Weiyu Xu

List of Publications by Year
in descending order

36 papers	696 citations	759233 12 h-index	713466 21 g-index
36 all docs	36 docs citations	36 times ranked	642 citing authors

#	Article	IF	Citations
1	Efficient and Robust Compressed Sensing Using Optimized Expander Graphs. IEEE Transactions on Information Theory, 2009, 55, 4299-4308.	2.4	131
2	Spectral Super-Resolution With Prior Knowledge. IEEE Transactions on Signal Processing, 2015, 63, 5342-5357.	5.3	58
3	Near-Optimal Detection in MIMO Systems Using Gibbs Sampling. , 2009, , .		50
4	Compressed sensing over the Grassmann manifold: A unified analytical framework. , 2008, , .		47
5	Sparse Error Correction From Nonlinear Measurements With Applications in Bad Data Detection for Power Networks. IEEE Transactions on Signal Processing, 2013, 61, 6175-6187.	5.3	45
6	Robust recovery of complex exponential signals from random Gaussian projections via low rank Hankel matrix reconstruction. Applied and Computational Harmonic Analysis, 2016, 41, 470-490.	2.2	45
7	Optimized Markov Chain Monte Carlo for Signal Detection in MIMO Systems: An Analysis of the Stationary Distribution and Mixing Time. IEEE Transactions on Signal Processing, 2014, 62, 4436-4450.	5.3	35
8	Distributed Channel Estimation and Pilot Contamination Analysis for Massive MIMO-OFDM Systems. IEEE Transactions on Communications, 2016, 64, 4607-4621.	7.8	33
9	Precise Stability Phase Transitions for ell_1 Minimization: A Unified Geometric Framework. IEEE Transactions on Information Theory, 2011, 57, 6894-6919.	2.4	25
10	Systematic Review of Intensity-Modulated Brachytherapy (IMBT): Static and Dynamic Techniques. International Journal of Radiation Oncology Biology Physics, 2019, 105, 206-221.	0.8	23
11	Low-Complexity Blind Equalization for OFDM Systems With General Constellations. IEEE Transactions on Signal Processing, 2012, 60, 6395-6407.	5.3	18
12	Compressed sensing of approximately sparse signals. , 2008, , .		16
13	Paddleâ€based rotatingâ€shield brachytherapy. Medical Physics, 2015, 42, 5992-6003.	3.0	16
14	Block Iterative Reweighted Algorithms for Super-Resolution of Spectrally Sparse Signals. IEEE Signal Processing Letters, 2015, 22, 2319-2313.	3.6	15
15	Efficient [169]Yb highâ€doseâ€rate brachytherapy source production using reactivation. Medical Physics, 2019, 46, 2935-2943.	3.0	15
16	On sharp performance bounds for robust sparse signal recoveries. , 2009, , .		12
17	Quickest search over multiple sequences with mixed observations. , 2013, , .		12
18	Optimal non-coherent data detection for massive SIMO wireless systems: A polynomial complexity solution. , 2015, , .		12

#	Article	IF	Citations
19	Off-the-grid spectral compressed sensing with prior information. , 2014, , .		9
20	Sep]ration-Free Super-Resolution from Compressed Measurements is Possible: an Orthonormal Atomic Norm Minimization Approach. , 2018, , .		9
21	Effectiveness of Rotating Shield Brachytherapy for Prostate Cancer Dose Escalation and Urethral Sparing. International Journal of Radiation Oncology Biology Physics, 2018, 102, 1543-1550.	0.8	9
22	Needleâ€free cervical cancer treatment using helical multishield intracavitary rotating shield brachytherapy with the ^{169}Yb Isotope. Medical Physics, 2020, 47, 2061-2071.	3.0	9
23	ON exact maximum-likelihood detection for non-coherent MIMO wireless systems: A branch-estimate-bound optimization framework. , 2008, , .		8
24	Fast dose optimization for rotating shield brachytherapy. Medical Physics, 2017, 44, 5384-5392.	3.0	7
25	Quickest Sequential Multiband Spectrum Sensing With Mixed Observations. IEEE Transactions on Signal Processing, 2016, 64, 5861-5874.	5.3	6
26	Optimal Joint Channel Estimation and Data Detection for Massive SIMO Wireless Systems: A Polynomial Complexity Solution. IEEE Transactions on Information Theory, 2020, 66, 1822-1844.	2.4	6
27	Low-complexity blind maximum-likelihood detection for SIMO systems with general constellations. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , .	1.8	5
28	Large scale 2D spectral compressed sensing in continuous domain. , 2017, , .		5
29	Necessary and Sufficient Null Space Condition for Nuclear Norm Minimization in Low-Rank Matrix Recovery. IEEE Transactions on Information Theory, 2020, 66, 6597-6604.	2.4	5
30	Distributed Dual Coordinate Ascent in General Tree Networks and Communication Network Effect on Synchronous Machine Learning. IEEE Journal on Selected Areas in Communications, 2021, 39, 2105-2119.	14.0	3
31	Generalized Distributed Dual Coordinate Ascent in a Tree Network for Machine Learning. , 2019, , .		2
32	An Information-Theoretic Explanation for the Adversarial Fragility of AI Classifiers. , 2019, , .		2
33	New algorithms for verifying the null space conditions in compressed sensing. , 2013, , .		1
34	A distributed control law for optimum sensor placement for source localization. , 2014, , .		1
35	Correction to â€œOptimal Joint Channel Estimation and Data Detection for Massive SIMO Wireless Systems: A Polynomial Complexity Solutionâ€•[Mar 20 1822-1844]. IEEE Transactions on Information Theory, 2020, 66, 5316-5316.	2.4	1
36	Maximum-likelihood joint channel estimation and data detection for space time block coded MIMO systems. , 2014, , .		0