

Tianhai Tian

List of Publications by Year in descending order

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Version: 2024-02-01

74
papers

1,885
citations

471061

17
h-index

264894

42
g-index

75
all docs

75
docs citations

75
times ranked

1940
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Plasma membrane nanoswitches generate high-fidelity Ras signal transduction. <i>Nature Cell Biology</i> , 2007, 9, 905-914. | 4.6 | 372 |
| 2 | Oscillatory Regulation of Hes1: Discrete Stochastic Delay Modelling and Simulation. <i>PLoS Computational Biology</i> , 2006, 2, e117. | 1.5 | 232 |
| 3 | Stochastic models for regulatory networks of the genetic toggle switch. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 8372-8377. | 3.3 | 221 |
| 4 | The origins of cancer robustness and evolvability. <i>Integrative Biology (United Kingdom)</i> , 2011, 3, 17-30. | 0.6 | 144 |
| 5 | Stochastic delay differential equations for genetic regulatory networks. <i>Journal of Computational and Applied Mathematics</i> , 2007, 205, 696-707. | 1.1 | 141 |
| 6 | Simulated maximum likelihood method for estimating kinetic rates in gene expression. <i>Bioinformatics</i> , 2007, 23, 84-91. | 1.8 | 94 |
| 7 | Implicit Taylor methods for stiff stochastic differential equations. <i>Applied Numerical Mathematics</i> , 2001, 38, 167-185. | 1.2 | 84 |
| 8 | Development of stock correlation networks using mutual information and financial big data. <i>PLoS ONE</i> , 2018, 13, e0195941. | 1.1 | 51 |
| 9 | A clustering-based ensemble approach with improved pigeon-inspired optimization and extreme learning machine for air quality prediction. <i>Applied Soft Computing Journal</i> , 2019, 85, 105827. | 4.1 | 38 |
| 10 | Spatial Correlation Network and Regional Differences for the Development of Digital Economy in China. <i>Entropy</i> , 2021, 23, 1575. | 1.1 | 36 |
| 11 | Mathematical Modelling of the MAP Kinase Pathway Using Proteomic Datasets. <i>PLoS ONE</i> , 2012, 7, e42230. | 1.1 | 35 |
| 12 | Approximate method for stochastic chemical kinetics with two-time scales by chemical Langevin equations. <i>Journal of Chemical Physics</i> , 2016, 144, 174112. | 1.2 | 34 |
| 13 | Mathematical modeling of GATA-switching for regulating the differentiation of hematopoietic stem cell. <i>BMC Systems Biology</i> , 2014, 8, S8. | 3.0 | 28 |
| 14 | A new model of time scheme for progression of colorectal cancer. <i>BMC Systems Biology</i> , 2014, 8, S2. | 3.0 | 22 |
| 15 | Approximate Bayesian computation schemes for parameter inference of discrete stochastic models using simulated likelihood density. <i>BMC Bioinformatics</i> , 2014, 15, S3. | 1.2 | 21 |
| 16 | Development of Stock Networks Using Part Mutual Information and Australian Stock Market Data. <i>Entropy</i> , 2020, 22, 773. | 1.1 | 20 |
| 17 | A continuous optimization approach for inferring parameters in mathematical models of regulatory networks. <i>BMC Bioinformatics</i> , 2014, 15, 256. | 1.2 | 18 |
| 18 | Online Identification of Nonlinear Stochastic Spatiotemporal System With Multiplicative Noise by Robust Optimal Control-Based Kernel Learning Method. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2019, 30, 389-404. | 7.2 | 18 |

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|----|--|-----|-----------|
| 19 | Reverse-engineering of gene networks for regulating early blood development from single-cell measurements. BMC Medical Genomics, 2017, 10, 72. | 0.7 | 16 |
| 20 | Stochastic models for inferring genetic regulation from microarray gene expression data. BioSystems, 2010, 99, 192-200. | 0.9 | 15 |
| 21 | Mathematical modeling and dynamic analysis of anti-tumor immune response. Journal of Applied Mathematics and Computing, 2020, 62, 473-488. | 1.2 | 15 |
| 22 | Quantitative model for inferring dynamic regulation of the tumour suppressor gene p53. BMC Bioinformatics, 2010, 11, 36. | 1.2 | 14 |
| 23 | An integrated approach to infer dynamic protein-gene interactions “ A case study of the human P53 protein. Methods, 2016, 110, 3-13. | 1.9 | 12 |
| 24 | Stochastic modelling of multistage carcinogenesis and progression of human lung cancer. Journal of Theoretical Biology, 2019, 479, 81-89. | 0.8 | 12 |
| 25 | SCOUT: A new algorithm for the inference of pseudo-time trajectory using single-cell data. Computational Biology and Chemistry, 2019, 80, 111-120. | 1.1 | 12 |
| 26 | The impact of radiation on the development of lung cancer. Journal of Theoretical Biology, 2017, 428, 147-152. | 0.8 | 11 |
| 27 | A mathematical model of cell-mediated immune response to tumor. Mathematical Biosciences and Engineering, 2021, 18, 373-385. | 1.0 | 11 |
| 28 | Chemical Memory Reactions Induced Bursting Dynamics in Gene Expression. PLoS ONE, 2013, 8, e52029. | 1.1 | 10 |
| 29 | How MAP kinase modules function as robust, yet adaptable, circuits. Cell Cycle, 2014, 13, 2379-2390. | 1.3 | 10 |
| 30 | MultiStep Ahead Forecasting for Hourly PM10 and PM2.5 Based on Two-Stage Decomposition Embedded Sample Entropy and Group Teacher Optimization Algorithm. Atmosphere, 2021, 12, 64. | 1.0 | 10 |
| 31 | Mutation Mechanisms of Human Breast Cancer. Journal of Computational Biology, 2018, 25, 396-404. | 0.8 | 9 |
| 32 | Inference of model parameters using particle filter algorithm and Copula distributions. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2019, 17, 1-1. | 1.9 | 8 |
| 33 | Mutation Mechanisms of Breast Cancer among the Female Population in China. Current Bioinformatics, 2020, 15, 253-259. | 0.7 | 8 |
| 34 | A Weight-based Information Filtration Algorithm for Stock-correlation Networks. Physica A: Statistical Mechanics and Its Applications, 2021, 563, 125489. | 1.2 | 7 |
| 35 | A robust method for designing multistable systems by embedding bistable subsystems. Npj Systems Biology and Applications, 2022, 8, 10. | 1.4 | 7 |
| 36 | DTFLOW: Inference and Visualization of Single-cell Pseudotime Trajectory Using Diffusion Propagation. Genomics, Proteomics and Bioinformatics, 2021, 19, 306-318. | 3.0 | 6 |

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|----|---|-----|-----------|
| 37 | Risk of lung cancer due to external environmental factor and epidemiological data analysis. <i>Mathematical Biosciences and Engineering</i> , 2021, 18, 6079-6094. | 1.0 | 6 |
| 38 | Mathematical Modeling and Analysis of Tumor Chemotherapy. <i>Symmetry</i> , 2022, 14, 704. | 1.1 | 6 |
| 39 | Mathematical modelling the pathway of genomic instability in lung cancer. <i>Scientific Reports</i> , 2019, 9, 14136. | 1.6 | 5 |
| 40 | Online Kernel Learning With Adaptive Bandwidth by Optimal Control Approach. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2021, 32, 1920-1934. | 7.2 | 5 |
| 41 | Breast Cancer Detection Based on Modified Harris Hawks Optimization and Extreme Learning Machine Embedded with Feature Weighting. <i>Neural Processing Letters</i> , 2023, 55, 3631-3654. | 2.0 | 5 |
| 42 | Sensitivity and Robustness Analysis for Stochastic Model of Nanog Gene Regulatory Network. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2015, 25, 1540009. | 0.7 | 4 |
| 43 | Control-based algorithms for high dimensional online learning. <i>Journal of the Franklin Institute</i> , 2020, 357, 1909-1942. | 1.9 | 4 |
| 44 | Multi-likelihood methods for developing relationship networks using stock market data. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2022, 585, 126421. | 1.2 | 4 |
| 45 | A non-linear reverse-engineering method for inferring genetic regulatory networks. <i>PeerJ</i> , 2020, 8, e9065. | 0.9 | 4 |
| 46 | Balance of positive and negative regulation for trade-off between efficiency and resilience of high-dimensional networks. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2022, 603, 127879. | 1.2 | 4 |
| 47 | Stochastic modelling of biochemical systems of multi-step reactions using a simplified two-variable model. <i>BMC Systems Biology</i> , 2013, 7, S14. | 3.0 | 3 |
| 48 | Inference of genetic regulatory network for stem cell using single cells expression data. , 2016, , . | | 3 |
| 49 | Stochastic modeling of biochemical systems with multistep reactions using state-dependent time delay. <i>Scientific Reports</i> , 2016, 6, 31909. | 1.6 | 3 |
| 50 | Instantaneous mutation rate in cancer initiation and progression. <i>BMC Systems Biology</i> , 2018, 12, 110. | 3.0 | 3 |
| 51 | Robust Online Learning Method Based on Dynamical Linear Quadratic Regulator. <i>IEEE Access</i> , 2019, 7, 117780-117795. | 2.6 | 3 |
| 52 | The Cost-Effectiveness Analysis and Optimal Strategy of the Tobacco Control. <i>Computational and Mathematical Methods in Medicine</i> , 2019, 2019, 1-15. | 0.7 | 3 |
| 53 | Integrated Inference of Asymmetric Protein Interaction Networks Using Dynamic Model and Individual Patient Proteomics Data. <i>Symmetry</i> , 2021, 13, 1097. | 1.1 | 3 |
| 54 | Estimation of Kinetic Rates of MAP Kinase Activation from Experimental Data. , 2009, , . | | 2 |

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|----|---|-----|-----------|
| 55 | Mathematical modelling for variations of inbreeding populations fitness with single and polygenic traits. BMC Genomics, 2017, 18, 196. | 1.2 | 2 |
| 56 | Using Particle Swarm Optimization Algorithm to Calibrate the Term Structure Model. Mathematical Problems in Engineering, 2021, 2021, 1-11. | 0.6 | 2 |
| 57 | Deterministic implicit two-step Milstein methods for stochastic differential equations. Statistics and Probability Letters, 2021, 179, 109208. | 0.4 | 2 |
| 58 | Inference Method for Reconstructing Regulatory Networks Using Statistical Path-Consistency Algorithm and Mutual Information. Lecture Notes in Computer Science, 2020, , 45-56. | 1.0 | 2 |
| 59 | Approximate Bayesian computation for estimating rate constants in biochemical reaction systems. , 2013, , . | | 1 |
| 60 | Bayesian Computation Methods for Inferring Regulatory Network Models Using Biomedical Data. Advances in Experimental Medicine and Biology, 2016, 939, 289-307. | 0.8 | 1 |
| 61 | A Bayesian framework for inferring heterogeneity of cellular processes using single-cell data. , 2021, , . | | 1 |
| 62 | Integrated Pipelines for Inferring Gene Regulatory Networks from Single-Cell Data. Current Bioinformatics, 2022, 17, . | 0.7 | 1 |
| 63 | Generalized fluctuation-dissipation theorem for non-Markovian reaction networks. Physical Review E, 2022, 105, . | 0.8 | 1 |
| 64 | Systems Biology Studies of Gene Network and Cell Signaling Pathway in Cancer Research. Translational Bioinformatics, 2013, , 109-129. | 0.0 | 0 |
| 65 | A New Cost-Profit Model for Measuring the Optimal Scale of China's Foreign Exchange Reserve. Mathematical Problems in Engineering, 2016, 2016, 1-10. | 0.6 | 0 |
| 66 | Copula particle filter algorithm for inferring parameters of regulatory network models with noisy observation data. , 2016, , . | | 0 |
| 67 | Inference Method for Developing Mathematical Models of Cell Signaling Pathways Using Proteomic Datasets. Methods in Molecular Biology, 2017, 1526, 329-344. | 0.4 | 0 |
| 68 | Inference of protein-protein networks for triple-negative breast cancer using single-patient proteomic data. , 2018, , . | | 0 |
| 69 | Mathematical Modelling of Genetic Network for Regulating the Fate Determination of Hematopoietic Stem Cells. , 2018, , . | | 0 |
| 70 | Approximate Bayesian Computational Methods for the Inference of Unknown Parameters. MATRIX Book Series, 2019, , 515-529. | 0.2 | 0 |
| 71 | Bayesian inference of stochastic dynamic models using early-rejection methods based on sequential stochastic simulations. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2020, PP, 1-1. | 1.9 | 0 |
| 72 | Inference of Molecular Regulatory Systems Using Statistical Path-Consistency Algorithm. Entropy, 2022, 24, 693. | 1.1 | 0 |

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| 73 | Mathematical modeling for mutator phenotype and clonal selection advantage in the risk analysis of lung cancer. <i>Theory in Biosciences</i> , 0, , . | 0.6 | 0 |
| 74 | The Linear Relationship Model with LASSO for Studying Stock Networks. <i>Entropy</i> , 2022, 24, 808. | 1.1 | 0 |