Sayan Mukherjee

List of Publications by Citations

92 papers	28,690 citations	29 h-index	98 g-index
98 ext. papers	38,165 ext. citations	5.9 avg, IF	6.29 L-index

#	Paper	IF	Citations
92	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, 15545-50	11.5	24578
91	Choosing Multiple Parameters for Support Vector Machines. *Machine Learning*, **2002**, 46, 131-159	4	1320
90	An oncogenic KRAS2 expression signature identified by cross-species gene-expression analysis. *Nature Genetics*, **2005**, 37, 48-55	36.3	361
89	Estimating dataset size requirements for classifying DNA microarray data. *Journal of Computational Biology*, **2003**, 10, 119-42	1.7	191
88	Gene expression changes and molecular pathways mediating activity-dependent plasticity in visual cortex. *Nature Neuroscience*, **2006**, 9, 660-8	25.5	174
87	General conditions for predictivity in learning theory. *Nature*, **2004**, 428, 419-22	50.4	148
86	Optimal gene expression analysis by microarrays. *Cancer Cell*, **2002**, 2, 353-61	24.3	128
85	Probability measures on the space of persistence diagrams. *Inverse Problems*, **2011**, 27, 124007	2.3	83
84	Core and region-enriched networks of behaviorally regulated genes and the singing genome. *Science*, **2014**, 346, 1256780	33.3	81
83	Comparative study of gene set enrichment methods. *BMC Bioinformatics*, **2009**, 10, 275	3.6	78
82	Integrating genetic and gene expression evidence into genome-wide association analysis of gene sets. *Genome Research*, **2012**, 22, 386-97	9.7	77
81	Fr□het Means for Distributions of Persistence Diagrams. *Discrete and Computational Geometry*, **2014**, 52, 44-70	0.6	74
80	Evidence-ranked motif identification. *Genome Biology*, **2010**, 11, R19	18.3	73
79	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	1.6	73
78	Evidence of influence of genomic DNA sequence on human X chromosome inactivation. *PLoS Computational Biology*, **2006**, 2, e113	5	72
77	An integrated approach to the prediction of chemotherapeutic response in patients with breast cancer. *PLoS ONE*, **2008**, 3, e1908	3.7	71
76	Age-specific differences in oncogenic pathway deregulation seen in human breast tumors. *PLoS ONE*, **2008**, 3, e1373	3.7	65

75	Genetics of gene expression responses to temperature stress in a sea urchin gene network. *Molecular Ecology*, **2012**, 21, 4547-62	5.7	60
74	Modeling cancer progression via pathway dependencies. *PLoS Computational Biology*, **2008**, 4, e28	5	54
73	Analysis of sample set enrichment scores: assaying the enrichment of sets of genes for individual samples in genome-wide expression profiles. *Bioinformatics*, **2006**, 22, e108-16	7.2	54
72	Cross species genomic analysis identifies a mouse model as undifferentiated pleomorphic sarcoma/malignant fibrous histiocytoma. *PLoS ONE*, **2009**, 4, e8075	3.7	54
71	Gene expression programs of human smooth muscle cells: tissue-specific differentiation and prognostic significance in breast cancers. *PLoS Genetics*, **2007**, 3, 1770-84	6	48
70	Cyclin-dependent kinases are regulators and effectors of oscillations driven by a transcription factor network. *Molecular Cell*, **2012**, 45, 669-79	17.6	46
69	Distinct and overlapping sarcoma subtypes initiated from muscle stem and progenitor cells. *Cell Reports*, **2013**, 5, 933-40	10.6	44
68	Dissecting high-dimensional phenotypes with bayesian sparse factor analysis of genetic covariance matrices. *Genetics*, **2013**, 194, 753-67	4	41
67	Can complexity decrease in congestive heart failure?. *Physica A: Statistical Mechanics and Its Applications*, **2015**, 439, 93-102	3.3	36
66	Do serum biomarkers really measure breast cancer?. *BMC Cancer*, **2009**, 9, 164	4.8	33
65	The topology of probability distributions on manifolds. *Probability Theory and Related Fields*, **2015**, 161, 651-686	1.4	29
64	Risk bounds for mixture density estimation. *ESAIM - Probability and Statistics*, **2005**, 9, 220-229	0.4	29
63	Assessing the radiation response of lung cancer with different gene mutations using genetically engineered mice. *Frontiers in Oncology*, **2013**, 3, 72	5.3	26
62	Predicting Clinical Outcomes in Glioblastoma: An Application of Topological and Functional Data Analysis. *Journal of the American Statistical Association*, **2020**, 115, 1139-1150	2.8	25
61	A Cheeger-type inequality on simplicial complexes. *Advances in Applied Mathematics*, **2014**, 56, 56-77	0.8	22
60	Genome-wide identification and predictive modeling of tissue-specific alternative polyadenylation. *Bioinformatics*, **2013**, 29, i108-16	7.2	21
59	DNase-seq predicts regions of rotational nucleosome stability across diverse human cell types. *Genome Research*, **2013**, 23, 1118-29	9.7	21
58	Learning gradients on manifolds. *Bernoulli*, **2010**, 16,	1.6	21

57	The Use of Unlabeled Data in Predictive Modeling. *Statistical Science*, **2007**, 22, 189	2.4	21
56	Complexity in congestive heart failure: A time-frequency approach. *Chaos*, **2016**, 26, 033105	3.3	20
55	Genetic effects on mating success and partner choice in a social mammal. *American Naturalist*, **2012** , 180, 113-29	3.7	18
54	An investigation on Michaelis - Menten kinetics based complex dynamics of tumor - immune interaction. *Chaos, Solitons and Fractals*, **2019**, 128, 297-305	9.3	17
53	Fractal Patterns in Nonlinear Dynamics and Applications		16
52	Bayesian Approximate Kernel Regression with Variable Selection. *Journal of the American Statistical Association*, **2018**, 113, 1710-1721	2.8	16
51	Optical complexity in external cavity semiconductor laser. *Optics Communications*, **2017**, 387, 257-266	2	15
50	Statistical analysis of crystallization database links protein physico-chemical features with crystallization mechanisms. *PLoS ONE*, **2014**, 9, e101123	3.7	15
49	Complexity and synchronization in stochastic chaotic systems. *European Physical Journal: Special Topics*, **2016**, 225, 159-170	2.3	14
48	A high dimensional delay selection for the reconstruction of proper phase space with cross auto-correlation. *Neurocomputing*, **2013**, 113, 49-57	5.4	13
47	Sustained-input switches for transcription factors and microRNAs are central building blocks of eukaryotic gene circuits. *Genome Biology*, **2013**, 14, R85	18.3	13
46	Stochastic dynamics of Michaelis Menten kinetics based tumor-immune interactions. *Physica A: Statistical Mechanics and Its Applications*, **2020**, 541, 123603	3.3	13
45	A comparative study of covariance selection models for the inference of gene regulatory networks. *Journal of Biomedical Informatics*, **2013**, 46, 894-904	10.2	12
44	Characterizing chaos and multifractality in noise-assisted tumor-immune interplay. *Nonlinear Dynamics*, **2020**, 101, 675-685	5	11
43	Synchronization and secure communication in time delayed semiconductor laser systems. *Optik*, **2016**, 127, 10930-10947	2.5	11
42	On the reproducibility of results of pathway analysis in genome-wide expression studies of colorectal cancers. *Journal of Biomedical Informatics*, **2010**, 43, 397-406	10.2	10
41	Communication scheme using a hyperchaotic semiconductor laser model: Chaos shift key revisited. *European Physical Journal Plus*, **2017**, 132, 1	3.1	9
40	New types of nonlinear auto-correlations of bivariate data and their applications. *Applied Mathematics and Computation*, **2012**, 218, 8951-8967	2.7	9

39	Multistability and chaotic scenario in a quantum pair-ion plasma. *Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences*, **2021**, 76, 109-119	1.4	9
38	Partial Factor Modeling: Predictor-Dependent Shrinkage for Linear Regression. *Journal of the American Statistical Association*, **2013**, 108, 999-1008	2.8	8
37	Localized Sliced Inverse Regression. *Journal of Computational and Graphical Statistics*, **2010**, 19, 843-860	1.4	8
36	Dynamical Complexity and Multistability in a Novel Lunar Wake Plasma System. *Complexity*, **2020**, 2020, 1-11	1.6	7
35	Genomic features that predict allelic imbalance in humans suggest patterns of constraint on gene expression variation. *Molecular Biology and Evolution*, **2009**, 26, 2047-59	8.3	7
34	Measuring and mitigating PCR bias in microbiota datasets. *PLoS Computational Biology*, **2021**, 17, e1009113	3.3	7
33	Complexity in synchronized and non-synchronized states: A comparative analysis and application. *European Physical Journal: Special Topics*, **2017**, 226, 2219-2234	2.3	6
32	Is one dimensional Poincar map sufficient to describe the chaotic dynamics of a three dimensional system?. *Applied Mathematics and Computation*, **2013**, 219, 11056-11064	2.7	6
31	A study on dynamical complexity of noise induced blood flow. *European Physical Journal: Special Topics*, **2019**, 228, 2769-2777	2.3	6
30	Dispersive graded entropy on computing dynamical complexity. *Physica A: Statistical Mechanics and Its Applications*, **2018**, 508, 131-140	3.3	6
29	Computing two dimensional Poincar maps for hyperchaotic dynamics. *Applied Mathematics and Computation*, **2017**, 301, 140-154	2.7	5
28	Signature of complexity in time frequency domain. *Physica A: Statistical Mechanics and Its Applications*, **2019**, 535, 122433	3.3	5
27	Kernel Sliced Inverse Regression: Regularization and Consistency. *Abstract and Applied Analysis*, **2013**, 2013, 1-11	0.7	5
26	Estimating variable structure and dependence in multitask learning via gradients. *Machine Learning*, **2011**, 83, 265-287	4	5
25	A digital network approach to infer sex behavior in emerging HIV epidemics. *PLoS ONE*, **2014**, 9, e101416	3.7	4
24	Discovering genetic variants in Crohn's disease by exploring genomic regions enriched of weak association signals. *Digestive and Liver Disease*, **2011**, 43, 623-31	3.3	4
23	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	3.7	4
22	Multistability and chaos in a noise-induced blood flow. *European Physical Journal: Special Topics*, **2021**, 230, 1525-1533	2.3	4

21	A phylogenetic transform enhances analysis of compositional microbiota data		3
20	Approximate discrete dynamics of EMG signal. *Applied Mathematics and Computation*, **2014**, 243, 879-888	2.7	2
19	A new technique for the classification of pre-meditative and meditative states **2011**,		2
18	Decision Fusion of Circulating Markers for Breast Cancer Detection in Premenopausal Women **2007** ,		2
17	Dynamic linear models guide design and analysis of microbiota studies within artificial human guts		2
16	Statistical robustness of Markov chain Monte Carlo accelerators **2021**,		2
15	Phase synchronization of instrumental music signals. *European Physical Journal: Special Topics*, **2014** , 223, 1561-1577	2.3	1
14	RS-SNP: a random-set method for genome-wide association studies. *BMC Genomics*, **2011**, 12, 166	4.5	1
13	Detecting Epistasis with the Marginal Epistasis Test in Genetic Mapping Studies of Quantitative Traits		1
12	Exploring noise-induced chaos and complexity in a red blood cell system. *European Physical Journal: Special Topics*, **2021**, 230, 1517	2.3	1
11	A topological data analytic approach for discovering biophysical signatures in protein dynamics.. *PLoS Computational Biology*, **2022**, 18, e1010045	5	1
10	Some Time-Delay Finding Measures and Attractor Reconstruction. *Understanding Complex Systems*, **2015**, 215-256	0.4	0
9	Fast Moment Estimation for Generalized Latent Dirichlet Models. *Journal of the American Statistical Association*, **2018**, 113, 1528-1540	2.8	0
8	A study on dynamics and multiscale complexity of a neuro system. *Chaos, Solitons and Fractals*, **2021**, 145, 110737	9.3	0
7	Making Mountains out of Molehills: Moving from Single Gene to Pathway Based Models of Colon Cancer Progression **2010**, 73-87		
6	Learning Subspaces of Different Dimensions. *Journal of Computational and Graphical Statistics*,1-35	1.4	
5	Neural Sequence Transformation. *Computer Graphics Forum*, **2021**, 40, 131-140	2.4	
4	In Search of Chaos and Complexity of a Cognitive Language-Learning System. *Complexity*, **2020**, 2020, 1-10	1.6	

List of Publications

3	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	1
2	Maximum $mathcal{H}$-free subgraphs. *Electronic Journal of Combinatorics*, **2021**, 12, 185-214	0
1	A Grover Search-Based Algorithm for the List Coloring Problem. *IEEE Transactions on Quantum Engineering*, **2022**, 3, 1-8	2.9