. , 2008, , .		7

#	Article	IF	Citations
109	Characterization of Relay Channels Using the Bhattacharyya Parameter. , 2008, , .		0
110	Diversity order of joint detection in distributed radar networks. , 2008, , .		6
111	Beamforming with limited feedback in amplify-and-forward cooperative networks - [transactions letters]. IEEE Transactions on Wireless Communications, 2008, 7, 5145-5149.	6.1	53
112	Grassmannian beamforming for MIMO amplify-and-forward relaying. , 2008, , .		2
113	User Assignment for MIMO-OFDM Systems with Multiuser Linear Precoding. , 2008, , .		4
114	Analysis of random radar networks. , 2008, , .		0
115	Improved sum-rate optimization in the multiuser MIMO downlink. , 2008, , .		13
116	Beamforming with Limited Feedback in Amplify-and-Forward Cooperative Networks. , 2007, , .		28
117	A Notion of Diversity Order in Distributed Radar Networks. Conference Record of the Asilomar Conference on Signals, Systems and Computers, 2007, , .	0.0	3
118	Time-orthogonal-waveform-space-time adaptive processing for distributed aperture radars. , 2007, , .		11
119	Fractional Cooperation using Coded Demodulate-and-Forward. , 2007, , .		7
120	Relay Selection for Low-Complexity Coded Cooperation. , 2007, , .		11
121	Outage Probability of Selection Cooperation in the Low to Medium SNR Regime. IEEE Communications Letters, 2007, 11, 589-597.	2.5	52
122	Non-Coherent Code Acquisition in the Multiple Transmit/Multiple Receive Antenna Aided Single- and Multi-Carrier DS-CDMA Downlink. IEEE Transactions on Wireless Communications, 2007, 6, 3864-3869.	6.1	333
123	Discrete Suppression with &#x03A3;&#x0394;-STAP. , 2007, , .		0
124	Optimal Beamforming with Mobile Robots. Conference Record of the Asilomar Conference on Signals, Systems and Computers, 2007, , .	0.0	4
125	Reduced-Rank Adaptive Filtering Using Localized Processing for CDMA Systems. IEEE Transactions on Vehicular Technology, 2007, 56, 3846-3856.	3.9	4
126	Space-Time-Waveform Adaptive Processing for Frequency Diverse Distributed Radar Apertures. , 2006, , .		3

#	Article	IF	Citations
127	Linear Processing for the Downlink in Multiuser MIMO Systems with Multiple Data Streams. , 2006, , .		90
128	Improving Amplify-and-Forward Relay Networks: Optimal Power Allocation versus Selection. , 2006, , .		248
129	Symbol error rate of selection amplify-and-forward relay systems. IEEE Communications Letters, 2006, 10, 757-759.	2.5	365
130	Low-Complexity Cooperative Coding for Sensor Networks using Rateless and LDGM Codes. , 2006, , .		22
131	A Practical Scheme for Relaying in Sensor Networks Using Repeat-Accumulate Codes. , 2006, , .		7
132	Stimulating Cooperative Diversity in Wireless Ad Hoc Networks through Pricing. , 2006, , .		70