Sayan Mukherjee

List of Publications by Year
in descending order

89 papers	44,279 citations	159525 30 h-index
98 all docs	98 docs citations	98 times ranked

60583 81 g-index

82693 citing authors

#	ARTICLE	IF	CITATIONS
1	Gene set enrichment analysis: A knowledge-based approach for interpreting genome-wide expression profiles. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 15545-15550.	3.3	38,922
2	Choosing Multiple Parameters for Support Vector Machines. Machine Learning, 2002, 46, 131-159.	3.4	1,746
3	An oncogenic KRAS2 expression signature identified by cross-species gene-expression analysis. Nature Genetics, 2005, 37, 48-55.	9.4	392
4	Estimating Dataset Size Requirements for Classifying DNA Microarray Data. Journal of Computational Biology, 2003, 10, 119-142.	0.8	244
5	Gene expression changes and molecular pathways mediating activity-dependent plasticity in visual cortex. Nature Neuroscience, 2006, 9, 660-668.	7.1	199
6	General conditions for predictivity in learning theory. Nature, 2004, 428, 419-422.	13.7	195
7	Optimal gene expression analysis by microarrays. Cancer Cell, 2002, 2, 353-361.	7.7	149
8	Probability measures on the space of persistence diagrams. Inverse Problems, 2011, 27, 124007.	1.0	132
9	FrÃ©chet Means for Distributions of Persistence Diagrams. Discrete and Computational Geometry, 2014, 52, 44-70.	0.4	118
10	Learning theory: stability is sufficient for generalization and necessary and sufficient for consistency of empirical risk minimization. Advances in Computational Mathematics, 2006, 25, 161-193.	0.8	112
11	Comparative study of gene set enrichment methods. BMC Bioinformatics, 2009, 10, 275.	1.2	102
12	Core and region-enriched networks of behaviorally regulated genes and the singing genome. Science, 2014, 346, 1256780.	6.0	97
13	Integrating genetic and gene expression evidence into genome-wide association analysis of gene sets. Genome Research, 2012, 22, 386-397.	2.4	90
14	Evidence of Influence of Genomic DNA Sequence on Human X Chromosome Inactivation. PLoS Computational Biology, 2006, 2, e113.	1.5	84
15	An Integrated Approach to the Prediction of Chemotherapeutic Response in Patients with Breast Cancer. PLoS ONE, 2008, 3, e1908.	1.1	82
16	Age-Specific Differences in Oncogenic Pathway Deregulation Seen in Human Breast Tumors. PLoS ONE, 2008, 3, e1373.	1.1	81
17	Evidence-ranked motif identification. Genome Biology, 2010, 11, R19.	13.9	77
18	Genetics of gene expression responses to temperature stress in a sea urchin gene network. Molecular Ecology, 2012, 21, 4547-4562.	2.0	74

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19	Cross Species Genomic Analysis Identifies a Mouse Model as Undifferentiated Pleomorphic Sarcoma/Malignant Fibrous Histiocytoma. PLoS ONE, 2009, 4, e8075.	1.1	71
20	Cyclin-Dependent Kinases Are Regulators and Effectors of Oscillations Driven by a Transcription Factor Network. Molecular Cell, 2012, 45, 669-679.	4.5	66
21	Dissecting High-Dimensional Phenotypes with Bayesian Sparse Factor Analysis of Genetic Covariance Matrices. Genetics, 2013, 194, 753-767.	1.2	61
22	Modeling Cancer Progression via Pathway Dependencies. PLoS Computational Biology, 2008, 4, e28.	1.5	60
23	Predicting Clinical Outcomes in Glioblastoma: An Application of Topological and Functional Data Analysis. Journal of the American Statistical Association, 2020, 115, 1139-1150.	1.8	60
24	Analysis of sample set enrichment scores: assaying the enrichment of sets of genes for individual samples in genome-wide expression profiles. Bioinformatics, 2006, 22, e108-e116.	1.8	58
25	Gene Expression Programs of Human Smooth Muscle Cells: Tissue-Specific Differentiation and Prognostic Significance in Breast Cancers. PLoS Genetics, 2007, 3, e164.	1.5	56
26	Distinct and Overlapping Sarcoma Subtypes Initiated from Muscle Stem and Progenitor Cells. Cell Reports, 2013, 5, 933-940.	2.9	56
27	Measuring and mitigating PCR bias in microbiota datasets. PLoS Computational Biology, 2021, 17, e1009113.	1.5	43
28	Can complexity decrease in congestive heart failure?. Physica A: Statistical Mechanics and Its Applications, 2015, 439, 93-102.	1.2	41
29	Risk bounds for mixture density estimation. ESAIM - Probability and Statistics, 2005, 9, 220-229.	0.2	37
30	The topology of probability distributions on manifolds. Probability Theory and Related Fields, 2015, 161, 651-686.	0.9	37
31	Do serum biomarkers really measure breast cancer?. BMC Cancer, 2009, 9, 164.	1.1	36
32	Bayesian Approximate Kernel Regression With Variable Selection. Journal of the American Statistical Association, 2018, 113, 1710-1721.	1.8	33
33	Assessing the Radiation Response of Lung Cancer with Different Gene Mutations Using Genetically Engineered Mice. Frontiers in Oncology, 2013, 3, 72.	1.3	32
34	Genetic Effects on Mating Success and Partner Choice in a Social Mammal. American Naturalist, 2012, 180, 113-129.	1.0	31
35	Learning gradients on manifolds. Bernoulli, 2010, 16, .	0.7	28
36	The Use of Unlabeled Data in Predictive Modeling. Statistical Science, 2007, 22, 189.	1.6	27

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37	Genome-wide identification and predictive modeling of tissue-specific alternative polyadenylation. Bioinformatics, 2013, 29, i108-i116.	1.8	27
38	A Cheeger-type inequality on simplicial complexes. Advances in Applied Mathematics, 2014, 56, 56-77.	0.4	27
39	An investigation on Michaelis - Menten kinetics based complex dynamics of tumor - immune interaction. Chaos, Solitons and Fractals, 2019, 128, 297-305.	2.5	25
40	Stochastic dynamics of Michaelisâ€"Menten kinetics based tumor-immune interactions. Physica A: Statistical Mechanics and Its Applications, 2020, 541, 123603.	1.2	25
41	Characterizing chaos and multifractality in noise-assisted tumor-immune interplay. Nonlinear Dynamics, 2020, 101, 675-685.	2.7	25
42	Complexity in congestive heart failure: A time-frequency approach. Chaos, 2016, 26, 033105.	1.0	24
43	DNase-seq predicts regions of rotational nucleosome stability across diverse human cell types. Genome Research, 2013, 23, 1118-1129.	2.4	22
44	Complexity and synchronization in stochastic chaotic systems. European Physical Journal: Special Topics, 2016, 225, 159-170.	1.2	19
45	Statistical Analysis of Crystallization Database Links Protein Physico-Chemical Features with Crystallization Mechanisms. PLoS ONE, 2014, 9, e101123.	1.1	18
46	Optical complexity in external cavity semiconductor laser. Optics Communications, 2017, 387, 257-266.	1.0	17
47	A high dimensional delay selection for the reconstruction of proper phase space with cross auto-correlation. Neurocomputing, 2013, 113, 49-57.	3.5	16
48	Sustained-input switches for transcription factors and microRNAs are central building blocks of eukaryotic gene circuits. Genome Biology, 2013, 14, R85.	13.9	16
49	Synchronization and secure communication in time delayed semiconductor laser systems. Optik, 2016, 127, 10930-10947.	1.4	15
50	Partial Factor Modeling: Predictor-Dependent Shrinkage for Linear Regression. Journal of the American Statistical Association, 2013, 108, 999-1008.	1.8	14
51	On the reproducibility of results of pathway analysis in genome-wide expression studies of colorectal cancers. Journal of Biomedical Informatics, 2010, 43, 397-406.	2.5	12
52	A comparative study of covariance selection models for the inference of gene regulatory networks. Journal of Biomedical Informatics, 2013, 46, 894-904.	2.5	12
53	Communication scheme using a hyperchaotic semiconductor laser model: Chaos shift key revisited. European Physical Journal Plus, 2017, 132, 1.	1.2	12
54	New types of nonlinear auto-correlations of bivariate data and their applications. Applied Mathematics and Computation, 2012, 218, 8951-8967.	1.4	11

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55	A study on dynamical complexity of noise induced blood flow. European Physical Journal: Special Topics, 2019, 228, 2769-2777.	1.2	11
56	Multistability and chaotic scenario in a quantum pair-ion plasma. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 2021, 76, 109-119.	0.7	11
57	Dynamical Complexity and Multistability in a Novel Lunar Wake Plasma System. Complexity, 2020, 2020, 1-11.	0.9	10
58	Genomic Features That Predict Allelic Imbalance in Humans Suggest Patterns of Constraint on Gene Expression Variation. Molecular Biology and Evolution, 2009, 26, 2047-2059.	3.5	9
59	Localized Sliced Inverse Regression. Journal of Computational and Graphical Statistics, 2010, 19, 843-860.	0.9	9
60	Is one dimensional Poincaré map sufficient to describe the chaotic dynamics of a three dimensional system?. Applied Mathematics and Computation, 2013, 219, 11056-11064.	1.4	8
61	Complexity in synchronized and non-synchronized states: A comparative analysis and application. European Physical Journal: Special Topics, 2017, 226, 2219-2234.	1.2	8
62	Dispersive graded entropy on computing dynamical complexity. Physica A: Statistical Mechanics and Its Applications, 2018, 508, 131-140.	1.2	8
63	Multistability and chaos in a noise-induced blood flow. European Physical Journal: Special Topics, 2021, 230, 1525-1533.	1.2	8
64	Signature of complexity in time–frequency domain. Physica A: Statistical Mechanics and Its Applications, 2019, 535, 122433.	1.2	7
65	A topological data analytic approach for discovering biophysical signatures in protein dynamics. PLoS Computational Biology, 2022, 18, e1010045.	1.5	7
66	Estimating variable structure and dependence in multitask learning via gradients. Machine Learning, 2011, 83, 265-287.	3.4	6
67	Kernel Sliced Inverse Regression: Regularization and Consistency. Abstract and Applied Analysis, 2013, 2013, 1-11.	0.3	6
68	A Digital Network Approach to Infer Sex Behavior in Emerging HIV Epidemics. PLoS ONE, 2014, 9, e101416.	1.1	6
69	Statistical robustness of Markov chain Monte Carlo accelerators. , 2021, , .		6
70	A Grover Search-Based Algorithm for the List Coloring Problem. IEEE Transactions on Quantum Engineering, 2022, 3, 1-8.	2.9	6
71	The accuracy of absolute differential abundance analysis from relative count data. PLoS Computational Biology, 2022, 18, e1010284.	1.5	6
72	Discovering genetic variants in Crohn's disease by exploring genomic regions enriched of weak association signals. Digestive and Liver Disease, 2011, 43, 623-631.	0.4	5

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73	Computing two dimensional Poincaré maps for hyperchaotic dynamics. Applied Mathematics and Computation, 2017, 301, 140-154.	1.4	5
74	A Predictive Framework for Integrating Disparate Genomic Data Types Using Sample-Specific Gene Set Enrichment Analysis and Multi-Task Learning. PLoS ONE, 2012, 7, e44635.	1.1	5
75	Phase synchronization of instrumental music signals. European Physical Journal: Special Topics, 2014, 223, 1561-1577.	1.2	4
76	Decision Fusion of Circulating Markers for Breast Cancer Detection in Premenopausal Women. , 2007, , .		3
77	A new technique for the classification of pre-meditative and meditative states. , 2011, , .		3
78	Exploring noise-induced chaos and complexity in a red blood cell system. European Physical Journal: Special Topics, 2021, 230, 1517.	1.2	3
79	A Comparative Study on Three Different Types of Music Based on Same Indian Raga and Their Effects on Human Autonomic Nervous Systems. Springer Proceedings in Complexity, 2015, , 243-254.	0.2	3
80	Approximate discrete dynamics of EMG signal. Applied Mathematics and Computation, 2014, 243, 879-888.	1.4	2
81	Some Time-Delay Finding Measures and Attractor Reconstruction. Understanding Complex Systems, 2015, , 215-256.	0.3	2
82	RS-SNP: a random-set method for genome-wide association studies. BMC Genomics, 2011, 12, 166.	1.2	1
83	Fast Moment Estimation for Generalized Latent Dirichlet Models. Journal of the American Statistical Association, 2018, 113, 1528-1540.	1.8	1
84	A study on dynamics and multiscale complexity of a neuro system. Chaos, Solitons and Fractals, 2021, 145, 110737.	2.5	1
85	Expected return time to the initial state for biochemical systems with linear cyclic chains: unidirectional and bidirectional reactions. Sadhana - Academy Proceedings in Engineering Sciences, 2019, 44, 1.	0.8	0
86	In Search of Chaos and Complexity of a Cognitive Language-Learning System. Complexity, 2020, 2020, 1-10.	0.9	0
87	Maximum $mathcal{H}$-free subgraphs. Electronic Journal of Combinatorics, 2021, 12, 185-214.	0.1	0
88	Learning Subspaces of Different Dimensions. Journal of Computational and Graphical Statistics, 0, , 1-35.	0.9	0
89	Neural Sequence Transformation. Computer Graphics Forum, 2021, 40, 131-140.	1.8	0