Tsung-Hui Chang

List of Publications by Year
in descending order

136 papers	4,814 citations	136950 32 h-index	118850 62 g-index
137 all docs	137 docs citations	137 times ranked	3934 citing authors

#	Article	IF	Citations
1	Outage Constrained Robust Transmit Optimization for Multiuser MISO Downlinks: Tractable Approximations by Conic Optimization. IEEE Transactions on Signal Processing, 2014, 62, 5690-5705.	5.3	507
2	QoS-Based Transmit Beamforming in the Presence of Eavesdroppers: An Optimized Artificial-Noise-Aided Approach. IEEE Transactions on Signal Processing, 2011, 59, 1202-1216.	5.3	339
3	Distributed Constrained Optimization by Consensus-Based Primal-Dual Perturbation Method. IEEE Transactions on Automatic Control, 2014, 59, 1524-1538.	5.7	303
4	Multi-Agent Distributed Optimization via Inexact Consensus ADMM. IEEE Transactions on Signal Processing, 2015, 63, 482-497.	5.3	286
5	Flight Time Minimization of UAV for Data Collection Over Wireless Sensor Networks. IEEE Journal on Selected Areas in Communications, 2018, 36, 1942-1954.	14.0	274
6	Distributed Robust Multicell Coordinated Beamforming With Imperfect CSI: An ADMM Approach. IEEE Transactions on Signal Processing, 2012, 60, 2988-3003.	5.3	222
7	Joint Beamforming and Power Splitting for MISO Interference Channel With SWIPT: An SOCP Relaxation and Decentralized Algorithm. IEEE Transactions on Signal Processing, 2014, 62, 6194-6208.	5.3	174
8	Asynchronous Distributed ADMM for Large-Scale Optimization—Part I: Algorithm and<?Pub _newline ?>Convergence Analysis. IEEE Transactions on Signal Processing, 2016, 64, 3118-3130.	5.3	135
9	Real-Time Power Balancing Via Decentralized Coordinated Home Energy Scheduling. IEEE Transactions on Smart Grid, 2013, 4, 1490-1504.	9.0	128
10	Real-world data medical knowledge graph: construction and applications. Artificial Intelligence in Medicine, 2020, 103, 101817.	6.5	127
11	Wireless Information and Energy Transfer in Multi-Antenna Interference Channel. IEEE Transactions on Signal Processing, 2014, 62, 6249-6264.	5.3	104
12	Coordinated Beamforming for Multiuser MISO Interference Channel Under Rate Outage Constraints. IEEE Transactions on Signal Processing, 2013, 61, 1087-1103.	5.3	100
13	Energy-Efficient Packet Scheduling With Finite Blocklength Codes: Convexity Analysis and Efficient Algorithms. IEEE Transactions on Wireless Communications, 2016, 15, 5527-5540.	9.2	100
14	A Proximal Dual Consensus ADMM Method for Multi-Agent Constrained Optimization. IEEE Transactions on Signal Processing, 2016, 64, 3719-3734.	5.3	96
15	Multi-UAV Interference Coordination via Joint Trajectory and Power Control. IEEE Transactions on Signal Processing, 2020, 68, 843-858.	5.3	90
16	On the Impact of Quantized Channel Feedback in Guaranteeing Secrecy with Artificial Noise: The Noise Leakage Problem. IEEE Transactions on Wireless Communications, 2011, 10, 901-915.	9.2	83
17	Network Slicing for Service-Oriented Networks Under Resource Constraints. IEEE Journal on Selected Areas in Communications, 2017, 35, 2512-2521.	14.0	81
18	Power Allocation and Time-Domain Artificial Noise Design for Wiretap OFDM with Discrete Inputs. IEEE Transactions on Wireless Communications, 2013, 12, 2717-2729.	9.2	71

#	Article	IF	Citations
19	Training Sequence Design for Discriminatory Channel Estimation in Wireless MIMO Systems. IEEE Transactions on Signal Processing, 2010, 58, 6223-6237.	5.3	64
20	Probabilistic SINR constrained robust transmit beamforming: A Bernstein-type inequality based conservative approach. , 2011, , .		62
21	Two-Way Training for Discriminatory Channel Estimation in Wireless MIMO Systems. IEEE Transactions on Signal Processing, 2013, 61, 2724-2738.	5.3	57
22	Stochastic Proximal Gradient Consensus Over Random Networks. IEEE Transactions on Signal Processing, 2017, 65, 2933-2948.	5.3	53
23	Asynchronous Distributed ADMM for Large-Scale Optimization—Part II: Linear Convergence Analysis and Numerical Performance. IEEE Transactions on Signal Processing, 2016, 64, 3131-3144.	5.3	51
24	Approximation Bounds for Semidefinite Relaxation of Max-Min-Fair Multicast Transmit Beamforming Problem. IEEE Transactions on Signal Processing, 2008, 56, 3932-3943.	5.3	50
25	UAV Positioning and Power Control for Two-Way Wireless Relaying. IEEE Transactions on Wireless Communications, 2020, 19, 1008-1024.	9.2	50
26	The Equivalence of Semidefinite Relaxation MIMO Detectors for Higher-Order QAM. IEEE Journal on Selected Topics in Signal Processing, 2009, 3, 1038-1052.	10.8	46
27	Communication-Efficient Distributed Demand Response: A Randomized ADMM Approach. IEEE Transactions on Smart Grid, 2017, 8, 1085-1095.	9.0	44
28	Transmission Energy Minimization for Heterogeneous Low-Latency NOMA Downlink. IEEE Transactions on Wireless Communications, 2020, 19, 1054-1069.	9.2	43
29	Nonnegative matrix factorization using ADMM: Algorithm and convergence analysis. , 2016, , .		41
30	Distributed Learning in the Nonconvex World: From batch data to streaming and beyond. IEEE Signal Processing Magazine, 2020, 37, 26-38.	5.6	41
31	A Framework for Phasor Measurement Placement in Hybrid State Estimation Via Gauss–Newton. IEEE Transactions on Power Systems, 2014, 29, 824-832.	6.5	40
32	SDP relaxation of homogeneous quadratic optimization: approximation bounds and applications. , 2009, , 117-165.		37
33	Robust Hybrid Beamforming with Phased Antenna Arrays for Downlink SDMA in Indoor 60 GHz Channels. IEEE Transactions on Wireless Communications, 2013, 12, 4542-4557.	9.2	37
34	Maximum-Likelihood Detection of Orthogonal Space-Time Block Coded OFDM in Unknown Block Fading Channels. IEEE Transactions on Signal Processing, 2008, 56, 1637-1649.	5.3	36
35	Joint Power and Admission Control for Spectral and Energy Efficiency Maximization in Heterogeneous OFDMA Networks. IEEE Transactions on Wireless Communications, 2016, 15, 3531-3547.	9.2	35
36	Quantized Federated Learning Under Transmission Delay and Outage Constraints. IEEE Journal on Selected Areas in Communications, 2022, 40, 323-341.	14.0	29

#	Article	IF	Citations
37	Multicell Coordinated Beamforming With Rate Outage Constraint—Part II: Efficient Approximation Algorithms. IEEE Transactions on Signal Processing, 2015, 63, 2763-2778.	5.3	28
38	Systematic Resource Allocation in Cloud RAN With Caching as a Service Under Two Timescales. IEEE Transactions on Communications, 2019, 67, 7755-7770.	7.8	24
39	Joint transmit beamforming and artificial noise design for QoS discrimination inwireless downlink. , 2010, , .		23
40	Worst-case robust multiuser transmit beamforming using semidefinite relaxation: duality and implications. , 2011, , .		22
41	How much training is enough for secrecy beamforming with artificial noise. , 2012, , .		22
42	A Linear Fractional Semidefinite Relaxation Approach to Maximum-Likelihood Detection of Higher-Order QAM OSTBC in Unknown Channels. IEEE Transactions on Signal Processing, 2010, 58, 2315-2326.	5.3	21
43	Secure Federated Averaging Algorithm with Differential Privacy. , 2020, , .		20
44	Aviation time minimization of UAV for data collection from energy constrained sensor networks. , 2018, , .		19
45	Grid integration of distributed renewables through coordinated demand response. , 2012, , .		18
46	A consensus-based decentralized algorithm for non-convex optimization with application to dictionary learning. , 2015, , .		18
47	Max-Min Fairness User Scheduling and Power Allocation in Full-Duplex OFDMA Systems. IEEE Transactions on Wireless Communications, 2019, 18, 3078-3092.	9.2	18
48	Penalty Dual Decomposition Method for Nonsmooth Nonconvex Optimization—Part II: Applications. IEEE Transactions on Signal Processing, 2020, 68, 4242-4257.	5.3	17
49	On the impact of quantized channel feedback in guaranteeing secrecy with artificial noise. , 2009, , .		16
50	Unraveling the Rank-One Solution Mystery of Robust MISO Downlink Transmit Optimization: A Verifiable Sufficient Condition via a New Duality Result. IEEE Transactions on Signal Processing, 2017, 65, 1909-1924.	5.3	16
51	Coordinated home energy management for real-time power balancing. , 2012, , .		15
52	Transmit-receive beamforming optimization for full-duplex cloud radio access networks. , 2016, , .		14
53	Worst-Case SINR Constrained Robust Coordinated Beamforming for Multicell Wireless Systems. , 2011, , .		13
54	QoS-Based Linear Transceiver Optimization for Full-Duplex Multiuser Communications. IEEE Transactions on Signal Processing, 2018, 66, 2300-2313.	5.3	13

#	ARTICLE	IF	CITATIONS
55	Clustering by Orthogonal Non-negative Matrix Factorization: A Sequential Non-convex Penalty Approach. , 2019, , .		13
56	Peak Age-of-Information Minimization of UAV-Aided Relay Transmission. , 2020, , .		13
57	A Block Successive Upper-Bound Minimization Method of Multipliers for Linearly Constrained Convex Optimization. Mathematics of Operations Research, 2020, 45, 833-861.	1.3	13
58	Simultaneous information and energy transfer: A Two-user MISO interference channel case. , 2012, , .		12
59	Energy-Efficient Non-Orthogonal Transmission under Reliability and Finite Blocklength Constraints. , 2017, , .		12
60	Distributed Stochastic Consensus Optimization With Momentum for Nonconvex Nonsmooth Problems. IEEE Transactions on Signal Processing, 2021, 69, 4486-4501.	5.3	12
61	Learning to Continuously Optimize Wireless Resource in Episodically Dynamic Environment. , 2021, , .		12
62	Joint Uplink and Downlink Transmission Design for URLLC Using Finite Blocklength Codes. , 2018, , .		11
63	Flight Time Minimization via UAVâ€™s Trajectory Design for Ground Sensor Data Collection. , 2019, , .		11
64	Learning to Continuously Optimize Wireless Resource in a Dynamic Environment: A Bilevel Optimization Perspective. IEEE Transactions on Signal Processing, 2022, 70, 1900-1917.	5.3	11
65	Chance-constrained robust beamforming for multi-cell coordinated downlink. , 2012, , .		10
66	Joint Resource Allocation and Trajectory Design for UAV-Aided Wireless Physical Layer Security. , 2018, , .		10
67	A Study of Piecewise Linear-Quadratic Programs. Journal of Optimization Theory and Applications, 2020, 186, 523-553.	1.5	10
68	TSCCA: A tensor sparse CCA method for detecting microRNA-gene patterns from multiple cancers. PLoS Computational Biology, 2021, 17, e1009044.	3.2	10
69	Training Signal Design for Discriminatory Channel Estimation. , 2009, , .		9
70	Optimal sensor placement for hybrid state estimation in smart grid. , 2013, , .		9
71	Coordinated Multicasting With Opportunistic User Selection in Multicell Wireless Systems. IEEE Transactions on Signal Processing, 2015, 63, 3506-3521.	5.3	9
72	Clustering by Orthogonal NMF Model and Non-Convex Penalty Optimization. IEEE Transactions on Signal Processing, 2021, 69, 5273-5288.	5.3	9

#	Article	IF	Citations
73	A convex approximation approach to weighted sum rate maximization of multiuser MISO interference channel under outage constraints. , 2011, , .		8
74	Max-min-fairness linear transceiver design for full-duplex multiuser systems. , 2017, , .		8
75	Distributed Power Allocation for UAV-Assisted Multi-User Relay Networks. , 2018, , .		8
76	Incorporating URLLC and Multicast eMBB in Sliced Cloud Radio Access Network. , 2019, , .		8
77	Demystifying Model Averaging for Communication-Efficient Federated Matrix Factorization. , 2021, , .		8
78	Federated Matrix Factorization: Algorithm Design and Application to Data Clustering. IEEE Transactions on Signal Processing, 2022, 70, 1625-1640.	5.3	8
79	Multicell Coordinated Beamforming With Rate Outage Constraintâ€"Part I: Complexity Analysis. IEEE Transactions on Signal Processing, 2015, 63, 2749-2762.	5.3	7
80	Exploring the interactions of communication, computing and caching in cloud RAN under two timescale. , 2017, , .		7
81	An Efficient Learning Framework for Federated XGBoost Using Secret Sharing and Distributed Optimization. ACM Transactions on Intelligent Systems and Technology, 2022, 13, 1-28.	4.5	7
82	Linear prediction based semiblind channel estimation for multiuser OFDM with insufficient guard interval. IEEE Transactions on Wireless Communications, 2009, 8, 5728-5736.	9.2	6
83	Optimal Real-Time Spectrum Sharing Between Cooperative Relay and Ad hoc Networks. IEEE Transactions on Signal Processing, 2012, 60, 1971-1985.	5.3	6
84	On Modeling and Marketing the Demand Flexibility of Deferrable Loads at the Wholesale Level. , 2013, , .		6
85	Multi-agent distributed large-scale optimization by inexact consensus alternating direction method of multipliers. , 2014, , .		6
86	Efficient Solutions to Distributed Beamforming for Two-Way Relay Networks Under Individual Relay Power Constraints. IEEE Transactions on Vehicular Technology, 2015, 64, 1643-1649.	6.3	6
87	A randomized dual consensus ADMM method for multi-agent distributed optimization. , 2015, , .		6
88	Asynchronous distributed alternating direction method of multipliers: Algorithm and convergence analysis. , 2016, , .		6
89	Joint Power and Admission Control Based on Channel Distribution Information: A Novel Two-Timescale Approach. IEEE Signal Processing Letters, 2017, 24, 196-200.	3.6	6
90	Uplink and downlink user pairing in full-duplex multi-user systems: Complexity and algorithms. , 2017, , .		6

#	Article	IF	Citations
91	Lifetime Maximization for Uplink Transmission in UAV-Enabled Wireless Networks. , 2019, , .		6
92	UAV Positioning and Power Control for Wireless Two-Way Relaying. , 2019, , .		6
93	Robust Computation Offloading in Fog Radio Access Network With Fronthaul Compression. IEEE Transactions on Wireless Communications, 2021, 20, 6506-6521.	9.2	6
94	Space-time selective RAKE receiver with finger selection strategies for UWB overlay communications. IEEE Transactions on Microwave Theory and Techniques, 2006, 54, 1731-1744.	4.6	5
95	On the Impact of Quantized Channel Direction Feedback in Multiple-Antenna Wiretap Channels. , 2010, , .		5
96	Two-Way Training Design for Discriminatory Channel Estimation in Wireless MIMO Systems. , 2011, , .		5
97	Noncoherent OSTBC-OFDM for MIMO and Cooperative Communications: Perfect Channel Identifiability and Achievable Diversity Order. IEEE Transactions on Signal Processing, 2012, 60, 4849-4863.	5.3	5
98	Distributed sparse regression by consensus-based primal-dual perturbation optimization. , 2013, , .		5
99	Outage constrained weighted sum rate maximization for MISO interference channel by pricing-based optimization. , 2013, , .		5
100	Semiblind ML OSTBC-OFDM Detection in Block Fading Channels. , 2007, , .		4
101	Non-Cancellation Multistage Kurtosis Maximization with Prewhitening for Blind Source Separation. Eurasip Journal on Advances in Signal Processing, 2009, 2009, .	1.7	4
102	Optimal transmission strategy for outage rate maximization in MISO fading channels with training. , 2012, , .		4
103	Noncoherent Bit-Interleaved Coded OSTBC-OFDM with Maximum Spatial-Frequency Diversity. IEEE Transactions on Wireless Communications, 2012, 11, 3335-3347.	9.2	4
104	Stochastic proximal gradient consensus over time-varying networks. , 2016, , .		4
105	A Novel Sparse Graph-Regularized Singular Value Decomposition Model and Its Application to Genomic Data Analysis. IEEE Transactions on Neural Networks and Learning Systems, 2022, 33, 3842-3856.	11.3	4
106	Decentralized Non-Convex Learning With Linearly Coupled Constraints: Algorithm Designs and Application to Vertical Learning Problem. IEEE Transactions on Signal Processing, 2022, 70, 3312-3327.	5.3	4
107	A convex optimization method for joint mean and variance parameter estimation of large-margin CDHMM. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , .	1.8	3
108	Joint Training and Beamforming Design for Performance Discrimination Using Artificial Noise. , 2011, , .		3

#	Article	IF	Citations
109	The emergence of deferrable energy requests and a greener future: What stands in the way?. , 2012, , .		3
110	Joint day-ahead power procurement and load scheduling using stochastic alternating direction method of multipliers. , 2014, , .		3
111	A block coordinate descent method of multipliers: Convergence analysis and applications. , 2014, , .		3
112	Joint Symbol Level Precoding and Receive Beamforming for Multiuser MIMO Downlink. , 2019, , .		3
113	Optimization Inspired Learning Network for Multiuser Robust Beamforming. , 2020, , .		3
114	A Linear Fractional Semidefinite Relaxed ML Approach to Blind Detection of 16-QAM Orthogonal Space-Time Block Codes. , 2008, , .		2
115	On perfect channel identifiability of semiblind ML detection of orthogonal space-time block coded OFDM. , 2009, , .		2
116	On the complexity of SINR outage constrained max-min-fairness multicell coordinated beamforming problem. , 2014, , .		2
117	On the Convexity of Energy-Efficient Packet Scheduling Problem with Finite Blocklength Codes. , 2015, , .		2
118	ADMM approach to asynchronous distributed frequency-based load control. , 2016, , .		2
119	Minimum Energy Resource Allocation in FOG Radio Access Network with Fronthaul and Latency Constraints. , 2018, , .		2
120	A Proximal Dual Consensus Method for Linearly Coupled Multi-Agent Non-Convex Optimization. , 2020, , .		2
121	Distributed Dynamic Resource Allocation for OFDMA-Based Cognitive Small Cell Networks Using a Regret-Matching Game Approach. Advances in Wireless Technologies and Telecommunication Book Series, 0, , 230-253.	0.4	2
122	Robust Federated Learning in Wireless Channels with Transmission Outage and Quantization Errors. , 2021, , .		2
123	Space Time MSINR-SRAKE Receiver with Finger Assignment Strategies in UWB Multipath Channels. , 0, , .		1
124	Blind maximum-likelihood detection for decode-and-forward randomized distributed OSTBC. , 2009, , .		1
125	Decentralized Reduced-Rank Multiuser Relaying for Cooperative Uplink CDMA Networks. , 2010, , .		1
126	Two-way discriminatory channel estimation for non-reciprocal wireless MIMO channels. , 2011, , .		1

#	Article	IF	Citations
127	Cell Subclass Identification in Single-Cell RNA-Sequencing Data Using Orthogonal Nonnegative Matrix Factorization. , 2018, , .		1
128	Software Defined Resource Allocation for Service-Oriented Networks. , 2018, , .		1
129	Wireless Powered Cooperative Non-Orthogonal Multiple Access Transmission. , 2018, , .		1
130	Turbo Space-Time Receiver by Kurtosis Maximization for CCI/ISI Reduction in Cellular Wireless Communications. , 0, , .		0
131	Approximation Bound for Semidefinite Relaxation Based Multicast Transmit Beamforming. , 2007, , .		0
132	Parallel blind source separation by kurtosis maximization with successive prewhitening. , 2009, , .		0
133	Noncoherent amplify-and-forward cooperative OFDM in block fading channels. , 2012, , .		0
134	Achieving full cooperative and frequency diversity in bit-interleaved coded two-way relay networks. , 2013, , .		0
135	Evaluating the impact of distributed solar powers on coordinated demand side management. , 2014, , .		0
136	On the Convexity of Energy-Efficient Packet Scheduling Problem with Finite Blocklength Codes. , 2014, , .		0