

T Tony Cai

List of Publications by Year in descending order

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Version: 2024-02-01

61
papers

4,102
citations

304743

22
h-index

128289

60
g-index

64
all docs

64
docs citations

64
times ranked

3086
citing authors

#	ARTICLE	IF	CITATIONS
1	Orthogonal Matching Pursuit for Sparse Signal Recovery With Noise. IEEE Transactions on Information Theory, 2011, 57, 4680-4688.	2.4	1,022
2	A Constrained ℓ_1 Minimization Approach to Sparse Precision Matrix Estimation. Journal of the American Statistical Association, 2011, 106, 594-607.	3.1	594
3	Adaptive Thresholding for Sparse Covariance Matrix Estimation. Journal of the American Statistical Association, 2011, 106, 672-684.	3.1	365
4	Oracle and Adaptive Compound Decision Rules for False Discovery Rate Control. Journal of the American Statistical Association, 2007, 102, 901-912.	3.1	194
5	A Direct Estimation Approach to Sparse Linear Discriminant Analysis. Journal of the American Statistical Association, 2011, 106, 1566-1577.	3.1	178
6	Two-Sample Covariance Matrix Testing and Support Recovery in High-Dimensional and Sparse Settings. Journal of the American Statistical Association, 2013, 108, 265-277.	3.1	144
7	On Recovery of Sparse Signals Via $\ell_{1/2}$ Minimization. IEEE Transactions on Information Theory, 2009, 55, 3388-3397.	2.4	140
8	Shifting Inequality and Recovery of Sparse Signals. IEEE Transactions on Signal Processing, 2010, 58, 1300-1308.	5.3	126
9	Estimating the Null and the Proportion of Nonnull Effects in Large-Scale Multiple Comparisons. Journal of the American Statistical Association, 2007, 102, 495-506.	3.1	123
10	Minimax and Adaptive Prediction for Functional Linear Regression. Journal of the American Statistical Association, 2012, 107, 1201-1216.	3.1	95
11	Direct estimation of differential networks. Biometrika, 2014, 101, 253-268.	2.4	88
12	Simultaneous Testing of Grouped Hypotheses: Finding Needles in Multiple Haystacks. Journal of the American Statistical Association, 2009, 104, 1467-1481.	3.1	77
13	Optimal estimation and rank detection for sparse spiked covariance matrices. Probability Theory and Related Fields, 2015, 161, 781-815.	1.8	76
14	Covariate-adjusted precision matrix estimation with an application in genetical genomics. Biometrika, 2013, 100, 139-156.	2.4	74
15	Testing differential networks with applications to the detection of gene-gene interactions. Biometrika, 2015, 102, 247-266.	2.4	74
16	Confidence intervals for high-dimensional linear regression: Minimax rates and adaptivity. Annals of Statistics, 2017, 45, .	2.6	70
17	Optimal rates of convergence for estimating Toeplitz covariance matrices. Probability Theory and Related Fields, 2013, 156, 101-143.	1.8	64
18	The root-unroot algorithm for density estimation as implemented via wavelet block thresholding. Probability Theory and Related Fields, 2010, 146, 401.	1.8	48

#	ARTICLE	IF	CITATIONS
19	Structured Matrix Completion with Applications to Genomic Data Integration. Journal of the American Statistical Association, 2016, 111, 621-633.	3.1	42
20	Large-Scale Multiple Testing of Correlations. Journal of the American Statistical Association, 2016, 111, 229-240.	3.1	38
21	Joint estimation of multiple high-dimensional precision matrices. Statistica Sinica, 2016, 26, 445-464.	0.3	34
22	Weighted False Discovery Rate Control in Large-Scale Multiple Testing. Journal of the American Statistical Association, 2018, 113, 1172-1183.	3.1	30
23	Transfer Learning for High-Dimensional Linear Regression: Prediction, Estimation and Minimax Optimality. Journal of the Royal Statistical Society Series B: Statistical Methodology, 2022, 84, 149-173.	2.2	29
24	Minimax estimation of linear functionals over nonconvex parameter spaces. Annals of Statistics, 2004, 32, 552.	2.6	27
25	Global Testing and Large-Scale Multiple Testing for High-Dimensional Covariance Structures. Annual Review of Statistics and Its Application, 2017, 4, 423-446.	7.0	24
26	Transfer learning for nonparametric classification: Minimax rate and adaptive classifier. Annals of Statistics, 2021, 49, .	2.6	24
27	Minimax rate-optimal estimation of high-dimensional covariance matrices with incomplete data. Journal of Multivariate Analysis, 2016, 150, 55-74.	1.0	23
28	Semisupervised Inference for Explained Variance in High Dimensional Linear Regression and its Applications. Journal of the Royal Statistical Society Series B: Statistical Methodology, 2020, 82, 391-419.	2.2	22
29	Robust Detection and Identification of Sparse Segments in Ultrahigh Dimensional Data Analysis. Journal of the Royal Statistical Society Series B: Statistical Methodology, 2012, 74, 773-797.	2.2	21
30	Optimal Estimation of Genetic Relatedness in High-Dimensional Linear Models. Journal of the American Statistical Association, 2019, 114, 358-369.	3.1	21
31	Inference for high-dimensional differential correlation matrices. Journal of Multivariate Analysis, 2016, 143, 107-126.	1.0	18
32	Accuracy assessment for high-dimensional linear regression. Annals of Statistics, 2018, 46, .	2.6	17
33	The cost of privacy: Optimal rates of convergence for parameter estimation with differential privacy. Annals of Statistics, 2021, 49, .	2.6	14
34	Multiple Testing of Submatrices of a Precision Matrix With Applications to Identification of Between Pathway Interactions. Journal of the American Statistical Association, 2018, 113, 328-339.	3.1	13
35	Two-sample tests for high-dimension, strongly spiked eigenvalue models. Statistica Sinica, 2018, 28, 63-92.	0.3	12
36	Joint testing and false discovery rate control in high-dimensional multivariate regression. Biometrika, 2018, 105, 249-269.	2.4	10

#	ARTICLE	IF	CITATIONS
37	Adaptive estimation of linear functionals under different performance measures. <i>Bernoulli</i> , 2005, 11, .	1.3	10
38	Sparse Simultaneous Signal Detection for Identifying Genetically Controlled Disease Genes. <i>Journal of the American Statistical Association</i> , 2017, 112, 1032-1046.	3.1	9
39	On Detection and Structural Reconstruction of Small-World Random Networks. <i>IEEE Transactions on Network Science and Engineering</i> , 2017, 4, 165-176.	6.4	9
40	Statistical Inference for High-Dimensional Generalized Linear Models With Binary Outcomes. <i>Journal of the American Statistical Association</i> , 2023, 118, 1319-1332.	3.1	9
41	LAWS: A Locally Adaptive Weighting and Screening Approach to Spatial Multiple Testing. <i>Journal of the American Statistical Association</i> , 2022, 117, 1370-1383.	3.1	8
42	Inference for High-Dimensional Linear Mixed-Effects Models: A Quasi-Likelihood Approach. <i>Journal of the American Statistical Association</i> , 2022, 117, 1835-1846.	3.1	7
43	Optimal Statistical Inference for Individualized Treatment Effects in High-Dimensional Models. <i>Journal of the Royal Statistical Society Series B: Statistical Methodology</i> , 2021, 83, 669-719.	2.2	7
44	Sharp adaptive estimation by a blockwise method. <i>Journal of Nonparametric Statistics</i> , 2009, 21, 839-850.	0.9	6
45	GAP: A General Framework for Information Pooling in Two-Sample Sparse Inference. <i>Journal of the American Statistical Association</i> , 2020, 115, 1236-1250.	3.1	6
46	Two robust tools for inference about causal effects with invalid instruments. <i>Biometrics</i> , 2022, 78, 24-34.	1.4	6
47	Hypothesis testing for phylogenetic composition: a minimum-cost flow perspective. <i>Biometrika</i> , 2021, 108, 17-36.	2.4	6
48	Transfer Learning in Large-Scale Gaussian Graphical Models with False Discovery Rate Control. <i>Journal of the American Statistical Association</i> , 2023, 118, 2171-2183.	3.1	6
49	Sparse Group Lasso: Optimal Sample Complexity, Convergence Rate, and Statistical Inference. <i>IEEE Transactions on Information Theory</i> , 2022, 68, 5975-6002.	2.4	6
50	Optimal detection of weak positive latent dependence between two sequences of multiple tests. <i>Journal of Multivariate Analysis</i> , 2017, 160, 169-184.	1.0	5
51	Group inference in high dimensions with applications to hierarchical testing. <i>Electronic Journal of Statistics</i> , 2021, 15, .	0.7	5
52	Optimal estimation of bacterial growth rates based on a permuted monotone matrix. <i>Biometrika</i> , 2021, 108, 693-708.	2.4	4
53	Large-Scale Simultaneous Testing of Cross-Covariance Matrices with Applications to PheWAS. <i>Statistica Sinica</i> , 2019, 29, 983-1005.	0.3	3
54	Distributed nonparametric function estimation: Optimal rate of convergence and cost of adaptation. <i>Annals of Statistics</i> , 2022, 50, .	2.6	3

#	ARTICLE	IF	CITATIONS
55	Asymptotic analysis for extreme eigenvalues of principal minors of random matrices. Annals of Applied Probability, 2021, 31, .	1.3	3
56	Optimal Estimation of Wasserstein Distance on a Tree With an Application to Microbiome Studies. Journal of the American Statistical Association, 2021, 116, 1237-1253.	3.1	2
57	Optimal sparse eigenspace and low-rank density matrix estimation for quantum systems. Journal of Statistical Planning and Inference, 2021, 213, 50-71.	0.6	2
58	A convex optimization approach to high-dimensional sparse quadratic discriminant analysis. Annals of Statistics, 2021, 49, .	2.6	2
59	Correction to the paper "Optimal False Discovery Rate Control for Dependent Data". Statistics and Its Interface, 2016, 9, 33-35.	0.3	2
60	Recent results on sparse principle component analysis. , 2013, , .		1
61	SPARSE SEGMENT IDENTIFICATIONS WITH APPLICATIONS TO DNA COPY NUMBER VARIATION ANALYSIS. , 2015, , 863-887.		0